

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.

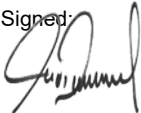
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EXECUTIVE SUMMARY

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 and copy in 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 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	ACCOMMODATION CAMPS - Exploratory Camp Accommodation – Fabrication installation and commissioning of 6 buildings and facilities. MAIN YARD - LH Main Office Expansion - Building installation and internal fit-out ongoing. Utilities installation and upgrades ongoing. - Main yard surface temporary works ongoing. ECVT / MAT PORTAL - TBM 1 advancing up the alignment. - Grouting in LST and other testing works ongoing. - Emergency basin liner upgrades complete. - Drilling subcontractor's scope complete at Marica West, the area has been deconstructed. - MAT portal spoil yard construction works ongoing. MAIN OFFICE - Construction works on structural office complete, office fit out and service connections on going. - Septic and sewerage installation complete. - Car park and pad expansion complete. GF01 - Spoil placement practically completed with final landform implementation works underway. - GF01 leachate basin relined and sealed. - Basin F10.5 reconstructed and relined. TALBINGO - Stage 2 excavation is ongoing. - Transition C1 Invert slab CS01 completed. - Preparation works for micro piling scope commenced. RAVINE BAY - Spoil placement ongoing. - Piped connection between leachate basin and treatment plant continuing to transfer water. - Further GCL liner installations across Cell 2 and 3. - Leachate basins SB02 and SB03 constructed. - Middle creek Bridge construction works, including rock filter dam.
Marica	- USS excavation works ongoing. - Marica Adit Portal clearing and grubbing works complete. - Lining of TBM 4 temporary emplacement area commenced. - Marica camp expansion works continuing. - Groundwater monitoring bores BH5411, BH5412, BH5413 installed and commissioned.
Rock Forest	Construction of access roadway to PSE area complete. No further works occurred throughout the reporting period.
Tantangara	- 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. - S2 expansions works commenced. - Intake stage 2 works ongoing, with Stage 3 under review by SHL.

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

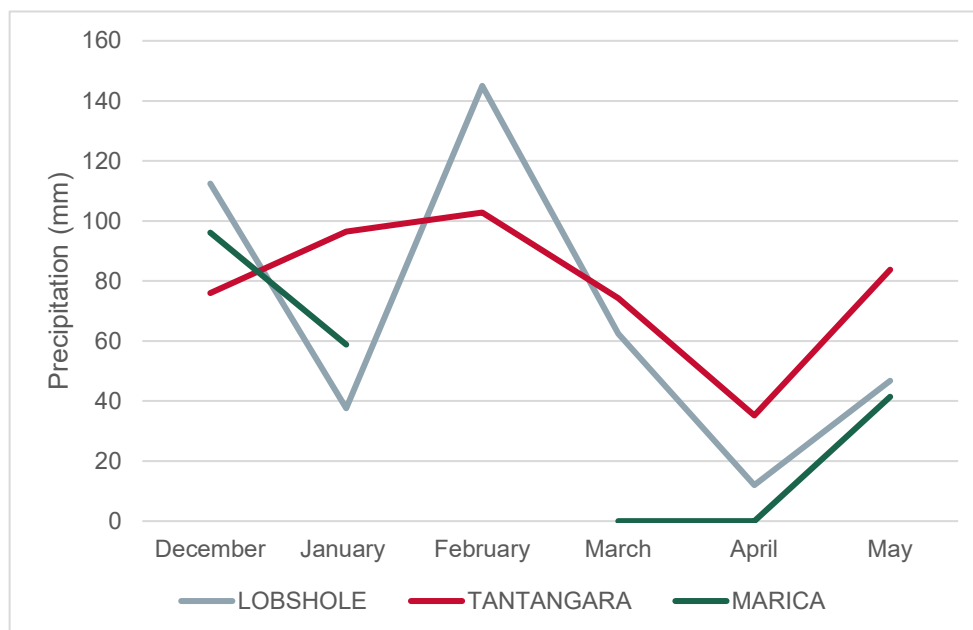


Figure 2-1: Cumulative Rainfall across Lobs Hole, Tantangara and Cabramurra

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 ²		Cabramurra (Marica)		Lobs Hole ¹	
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.

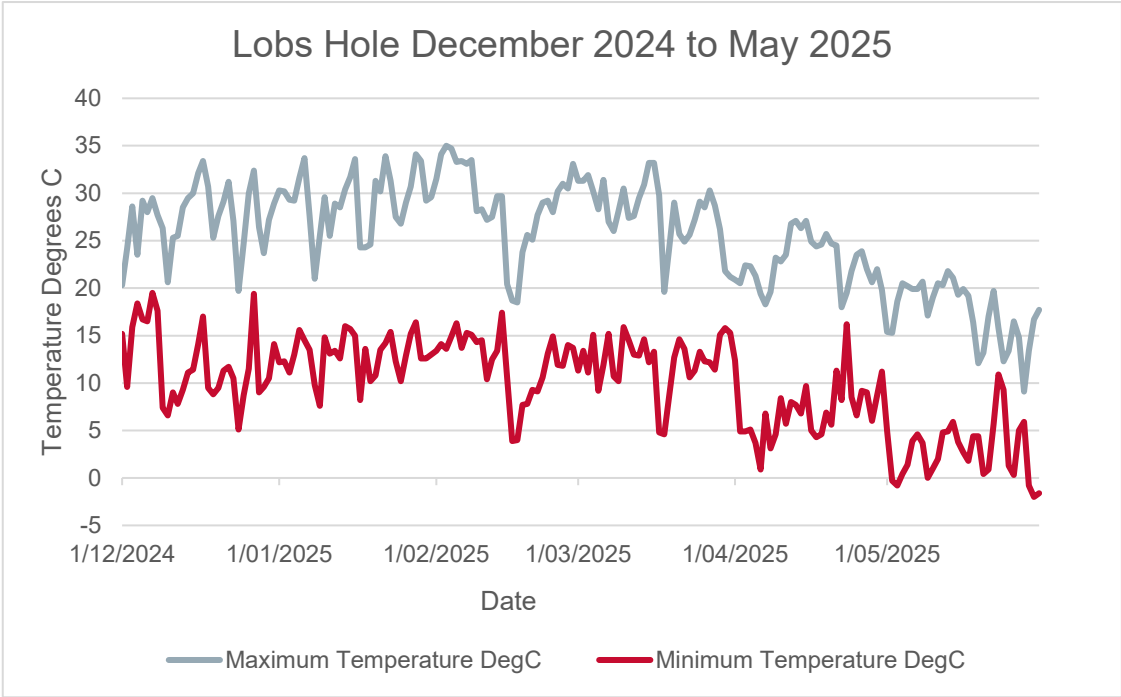


Figure 2-2: Lobs Hole - Minimum and Maximum Temperatures

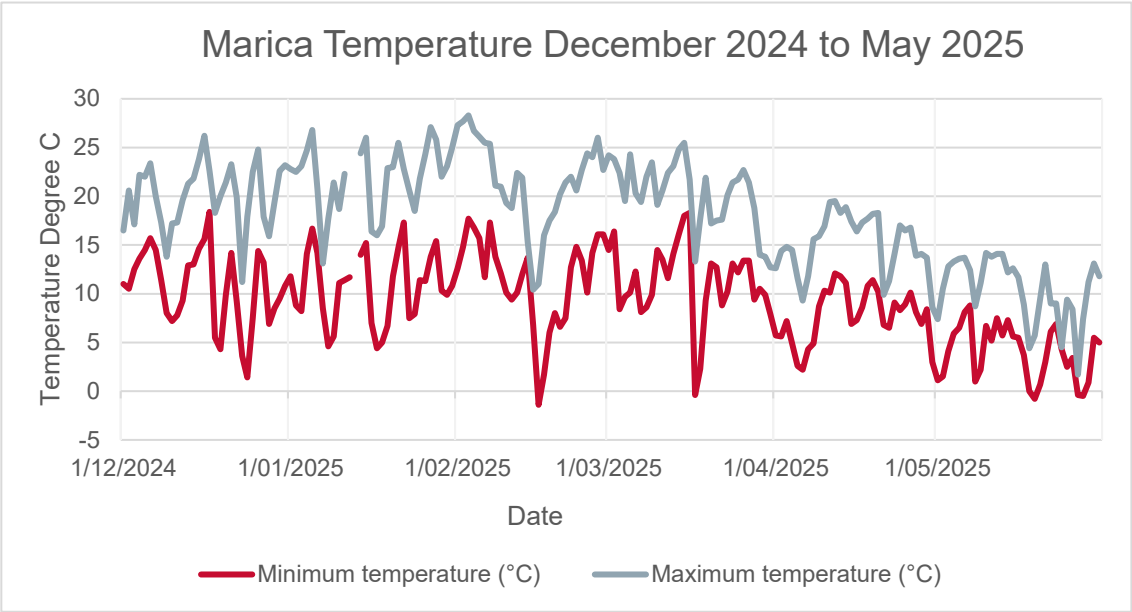


Figure 2-3: Marica - Minimum and Maximum Temperatures

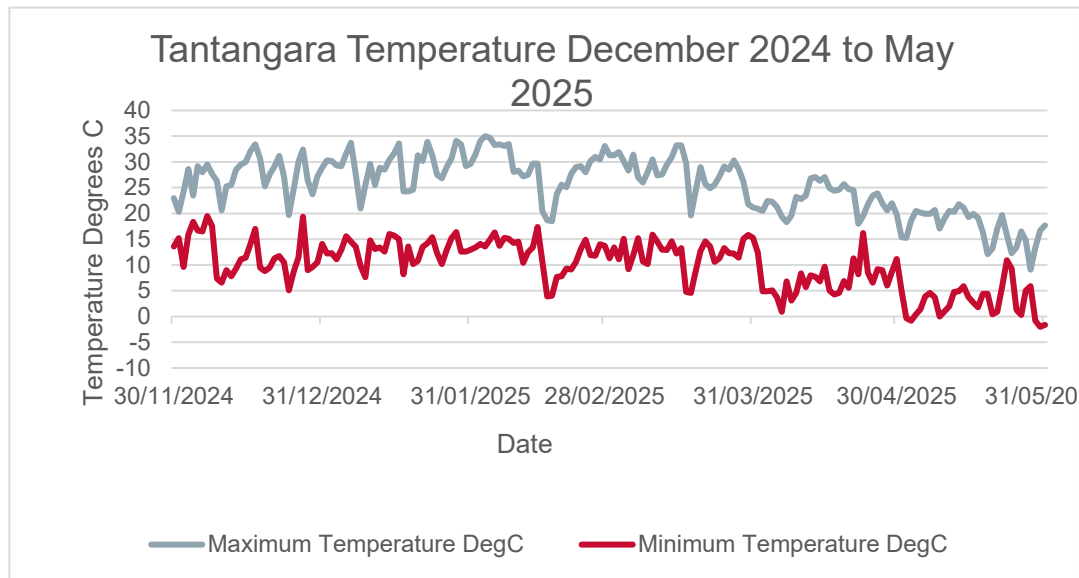


Figure 2-4: Tantangara - Minimum and Maximum Temperatures

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

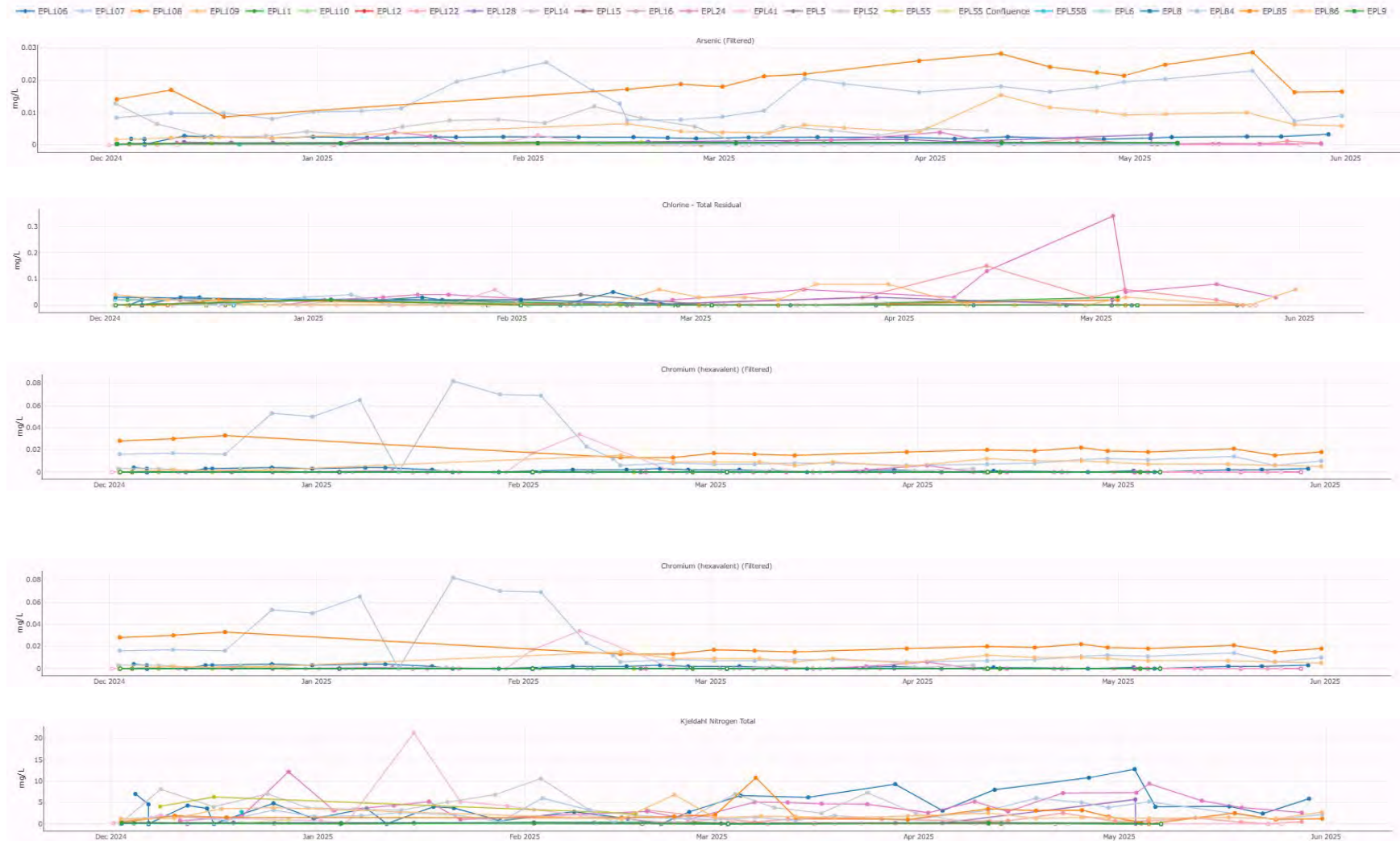
The predominant water body within Rock Forest is Cameron's Creek (**Appendix A**). Two samples are collected, one from upstream and one from downstream of the Snowy 2.0 disturbance areas to make up the surface EPL sampling locations.

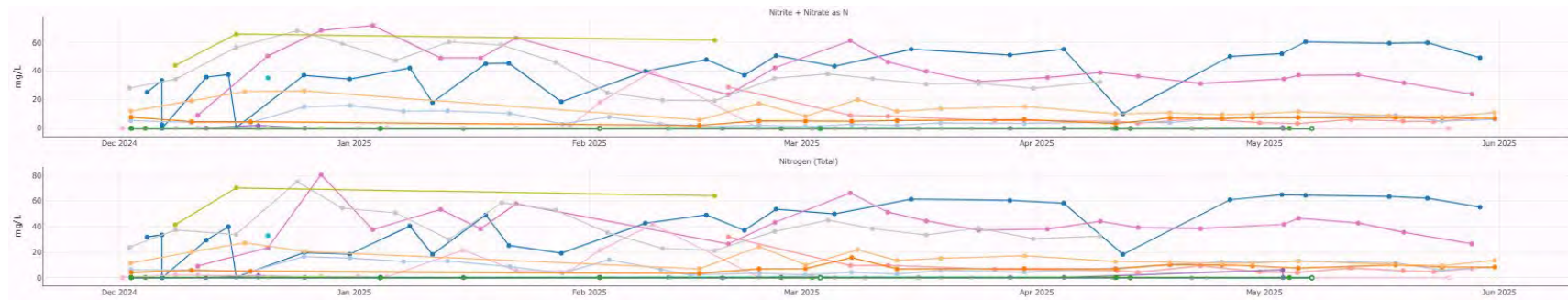
The monitoring results demonstrate that the water quality in the Rock Forest has consistency across multiple EPL monitoring events with the exceedances likely to be related to the decades of agricultural use. High nitrogens are likely caused by fertiliser application and low rates of natural vegetation 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**.

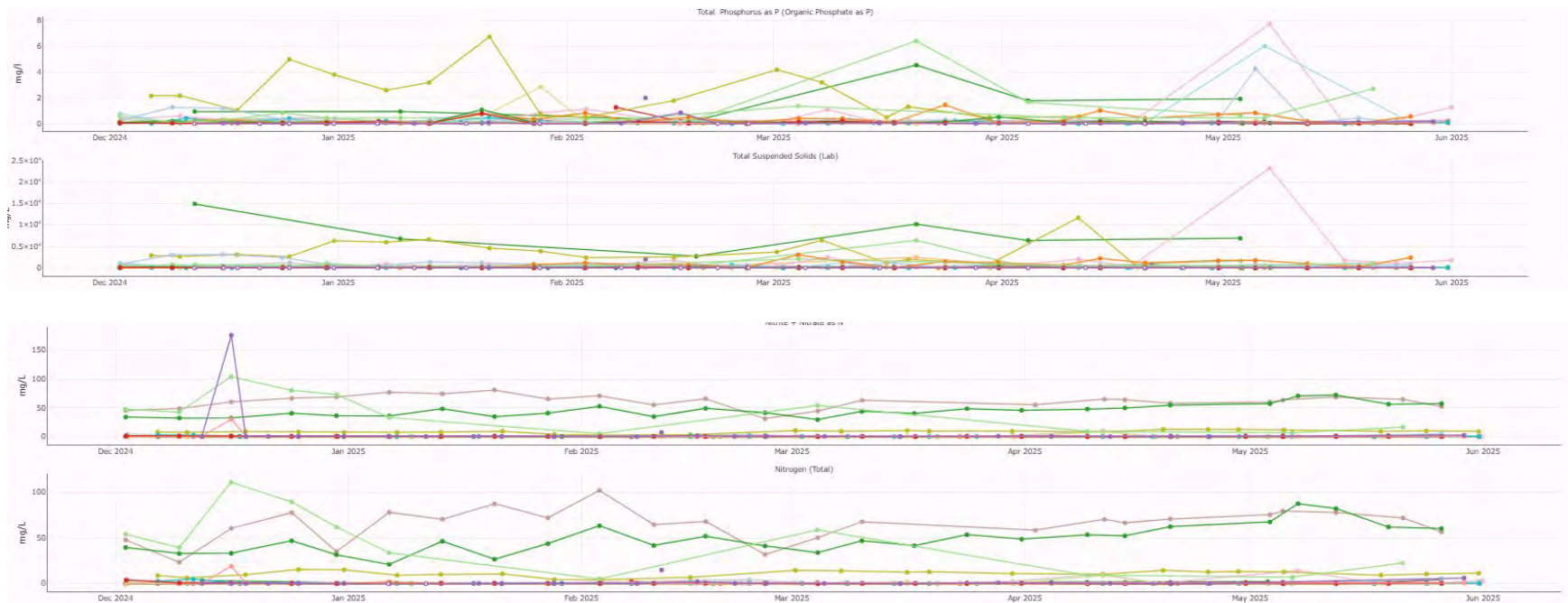
3.5. Trends

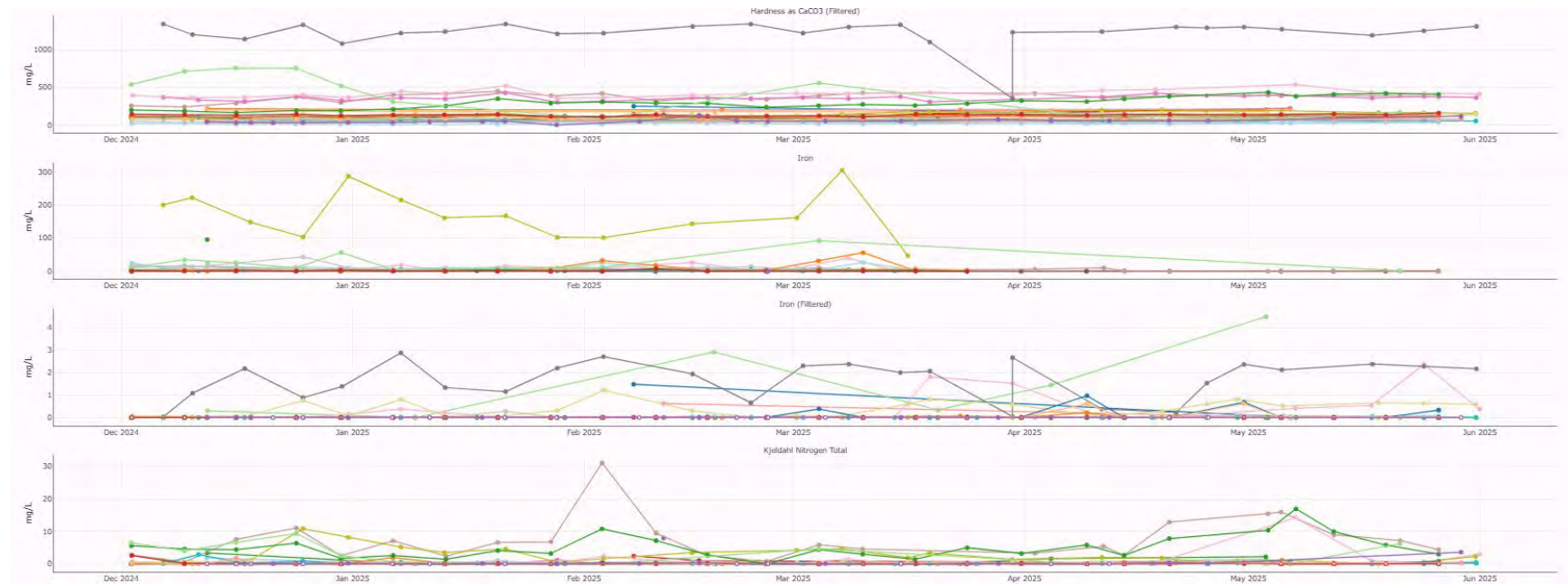
3.5.1. Lobs Hole – Surface Water





3.5.2. Lobs Hole – Groundwater





3.5.3. Tantangara – Groundwater



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 85th percentile 5-day rainfall volume (mm).

During the reporting period, occurrences of rainfall exceeding site design capacities of the 85th 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.

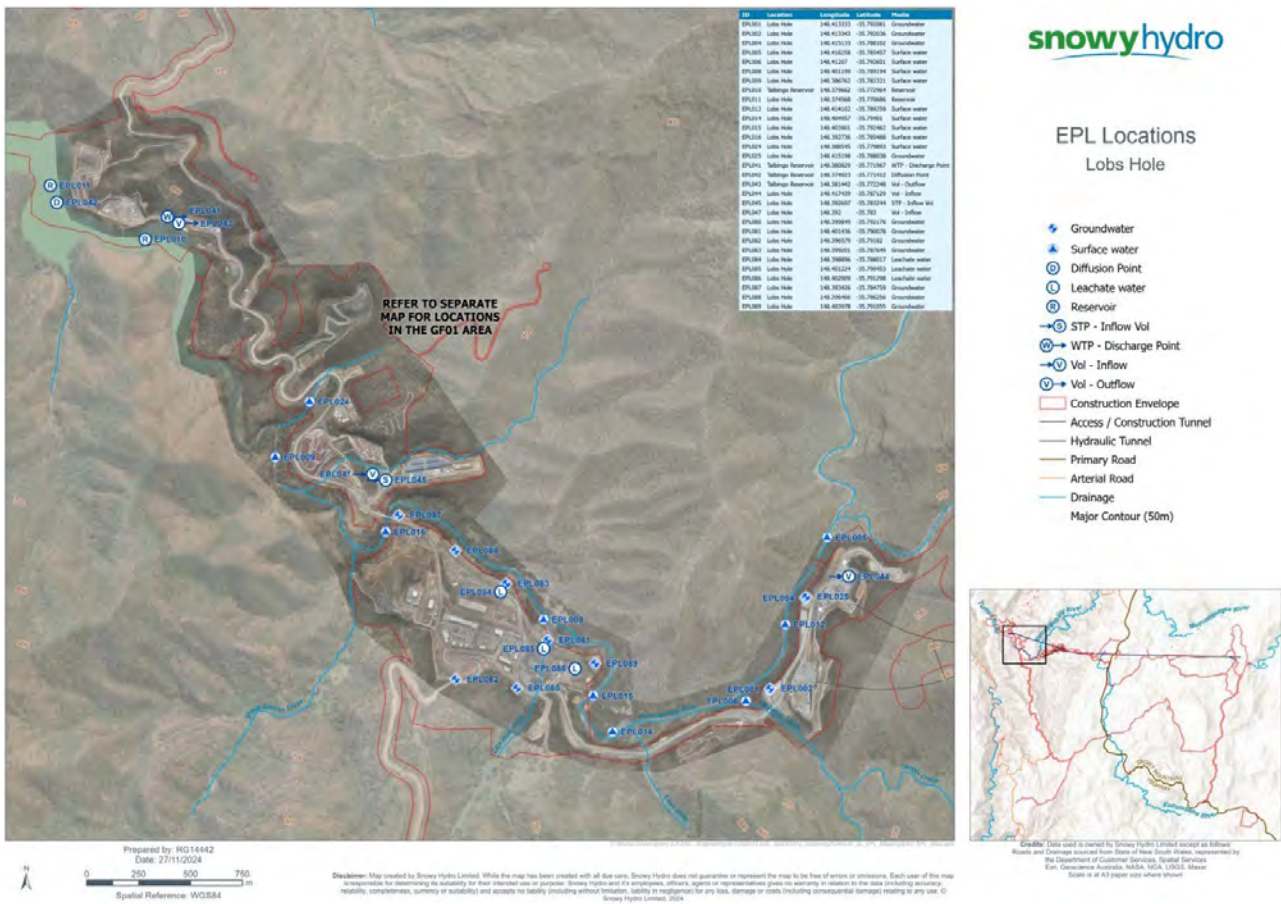
5. RECOMMENDATIONS

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.

APPENDIX A – SNOWY 2.0 – EPL SAMPLING LOCATIONS

LOBS HOLE





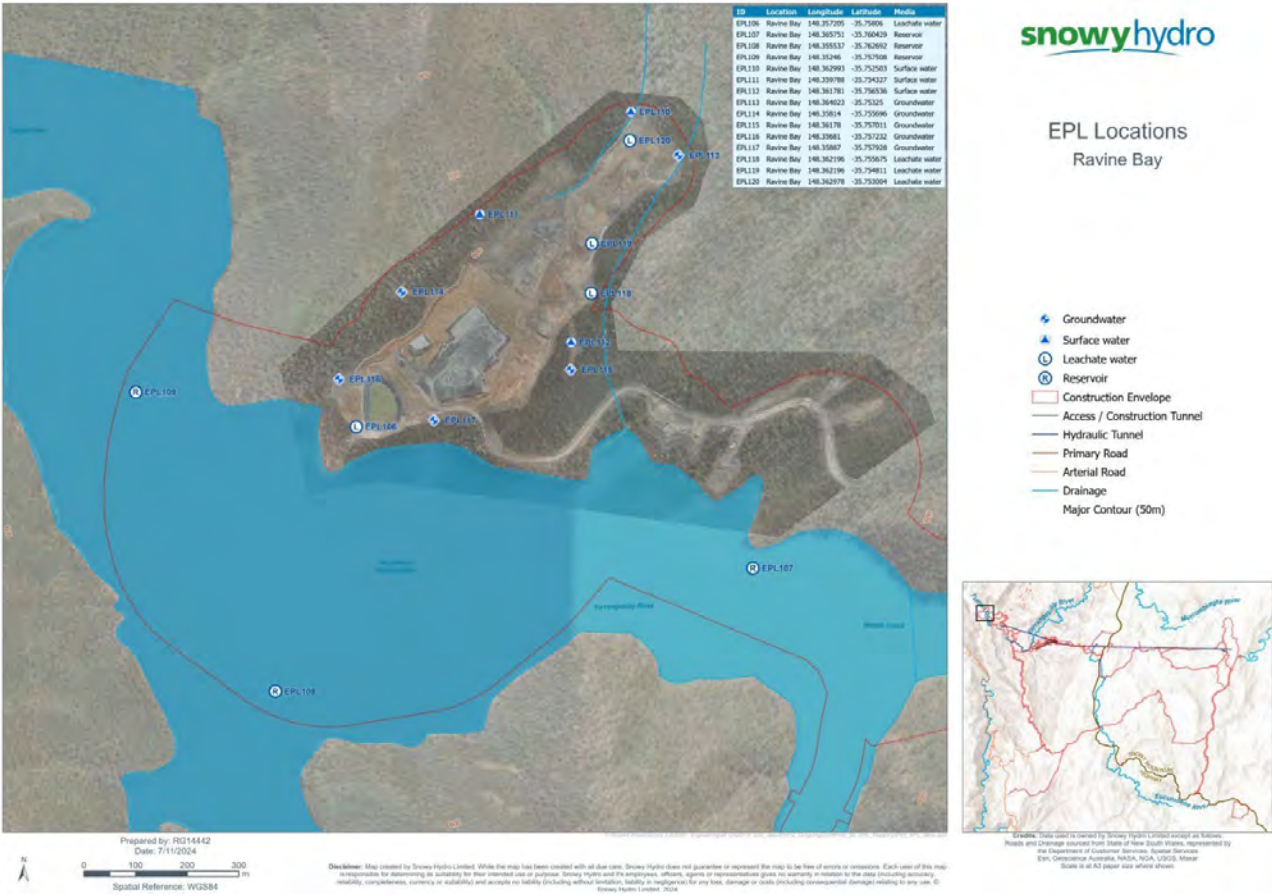
snowyhydro

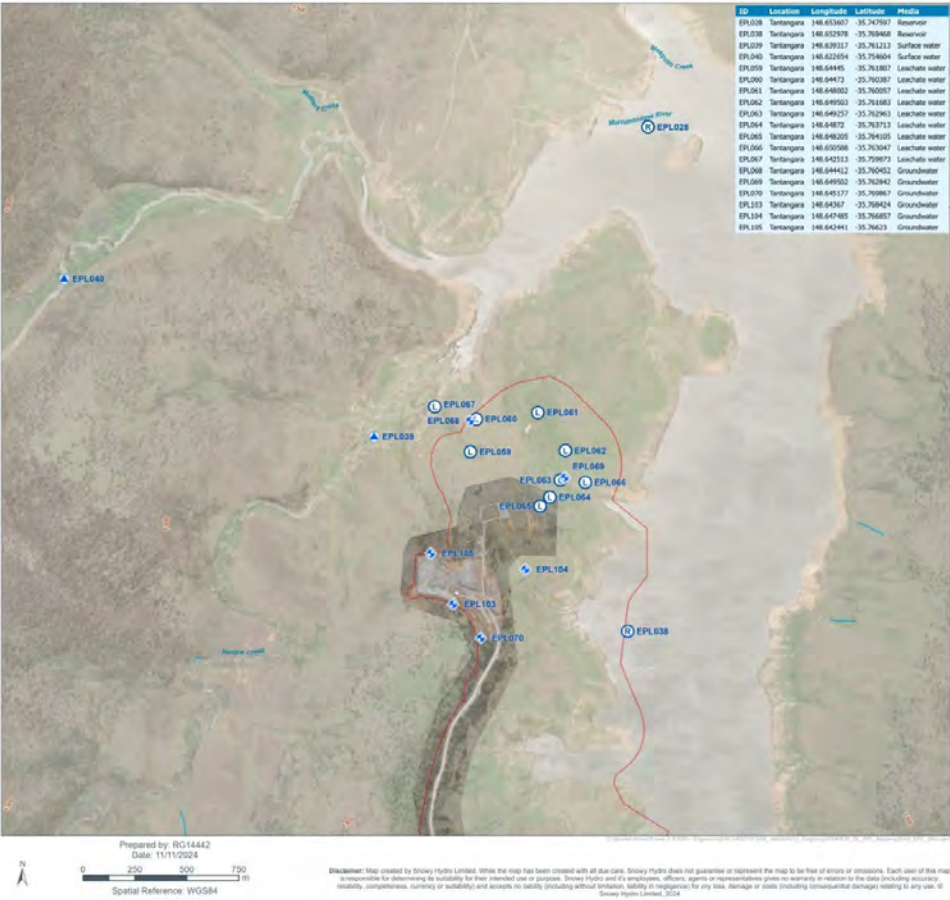
EPL Locations
GF01

- 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
ESRI, COGAP, Esri, Geosystems Australia, NASA, NOAA, USGS, Microsoft
Scale is at A2 paper size where shown





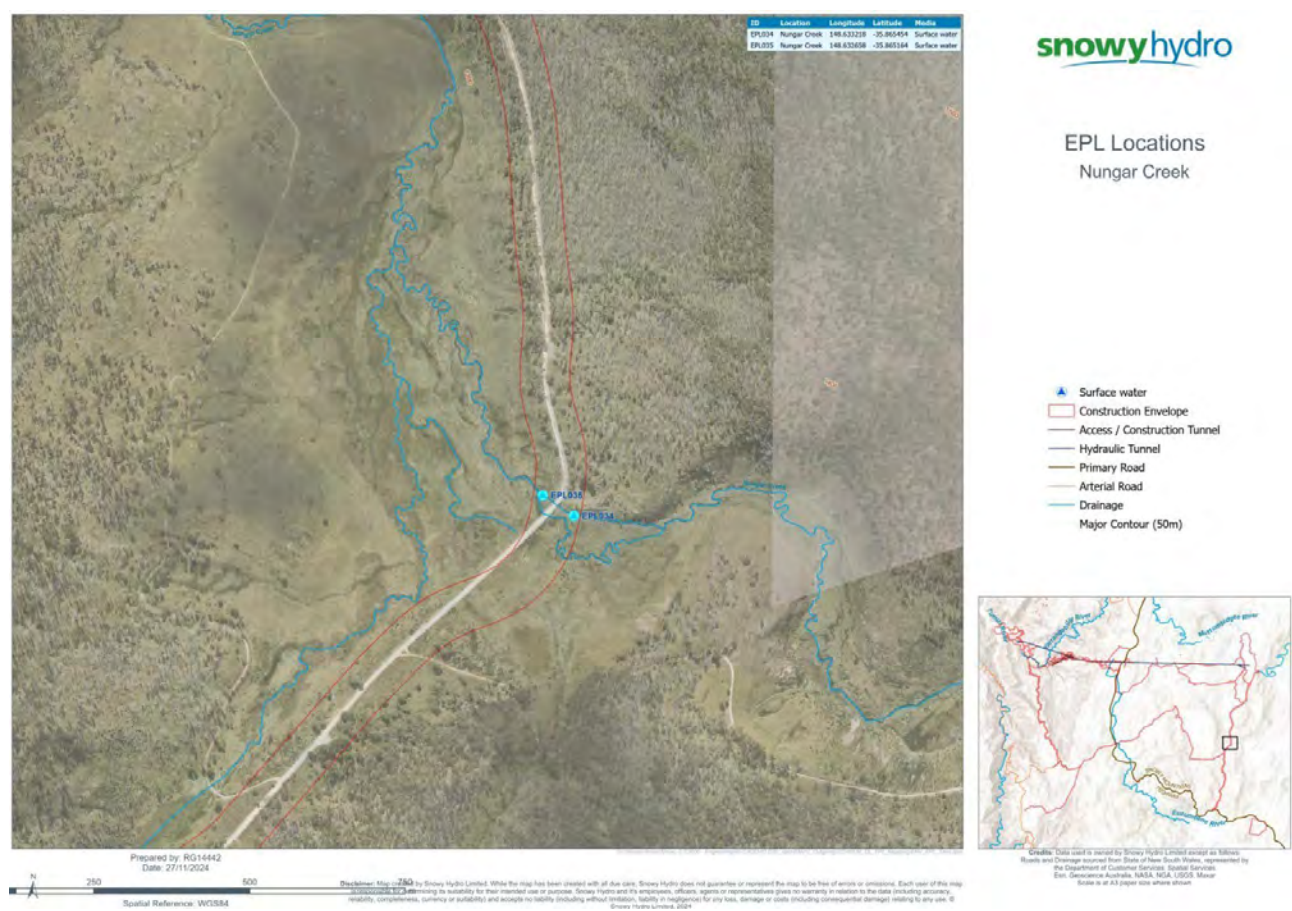
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EPL Locations
Tantangara Emplacement

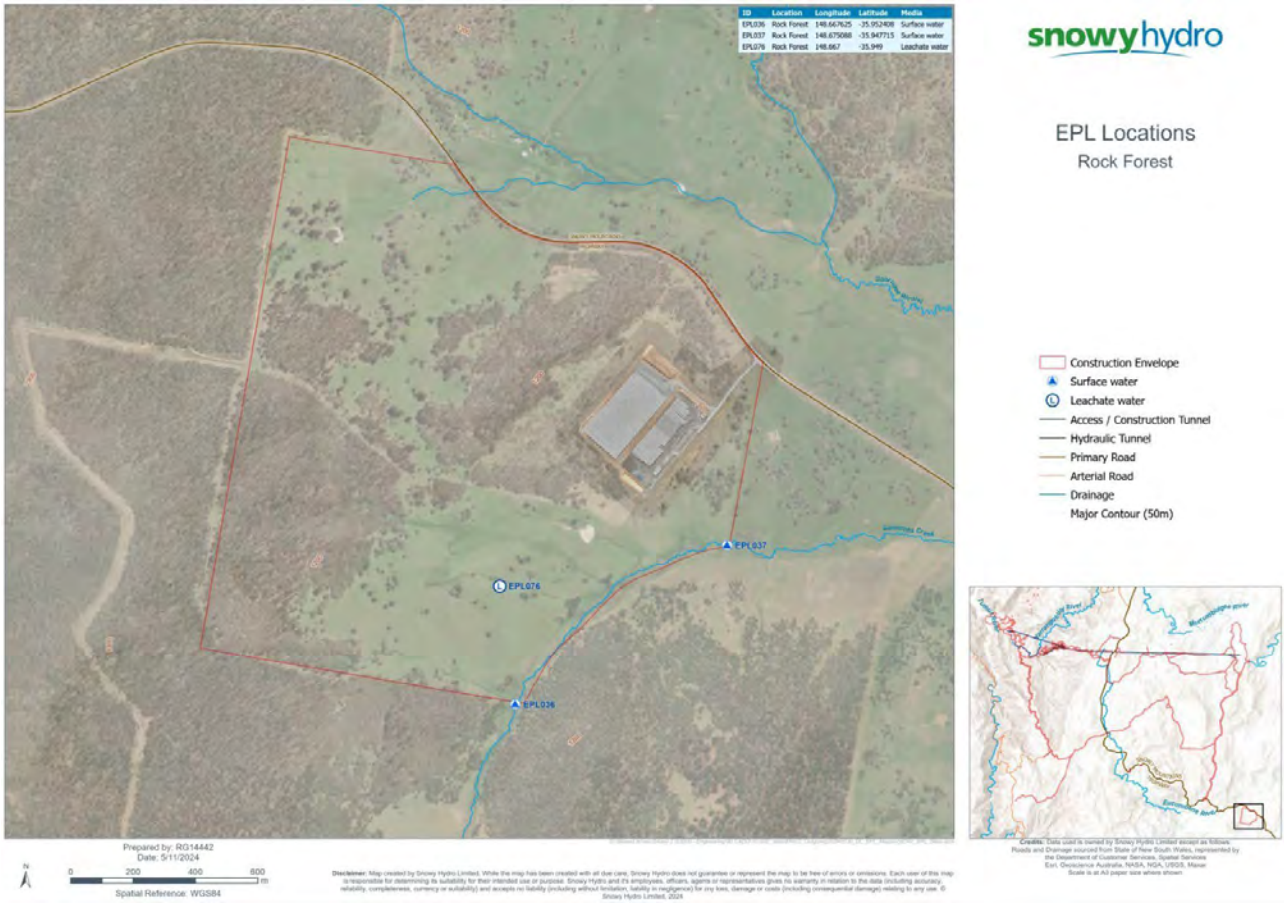
- Groundwater
- Surface water
- Leachate water
- Reservoir
- Construction Envelope
- Access / Construction Tunnel
- Hydraulic Tunnel
- Primary Road
- Arterial Road
- Drainage
- Major Contour (50m)



Credits: Data used is owned by Snowy Hydro Limited and is derived from the Department of Customer Services, Spatial Services Unit, LGAS, NSW, Australia. Data is at A4 paper size where shown.



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

Date and Time	EPL Site ID	Location Description	WQO (EC)				WQO (TSS)				WQO (pH)				Field Comments	Context
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TSS (mg/L)	pH	Redox (mV)	Turbidity (NTU)						
										18-19	-	-	50-250	-		
21/12/2024, 12:42 pm	EP05	Tarragetsi River, upstream of the exploratory tunnel and construction pit	21.25	140.5	12.45	80	99	7.84	75	9.50	Clear water, rain in recent days	This location is upstream of works and is therefore representative of background conditions.	This location is consistent with background conditions for December 2024.			
21/12/2024, 1:15 pm	EP06	Wallaces Creek, upstream of Tarragetsi River and Wallaces Creek confluence	21.42	150.0	13.25	85	54	7.64	121	2.62	Clear water, rain in recent days, turbidity very low	Revised DO is consistent with the background conditions for December 2024, and elevated pH within the historic ranges.				
21/12/2024, 2:48 pm	EP07	Tarragetsi River, downstream of Lick Hole Gully	22.78	148.2	12.78	75	48	8.92	159	8.15	Clear sunny day, rain in recent days	Revised DO is consistent with the background conditions for December 2024, and elevated pH within the historic ranges.	Revised DO is consistent with the background conditions for December 2024.			
21/12/2024, 3:34 pm	EP08	Tarragetsi River, downstream of the accommodation camp and upstream of Tullagore Reservoir	22.99	151.6	13.54	71	48	7.84	151	8.18	Clear water, rain in recent days	Revised DO is consistent with the background conditions for December 2024.				
21/12/2024, 3:42 pm	EP012	Tarragetsi River, immediately downstream of portal pit	23.04	153.7	13.72	58	56	7.82	189	8.35	Clear water, rain in recent days	Revised DO is consistent with the background conditions for December 2024.	Revised DO is consistent with the background conditions for December 2024.			
21/12/2024, 4:19 pm	EP014	Tarragetsi River, downstream of road construction area	23.35	153.1	13.09	82	41	7.76	120	7.04	Clear water, rain in recent days, turbidity very low	Revised DO is consistent with the background conditions for December 2024.				
21/12/2024, 5:52 pm	EP015	Tarragetsi River, downstream of road construction area	23.74	140.5	12.85	62	41	7.74	109	7.24	Clear water, rain in recent days, turbidity very low	Revised DO is consistent with the background conditions for December 2024.	Revised DO is consistent with the background conditions for December 2024.			
21/12/2024, 5:48 pm	EP016	Tarragetsi River, downstream of road construction area	23.64	125.4	10.78	71	48	7.72	139	9.39	Clear water, rain in recent days	Revised DO is consistent with the background conditions for December 2024.				
14/12/2024, 8:47 am	EP024	Tarragetsi River tributary (Munroscree 2), directly downstream of road	18.4	59.2	5.87	253	148	7.24	56	42.3	Clear sunny day	Low DO and elevated turbidity could be attributed to the T3 dam, some time has passed since the last data.	All readings are within WQO limits.			
6/12/2024, 9:15 am	EP026	Scumblers River, downstream of Marica Road	15.99	109.4	12.37	58	25	7.93	122	2.48	Clear water, no odour, high flowing, rain events overnight, a bit turbid water	This location is upstream of works and is therefore representative of background conditions.				
6/12/2024, 9:25 am	EP027	Scumblers River, upstream of Marica Road	13.72	148.0	15.48	59	32	7.52	137	5.81	Clear water, no odour, high flowing, rain events overnight, a bit turbid water	Elevated turbidity could be attributed to the T3 dam, some time has passed since the last data.	All readings are within WQO limits.			
7/12/2024, 11:01 am	EP030	Malpas Plain Creek, downstream of accommodation camp and upstream area	17.54	108.4	10.42	49	52	7.99	100	17.5	100 mm rain in last 24 hours	Low EC aligns with historical data for December 2024.				
7/12/2024, 10:47 am	EP031	Malpas Plain Creek, upstream of accommodation camp and upstream area	17.75	106.8	9.57	38	30	7.97	122	6.8	Cloud and rain, heavy rain, over 100mm last few days	This location is upstream of works and is therefore representative of background conditions.	Low DO and elevated turbidity are consistent with background conditions for this location in December 2024.			
7/12/2024, 10:28 am	EP033	Munroscree River, downstream of Tarragetsi Reservoir outlet	20.64	108.8	8.79	58	57	7.84	129	9.4	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.				
7/12/2024, 9:42 am	EP036	Munroscree River, upstream of Tarragetsi Reservoir	15.4	85.7	8.86	36	23	7.71	51	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.	Low EC is consistent with background conditions. Low DO is being monitored to ensure variance is attributed to natural fluctuations.			
14/12/2024, 9:38 am	EP038	Harper Creek, downstream of Tarragetsi Reservoir	18.08	105.8	8.4	21	14	7.88	113	16.7	Cloud and rain, heavy rain, over 100mm last few days	This location is upstream of works and is therefore representative of background conditions.				
22/12/2024, 15:51 pm	EP036	Canemore Creek, upstream of works in Back Forest	20.16	89.9	8.97	49	32	7.25	199	25.9	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.	Low DO and elevated turbidity are consistent with background conditions for this location in December 2024.			
22/12/2024, 14:17 pm	EP037	Canemore Creek, downstream of works in Back Forest	22.7	111.5	7.53	61	40	7.45	210	27.8	Clear sunny day. Water is very low flow. Brown rain runoff. No odour. Recent works started nearby at BP.	Low DO and elevated turbidity are consistent with background conditions for this location in December 2024.				
18/12/2024, 9:47 am	EP052	GP02 machine basin	14.71	138.1	9.76	1170	148	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 reuse where parameters were met.	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 reuse where parameters were met.			
-	EP053	GP02 surface water downstream west	-	-	-	-	-	-	-	-	-	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 reuse where parameters were met.				
-	EP054	GP02 surface water downstream west	-	-	-	-	-	-	-	-	-	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 reuse where parameters were met.				
16/12/2024, 10:09 am	EP055	GP02 surface water downstream	20.67	84.0	8.43	1130	798	6.87	100	6.20	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.	Low EC is within the historical range and is consistent with background conditions for this location in December 2024.			
7/12/2024, 11:21 pm	EP067	Munroscree River, surface water downstream west from Tarragetsi Reservoir area	20.67	106.4	8.72	23	25	7.44	131	16.6	Cloud and rain, heavy rain, over 100mm last few days	Revised DO is consistent with background conditions in the Munroscree River for December 2024.				
6/12/2024, 10:49 am	EP071	Surface water downstream of Marica Road	15.92	114.8	11.59	98	62	7.46	150	92.4	Heavy day, no odour, turbid water, no flowing	Revised DO is consistent with background conditions in the Munroscree River for December 2024.	Revised DO is consistent with background conditions in the Munroscree River for December 2024.			
18/12/2024, 10:22 am	EP064	FF Basin	21.49	81.0	8.2	107	187	7.51	166	1000	Clear sunny day. Turbidity 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 reuse where parameters were met.				
18/12/2024, 1:15 pm	EP055	GP02 Basin	20.64	123.5	8.95	875	493	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 reuse where parameters were met.	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 reuse where parameters were met.			
18/12/2024, 12:39 pm	EP068	GP02 Basin	21.44	81.8	7.25	1140	712	8.11	119	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 reuse where parameters were met.				

2024 EPL 21266 In Situ Water Quality Measurements

EPL Monthly Monitoring December 2024

Table 2: Reservoir Water Quality Data

Date and Time	EPL Site ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TSS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Context
13/12/2024, 9:35 am	EP010	Tullagore Reservoir, downstream of road works and upstream of water intake point	23.70	130.1	9.1	79	48	7.84	120	0	Clear day, heavy rain yesterday, multiple rain events recently. Turbidity increased	Revised DO and EC are consistent with background conditions in the Tullagore Reservoir for December 2024. Low turbidity aligns with the historical range.
4/12/2024, 6:39 am	EP011	Tullagore Reservoir, downstream of outlet	21.69	128.7	9.2	70	48	7.53	115	0.4	Clear day, heavy rain yesterday, multiple rain events recently. Turbidity reading much lower than expected, slightly increased	Revised DO and EC are consistent with background conditions in the Tullagore Reservoir for December 2024. Low turbidity aligns with the historical range.
7/12/2024, 1:01 pm	EP025	Tullagore Reservoir, upstream of works in the mouth of the Munroscree River	25.6	107.2	8.76	85.9	25	7.82	130.7	5.8	Clear sunny day with minimal wind. Shallow depth with vegetation growth present. No visible odour or odour. Consistent present in the other (sites) of the sampling area.	Revised DO is consistent with background conditions in the Munroscree River for December 2024.
29/12/2024, 11:56 am	EP029	Tullagore Reservoir, downstream of works area and upstream of water intake point	20.68	61.4	5.6	24	19	7.92	141	19.1	Clear sunny day. No flow available. Sample taken from edge. Windy increasing, turb increased at edge of site.	Low DO remains with the historical data.
29/12/2024, 11:41 am	EP032	Tullagore Reservoir, Tullagore Island, downstream of construction works	21.49	56.5	4.99	38	19	7.89	164	12.6	Clear sunny day. No flow available. Sample taken from edge. Windy edge of lake increasing pH.	Low DO remains with the historical data.
29/12/2024, 10:32 am	EP035	Tullagore Reservoir, variable location dependent on tide and reservoir levels. Upstream of the employment area and the ancillary facilities for employment activities	18.85	65.6	5.9	21	16	8.25	215	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	EP039	Confluence of Harper Creek and Tullagore Reservoir, variable location dependent on tide and reservoir levels. Upstream of Tullagore construction works	18.21	81.8	6.05	28	17	8.05	210	8.4	Sunny day	Low DO and pH align with the historical data for this location in December 2024.
21/12/2024, 11:38 pm	EP040	Confluence of the upper Munroscree River and Tullagore Reservoir, variable location dependent on tide and reservoir levels. Upstream of works	20.3	86.4	8.71	28.1	18	7.83	176.1	4.28	Tricky clear day with minimal wind. Algae and aquatic plants present. Visible sediment. No odour or odour. Reservoir level 10% only accessible via shore.	All readings are within WQO limits.
29/12/2024, 11:40 am	EP046	Tullagore Reservoir, effluent outlet discharging into Tullagore Reservoir from Tullagore WTP/PPW	20.54	86.8	7.44	82	40	7.88	164	8.4	Clear sunny day. No flow available. Sample taken from edge.	Revised DO 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, 11:38 am	EP051	Tullagore Reservoir, downstream of Tullagore WTP/PPW effluent outlet	18.7	55.1	4.84	29	19	7.88	181	9.8	Clear sunny day. No flow 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

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)	TSS (mg/L)	pH	Redox (mV)	Turbidity (NTU)			
										18-19			2-10
1/12/2024, 9:57 am	EP012	Jobs Hole (EP02) Final Effluent Quality Monitoring Point, downstream of final treatment, prior to discharge to Tullagore Reservoir	22.1	64.3	5.05	10	12	7.37	120	100	NTU reading error. Water crystal clear, samples warm - water run through tanks	No water was being discharged at the time of sampling.	
Table 4 - Treated Water Quality Data (continued)			Water Quality Objectives (see note 1)										
Date and Time	EPL Site ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TSS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		Field Comments	Context
										18-19	2-10		
			1/12/2024, 2:04 pm	EP050	Tullagore WTP/PPW Final Effluent Quality Monitoring Point, downstream of final treatment, prior to discharge to Tullagore Reservoir	20.1	64.4	4.92	76.9	97	7.4		

2024 EPL 21266 In Situ Water Quality Measurements

EPL Monthly Monitoring December 2024

Table 3: 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)	TSS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
			18-19	-	-	50-250	-	6.5-8.5	-	2-10		
6/12/2024, 10:48 am	EP049	GP02 groundwater upstream east	15.95	28.8	2.87	238	189	7.17	72	20.8	10-150mm sunny day, turbid water, no odour	All readings are within WQO limits.
6/12/2024, 11:03 am	EP057	GP02 groundwater upstream west	15.96	34.6	3.43	247	180	7.83	54	59.8	10-150mm sunny day, turbid water, no odour	All readings are within WQO limits.
6/12/2024, 11:52 am	EP050	GP02 groundwater downstream	16.05	17.9	1.73	170	542	8.01	110	150	10-150mm sunny day, turbid water, no odour	Revised EC is generally consistent with historical range for this location. Low pH will be monitored because sample pump extraction method is in the process of being upped.
21/12/2024, 10:37 am	EP048	Tullagore groundwater downstream West	13.08	47.9	4.61	12	12	8.34	284	1.3	10-150mm (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 this location. Low pH will be monitored because sample pump extraction method is in the process of being upped.
21/12/2024, 10:42 am	EP049	Tullagore groundwater downstream East	16.69	64	6.17	32	21	8.42	179	0.3	10-150mm (top of casing). Clear sunny day. Drilling ground disturbance nearby due to PSE. Water is not turbid, no odour.	Low pH and EC are generally consistent with historical data. These parameters are following expected changes due to altered climatic conditions.
21/12/2024, 9:04 am	EP070	Tullagore groundwater upstream	16.97	36.5	3.63	108	70	8.33	156	87.8	10-150mm (top of casing). Clear sunny morning. No rain rain events. Water is clear, no odour, no odour.	This location is upstream of works and is therefore representative of background conditions.
13/12/2024, 10:39 am	EP071	Malpas groundwater upstream	15.83	34.7	3.44	110	77	5.98	113	180	10-150mm sunny day, turbid water, no odour	This location is upstream of works and is therefore representative of background conditions.
13/12/2024, 11:48 am	EP079	Malpas groundwater downstream	9.22	107.5	10.77	324	241	6.64	242	242	10-150mm sunny day, turbid water, no odour	This location is consistent with the up gradient conditions.
25/12/2024, 8:29 am	EP080	UHF groundwater upstream	18.71	23.2	1.97	842	599	8.47	8	78.2	10-150mm (top of casing). Clear sunny morning. Water is slightly turbid, no odour.	This location is upstream of works and is therefore representative of background conditions.
25/12/2024, 9:18 am	EP081	UHF groundwater downstream	17.81	16.5	0.97	347	542	8.62	16	985	10-150mm (top of casing). Clear sunny morning. Water is clear with sediment settling at the bottom. No odour. High turbidity, dark bottom of the case.	Revised EC is consistent with up gradient conditions for December 2024.
25/12/2024, 9:14 am	EP082	UHF groundwater upstream	17.98	71.8	6.79	1739	1700	6.9	4	79.7	10-150mm (top of casing). Clear sunny morning. Water is very clear, no odour. Very high EC reading, usually this area has high EC	This location is upstream of works and is therefore representative of background conditions.
25/12/2024, 10:05 am	EP083	UHF groundwater downstream	18.73	50.0	1.01	521	577	8.29	48	101	10-150mm (top of casing). Clear sunny day. Recent water really with an increasing creaking sounds. Water is slightly turbid, no odour	Low pH and EC align with the historical range and some fluctuations in pH levels due to the climatic conditions have been observed.
25/12/2024, 8:48 am	EP087	UHF groundwater downstream	17.80	17.3	1.45	881	424	6.99	179	1000	10-150mm (top of casing). Clear sunny morning. Water is very brown turbid. Some odour at bottom. Dns line odour. NTU had 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	EP088	UHF groundwater upstream	18.87	13.5	1.27	915	523	7.03	144	2.4	10-150mm (top of casing). Clear sunny day. Some ground disturbance nearby with an excavator loading boulders. Water is clear with a very strong sulphur odour.	Revised EC aligns with the up gradient conditions for December 2024.
25/12/2024, 8:00 am	EP089	UHF groundwater downstream	15.98	20.5	2.02	514	245	6.41	154	254	10-150mm sunny day, turbid water, no odour	Revised EC aligns with the up gradient conditions for December 2024.
6/12/2024, 10:38 am	EP090	GP02 groundwater downstream	15.8	81.6	6.1	90	58	8.81	72	238	10-150mm sunny day, turbid water, no odour	Low pH is consistent with up gradient ranges for this location in December 2024.
6/12/2024, 10:28 am	EP091	GP02 groundwater downstream	16.48	20.7	2.03	205	199	6.89	43	57.7	10-150mm sunny day, turbid water, no odour	All readings are within WQO limits.
6/12/2024, 11:17 am	EP092	GP02 groundwater downstream	15.42	86.5	8.61	136	88	8.6	111	244	10-120mm sunny day, turbid water, no odour	All readings are within WQO limits.
6/12/2024, 11:25 am	EP093	GP02 groundwater downstream	15.43	15.9	1.58	251	169	7.12	157	135	10-150mm sunny day, turbid water, no odour	All readings are within WQO limits.
6/12/2024, 11:27 am	EP094	GP02 groundwater downstream	15.49	16.1	1.62	173	113	6.98	-72	76.8	10-120mm sunny day, turbid water, no odour	All readings are within WQO limits.
6/12/2024, 11:44 am	EP095	GP02 groundwater downstream	16.05	15.1	1.48	605	308	8.04	105	83.8	10-150mm sunny day, turbid water, no odour	Low pH and elevated EC are consistent with up gradient ranges for this location in December 2024.
6/12/2024, 11:37 am	EP096	GP02 groundwater downstream	16.75	52.5	5.38	1580	999	7.51	31	424	10-150mm sunny day, turbid water, no odour	Revised EC is consistent with the up gradient ranges for this location in December 2024.
6/12/2024, 11:58 am	EP097	GP02 groundwater downstream	14.03	18	1.87	475	311	8.61	106	15.5	10-150mm sunny day, turbid water, no odour	Low pH and elevated EC are consistent with the up gradient ranges for this location in December 2024.

[illegible]

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*
Field			
pH	pH Units	--	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
Laboratory analyses			
Total suspended solids	mg/L	5	No Water Quality Objective Value
Hardness as CaCO ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	10
Nitrite + Nitrate as N (NO _x)	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	150	150
Reactive Phosphorus	µg/L	1	5
Phosphorus (Total)	µg/L	10	10
Inorganics			
Cyanide Total	µg/L	5	7
Hydrocarbons			
Oil and Grease	mg/L	1	5
Metals			
Aluminum (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (III+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	11
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
Biological			
Faecal Coliforms	CFU/100mL	1	10/100*
Biochemical Oxygen Demand	mg/L	2	1.5*

[illegible]

* Water Quality Objective values for Tallong and Tangaranga 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 21.2.66.

- Algal blooms can present as faecal coliforms
- 90th percentile concentration limits / 100 percentile concentration limits
- Sample not required at this location.

[illegible]

Where quality objectives cannot be met, water users refer to the default trigger values for physical and chemical components in south-west Australia (based on) for the protection of 95% of aquatic species (MSECC / MWH/Orsted (2006)). Other air temperatures below imposed by 1% of 2008.

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

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Flow Rate			
Inflow ^a	ML/day	–	–
Outflow ^a	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 ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	200/2000 ^a
Nitrite + Nitrate as N (NO _x)	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350/- ^a
Reactive Phosphorus	µg/L	1	No Water Quality Objective Value
Phosphorus (Total)	µg/L	10	100/300 ^a
Inorganics			
Cyanide Total	µg/L	4	No Water Quality Objective Value
Hydrocarbons			
Oil and Grease	mg/L	1	2/5 ^a
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 ^a
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

^a 90 Percentile concentration limit/100 Percentile limit

^a 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 rep. 11									
		Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
		-	10 - 15	-	50 - 150	-	6.5 - 8.0	-	2 - 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
1/2/2025, 7:41 am	EPL5	Varangobilly River, upstream of the exploratory tunnel and construction pad	19.83	76.9	7.28	163	156	7.45	207	3.9	Clear sunny day. Lower water level and low rainfall in the last 2 weeks.
11/2/2025, 3:51 pm	EPL6	Wallace Creek, upstream of Varangobilly River and Wallace Creek confluence	22.46	97.3	5.86	116	76	8.46	38	68.4	Overcast day. High rainfall over the past few days.
1/2/2025, 9:15 am	EPL8	Varangobilly River, downstream of Link Hole Gully	21.2	97.8	6.01	168	110	8.98	208	8.3	Clear sunny day. Lower water level and low rainfall in the last 2 weeks.
1/2/2025, 9:41 am	EPL9	Varangobilly River, downstream of the accommodation camp and upstream of Tullaghs Reservoir	21.23	79.3	7.83	165	107	9.22	212	4.2	Clear sunny day. Lower water level and low rainfall in the last 2 weeks.
1/2/2025, 7:59 am	EPL12	Varangobilly River, immediately downstream of portal pad	19.61	79.8	6.81	163	106	7.07	208	3.2	Clear sunny day. Lower water level and low rainfall in the last 2 weeks.
1/2/2025, 8:44 am	EPL14	Varangobilly River, downstream of road construction area	20.25	76.3	6.83	163	106	7.94	232	2.4	Clear sunny day. Lower water level and low rainfall in the last 2 weeks.
1/2/2025, 8:56 am	EPL15	Varangobilly River, downstream of road construction area	20.92	68.5	5.93	162	106	8.27	213	6	Clear sunny day. Lower water level and low rainfall in the last 2 weeks.
1/2/2025, 10:05 am	EPL16	Varangobilly River, downstream of road construction area	22.62	77.4	6.88	165	107	8.53	198	5.4	Clear sunny day. Lower water level and low rainfall in the last 2 weeks.
18/2/2025, 8:06 am	EPL24	Varangobilly River upstream tributary, downstream of GFC1	14.66	95.0	7.66	1607	360	7.17	176	63.6	Sunny day, low flow, clear water
1/2/2025, 12:15 pm	EPL26	Scumbridge River, downstream of Marica Road	22.71	77.6	6.68	38	35	8.1	161	12	Clear sunny day. Low water level, very low flow. Minor sign of creek bed.
7/2/2025, 12:03 pm	EPL27	Scumbridge River, upstream of Marica Road	20.38	79.2	6.79	40	26	8.14	148	5.3	Clear sunny day. Low water level, very low flow.
1/2/2025, 10:06 am	EPL30	Welly Flan Creek, downstream of accommodation camp and Wellyflans area	16.93	84.3	8.15	81	22	7.88	212	8	Clear, low flow, sunny day, no algal growth
1/2/2025, 10:21 am	EPL31	Welly Flan Creek, upstream of accommodation camp and Wellyflans area	17.42	88.4	8.28	78	18	7.66	218	8	Clear, no odour, low flow, sunny day, no algal growth
1/2/2025, 9:40 am	EPL33	Scumbridge River, downstream of Tantangara reservoir outlet	20.73	86.7	7.76	26	17	7.36	241	10.6	Slightly turbid, sunny, no odour
1/2/2025, 9:06 am	EPL34	Hungar Creek, upstream of Tantangara Road	16.62	86.5	9.06	40	26	7.89	222	6	Clear, no odour, low flow, minor algal growth, sunny
1/2/2025, 9:13 am	EPL35	Hungar Creek, downstream of Tantangara Road	16.42	94	9.18	39	36	7.57	225	0	Clear, minor algal growth, no odour, low flow, sunny
4/2/2025, 12:39 pm	EPL36	Carmons Creek, upstream of works in Rock Forest	22.57	98.6	5.89	51	31	7.71	115	14	Clear sunny day. New road being built nearby. Very low water level and low flow
4/2/2025, 11:59 am	EPL37	Carmons Creek, downstream of works in Rock Forest	24.93	72.8	5.35	58	38	7.93	161	23.8	Clear sunny day. Very low water level. Water not flowing.
1/2/2025, 9:41 am	EPL132	SPG1 leachate basin	24.91	79.9	6.51	1,080.00	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	EPL134	SPG1 surface water upstream east	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-
Dry	EPL134	SPG1 surface water upstream west	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-
13/2/2025, 1:23 pm	EPL135	SPG1 surface water downstream	19.6	68.3	6.25	1,020.00	782	7.01	142	12.3	Sunny day, high flow, clear water, no odour
-	EPL137	Hungar Creek surface water downstream east from Tantangara emplacement area	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-
-	EPL171	Surface water downstream of Marica emplacement	-	-	-	-	-	-	-	-	This location has been removed and waiting for re locate if
11/2/2025, 10:17 am	EPL84	PE Basin	20.64	34.8	6.67	441	287	8.51	164	1008	Highly turbid, recent heavy rain, no odour detected.
11/2/2025, 10:18 am	EPL85	HWF Basin	18.7	52.5	4.8	461	300	9.18	143	1008	Highly turbid, no odour detected, recent heavy rain
11/2/2025, 11:14 am	EPL86	JHG1 Basin	21.13	74.8	6.63	899	576	8.41	28	100	High EC with elevated turbidity and low DO are expected within the leachate storage infrastructure and the rainfall events during this period.
-	EPL88	Rock blasted diversion monitoring under GFC1 River	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-
11/2/2025, 10:40 am	EPL99	Marica Leachate Basin- Turbidity Test	16.14	86.9	6.34	265	172	8.96	47	42.8	Revised turbidity and low DO are expected within the leachate storage infrastructure and the rainfall events during this period.
15/2/2025, 11:01 am	EPL100	Marica Lower Leachate Basin USS Shift	16.96	82.5	6.52	587	376	8.44	89	82.5	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.

EPL 21266 In-Situ Water Quality Measurements

EPL Monthly Monitoring February 2025

15/2/2025, 10:52 am	EPL101	Marica Leachate Basin Spoil Pad	16.08	58.9	6.58	362	215	8.96	65	338	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	Rainie Bay Leachate basin 1	25.78	74.3	6.63	1,270.00	816	8.87	95	49.4	Dark green colour, birds present, the presence, no odour	Revised 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 Rainie Bay emplacement area	13.87	95.8	5.9	87	44	7.54	140	44	Clear flow, no odour, heavy rainfall within 5 days	All readings are within WQD limits.
-	EPL118	Rainie Bay Leachate basin 2	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	-
-	EPL120	Rainie Bay Leachate basin 4	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	-
18/2/2025, 8:27 am	EPL122	SPG1 Drainage Line (Formerly EPL156)	14.06	84.1	6.58	718	498	7.78	173	108	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.

EPL 21266 In Situ Water Quality Measurements

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Table 2 - Reservoir Water Quality Data

Tallagbie and Tantangara Reservoirs

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			100 - 300		6.5 - 8.5		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
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	55	6.12	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 shallow 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, 8:09 am	EPL11	Tallagbie Reservoir, downstream of outlet	23.35	69.2	5.92	56	36	7.93	208	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	8.01	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	6.95	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 offlow fluctuations.
1/2/2025, 11:49 am	EPL39	Confluence of Hunger Creek and Tantangara Reservoir, variable location dependent on tide and reservoir levels. Upstream of construction works	22.65	91.5	7.9	30	19	6.68	233	18.7	Slightly turbid, low flow, sunny day.	All readings are within WQO 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	66.4	6.06	30.9	22	7.56	168	5.56	Clear. Flowing shallow water. No odour or smell. Sunny morning with minimal wind. Pool rain event last night. Small collections of white bubbles seen on the surface. Water level too low for boat 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 bays.
9/2/2025, 9:29 am	EPL 46	Tantangara Reservoir, diffuser outlet discharging into Tantangara Reservoir from Tantangara STP/PWTP	22.65	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 Yarragalligby River	21.36	89	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 Yarragalligby 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 Yarragalligby River	21.52	80	7.06	31	20	7.88	151	25.5	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 Yarragalligby river in February 2025. High turbidity can be attributed to the decreased in the water level.
Table 3 - Treated Water Quality Data												
Tallagbie		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			100 - 300		6.5 - 8.5		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
1/2/2025, 9:50 am	EPL41	Locks Near STP/PWTP Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Tallagbie Reservoir.	26.69	66.1	5.28	2,350.00	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, rain discharge occurred in this period and has followed the re-use criteria when applicable.

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Table 3 - 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	-	100-300	-	6.5-8.5	-	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
26/2/2025, 9:16 am	EPL10	Tallagbie Reservoir, downstream of road works and upstream of water intake point	23.52	75.4	6.41	78	55	6.12	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 shallow 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, 9:09 am	EPL11	Tallagbie Reservoir, downstream of outlet	23.35	69.2	5.92	56	36	7.93	208	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	6.95	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 offlow fluctuations.
1/2/2025, 11:49 am	EPL39	Confluence of Hunger Creek and Tantangara Reservoir, variable location dependent on tide and reservoir levels. Upstream of works	22.65	91.5	7.9	30	19	6.68	233	18.7	Slightly turbid, low flow, sunny day.	All readings are within WQO 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	66.4	6.06	30.9	22	7.56	168	5.56	Clear. Flowing shallow water. No odour or smell. Sunny morning with minimal wind. Pool rain event last night. Small collections of white bubbles seen on the surface. Water level too low for boat 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 bays.
9/2/2025, 9:29 am	EPL 46	Tantangara Reservoir, diffuser outlet discharging into Tantangara Reservoir from Tantangara STP/PWTP	22.65	62.5	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 Yarragalligby River	21.36	89	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 Yarragalligby 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 Yarragalligby River	21.52	80	7.06	31	20	7.88	151	25.5	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 Yarragalligby river in February 2025. High turbidity can be attributed to the decreased in the water level.
Table 3 - Thermal Water Quality Data Tallagbie												
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	-	100-300	-	6.5-8.5	-	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
1/2/2025, 10:31 am	EPL40	Solo Heat TSP/PWTP Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Tallagbie Reservoir.	19.6	85.7	7.89	30.8	8	5.14	224.5	0.8	Visually clear - only turbidity probe error, no odours or anything	This location has been monitored twice a week. However, rain discharge occurred in this period and has followed the re-use criteria when applicable.
Table 4 - Thermal Water Quality Data Tantangara												
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	-	100-300	-	6.5-8.5	-	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
26/2/2025, 10:11 am	EPL50	Tantangara TSP/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 all present. RO plant has chemical cleaning maintenance 3 days prior to sampling.	This location has been monitored twice a week. However, rain discharge occurred in this period and has followed the re-use criteria when applicable.

EPL 21266 In Situ Water Quality Measurements

EPL Monthly Monitoring February 2025

Table 5 - Groundwater Quality Data

Date and Time				Water Quality Observations (see note 1)										Field Comments	Context
Date and Time		GPS ID	Location Description	Temp (°C)	DQ (mg/L)	DQ (mg/L)	EC (µS/cm)	TSS (mg/L)	pH	Redox (mV)	Turbidity (NTU)				
1/2/2025, 9:29 am	EP12	EP12	Wallace Creek Bridge	10.19	1.79	1.41	506	122	6.71	-13	21.9		Clear sunny day. SWI 3.3pm	Elevated EC is within the historical range for this location.	
1/2/2025, 9:00 am	EP12	EP12	Wallace Creek Bridge	14.62	102.1	10.37	204	752	7.85	-109	214		SWI: 3.8 m, sunny day, turbid water, no odour	AB reading as within WQD limits	
11/2/2025, 9:11 am	EP14	EP14	Portul Acres	18.79	16.6	1.54	2,539.50	847	6.18	95	1,000.00		Bow cup water taken. Contaminated with surface water. SWI at surface.	Elevated EC and pH aligns with the historical range for this location.	
11/2/2025, 9:11 am	EP15	EP15	Portul Acres	19.17	39	2.87	506	124	6.18	-57	433		Chemical dump heavy rainfall last few days.	Elevated EC aligns with the historical range for this location.	
10/2/2025, 2:17 pm	EP16	EP16	GP12 groundwater upstream east	18.84	14.8	1.38	237	154	7.29	135	19.6		Clear sunny afternoon. High rainfall overnight. SWI 15.55m	AB reading as within WQD limits.	
10/2/2025, 2:43 pm	EP17	EP17	GP12 groundwater upstream west	20.89	15.5	1.38	245	159	7.94	119	42.1		Clear sunny afternoon. High rainfall overnight. SWI 15.45m	AB reading as within WQD limits.	
10/2/2025, 9:42 am	EP18	EP18	GP12 groundwater downstream	20.71	22.1	1.98	1340	730	6.57	136	38.1		SWI: 7.40m. Clear, sunny day. No recent rain events. Water is clear, no odour, no debris.	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.	
8/2/2025, 10:40 am	EP19	EP19	Tantaringa groundwater downstream West	15.92	66.8	6.63	30	19	5.85	198	190		Clear sunny day.	Low pH is generally consistent with the historical data for this location. There has to be low with current seasonal changes.	
8/2/2025, 10:17 am	EP19	EP19	Tantaringa groundwater downstream East	17.06	60.8	5.87	31	20	6.34	199	40.8		Clear sunny day. SWI 2.37m. New earth works upstream.	Low pH is generally consistent with the historical data for this location. There has to be low with current seasonal changes.	
4/2/2025, 8:46 am	EP20	EP20	Tantaringa groundwater upstream	16.31	12.9	5.19	18	64	6.79	182	1000		Clear sunny day. SWI 7.64m. Very turbid, greater than 1000ntu.	AB reading as within WQD limits.	
1/2/2025, 9:36 am	EP21	EP21	Marica groundwater upstream	11.54	14.6	5.95	71	46	5.76	223	65.8		SWI: 36.04 m, sunny day, turbid water, no odour	This location is appigned of works and therefore representative of background conditions.	
1/2/2025, 10:14 am	EP21	EP21	Marica groundwater downstream	11.56	31.2	5.93	77	50	5.79	230	36.1		SWI: 11.86 m, sunny day, turbid water/no odour	The ranges are consistent with the upgradient conditions for February 2025.	
1/2/2025, 2:18 pm	EP26	EP26	GP12 groundwater upstream	22.55	14.7	1.21	866	512	7.11	-48	50.4		SWI: 20.55m. Very hot afternoon. No recent rain events. Water is slightly turbid with oil settling at the bottom of the bore. No odour. AB reading 10000	This location is appigned of works and therefore representative of background conditions.	
1/2/2025, 1:14 pm	EP28	EP28	GP12 groundwater downstream	23.56	28.3	2.41	834	546	7.15	-92	1000		SWI: 4.5m. Hot afternoon. No recent rain events. Water is clear with dark grey oily sediment settling at the bottom of the bore. No odour. AB reading 10000	Elevated EC aligns with results upgradient of works.	
1/2/2025, 2:36 pm	EP28	EP28	GP12 groundwater upstream	20.28	30.4	1.80	2703	1730	6.96	-51	50.4		SWI: 6.96m. Very hot afternoon. No recent rain events. Water is clear with no odour.	This location is appigned of works and therefore representative of background conditions.	
1/2/2025, 4:04 pm	EP28	EP28	GP12 groundwater downstream	21.26	33.9	1	506	124	6.22	46	81.7		SWI: 3.07m. Hot afternoon. No recent rain events. Water is clear, no odour.	Elevated EC aligns with results up gradient of works. Low pH will be closely monitored at this location, however borehole pump extraction method is currently being upgraded.	
1/2/2025, 2:43 pm	EP27	EP27	GP12 groundwater downstream	20.62	17.5	1.57	829	403	6.29	106	1000		SWI: 4.25m. Very hot afternoon. Water is brown turbid. No odour. Very similar colour to adjacent bore K1. AB reading 10000	Elevated EC aligns with results up gradient of works. Low pH will be closely monitored at this location, however borehole pump extraction method is currently being upgraded.	
1/2/2025, 3:51 pm	EP28	EP28	GP12 groundwater downstream	22.67	15.9	1.37	869	518	7.3	-112	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 upgradient of works.	
1/2/2025, 1:56 pm	EP29	EP29	GP12 groundwater downstream	24.4	24.1	2.85	586	240	6.90	133	226		SWI: 3.27m. Not sunny day. No recent rain events. Water is slightly turbid, no odour.	Elevated EC aligns with results upgradient of works.	
10/2/2025, 3:03 pm	EP10	EP10	GP12 groundwater downstream	17.88	46.9	4.45	55	35	5.04	154	238		Clear sunny afternoon. High rainfall overnight. SWI 34.02m	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, 1:53 pm	EP11	EP11	GP12 groundwater downstream	19.25	24.1	2.24	244	134	5.88	7.13	11	21.6		Clear sunny afternoon. High rainfall overnight. SWI 15.58	AB reading as within WQD limits.
10/2/2025, 3:08 pm	EP12	EP12	GP12 groundwater downstream	18.75	85.5	7.86	115	75	6.87	25	739		Clear sunny afternoon. High rainfall overnight. SWI 15.50m	AB reading as within WQD limits.	
10/2/2025, 3:08 pm	EP13	EP13	GP12 groundwater downstream	14.44	19.3	1.81	236	153	7.15	56	887		Clear sunny afternoon. High rainfall overnight. SWI 15.42m	AB reading as within WQD limits.	
10/2/2025, 3:13 pm	EP14	EP14	GP12 groundwater downstream	18.42	19.7	1.85	267	109	6.93	3	85.1		Clear sunny afternoon. High rainfall overnight. SWI 15.20m	AB reading as within WQD limits.	
10/2/2025, 3:33 pm	EP15	EP15	GP12 groundwater downstream	20.52	21.7	1.85	846	538	6.3	131	61.8		Clear sunny afternoon. High rainfall overnight. SWI 15.88m	Elevated EC and low pH have been consistent at this location for this current season since 2023. This location is currently representative of background conditions.	
1/2/2025, 9:28 am	EP16	EP16	GP12 groundwater downstream	17.42	22	2.13	844	412	7.15	232	236		SWI: 5.50m. This sample gets a contaminated due to bore pumpage and clogging. There are photos. Sample only collected to meet EPA requirements. Water is slightly turbid, no odour.	Elevated EC is consistent with the historical range for this location for February 2025.	
10/2/2025, 3:57 pm	EP17	EP17	GP12 groundwater downstream	20.32	18.7	1.68	437	284	6.78	37	11.3		Clear sunny afternoon. High rainfall overnight. SWI 15.60m	Elevated EC has been consistent at this location for this current seasonal range.	
10/2/2025, 10:33 am	EP102	EP102	Groundwater monitoring associated with the Marica employment area in Marica town	12.55	85.6	85.6	407	265	6.68	67	40.0		SWI: 8.88 m, sunny day, turbid water, no odour	Elevated EC has been consistent at this location for this current seasonal range.	
10/2/2025, 9:07 am	EP103	EP103	Groundwater monitoring west of the Tantaringa employment area	15.65	149.8	4.77	38	20	6.44	180	10		Clear sunny day. SWI 11.61m	This location is appigned of works and therefore representative of background conditions.	
8/2/2025, 11:05 am	EP104	EP104	Groundwater monitoring west of the Tantaringa employment area	18.51	40.2	5.77	38	38	6.55	186	17.3		Clear sunny day. SWI 4.48m	Low pH aligns with results upgradient of PSE.	
8/2/2025, 9:30 am	EP105	EP105	Groundwater monitoring east of the Tantaringa employment area	16.76	33.7	5.21	152	99	6.25	188	3.9		Clear sunny day. Could not because of pump set up.	Low pH aligns with results upgradient of PSE.	
18/2/2025, 15:54 pm	EP113	EP113	Upstream west monitoring of Ramee Bay employment area	16.88	23.6	2.87	112	84	5.93	219	639			This location is appigned of works and therefore representative of background conditions.	
18/2/2025, 1:05 pm	EP114	EP114	Upstream west monitoring of Ramee Bay employment area	10.92	13.6	1.22	465	262	7.34	220	38.3		SWI: 31.40m. Clear, no odour, recent rainfall x450mm	This location is appigned of works and therefore representative of background conditions.	

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18/02/2005, 12:20 pm	EP115	Downstream east monitoring of Kaxine Bay employment area	16.36	103	10.08	350	231	7.36	123	355	SW: 10.74m, slightly turbid, no odour	High EC readings with results upgradation of PSE.
18/02/2005, 1:37 pm	EP116	Downstream west monitoring of Kaxine Bay employment area	18.94	62.6	7.67	215	140	6.76	206	1,000	SW: 9.02 highly turbid	All readings are within WQO limits.
18/02/2005, 2:11 pm	EP117	Downstream monitoring of Kaxine Bay employment area	19.81	41.2	3.75	347	96	6.34	6	1,000	SW: 15.27msec	One pass can be attributed to the surrounding conditions in February 2005.

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 Tullinger 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 inland rivers for all and electrical conductivity.

[illegible]

2. *How often do you use the following services?*

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*
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	-	80-110
Turbidity	NTU	-	5-10
Laboratory analysis			
Total suspended solids	mg/L	5	No Water Quality Objective Value
Hardness as CaCO ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	10
Nitrite + Nitrate as N (Nite)	µg/L	10	10
Nitrate + Nitrite as N (Nite)	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	100
Reactive Phosphorus	µg/L	1	5
Phosphorus (Total)	µg/L	10	10
Inorganics			
Cyanide Total	µg/L	8	7
Hydrocarbons			
Oil and Grease	mg/L	1	5
Metals			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (Cr-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	0.3	2,950
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.05	0.05
Zinc (dissolved)	µg/L	1	8
Biological			
Faecal Coliforms	CFU/100mL	1	10/100 ^a
Biochemical Oxygen Demand	mg/L	2	2.5 ^b

- * 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 / AWMCA (2000), they are not pollutant limits imposed by EPL 21106.
- ^a Algal blooms can present as faecal coliforms.
- ^b 80th percentile concentration limits / 100 percentile concentration limits
- sample not required at this location.

EPL10	EPL11	EPL28	EPL29	EPL32	EPL38	EPL39	EPL40	EPL46	EPL52	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	7.83	8.07	8.16	8.1	8.95	6.66	7.56	8.21	8.18	7.64	7.69	7.89
19	16	20	26	26	28	30	20.5	22	27	34	32	31
205	209	225	227	230	101	233	168	220	86	225	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	21.62
75.4	69.2	56.9	58.1	65.2	78.4	91.5	88.4	52.9	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	5	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	50	20	60	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	13	388	246	247	186	243	304	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
<0.2	<0.2	1.7	3.4	2.3	2.7	8.8	4.8	3.9	3.2	<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
<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	-	-	-	-	-	-	8300	-	-	-
5	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	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	-	80-110
Turbidity	NTU	-	5-10
Laboratory analysis			
Total suspended solids	mg/L	5	No Water Quality Objective Value
Hardness as CaCO ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	10
Nitrite + Nitrate as N (Nite)	µg/L	10	10
Nitrate + Nitrite as N (Nite)	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	100
Reactive Phosphorus	µg/L	1	5
Phosphorus (Total)	µg/L	10	10
Inorganics			
Cyanide Total	µg/L	8	7
Hydrocarbons			
Oil and Grease	mg/L	1	5
Metals			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (Cr-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	0.3	2,950
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.05	0.05
Zinc (dissolved)	µg/L	1	8
Biological			
Faecal Coliforms	CFU/100mL	1	10/100 ^a
Biochemical Oxygen Demand	mg/L	2	2.5 ^b

* 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 / AWMCA (2000), they are not pollutant limits imposed by EPL 21106.

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

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Flow Rate			
Inflow ^a	ML/day	-	-
Outflow ^a	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 ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	200/2000 ^a
Nitrite + Nitrate as N (NO _x)	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350/- ^a
Reactive Phosphorus	µg/L	1	No Water Quality Objective Value
Phosphorus (Total)	µg/L	10	100/300 ^a
Inorganics			
Cyanide Total	µg/L	4	No Water Quality Objective Value
Hydrocarbons			
Oil and Grease	mg/L	1	2/5 ^a
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 ^a
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							
-	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
26/2/2025							
<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

^a 90 Percentile concentration limit/100 Percentile limit

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

Table 3. Surface Water Quality Data.

Table 1. Surface Water Quality Data
Silver and Minor Watersheds

Water Quality Objectives (see note 1)							
Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)
-	90 - 110	-	30 - 250	-	6.5 - 8.0	-	2 - 25

EPL 21266 In-Situ Water Quality Measurements

EPL Monthly Monitoring March 2025

Sample ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TSS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Context
EPL110	Upstream monitoring of Kaine Bay emplacement area.	17.5	100	10.0	150	10	8.5	100	0.1	Cloudy water, low water level.	Low pH and EC meet the historical range for March 2025. These fall in line with current seasonal changes.
EPL118	Kaine Bay Leachate basin 2	17.5	100	10.0	150	10	8.5	100	0.1	Water level too low.	Low pH and EC meet the historical range for March 2025. These fall in line with current seasonal changes.
EPL120	Kaine Bay Leachate basin 4	17.5	100	10.0	150	10	8.5	100	0.1	Water level too low.	Low pH and EC meet the historical range for March 2025. These fall in line with current seasonal changes.
17/03/2025, 10:52 am	GP20 Outfall Line (Formerly EPL 552)	17.55	100.0	10.01	150	10	8.5	100	0.1	Sunny day, clear water, no wind, very low flow.	This location has been an objective of constant monitoring and reporting.

Table 2 - Reservoir Water Quality Data

Date and Time		EPL Site ID		Location Description		Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TSS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Context
16/03/2025, 8:07 am		EPL10		Tatungga Reservoir, downstream of road works and upstream of water intake point		23.97	64.8	5.36	102	66	8.1	191	3.61	Reservoir is constant. Cloud overhead and cold morning. No odor. Some visible green around the area on the surface. No visible difference in colour.	Low pH and EC align with results upstream of works. EC and pH are consistent with upstream conditions in the Tarrangoolly River for March 2025.
16/03/2025, 7:54 am		EPL11		Tatungga Reservoir, downstream of outlet		22.84	70.6	6.08	65	41	8.05	192	1.19	Visible dusty scum, and bubbles on the surface but no odor. The duck build up was a bit worse downstream on the canal of the reservoir where the wind was less. There is a slight brown. It's a cold morning. Relatively clear water. No odor.	Low pH and EC align with results upstream of works. EC and pH are consistent with upstream conditions in the Tarrangoolly River for March 2025.
16/03/2025, 9:38 am		EPL19		Tatungga Reservoir, upstream of works in the mouth of the Murrumbidgee River		18.43	100.2	8.94	27	17	7.82	180	7.1	Foggy day. Water very green. Visible algal bloom. No odor. Rain over the weekend.	This sample point is upstream of works and is therefore representative of background conditions.
16/03/2025, 10:15 am		EPL19		Tatungga Reservoir, downstream of works area and upstream of lower Murrumbidgee River		20.14	95.5	8.66	26	17	8.65	140	13.4	Water very green. Visible algal bloom. No odor. Foggy day. Rain last weekend.	This sample point is upstream of works and is therefore representative of background conditions.
16/03/2025, 10:07 am		EPL12		Tatungga Reservoir, Tatungga intake. Downstream of construction works.		20.18	91.5	8.29	26	17	8.68	14	12.9	Water very green, visible algal bloom. Foggy day. No odor. Rain last weekend.	This location aligns with the upstream conditions for March 2025.
1/03/2025, 1:04 pm		EPL18		Tatungga Reservoir, variable location dependent on tide and reservoir levels. Between the emplacement area and the ancillary facilities for employment activities.		22.63	54.1	4.67	96	21	7.94	176	6.8	Sunny day, clear water, no odor.	Low DO and elevated EC align with results that can be attributed to low reservoir levels in preparation for intake works.
1/03/2025, 10:18 am		EPL18		Confluence of Nungui Creek and Tatungga Reservoir, variable location dependent on tide and reservoir levels. Upstream of Tatungga construction works.		17.6	62.1	5.05	19.6	22.4	8.86	164.1	2.17	Low water, low velocity flow. Sunny morning, no fog, light winds, picking up. Visible clear water.	Low DO and pH can be attributed to the significant water level reduction in preparation for intake works.
1/03/2025, 10:00 am		EPL40		Confluence of the upper Murrumbidgee River and Tatungga Reservoir, variable location dependent on tide and reservoir levels. Upstream of works.		18.5	75.9	7.93	11.7	28.6	8.95	1425.5	2.63	Sunny morning, no fog, minimal winds. Low water level. Foam observed on surface. Visible sediment and slightly turbid water. Low velocity flow.	Low DO and pH can be attributed to the significant water level reduction and changes in the surrounding conditions in March 2025.
16/03/2025, 10:52 am		EPL46		Tatungga Reservoir, effluent outlet discharging into Tatungga Reservoir from Tatungga STW/PWTF		20.29	67.1	4.76	26	17	8.1	138	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.
16/03/2025, 10:23 am		EPL51		Tatungga Reservoir, downstream of Tatungga STW/PWTF effluent outlet.		20.21	91.8	8.49	26	17	8.63	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.
16/03/2025, 7:40 am		EPL107		Upstream monitoring of Kaine Bay emplacement area within Tarrangoolly River		22.01	72.6	6.35	40	26	7.79	191	0.76	Clear water, no visible signs of odor, bubbles or algae on the surface. No works going on at the area currently. Slight breeze. Overcast and cold morning. No odor.	Low DO and elevated EC align with results upstream of works. EC is consistent with background conditions in the Tarrangoolly River.
16/03/2025, 7:53 am		EPL108		Monitoring of Kaine Bay emplacement area (center of PSE) within Tarrangoolly River		23.97	67.8	5.53	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 align with results upstream of works. EC is consistent with background conditions in the Tarrangoolly River.
16/03/2025, 7:18 am		EPL109		Upstream monitoring of Kaine Bay emplacement area within Tarrangoolly River		21.7	75.6	6.65	36	24	7.73	180	0.66	No visible surface films, bubbles, or algae. No odors, breeze felt on water. Clear water. Cool morning, some clouds overhead.	Low DO and elevated EC align with results upstream of works. EC is consistent with background conditions in the Tarrangoolly River.

Table 3 - Treated Water Quality Data

Date and Time		EPL Site ID		Location Description		Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TSS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Context
16/03/2025, 8:13 am		EPL42		Water flow STW/PWTF Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Tatungga Reservoir.		25.13	71.6	6.07	6	4	7.84	327	0.8	Hot/dry wind used. Clear, no odour. Three sampled before. Plant running for 84 hours.	All readings are within WQO limits.

Table 4 - Treated Water Quality Data

Date and Time		EPL Site ID		Location Description		Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TSS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Context
16/03/2025, 8:34 am		EPL50		Tatungga STW/PWTF Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Tatungga Reservoir.		16.5	100.2	8.44	68.6	14.6	7.92	701	0.55	Water sample taken from RD Out.	All readings are within WQO limits.

Table 5 - Groundwater Quality Data

Date and Time		EPL Site ID		Location Description		Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TSS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Context
4/03/2025, 9:05 am		EPL58		GP20 groundwater upstream		16.52	10.8	1.05	256	154	7.84	107	54.2	DWS - 10.8m. Bore dry. No water.	All readings are within WQO limits.
4/03/2025, 9:24 am		EPL57		GP20 groundwater upstream west		16.05	10.6	1.05	187	128	7.17	107	62.8	DWS - 5.8m bore depth. Sunny breezy day.	All readings are within WQO limits.
4/03/2025, 11:09 am		EPL58		GP20 groundwater downstream		16.63	17.5	1.57	352	609	8.07	109	127	DWS - 5.8m. No report water. Hot dry weather.	Revised EC and low pH align with results upstream of works for this location. However, turbidity pump induction method is in the process of being upgraded.
11/03/2025, 6:19 am		EPL68		Tatungga groundwater downstream West		14.14	54.2	5.62	22	14	5.99	228	2.9	Water is running clear. The flow of water is continuous. No obvious odors. Sunny dry weather. PSE works are developing up gradient of the bore.	Low pH and EC meet the historical range for March 2025. These fall in line with current seasonal changes.

EPL 21266 In-Situ Water Quality Measurements

EPL Monthly Monitoring March 2025

Sample ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TSS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Context
15/03/2025, 8:50 am	EPL69	15.55	45.3	4.52	22	14	6.9	231	28.1	Oil colour was orange tinge. No obvious odor. Few works developing up gradient (adjacent). Sunny dry day.	Low pH and EC meet the historical range for March 2025. These fall in line with current seasonal changes.
15/03/2025, 11:40 am	EPL70	18.1	65.4	6.3	121	79	6.49	127	142	Lots of settled orange coloured sediment at bottom of hydra probe. Clear at top. No odors. Hot sunny weather.	This location is upstream of works and therefore representative of background conditions.
16/03/2025, 9:25 am	EPL72	12.88	80	8.55	53	35	5.89	204	68	DWS - 36.7m. Low turbidity orange tinge, clear at top. No odor. Sunny cool dry morning. Bore in test no water.	This location is upstream of works and therefore representative of background conditions.
	EPL73										
16/03/2025, 7:39 am	EPL80	18.07	22.3	2.29	537	412	6.41	76	12.3	DWS - 20.1m. Strong smell of sulphuric acid, very orange. Floating particles - hadn't noticed until this, sunny days. This is a slight risk at the bottom of the bore. Needs to be replaced, concrete cracked.	This location is upstream of works and therefore representative of background conditions.
18/03/2025, 8:26 am	EPL81	13.04	106.3	10.69	409	516	8.68	138	208	DWS - 1.85m (top of casing). Seaweed odour. Sediment present.	Elevated EC aligns with results upstream of works.
18/03/2025, 7:54 am	EPL82	13.76	18.7	1.93	2800	1820	7.08	8	28.1	DWS - 0.66m. Clear water, sulphuric acid smell. Dry sunny weather. Bore in test, no water.	This location is upstream of works and therefore representative of background conditions.
16/03/2025, 7:53 am	EPL83	16.26	40	4.3	747	485	6.27	59	168	DWS - 1.89m (from casing). Turbid water. Seaweed odour.	Elevated EC and low pH align with results upstream of works for March 2025. However, turbidity pump induction method is currently being upgraded.
18/03/2025, 7:09 am	EPL87	16.46	124.7	12.45	797	552	6.4	238	1000	DWS - 1.89m (top of casing).	Elevated EC and low pH align with results upstream of works for March 2025. However, turbidity pump induction method is currently being upgraded.
18/03/2025, 7:40 am	EPL88	15.36	75.9	7.58	980	576	6.79	42	14.1	DWS - 1.34m (top of casing). Sulphuric odour, cloudy low NTU.	Elevated EC aligns with results upstream of works for this reporting period.
19/03/2025, 7:08 am	EPL89	15.23	89.1	8.92	809	197	6.86	190	6.86	DWS - 1.30m. Turbidity towards bottom, orange tinge. Clear up top. No odors. No recent rain. Dry, cool weather.	All readings are within WQO limits.
4/03/2025, 8:42 am	EPL90	16.09	47	4.44	53	34	5.84	252	16	DWS - 13.9m in depth. Water stark, smelled gross until we purged it. Small coloured dust, but was on slightly there, smelt like manure. - nothing organic matter maybe. Not sulphuric, funny the light and odour has been clear and dry recently.	Low pH is generally consistent with the historical data for this location.
4/03/2025, 11:34 am	EPL91	16.30	17.4	1.6	193	126	6.42	16	7.6	DWS - 0.62 m. No report water events.	Low pH is generally consistent with the historical data for this location.
4/03/2025, 9:43 am	EPL92	16.84	35.4	3.42	96	62	5.92	200	566	DWS - 18.02m. Sunny clear weather.	Low pH is generally consistent with the historical data for this location.
4/03/2025, 9:50 am	EPL93	16.93	10	0.97	207	134	6.41	17	160	DWS - 13.5 m. Turbidity towards bottom of sulphuric acid. More turbid than usual. Fine works of settling height off of visible sediment.	Low pH is generally consistent with the historical data for this location.
4/03/2025, 10:06 am	EPL94	16.63	15.7	1.52	142	92	6.19	80	30.4	DWS - 13.46m depth of water. Works upstream of taking water off of G01.	Low pH is generally consistent with the historical data for this location.
4/03/2025, 10:50 am	EPL95	23.79	18.2	1.59	582	367	6.43	202	75.1	DWS - 6.80 m depth. No new works. Sunny dry weather recently.	Elevated EC and low pH have been consistent at this location for this reporting period. This location is currently undergoing upgrades in its induction method.
4/03/2025, 10:21 am	EPL96	18.5	56.7	4.72	1420	911	7.08	163	1000	DWS - 1.20 m water depth. No new works around. Sunny dry weather recently.	Elevated EC is consistent with the historical ranges for March 2025.
4/03/2025, 11:43 am	EPL97	19.48	53	5.8	597	243	6.99	109	7.4	DWS - 0.46 m. Dry sunny weather.	Elevated EC and low pH have been consistent at this location for this current seasonal range.
	EPL102										
15/03/2025, 9:58 am	EPL102	15.47	41.7	4.13	40	30	6.39	227	2.8	DWS - 11.19m. Visible particles floating around otherwise very clear water. No odor. Sunny dry day.	Due to the ongoing work in the PSE area, this location has been decommissioned and relocated. The new location will be sampled in the following months.
15/03/2025, 10:20 am	EPL104	15.98	43.1	4.25	40	26	6.53	236	14.4	DWS - 2.28 m. Rugged warm running under the concrete that's securing the bore - exposed holes, very low sediment seen at the bottom of the hydra sleeve otherwise the water was clear. No odor. Sunny dry weather. Close gradient of ore development.	Low pH aligns with results upstream of PSE.
15/03/2025, 10:53 am	EPL105	16.85	46.5	4.5	163	106	5.78	243	33.5	Water was running slow out of pump, during milling the hose it was very cloudy. Once we moved the hose it was clear water flow. No odor. Sample taken from the end of the hose rather than the top. Due to concern of water being captured out of tank zone.	Low pH aligns with results upstream of PSE.
20/03/2025, 11:41 am	EPL112	14.71	105.5	10.52	527	93	7.19	201	569	1.64m DWS (from rapid casing). Results 1 used to sample. Visible clear water with slight yellow odour.	All readings are within WQO limits.
20/03/2025, 10:25 am	EPL114	16.66	88.6	8.83	627	214	7.35	191	527	DWS - 11.83m (from top of casing). Clear water, no odors.	All readings are within WQO limits.
20/03/2025, 11:34 am	EPL115	15.88	97.5	9.64	498	194	7.5	191	122	Sampled using Port A 1.00m. 10.00m (from top of casing). Turbidity odour. No odour. Water cloudy turbid.	All readings are within WQO limits.
20/03/2025, 10:05 am	EPL116	15.27	137.7	13.8	187	0.121	7.47	128	1,000	Port A 3 used. DWS 8.40m (top of casing). Very turbid water. No odors or odor.	All readings are within WQO limits.
20/03/2025, 11:00 am	EPL117	15.66	108.4	10.77	621	10.77	7.43	17	1,000	15.87 DWS (from top of casing). Turbid and cloudy water. Seaweed odour. Faint on Port A 3.	All readings are within WQO limits.

Note 1: Water Quality Objective values for the Tarrangoolly River and Minor Watercourses refer to the default trigger values for physical and chemical indicators 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 Tatungga Reservoir are the default trigger values for physical and chemical indicators 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 indicators 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 indicators in south-east Australia (upland rivers) for pH and electrical conductivity.

WQI	Level of Reporting	Water Quality Objective Value ²
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[illegible][illegible]

Monthly EPL Sampling: 01-31 March 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	—	90-110
Turbidity	NTU	—	1-20
Laboratory analyses			
Total suspended solids	mg/L	5	No Water Quality Objective Value
Hardness as CaCO ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	10
Nitrite + Nitrate as N (NH ₂)	µg/L	10	10
Nitrate-Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	—	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	—
Metals			
Aluminum (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.7	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	0.3	14
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	13
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
Biological			
Fecal Coliforms	CFU/100mL	1	10 ⁴ /100mL
Biochemical Oxygen Demand	mg/L	2	1/5*

** Algal blooms can present as fecal coliforms

EPL10	EPL11	EPL28	EPL29	EPL32	EPL38	EPL39	EPL40	EPL46	EPL51	EPL107	EPL108	EPL109
2/1/25	2/1/25	26/1/25	26/1/25	26/1/25	3/1/25	9/1/25	9/1/25	26/1/25	26/1/25	16/1/25	16/1/25	16/1/25
8.1	8.01	7.82	8.42	8.18	7.94	6.54	8.10	8.3	8.43	7.79	7.72	7.77
103	63	17	16	35	34	29.6	71.7	26	55	40	38	34
191	192	130	140	1A	17A	66A.1	62N.5	139	140	193	190	180
12.97	12.84	18.61	20.34	20.19	22.69	17.6	18.3	20.39	20.21	21.01	21.87	21.7
64.8	70.6	93.2	99.5	91.5	94.1	82.1	79.3	97.1	93.8	72.6	67.9	79.6
1.62	1.15	7.3	11.4	17.9	8.8	7.17	2.63	12.5	10.7	0.76	0.05	0.66
-5	-5	-3	-5	-5	-3	-5	-5	-5	5	-5	-5	-5
46	28	9	9	9	9	13	16	9	9	14	14	14
<10	<10	70	<10	<10	20	30	140	90	<10	<10	60	20
<10	<10	10	<10	<10	<10	260	20	30	<10	<10	10	<10
100	100	100	400	400	100	100	100	100	400	100	100	100
100	100	300	400	400	100	400	100	300	400	100	100	100
<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
20	30	20	30	30	30	20	<10	40	30	20	20	10
<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
<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	<5	12	9	11	40	26	19	20	16	<5	<5	<5
0.7	0.5	0.4	0.4	0.4	0.4	0.7	0.2	0.4	0.4	0.3	0.4	0.4
-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
20	140	30	12	210	30	16	16	1	4	1	1	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	-0.1
-0.5	-0.5	0.6	-0.5	-0.5	1.7	3.4	3.4	0.5	-0.5	-0.6	-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
75	230	7	-	-	-	-	-	-	5	-	-	-
#	1	1	-	-	-	-	-	-	2	-	-	-

Analyte	Unit	Limit of Reporting	Water Quality Objective Value ²
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[illegible]

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500
10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000</																																																																		

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

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Flow Rate			
Inflow ^a	ML/day	-	-
Outflow ^a	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 ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	200/2000 ^b
Nitrite + Nitrate as N (NO _x)	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350/- ^a
Reactive Phosphorus	µg/L	1	No Water Quality Objective Value
Phosphorus (Total)	µg/L	10	100/300 ^b
Inorganics			
Cyanide Total	µg/L	4	No Water Quality Objective Value
Hydrocarbons			
Oil and Grease	mg/L	1	2/5 ^a
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 ^a
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
11/03/2025							
40	-	-	-	-	-	-	<10
100	-	-	-	-	-	-	<10
<100	-	-	-	-	-	-	<100
100	-	-	-	-	-	-	<100
<10	-	-	-	-	-	-	<10
<10	-	-	-	-	-	-	10
10/03/2025							
<4	-	-	-	-	-	-	<4
09/03/2025							
<1.0	-	-	-	-	-	-	<1
08/03/2025							
<5	-	-	-	-	-	-	<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
07/03/2025							
11.00	-	-	-	-	-	-	<1
<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
- ^a 90 Percentile concentration limit/100 Percentile limit
- ^b 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 April 2025

Table 3.1: 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)	TSS (mg/L)	pH	Redox (mV)	Turbidity (NTU)				
				10-15.5			30-200		6.5-8.8		2-25				
11/4/2025, 9:22 am	EP15	Tarangabity River, upstream of the exploratory tunnel and construction pad	12.21	92.3	9.89	130	96	8.14	173	3.81		Clear day, no recent rain. Flow and water level average. Low turb. No odours. No unusual algal growth.	Results align with historically recorded data, and seasonal changes at time of sampling.		
11/4/2025, 10:02 am	EP16	Watuwa Creek, upstream of Tarangabity River and Watuwa Creek confluence	12.56	96.7	10.29	127	83	8.05	173	0.59		Clear day. No recent rain. Water level and flow average. No odour or unusual algal 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	EP18	Tarangabity River, downstream of Lark Hole duty	18.69	89.3	8.88	153	99	8.18	175	0.86		Clear day. Average flow and water level. No odour or unusual algal growth. Low turb.	The results align with historical data and are within expectations for seasonal change.		
11/4/2025, 11:58 am	EP19	Tarangabity River, downstream of the accommodation camp and upstream of Tataranga reservoir	15.63	97.8	9.68	148	97	8.16	176	0.89		Sunny day. Water level and flow average. Low turb. No odour or unusual algal growth. No recent rain.	The results consistent with previous sample results and are within expectations for seasonal conditions.		
11/4/2025, 9:42 am	EP112	Tarangabity 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 algal growth.	Results for this location are representative of previous rounds of sampling. Large deviation in temperature compared to last month consistent with seasonal change.		
11/4/2025, 10:19 am	EP114	Tarangabity River, downstream of road construction area	13.31	95.1	9.94	144	94	8.2	173	1.21		Sunny day. No recent rain. Water level and flow average. No odour. No unusual algal 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	EP115	Tarangabity River, downstream of road construction area	13.84	97.2	10.05	146	95	8.17	170	0.1		Sunny day. No recent rain. Low turb. Water level and flow average. No odour or unusual algal 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	EP116	Tarangabity River, downstream of road construction area	15.63	95.8	9.32	147	95	8.34	170	0.1		Sunny day. Average flow and water level. No recent rain. No odour or unusual algal growth.	The results for this location align with historical data recorded previously as well as seasonal conditions.		
11/4/2025, 12:29 pm	EP149	Tarangabity River tributary (Watercourse Z), directly downstream of road	14.29	50.6	5.17	832.00	380	6.81	132	18.6		Stream is extremely low, no odour, clear effluent. No prey rainfall. Lots of vegetation in and around the creek. Watercress spray the bottom 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 flow.		
11/4/2025, 9:21 am	EP126	Tatungana River, downstream of Marica Road	10.48	16.3	8.29	37	34	8.13	124	16.4		Obscure animal tracks around banks of stream. Clear water, no odours, low stream. Dry, sunny weather, no wind, no prey rainfall.	Low DO aligns with conditions with upstream data and previous results recorded.		
11/4/2025, 9:30 am	EP127	Tatungana River, upstream of Marica Road	9.27	77.9	8.92	32	21	8.09	118	18.2		Water steadily flow, brown algae at the bottom. Water is clear and odourless. No prey rainfall.	Location is upstream of any works. Results are consistent with previous sampling.		
11/4/2025, 9:56 am	EP140	Watuwa Creek, downstream of accommodation camp and treatment area	8.12	75	8.88	11	7	7.66	216	6.8		Low steady flow, no odours, clear water, sunny dry good day. No prey 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 sample data.		
11/4/2025, 9:13 am	EP131	Kelly/Pain Creek, upstream of accommodation camp and system intake	7.87	108.8	6.39	1	1	7.53	244	0.8		Low steady flow, clear water no odour, creek dry day, no prey 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.		
11/4/2025, 8:31 am	EP133	Murumbidgee River, downstream of Tataranga reservoir outlet	14.11	43.2	6.5	7	4	7.51	229	30.6		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.		
11/4/2025, 7:56 am	EP134	Nungler Creek, upstream of Tataranga Road	9.9	81	6.1	10	9	7.87	182	0.4		Water levels normal. Flowing steadily. No visible chutes, no odours, clear water. Dry sunny weather, cool temp.	These results are consistent with the data we have recorded in this location, although the low EC is outside the data.		
11/4/2025, 8:59 am	EP135	Nungler Creek, downstream of Tataranga Road	7.54	98.9	8.25	7.8	4	7.69	180	0.6		Dry sunny, cool weather. Low steady stream, in the earth where there is no flow, there is evidence of biological chutes. Water is clear and odourless otherwise.	Low DO is consistent with previous results and typical of low flow.		
11/4/2025, 11:40 am	EP136	Cameron Creek, upstream of works in Rock Forest	13.37	57	5.41	17	11	6.84	167	5.2		Sunny day. Low flow. Biological chutes present. No odours. Some cattle faeces and hoof marks around water's edge.	The data recorded is representative of low water levels and low flow recorded at the time of the sample. Low EC has been recorded previously in our sample collections.		
11/4/2025, 11:09 am	EP137	Cameron Creek, downstream of works in Rock Forest	17.21	66.8	6.96	22	14	7.43	203	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.		
11/4/2025, 8:08 am	EP152	GPO1 leachate basin	13.38	85.5	7.21	960.00	454	8.71	165	72.2		Basin slightly green, normal odour. No prey rainfall, sunny calm morning. Workings ongoing in pH1.	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.		
-	EP153	GPO2 surface water upstream cell	-	-	-	-	-	-	-	-		This location is dry.	This location is dry.		
-	EP154	GPO2 surface water upstream west	-	-	-	-	-	-	-	-		This location is dry.	This location is dry.		
-	EP155	GPO2 surface water downstream	-	-	-	-	-	-	-	-		This location is dry.	This location is dry.		
-	EP167	Nungler Creek surface water downstream west from Tataranga emplacement area	-	-	-	-	-	-	-	-		Location is dry.	Location is dry.		
-	EP171	Surface water downstream of Marica emplacement	-	-	-	-	-	-	-	-		This location is dry.	This location is dry.		
18/4/2024, 12:18 PM	EP148	Y8 Basin	23.85	109.1	9.22	709.00	451	8.19	103	1000		Sunny, no recent rainfall. 40% capacity, brown colour, turbid, no odour.	These results are conclusive of the design functions of the leachate infrastructure.		
17/4/2025, 11:12 AM	EP185	YH07 Basin	22.51	77.8	8.73	181	373	8.03	15	1,000.00		Muddy turbid water, no odour.	These results are conclusive of the design functions of the leachate infrastructure.		
11/4/2025, 10:40 AM	EP186	YH01 Basin	19.01	90.2	8.1	671.00	557	8.91	15	190		No odour or odour.	These results are conclusive of the design functions of the leachate infrastructure.		
EPL 21266 In-Situ Water Quality Measurements															
EPL Monthly Monitoring April 2025															
	EP198	Rock Blaster diversion monitoring under GPO1 liner										This location is dry	This location is dry - GPO1 Basin was being reconstructed.		
15/4/2025, 12:12 PM	EP199	Marica Leachate Basin-Turkey's Rest	17.68	96.9	9.03	879	322	9.5	8	26.6		Blue water, no algal growth. Evidence of ducks. No prey rainfall, dry sunny day. Water is being pumped out by diversion.	These results are conclusive of the design functions of the leachate infrastructure.		
14/4/25, 12:34 PM	EP1300	Marica Lower Leachate Basin (YS Shaft)	18.25	92.3	6.1	1050	670	8.74	24	107		Very dry, 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	EP1301	Marica Leachate Basin (Spill Pad)	18.34	5.91	35.9	1305	849	7.17	113	41.3		Very low water level, green basin colour. Visible chutes in water, rainbow. Algal growth around edge. Breezy, sunny day no prey 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.		

EP1 21266 In Situ Water Quality Measurements

EP1 Monthly Monitoring April 2025

12/4/2025, 9:28 AM	EP1106	Ravine Bay Leachate Basin 1	17.44	88.2	8.5	1,680.00	1,680.00	8.81	84	17	Horizon 5 used for sampling. Water is a dark green colour	These results are conclusive of the design functions of the leachate infrastructure
---	EP1110	Upstream monitoring of Ravine Bay employment area	---	---	---	---	---	---	---	---	Location dry	Location dry
---	EP1118	Ravine Bay Leachate Basin 2	---	---	---	---	---	---	---	---	Location dry	Location dry
---	EP1120	Ravine Bay Leachate Basin 4	---	---	---	---	---	---	---	---	Location dry	Location dry
13/4/2025, 7:30 PM	EP1122	GP01 Discharge Line (Formerly EP1 556)	17.33	88.6	8.58	482	320	8.18	148	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 3 - Reservoir Water Quality Data
Tantangara and Tantangara Reservoirs

Date and Time	EP1 Site ID	Location Description	Water Quality (Observed Low range 1)								Field Comments	Context
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
			8.0 - 12.0	1.0 - 12.0	0.1 - 12.0	50 - 300	100 - 300	6.5 - 8.5	100 - 300	1 - 20		
13/4/2025, 8:34 AM	EP1102	Tatangara Reservoir, downstream of road works and upstream of water intake point	18.32	87.1	8.2	87	30	7.33	183	3.1	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	EP1111	Tatangara Reservoir, downstream of outlet	18.43	85.3	8.56	40	27	7.35	190	9.5	Sunny day, slightly greener than ravine bay, water temp slightly warmer than ravine bay, no recent rainfall, no odour, area wind, dusty loam across surface near intake.	This data aligns with data recorded in previous rounds of sampling, the high EC is within range when receiving previous samples taken.
14/4/2025, 9:46 AM	EP126	Tatangara Reservoir, upstream of works in the mouth of the Murrumbidgee River	15.1	89.3	9	19.9	11	6.91	100.1	6.86	Sunny, no wind, no previous rainfall. Organic material (including algae) present, no odour or only shens, algae causing water to have blue-green colouration. STORELINE 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.
14/4/2025, 10:54 AM	EP129	Tatangara Reservoir, downstream of works area and upstream of lower Murrumbidgee River	14.05	88.1	9.13	27	18	7.80	134	9.0	Clear sunny day, moderate wind. Visible algae, water is green. No odour or shens.	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 from recorded at the time of the sample.
15/4/2025, 10:18 AM	EP132	Tatangara Reservoir, Tantangara intake. Downstream of construction works	14.7	101.6	10.35	27	17	8.11	100	3.3	Clear sunny day, moderate wind. Visible algae, water is green. No odour or shens.	These results are consistent with previous sampling rounds.
16/4/2025, 9:23 AM	EP138	Tatangara Reservoir, variable location dependent on tide and reservoir levels, between the employment area and the ancillary facilities for employment activities	14.9	86.1	8	27	17	8.18	113	51.6	Sunny day. No recent rainfall. Water very green. Visible algae blooms, 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.
16/4/2025, 11:40 AM	EP139	Confluence of Hunger Creek and Tantangara Reservoir, variable location dependent on tide and reservoir levels, upstream of Tantangara construction works	13.75	85	7.04	7	1	7.2	239	8	Low levels, constant flow of stream. No odour. Evidence of animal activity on banks. Clear water. Some bubbles on surface, windy, sunny day. No green visible.	Low DO levels are within range for previous samples recorded. EC was also observed below the norm.
16/4/2025, 11:43 PM	EP140	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	143.3	8.28	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 shens. Pesticide (3x within 10m away from sample point)	These results are consistent with previous sampling rounds.
16/4/2025, 10:52 AM	EP143	Tatangara Reservoir, effluent outlet discharging into Tantangara Reservoir from Tantangara STP/WWTP	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 shens.	These results are consistent with previous sampling rounds.
16/4/25, 10:54 AM	EP151	Tatangara Reservoir, downstream of Tantangara STP/WWTP effluent outlet	16.6	91	8.86	27.3	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 only shens. DISCHARGE SAMPLE	These results are consistent with previous sampling rounds.
13/4/2025, 9:05 AM	EP1307	Upstream monitoring of Ravine Bay employment area within Tantangara River	17.75	95	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 site	These results are consistent with previous sampling rounds.
13/4/2025, 7:50 AM	EP1108	Monitoring of Ravine Bay employment area (centre of PSE) within Tantangara River	17.6	88.2	8.18	33	21	7.28	170	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	EP1109	Upstream monitoring of Ravine Bay employment area within Tantangara River	17.27	85.7	8.23	33	23	7.80	185	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
Tantangara

Date and Time	EP1 Site ID	Location Description	Water Quality (Observed Low range 1)								Field Comments	Context
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
			8.0 - 12.0	1.0 - 12.0	0.1 - 12.0	50 - 300	100 - 300	6.5 - 8.5	100 - 300	1 - 20		
23/4/2025, 9:19 AM	EP142	Julia Hill STP/WWTP final effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Tantangara Reservoir.	18.81	58	5.1	39	13	7.64	156	0.25	Clear water. No odour.	These results are consistent with previous sampling rounds.

Table 4 - Treated Water Quality Data
Tantangara

Date and Time	EP1 Site ID	Location Description	Water Quality (Observed Low range 1)								Field Comments	Context
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
			8.0 - 12.0	1.0 - 12.0	0.1 - 12.0	50 - 300	100 - 300	6.5 - 8.5	100 - 300	1 - 20		
27/4/2025, 11:57 AM	EP150	Tatangara STP/WWTP final effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Tantangara Reservoir.	17.7	68.6	6.64	39.1	15	7.71	97.8	0.58	Sample taken from RD Plant. Water clear, no turbidity, no visible sediment present, no odour or only shens.	These results are consistent with previous sampling rounds.

EP1 21266 In Situ Water Quality Measurements

EP1 Monthly Monitoring April 2025

GP02 Surface Water and Groundwater

Date and Time	EP1 Site ID	Location Description	Water Quality (Observed Low range 1)								Field Comments	Context
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
			8.0 - 12.0	1.0 - 12.0	0.1 - 12.0	50 - 300	100 - 300	6.5 - 8.5	100 - 300	1 - 20		
14/4/2025, 2:47 PM	EP136	GP02 groundwater upstream east	18.47	23.6	2.3	224	139	7.4	188	4.9	WWS & BWS. Some cloud cover. No recent rainfall. No odour. Clear water. Concrete disintegrating around bore cas. Top of GP02 being shaped.	These results are consistent with previous sampling rounds.
14/4/2025, 3:01 PM	EP137	GP02 groundwater upstream west	18.28	13.7	1.34	194	126	7.44	264	90.9	WWS & BWS. Clear water. Clear day. No recent rain. No odour. New track right next to bore property built as part of GP02 shaping.	These results are consistent with previous sampling rounds.

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

Quality Monitoring April 2025													
14/4/2025, 8:22 AM	EP108	GPO1 groundwater downstream	15.62	27.4	2.72	362	858	8.15	138	96.3	860	7.30m, very clear water, no odour, sunny day, works ongoing in GPO1	Fluvial results for EC have been increasing recently, and could be a result of being a downstream location of the PM array pit for this location has regularly recorded lower concentrations
14/4/2025, 12:08 pm	EP108	Tartangara groundwater downstream (west)	12.04	72.6	7.77	2	9	5.92	286	15.1	Running fine, clear water, no odours. No pre-rainfall. Windy sunny day. Works continuing on pit	EC results are below WQ2's. Low pH levels are consistent with previous monitoring data	
14/4/2025, 12:19 pm	EP109	Tartangara groundwater downstream East	52.4	42.3	4.5	9	6	5.8	289	23.6	water level 2.40m, Depth of well 8.65m. Clear water, very little sediment build up at bottom. No odours. Works ongoing adjacent to bore. No pre-rainfall	The results for EC are outside of the range of recorded in previous monitoring events, possibly resulting from agitation during sampling. The low pH levels are consistent with previous sample labors	
14/4/2025, 11:03 am	EP179	Tartangara groundwater upstream	32.4	42.8	4.5	9	6	5.8	289	23.6	Water level 2.40m, Depth of well 8.65m. Clear water, very little sediment build up at bottom. No odours. Works ongoing adjacent to bore. No pre-rainfall	The results for EC are outside of the range of recorded in previous monitoring events, possibly resulting from agitation during sampling. The low pH levels are consistent with previous sample labors	
15/4/2025, 11:36 AM	EP179	Merica groundwater upstream	14.08	50.9	5.16	40	30	7.71	105	206	SWL 27.71m, BBL 64.60m. Cloudy at bottom with grey coloring. No odours. No pre-rainfall. Borehole well sealed.	These results are within historic records for this location. This elevated turbidity is for a suite of data reported to previous sample rounds.	
15/4/2025, 10:23 AM	EP180	USG groundwater upstream	18.12	20.8	1.96	105	438	8.8	41	14.3	This site has been decommissioned.	This site has been decommissioned	
15/4/2025, 10:38 AM	EP181	USG groundwater downstream	19.05	77.3	2.51	309	550	7.1	167	189	Water level - 29.49 m	These results are consistent with previous sampling rounds	
15/4/2025, 10:28 AM	EP182	MP groundwater upstream	17.18	17.4	1.67	1190	1400	6.61	50	43.8	Water level 6.02 m	The elevated EC results have been recorded in previous sampling rounds. The elevated turbidity a within day recorded in previous sampling rounds.	
15/4/2025, 9:43 AM	EP183	MP groundwater downstream	17.36	42.8	4.1	823	521	6.78	32	76.7	Depth of water is to top of casing 5.60m. Turbidity 5 card.	The elevated EC results are consistent with sampling rounds within the past year.	
15/4/2025, 10:12 AM	EP187	MP groundwater downstream	17.83	40.1	9.85	341	437	6.72	152	1050	Water level 4.3m	The elevated EC results are consistent with previous sample labors	
15/4/2025, 9:18 AM	EP188	MP groundwater downstream	36.1	37.7	3.71	788	519	7.14	215	18.7	Depth of water 3.37m (top of casing). Turbidity 5 card. Water is visibly turbid with a strong surface seal.	The elevated EC results are consistent with previous sampling rounds.	
15/4/2025, 10:34 AM	EP189	USG groundwater downstream	16.01	60.6	5.96	302	136	6.81	145	16.8	Water level 3.25 m	These results are consistent with previous sampling rounds	
14/4/2025, 7:47 am	EP190	GPO1 groundwater downstream	11.55	75.8	7.67	62	40	7.23	130	100	SWL 12.61m. Sunny day. No recent rain. Bore directly below failure where water carts engage.	These results are consistent with previous sampling rounds	
14/4/2025, 8:01 AM	EP191	GPO1 groundwater downstream	14.51	37.1	3.78	218	142	6.98	458	11.2	SWL 8.18M. Sunny day. No recent rain. Slight sulphur odour.	These results are consistent with previous sampling rounds	
14/4/2025, 7:47 AM	EP192	GPO1 groundwater downstream	13.56	58.8	9.76	134	87	7.87	142	630	SWL 19.30m, 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, 7:38 AM	EP193	GPO1 groundwater downstream	12.81	91	9.41	207	134	7.84	114	895	SWL -18.10m, 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	EP194	GPO1 groundwater downstream	13.86	91	9.4	151	90	7.76	12	107	SWL 15.50m, sunny day, a bit turbid water, no odour	These results are consistent with previous sampling rounds	
14/4/2025, 7:54 am	EP195	GPO1 groundwater downstream	93	89.9	9.08	841	526	7.69	94	151	SWL 7.32m, very clear water, no odours, sunny day, works ongoing in GPO1	These results are consistent with previous sampling rounds	
14/4/2025, 9:26 AM	EP196	GPO1 groundwater downstream	11.79	99.4	10.75	291	189	6.72	216	809	SWL 20.3m, BR13.41m. No concrete, or fill on base. The pipe is cracked. Orange colour, no odour, no pre-rainfall. Lotsy vapors of surface water. Works ongoing at GPO1.	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	EP197	GPO1 groundwater downstream	15.49	22.7	2.26	303	236	6.84	113	1.3	SWL 8.81m. Sunny day. No recent rain. Bore pH10 floc, concrete unstable. Low turb.	These results are consistent with previous sampling rounds	
14/4/2025, 11:47	EP199	Groundwater monitoring associated with the Merica emplacement area on Merica pit	-	-	-	-	-	-	-	-	-	This location has been decommissioned.	This location has been decommissioned
14/4/2025, 11:47	EP199	Upstream groundwater monitoring west of the Tartangara emplacement area	11.02	39.2	4.31	17	9	6.01	290	8.6	Water level 11.10m. Depth of well 22.24m. Clear water, no sediment build up. No odours. Works continuing on pit	The results, including the low EC, is consistent with samples previously taken.	
14/4/2025, 12:34 pm	EP196	Downslope groundwater monitoring east of the Tartangara emplacement area	12.8	38.7	4.22	14	9	5.91	286	11.7	Water level 4.40m, Depth of well 8.62. Cal sunny day, no pre-rainfall. Clear water, sunny sediment particles orange at very bottom. No odour.	The results, including the low EC, is consistent with samples previously taken.	
14/4/2025, 11:30 am	EP195	Downslope groundwater monitoring east of the Tartangara emplacement area	12.84	40	4.25	130	94	5.63	310	168	No odour, clear colour, running slowly out of bore. Pump is preventing dipping and depth sounding.	The results, including the low EC, is consistent with samples previously taken.	
14/4/2025, 12:11 PM	EP113	Upstream east monitoring of Rawine Bay emplacement area	13.08	17.7	1.78	168	506	8.65	154	437	water level reading: 1.07	These results are consistent with previous sampling rounds	

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Security monitoring up to 10:58												
4/15/2015, 12:36 PM	EP1154	Upstream west monitoring of Ravine Bay employment area	15.69	21.6	2.15	307	258	7.61	27	26.6	W/LR 51.83	These results are consistent with previous sampling rounds.
4/15/2015, 12:33 PM	EP1155	Downstream east monitoring of Ravine Bay employment area	15.51	13.2	1.32	363	238	7.38	36	220	Water level reading: 10.58	These results are consistent with previous sampling rounds.
4/15/2015, 1:29 PM	EP1156	Downstream west monitoring of Ravine Bay employment area	15.55	54.5	1.43	176	135	6.89	128	1,000	W/LR 8.21	These results are consistent with previous sampling rounds.
4/15/2015, 2:34 PM	EP1157	Downstream monitoring of Ravine Bay employment area	15.62	10.8	1.07	149	97	8.94	0	1000	W/LR 15.70	These results are consistent with previous sampling rounds.

Note 1: Water Quality Objective values for the Yarrangubilly 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 3.1.2 and 3.1.3 of ANZECC/ARMCANZ (2000).

Note 2: Water Quality Objective values for Talingo 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 1: 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 DSE

Note 4: Wyter 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 FRI Sameline: 01-31 March 2025 - Groundwater

[illegible]

^a Minor Quality Objective values for groundwater refer to the actual trigger values for physical and chemical stressors in second-order basins (defined here) for the protection of 10% of aquatic resources (NOELs) (ANZECC/2000); they are not pursuant levels imposed by DA 22268. Same as for required in this location.

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	–	90-100
Turbidity	NTU	–	1-20
Laboratory analyses			
Total suspended solids	mg/L	5	No Water Quality Objective Value
Hardness as CaCO ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	10
Nitrite + Nitrate as N (NO ₃)	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	8	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	2.4
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*
Biochemical Oxygen Demand	mg/L	2	1/5*

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	113.9	27	27	2	2	32.5	28	27.5	38	33	35
193	190	134	134	119	113	219	143.5	165	144.7	183	176	145
18.32	18.42	15.3	14.65	14.7	14.9	11.75	16.2	13.84	15.6	17.75	17.8	17.27
87.2	91.2	89.7	60.1	101.6	89.1	65	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	0.55	11	15.9
<5	<5	17		<5	<5	18	<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
<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8
<5	<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
<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.1
<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

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Table 1: Surface Water Quality Data

After and Minor Rehabilitation

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
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	0.5	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	85.5	9.48	130	84	8.12	228	1.5	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	41.2	Clear sunny morning, no recent rainfall event. Water is clear, no odour. No shreds. 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, 7:28 AM	EPL9	Farrangobilly River, downstream of the accommodation camp and upstream of Tallbidge Reservoir	9.3	68.9	7.33	141	92	8.01	129	7.1	Clear sunny morning, no recent rainfall. No visible algae, no shreds, 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	71.8	8.62	138	89	8.13	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	90.9	10.5	139	90	8.14	238	9.9	Clear sky. Clear water. No recent rain. Average flow.	These results are consistent with our previous samples taken for this location.
7/5/2025, 7:52 AM	EPL16	Farrangobilly River, downstream of road construction areas	8.87	63.2	7.32	142	92	7.08	142	6.2	Clear sunny morning, no recent rainfall. Clear water, no visible algae, no shreds, no odour.	These results are consistent with our previous samples taken for this location.
16/5/2025, 2:38 PM	EPL24	Farrangobilly River tributary (Matercourse 2), directly downstream of road	14.55	14.2	5.51	26400	612	6.71	205	4.8	Clear sunny day. No recent rain events. Worms continuing to expand FID3 basin just upstream of sample location. Water is very clear, no odour and no shreds.	Low DO and elevated EC is commonly seen with data recorded from previous sample rounds; these numbers are consistent with these results.
17/5/2025, 8:48 AM	EPL26	Eucumbene River, downstream of Marica Road	4.43	82.6	10.7	29	18	8	217	9.02	Sunny cool day. Low flow and water levels. 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, 10:38 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, it 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	7.58	84.4	10.08	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, 7:42 AM	EPL33	Murrumbidgee River, downstream of Tantangara reservoir outlet	9.59	87.1	7.64	13	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	9.88	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	7.28	85.8	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	89.8	11.66	47	30	6.81	288	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.
22/5/2025, 9:35 AM	EPL37	Camersons Creek, downstream of works in Rock Forest	8.77	100	12.39	40	30	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.
16/5/2025, 11:16 AM	EPL52	GP01 leachate basin	-	-	-	-	-	-	-	-	DRY	DRY
-	EPL53	GP01 surface water upstream east	-	-	-	-	-	-	-	-	DRY	This location is dry.
-	EPL54	GP01 surface water upstream west	-	-	-	-	-	-	-	-	DRY	This location is dry.
19/5/2025, 9:46 AM	EPL55	GP01 surface water downstream	-	-	-	-	-	-	-	-	DRY	This location is dry.
-	EPL67	Nungah Creek surface water downstream west from Tantangara employment area	-	-	-	-	-	-	-	-	DRY	Location is dry
-	EPL71	Surface water downstream of Marica employment	-	-	-	-	-	-	-	-	DRY	This location is dry.

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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
			10 - 15.0	10 - 11.0	10 - 11.0	50 - 350	100 - 350	6.5 - 8.5	-	1 - 25		
			10 - 15.0	10 - 11.0	10 - 11.0	50 - 350	100 - 350	6.5 - 8.5	-	1 - 25		
15/5/2025, 11:53 AM	EPL84	Y8 Basin	18.2	125.6	11.62	960.00	620	9.18	61	1000	Clear sunny day, no recent rainfall events. Basin level very low, soon to be desludged and raised. 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	MP07 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 shreds. 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	HS001 Basin	12.32	58.7	6.26	329.00	595	8.39	152	446	Overcast day. Recent rain event. Water slightly turbid. No odour or shreds. 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 GP01 liner	-	-	-	-	-	-	-	-	DRY	Location is dry
17/5/2025, 11:18 AM	EPL89	Marica Leachate Basin - Turkey's Nest	10.47	68.6	6.76	104	230	10.62	11	69.9	Clear sunny day. No odour. 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.
23/5/2025, 2:54 PM	EPL100	Marica Lower Leachate Basin VMS Shaft	9.72	60.9	6.9	641	246	9.62	132	895	Rainy day. High turb. Brown water. No odour. 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	831	406	9.06	84	88.7	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.
1/5/2025, 8:15 AM	EPL106	Ravine Bay Leachate basin 1	11.81	90.1	9.71	1,460.00	938.00	8.92	151	110	Cold clear morning. No recent rain events. Basin level is lower than normal. Water is clear with suspended solids. No odour. No shreds.	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 employment 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	GP01 Drainage Line (Formerly EPL 556)	11.64	87.5	8.49	628	421	8.64	144	408	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

Tallbidge and Tantangara Reservoirs

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
			10 - 15.0	10 - 11.0	10 - 11.0	50 - 350	100 - 350	6.5 - 8.5	-	1 - 25		
			10 - 15.0	10 - 11.0	10 - 11.0	50 - 350	100 - 350	6.5 - 8.5	-	1 - 25		
4/5/2025, 8:46 AM	EPL10	Tallbidge Reservoir, downstream of road works and upstream of water intake point	14.96	108.7	8.02	54	35	7.18	203	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	Tallbidge Reservoir, downstream of outlet	14.97	57	5.75	60	32	7.47	206	5.2	Clear sunny morning, no recent rainfall. Less algae than previous month, no odour, no shreds.	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	108.7	12.29	31	20	7.26	318	13.9	Sunny day. Heavy recent rainfall. Greenish, grey water colour. No odour. High 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. High meter turb.	These results are consistent with previous samples recorded for this location.
15/5/2025, 9:36 AM	EPL32	Tantangara Reservoir, Tantangara intake. Downstream of construction works	8.88	74.1	8.85	30	20	7.22	353	17.7	Heavy recent rain. Green grey water colour. No odor. High meter turb.	These results are consistent with previous samples recorded for this location.

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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
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	15.16	58.6	7.21	23	15	7.63	240	40.3	Clearer water, windy breeze, sunny day, cool temp. No recent rain. No odors. Green colour of back activity in the stream.	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, 9:54 AM	EPL39	Confluence of Hungar Creek and Tantangara Reservoir, variable location dependent on tide and reservoir levels. Upstream of Tantangara construction works	9.63	53.9	7.81	27	13	8.76	156	22.6	Low level water, slow flow, cloudy foggy morning. No sun. Some bubbles on surface. Evidence of back activity in the stream.	Low DO and EC could be attributed to the algae bloom recorded near sample location, but each variable of ranges are not 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	10.5	56.7	10.7	40.4	36	8.23	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.
16/5/2025, 10:02 AM	EPL 46	Tantangara Reservoir, diffuser outlet discharging into Tantangara Reservoir from Tantangara STP/PWTP	8.8	64.3	9.8	34	22	7.1	367	0.4	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	65.6	9.93	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 Kaine Bay emplacement area within Yarragombilly River	15.03	63.9	6.44	26	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 Kaine Bay emplacement area (center of PSE) within Yarragombilly River	15.27	75.1	7.55	34	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 Kaine Bay emplacement area within Yarragombilly River	14.6	64.4	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

Water Quality Objectives (see note 1)												
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
						50	100	6.5-8.0		75		
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
15/5/2025, 9:21 AM	EPL41	Low flow STP/PWTP Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Talbingo Reservoir.	14.59	68.7	6.99	56	30	8.03	147	13.9	Wet gloves, alcohol wipes, correct methodology with EC sampling. DIAL 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

Water Quality Objectives (see note 1)											
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	
						50	100	6.5-8.0		75	
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
16/5/2025, 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	Decontaminating team completed sampling at 1.30pm on 25/05/2025. Initial readings are from their fixed unit, not handheld or TD. No anomalies noted.
											These results are consistent with previous samples recorded for this location.

Table 5. Groundwater Quality Data

4/5/2025 - Groundwater Quality Data												
			Summary Objectives (see note 1)									
Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)					
			50	100	6.5 - 8.0		75					
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
4/5/2025, 2:27 PM	EPL1	Wallace Creek Bridge	16.56	84.9	8.26	104	586	6.39	-129	105	Overcast. Silt over well cap. No recent rain. No odour. SWL 2.09. Slightly turbid. Faint Metallic smell. Metallic sediment present in hydracake. Stock pile present on upland past. Basin desludging 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	8.96	490	319	8.17	7	234	Overcast day. No recent rain. No odour. 3.3m soil. Sediment in bottom. Slightly turbid.	Elevated EC and pH is within historical range for this location. Presence of sediment and increased turbidity suggests bore is due for development.

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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
4/5/2025, 9:13 PM	EPL4	Portal Access	-	-	-	-	-	-	-	-	Bore cap underside. Uncontaminated sample not possible?	-
4/5/2025, 2:53 PM	EPL15	Portal Access	15.51	89.2	8.88	420	273	8.16	43	80.5	Overcast day. No recent rain. SWL 3.7. Water over ground at monument base. Slightly turbid. Metallic sediment in hydracake. Slight metallic smell	Elevated EC is within historical range. Increased pH and turbidity potentially due to surface water ingress.
1/5/2025, 7:21 AM	EPL16	GP01 Upstream east groundwater well	12.62	25.7	2.75	234	132	7.9	102	72	Clear day. No recent rain. SWL 30.72m. Concrete cracked around cap. Low turb. No odour. Chugging 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 glims. Due to the final design of the PSE, this one may no longer be representative of upstream conditions.
16/5/2025, 9:11 AM	EPL17	GP01 Upstream west groundwater well	12.72	22.8	2.42	226	147	8.69	96	95.7	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 glims. Due to the final design of the PSE, this site may no longer be representative of upstream conditions.
16/5/2025, 9:48 AM	EPL18	GP01 Downstream groundwater well	15.39	25.2	2.51	286	199	1.97	235	83.5	Water was warm, clear, odourless, no rain prev, no works current at time of sample	Inelevations in pH and EC are within the previously recorded range. Site has been reported as impacted by GP01.
17/5/2025, 9:23 AM	EPL18	Lacustrine detection BR downstream East	11.68	56	6.08	15	9	6.6	274	18.9	Clear water, no odors, cloudy day, no prev rainfall?	Results are consistent with the previously recorded range.
27/5/2025, 9:10 AM	EPL19	Tantangara groundwater downstream East	11.28	54.2	1.94	30	19	6.56	292	36.9	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	EPL20	Tantangara groundwater upstream	10.84	15.4	5.91	134	87	6.5	370	40.3	SWL 17.02m. Sunny cool day. No odour. Small amount of sediment at bottom of hydracake?	Results are consistent with previously recorded data. Location upstream of any works.
5/5/2025, 2:18 PM	EPL21	Merica groundwater upstream	8.84	52.8	6.13	18	38	6.32	-2	54.3	SWL 17.02m. Sunny cool day. No odour. Small amount of sediment at bottom of hydracake?	Results are consistent with historical range. Location upstream of any works.
5/5/2025, 2:18 PM	EPL21	Merica groundwater downstream	-	-	-	-	-	-	-	-	-	This site has been decommissioned.
14/5/2025, 12:42 PM	EPL30	UHG groundwater upstream	15.2	19.5	1.95	658	591	6.78	-17	125	Overcast day. Recent rain event. SWL unable to measure due to dipper malfunction. Water clear with sediment settling at bottom of hydracake 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	EPL31	UHG groundwater downstream	13.35	18.2	2.89	811	545	6.87	2	1000	SWL 4.17m. Sunny clear morning. No recent rainfall. No odour. Water is very turbid, exceeding 1000 NTU. Cloudy 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	EPL32	MY groundwater upstream	12.44	13.7	1.51	1240	1500	6.74	-2	47.0	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.
15/05/2025, 2:29 PM	EPL33	MY groundwater downstream	17.41	6.34	1.63	529	335	6.34	39	19.5	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.
14/5/2025, 10:57 AM	EPL37	MY groundwater downstream	15.63	18.8	1.87	927	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.
4/5/2025, 2:18 PM	EPL38	MY groundwater downstream	17.05	25.9	2.5	756	498	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.
1/5/2025, 10:37 AM	EPL39	UHG groundwater downstream	14.94	24.6	2.48	320	208	6.91	163	113	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, 3:42 PM	EPL 90	GP01 groundwater downstream	15.26	90	9.02	66	41	6.18	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).
16/5/2025, 6:08 AM	EPL 91	GP01 groundwater downstream	14.22	23.9	2.45	102	125	6.87	2	37.6	Sulphuric smell, no color/sediment, no prev rainfall, cool morning. Bore hole not fully recessed see photos	These results are consistent with previous sampling rounds.
16/5/2025, 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 below water was coming out then it cleared up. SWL 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.
16/5/2025, 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. SWL came out orange colour but clearer than before. No odors, 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, 6:59 AM	EPL 94	GP01 groundwater downstream	13.11	33.4	3.51	150	97	6.85	0.1	139	ORP/IV = -10. CLEAR WATER LITTLE COLOUR. No prev rain. No odors.	These results are consistent with previous sampling rounds.
18/5/2025, 9:58 AM	EPL 95	GP01 groundwater downstream	15.3	101.5	10.11	1,001.90	644	6.09	238	24.5	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	3.06	811	519	7.32	197	902	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	Noodles, 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 Merica emplacement area on Merica 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	39.5	No odor, no sediment, clear water. No prev rainfall.	These results, including the low pH is consistent with samples previously taken

EPI 21266 in Situ Water Quality Measurements

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17/5/2025, 10:00 AM	EPI104	Downslope groundwater monitoring east of the Tarrangera emplacement area	11.66	44.9	4.87	41	26	6.27	294	29.7	No prev rainfall no odour, clear hyaline 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	EPI105	Downslope groundwater monitoring east of the Tarrangera emplacement area	11.1	95.9	10.55	131	85	6.41	385	177	Rainy day, rain overnight, no smells, water taken from the pump	The results, including the low pH is consistent with samples previously taken
5/5/2025, 9:34 AM	EPI113	Upstream east monitoring of Ravine Bay emplacement area	12.26	22.5	2.41	129	84	6.11	120	105	SWL: 5.64m 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	EPI114	Upstream west monitoring of Ravine Bay emplacement area	12.05	26.7	2.87	341	221	7.27	28	34.8	SWL: 41.85m 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.
5/5/2025, 9:58 AM	EPI115	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 digger in the basin. Water is clear, no odour.	These results are consistent with previous sampling rounds.
9/5/2025, 7:50 AM	EPI116	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 upflow. Access created for multi distribution	These results are consistent with previous sampling rounds. High turbidity potentially due to sampling methodology (foot valve and hose).
1/5/2025, 8:50 AM	EPI117	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. Digging the large fills up, no odour. Ongoing works at PSE	These results are consistent with previous sampling rounds.
10/5/2025, 8:41 AM	EPI123	GW Upstream W Rockforest	11.52	48.3	5.36	96	23	6.59	236	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, 9:01 AM	EPI124	GW Upstream (NE) Rockforest	12.18	63	6.76	42	14	6.82	328	183	Clear sunny conditions, frost in the morning with limited rain over the previous week. Minor/moderate turbid sieve, 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	EPI125	GW Downstream (S) Rockforest	11.44	92.4	10.09	109	71	6.34	348	802	Sunny day and cool, 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	EPI126	GW Downstream (SE) Rockforest	10.42	17.6	1.07	307	200	7.57	234	1000	SWL: 1.8M 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	EPI127	GW Downstream Rockforest	11.34	38.1	4.16	138	77	6.8	340	35.8	Sunny day, very cold, no odour, clear water?	These results are consistent with previous sampling rounds.

Note 1: Water Quality Objective values for the Tarrangera 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).

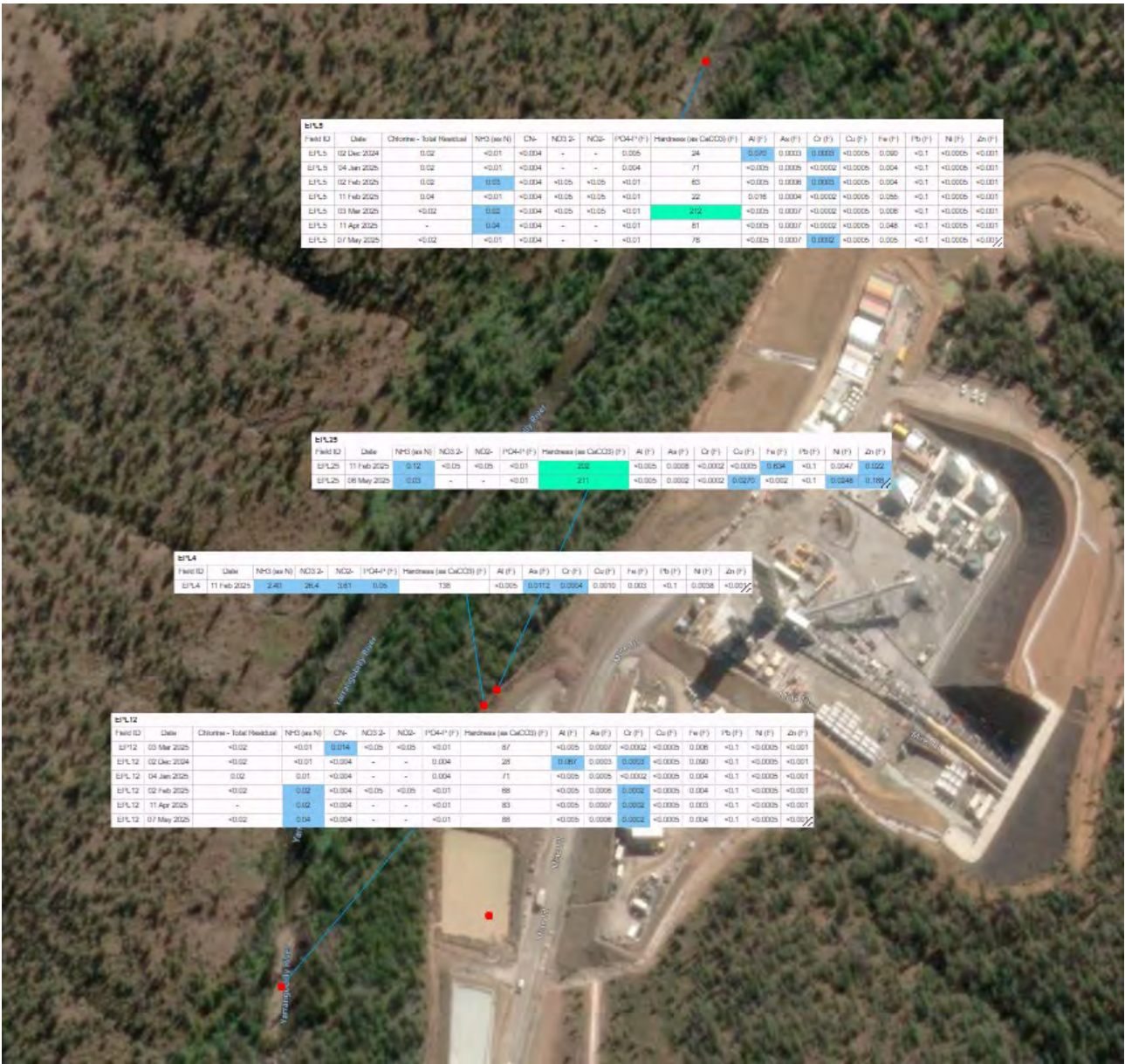
Note 2: Water Quality Objective values for Tarrangera Reservoir are the default trigger values for physical and chemical stressors in south-east Australia (freshwater lakes and reservoirs) that are reported in Tables 3.3.2 and 3.3.3 of ANZECC/ARMCANZ (2000).

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

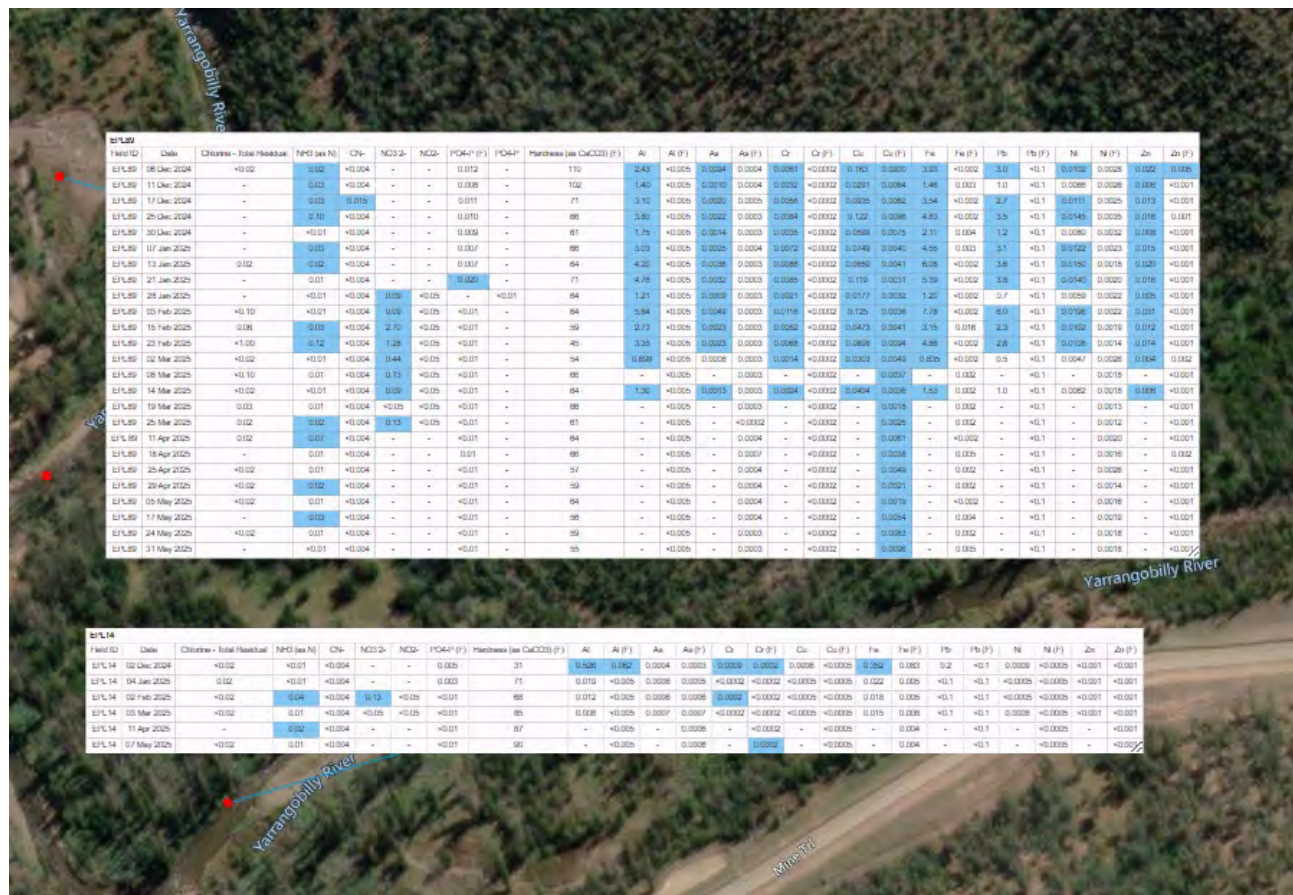
EPL5, EPL25, EPL4, EPL12



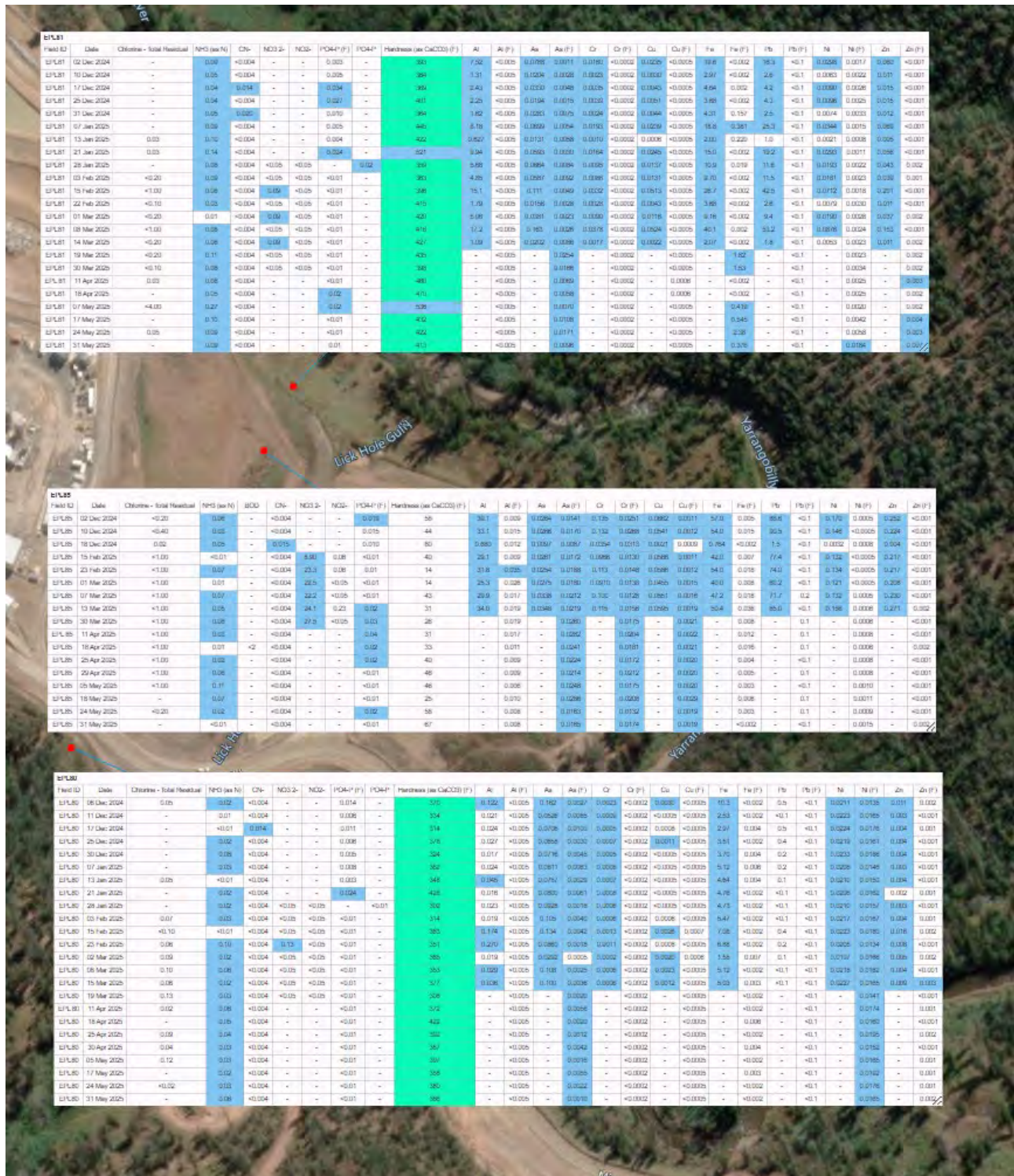
EPL1, EPL2, EPL6



EPL14, EPL89



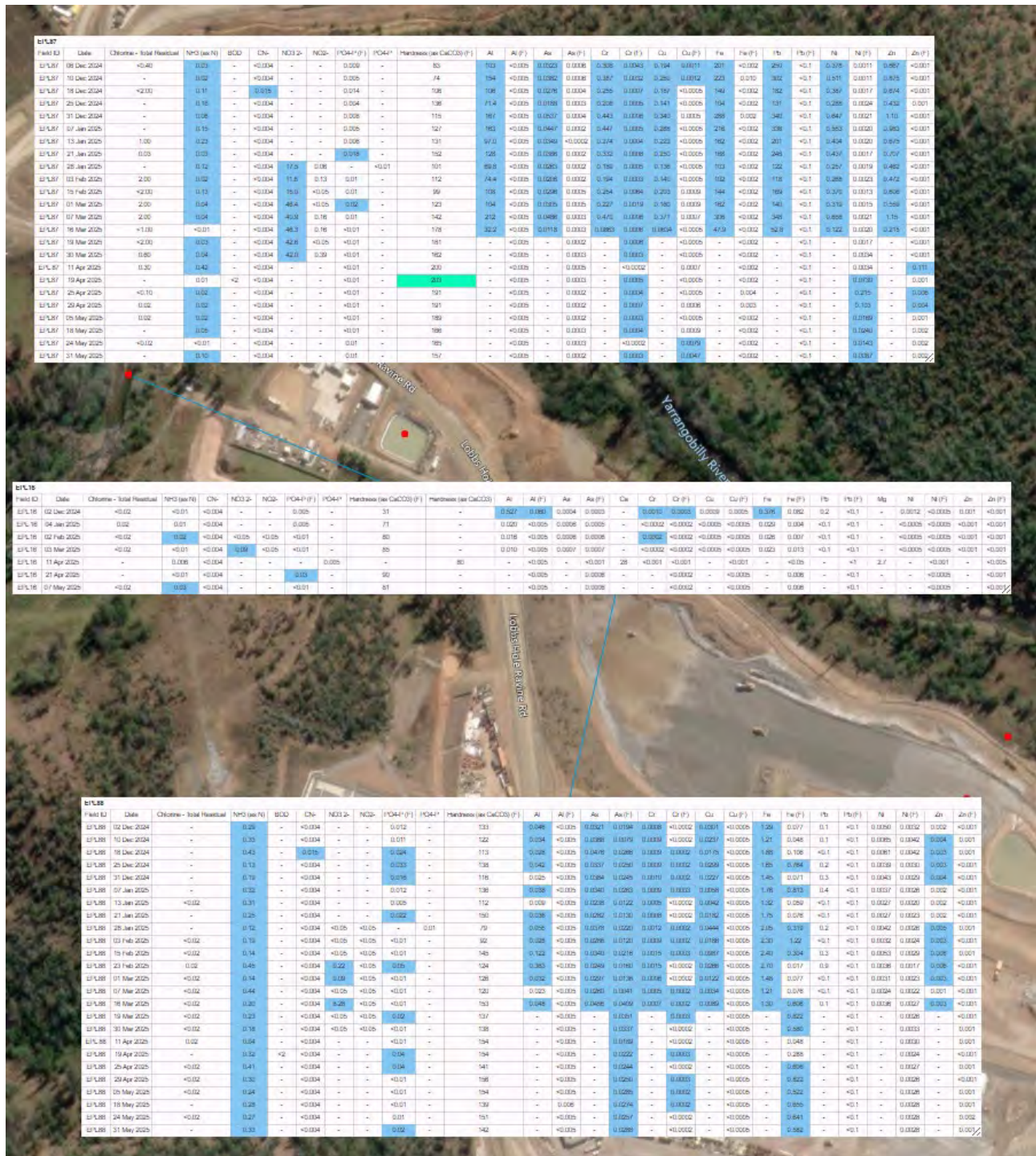
EPL80, EPL81, EPL85



EPL8, EPL82, EPL84



EPL16, EPL87, EPL88,



EPL9, EPL24, EPL97



EPL58, EPL91, EPL98

EPL58																										
Field ID	Date	Chlorine - Total Residual	NH3 (as N)	Chl-	NH3-2	NH3-3	PO4-P (P)	PO4-M (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)	
EPL58	02 Dec 2024	-	<0.01	<0.04	-	-	0.002	-	258	7.97	<0.005	0.0101	<0.0002	0.0044	0.0005	0.0138	<0.0005	14.5	<0.002	115	0.7	0.0206	0.0034	0.008	0.008	
EPL58	09 Dec 2024	-	<0.01	<0.04	-	-	0.001	-	341	6.36	<0.005	0.0101	<0.0002	0.0029	0.0004	0.0137	<0.0005	19.6	<0.002	111	0.2	0.0204	0.0034	0.009	0.009	
EPL58	16 Dec 2024	-	0.02	<0.04	-	-	0.001	-	332	6.36	<0.005	0.0119	<0.0002	0.0103	0.0004	0.0137	<0.0005	13.0	<0.002	95.4	0.9	0.0207	0.0041	0.009	0.009	
EPL58	24 Dec 2024	-	<0.01	<0.04	-	-	0.003	-	304	2.38	<0.005	0.0046	<0.0002	0.0084	0.0004	0.0070	0.0006	5.16	<0.002	46.4	0.7	0.0127	0.0043	0.009	0.009	
EPL58	30 Dec 2024	-	<0.01	<0.04	-	-	0.004	-	305	1.86	<0.005	0.0028	<0.0002	0.0062	0.0003	0.0044	0.0006	4.26	0.003	29.1	0.6	0.0128	0.0046	0.009	0.009	
EPL58	06 Jan 2025	-	0.01	<0.04	-	-	0.004	-	445	1.15	<0.005	0.0003	<0.0002	0.0048	0.0002	0.0006	<0.0005	2.26	<0.002	26.0	3.2	0.0086	0.0042	0.009	0.009	
EPL58	13 Jan 2025	0.004	<0.01	<0.04	-	-	0.003	-	471	2.77	<0.005	0.0057	<0.0002	0.0099	0.0003	0.0066	<0.0005	1.29	<0.002	30.4	0.4	0.0174	0.0033	0.009	0.009	
EPL58	20 Jan 2025	-	0.05	<0.04	-	-	0.011	-	446	2.11	<0.005	0.0031	<0.0002	0.0090	0.0002	0.0036	0.0008	4.35	0.007	26.1	0.1	0.0123	0.0080	0.009	0.009	
EPL58	27 Jan 2025	-	0.05	<0.04	0.06	0.16	-	<0.01	369	3.02	<0.005	0.0091	<0.0002	0.0066	0.0003	0.0091	<0.0005	8.24	<0.002	58.7	0.8	0.0144	0.0044	0.009	0.012	
EPL58	03 Feb 2025	<0.02	<0.10	<0.04	312	0.46	<0.01	-	421	0.475	<0.005	0.0039	<0.0002	0.0093	<0.0002	0.0071	<0.0005	0.762	0.006	7.8	0.2	0.0088	0.0067	0.009	0.009	
EPL58	10 Feb 2025	-	0.12	<0.04	344	<0.05	<0.01	-	219	0.481	<0.005	0.0006	<0.0002	0.0013	<0.0002	0.0014	<0.0005	0.092	0.010	5.2	0.2	0.0058	0.0044	0.015	0.012	
EPL58	17 Feb 2025	-	0.06	<0.04	260	0.10	<0.01	-	365	0.899	<0.005	0.0024	<0.0002	0.0033	<0.0002	0.0030	<0.0005	2.33	0.016	17.3	<0.1	0.0097	0.0085	0.002	0.006	
EPL58	25 Feb 2025	<0.02	0.01	<0.04	138	<0.05	<0.01	-	341	0.875	<0.005	0.0012	<0.0002	0.0025	<0.0002	0.0034	<0.0005	1.44	0.008	10.9	<0.1	0.0064	0.0035	0.015	0.012	
EPL58	04 Mar 2025	0.20	0.02	<0.04	197	<0.05	<0.01	-	301	5.32	<0.005	0.0190	<0.0002	0.0187	0.0005	0.0065	<0.0005	16.7	<0.002	92.9	0.1	0.0168	0.0034	0.040	0.034	
EPL58	10 Mar 2025	-	0.01	<0.04	270	<0.05	<0.01	-	410	1.15	<0.005	0.0015	<0.0002	0.0036	<0.0002	0.0032	0.0005	2.21	<0.002	15.4	<0.1	0.0095	0.0047	0.012	0.009	
EPL58	16 Mar 2025	-	0.06	<0.04	244	0.38	<0.01	-	419	5.38	<0.005	0.0053	0.0002	0.0131	0.0005	0.0130	0.0012	6.36	<0.002	96.1	0.6	0.0185	0.0050	0.080	0.053	
EPL58	11 Apr 2025	-	<0.01	<0.04	-	-	<0.01	-	360	6.61	<0.005	0.0075	<0.0002	0.0023	<0.0002	0.0028	0.0034	16.3	<0.002	97.9	0.3	0.0096	0.0052	0.014	0.011	
EPL58	14 Apr 2025	-	0.03	<0.04	-	-	<0.01	-	372	0.516	<0.005	0.0008	<0.0002	0.0016	<0.0002	0.0038	0.0006	0.861	<0.002	8.6	0.3	0.0088	0.0042	0.016	0.016	
EPL58	20 Apr 2025	-	0.02	<0.04	-	-	<0.01	-	389	0.899	<0.005	0.0002	<0.0002	0.0013	<0.0002	0.0021	0.0009	<0.0002	3.9	0.2	0.0058	0.0046	0.012	0.011		
EPL58	03 May 2025	<0.02	<0.10	<0.04	-	-	<0.01	-	398	0.838	<0.005	0.0002	<0.0002	0.0009	0.0005	0.0046	0.0012	0.0070	0.011	<0.002	2.4	0.5	0.0094	0.0034	0.014	0.012
EPL58	09 May 2025	<0.02	0.06	<0.04	-	-	<0.01	-	395	0.796	<0.005	<0.0002	<0.0002	0.0009	0.0005	0.0046	0.0012	0.0070	0.011	<0.002	2.1	0.4	0.0094	0.0034	0.012	0.009
EPL58	12 May 2025	-	<0.01	<0.04	-	-	<0.01	-	395	0.891	<0.005	0.0002	<0.0002	0.0004	<0.0002	0.0005	0.0016	<0.0002	2.7	0.3	0.0078	0.0034	0.014	0.010		
EPL58	21 May 2025	<0.02	<0.10	<0.04	-	-	<0.01	-	399	0.132	<0.005	<0.0002	<0.0002	0.0005	0.0002	0.0012	0.0016	0.002	2.9	0.0	0.0093	0.0037	0.013	0.009		
EPL58	28 May 2025	-	<0.01	<0.04	-	-	<0.01	-	376	0.830	<0.005	<0.0002	<0.0002	0.0001	0.0002	0.0028	0.0002	0.0030	0.002	1.8	0.4	0.0058	0.0046	0.013	0.009	

EPL91																									
Field ID	Date	Chlorine - Total Residual	NH3 (as N)	Chl-	NH3-2	NH3-3	PO4-P (P)	PO4-M (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)
EPL91	02 Dec 2024	-	<0.01	<0.04	-	-	0.014	-	203	2.36	<0.005	0.0060	0.0013	0.0064	<0.0002	0.0047	0.0007	3.77	<0.002	17.6	<0.1	0.0194	0.0084	0.005	0.020
EPL91	09 Dec 2024	-	<0.01	<0.04	-	-	0.002	-	188	0.773	<0.005	0.0040	0.0011	0.0027	<0.0002	0.0034	0.0014	1.44	0.005	5.1	<0.1	0.0179	0.0044	0.040	0.035
EPL91	16 Dec 2024	-	<0.01	<0.04	-	-	0.010	-	184	0.49	<0.005	0.0046	0.0010	0.0029	<0.0002	0.0012	0.0012	2.36	<0.002	11.9	<0.1	0.0161	0.0034	0.034	0.032
EPL91	24 Dec 2024	-	0.03	<0.04	-	-	0.008	-	184	0.796	<0.005	0.0012	0.0009	0.0029	<0.0002	0.0009	0.0021	1.21	<0.002	8.1	0.3	0.0129	0.0036	0.008	0.005
EPL91	30 Dec 2024	-	0.02	<0.04	-	-	0.005	-	195	1.96	<0.005	0.0067	0.0006	0.0096	<0.0002	0.0096	0.0027	3.99	0.003	73.6	0.2	0.0030	0.0026	0.008	0.007
EPL91	06 Jan 2025	-	0.02	<0.04	-	-	0.002	-	219	1.90	<0.005	0.0096	0.0006	0.0096	<0.0002	0.0041	0.0027	3.72	<0.002	31.1	0.2	0.0101	0.0016	0.006	0.003
EPL91	13 Jan 2025	<0.02	<0.01	<0.04	-	-	0.002	-	204	1.15	<0.005	0.0094	0.0005	0.0095	<0.0002	0.0012	0.0012	2.30	<0.002	8.7	<0.1	0.0162	0.0012	0.049	0.032
EPL91	20 Jan 2025	-	0.01	<0.04	-	-	0.012	-	391	2.05	<0.005	0.0090	0.0005	0.0091	<0.0002	0.0034	0.0019	4.05	<0.002	15.1	<0.1	0.0209	0.0023	0.051	0.032
EPL91	27 Jan 2025	0.02	0.01	<0.04	160	<0.05	-	<0.01	250	1.12	<0.005	0.0005	0.0006	0.0044	<0.0002	0.0030	0.0021	2.21	<0.002	5.4	0.1	0.0166	0.0024	0.062	0.035
EPL91	03 Feb 2025	<0.02	<0.10	<0.04	233	<0.05	<0.01	-	339	1.07	0.008	0.0005	0.0007	0.0045	<0.0002	0.0014	0.0012	2.74	<0.002	14.3	0.1	0.0174	0.0013	0.064	0.046
EPL91	10 Feb 2025	-	<0.03	<0.04	153	<0.05	0.03	-	262	3.44	<0.005	0.0082	0.0007	0.0076	<0.0002	0.0059	0.0010	4.36	<0.002	13.5	<0.1	0.0017	0.0013	0.062	0.035
EPL91	17 Feb 2025	-	0.02	<0.04	216	<0.05	<0.01	-	269	0.838	<0.005	0.0006	0.0007	0.0016	<0.0002	0.0049	0.0007	1.52	<0.002	4.8	<0.1	0.0137	0.0030	0.052	0.020
EPL91	25 Feb 2025	0.02	0.04	<0.04	153	<0.05	<0.01	-	238	1.42	<0.005	0.0045	0.0006	0.0037	<0.0002	0.0011	0.0008	2.27	<0.002	6.5	<0.1	0.0157	0.0013	0.049	0.021
EPL91	04 Mar 2025	0.05	0.02	<0.04	137	<0.05	<0.01	-	267	2.89	<0.005	0.0010	0.0005	0.0095	<0.0002	0.0048	0.0006	3.60	<0.002	20.0	<0.1	0.0180	0.0001	0.005	0.016
EPL91	10 Mar 2025	-	0.13	<0.04	194	<0.05	<0.01	-	207	1.32	<0.005	0.0005	0.0004	0.0061	<0.0002	0.0065	0.0011	3.36	<0.002	12.6	<0.1	0.0167	0.0003	0.063	0.019
EPL91	17 Mar 2025	0.02	0.01	<0.04	176	<0.05	<0.01	-	281	7.96	<0.005	0.00668</													

EPL52, EPL96, EPL55, EPL90

Field ID	Date	Chlorine - Total Residual	NPD (as N)	CN-	NDS-2-	NDS-	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)	
EPL52	02 Dec 2024	<0.02	<0.01	<0.004	-	-	0.004	-	171	0.893	0.010	0.0125	0.0128	0.0080	0.0034	0.0075	<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	0.0044	0.0023	0.0014	0.0012	0.0006	<0.0005	0.096	<0.002	0.2	<0.1	0.0023	0.0021	0.062	0.006	
EPL52	24 Dec 2024	0.02	<0.01	<0.004	-	-	0.002	-	365	0.089	<0.005	0.0035	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	0.016	0.007	0.0042	0.0041	0.0016	0.0013	0.0010	<0.0005	0.094	<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	0.189	<0.005	0.0033	0.0022	0.0011	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	-	256	0.082	0.013	0.0061	0.0058	0.0016	0.0015	0.0007	0.0006	0.061	<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	0.091	0.006	0.0072	0.0076	0.0020	0.0016	0.0009	<0.0005	0.091	<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	1.08	3.12	<0.01	-	316	0.013	<0.005	0.0065	0.0068	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	0.09	<0.004	84.5	2.80	<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	64.1	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	-	240	0.181	<0.005	0.0085	0.0083	0.0012	0.0009	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	-	360	0.194	<0.005	0.0068	<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	0.169	<0.005	0.0059	0.0057	0.0014	0.0010	0.0006	0.0005	0.142	0.004	<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	-	350	0.302	<0.005	0.0048	0.0045	0.0016	0.0005	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	138	1.84	<0.01	-	266	0.148	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	-	260	0.439	0.018	0.0055	0.0051	0.0023	0.0011	0.0012	<0.0005	0.410	<0.002	0.4	<0.1	0.0014	<0.0005	0.003	<0.001	
EPL52	03 Apr 2025	0.02	0.03	<0.004	-	-	<0.01	-	385	1.14	0.031	0.0047	0.0044	0.0009	0.0023	0.0022	0.0006	1.41	0.003	1.7	<0.1	0.0021	0.0006	0.009	<0.001	
EPL52 Incident	08 Dec 2024	<0.02	<0.01	<0.004	-	-	0.004	-	352	-	0.006	-	0.0065	-	0.0036	-	<0.0005	-	0.002	-	<0.1	-	0.0006	-	<0.001	-

Field ID	Date	Chlorine - Total Residual	NPD (as N)	CN-	NDS-2-	NDS-	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	5.82	<0.005	0.0072	0.0064	0.0196	0.0016	0.0046	0.0010	10.8	<0.002	0.15	<0.1	0.0007	0.0018	0.063	0.002	
EPL96	09 Dec 2024	-	<0.01	<0.004	-	-	0.007	712	19.2	<0.005	0.0136	0.0038	0.0604	0.0015	0.0445	0.0007	34.3	0.002	225	<0.1	0.0015	0.0005	0.291	<0.001	
EPL96	16 Dec 2024	-	<0.01	<0.004	-	-	0.012	757	14.2	<0.005	0.0156	0.0007	0.0265	0.0014	0.0345	0.0010	25.4	<0.002	156	<0.1	0.0006	0.0015	0.194	0.001	
EPL96	24 Dec 2024	-	0.03	<0.004	-	-	0.011	753	5.18	<0.005	0.0071	0.0064	0.0158	0.0005	0.0161	0.0007	10.2	<0.002	73.4	<0.1	0.0017	0.0018	0.016	0.001	
EPL96	30 Dec 2024	-	<0.01	<0.004	-	-	0.015	520	26.0	<0.005	0.0028	0.0064	0.0125	0.0005	0.0109	0.0006	51.1	0.003	355	<0.1	0.156	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	0.0138	0.0024	0.003	0.002	
EPL96	03 Feb 2025	<0.20	<0.01	<0.004	22.3	0.23	<0.01	83	9.86	<0.005	0.0057	<0.0002	0.0186	<0.0002	0.0168	<0.0005	11.7	<0.002	80.6	<0.1	0.0410	0.0019	0.002	0.002	
EPL96	04 Mar 2025	4.00	0.03	<0.004	240	<0.05	<0.01	568	33.5	<0.005	0.0044	0.0002	0.1150	0.0006	0.138	0.0006	92.8	<0.002	667	<0.1	0.2401	0.0012	0.196	0.002	
EPL96	09 Apr 2025	0.80	0.42	<0.004	-	-	0.02	128	-	<0.005	-	0.0003	-	0.0003	-	<0.0005	-	0.004	-	<0.1	-	0.0006	-	0.001	0.001
EPL96	08 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	0.002
EPL96	21 May 2025	<1.00	0.26	<0.004	-	-	<0.01	174	1.86	<0.005	0.0016	0.0008	0.0198	0.0120	0.0017	0.0013	1.86	0.002	5.1	0.5	0.0001	0.0048	0.003	0.002	

Field ID	Date	Chlorine - Total Residual	NPD (as N)	CN-	NDS-2-	NDS-	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	0.0009	0.0005	<0.0005	0.147	<0.002	0.4	<0.1	0.0018	0.0014	0.009	0.002
EPL55	16 Dec 2024	<0.02	<0.01	0.015	-	-	0.003	390	0.054	<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	0.009	0.004
EPL55	17 Feb 2025	<0.02	0.02	<0.004	214	0.10	<0.01	360	0.011	<0.005	0.0008	0.0008	0.0006	<0.0005	<0.0005	0.086	<0.002	0.1	<0.1	0.0018	0.0011	0.008	0.004	

Field ID	Date	Chlorine - Total Residual	NPD (as N)	CN-	NDS-2-	NDS-	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)
EPL90	02 Dec 2024	-	<0.01	<0.004	-	-	0.025	-	21	17.8	0.015	0.0009	<0.0002	0.0406	<0.0002	0.0403	<0.0005	24.9	0.013	86.6	<0.1	0.0014	0.0002	0.239	0.018
EPL90	09 Dec 2024	-	<0.01	<0.004	-	-	0.006	-	25	1.81	0.021	0.0009	<0.0002	0.0240	<0.0002	0.0203	<0.0005	2.36	0.022	6.1	<0.1	0.0004	0.0002	0.005	0.001
EPL90	16 Dec 2024	-	0.02	<0.004	-	-	0.007	-	12	6.39	0.006	0.0046	<0.0002	0.0171	<0.0002	0.0180	<0.0005	11.5	0.002	<0.1	<0.1	0.0004	0.0004	0.108	0.011
EPL90	24 Dec 2024	-	<0.01	<0.004	-	-	0.003	-	19	5.32	0.005	0.0028	<0.0002	0.0120	<0.0002	0.0112	<0.0005	6.90	<0.002	22.3	<0.1	0.0019	0.0008	0.044	0.012
EPL90	30 Dec 2024	-	<0.01	<0.004	-	-	0.004	-	12	4.36	0.010	0.0026	<0.0002	0.0089	<0.0002	0.0088	<0.0005	9.99	0.007	16.5	<0.1	0.0018	0.0002	0.001	0.010
EPL90	06 Jan 2025	-	<0.01	<0.004	-	-	0.002	-	8	0.844	0.007	0.0036	<0.0002	0.0071	<0.0002	0.0068	<0.0005	2.50	<0.002	10.2	<0.1	0.0028	0.0002	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	0.0070	<0.0002	0.0072	<0.0005	5.484	<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	4.31	0.010	0.0022	<0.0002	0.0060	<0.0002	0.0061	<0.0005	4.87	0.008	36.0	<0.1	0.0006	0.0004	0.044	0.006
EPL90	27 Jan 2025	-	0.04	<0.004	0.50	<0.05	-	<0.01	12	1.83	0.007	0.0009	<0.0002	0.0037	<0.0002	0.0032	<0.0005	2.19	<0.002	5.9	<0.1	0.0017	0.0002	0.025	0.010
EPL90	03 Feb 2025	<0.20	0.01	<0.004	0.25	<0.05	<0.01	-	12	11.4	<0.005	0.0086	<0.0002	0.0479	<0.0002	0.0468	<0.0005	25.8	<0.002	36.7	<0.1	0.0007	0.0002	0.021	0.012
EPL90	10 Feb 2025	-	0.01	<0.004	0.40	<0.05	0.01	-	29	5.82	<0.005	0.0027	<0.0002	0.0137	<0.0002	0.0149	<0.0005	6.38	<0.002	29.6	<0.1	0.0031	0.0002	0.085	0.011
EPL90	17 Feb 2025	-	<0.01	<0.004	0.70	<0.05	<0.01	-	28	5.82	0.045	<0.0002	<0.0002	0.0106	<0.0002	0.0103	0.0017	5.60	0.084	19.2	0.2	0.0019	0.0004	0.021	0.002
EPL90	25 Feb 2025	<0.04	<0.01	<0.004	1.15	<0.05	<0.01	-	16	0.947	<0.005	0.0003	<0.0002	0.0076	<0.0002	0.0039	0.0039	5.693	0.004	1.0	<0.1	0.0004	0.0006	0.001	0.006
EPL90	04 Mar 2025	<0.04	0.01	<0.004	1.24	<0.05	<0.01	-	18	3.85	<0.005	0.0002	<0.0002	0.0035	<0.0002	0.0031	<0.0005	4.49	<0.002	34.7	<0.1	0.0006	0.0002	0.040	0.008
EPL90	10 Mar 2025	-	0.15	<0.004	1.42	<0.05	<0.01	-	18	1.75	<0.005	0.0012	<0.0002	0.0047	<0.0002	0.0049	<0.0005	26.5	<0.002	91.3	<0.1	0.0004	0.0017	0.020	0.01
EPL90	17 Mar 2025	0.18	0.05	<0.004	1.88	<0.05	<0.01	-	16	2.10	<0.005	0.0013	<0.0002	0.0056	<0.0002	0.0056	<0.0005	3.74	<0.002	35.5	<0.1	0.0013	0.0002	0.028	0.008
EPL90	24 Mar 2025	-	<0.01	<0.004	2.74	<0.05	<0.01	-	20	1.34	<0.005	0.0008	<0.0002	0.0022	<0.0002	0.0026	<0.0005	1.96	<0.002	5.0	<0.1	0.0015	0.0002	0.108	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	-	0.0004	-	0.011
EPL90	09 Apr 2025	0.09	<0.01	<0.004	-	-	<0.01	-	16	0.906	-	<0.0002	-	0.0005	-	<0.0005	-	0.010	-	<0.1	-	0.0008	-	0.004	-
EPL90	14 Apr 2025	0.04	0.01	<0.004	-	-	<0.01	-	20	-	<0.005	-	<0.0002	-	<0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0015	-	0.007
EPL90	20 Apr 2025	-	0.01	<0.004	-	-	<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	-	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	-	36	-	0.006	-	0.0003	-	0.0004	-	0.0001	-	0.002	-	0.3	-	0.0040	-	0.011

EPL92, EPL93, EPL94

EPL94																										
Field ID	Date	Chlorine - Total Residual	NPS (ppm)	Chl	NPS 2	NPS 3	FO4P (F)	FO4P (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)	
EPL94	02 Dec 2024	-	0.05	<0.04	-	-	0.002	-	74	1.45	<0.05	0.0066	0.0007	0.0031	<0.002	0.0025	<0.002	3.36	<0.002	7.0	<0.1	0.0001	0.0018	0.102	0.005	
EPL94	09 Dec 2024	-	0.01	<0.04	-	-	0.001	-	86	1.51	<0.05	0.0133	0.0018	0.0065	<0.002	0.0028	<0.002	6.80	<0.002	3.1	<0.1	0.0008	0.0014	0.452	0.0017	
EPL94	16 Dec 2024	-	<0.01	<0.04	-	-	0.004	-	85	2.44	<0.05	0.0121	0.0015	0.0062	<0.002	0.0040	<0.002	8.22	<0.002	13.5	<0.1	0.0016	0.0011	0.274	0.009	
EPL94	24 Dec 2024	-	0.01	<0.04	-	-	0.006	-	80	1.38	<0.05	0.0108	0.0012	0.0040	<0.002	0.0011	<0.002	4.18	<0.002	8.1	<0.1	0.0017	0.0017	0.113	0.016	
EPL94	30 Dec 2024	-	<0.01	<0.04	-	-	0.004	-	89	1.85	<0.05	0.0154	0.0018	0.0040	<0.002	0.0028	<0.002	5.31	0.002	8.2	<0.1	0.0080	0.0017	0.112	0.016	
EPL94	06 Jan 2025	-	<0.01	<0.04	-	-	0.003	-	81	1.21	<0.05	0.0081	0.0044	0.0041	<0.002	0.0022	<0.002	4.04	<0.002	9.8	<0.1	0.0018	0.0018	0.100	0.008	
EPL94	13 Jan 2025	0.03	<0.01	<0.04	-	-	0.002	-	80	1.00	<0.05	0.0044	0.0012	0.0025	<0.002	0.0028	<0.002	3.76	<0.002	11.4	<0.1	0.0008	0.0020	0.084	0.008	
EPL94	20 Jan 2025	-	<0.01	<0.04	-	-	0.004	-	115	1.25	<0.05	0.0108	0.0005	0.0032	<0.002	0.0022	<0.002	4.05	0.004	4.4	<0.1	0.0009	0.0017	0.106	0.008	
EPL94	27 Jan 2025	-	0.08	<0.04	<0.05	<0.05	-	<0.01	78	2.68	<0.05	0.0128	0.0015	0.0024	<0.002	0.0008	<0.002	7.11	<0.002	13.6	<0.1	0.0128	0.0012	0.384	0.009	
EPL94	03 Feb 2025	0.03	0.01	<0.04	<0.05	<0.05	<0.01	-	86	1.18	<0.05	0.0062	0.0007	0.0032	<0.002	0.0022	<0.002	3.52	<0.002	7.3	<0.1	0.0009	0.0010	0.067	0.004	
EPL94	10 Feb 2025	-	0.01	<0.04	<0.05	<0.05	<0.01	-	98	1.00	<0.05	0.0117	0.0008	0.0023	<0.002	0.0017	<0.002	4.13	<0.002	8.0	<0.1	0.0008	0.0008	0.095	0.005	
EPL94	17 Feb 2025	-	0.02	<0.04	<0.05	<0.05	<0.01	-	86	1.410	<0.05	0.0049	0.0005	0.0019	<0.002	0.0012	<0.002	1.82	<0.002	2.1	<0.1	0.0003	0.0008	0.045	0.001	
EPL94	25 Feb 2025	0.18	0.01	<0.04	<0.05	<0.05	<0.01	-	80	0.115	<0.05	0.0029	0.0008	0.0004	<0.002	0.0008	<0.002	0.009	<0.002	0.3	<0.1	0.0020	0.0072	0.008	0.002	
EPL94	04 Mar 2025	<0.04	0.09	<0.04	<0.05	<0.05	<0.01	-	74	0.062	<0.05	0.0112	0.0011	0.0008	<0.002	0.0017	<0.002	3.49	<0.002	3.9	<0.1	0.0049	0.0011	0.063	0.004	
EPL94	10 Mar 2025	-	0.02	<0.04	<0.05	<0.05	<0.01	-	76	2.22	<0.05	0.0140	0.0011	0.0007	<0.002	0.0048	<0.002	7.00	<0.002	8.6	<0.1	0.0114	0.0012	0.172	0.003	
EPL94	17 Mar 2025	0.04	0.03	<0.04	<0.05	<0.05	<0.01	-	87	3.08	<0.05	0.0067	0.0016	0.0004	<0.002	0.0004	<0.002	8.80	0.002	18.9	<0.1	0.0134	0.0011	0.260	0.002	
EPL94	24 Mar 2025	-	<0.01	<0.04	<0.05	<0.05	<0.01	-	80	1.38	<0.05	0.0102	0.0013	0.0004	<0.002	0.0027	<0.002	4.33	<0.002	24.3	<0.1	0.0090	0.0007	0.319	0.005	
EPL94	31 Mar 2025	-	0.05	<0.04	<0.05	<0.05	<0.01	-	87	-	<0.05	-	0.0008	-	<0.002	-	<0.002	-	<0.002	-	<0.1	-	0.0007	-	0.004	
EPL94	08 Apr 2025	0.01	0.04	<0.04	-	-	<0.01	-	74	-	<0.05	-	0.0008	-	<0.002	-	<0.002	-	0.0018	-	<0.1	-	0.0018	-	0.011	
EPL94	14 Apr 2025	-	0.02	<0.04	-	-	<0.01	-	72	-	<0.05	-	0.0013	-	<0.002	-	<0.002	-	<0.002	-	<0.1	-	0.0009	-	0.004	
EPL94	20 Apr 2025	-	0.02	<0.04	-	-	<0.01	-	80	-	<0.05	-	0.0013	-	<0.002	-	<0.002	-	<0.002	-	<0.1	-	0.0009	-	0.006	
EPL94	28 Apr 2025	<0.02	0.05	<0.04	-	-	<0.01	-	78	-	<0.05	-	0.0009	-	<0.002	-	<0.002	-	0.0019	-	<0.1	-	0.0072	-	0.004	
EPL94	05 May 2025	<0.04	0.08	<0.04	-	-	0.01	-	83	-	<0.05	-	0.0011	-	<0.002	-	<0.002	-	0.003	-	<0.1	-	0.0011	-	0.001	
EPL94	12 May 2025	-	0.02	<0.04	-	-	<0.01	-	78	-	<0.05	-	0.0007	-	<0.002	-	<0.002	-	<0.002	-	<0.1	-	0.0007	-	<0.001	
EPL94	19 May 2025	0.04	0.03	<0.04	-	-	<0.01	-	78	-	<0.05	-	0.0008	-	<0.002	-	<0.002	-	<0.002	-	<0.1	-	0.0007	-	0.000	
EPL94	26 May 2025	-	0.02	<0.04	-	-	<0.01	-	87	-	<0.05	-	0.0012	-	<0.002	-	<0.002	-	<0.002	-	<0.1	-	0.0070	-	0.002	

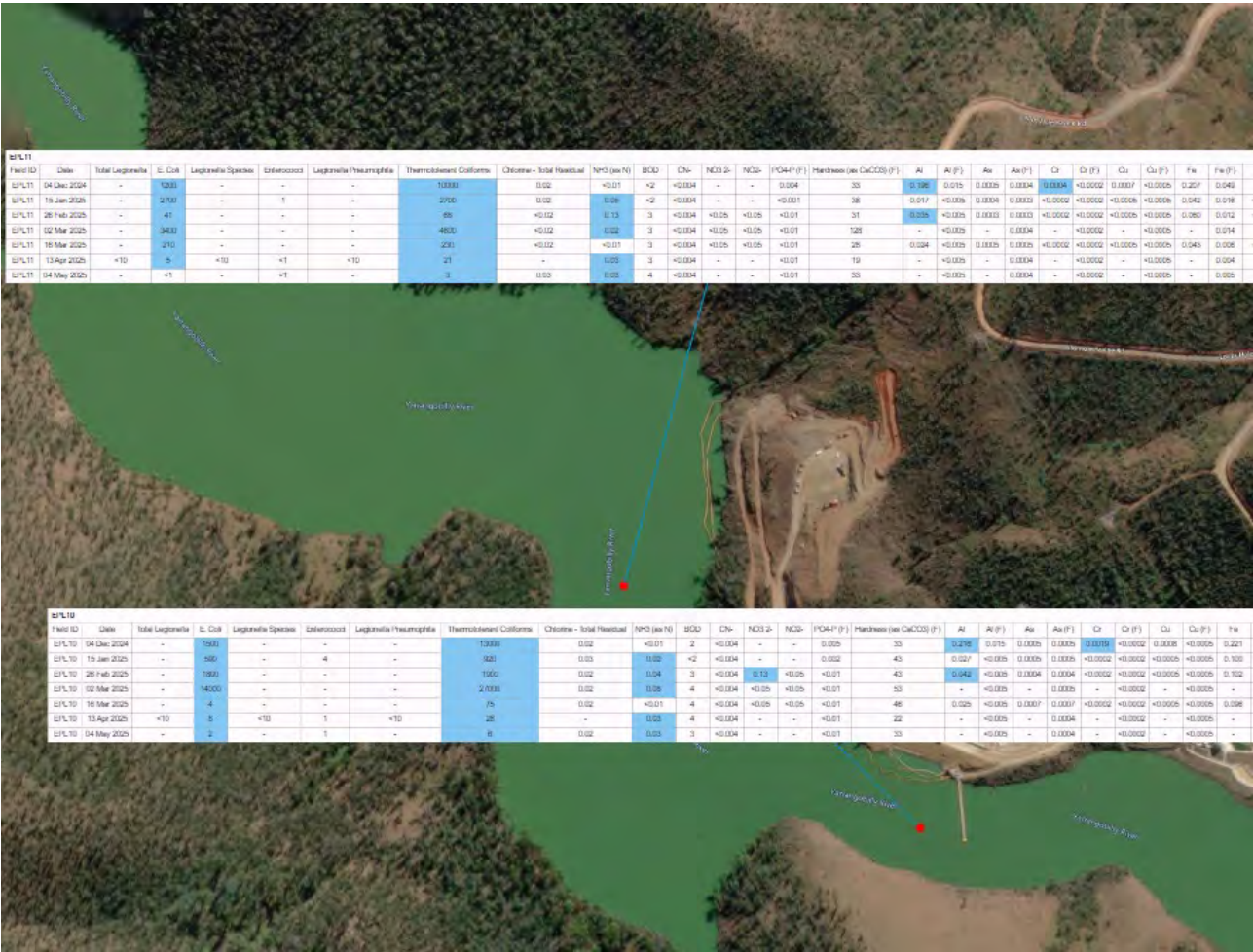
EPL92																										
Field ID	Date	Chlorine - Total Residual	NPS (ppm)	Chl	NPS 2	NPS 3	FO4P (F)	FO4P (F)	Hardness (as CaCO3) (F)	Al	Al (F)	As	As (F)	Cr	Cr (F)	Cu	Cu (F)	Fe	Fe (F)	Pb	Pb (F)	Ni	Ni (F)	Zn	Zn (F)	
EPL92	02 Dec 2024	-	<0.01	<0.04	-	-	0.003	-	50	0.52	<0.05	0.0102	0.0004	0.0008	<0.002	0.0040	<0.002	7.01	<0.002	8.3	0.0008	0.0001	0.001	0.180	0.016	
EPL92	09 Dec 2024	-	<0.01	<0.04	-	-	<0.001	-	36	18.8	<0.05	0.0110	0.0004	0.0008	<0.002	0.0015	<0.002	7.1	<0.002	7.91	<0.1	0.0040	0.0014	0.291	0.006	
EPL92	16 Dec 2024	-	0.01	<0.04	-	-	0.004	-	50	12.2	<0.05	0.0118	0.0004	0.0018	<0.002	0.0002	<0.002	9.72	<0.002	444	<0.1	0.0040	0.0013	0.340	0.006	
EPL92	24 Dec 2024	-	<0.01	<0.04	-	-	0.008	-	56	13.8	<0.05	0.0140	0.0005	0.0017	<0.002	0.0010	<0.002	12.5	<0.002	507	0.1	0.0008	0.0023	0.405	0.006	
EPL92	30 Dec 2024	-	<0.01	<0.04	-	-	0.008	-	38	5.50	<0.05	0.0102	0.0004	0.0017	<0.002	0.0010	<0.002	4.15	<0.002	470	0.1	0.0009	0.0028	0.340	0.006	
EPL92	06 Jan 2025	-	<0.01	<0.04	-	-	<0.001	-	40	4.26	<0.05	0.0087	0.0003	0.0018	<0.002	0.0015	<0.002	8.72	<0.002	325	0.5	0.0018	0.0022	0.084	0.017	
EPL92	13 Jan 2025	0.18	0.06	<0.04	-	-	0.008	-	48	0.94	<0.05	0.0080	0.0005	0.0015	<0.002	0.0014	<0.002	10.4	<0.002	710	0.2	0.0001	0.0010	0.146	0.003	
EPL92	20 Jan 2025	-	0.04	<0.04	-	-	0.009	-	52	73.0	<0.05	0.0104	0.0004	0.0012	<0.002	0.0024	<0.002	10.2	0.003	403	0.1	0.0024	0.0018	0.146	0.003	
EPL92	27 Jan 2025	-	0.01	<0.04	0.13	<0.05	-	<0.01	42	0.81	<0.05	0.0095	0.0005	0.0009	<0.002	0.00138	<0.002	6.25	<0.002	375	0.5	0.0018	0.0023	0.167	0.005	
EPL92	03 Feb 2025	0.20	0.08	<0.04	0.18	<0.05	<0.01	-	38	5.44	<0.05	0.0081	0.0004	0.0008	<0.002	0.00121	<0.002	5.43	<0.002	181	1.6	0.0019	0.0018	0.028	0.003	
EPL92	10 Feb 2025	-	0.06	<0.04	0.18	<0.05	0.02	-	57	0.26	<0.05	0.0087	0.0004	0.0012	<0.002	0.0004	<0.002	8.63	<0.002	289	0.4	0.0001	0.0008	0.172	0.018	
EPL92	17 Feb 2025	-	0.27	<0.04	0.22	<0.05	<0.01	-	40	7.34	<0.05	0.0088	0.0004	0.0012	<0.002	0.0024	<0.002	11.4	<0.002	444	0.5	0.0008	0.0023	0.138	0.018	
EPL92	25 Feb 2025	0.30	0.02	<0.04	0.18	<0.05	<0.01	-	52	5.37	<0.05	0.0083	0.0007	0.0009	<0.002	0.0011	<0.002	4.88	<0.002	181	0.1	0.0049	0.0018	0.084	0.008	
EPL92	04 Mar 2025	0.10	0.02	<0.04	0.18	<0.05	<0.01	-	42	5.85	<0.05	0.0070	0.0004	0.0008	<0.002	0.00131	<0.002	8.08	<0.002	269	0.3	0.0009	0.0014	0.031	0.007	
EPL92	10 Mar 2025	-	<0.01	<0.04	0.18	<0.05	<0.01	-	40	3.69	<0.05	0.0048	<0.002	0.0014	<0.002	0.0014	<0.002	5.03	<0.002	188	0.4	0.0045	0.0013	0.019	0.007	
EPL92	17 Mar 2025	0.80	0.01	<0.04	0.09	<																				

EPL41, EPL56

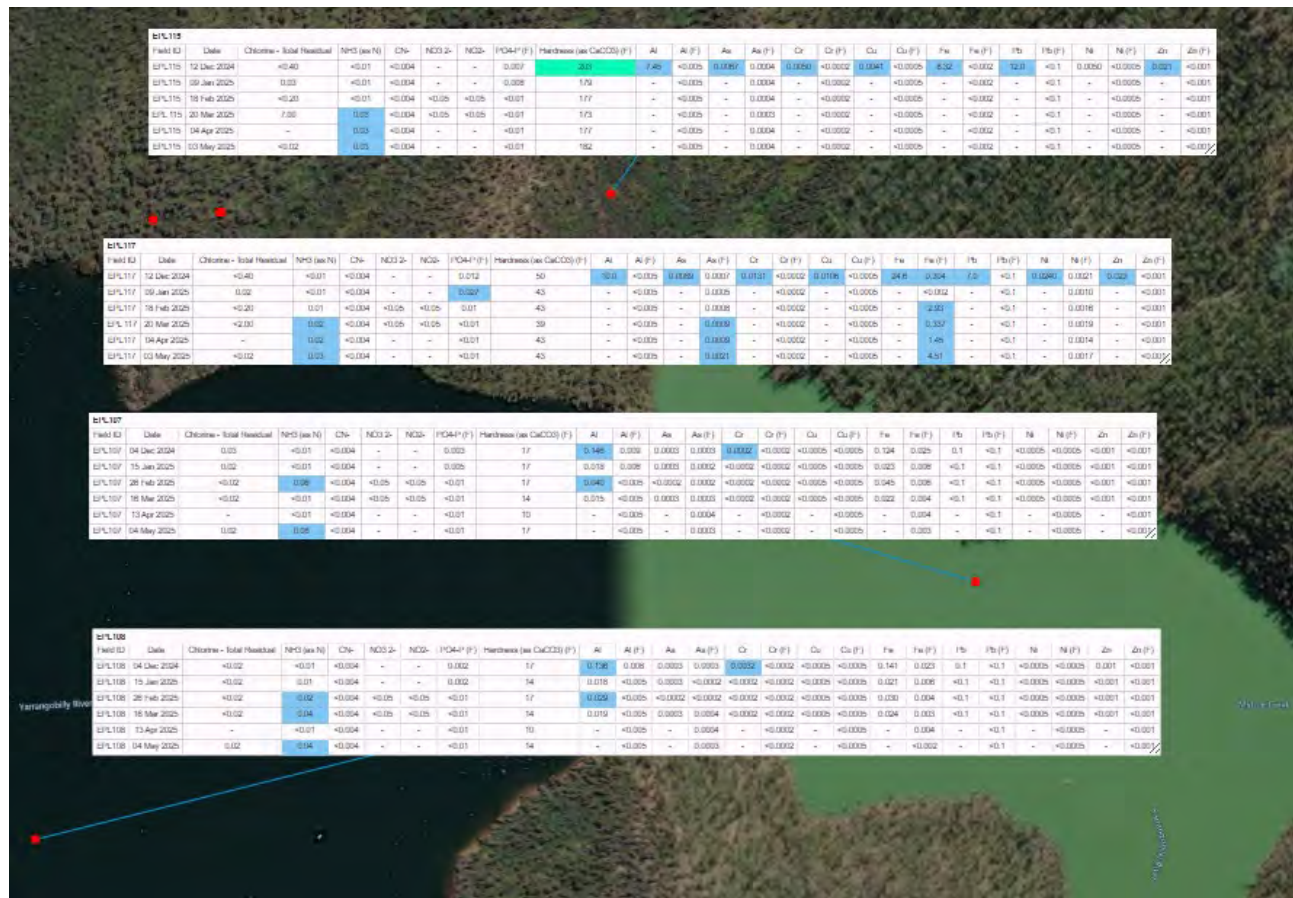
EPL41		Date	S. Cat	Unleashed	Thermoisment Outflow	Chlorine - Total Residual	NPC (see N)	DO	Ch	NO2-2	NO3-	PO4P (P)	PO4A	Hardness (as CaCO3) (P)	Al	Al (P)	Au	Au (P)	Cr	Cr (P)	Cu	Cu (P)	Fe	Fe (P)	Pb	Pb (P)	Ni	Ni (P)	Zn	Zn (P)	
EPL41	01 Dec 2024	K1	-	-	K1	-	0.74	K2	+0.004	-	-	+0.001	-	K1	-	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	0.1	+0.1	+0.0005	+0.0005	0.006	0.006	
EPL41	08 Dec 2024	K1	-	-	K1	-	0.80	K2	+0.004	-	-	0.007	-	K1	-	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.1	+0.1	+0.0005	+0.0005	0.006	0.006	
EPL41	11 Dec 2024	K1	-	-	K1	-	0.26	K2	+0.004	-	-	0.005	-	K1	-	+0.005	-	+0.0002	-	+0.0002	-	+0.0002	-	+0.0002	-	+0.1	-	+0.0005	-	+0.001	-
EPL41	01 Jan 2025	2	9	3	-	-	0.85	2	+0.004	-	-	+0.001	-	K1	-	+0.005	-	+0.0002	-	+0.0002	-	+0.0002	-	+0.0002	-	+0.1	-	+0.0005	-	0.006	0.006
EPL41	05 Jan 2025	3	-	9	-	-	0.87	K2	+0.004	-	-	0.002	-	2	+0.005	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.1	+0.1	+0.0005	+0.0005	0.006	0.006	
EPL41	15 Jan 2025	K1	1	1	-	-	0.86	K2	+0.004	-	-	+0.001	-	K1	-	+0.007	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.1	+0.1	+0.0005	+0.0005	0.001	0.001	
EPL41	22 Jan 2025	K1	-	-	K1	-	0.83	K2	+0.004	-	-	+0.001	-	K1	-	0.017	0.009	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.1	+0.1	+0.0005	+0.0005	0.001	0.001	
EPL41	29 Jan 2025	1	-	1	-	-	0.86	K2	+0.004	0.85	0.86	-	0.02	57	0.048	0.022	0.0013	0.0012	0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.1	+0.1	0.0005	+0.0005	0.001	0.001		
EPL41	02 Feb 2025	-	-	-	-	-	0.71	-	0.011	0.69	0.52	0.07	-	108	0.065	0.018	0.0022	0.0020	0.0147	0.0153	+0.0002	+0.0002	0.005	+0.002	+0.1	+0.1	0.0005	+0.0005	0.005	0.002	
EPL41	09 Feb 2025	K1	27	-	K1	-	0.75	K2	+0.004	0.73	2.82	0.06	-	126	0.025	0.021	0.0007	0.0006	0.0254	0.0256	0.0001	0.0019	0.008	0.003	+0.1	+0.1	0.0013	0.0012	0.026	0.001	
EPL41	23 Feb 2025	04	-	14	-	-	0.13	K2	0.007	0.35	+0.05	+0.01	-	K1	+0.005	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.1	+0.1	+0.0005	+0.0005	0.002	+0.001		
EPL41	02 Mar 2025	-	5	-	-	-	0.36	K2	+0.004	0.25	+0.05	+0.01	-	K1	+0.005	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.1	+0.1	+0.0005	+0.0005	0.002	+0.001		
EPL41	05 Mar 2025	10	-	10	-	-	0.10	K2	+0.004	0.31	+0.05	+0.01	-	K1	+0.005	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.1	+0.1	+0.0005	+0.0005	0.001	+0.001		
EPL41	08 Mar 2025	3	-	3	-	-	0.03	K2	+0.004	0.13	+0.05	+0.01	-	K1	-	+0.005	-	+0.0002	-	+0.0002	-	+0.0002	-	+0.002	+0.1	+0.1	+0.0005	+0.0005	+0.001	+0.001	
EPL41	09 Mar 2025	5	-	5	-	-	0.02	K2	+0.004	0.12	+0.05	+0.01	-	K1	-	+0.005	-	+0.0002	-	+0.0002	-	+0.0002	-	+0.002	+0.1	+0.1	+0.0005	+0.0005	+0.001	+0.001	
EPL41	12 Mar 2025	6	-	6	-	-	+0.01	K2	+0.004	0.13	+0.05	+0.01	-	K1	+0.005	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.1	+0.1	+0.0005	+0.0005	+0.001	+0.001		
EPL41	16 Mar 2025	9	-	10	-	-	0.04	K2	+0.004	0.44	+0.05	+0.01	-	K1	+0.005	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.1	+0.1	+0.0005	+0.0005	+0.001	+0.001		
EPL41	18 Mar 2025	8	-	14	-	-	0.07	K2	+0.004	0.06	+0.05	+0.01	-	K1	+0.005	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.1	+0.1	+0.0005	+0.0005	+0.001	+0.001		
EPL41	19 Mar 2025	8	-	13	-	-	0.04	K2	+0.004	0.29	+0.05	+0.01	-	K1	+0.005	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.1	+0.1	+0.0005	+0.0005	+0.001	+0.001		
EPL41	19 Mar 2025	9	K1	8	-	-	+0.02	2	+0.004	+0.05	+0.01	-	-	K1	+0.005	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.1	+0.1	+0.0005	+0.0005	+0.001	+0.001		
EPL41	23 Mar 2025	9	K1	8	-	-	0.08	K2	+0.004	0.08	+0.05	+0.01	-	K1	+0.005	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.0002	+0.1	+0.1	+0.0005	+0.0005	+0.001	+0.001		
EPL41	23 Apr 2025	K1	5	-	K1	-	0.02	K2	+0.004	-	-	+0.01	-	K1	-	+0.005	-	+0.0002	-	+0.0002	-	+0.0002	-	+0.002	+0.1	-	+0.0005	-	+0.001	-	
EPL41	29 May 2025	K1	K1	-	K1	-	+0.01	5	+0.004	-	-	+0.01	-	K1	-	+0.005	-	+0.0002	-	+0.0002	-	+0.0002	-	+0.002	+0.1	-	+0.0005	-	+0.001	-	

EPL56		Date	Chlorine - Total Residual	NPC (see N)	DO	NO2-2	NO3-	PO4P (P)	PO4A	Hardness (as CaCO3) (P)	Al	Al (P)	Au	Au (P)	Cr	Cr (P)	Cu	Cu (P)	Fe	Fe (P)	Pb	Pb (P)	Ni	Ni (P)	Zn	Zn (P)
EPL56	02 Dec 2024	-	+0.01	+0.004	-	-	0.057	-	134	0.136	+0.005	+0.0002	+0.0002	0.0006	+0.0002	0.0006	0.0007	0.160	+0.002	0.6	+0.1	0.0005	+0.0005	0.006	0.002	
EPL56	09 Dec 2024	-	+0.01	+0.004	-	-	0.056	-	126	0.103	+0.005	+0.0004	+0.0002	0.0009	+0.0002	0.0005	0.0005	0.296	+0.002	0.6	+0.1	0.0005	+0.0005	0.016	0.002	
EPL56	16 Dec 2024	-	0.01	0.014	-	-	0.056	-	100	0.209	+0.005	+0.0002	+0.0002	0.0006	+0.0002	0.0019	0.0005	0.281	+0.002	1.7	+0.1	0.0005	+0.0005	0.010	0.002	
EPL56	24 Dec 2024	-	+0.01	+0.004	-	-	0.054	-	108	0.135	+0.005	+0.0002	+0.0002	0.0005	+0.0002	0.0007	0.0005	0.177	+0.002	0.9	+0.1	0.0005	+0.0005	0.007	0.002	
EPL56	30 Dec 2024	-	+0.01	+0.004	-	-	0.053	-	100	0.186	+0.005	+0.0002	+0.0002	0.0005	+0.0002	0.0017	0.0005	0.224	+0.002	0.8	+0.1	0.0005	+0.0005	0.008	0.006	
EPL56	06 Jan 2025	-	+0.01	+0.004	-	-	0.052	-	129	0.344	+0.005	+0.0002	+0.0002	0.0014	+0.0002	0.0014	0.0005	0.303	+0.002	2.8	+0.1	0.0014	+0.0005	0.010	0.005	
EPL56	13 Jan 2025	0.06	0.03	+0.004	-	-	0.053	-	126	0.083	+0.005	+0.0002	+0.0002	0.0002	+0.0002	0.0014	0.0005	0.089	+0.002	0.3	+0.1	+0.0005	+0.0005	0.006	0.005	
EPL56	20 Jan 2025	-	0.01	+0.004	-	-	0.015	-	194	0.144	+0.005	+0.0002	+0.0002	0.0004	+0.0002	0.0011	0.0005	0.171	+0.002	1.4	+0.1	+0.0005	+0.0005	0.006	0.002	
EPL56	27 Jan 2025	-	0.09	+0.004	0.18	+0.05	-	+0.01	107	0.306	+0.005	0.0003	+0.0002	0.0015	+0.0002	0.0006	0.0007	0.529	+0.002	4.5	+0.1	0.0016	+0.0005	0.011	0.005	
EPL56	03 Feb 2025	0.02	0.07	+0.004	0.18	+0.05	+0.01	-	113	0.177	+0.005	+0.0002	+0.0002	0.0004	+0.0002	0.0005	0.0012	0.136	+0.002	0.9	+0.1	0.0005	+0.0005	0.007	0.002	
EPL56	10 Feb 2025	-	0.02	+0.004	0.18	+0.05	+0.01	-	116	0.017	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	0.0005	0.0013	0.0002	0.2	+0.1	+0.0005	+0.0005	0.006	0.004		
EPL56	17 Feb 2025	-	0.04	+0.004	+0.05	0.08	+0.01	-	126	0.205	+0.005	+0.0002	+0.0002	0.0012	+0.0002	0.0011	0.0005	0.472	+0.002	2.7	+0.1	0.0014	+0.0005	0.010	0.002	
EPL56	29 Feb 2025	+0.02	0.09	+0.004	0.28	+0.05	+0.01	-	108	0.186	+0.005	+0.0002	+0.0002	0.0004	+0.0002	0.0012	0.0005	0.204	+0.002	0.8	+0.1	0.0007	+0.0005	0.006	0.001	
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	0.0005	0.0002	0.019	+0.002	0.1	+0.1	+0.0005	+0.0005	0.006	0.001	
EPL56	10 Mar 2025	-	0.02	+0.004	0.26	+0.05	+0.01	-	104	0.036	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	0.0005	0.0014	0.040	+0.002	0.3	+0.1	+0.0005	+0.0005	0.007	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	+0.0002	0.0013	+0.0002	0.0010	0.0005	0.443	+0.002	3.7	+0.1	0.0022	+0.0005	0.011	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	0.0005	0.0005	0.017	+0.002	0.2	+0.1	+0.0005	+0.0005	0.010	0.002	
EPL56	31 Mar 2025	-	0.02	+0.004	0.31	+0.05	+0.01	-	131	0.026	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	0.0005	0.0005	0.033	+0.002	0.3	+0.1	+0.0005	+0.0005	0.006	0.002	
EPL56	09 Apr 2025	+0.02	+0.01	+0.004	-	-	+0.01	-	122	0.106	+0.005	+0.0002	+0.0002	0.0004	+0.0002	0.0012	0.0005	0.151	+0.002	1.7	+0.1	0.0007	+0.0005	0.006	0.006	
EPL56	14 Apr 2025	-	0.02	+0.004	-	-	+0.01	-	95	0.094	+0.005	+0.0002	+0.0002	0.0004	+0.0002	0.0002	0.0005	0.125	+0.002	1.0	+0.1	0.0005	+0.0005	0.007	0.001	
EPL56	20 Apr 2025	-	0.02	+0.004	-	-	+0.01	-	133	0.016	+0.005	+0.0002	+0.0002	+0.0002	+0.0002	0.0005	0.0005	0.016	+0.002	0.2	+0.1	+0.0005	+0.0005	0.007	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	-	+0.1	-	+0.0005	-	0.006	-
EPL56	09 May 2025	0.03	0.01	+0.004	-	-	+0.01	-	138	0.166	+0.005	+0.0002	+0.0002	0.												

EPL10, EPL11



EPL107, EPL108, EPL115, EPL117



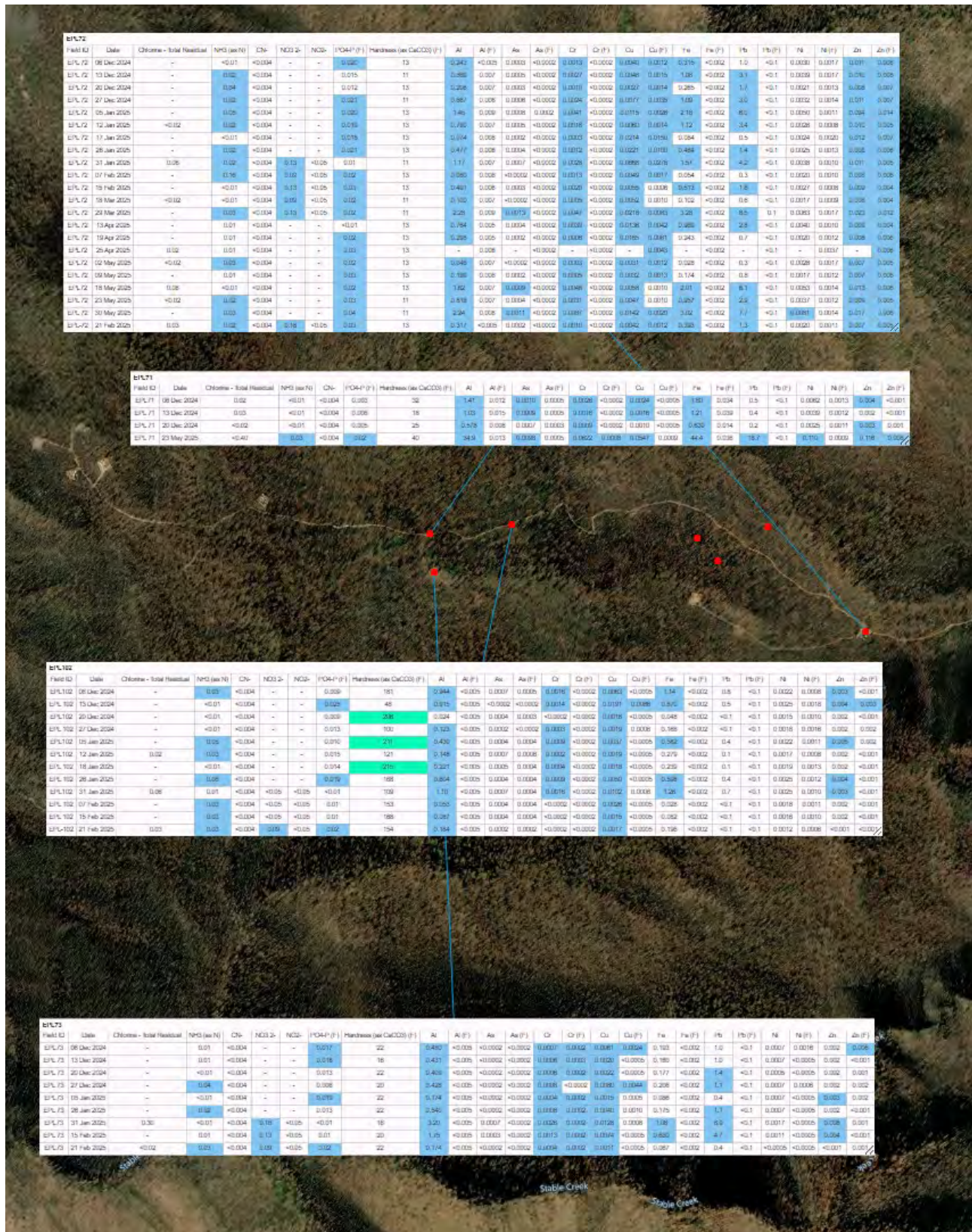
EPL106, EPL109, EPL116

EPL109																									
Field ID	Date	Chlorine - Total Residual	NH3 (as N)	Ch ₂	NO3 2-	NO2-	PO4 ³⁻ (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)	
EPL109	16 Mar 2025	<0.02	0.02	<0.004	<0.05	<0.05	<0.01	14	0.004	<0.005	0.0003	0.0004	<0.0002	<0.0002	<0.0005	<0.0005	0.030	0.003	<0.1	<0.1	<0.0005	<0.0005	<0.001	<0.001	
EPL109	04 Dec 2024	<0.02	<0.01	<0.004	-	-	0.002	14	0.112	0.006	0.0003	0.0002	0.0017	<0.0002	<0.0005	<0.0005	0.108	0.022	<0.1	<0.1	<0.0005	<0.0005	0.003	0.001	
EPL109	15 Jan 2025	<0.02	<0.01	<0.004	-	-	0.002	14	0.019	<0.005	0.0002	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	0.004	0.005	<0.1	<0.1	<0.0005	<0.0005	<0.001	<0.001	
EPL109	28 Feb 2025	<0.02	0.04	<0.004	0.00	<0.05	<0.01	14	0.027	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	0.039	0.004	<0.1	<0.1	<0.0005	<0.0005	<0.001	<0.001	
EPL109	13 Apr 2025	-	<0.01	<0.004	-	-	<0.01	10	-	<0.005	-	0.0003	-	<0.0002	-	<0.0005	-	0.004	-	<0.1	-	<0.0005	-	<0.001	<0.001
EPL109	04 May 2025	<0.02	0.07	<0.004	-	-	<0.01	14	-	<0.005	-	0.0002	-	<0.0002	-	<0.0005	-	0.002	-	<0.1	-	<0.0005	-	<0.001	<0.001

EPL116																									
Field ID	Date	Chlorine - Total Residual	NH3 (as N)	Ch ₂	NO3 2-	NO2-	PO4 ³⁻ (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)	
EPL116	12 Dec 2024	44.00	<0.01	<0.004	-	-	0.014	87	62.7	<0.005	0.0003	0.0008	0.0019	0.0002	0.109	<0.0005	95.6	<0.002	89.6	<0.1	0.0012	0.0021	1.31	0.006	
EPL116	09 Jan 2025	0.04	<0.01	<0.004	-	-	0.017	85	-	<0.005	-	0.0008	-	<0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0009	-	0.001	0.001
EPL116	18 Feb 2025	2.00	0.02	<0.004	0.00	<0.05	0.01	68	-	<0.005	-	0.0005	-	0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0017	-	0.003	0.003
EPL116	20 Mar 2025	20.0	0.10	<0.004	0.18	<0.05	0.02	85	-	<0.005	-	0.0011	-	<0.0002	-	<0.0005	-	<0.002	-	<0.1	-	<0.0005	-	0.001	0.001
EPL116	04 Apr 2025	-	0.03	<0.004	-	-	0.01	71	-	<0.005	-	0.0005	-	<0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0008	-	0.003	0.003
EPL116	03 May 2025	3.20	0.04	<0.004	-	-	<0.01	67	-	<0.005	-	0.0008	-	<0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0007	-	0.002	0.002

EPL106																									
Field ID	Date	Chlorine - Total Residual	NH3 (as N)	Ch ₂	NO3 2-	NO2-	PO4 ³⁻ (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)	
EPL106	04 Dec 2024	<0.02	0.06	<0.004	-	-	0.009	426	0.006	<0.005	0.0019	0.0009	0.0009	0.0005	<0.0005	<0.0002	<0.002	<0.1	0.0002	0.0009	<0.001	<0.001	<0.001	<0.001	
EPL106	06 Dec 2024	0.02	0.04	<0.004	-	-	0.005	409	-	<0.005	-	0.0016	-	0.0004	-	<0.0005	-	<0.002	-	<0.1	-	0.0008	-	<0.001	<0.001
EPL106	12 Dec 2024	0.03	0.04	<0.004	-	-	0.005	420	0.006	<0.005	0.0002	0.0001	0.0002	0.0008	0.0005	<0.0005	0.004	<0.002	0.6	<0.1	0.0041	0.0008	0.009	<0.001	
EPL106	19 Dec 2024	0.03	0.03	<0.004	-	-	0.006	411	-	<0.005	-	0.0005	-	0.0001	-	<0.0005	-	<0.002	-	<0.1	-	0.0009	-	0.001	0.001
EPL106	16 Dec 2024	<0.02	0.01	0.004	-	-	0.003	280	-	<0.005	-	0.0006	-	0.0001	-	<0.0005	-	<0.002	-	<0.1	-	0.0001	-	<0.001	<0.001
EPL106	29 Dec 2024	0.02	0.01	<0.004	-	-	0.006	289	0.081	<0.005	0.0021	0.0001	0.0001	0.0001	<0.0005	<0.0005	0.042	<0.002	<0.1	<0.1	0.0007	0.0005	0.001	<0.001	
EPL106	31 Dec 2024	0.02	0.01	<0.004	-	-	0.002	381	0.061	0.007	0.0006	0.0002	0.0002	0.0005	<0.0005	<0.0005	0.004	<0.002	<0.1	<0.1	0.0008	0.0004	<0.001	<0.001	
EPL106	08 Jan 2025	0.02	<0.01	<0.004	-	-	0.006	317	-	<0.005	-	0.0002	-	0.0001	-	<0.0005	-	<0.002	-	<0.1	-	0.0003	-	<0.001	<0.001
EPL106	11 Jan 2025	0.02	0.02	<0.004	-	-	0.006	320	-	<0.005	-	0.0001	-	0.0005	-	<0.0005	-	<0.002	-	<0.1	-	0.0002	-	<0.001	<0.001
EPL106	18 Jan 2025	0.03	0.05	<0.004	-	-	0.006	300	-	0.009	-	0.0005	-	0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0018	-	<0.001	<0.001
EPL106	21 Jan 2025	0.02	0.01	<0.004	-	-	0.006	352	-	0.007	-	0.0004	-	0.0005	-	<0.0005	-	<0.002	-	<0.1	-	0.0017	-	<0.001	<0.001
EPL106	25 Jan 2025	<0.02	0.02	<0.004	0.14	0.72	<0.01	343	-	0.006	-	0.0005	-	0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0015	-	<0.001	<0.001
EPL106	08 Feb 2025	<0.02	0.06	<0.004	1.75	1.25	0.01	352	-	0.007	-	0.0004	-	0.0001	-	<0.0005	-	<0.002	-	<0.1	-	0.0014	-	<0.001	<0.001
EPL106	16 Feb 2025	0.05	0.08	<0.004	2.11	1.44	<0.01	316	-	<0.005	-	0.0004	-	0.0004	-	<0.0005	-	<0.002	-	<0.1	-	0.0015	-	<0.001	<0.001
EPL106	22 Feb 2025	0.02	0.03	<0.004	1.63	1.28	<0.01	396	-	<0.005	-	0.0002	-	0.0001	-	<0.0005	-	<0.002	-	<0.1	-	0.0013	-	<0.001	<0.001
EPL106	25 Feb 2025	<0.02	0.08	<0.004	2.25	0.59	<0.01	396	0.002	<0.005	0.0003	0.0001	0.0001	0.0018	<0.0005	<0.0005	0.006	<0.002	<0.1	<0.1	0.0008	<0.001	<0.001	<0.001	
EPL106	05 Mar 2025	<0.02	<0.01	<0.004	1.91	1.12	<0.01	420	-	<0.005	-	0.0005	-	0.0001	-	<0.0005	-	<0.002	-	<0.1	-	0.0019	-	<0.001	<0.001
EPL106	10 Mar 2025	<0.02	0.01	<0.004	2.44	1.28	<0.01	442	-	0.005	-	0.0004	-	0.0001	-	<0.0005	-	<0.002	-	<0.1	-	0.0019	-	<0.001	<0.001
EPL106	28 Mar 2025	<0.02	0.27	<0.004	2.28	1.22	<0.01	401	-	0.010	-	0.0004	-	0.0001	-	<0.0005	-	<0.002	-	<0.1	-	0.0018	-	<0.001	<0.001
EPL106	04 Apr 2025	-	0.24	<0.004	-	-	<0.01	421	-	0.006	-	0.0019	-	0.0015	-	<0.0005	-	0.004	-	<0.1	-	0.0015	-	<0.001	<0.001
EPL106	12 Apr 2025	<0.02	0.02	<0.004	-	-	<0.01	460	-	0.006	-	0.0005	-	0.0008	-	<0.0005	-	<0.002	-	<0.1	-	0.0019	-	<0.001	<0.001
EPL106	28 Apr 2025	<0.02	0.04	<0.004	-	-	<0.01	461	-	0.013	-	0.0016	-	0.0013	-	<0.0005	-	0.003	-	<0.1	-	0.0017	-	<0.001	<0.001
EPL106	03 May 2025	<0.02	0.02	<0.004	-	-	<0.01	460	-	0.008	-	0.0001	-	0.0006	-	<0.0005	-	0.003	-	<0.1	-	0.0018	-	<0.001	<0.001
EPL106	08 May 2025	<0.02	0.06	<0.004	-	-	<0.01	300	-	0.009	-	0.0004	-	0.0016	-	0.0008	-	0.004	-	<0.1	-	0.0019	-	<0.001	<0.001
EPL106	17 May 2025	-	0.04	<0.004	-	-	<0.01	460	-	0.009	-	0.0006	-	0.0018	-	<0.0005	-	<0.002	-	<0.1	-	0.0021	-	<0.001	<0.001
EPL106	22 May 2025	<0.02	0.06	<0.004	-	-	<0.01	308	-	0.006	-	0.0006	-	0.0016	-	<0.0005	-	<0.002	-	<0.1	-	0.0022	-	<0.001	<0.001
EPL106	29 May 2025	-	0.26	<0.004	-	-	<0.01	384	-	0.006	-	0.0003	-	0.0001	-	<0.0005	-	<0.002	-	<0.1	-	0.0024	-	<0.001	<0.001
EPL106 US	08 Dec 2024	<0.02	<0.01	<0.004	-	-	0.003	17	-	0.014	-	0.0002	-	<0.0002	-	<0.0005	-	0.008	-	<0.1	-	<0.0005	-	<0.001	<0.001
EPL106 MAZ	09 Dec 2024	<0.02	<0.01	<0.004	-	-	0.004	46	-	0.006	-	0.0004	-	<0.0002	-	<0.0005	-	0.017	-	<0.1	-	<0.0005	-	0.013	0.013
EPL106 US	08 Dec 2024	<0.02	<0.01	<0.004	-	-	0.005	17	-	0.010	-	0.0002	-	<0.0002	-	<0.0005	-	0.019	-	<0.1	-	<0.0005	-	<0.001	<0.001

EPL71, EPL72, EPL73, EPL102



EPL99, EPL100, EPL101

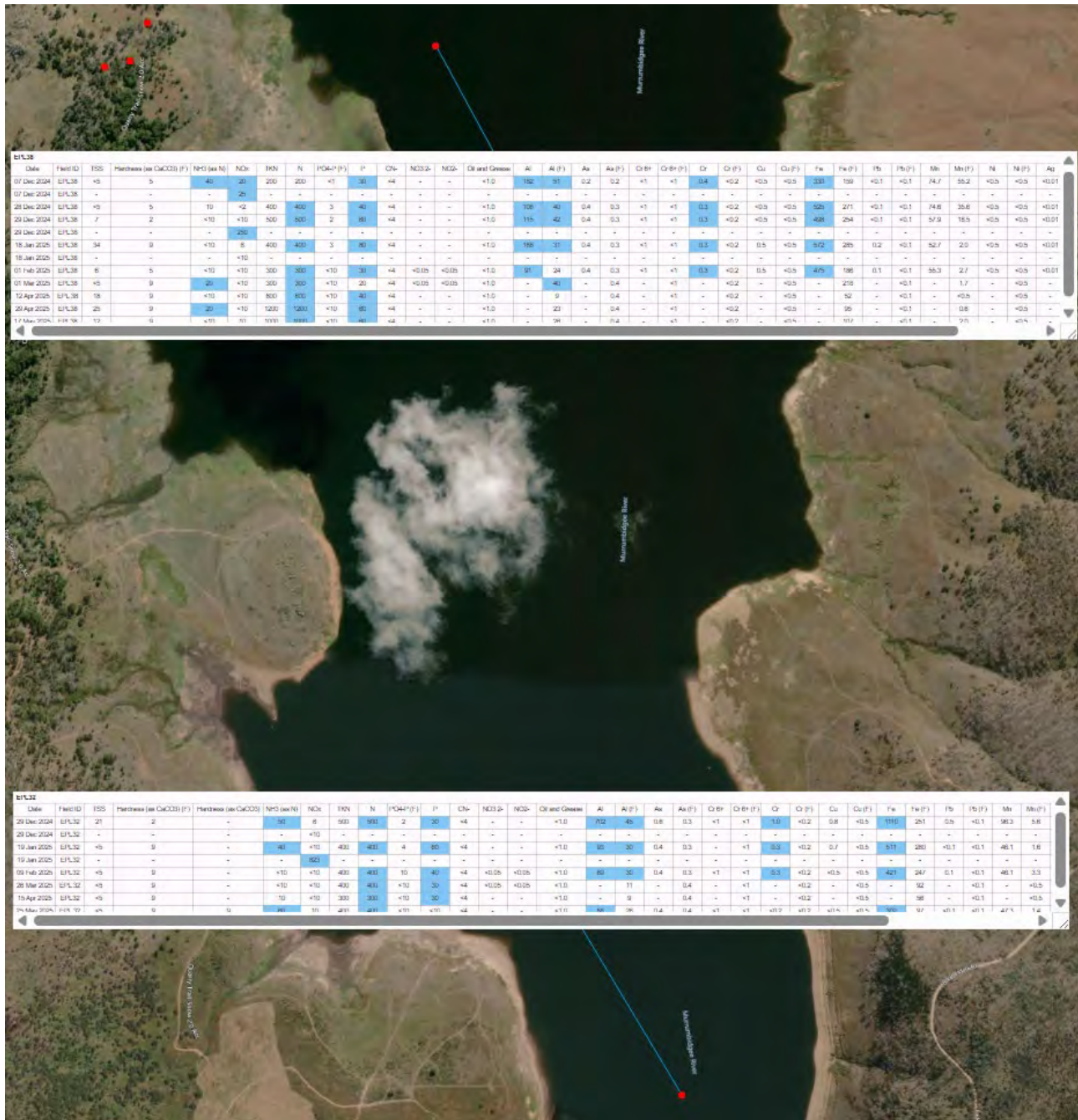
EPL101																			
Field ID	Date	Chlorine - Total Residual	NH3 (as N)	Ch-	NO3 2-	NO2-	(NO4-)(F)	Hardness (as CaCO3) (F)	Al	Al (F)	As	As (F)	Cr	Cr (F)	Cu	Cu (F)	Fe	Fe (F)	Pb
EPL101	13 Dec 2024	0.02	0.08	0.035	-	-	0.003	194	0.111	0.040	0.029	0.046	0.0022	0.0195	0.0010	0.0007	0.050	+0.002	+0.1
EPL101	05 Jan 2025	0.02	0.06	+0.004	-	-	0.004	586	0.113	0.028	0.025	0.026	0.0134	0.0134	0.0016	0.0072	0.067	+0.002	+0.1
EPL101	17 Jan 2025	+0.02	0.03	+0.004	-	-	0.025	943	0.462	0.055	0.023	0.036	0.0153	0.0145	0.0016	0.0072	0.066	+0.002	+0.1
EPL101	07 Feb 2025	0.02	0.08	+0.004	144	1.54	+0.01	399	0.189	0.018	0.022	0.063	0.0071	0.0067	0.0014	0.0073	0.042	+0.002	+0.1
EPL101	15 Feb 2025	+0.20	0.10	+0.004	86.1	1.22	0.01	125	2.42	0.149	0.023	0.079	0.0163	0.0138	0.0034	0.0005	2.57	+0.002	2.3
EPL101	13 Apr 2025	-	2.11	0.037	-	-	+0.01	553	-	0.088	-	0.063	-	0.0138	-	0.0017	-	+0.002	-
EPL101	02 May 2025	0.03	0.10	0.012	-	-	+0.01	305	-	0.059	-	0.062	-	0.0111	-	0.0021	-	+0.002	-
EPL101	23 May 2025	+0.10	0.09	+0.004	-	-	0.02	84	-	0.022	-	0.078	-	0.0036	-	0.0006	-	0.003	-
EPL101	30 May 2025	-	0.14	+0.004	-	-	0.02	117	-	0.019	-	0.063	-	0.0062	-	0.0011	-	+0.002	-
EPL100																			
Field ID	Date	Chlorine - Total Residual	NH3 (as N)	Ch-	NO3 2-	NO2-	(NO4-)(F)	Hardness (as CaCO3) (F)	Al	Al (F)	As	As (F)	Cr	Cr (F)	Cu	Cu (F)	Fe	Fe (F)	Pb
EPL100	09 Dec 2024	1.94	0.36	+0.004	-	-	0.010	198	0.261	0.025	0.0342	0.0342	0.0178	0.0120	0.0020	0.0010	0.427	+0.002	0.3
EPL100	13 Dec 2024	0.33	2.39	0.067	-	-	0.013	174	0.294	0.031	0.0342	0.0342	0.0253	0.0145	0.0019	0.0011	0.238	+0.002	+0.1
EPL100	20 Dec 2024	+0.02	4.46	+0.004	-	-	0.008	169	0.185	0.040	0.0326	0.0324	0.0130	0.0146	0.0008	+0.0006	0.107	+0.002	+0.1
EPL100	05 Jan 2025	0.02	1.75	0.061	-	-	0.007	163	0.354	0.016	0.0320	0.0319	0.0022	0.0021	0.0128	0.0008	0.044	+0.002	0.4
EPL100	12 Jan 2025	0.04	2.78	0.004	-	-	0.011	160	0.305	0.033	0.0338	0.0338	0.0047	0.0046	0.0032	0.0012	1.51	0.009	0.8
EPL100	17 Jan 2025	+0.02	0.99	+0.004	-	-	0.011	90	1.20	0.052	0.0321	0.0316	0.0125	0.0122	0.0019	+0.0005	1.85	0.002	0.5
EPL100	26 Jan 2025	+0.02	6.37	0.533	-	-	0.011	264	0.457	0.011	0.0025	0.0024	0.0103	0.0093	0.0443	0.0041	0.635	0.003	0.2
EPL100	31 Jan 2025	+0.02	4.29	0.713	167	3.45	+0.01	165	0.170	0.005	0.0019	0.0018	0.0144	0.0135	0.0149	0.0004	0.139	+0.002	0.1
EPL100	07 Feb 2025	+0.02	3.38	+0.004	27.1	2.33	+0.01	75	1.71	0.046	0.0331	0.0331	0.0159	0.0154	0.0054	0.0011	2.21	+0.002	0.8
EPL100	15 Feb 2025	+0.02	0.89	+0.004	20.6	0.79	+0.01	85	0.533	0.019	0.0013	0.0012	0.0179	0.0163	0.0011	+0.0005	0.329	+0.002	0.3
EPL100	18 Mar 2025	+0.02	0.13	+0.004	21.7	0.38	+0.01	198	1.46	0.085	0.0022	0.0014	0.0016	0.0008	0.0007	0.0004	0.005	1.1	+0.1
EPL100	20 Mar 2025	-	11.2	0.028	129	1.77	+0.01	128	-	0.038	-	0.0023	-	0.0052	-	0.0008	-	+0.002	-
EPL100	13 Apr 2025	-	10.3	0.198	-	-	+0.01	173	-	0.016	-	0.0013	-	0.0141	-	0.0020	-	+0.002	-
EPL100	19 Apr 2025	-	8.94	0.034	-	-	+0.01	90	-	0.040	-	0.0013	-	0.0021	-	+0.0005	-	+0.002	-
EPL100	27 Apr 2025	+0.02	6.73	0.020	-	-	+0.01	92	-	0.139	-	0.0006	-	0.0023	-	0.0011	-	+0.0005	-
EPL100	02 May 2025	0.04	1.38	0.048	-	-	+0.01	120	-	0.044	-	0.0012	-	0.0069	-	+0.0005	-	+0.002	-
EPL100	09 May 2025	-	6.72	0.002	-	-	+0.01	161	-	0.073	-	0.0002	-	0.0098	-	0.0008	-	+0.002	-
EPL100	18 May 2025	+0.02	7.79	0.734	-	-	+0.01	160	-	0.013	-	0.0007	-	0.0148	-	0.0019	-	+0.002	-
EPL100	23 May 2025	+0.02	4.38	0.709	-	-	+0.01	178	-	+0.009	-	0.0027	-	0.0041	-	0.0047	-	+0.002	-
EPL100	30 May 2025	-	2.80	0.044	-	-	+0.01	162	-	0.007	-	0.0022	-	0.0002	-	0.0029	-	+0.002	-
EPL100	27 Feb 2025	+0.02	1.83	0.009	0.84	1.29	+0.01	80	0.534	0.031	0.0008	0.0004	0.0201	0.0201	0.0012	+0.0005	0.749	0.002	0.2
EPL100																			
Field ID	Date	Chlorine - Total Residual	NH3 (as N)	Ch-	NO3 2-	NO2-	(NO4-)(F)	Hardness (as CaCO3) (F)	Al	Al (F)	As	As (F)	Cr	Cr (F)	Cu	Cu (F)	Fe	Fe (F)	Pb
EPL100	09 Dec 2024	+0.02	0.65	+0.004	-	-	0.001	198	0.146	0.029	0.0004	0.0004	0.0010	0.0017	0.0007	0.0003	0.863	+0.002	0.7
EPL100	13 Dec 2024	0.02	+0.01	0.004	-	-	0.002	194	0.345	0.033	0.0001	0.0001	0.0004	0.0008	0.0009	0.0005	0.251	+0.002	0.2
EPL100	20 Dec 2024	+0.02	0.04	+0.004	-	-	0.001	212	0.429	0.035	0.0003	0.0003	0.0016	0.0016	0.0010	+0.0005	0.295	+0.002	0.2
EPL100	12 Jan 2025	0.03	0.06	+0.004	-	-	0.003	165	2.21	0.035	0.0006	0.0004	0.0005	0.0001	0.0009	0.0003	3.03	+0.002	2.1
EPL100	17 Jan 2025	+0.02	0.03	+0.004	-	-	0.002	168	0.567	0.051	0.0008	0.0003	0.0003	0.0004	0.0008	0.0008	0.485	+0.002	0.4
EPL100	26 Jan 2025	0.02	0.02	+0.004	-	-	0.003	201	0.131	0.038	0.0003	0.0003	0.0010	0.0005	0.0011	0.0008	0.085	+0.002	+0.1
EPL100	15 Feb 2025	0.02	0.02	+0.004	58.8	0.80	+0.01	226	0.728	0.020	0.0002	0.0001	0.0004	0.0004	+0.0005	0.0004	+0.002	0.6	+0.1
EPL100	19 Apr 2025	-	0.49	+0.004	-	-	+0.01	479	-	0.020	-	0.0019	-	0.0002	-	0.0015	-	+0.002	-
EPL100	02 May 2025	+0.02	0.04	+0.004	-	-	+0.01	275	-	0.011	-	0.0021	-	0.0015	-	0.0015	-	+0.002	-
EPL100	09 May 2025	-	0.04	+0.004	-	-	+0.01	207	-	0.020	-	0.0021	-	0.0014	-	0.0013	-	+0.002	-
EPL100	23 May 2025	0.03	0.06	+0.004	-	-	0.01	126	-	0.013	-	0.0019	-	0.0009	-	0.0011	-	+0.002	-
EPL100	30 May 2025	-	0.04	+0.004	-	-	+0.01	168	-	0.019	-	0.0019	-	0.0004	-	0.0009	-	+0.002	-
EPL100	27 Feb 2025	0.02	0.02	+0.004	36.3	1.22	+0.01	259	0.191	0.064	0.0004	0.0004	0.0132	0.0132	0.0008	+0.0005	0.745	+0.002	+0.1

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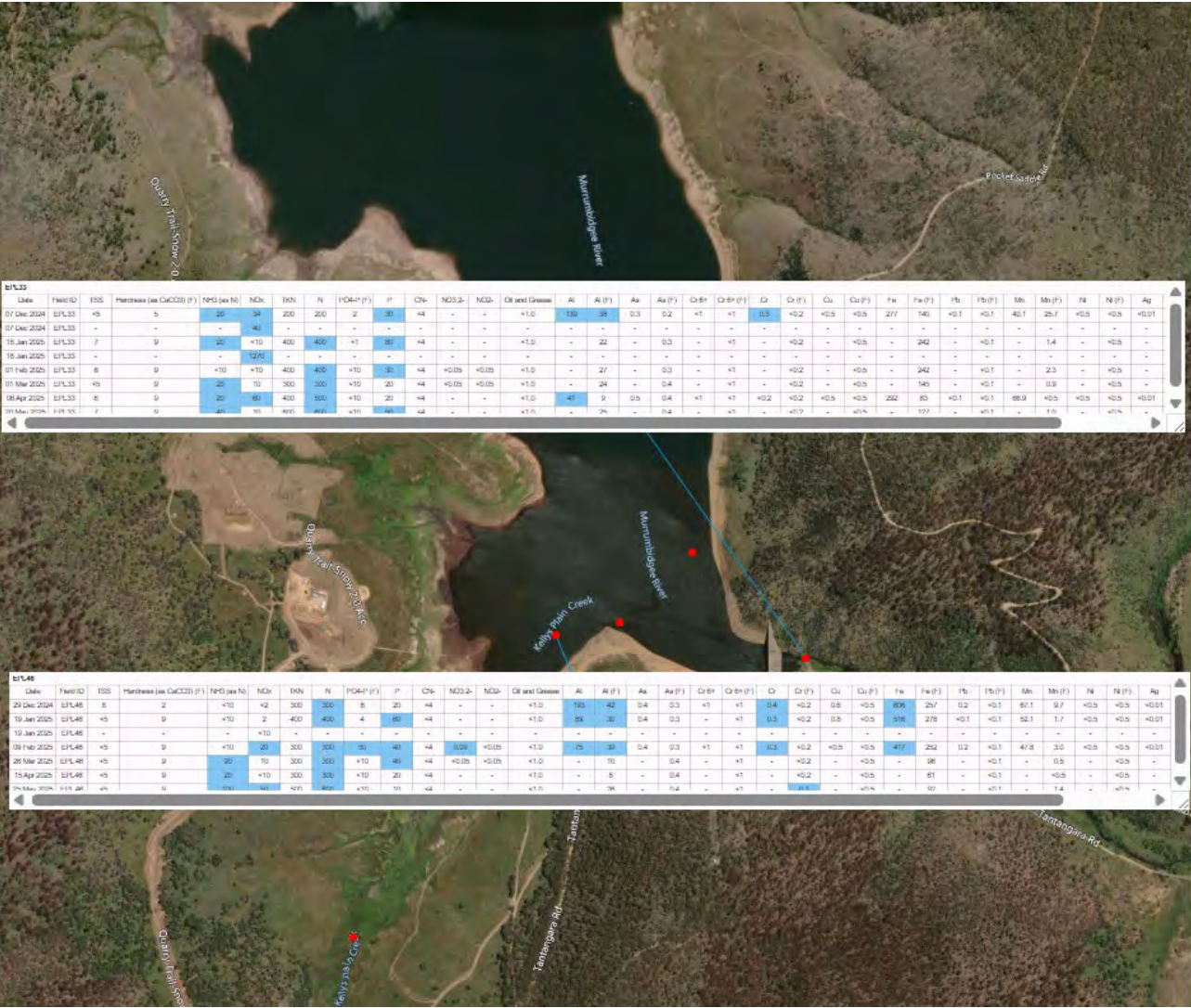
EPL70, EPL103

EPL103																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Date	Fuel ID	ISO	Hardness (as CaCO3) (F)	Hardness (as CaCO3)	NPD (as N)	HCs	THN	N	NOM (F)	F	CH	NEC 2	NCB	Oil and Grease	Al	Al (F)	Al	Al (F)	Q B	Q B (F)	Q	Q (F)	Ca	Ca (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	Fe (F)	Fe	

EPL32, EPL38



EPL33, EP46



EPL29, EPL51



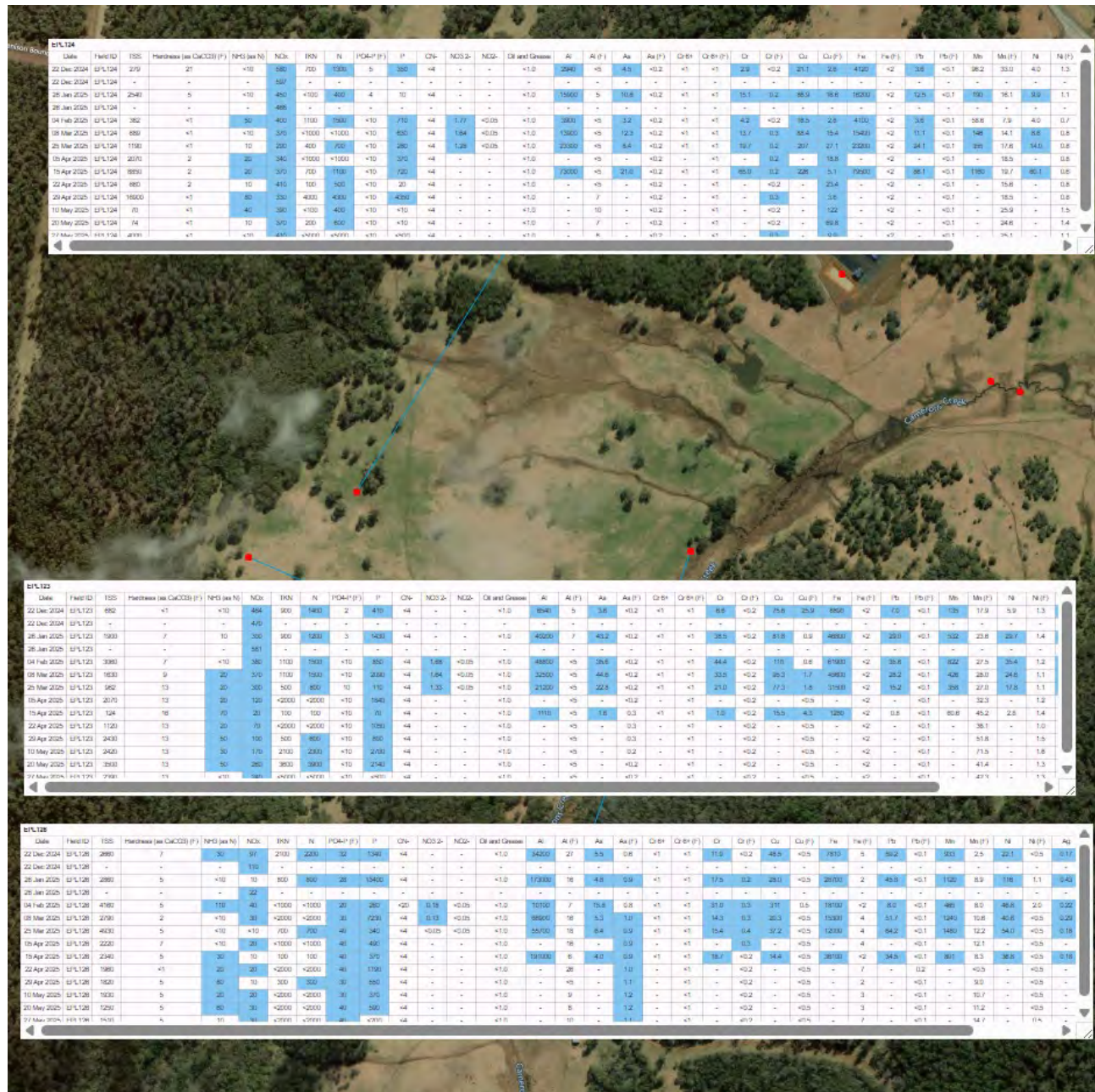
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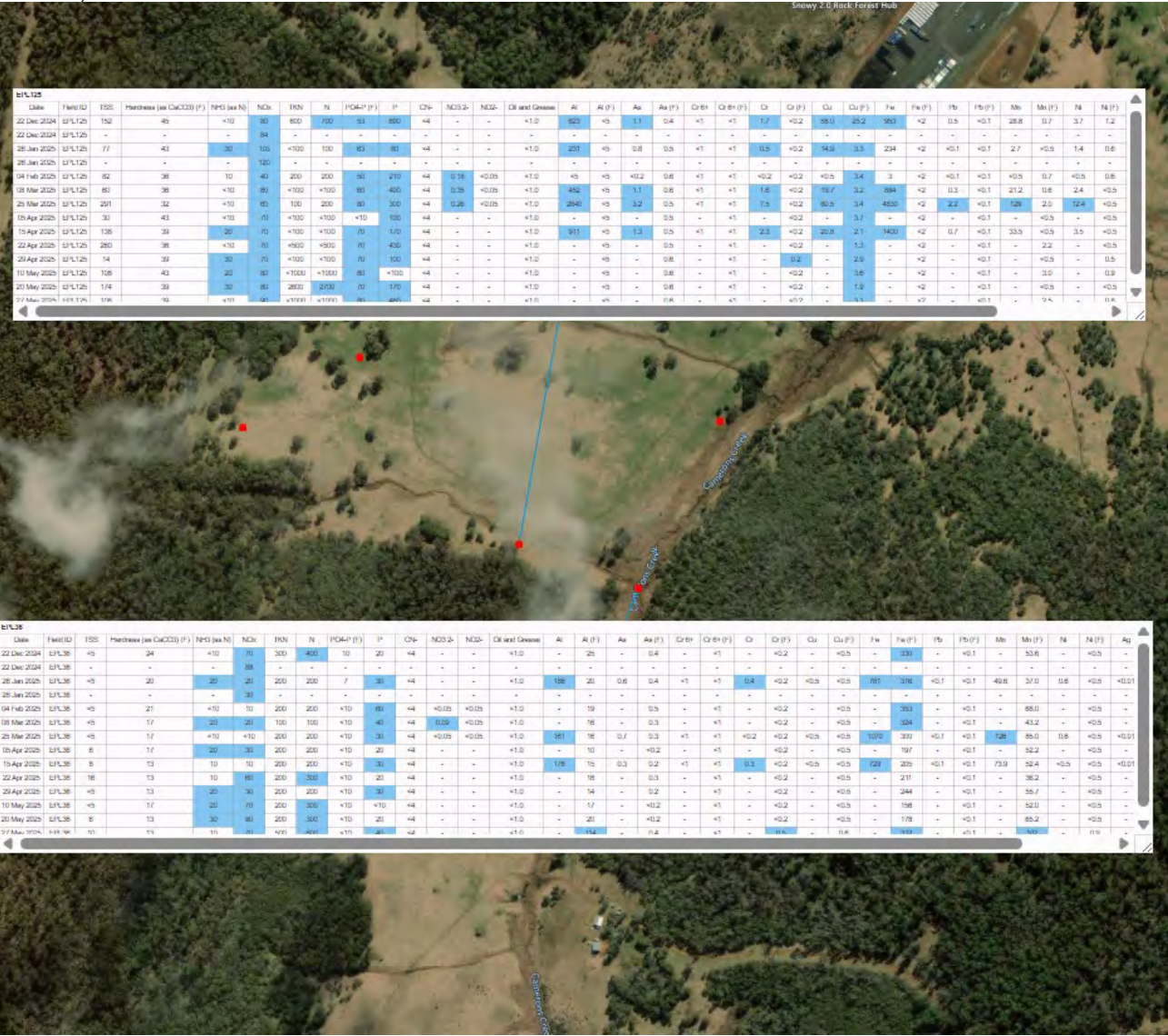
EPL34, EPL35



EPL123, EPL124, EPL126



EPL36, EPL125



EPL37, EPL127

