RAMA GOLD PROJECT

HYDROGEOLOGICAL ASSESSMENT

REPORT FOR
MEGA RESOURCES PTY LTD

DECEMBER 2025

Report No: 522.0/25/01

Rockwater
HYDROGEOLOGICAL AND ENVIRONMENTAL CONSULTANTS

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1 INTRODUCTION

The RAMA Gold Project (the Project) is located approximately 170 km south of the town of Southern Cross and 20 km south-east of. It is accessible via Jackson Rocks Road, approximately 5 km south of the Forrestania-Marvel Loch Road and Carstairs Road intersection (Figure 1).

In 2020, Rockwater completed a dewatering and final pit void assessment for the Project to support a mining proposal submitted by its previous owner, Classic Minerals (Classic). The assessment relied on groundwater levels from uncased mineral exploration holes, in the absence of groundwater monitoring bores. In 2022, the Department of Mines, Industry Regulation and Safety (DMIRS) requested additional groundwater investigations to revise and update of the previous dewatering and pit lake assessment. Classic was unable to undertake these additional investigations due to financial constraints.

MEGA Resources Pty Ltd (MEGA) acquired the Kat Gap Gold Mine from Classic in March 2025, including mining tenements M74/249 and L74/59, and subsequently renamed the operation the RAMA Gold Mine (RAMA). Mining recommenced in April 2025 under a recently approved Mining Proposal that incorporates revised open pit and waste rock dump designs within tenement M74/249.

In July 2025, MEGA completed drilling, construction, and hydraulic testing of three groundwater monitoring bores as part of a field hydrogeological investigation to support the Mine Closure Plan (MCP). Following the construction of the monitoring bores, MEGA engaged Rockwater to undertake a revised groundwater hydrogeological assessment to inform the MCP. The assessment evaluates post-mining pit lake formation and behaviour to inform closure design, long-term water balance, and potential environmental outcomes. This report presents the findings of the revised assessment.

2 CLIMATE

Forrestania experiences a Mediterranean climate characterised by hot, dry summers and mild winters, with most rainfall occurring between May and September. The closest Bureau of Meteorology (BoM) station is at Lake Camm (Station 010606), located 30 km south-west of RAMA. Historical data (1929 to present) for average rainfall is shown in Table 1, along with average dam evaporation rates for Holt Rock (Luke, Burke and O'Brien, 1988), situated 40 km west-north-west of RAMA. Average dam evaporation exceeds average rainfall in every month of the year and is 5.3 times higher overall.

Table 1: Average Rainfall (Lake Camm), Dam Evaporation (mm) and Temperatures (°C) (Holt Rock)

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Mean Rainfall	19.8	20.6	22.2	22.2	37.7	43.2	42.6	39.1	26.3	22.3	21.8	12.8	330.6
Dam Evaporation	288	215	187	121	73	50	60	67	91	145	192	251	1740

3 GEOLOGY

The RAMA deposit is located at the south-western edge of the Forrestania greenstone belt. At this point the belt is narrow, up to 3 km wide, and is composedmostly of fine to medium grained mafic amphibolite, with minor serpentinite and banded iron formation of Archaean age. The greenstone has been intruded to the west and east by granitic rocks, also of Archaean age, and by Proterozoic dolerite dykes (Chin, Hickman and Thom, 1984). A dolerite dyke occurs just south of RAMA deposit.

The RAMA deposit is associated with granitic rocks and quartz veining near the contact between mafic amphibolite (to the east) and granite (to the west). The contact dips north-east at variable angles, typically

around 45 degrees. The ultramafic rocks are weathered to about 40 m depth; and the granite to depths ranging from 45 m and 65 m..

4 HYDROGEOLOGY

Quartz veins and weathered granite within with the mineralised zone at RAMA form a minor, localised aquifer. The surrounding country rocks exhibit low permeability and provide limited groundwater storage. Groundwater recharge occurs primarily through diffuse infiltration of rainfall following high-intensity or prolonged rainfall events.

4.1 MONITORING BORES

In July 2025, MEGA installed three groundwater monitoring bores at Rama. All bores were screened in the weathered and fresh bedrock beneath the water table. PH04 intersected a fractured interval below the water table. Lithological logs for all completed bores are provided in Appendix . A fourth exploration hole(PH02) was abandoned following borehole collapse during bore construction.

Construction details of the newly installed bores provided by Mega are summarised in Table 2, and their locations are shown in Figure .

Table 2: New monitoring bores at RAMA

Bore	mE	mN	Elevation (m AHD)	Top of casing (m agl)	Drilled depth (m btc)	Screen Interval (m bgl)	Water level (m bgl)	Water level (m AHD)	Lithology
PH01	764,671	6,372,040	391.5	1.5	82.25	32.75 - 80.75	41.74	349.8	Granite
PH03	765,055	6,372,165	393.1	1.5	83.15	33.65 - 81.65	43.34	349.8	Ultramafic schist/basalt
PH04	765,237	6,372,652	395.1	1.5	81.87	32.37 - 80.37	45.53	349.6	Fractured ultramafic schist/basalt
*North Sump	764,551	6,372,471	-	-	-	-	0.6	344.6	-

**Current in-pit Sump water level (November 2025)*

4.2 GROUNDWATER LEVELS, FLOW DIRECTIONS

Water levels measured in October 2025 from the monitoring bores and the North Pit sump are presented in Table 2. Water levels from the monitoring bores are very similar with values of 349.6 to 349.8 m AHD while water levels at the North Pit sump was at 344.6 m AHD, indicating groundwater flow towards the pit.

Regional groundwater levels from registered bores in the RAMA area, obtained from the Water Information Reporting (WIR) database are summarised in Table 3. These levels were reduced to m AHD using ground elevations derived from the DEM-H version of the 1-second SRTM dataset (Geoscience Australia, 2011).

Regional groundwater contours (Figure 1), generated from these data, show that while local flows are influenced by current dewatering at RAMA, overall groundwater movement is toward the west and northwest, ultimately discharging into salt lakes of the Swan-Avon palaeodrainage system, including Lakes Varley and Gulson.

Table 3: Summary of Bore Data from WIR Database

Site Ref	Name	mE	mN	Elevation (m AHD)	Drilled depth (m bgl)	Cased Depth (m bgl)	TDS (mg/L)	Water level (m btc)	Water level (mAHD)	Lithology
61510029	Fp1	761,446	6,376,764	368.8	70	69.5	37,500	24.9	343.9	Ultramafic
61510031	Fp2	760,655	6,376,661	377.0	77	76.5	29,260	32.45	344.6	Weathered Ultramafic Rock
61510349	Jrw14	762,441	6,369,008	374.6	40	40	140	25.49	349.1	Weathered Granite
61512913	Test No1	755,917	6,374,428	365.3	35	0.00	42,000	21.85	343.5	Granite
61517594	Sw1	760,473	6,376,773	379.7	60	59	24,000	32.32	347.4	-
61517595	Hhw1	769,661	6,368,691	389.7	60	59.4	32,000	27.74	362.0	-

5 HYDRAULIC CHARACTERISTICS

Review of drillhole cuttings and geological logs from the monitoring bores (Appendix) together with logs from the previous assessment (Rockwater, 2020) indicates that rocks at the site are moderately to highly weathered, forming saprolite of low permeability overlying fresh granite and ultramafic/mafic rocks. The mineralised zone which includes small quartz veins is generally clay rich and composed of weathered granite. This suggests that permeability is generally low, although it may be enhanced in the transition zone between weathered and fresh rock, or along cross-cutting faults, if present.

There are no indications around the collars of water having been blown from drillholes during drilling, or records of water intersections or wet samples in the geological logs.

5.1 HYDRAULIC TESTS

Falling-head permeability tests were conducted on the three monitoring bores installed in 2025 (Section 4.1) Prior to testing , standing water levels were recorded, and a Seametrics Level Scout water level logger was installed below the water table. A 20-litre "slug" of water was then rapidly introduced into the bore, and the peak water level rise and subsequent water level decline was recorded by the logger. Each test was repeated up to three times to confirm measurement consistency.

The falling-head versus time data were analysed using Aqtesolv applying the Bouwer and Rice (1976) method to estimate horizontal hydraulic conductivity (K_h) of the aquifer intersected by each bore. Analysis plots are presented in Appendix II, and the calculated K_h values are summarised in Table 4.

5.1.1 COUNTRY ROCK

The low hydraulic conductivities measured at PH01 and PH03 (approximately 10^{-2} m/day) are typical of fresh bedrock conditions. In contrast, the higher conductivity observed at PH04 (approximately 10^{-1} m/day) is attributed to a localised fractured rock aquifer. PH04 situated outside any mapped fault or shear zone and lies beyond the strike of the mineralisation associated with the RAMA pit. .

Current data do not indicate that this elevated conductivity is continuous or extends toward the RAMApit. Including PH04 in the model would therefore misrepresent regional aquifer properties and introduce bias, as the objective of the groundwater model is to simulate representative conditions rather than isolated anomalies. Given the absence of structural continuity and supporting evidence for connectivity, the PH04 result is considered a local anomaly and has been excluded from the groundwater modelling assessment (see Section 5.3).

5.1.2 MINERALISED ZONE

Hydraulic testing undertaken during earlier reported conductivity values ranging from effectively zero to 0.33 m/day (Rockwater, 2020). Three of the tests considered representative of the mineralised zone returned conductivities in the order of 0.11 to 0.33 m/day (approximately 10^{-1} m/day), indicating generally low to moderately low permeability within the mineralised zone.

A key limitation of these tests is that the estimated horizontal hydraulic conductivity (K_h) reflects the bulk properties across the entire saturated interval that is open to the formation. No investigations were conducted below the screened depth (~80 m bgl) to confirm the presence of additional permeable structures. For this assessment, it is assumed that permeable structures do not extend beyond this depth. This assumption is considered reasonable, as fracture density and connectivity typically decrease with depth under increasing overburden pressure.

Table 4: Results of hydraulic conductivity tests (Rockwater 2025)

Hole ID	Screened lithology	Water level (m bgl)	b (m)	K_h (m/day)	Solution
PH01	Granite	41.74	39.01	0.033	Bouwer-Rice (1976)
PH03	Ultramafic Schist/Basalt	43.34	38.31	0.064	Bouwer-Rice (1976)
PH04	Ultramafic Schist/Basalt	45.53	34.84	0.263	Bouwer-Rice (1976)

m bgl = metres below ground level; b = saturated thickness; K_h = hydraulic conductivity

5.2 GROUNDWATER QUALITY

Analysis of groundwater samples collected at the three monitoring bores and the in-pit North Sump are summarised in Table 5 with full laboratory reports provided in Appendix III. Key observations include:

- The four samples exhibited comparable composition and major ion chemistry;
- Groundwater was circumneutral, with pH values of 7.57 to 7.98;
- Total alkalinity was high at bores PH01, PH04 and North Sump (413–582 mg $CaCO_3$/L), but moderate at bore PH03 (48 mg $CaCO_3$/L) screened in the weathered granite;
- All samples were saline, with TDS values between 25,700 and 30,800 mg/L. The groundwater samples were of sodium-chloride type, with minor sulphate and magnesium. Chloride concentrations (13,000–15,400 mg/L) were dominant among major ions;
- Concentrations of most metals and metalloids analysed were low or below the reporting limits. The highest concentrations were manganese (0.56 – 10.1 mg/L) and reactive silica (9.12 – 30.6 mg/L); and
- Total nitrogen was moderate at PH01 (51 mg/L) and elevated at the North Sump (188 mg/L), primarily as ammonia and nitrate, likely due to ammonium nitrate contamination from operations and surface runoff into the pit. Total phosphorus was low (0.05–2.52 mg/L), mainly as non-reactive phosphorus.

Table 5: Groundwater at PH Monitoring Bores and In-pit North Sump

Parameter/Analyte	Unit	PH01	PH03	PH04	North Sump
pH Value	SU	7.91	7.57	7.50	7.98
EC	µS/cm	36,600	42,600	34,900	38,800
TDS	mg/L	26,200	30,800	25,700	27,400
Total Hardnes	mg $CaCO_3$/L	4,950	5,690	5,230	5,080
Alkalinity					
OH	mg $CaCO_3$/L	<1	<1	<1	<1
CO3		<1	<1	<1	<1
HCO3		491	48	582	413
Total Alkalinity		491	48	582	413
Major Ions					
SO_4	mg/L	1,950	2,120	1,900	2,080
Cl		13,100	15,400	13,000	13,400
Ca		571	463	429	429
Mg		857	1,100	1,010	974
Na		6,970	8,410	7,430	7,580
K		103	106	82	91
Metals/Metalloids					
Al	mg/L	<0.05	<0.05	<0.05	0.09
As		<0.005	<0.005	0.013	<0.005
Cd		<0.0005	<0.0005	0.0009	0.0012
Cr		<0.005	<0.005	<0.005	<0.005
Fe		2.39	<0.25	<0.25	<0.25
Hg		<0.0001	<0.0001	<0.0001	<0.0001
Mn		10.1	2.57	2.23	0.58
Pb		0.006	<0.005	<0.005	<0.005
Se		<0.05	<0.05	<0.05	<0.05
Zn		0.074	0.036	0.045	<0.025
Reactive Silica		18.8	9.12	28.5	30.6
Nutrients					
NH_3 as N	mg/L	0.15	0.27	0.58	44.3
NO_2 as N		0.02	<0.01	<0.01	1.69
NO_3 as N		0.04	<0.01	<0.01	97.9
Total Kjeldahl Nitrogen as N		50.7	0.5	1.2	88.3
Total Nitrogen as N		50.8	0.5	1.2	188
Reactive Phosphorus as P		0.03	<0.01	0.03	<0.01
Total Phosphorus as P		0.17	0.05	2.52	0.23

5.3 EXISTING GROUNDWATER USE

The groundwater in the Forrestania area is generally too saline for stock or for potable use. The exceptional low-salinity bores in the Jackson Rock area, 7 km south of the RAMA project, tap granitic grit and exfoliation joints on the margins of the hill; these low-producing aquifers are recharged by runoff from the hill and are not part of the regional fractured rock aquifer system.

The current groundwater extraction in the Project area is predominantly saline-water pumped from bedrock for mine dewatering undertaken at mines including Spotted Quoll.

Historically, groundwater has also been extracted at Digger Rocks for dewatering and mining uses, and at Jackson Rock and Jackson Rock West for low-salinity water supply. At RAMA, water is currently being pumped from the North Sump at approximately 1 L/s.

5.4 GROUNDWATER DEPENDENT ECOSYSTEMS

The Bureau of Meteorology's online Groundwater Dependent Ecosystem (GDE) database (http://www.bom.gov.au/water/groundwater/gde/map.shtml) identifies potential GDEs within the regional context. Potential GDEs that are mapped in the RAMA Project area are summarised in Table 6. However, given the depth to groundwater (> 20 m bgl) and the elevated salinity observed at the site, the likelihood of groundwater supporting these terrestrial ecosystems is considered negligible. No potential aquatic or subterranean GDEs have been mapped in proximity to the Project area.

Table 6: Potential groundwater dependent ecosystems at RAMA

Type	Potential GDE	Description
Terrestrial GDE	**Moderate potential** GDE – from national assessment	*Medium woodland; salmon gum*

6 ASSESSMENT OF DEWATERING REQUIREMENTS

A numerical groundwater flow model was originally developed in 2020 to estimate dewatering requirements for the former Kat Gap Project. For the purposes of this assessment, the model has been updated to evaluate potential impacts associated with dewatering and to characterise the hydrogeological conditions expected in the final pit void.

6.1 CONCEPTUAL HYDROGEOLOGICAL MODEL

The conceptual hydrogeological model forms the basis for the numerical model, and uses the information gathered for this assessment, described in parts of Section 4 above.

The main aquifer is the mineralised zone which runs along strike of the geology and planned pit; the southern part of the planned pit has a moderately low hydraulic conductivity (~10^{-1} m/d). Elsewhere, the mineralised zone and the wall rocks have lower hydraulic conductivity (~10^{-2} m/d). Groundwater recharge (from the infiltration of rainfall) occurs at very low rates, as indicated by the high salinity; in the model it has been assumed to be negligible.

6.2 MODEL DESCRIPTION

The model consists of a rectangular grid of 63 rows, 58 columns and one layer covering an area of 2,000 m west to east by 2,000 m north to south. Cell sizes range from 20 m by 20 m in the planned pit area, to 40 m by 40 m in peripheral areas. The aquifer is assumed to extend down from the water table at 350 m AHD (42 to 45 m below average ground level) to 200 m AHD.

The model grid is aligned to the strike of the mineralised zone, about 45 degrees west of north.

The numerical groundwater flow model was constructed using Processing MODFLOW version 8.0.47 and executed with MODFLOW-2005, developed by the U.S. Geological Survey (McDonald and Harbaugh, 1988).

6.3 AQUIFER PARAMETERS AND BOUNDARY CONDITIONS

Hydraulic conductivity values adopted in the model largely retain parameters from the previous model iteration (Rockwater 2020), with updates incorporated based on results from the recent hydraulic testing program:

- 0.05 to 0.3 m/d for the mineralised zone;
- 0.03 m/d along-strike of that zone; and
- 0.033 to 0.066 m/d in the country bedrock located northeast and southwest of the mineralised zone (refer Table 4).

A uniform specific yield (drainable porosity) of 1% was adopted for all modelled lithologies.

Model boundary conditions were defined as no-flow (impermeable) boundaries along the south-western and north-eastern extents, with constant-head boundaries of 350 mAHD assigned to the north-western and south-eastern extents to represent groundwater inflow to the model domain along strike.

6.4 MINING PROGRESSION

The dewatering model was simulated over an 18-month period with monthly stress periods until the end of mining. MODFLOW's Drain Package was used to simulate pit dewatering, with drain elevations progressively lowered to match the deepest pit base elevation each month.

The final mined pit contours provided by MEGA are shown in Figure . The extent and depth of the mining base at each stress period was estimated assuming linear rate of mining progression from the start of operations (April 2025) to end of mining. The pit initially develops as a single excavation before reaching final depths of 305 m AHD for the North Pit and 270 m AHD for the South Pit.

6.5 MODEL CALIBRATION

The hydraulic conductivity of the country bedrock to the north and south of the pit was calibrated against groundwater levels measured at the three monitoring bores and the North Pit sump approximately six months into mining (Table 2), together with the observed dewatering rate of approximately 1 L/s from the North Sump. The final calibrated hydraulic conductivity adopted for the country bedrock was 0.0012 m/day.

No groundwater level data were available to calibrate aquifer parameters within the mineralised zone; therefore, the model calibration should be regarded as non-unique and not fully constrained. If required, the model can be further refined and calibrated once additional groundwater monitoring data from the mineralised zone become available; however, this is considered unlikely to be necessary given low level of environmental risk identified in this assessment (Section 9).

6.6 MODEL SIMULATION OF PIT DEWATERING

To explore the potential range of groundwater impacts due to higher dewatering requirements, two additional sensitivity model simulations were undertaken: one assuming a doubled specific yield of 2%, and a second assuming bedrock hydraulic conductivity increased by one order of magnitude relative to the base-case model. Dewatering rates for the base-case and sensitivity scenarios are presented in Table 7.

Model simulation results for the base-case scenario indicate that predicted groundwater inflows to the pit range from approximately 63 to 277 m³/d (up to 3 L/s). Sensitivity model simulations indicate a wider range of inflow rates, from approximately 92 to 584 m³/d (up to 7 L/s). Despite this variability, the predicted inflow

estimates across both the base-case and sensitivity scenarios are low overall in the context of the proposed mining operations.

Table 7: Model Stress Periods and Calculated Dewatering Rates

Stress Period/Month	Elev. Base of Mining (m AHD)	Dewatering rate (m^3/d)		
		Base Case	Specific yield 2%	Bedrock hydraulic conductivity x10
1	387	0	0	0
2	378	0	0	0
3	370	0	0	0
4	361	0	0	0
5	353	0	0	0
6	345	92	148	171
7	343	113	197	199
8	341	79	121	173
9	340	63	92	153
10	338	92	141	202
11	337	70	100	174
12	335	95	143	218
13	324	247	390	498
14	313	277	422	584
15	303	256	368	573
16	292	235	322	508
17	281	235	309	508
18	270	221	278	465

6.6.1 EXTENT OF GROUNDWATER DRAWDOWN

Modelled groundwater-level drawdowns at the conclusion of the 18-month mining period are presented in Figure 3. The results indicate that a 0.1 m drawdown contour would extend approximately 700 m along strike from the pit and 250 m across strike.

7 PIT LAKE RECOVERY

Inflows calculated by the model and a water balance were used to assess the nature of the final mine void. After end of operations and dewatering, groundwater will seep into the pit and the water level will rise until groundwater inflow and rainfall discharge are balanced by evaporation losses.

A pit lake water balance is provided in Table 7. The water balance assumes that 80% of average annual rainfall at Lake Camm falling within the pit perimeter will accumulate in the pit lake. Morton evaporation at the surface of the pit lake assumed to be 70% dam evaporation at Holt Rock (Luke, Burke and O'Brien, 1988). Surface water runoff reporting to the pit lake was not accounted in the water balance.

Table 8: Final Void Water Balance

Pit Lake Elev. (m AHD)	Pit Lake Volume (m3)	Pit Lake Area (m^2)	Rainfall Gain (m^3/d)	Evap. Loss (m^3/d)	GW Inflows (m^3/d)	Balance (m^3/d)
280	39,847	3,556	2.6	15	110	97
295	147,119	7,602	5.5	25	57	37
305	246,331	9,739	7.0	32	41	16
310	336,532	11,757	8.5	39	35	4.4
315	563,083	16,000	12	53	27	-15
320	726,791	18,077	13	60	20	-27
325	902,694	20,464	15	68	15	-38
335	1,419,839	29,241	21	97	7.0	-69
340	1,853,091	33,427	24	111	5.0	-82
345	2,343,967	40,678	29	135	4.0	-102
350	2,809,824	44,419	32	148	0.0	-116

The pit lake is predicted to reach equilibrium at approximately 311 m AHD, about 38 m below the most recent static groundwater levels measured at the monitoring bores. It is estimated that the pit lake will stabilise at this level over a period of around 60 years. This assessment assumes minimal contribution from rainfall runoff on the pit walls and that the final pit is bunded to prevent surface water inflows into the pit.

At this level, evaporative losses from the pit are balanced by groundwater inflow and direct rainfall into the pit, and the final pit lake will function as a permanent groundwater sink. As a result, there will be no groundwater flow from the pit back into the surrounding groundwater system.

8 PIT LAKE WATER QUALITY

Geochemical modelling was completed to assess the pit lake water quality post-closure. Simulations were based on the average groundwater compositions provided in Table 5 and average of rainwater compositions reported by CSIRO at the Esperance weather station (Crosbie et al., 2012).

The predicted pit lake pH and salinity during the filling and the evapo-concentration stages are presented in Chart 1. The final pit lake pH is predicted to remain circumneutral (pH 7.77 to 7.50), while salinity is expected to reach about 130,000 mg/L TDS after 177 years post-closure. Precipitation of quartz, pyrolusite and calcite/dolomite is anticipated during the evapo-concentration stage.

Contributions from pit wall runoff were not included in the pit lake modelling due to insufficient geochemical data. This omission is not expected to materially affect the final beneficial use of the pit lake or the impacts to groundwater, as the pit lake will remain hypersaline continue to function as a permanent groundwater sink.

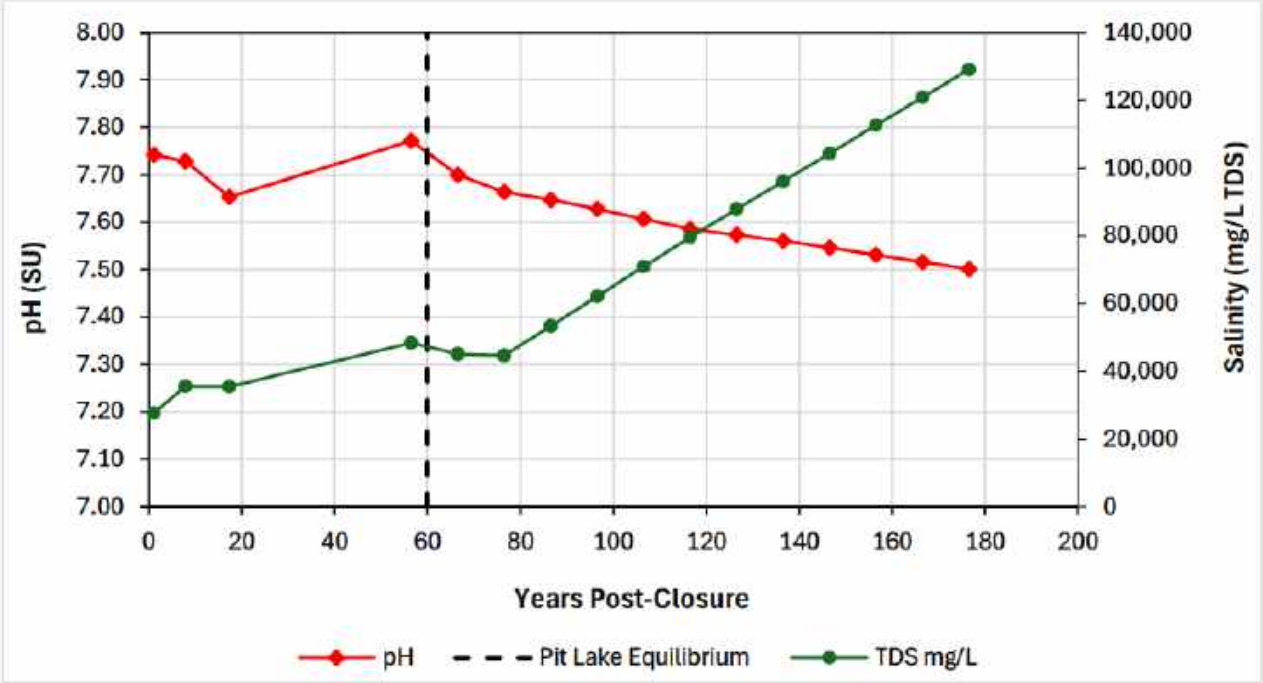


Chart 1: Predicted Pit Lake pH and Salinity

9 CONCLUSIONS

Hydrogeological investigations including permeability testing at the RAMA site indicate that the water table is deep (about 42 - 46 m below ground level) and the groundwater is saline (25,000 to 30,000 mg/L TDS). The groundwater is circumneutral to slightly alkaline (pH 7.5 – 7.91) with elevated alkalinity (413 – 582 mg $CaCO_3$ /L). Concentrations of key metals and metalloids analysed were generally below their respective limit of reporting with the exception of manganese (0.56 – 10.1 mg/L).

Recent groundwater measurements around the RAMA pit show local groundwater directions are towards the pit. However, the regional groundwater flows direction is still to the west or north-west, where groundwater eventually discharges into salt lakes of the Swan-Avon Palaeodrainage system which includes Lakes Varley and Gulson.

The revised groundwater model used for this assessment largely retained hydraulic parameters from the previous model iteration (Rockwater 2020), with updates incorporated based on results from the recent hydraulic testing program. The model was further calibrated with groundwater levels measured at the three monitoring bores and the North Pit sump approximately six months into mining, together with the observed dewatering rate of approximately 1 L/s from the North Sump.

The results indicate that predicted groundwater inflows to the RAMA pit during operations are low. Base-case inflows are estimated to reach a maximum of 3 L/s, while sensitivity analyses suggest a maximum of 7 L/s. Overall, the inflow estimates are considered minor relative to the scale of the proposed mining operations, posing limited impact on pit dewatering requirements.

The predicted groundwater-level drawdowns at the conclusion of the 18-month operational period are also limited, with a 0.1 m drawdown extending approximately 700 m along strike from the pit and 250 m across strike, indicating a relatively localised impact on the surrounding groundwater system.

Given the initial groundwater depth (>20 m bgl) and the saline nature of the aquifer, any predicted drawdown is unlikely to affect potential groundwater-dependent ecosystems (GDEs). The impact is therefore considered negligible.

The pit lake is predicted to stabilise at approximately 311 m AHD, around 38 m below the most recent static groundwater levels measured at the monitoring bores, over an estimated period of 60 years. The pit lake level will remain below the regional groundwater level, and so the pit void will be a permanent groundwater sink. As a result, there is no potential for the pit water to contaminate groundwater. The pit lake water is predicted to remain circumneutral for the 177 years post-closure projection period. Pit lake water is anticipated to become hypersaline with TDS values of 129,148 mg/L TDS for this period.

DATED: 22st December 2025 **Rockwater Pty Ltd**

[redacted]

[redacted]

REFERENCES

Bouwer, H., and Rice, R.C., 1976, A slug test for determining hydraulic conductivity of unconfined aquifers with completely or partially penetrating wells. Water Resource. Res. 12:423-248.

Chin R. J., A. Hickman A. H. and Thom R. 1984, Hyden 1:250,000 Geological Series – Explanatory Notes, Geological Survey of Western Australia, Sheet SI/50-4 International Index, Perth.

Crosbie, R., Morrow, D., Cresswell, R., Leaney, F., Lamontagne, S., Lefournour, M., 2012. New insights to the chemical and isotopic composition of rainfall across Australia, CSIRO, Water for a Healthy Country Flagship Report series ISSN: 1835-095X.

Geoscience Australia (2011) 1 second SRTM Derived Products User Guide, Version 1.0.4. Geoscience Australia, Canberra, ACT.

Luke, G.J., Burke, K.L., and O'Brien, T.M., 1988, Evaporation data for Western Australia. Tech. Report No. 65 (2nd Ed), W.A. Dept. of Agriculture.

McDonald, M.G., and A.W. Harbaugh, 1988, A Modular Three-Dimensional Finite-Difference Ground-Water Flow Model. Book 6, Chapter A1, Techniques of Water Resources Investigations. U.S. Geol. Surv., Washington, DC. (A:3980).

Rockwater, 2020, Kat Gap Project – Hydrogeological Assessment. Unpublished report prepared by Rockwater for Classic Minerals LTD.

FIGURES

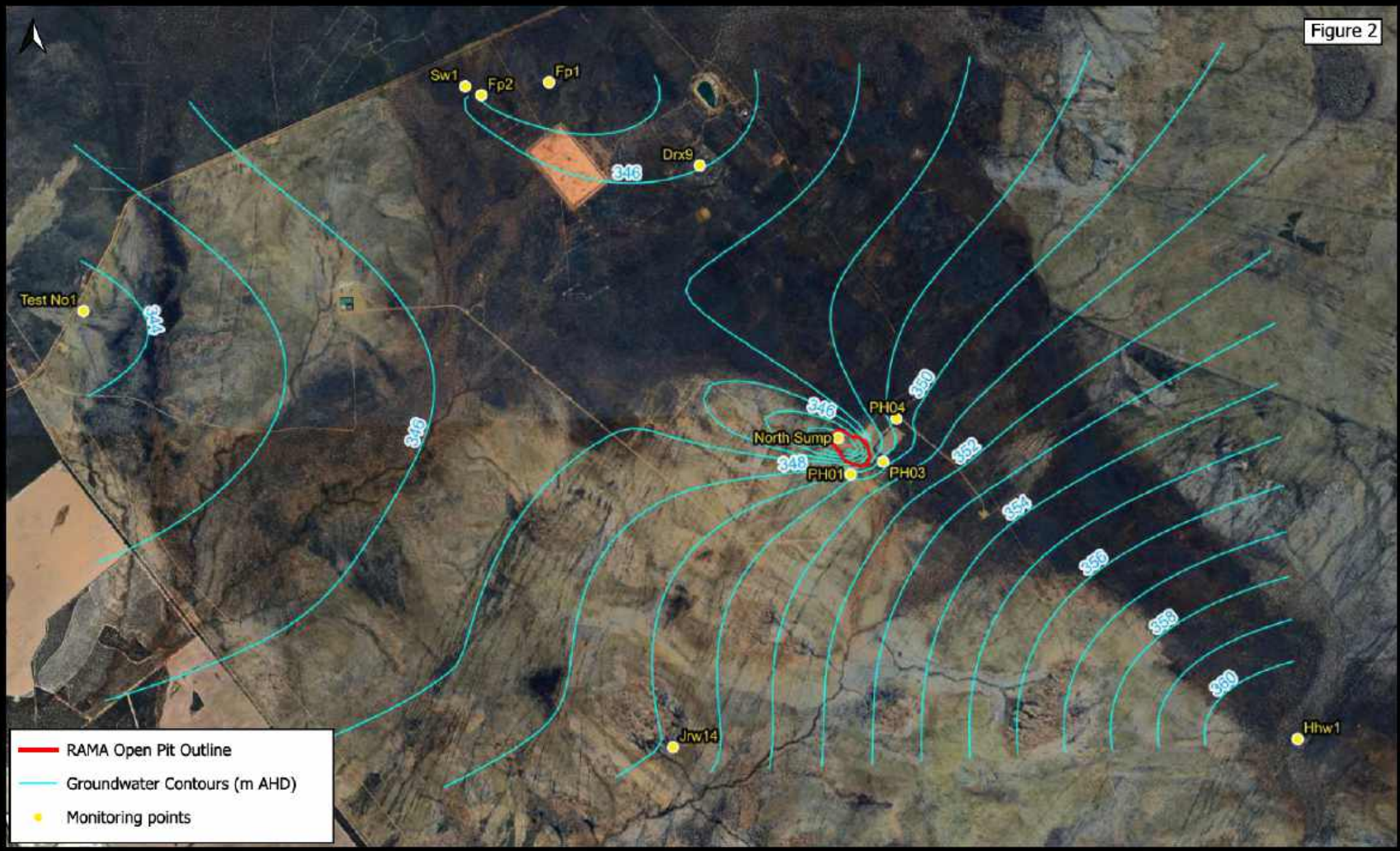
Figure 1

Rockwater
HYDROGEOLOGICAL + ENVIRONMENTAL

1:3,000,000

Coordinate System: GDA 2020 MGA Zone 50

Client	MEGA Resources
Project	RAMA Project
Date	December 2025
Figure Number	522-0/25/01



Rockwater
HYDROGEOLOGICAL + ENVIRONMENTAL

1:60,000

Coordinate System: GDA 2020 MGA Zone 50

Client	MEGA Resources
Project	RAMA Project
Date	December 2025
Figure Number	522-0/25/02

Level Contours (m AHD)

Rockwater
HYDROGEOLOGICAL + ENVIRONMENTAL

1:5,000

Coordinate System: GDA 2020 MGA Zone 50

Client	MEGA Resources
Project	RAMA Project
Date	December 2025
Figure Number	522-0/25/03

Site Layout - Final Pit Voids

Rockwater
HYDROGEOLOGICAL + ENVIRONMENTAL

1:10,000

Coordinate System: GDA 2020 MGA Zone 50

Client	MEGA Resources
Project	RAMA Project
Date	December 2025
Figure Number	522-0/25/04

Drawdown Extent (m)

APPENDIX I

Lithological logs

APPENDIX I: LITHOLOGICAL DRILL LOGS

1 RAPH01 LITHOLOGICAL LOG

From	To	Lithology	Description
0	5	Alluvium	Brown, red, yellow, highly weathered soil, clay and clasts of ferricrete and calcrete, weakly consolidatedp
5	17	Saprolite	White, grey, highly weathered, poorly sorted, very coarse-grained sand to gravel, angular grains in clayey matrix, in-situ weathering of granite, weakly consolidated.
17	20	Saprolite	Grey, highly weathered, poorly sorted, very coarse-grained sand to gravel, angular grains with minor clay matrix, in-situ weathering of granite, weakly consolidated.
20	25	Granite	White/ orange, moderately weathered granite, highly fractured and iron stained throughout, moderately consolidated
25	31	Saprock	White/grey/ orange, slightly weathered granite, moderately fractured with iron-stained fracture surfaces throughout, moderately consolidated.
31	80	Granite	White/ grey, fresh granite, larger rock fragments at 42. 47, 56-60. 65-67 and 73-76 m possibly fractured intervals, no staining observed on rock fragments, pyrite in cuttings at 76 m, well consolidated.

2 RAPH02 LITHOLOGICAL LOG

From	To	Lithology	Description
0	5	Alluvium	Red-brown, highly weathered ferruginous clay, with minor ferricrete and calcrete.
5	13	Saprolite	White, extremely weathered granite, angular coarse grains of quartz in clayey matrix, weakly consolidated.
13	49	Saprolite	White, extremely weathered granite, 45 % angular coarse grains of quartz in 55% clayey matrix, weakly consolidated.
49	51	Saprock	Grey / orange, highly weathered granite, moderately fractured and iron stained fracture surfaces, moderately consolidated
51	80	Granite	White/ grey, fresh granite, larger rock fragments at 63, 67,75,78-80. and 73-76 m possibly fractured intervals, no staining observed on rock fragments, pyrite in cuttings at 66 m, quartz vein at 70-71 m, well consolidated.

3 RAPH03 LITHOLOGICAL LOG

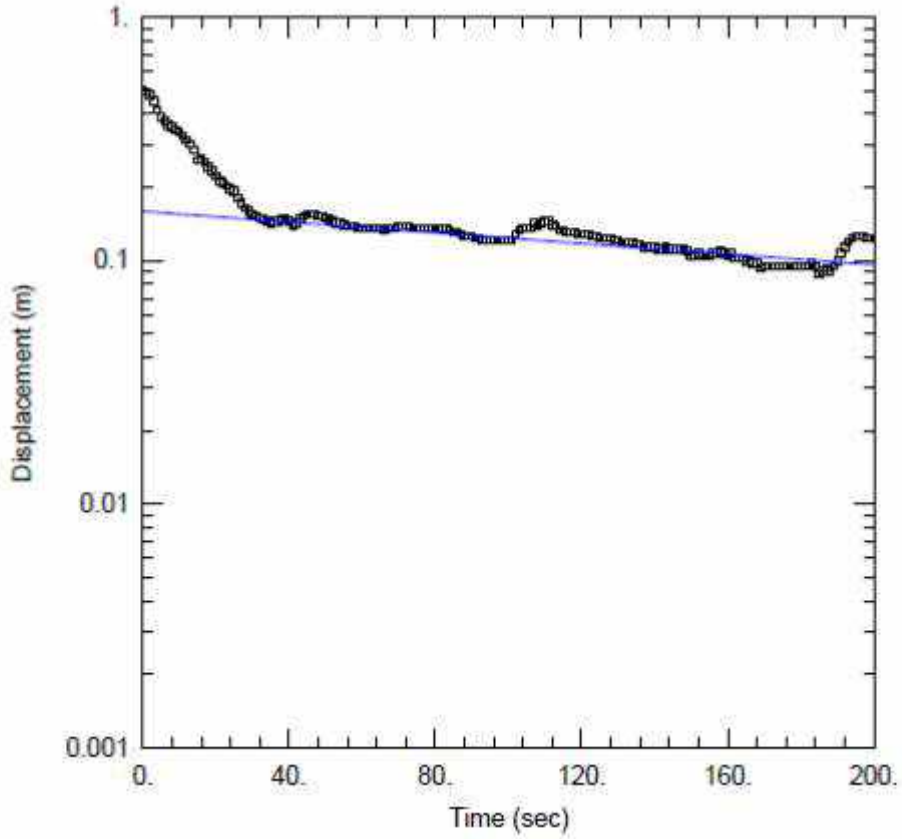
From	To	Lithology	Description
0	5	Saprolite	Buff-grey, extremely weathered ultramafic, completely weathered to clay, weakly consolidated.
5	24	Ultramafic Schist	Dark green, highly weathered ultramafic schist, oxidised, with iron staining on foliation planes, moderately consolidated.
24	29	Ultramafic Schist	Dark green, highly weathered ultramafic schist, oxidised, and moderately fractured with iron staining on foliation planes and fracture surfaces, moderately consolidated.
29	53	Ultramafic Schist	Dark green, yellow, highly weathered ultramafic schist, oxidised, with iron staining on foliation planes, and abundant limonite, moderately consolidated.
53	55	Basalt	Dark green, fresh, fine grained mafic rock, competent, no sign of fracturing, well consolidated.
55	56	Ultramafic Schist	Light green-grey, slightly weathered mafic schist, no sign of fracturing, competent rock.
57	57	Basalt	Dark green, fresh, fine grained mafic rock, competent, no sign of fracturing, well consolidated.
57	68	Ultramafic Schist	Light green-grey, slightly weathered mafic schist, no sign of fracturing, competent rock.
68	80	Basalt	Dark green, fresh, fine grained mafic rock, competent, no sign of fracturing, well consolidated.

4 RAPH04 LITHOLOGICAL LOG

From	To	Lithology	Description
0	7	Saprolite	Red, extremely weathered, ferruginous clay no rock fragments or fabric, weakly consolidated
7	13	Saprolite	Buff-grey, yellow, extremely weathered, stiff clay and limonite, well consolidated.
13	34	Saprolite	Light grey, extremely weathered, ferruginous clay no rock fragments or fabric, weakly consolidated
34	37	Saprolite	Light red, extremely weathered, ferruginous clay no rock fragments or fabric, weakly consolidated
37	42	Saprolite	Light red, extremely weathered, ferruginous clay with minor buff-green mafic rock fragments, weakly consolidated
42	53	Ultramafic Schist	Light green-grey, slightly weathered, mafic schist, moderately fractured from 44 to 51 mm with iron-stained fracture surfaces, well consolidated.
53	60	Basalt	Dark green, fresh, fine grained mafic rock, moderate fracturing, well consolidated.
60	78	Basalt	Dark green, fresh, fine grained mafic rock, no sign of fracturing, well consolidated.
78	80	Basalt	Dark green, fresh, fine grained mafic rock, large rock fragments indicative of fracturing, well consolidated.

APPENDIX II

PERMEABILITY TEST PLOTS AND ANALYSES



WELL TEST ANALYSIS

Data Set: I:\522-0\Slug Tests\PH01\PH01 First Test GL recovery.aqt
Date: 12/03/25 Time: 13:31:51

PROJECT INFORMATION

Client: Mega Resources
Location: RAMA
Test Well: PH01
Test Date: 30/10/2025

AQUIFER DATA

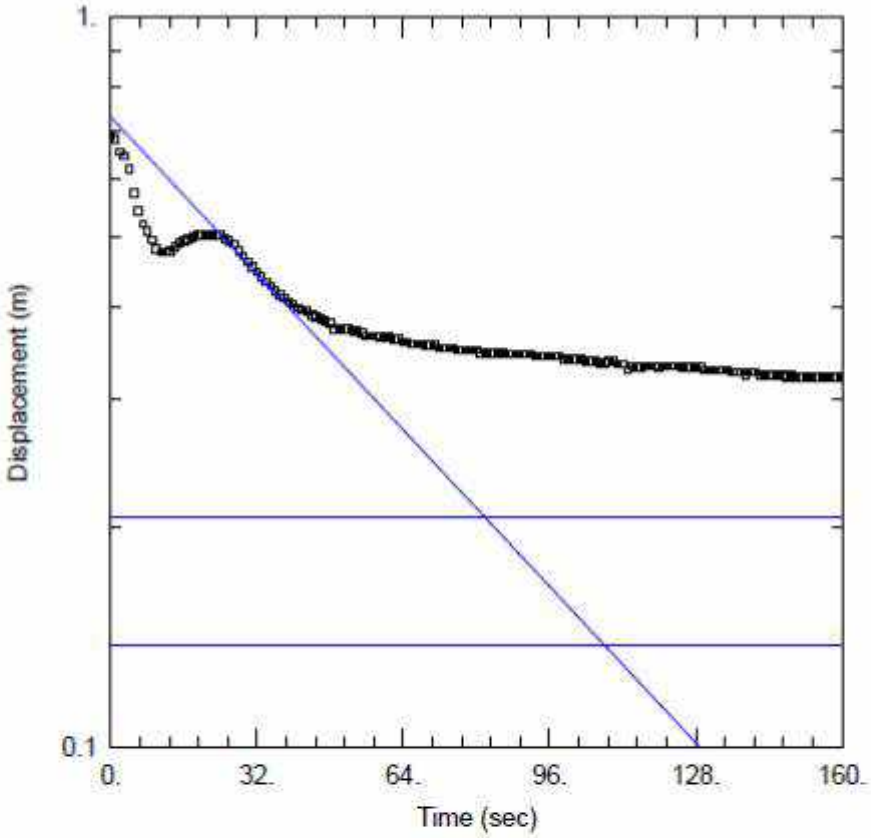
Saturated Thickness: 39.01 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PH01)

Initial Displacement: 0.49 m
Total Well Penetration Depth: 39.01 m
Casing Radius: 0.025 m
Static Water Column Height: 39.01 m
Screen Length: 39.01 m
Well Radius: 0.0625 m

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice
K = 0.009262 m/day
y0 = 0.1593 m



WELL TEST ANALYSIS

Data Set: I:\522-0\Slug Tests\PH01\PH01 Second Test GL recovery.aqt
Date: 12/03/25 Time: 13:54:04

PROJECT INFORMATION

Client: Mega Resources
Location: RAMA
Test Well: PH01
Test Date: 30/10/2025

AQUIFER DATA

Saturated Thickness: 39.01 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PH01)

Initial Displacement: 0.688 m
Total Well Penetration Depth: 39.01 m
Casing Radius: 0.025 m
Static Water Column Height: 39.01 m
Screen Length: 39.01 m
Well Radius: 0.0625 m

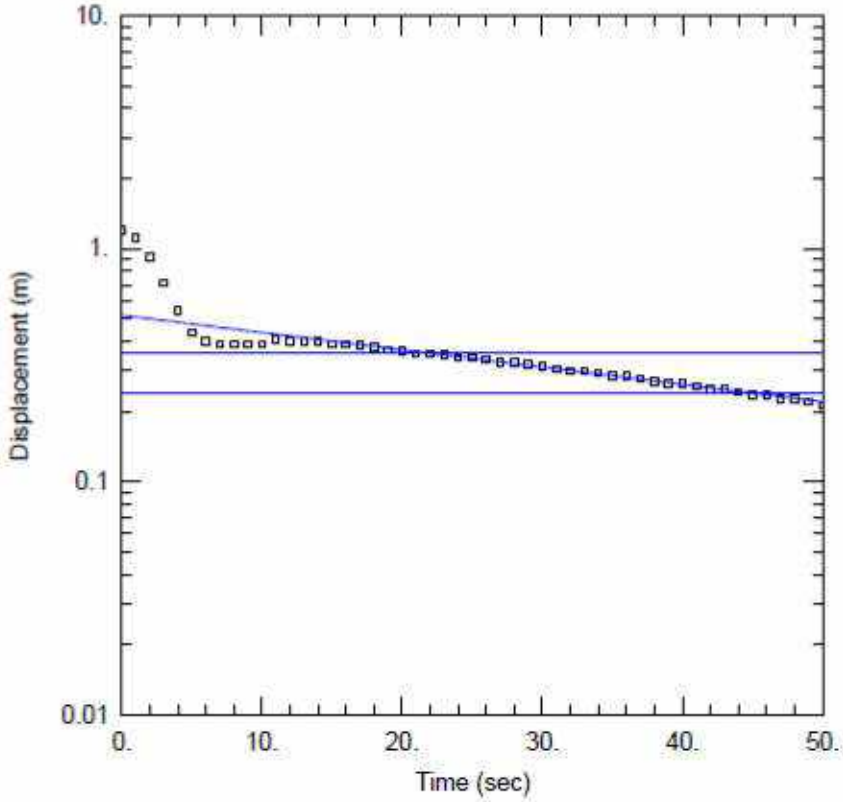
SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice
K = 0.0564 m/day
y0 = 0.7291 m

Client: MEGA Resources
Project : RAMA Project
Date: December 2025
Dwg. No: 522-0/25/AII-2

Rockwater Pty Ltd

FALLING HEAD TEST HOLE PH01 - TEST 2



WELL TEST ANALYSIS

Data Set: I:\522-0\Slug Tests\PH03\PH03 First Test GL-trial.aqt
Date: 12/03/25 Time: 14:03:11

PROJECT INFORMATION

Company: Rockwater
Client: Mega Resources
Project: 522-0
Location: Rama Gold Project
Test Well: PH03 First Test GL
Test Date: October 2025

AQUIFER DATA

Saturated Thickness: 38.31 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PH03)

Initial Displacement: 1.196 m
Total Well Penetration Depth: 38.31 m
Casing Radius: 0.025 m
Static Water Column Height: 38.31 m
Screen Length: 38.31 m
Well Radius: 0.0625 m

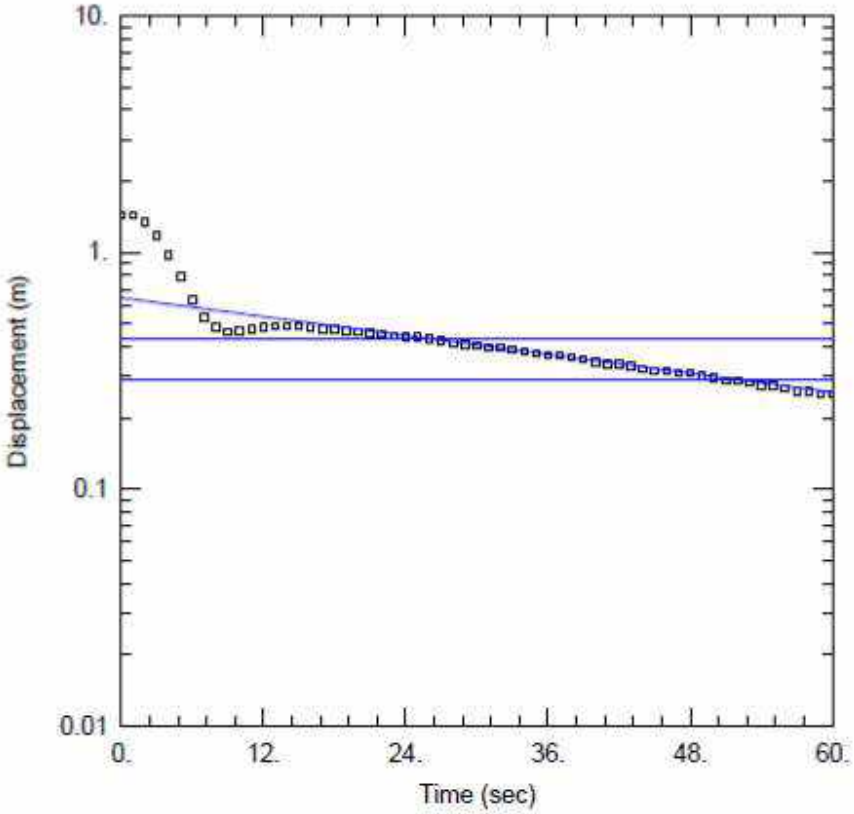
SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice
K = 0.06345 m/day
y0 = 0.5184 m

Client: MEGA Resources
Project : RAMA Project
Date: December 2025
Dwg. No: 522-0/25/AII-3

Rockwater Pty Ltd

FALLING HEAD TEST HOLE PH03 - TEST 1



WELL TEST ANALYSIS

Data Set: I:\522-0\Slug Tests\PH03\PH03 Second Test GL-trial.aqt
Date: 12/03/25 Time: 14:06:26

PROJECT INFORMATION

Company: Rockwater
Client: Mega Resources
Project: 522-0
Location: Rama Gold Project
Test Well: PH03 First Test GL
Test Date: October 2025

AQUIFER DATA

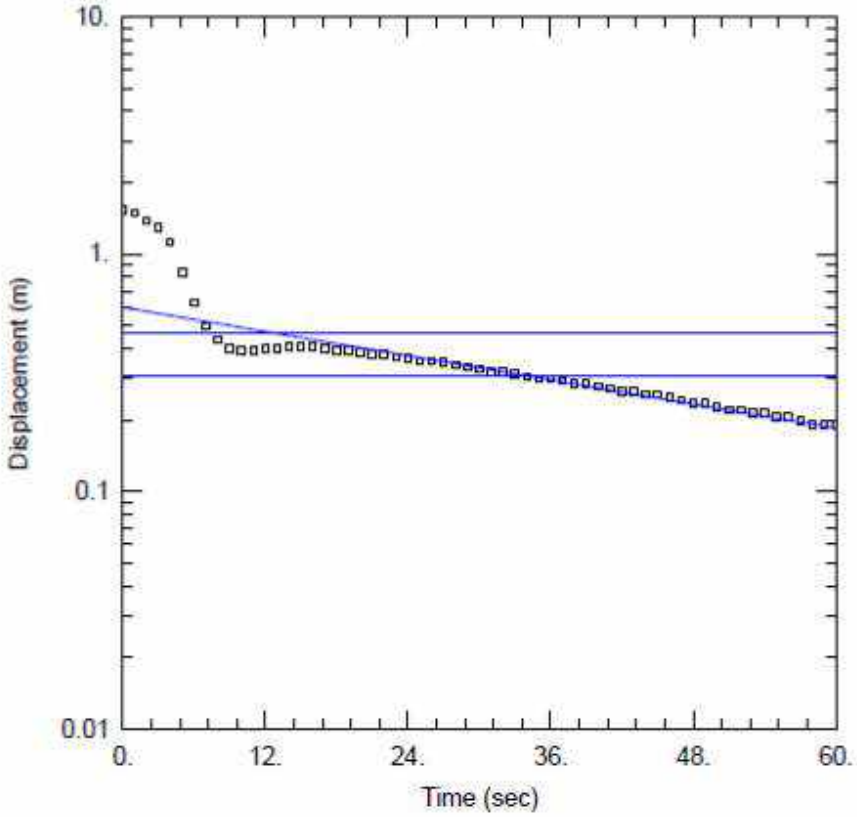
Saturated Thickness: 38.31 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PH03)

Initial Displacement: 1.444 m
Total Well Penetration Depth: 38.31 m
Casing Radius: 0.025 m
Static Water Column Height: 38.31 m
Screen Length: 38.31 m
Well Radius: 0.0625 m

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice
K = 0.05683 m/day
y0 = 0.6442 m



WELL TEST ANALYSIS

Data Set: I:\522-0\Slug Tests\PH03\PH03 Third Test GL-trial.aqt
Date: 12/03/25 Time: 14:11:46

PROJECT INFORMATION

Company: Rockwater
Client: Mega Resources
Project: 522-0
Location: Rama Gold Project
Test Well: PH03 First Test GL
Test Date: October 2025

AQUIFER DATA

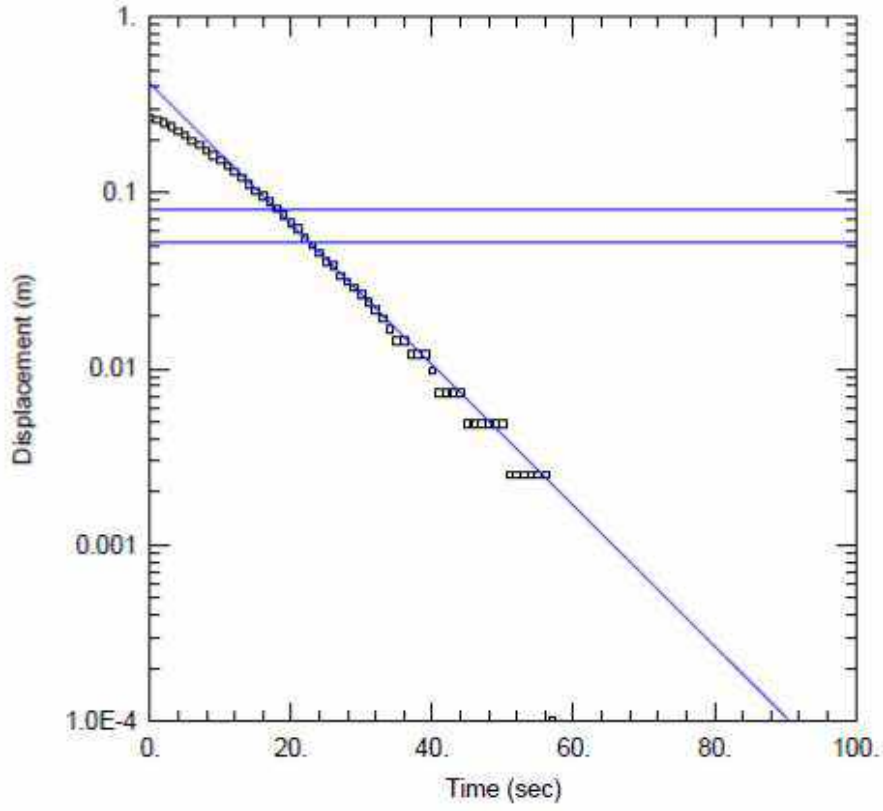
Saturated Thickness: 38.31 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PH03)

Initial Displacement: 1.538 m
Total Well Penetration Depth: 38.31 m
Casing Radius: 0.025 m
Static Water Column Height: 38.31 m
Screen Length: 38.31 m
Well Radius: 0.0625 m

SOLUTION

Aquifer Model: Confined
K = 0.07256 m/day
Solution Method: Bouwer-Rice
y0 = 0.597 m



WELL TEST ANALYSIS

Data Set: I:\522-0\Slug Tests\PH04\PH04 First Test GL recovery.aqt
Date: 12/03/25 Time: 14:16:47

PROJECT INFORMATION

Company: Rockwater
Client: Mega Resources
Project: 522-0
Location: Rama Gold Project
Test Well: PH04
Test Date: October 2025

AQUIFER DATA

Saturated Thickness: 34.84 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PH04)

Initial Displacement: 0.2643 m
Total Well Penetration Depth: 34.84 m
Casing Radius: 0.025 m
Static Water Column Height: 34.84 m
Screen Length: 34.84 m
Well Radius: 0.0625 m

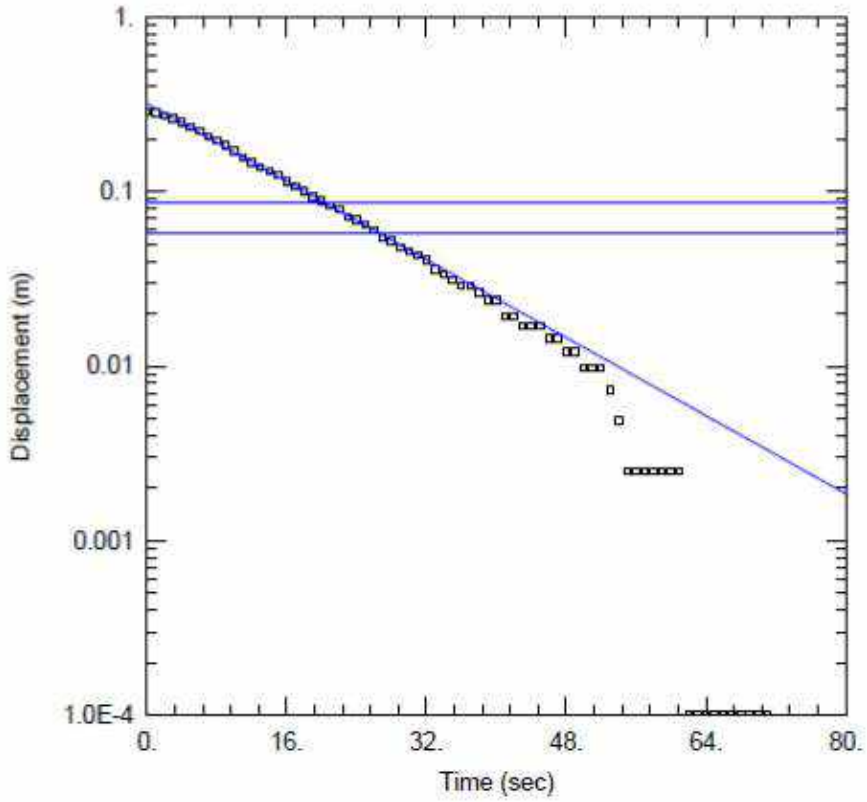
SOLUTION

Aquifer Model: Unconfined
K = 0.3678 m/day
Solution Method: Bouwer-Rice
y0 = 0.4164 m

Client: MEGA Resources
Project : RAMA Project
Date: December 2025
Dwg. No: 522-0/25/AII-6

Rockwater Pty Ltd

FALLING HEAD TEST HOLE PH04 - TEST 1



WELL TEST ANALYSIS

Data Set: I:\522-0\Slug Tests\PH04\PH04 Second Test GL recovery.aqt
Date: 12/03/25 Time: 14:15:35

PROJECT INFORMATION

Company: Rockwater
Client: Mega Resources
Project: 522-0
Location: Rama Gold Project
Test Well: PH04
Test Date: October 2025

AQUIFER DATA

Saturated Thickness: 38.31 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PH04)

Initial Displacement: 0.2882 m
Total Well Penetration Depth: 38.31 m
Casing Radius: 0.025 m
Static Water Column Height: 38.31 m
Screen Length: 38.31 m
Well Radius: 0.0625 m

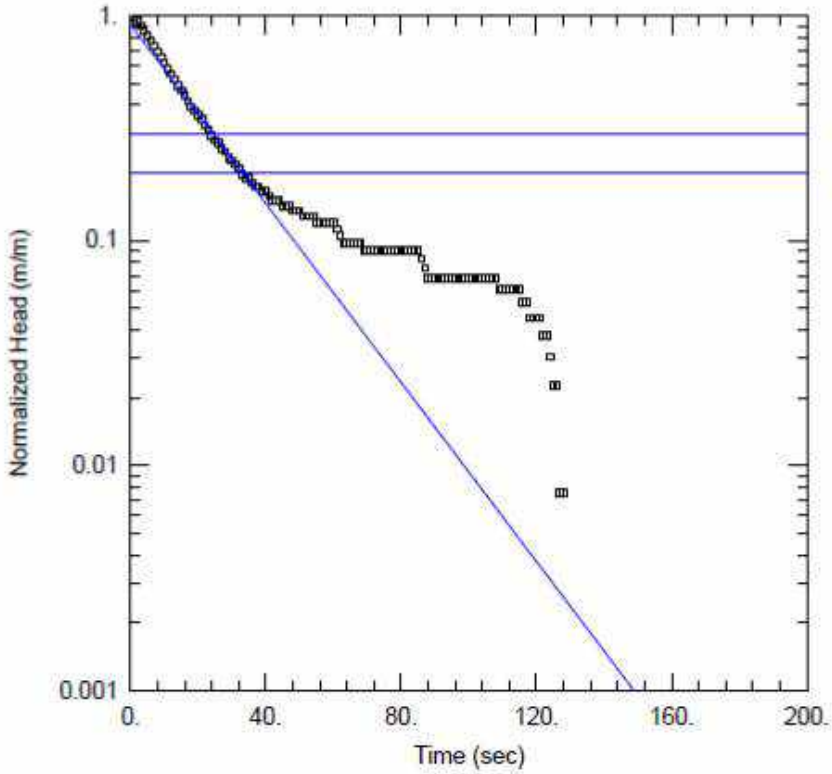
SOLUTION

Aquifer Model: Unconfined
K = 0.239 m/day
Solution Method: Bouwer-Rice
y0 = 0.3197 m

Client: MEGA Resources
Project : RAMA Project
Date: December 2025
Dwg. No: 522-0/25/AII-7

Rockwater Pty Ltd

FALLING HEAD TEST HOLE PH04 - TEST 2



WELL TEST ANALYSIS

Data Set: I:\522-0\Slug Tests\PH04\PH04 Third Test GL recovery.aqt
Date: 12/03/25 Time: 14:17:16

PROJECT INFORMATION

Company: Rockwater
Client: Mega Resources
Project: 522-0
Location: Rama Gold Project
Test Well: PH04
Test Date: October 2025

AQUIFER DATA

Saturated Thickness: 34.84 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (New Well)

Initial Displacement: 0.3163 m
Total Well Penetration Depth: 34.84 m
Casing Radius: 0.025 m
Static Water Column Height: 34.84 m
Screen Length: 34.84 m
Well Radius: 0.0625 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 0.1832 m/day y0 = 0.2887 m

APPENDIX III

WATER CHEMISTRY CERTIFICATES OF ANALYSIS

CERTIFICATE OF ANALYSIS

Work Order	: **EP2518163**	Page	: 1 of 5
Client	: **ROCKWATER PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: Customer Services EP
Address	: 1ST FLOOR, 76 JERSEY ST WEMBLEY WA, AUSTRALIA 6014	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: +61 08 9284 0222	Telephone	: +61-8-9406 1301
Project	: RAMA Gold Project	Date Samples Received	: 31-Oct-2025 16:20
Order number	: ----	Date Analysis Commenced	: 31-Oct-2025
C-O-C number		Issue Date	: 07-Nov-2025 20:41
Sampler	[redacted]		
Site	:		
Quote number	: EP23ROCWAT0002_V4		
No. of samples received	: 4		
No. of samples analysed	: 4		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
[redacted]		

General Comments

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

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

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

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

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

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

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- As per QWI – EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions - Chloride, Alkalinity and Sulfate; and Major Cations - Calcium, Magnesium, Potassium and Sodium. Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H+ to the Cations and Nitrate, SiO2 and Fluoride to the Anions.
- EG020: Metals LOR for samples EP2518163 -001 to -004 raised due to high TDS content.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	PH01	PH04	North Sump	PH03	----
			Sampling date / time	30-Oct-2025 00:00	30-Oct-2025 00:00	30-Oct-2025 00:00	30-Oct-2025 00:00	----
Compound	CAS Number	LOR	Unit	EP2518163-001	EP2518163-002	EP2518163-003	EP2518163-004	--------
				Result	Result	Result	Result	----
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	7.91	7.50	7.98	7.57	----
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	36600	34900	38800	42600	----
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	26200	25700	27400	30800	----
EA065: Total Hardness as CaCO3								
Total Hardness as CaCO3	----	1	mg/L	4950	5230	5080	5690	----
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	491	582	413	48	----
Total Alkalinity as CaCO3	----	1	mg/L	491	582	413	48	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	1950	1900	2080	2120	----
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	13100	13000	13400	15400	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	571	429	429	463	----
Magnesium	7439-95-4	1	mg/L	857	1010	974	1100	----
Sodium	7440-23-5	1	mg/L	6970	7430	7580	8410	----
Potassium	7440-09-7	1	mg/L	103	82	91	106	----
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.05	<0.05	0.09	<0.05	----
Arsenic	7440-38-2	0.001	mg/L	<0.005	0.013	<0.005	<0.005	----
Cadmium	7440-43-9	0.0001	mg/L	<0.0005	0.0009	0.0012	<0.0005	----
Chromium	7440-47-3	0.001	mg/L	<0.005	<0.005	<0.005	<0.005	----
Lead	7439-92-1	0.001	mg/L	0.006	<0.005	<0.005	<0.005	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	PH01	PH04	North Sump	PH03	----
			Sampling date / time	30-Oct-2025 00:00	30-Oct-2025 00:00	30-Oct-2025 00:00	30-Oct-2025 00:00	----
Compound	CAS Number	LOR	Unit	EP2518163-001	EP2518163-002	EP2518163-003	EP2518163-004	--------
				Result	Result	Result	Result	----
EG020F: Dissolved Metals by ICP-MS - Continued								
Manganese	7439-96-5	0.001	mg/L	10.1	2.23	0.582	2.57	----
Selenium	7782-49-2	0.01	mg/L	<0.05	<0.05	<0.05	<0.05	----
Zinc	7440-66-6	0.005	mg/L	0.074	0.045	<0.025	0.036	----
Iron	7439-89-6	0.05	mg/L	2.39	<0.25	<0.25	<0.25	----
EG035F: Dissolved Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	----
EG052G: Silica by Discrete Analyser								
Reactive Silica	----	0.05	mg/L	18.8	28.5	30.6	9.12	----
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0.01	mg/L	0.15	0.58	44.3	0.27	----
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N	14797-65-0	0.01	mg/L	0.02	<0.01	1.69	<0.01	----
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N	14797-55-8	0.01	mg/L	0.04	<0.01	97.9	<0.01	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	0.06	<0.01	99.6	<0.01	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser								
Total Kjeldahl Nitrogen as N	----	0.1	mg/L	50.7	1.2	88.3	0.5	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser								
^ Total Nitrogen as N	----	0.1	mg/L	50.8	1.2	188	0.5	----
EK067G: Total Phosphorus as P by Discrete Analyser								
Total Phosphorus as P	----	0.01	mg/L	0.17	2.52	0.23	0.05	----
EK071G: Reactive Phosphorus as P by discrete analyser								
Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.03	0.03	<0.01	<0.01	----
EN055: Ionic Balance								
ø Total Anions	----	0.01	meq/L	420	418	430	480	----
ø Total Cations	----	0.01	meq/L	405	430	434	482	----
ø Ionic Balance	----	0.01	%	1.83	1.41	0.47	0.28	----

QUALITY CONTROL REPORT

Work Order	: **EP2518163**	Page	: 1 of 7
Client	: **ROCKWATER PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: Customer Services EP
Address	: 1ST FLOOR, 76 JERSEY ST WEMBLEY WA, AUSTRALIA 6014	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: +61 08 9284 0222	Telephone	: +61-8-9406 1301
Project	: RAMA Gold Project	Date Samples Received	: 31-Oct-2025
Order number	: ----	Date Analysis Commenced	: 31-Oct-2025
C-O-C number	: ----	Issue Date	: 07-Nov-2025
Sampler	: [redacted]		
Site	:		
Quote number	: EP23ROCWAT0002_V4		
No. of samples received	: 4		
No. of samples analysed	: 4		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

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

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

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

Signatories	*Position*	*Accreditation Category*
[redacted]		

General Comments

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

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

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC
* = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting. Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EA005P: pH by PC Titrator (QC Lot: 6974971)									
EP2518066-003	Anonymous	EA005-P: pH Value	----	0.01	pH Unit	8.05	8.06	0.1	0% - 20%
EP2518169-003	Anonymous	EA005-P: pH Value	----	0.01	pH Unit	5.40	5.36	0.7	0% - 20%
EA010P: Conductivity by PC Titrator (QC Lot: 6974968)									
EP2518066-003	Anonymous	EA010-P: Electrical Conductivity @ 25°C	----	1	µS/cm	925	938	1.4	0% - 20%
EP2518169-003	Anonymous	EA010-P: Electrical Conductivity @ 25°C	----	1	µS/cm	3	3	0.0	No Limit
EA015: Total Dissolved Solids dried at 180 ± 5 °C (QC Lot: 6983175)									
EP2518162-010	Anonymous	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	640	632	1.2	0% - 20%
EP2518163-003	North Sump	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	27400	27400	0.1	0% - 20%
ED037P: Alkalinity by PC Titrator (QC Lot: 6974970)									
EP2518066-003	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	340	346	1.9	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	340	346	1.9	0% - 20%
EP2518169-003	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	<1	<1	0.0	No Limit
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 6972901)									
EP2518066-002	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	22	22	0.0	0% - 20%
EP2518066-011	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	36	34	4.2	0% - 20%

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
ED045G: Chloride by Discrete Analyser (QC Lot: 6972902)									
EP2518066-002	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	67	68	0.0	0% - 20%
EP2518066-011	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	55	55	0.0	0% - 20%
ED093F: Dissolved Major Cations (QC Lot: 6977838)									
EP2518153-003	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	682	663	2.8	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	927	893	3.8	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	4410	4240	3.8	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	110	108	2.4	0% - 20%
EP2518163-004	PH03	ED093F: Calcium	7440-70-2	1	mg/L	463	490	5.7	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	1100	1160	5.6	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	8410	8730	3.7	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	106	111	4.6	0% - 20%
EG020F: Dissolved Metals by ICP-MS (QC Lot: 6977837)									
EP2518153-003	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001 (0.0002)*	mg/L	0.0005	0.0004	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001 (0.002) *	mg/L	<0.002	<0.002	0.0	No Limit
		EG020A-F: Chromium	7440-47-3	0.001 (0.002) *	mg/L	<0.002	<0.002	0.0	No Limit
		EG020A-F: Lead	7439-92-1	0.001 (0.002) *	mg/L	<0.002	<0.002	0.0	No Limit
		EG020A-F: Manganese	7439-96-5	0.001 (0.002) *	mg/L	2.09	2.08	0.4	0% - 20%
		EG020A-F: Zinc	7440-66-6	0.005 (0.010) *	mg/L	0.010	<0.010	0.0	No Limit
		EG020A-F: Aluminium	7429-90-5	0.01 (0.02)*	mg/L	<0.02	<0.02	0.0	No Limit
		EG020A-F: Selenium	7782-49-2	0.01 (0.020)*	mg/L	<0.020	<0.020	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05 (0.10)*	mg/L	<0.10	<0.10	0.0	No Limit
EP2518163-004	PH03	EG020A-F: Cadmium	7440-43-9	0.0001 (0.0005)*	mg/L	<0.0005	<0.0005	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001 (0.005) *	mg/L	<0.005	<0.005	0.0	No Limit
		EG020A-F: Chromium	7440-47-3	0.001 (0.005) *	mg/L	<0.005	<0.005	0.0	No Limit
		EG020A-F: Lead	7439-92-1	0.001 (0.005) *	mg/L	<0.005	<0.005	0.0	No Limit
		EG020A-F: Manganese	7439-96-5	0.001 (0.005) *	mg/L	2.57	2.70	4.9	0% - 20%
		EG020A-F: Zinc	7440-66-6	0.005 (0.025) *	mg/L	0.036	0.034	6.1	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 6977837) - continued									
EP2518163-004	PH03	EG020A-F: Aluminium	7429-90-5	0.01 (0.05)*	mg/L	<0.05	<0.05	0.0	No Limit
		EG020A-F: Selenium	7782-49-2	0.01 (0.05)*	mg/L	<0.05	<0.05	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05 (0.25)*	mg/L	<0.25	<0.25	0.0	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 6977833)									
EP2518148-011	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EP2518163-003	North Sump	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EG052G: Silica by Discrete Analyser (QC Lot: 6972904)									
EP2518163-001	PH01	EG052G: Reactive Silica	----	0.05	mg/L	18.8	18.5	1.3	0% - 20%
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 6972930)									
EP2518066-004	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.08	0.07	14.1	No Limit
EP2518163-001	PH01	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.15	0.15	0.0	0% - 50%
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 6972899)									
EP2518066-002	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EP2518066-011	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 6972931)									
EP2518066-004	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	6.14	6.14	0.0	0% - 20%
EP2518163-001	PH01	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.06	0.06	0.0	No Limit
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 6981042)									
EP2518066-009	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.3	0.3	0.0	No Limit
EP2518163-002	PH04	EK061G: Total Kjeldahl Nitrogen as N	----	0.1 (0.5)*	mg/L	1.2	1.4	12.1	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 6981041)									
EP2518066-009	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.01	0.02	0.0	No Limit
EP2518163-002	PH04	EK067G: Total Phosphorus as P	----	0.01 (0.10)*	mg/L	2.52	2.35	7.0	0% - 20%
EK071G: Reactive Phosphorus as P by discrete analyser (QC Lot: 6972900)									
EP2518066-002	Anonymous	EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EP2518066-011	Anonymous	EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EA005P: pH by PC Titrator (QCLot: 6974971)								
EA005-P: pH Value	---	---	pH Unit	---	4 pH Unit	100	98.5	102
				---	7 pH Unit	101	98.5	102
EA010P: Conductivity by PC Titrator (QCLot: 6974968)								
EA010-P: Electrical Conductivity @ 25°C	---	1	µS/cm	<1	24800 µS/cm	98.7	92.1	105
EA015: Total Dissolved Solids dried at 180 ± 5 °C (QCLot: 6983175)								
EA015H: Total Dissolved Solids @180°C	---	10	mg/L	<10	2000 mg/L	99.7	80.0	120
				<10	293 mg/L	104	80.0	120
				<10	2470 mg/L	106	80.0	120
ED037P: Alkalinity by PC Titrator (QCLot: 6974970)								
ED037-P: Total Alkalinity as CaCO3	---	---	mg/L	---	20 mg/L	117	85.1	126
				---	200 mg/L	91.0	90.5	111
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6972901)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	101	89.9	112
				<1	500 mg/L	96.5	89.9	112
ED045G: Chloride by Discrete Analyser (QCLot: 6972902)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	108	88.6	113
				<1	1000 mg/L	96.0	88.6	113
ED093F: Dissolved Major Cations (QCLot: 6977838)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	110	86.5	117
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	104	88.4	110
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	104	91.4	113
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	99.1	84.6	108
EG020F: Dissolved Metals by ICP-MS (QCLot: 6977837)								
EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	99.7	90.2	111
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	102	90.3	113
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	99.5	89.7	108
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	99.3	87.3	107
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	98.2	89.4	106
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	96.2	87.6	106
EG020A-F: Selenium	7782-49-2	0.01	mg/L	<0.01	0.1 mg/L	93.8	83.8	102
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	103	89.5	112

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	LCS Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG020F: Dissolved Metals by ICP-MS (QCLot: 6977837) - continued								
EG020A-F: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	93.2	89.9	120
EG035F: Dissolved Mercury by FIMS (QCLot: 6977833)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.005 mg/L	87.4	85.6	120
EG052G: Silica by Discrete Analyser (QCLot: 6972904)								
EG052G: Reactive Silica	---	0.05	mg/L	<0.05	5 mg/L	102	94.6	110
EK055G: Ammonia as N by Discrete Analyser (QCLot: 6972930)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	103	86.2	111
EK057G: Nitrite as N by Discrete Analyser (QCLot: 6972899)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	108	88.7	113
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 6972931)								
EK059G: Nitrite + Nitrate as N	---	0.01	mg/L	<0.01	0.5 mg/L	104	90.5	110
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 6981042)								
EK061G: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	<0.1	10 mg/L	100	80.0	115
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 6981041)								
EK067G: Total Phosphorus as P	---	0.01	mg/L	<0.01	4.42 mg/L	95.2	70.0	110
EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 6972900)								
EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	99.1	89.4	109

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6972901)							
EP2518066-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	100 mg/L	100	70.4	130
ED045G: Chloride by Discrete Analyser (QCLot: 6972902)							
EP2518066-001	Anonymous	ED045G: Chloride	16887-00-6	200 mg/L	104	70.0	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 6977837)							
EP2518153-004	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	118	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	108	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	104	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	104	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 6977837) - continued							
EP2518153-004	Anonymous	EG020A-F: Manganese	7439-96-5	1 mg/L	# Not Determined	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	109	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 6977833)							
EP2518148-010	Anonymous	EG035F: Mercury	7439-97-6	0.005 mg/L	91.3	70.0	130
EG052G: Silica by Discrete Analyser (QCLot: 6972904)							
EP2518163-002	PH04	EG052G: Reactive Silica	---	5 mg/L	# Not Determined	70.0	116
EK055G: Ammonia as N by Discrete Analyser (QCLot: 6972930)							
EP2518066-003	Anonymous	EK055G: Ammonia as N	7664-41-7	1 mg/L	114	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 6972899)							
EP2518066-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	115	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 6972931)							
EP2518066-003	Anonymous	EK059G: Nitrite + Nitrate as N	---	0.5 mg/L	127	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 6981042)							
EP2518066-010	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	---	5 mg/L	100	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 6981041)							
EP2518066-010	Anonymous	EK067G: Total Phosphorus as P	---	1 mg/L	102	70.0	130
EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 6972900)							
EP2518066-001	Anonymous	EK071G: Reactive Phosphorus as P	14265-44-2	0.5 mg/L	120	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EP2518163**	Page	: 1 of 8
Client	: **ROCKWATER PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Telephone	: +61-8-9406 1301
Project	: RAMA Gold Project	Date Samples Received	: 31-Oct-2025
Site	:	Issue Date	: 07-Nov-2025
Sampler	[redacted]	No. of samples received	: 4
Order number	: ----	No. of samples analysed	: 4

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **Analysis Holding Time Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EG020F: Dissolved Metals by ICP-MS	EP2518153--004	Anonymous	**Manganese**	7439-96-5	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EG052G: Silica by Discrete Analyser	EP2518163--002	PH04	**Reactive Silica**	----	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Outliers : Analysis Holding Time Compliance

Matrix: **WATER**

Method / Container / Client Sample ID(s)	Extraction / Preparation: Date extracted	Extraction / Preparation: Due for extraction	Extraction / Preparation: Days overdue	Analysis: Date analysed	Analysis: Due for analysis	Analysis: Days overdue
EA005P: pH by PC Titrator						
Clear Plastic Bottle - Natural						
PH04	----	----	----	03-Nov-2025	30-Oct-2025	4
Clear Plastic Bottle - Natural						
PH01, North Sump, PH03	----	----	----	04-Nov-2025	30-Oct-2025	5

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type / Analytical Methods	Method	Count: QC	Count: Regular	Rate (%): Actual	Rate (%): Expected	Quality Control Specification
Laboratory Control Samples (LCS)						
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	13	7.69	15.00	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	5.00	10.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation: Date extracted	Extraction / Preparation: Due for extraction	Extraction / Preparation: Evaluation	Analysis: Date analysed	Analysis: Due for analysis	Analysis: Evaluation

Matrix: **WATER**

Evaluation: ✖ = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA005P: pH by PC Titrator								
Clear Plastic Bottle - Natural (EA005-P)								
PH04		30-Oct-2025	---	---	---	03-Nov-2025	30-Oct-2025	✖
Clear Plastic Bottle - Natural (EA005-P)								
PH01, PH03	North Sump,	30-Oct-2025	---	---	---	04-Nov-2025	30-Oct-2025	✖
EA010P: Conductivity by PC Titrator								
Clear Plastic Bottle - Natural (EA010-P)								
PH04		30-Oct-2025	---	---	---	03-Nov-2025	27-Nov-2025	✓
Clear Plastic Bottle - Natural (EA010-P)								
PH01, PH03	North Sump,	30-Oct-2025	---	---	---	04-Nov-2025	27-Nov-2025	✓
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Clear Plastic Bottle - Natural (EA015H)								
PH01, North Sump,	PH04, PH03	30-Oct-2025	---	---	---	06-Nov-2025	06-Nov-2025	✓
EA065: Total Hardness as CaCO3								
Clear HDPE (U-T ORC) - Filtered; Lab-acidified (ED093F)								
PH01, North Sump,	PH04, PH03	30-Oct-2025	---	---	---	05-Nov-2025	27-Nov-2025	✓
ED037P: Alkalinity by PC Titrator								
Clear Plastic Bottle - Natural (ED037-P)								
PH04		30-Oct-2025	---	---	---	03-Nov-2025	13-Nov-2025	✓
Clear Plastic Bottle - Natural (ED037-P)								
PH01, PH03	North Sump,	30-Oct-2025	---	---	---	04-Nov-2025	13-Nov-2025	✓
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Clear Plastic Bottle - Natural (ED041G)								
PH01, North Sump,	PH04, PH03	30-Oct-2025	---	---	---	01-Nov-2025	27-Nov-2025	✓
ED045G: Chloride by Discrete Analyser								
Clear Plastic Bottle - Natural (ED045G)								
PH01, North Sump,	PH04, PH03	30-Oct-2025	---	---	---	01-Nov-2025	27-Nov-2025	✓
ED093F: Dissolved Major Cations								
Clear HDPE (U-T ORC) - Filtered; Lab-acidified (ED093F)								
PH01, North Sump,	PH04, PH03	30-Oct-2025	---	---	---	05-Nov-2025	27-Nov-2025	✓
EG020F: Dissolved Metals by ICP-MS								
Clear HDPE (U-T ORC) - Filtered; Lab-acidified (EG020A-F)								
PH01, North Sump,	PH04, PH03	30-Oct-2025	---	---	---	05-Nov-2025	28-Apr-2026	✓

Matrix: **WATER**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035F: Dissolved Mercury by FIMS							
Clear HDPE (U-T ORC) - Filtered; Lab-acidified (EG035F)							
PH01, North Sump,	PH04, PH03	**30-Oct-2025**	----	----	----	**05-Nov-2025**	27-Nov-2025	✓
EG052G: Silica by Discrete Analyser							
Clear Plastic Bottle - Natural (EG052G)							
PH01, North Sump,	PH04, PH03	**30-Oct-2025**	----	----	----	**04-Nov-2025**	27-Nov-2025	✓
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK055G)							
PH01, North Sump,	PH04, PH03	**30-Oct-2025**	----	----	----	**31-Oct-2025**	27-Nov-2025	✓
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural (EK057G)							
PH01, North Sump,	PH04, PH03	**30-Oct-2025**	----	----	----	**01-Nov-2025**	01-Nov-2025	✓
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
PH01, North Sump,	PH04, PH03	**30-Oct-2025**	----	----	----	**01-Nov-2025**	27-Nov-2025	✓
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK061G)							
PH01, North Sump,	PH04, PH03	**30-Oct-2025**	**07-Nov-2025**	27-Nov-2025	✓	**07-Nov-2025**	27-Nov-2025	✓
EK067G: Total Phosphorus as P by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK067G)							
PH01, North Sump,	PH04, PH03	**30-Oct-2025**	**07-Nov-2025**	27-Nov-2025	✓	**07-Nov-2025**	27-Nov-2025	✓
EK071G: Reactive Phosphorus as P by discrete analyser							
Clear Plastic Bottle - Natural (EK071G)							
PH01, North Sump,	PH04, PH03	**30-Oct-2025**	----	----	----	**01-Nov-2025**	01-Nov-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: ✖ = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Alkalinity by Auto Titrator	ED037-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Conductivity by Auto Titrator	EA010-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Mercury by FIMS	EG035F	2	14	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	12	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	11	18.18	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH by Auto Titrator	EA005-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-By Discrete Analyser	EK071G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Silica (Reactive) by Discrete Analyser	EG052G	1	4	25.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Dissolved Solids (High Level)	EA015H	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	2	13	15.38	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Alkalinity by Auto Titrator	ED037-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Conductivity by Auto Titrator	EA010-P	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Mercury by FIMS	EG035F	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	12	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	11	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH by Auto Titrator	EA005-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-By Discrete Analyser	EK071G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Silica (Reactive) by Discrete Analyser	EG052G	1	4	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Dissolved Solids (High Level)	EA015H	3	16	18.75	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	13	7.69	15.00	✖	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	5.00	10.00	✖	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: * = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Method Blanks (MB) - Continued							
Conductivity by Auto Titrator	EA010-P	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Mercury by FIMS	EG035F	1	14	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-By Discrete Analyser	EK071G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Silica (Reactive) by Discrete Analyser	EG052G	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Dissolved Solids (High Level)	EA015H	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Mercury by FIMS	EG035F	1	14	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-By Discrete Analyser	EK071G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Silica (Reactive) by Discrete Analyser	EG052G	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
pH by Auto Titrator	EA005-P	WATER	In house: Referenced to APHA 4500 H+ B. This procedure determines pH of water samples by automated ISE. This method is compliant with NEPM Schedule B(3)
Conductivity by Auto Titrator	EA010-P	WATER	In house: Referenced to APHA 2510 B. This procedure determines conductivity by automated ISE. This method is compliant with NEPM Schedule B(3)
Total Dissolved Solids (High Level)	EA015H	WATER	In house: Referenced to APHA 2540C. A gravimetric procedure that determines the amount of "filterable" residue in an aqueous sample. A well-mixed sample is filtered through a glass fibre filter (1.2um). The filtrate is evaporated to dryness and dried to constant weight at 180+/-5C. This method is compliant with NEPM Schedule B(3)
Alkalinity by Auto Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. Auto Titrator) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO4. Dissolved sulfate is determined in a 0.45um filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G.The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride. In the presence of ferric ions the liberated thiocynate forms highly-coloured ferric thiocynate which is measured at 480 nm.
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
Silica (Reactive) by Discrete Analyser	EG052G	WATER	In house: Referenced to APHA 4500-SiO2 D: Under Acidic conditions reactive silicon combines with ammonium molybdate to form a yellow molybdosilicic acid complex. This is reduced by 1-amino-2-naphthol-4-sulfonic acid to a silicomolybdenum blue complex which is measured by discrete analyser at 670 nm. This method is compliant with NEPM Schedule B(3).

Analytical Methods	Method	Matrix	Method Descriptions
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	WATER	In house: Referenced to APHA 4500-Norg D (In house). An aliquot of sample is digested using a high temperature Kjeldahl digestion to convert nitrogenous compounds to ammonia. Ammonia is determined colorimetrically by discrete analyser. This method is compliant with NEPM Schedule B(3)
Total Nitrogen as N (TKN + Nox) By Discrete Analyser	EK062G	WATER	In house: Referenced to APHA 4500-Norg / 4500-NO3-. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)
Reactive Phosphorus as P-By Discrete Analyser	EK071G	WATER	In house: Referenced to APHA 4500-P F Ammonium molybdate and potassium antimonyl tartrate reacts in acid medium with othophosphate to form a heteropoly acid -phosphomolybdic acid - which is reduced to intensely coloured molybdenum blue by ascorbic acid. Quantification is by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* EN055 - PG	WATER	In house: Referenced to APHA 1030E. This method is compliant with NEPM Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)

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CHAIN OF CUSTODY AND ANALYSIS REQUEST

CLIENT:	Mega Resources	**CLIENT No.:** 520-0	**ALS (Australian Lab. Services)**
PROJECT NAME:	RAMA Gold Project	**COLLECTOR'S NAME:** Steve Bolton	**26 Rigali Way, Wangara WA 6065**
PROJECT MANAGER:	Steve Bolton	**ORDER/QUOTE No.:**	**Ph: 9406 1301**
LABORATORY JOB No.:		(use EP23ROCWAT0003-V4 if 1 of 3 normal suites* is analysed)	

General Sample Information							Preservation Method			Analyses Required							Additional Notes/Comments
Sample I.D.	Lab. No.	Sample Date	Sample Time	Field EC mS/cm	Field pH	No. of Containers	Ice	Acidified	Other (name)	Major Components Analysis*	Comprehensive Analysis*	Environmental Disposal*					
PH01	1	30/10/2025		37	6.91	3					X						NOT FIELD FILTERED
PH02	SNR	30/10/2025		35	7.03	3					X						
PH04	2	30/10/2025		30	6.94	3					X						NOT FIELD FILTERED
North Sump	3	31/10/2025		38	7.3	3					X						
PH03	4																

Environmental Division
Perth
Work Order Reference
EP2518163

Telephone : - 61-8-9406 1301

*Please direct **ALL** correspondance and queries to **Project Manager & Default***

Relinquished by: [redacted] Date/Time:	Received by: Date/Time:	Comments:
Relinquished by: Date/Time:	Received by: SP Date/Time: 31/10 1620	Comments: