SUNRISE PROJECT

Annual Review 2024

March 2025

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Sunrise Project
Annual Review 2024

Name of Operation/Mine	*Sunrise Project*
Name of Operator	*Sunrise Energy Metals Limited*
Development Consent	*DA 374-11-00 (as modified)*
Name of Holder of Development Consent	*SRL Ops Pty Ltd*
Mining Leases	*ML1770, ML1769*
Name of Holder of Mining Lease	*SRL Ops Pty Ltd*
Environmental Protection Licence (EPL)	*21146*
Name of Holder of EPL	*SRL Ops Pty Ltd*
Water Licences	*WALs 32068, 39837, 28681, 42370, 1798, 6679*
Name of Holder of Water Licences	*SRL Ops Pty Ltd*
Annual Review Start Date	*1 January 2024*
Annual Review End Date	*31 December 2024*
I, Bronwyn Flynn, certify that this audit report is a true and accurate record of the compliance status of the Sunrise Project for the period 1 January 2024 – 31 December 2024 and that I am authorised to make this statement on behalf of Sunrise Energy Metals Limited.	

Name of Authorised Reporting Officer	Bronwyn Flynn
Title of Authorised Reporting Officer	Environment, Approvals & Community Lead
Signature of Authorised Reporting Officer	
Date	*31 March 2025*

1 Statement of Compliance

The compliance status of the Sunrise Project (**the Project**) with its relevant approval conditions as at the end of the Reporting Period (31 December 2024) is provided in Table 1.

Table 1: Statement of Compliance

Were all conditions of the relevant approval(s) complied with?	
Development Consent DA 374-11-00	YES
Mining Lease (**ML**) 1769	YES
ML1770	YES

All the conditions of the relevant approvals (Table 1) were complied with during the Reporting Period therefore no non-compliances were identified.

2 Introduction

This Annual Review (**AR**) has been prepared by Sunrise Energy Metals Limited (**SEM**) for the Project for the 2024 calendar year from the 1 January 2024 through to 31 December 2024 (**the Reporting Period**).

This AR is generally consistent with the Annual Review Guideline – Post-approval Requirements for State Significant Mining Developments [1], Annual Rehabilitation Report and Forward Program for Large Mines [2] and meets:

- the Annual Review requirements of the Department of Planning, Housing & Infrastructure (**DPHI**) (Schedule 5, Condition 5 of Development Consent DA 374-11-00 (**the Development Consent**) granted on 23 May 2001);
- the Annual Rehabilitation Report requirements of the NSW Resources Regulator (**NSW RR**) under the Standard Conditions of Mining leases – Rehabilitation (condition 13); and
- the routine reporting expectations of the NSW Natural Resources Access Regulator (**NRAR**).

As the Project's security deposit is at the minimum deposit prescribed under s 261BF of the Mining Act 1992 and s 93 of the Mining Regulation 2016, an Annual Rehabilitation Report (**ARR**) as required by s 13(2), 13(4), 15(2) and 16 of the Mining Amendment (Standard Conditions of Mining Leases – Rehabilitation) Regulation 2021 is not required for the Reporting Period.

If required for future reporting periods, the ARR (and forward program) will form an attachment to this AR to avoid duplicating reporting requirements under the MLs held by SEM and the Development Consent.

2.1 Conditions Compliance Table

Table 2 lists the AR information requirements in Condition 5, Schedule 5 of the Development Consent and the corresponding section of this AR where the requirement is addressed.

Table 2: Annual Review Development Consent Information Requirements

Development Consent DA 374-11-00 Schedule 5 Condition 5	Section in this AR document
Annual Review *By the end of March each year, the Applicant must review the environmental performance of the development for the previous calendar year to the satisfaction of the Planning Secretary. This review must:*	This review
describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the current calendar year;	Sections 4, 8 and 12
include a comprehensive review of the monitoring results and complaints records of the development over the past year, which includes a comparison of these results against the: • relevant statutory requirements, limits or performance measures/criteria; • monitoring results of previous years; and • relevant predictions in the Environmental Impact Statement (**EIS**).	Sections 6 and 9
identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;	Section 6
identify any trends in the monitoring data over the life of the development;	Section 6
identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and	Section 6
describe what measures will be implemented over the next year to improve the environmental performance of the development.	Section 6

A request by SEM to change the annual submission date of the ARR for ML 1770 from 15 February to 31 March each year to align with the Annual Review was accepted by the Resources Regulator (letter dated 25 March 2020).

2.2 Sunrise Project Background

SRL Ops Pty Ltd (**SRL**) owns the rights to develop the Project and is a wholly owned subsidiary of SEM.

The Project is a nickel-cobalt-scandium open cut mining project situated near the village of Fifield, approximately 350 kilometres (**km**) west-northwest of Sydney (Figure 1). The Project includes the establishment and operation of the following:

- mine (including the processing facility) on ML 1770;
- limestone quarry (including limestone processing facility) on ML 1769;
- rail siding;
- gas pipeline;
- borefields, surface water extraction infrastructure and water pipeline;
- accommodation camp; and
- associated transport activities and transport infrastructure (e.g. the Fifield Bypass, road and intersection upgrades).

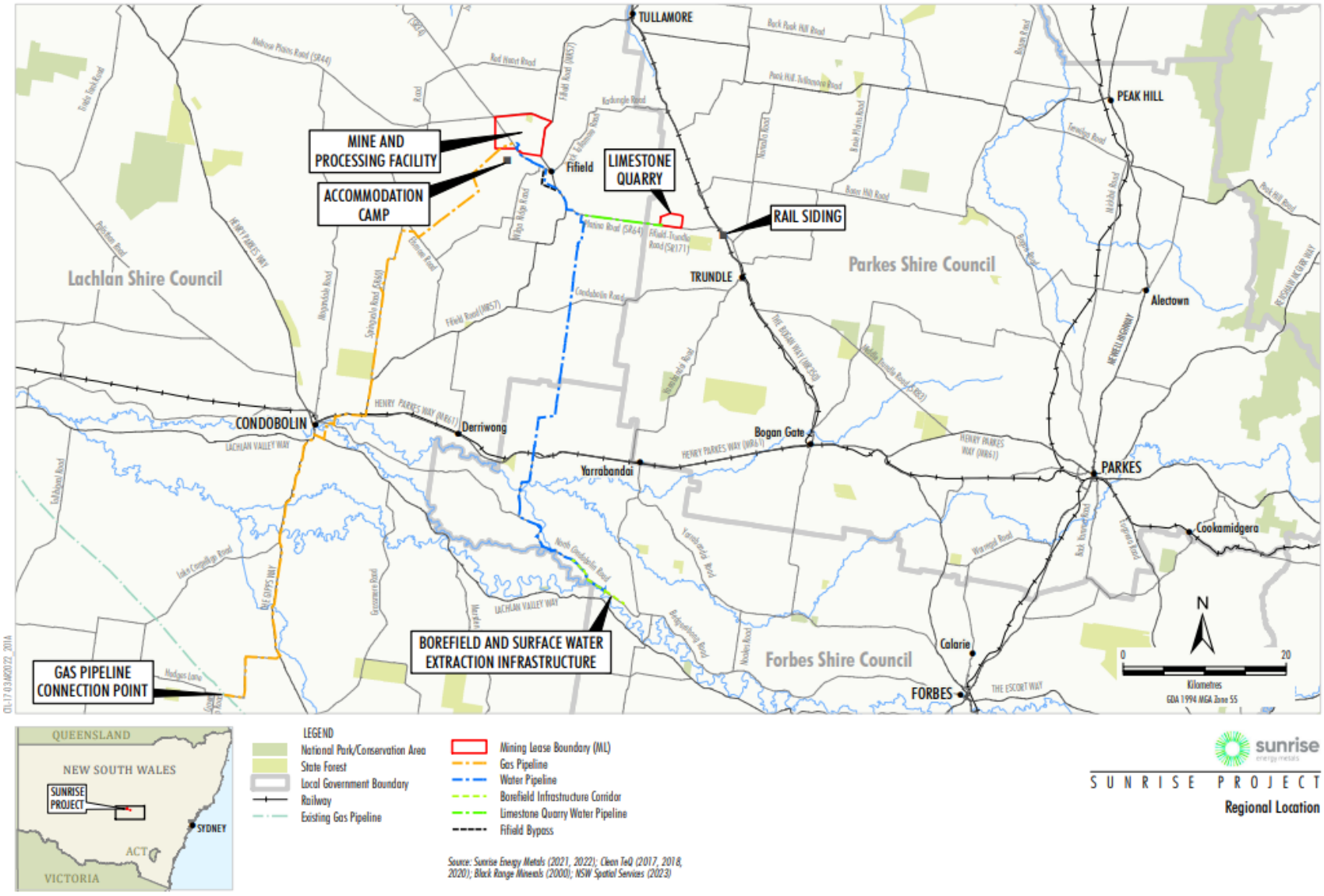
The Development Consent for the Project was issued under Part 4 of the NSW Environmental Planning and Assessment Act 1979 (**EP&A Act**) in 2001. Seven modifications to the Development Consent have since been granted under the EP&A Act:

- 2005 - to allow for an increase of the autoclave feed rate, limestone quarry extraction rate and adjustments to ore processing operations;
- 2006 - to allow for the reconfiguration of the borefields;
- 2017 - to allow for the production of scandium oxide;
- 2017 - to amend hazard study requirements;
- 2018 - to relocate the accommodation camp;
- 2018 - to implement opportunities to improve the overall efficiency of the Project; and
- 2022 - to allow for design and operational changes that would improve the efficiency of the Project.

The Project was commenced in 2006 with the construction of components of the borefields (i.e. two production bores and associated monitoring wells).

The land immediately adjacent to and surrounding the Project (ML 1770) consists of farming land and carbon sequestration offsets.

Figure 1: Regional Location



2.3 Key Personnel Contacts

Contact details for SEM key personnel responsible for the environmental management of the Project are provided in Table 3:

Table 3: Key Personnel Contacts

Position	Name	Telephone	Email
Sunrise Regional Manager	Michael Wood	0418 818 372	mwood@sunriseem.com
Environment, Approvals and Community Lead	Bronwyn Flynn	0429 066 086	bflynn@sunriseem.com

The postal address for the Project is provided below:

Postal Address: PO Box 68, Flinders Lane, Melbourne VIC 8009

3 APPROVALS

3.1 Current List of Consents, Leases, Licences and Permits

The key consents, leases, licences and permits current at the end of the Reporting Period for the Project are listed in Table 4. Any applicable changes to these approvals during the Reporting Period are also described in Table 4.

Table 4: Key Consents, Leases, Licences and Permits

Instrument	Description	Relevant Authority	Date of Grant	Expiry Date or Duration	Changes During AR Period
Project Approval					
DA 374-11-00	Development Consent	DPHI	23/05/2001	21 years (from commencement of mining operations)	No change
Mining Leases (ML)					
ML 1769	Mining Lease (389.7 ha)	NSW Resources	15/2/2018	21 years	No change
ML 1770	Mining Lease (2676 ha)	NSW Resources	16/2/2018	21 years	No change
Environment Protection Licence					
EPL21146	Environment Protection Licence (**EPL**)	NSW EPA	09/01/2019	Until surrendered	No change
Exploration Licences (EL)					
EL8928 Ezy Lime	Exploration Lease (57.5 km^2)	RR	06/01/2023 (renewal)	3 years	No change
EL4573 Sunrise East	Exploration Lease (22.7 km^2)	RR	17/08/2024	3 years	EL renewed during the Reporting Period
EL8833 Boona Gap	Exploration Lease (112.5 km^2)	RR	18/04/2022	3 years	No change
EL8882 Gleninga	Exploration Lease (80.9 km^2)	RR	14/08/2022	3 years	No change
EL8883 Meloola	Exploration Lease (138.4 km^2)	RR	14/08/2022	3 years	No change
EL9259 Sunrise North	Exploration Lease (1229.4km^2)	RR	06/08/2024	2 years	EL renewed during the Reporting Period

Instrument	Description	Relevant Authority	Date of Grant	Expiry Date or Duration	Changes During AR Period
EL9317 Burra Creek	Exploration Lease (72.5km^2)	RR	29/10/2024	3 years	EL renewed during the Reporting Period
EL9627 Hunters	Exploration Lease (92.1km^2)	RR	20/12/2023	3 years	No change
Permits/Agreements/Licences					
AHIP #C0003049	Aboriginal Heritage Impact Permit	CPHR	10/10/2017	10 years	No change
AHIP #C0003887	Aboriginal Heritage Impact Permit	CPHR	10/08/2018	23 years	No change
Agreement	Compensation Agreement	FCNSW	17/01/2019	-	No change
119039 r1v1	Class 2 – Heavy Vehicle Authorisation Permit	NHVR	02/05/2018	30/01/2027	Licence renewed
LN 603648	Crown Lands Licence	DPHI-Crown Lands	06/08/2019	-	No change
Agreement	Mining Lease Compensation Agreement	DPHI-Crown Lands and Central West LLS	20/03/2020	Until land becomes freehold or relinquishment of ML (and certificate to say rehab completed etc.)	No change
5099691	Radiation Management License	NSW EPA		01/10/2025	Licence renewed
5099494	Radiation User License	NSW EPA	25/09/2020	25/09/2025	Licence renewed

Instrument	Description	Relevant Authority	Date of Grant	Expiry Date or Duration	Changes During AR Period
Water Licences					
WAL32068	Water Access Licence	NRAR	18/09/2018	Continuing	No change
WAL28681	Water Access Licence	NRAR	18/09/2018	Continuing	No change
WAL39837	Water Access Licence	NRAR	25/10/2018	Continuing	No change
WAL6679	Water Access Licence	NRAR	13/03/2019	Continuing	No change
WAL42370	Water Access Licence	NRAR	24/05/2019	Continuing	No change
WAL1798	Water Access Licence	NRAR	03/06/2019	Continuing	No change
Water Supply Works Approvals (WSWAs)					
70CA614098	WSWA	NRAR	14/09/2012	12/03/2026	Following completion of pump testing of the new production bores (installed in 2023), an application was made to DCCEEW to make the bores inactive so the Non-Urban Water Metering requirements did not apply. This was granted on 12/04/2024
70WA617095	WSWA	NRAR	13/07/2020	09/07/2030	No change

DCCEEW: NSW Department of Climate Change, Energy, the Environment and Water
DPHI: NSW Department of Planning, Housing and Infrastructure
EPA: NSW Environment Protection Authority – Independent Regulator under NSW Government/Minister for the Environment
CPHR: NSW DCCEEW Environment and Heritage – Conservation Programs, Heritage and Regulation
NRAR: NSW Natural Resources Access Regulator – Independent Regulator under Conservation Programs, Heritage and Regulation
NSW Resources: NSW Resources - within NSW Department of Primary Industries and Regional Development
RR: NSW Resources Regulator - within NSW Resources
FCNSW: Forestry Corporation of New South Wales
NHVR: National Heavy Vehicle Regulator
LLS: Local Land Services – NSW Government Agency under NSW Department of Primary Industries and Regional Development

4 OPERATIONS SUMMARY

4.1 Mining

As mining (or construction) has not commenced, SEM did not extract or process any ore or limestone for the Project during the Reporting Period. Furthermore, no off-site product transport was undertaken from the mine. A production summary is shown in Table 5.

Table 5: Production Summary

Material		Approved Limit* (tonnes/calendar year)	Actuals		Forecast
			Previous Reporting Period	This Reporting Period	Next Reporting Period
Autoclave feed rate of ore		2.5 million	0	0	0
Off –site Product Transport	Ni and Co metal equivalents as sulphate precipitate products	40,000	0	0	0
	Scandium Oxide	180	0	0	0
	Ammonium Sulphate	100,000	0	0	0
Limestone	Extracted from ML 1769	790,000	0	0	0

*Source: Development Consent DA 374-11-00

4.2 Exploration

Exploration activities during the Reporting Period included locating samples from historical drilling programs that had not been assayed for scandium. A total of 430 samples were identified and sent to the laboratory to be assayed.

4.3 Other Activities

During the reporting period, the SEM revisited the option of commencing a small, integrated scandium mine and processing facility as part of the Sunrise Project.

SEM updated its Mineral Resource Estimate (MRE) at the Sunrise Project focussed on scandium resources. The updated MRE highlights the scale and quality of the scandium deposit, with enough grade and tonnage to support decades of future supply.

No other activities occurred during the Reporting Period.

4.4 Next Reporting Period

No significant changes to operations are forecast for the next reporting period i.e. mining (or construction) are not forecast to commence in the next reporting period.

Exploration activities may include additional drilling activities throughout 2025.

5 ACTIONS REQUIRED FROM PREVIOUS ANNUAL REVIEW

The previous AR (2023 AR for the period 1 January 2023 to 31 December 2023) was submitted to the DPHI on 31 March 2024.

The DPHI responded to the 2023 AR submission (letter dated 12/04/2024) advising they had reviewed the AR and considered that it generally satisfied the reporting requirements of the Development Consent and the NSW Planning Annual Review Guideline (October 2015).

The DPHI requested that a copy of the 2023 AR be made publicly available on the company website and ensure the website is up to date with all the required documents. SEM uploaded the 2023 AR to the company website in April 2024 (Table 6).

Actions required to be undertaken as an outcome of the previous AR and actions that have been undertaken and when they were completed are identified below in Table 6.

Table 6: Actions from the Previous Annual Review

Action required from previous AR	Requested by	Action taken by SEM	Where discussed in AR
Make a copy of the 2023 AR publicly available on the SEM website within 30 days	DPHI	A copy of the 2023 AR was made publicly available on the SEM website in April 2024 and the website checked to ensure it was up to date with all the required documents	This section (Section 5)

6 ENVIRONMENTAL PERFORMANCE

Environmental management at the Project during the Reporting Period was conducted under the guidance of the approved Environmental Management Plans (**EMPs**). Mainly low risk activities, including land management activities were undertaken during the Reporting Period.

EMPs and strategies required under the Development Consent prepared (by SEM) and approved by the DPHI are shown below in Table 7.

Table 7: Environmental Management Plans and Strategies

Description	Current Status		DPHI Approval Date
	Revision	Dated	
Air Quality and Greenhouse Gas Management Plan	3	1/8/2022	12/8/2022
Blast Management Plan	2	24/6/2022	28/06/2022
Biodiversity Management Plan and Revegetation Strategy	3	12/5/2022	4/7/2022
Environmental Management Strategy	2	12/5/2022	1/72022
Heritage Management Plan	3	12/5/2022	16/6/2022
Noise Management Plan	4	11/5/2022	12/9/2022
Pollution Incident Response Management Plan	3	15/12/2023	Not Required
Rehabilitation Management Plan*	2	11/07/2019	15/08/2019
Road Upgrade and Maintenance Strategy	2	03/11/2022	14/11/2022
Traffic Management Plan	2	8/02/2023	17/04/2023
Water Management Plan	2	12/5/2022	24/6/2022
- Appendix A Water Balance	2	12/5/2022	27/6/2022
- Appendix B Surface Water Management Plan	2	12/5/2022	27/6/2022
- Appendix C Groundwater Management Plan	2	11/5/2022	13/5/2022

* The Rehabilitation Management Plan was replaced by the Rehabilitation Strategy in Modification 7 and will be prepared during a future reporting period.

All approved EMPs can be found on the SEM website at https://www.sunriseem.com/sunrise-project/management-plans.

6.1 Air Quality

The Development Consent (Schedule 3, Condition 23) requires the preparation of an Air Quality and Greenhouse Gas Management Plan (**AQGGMP**) for the Project. A construction phase AQGGMP (Mod 7 version) was approved by DPHI on 12 August 2022. The AQGGMP outlines the control strategies for managing air quality, and the monitoring program to measure performance.

6.1.1 Environmental Management

Control Strategies

Dust from vehicle movements on unsealed roads was identified as a potential impact to sensitive receivers surrounding the mine site. Therefore, SEM implemented the following air quality management measures to minimise and mitigate these impacts:

- Vehicle speeds on-site were limited to 40 kilometres per hour (**km/h**) on formed tracks and 20 km/h on unformed tracks.

Effectiveness of Control Strategies

No drilling or other exploration/mining related activities took place during the Reporting Period, therefore the control strategies implemented were considered to be effective.

Variations from Proposed Control Strategies

There were no variations from the proposed control strategies during the Reporting Period.

Monitoring Programme

As required by the Development Consent (Schedule 3, Condition 23) and subsequently described in the approved AQGGMP, the air quality monitoring program for the Project includes the monitoring of:

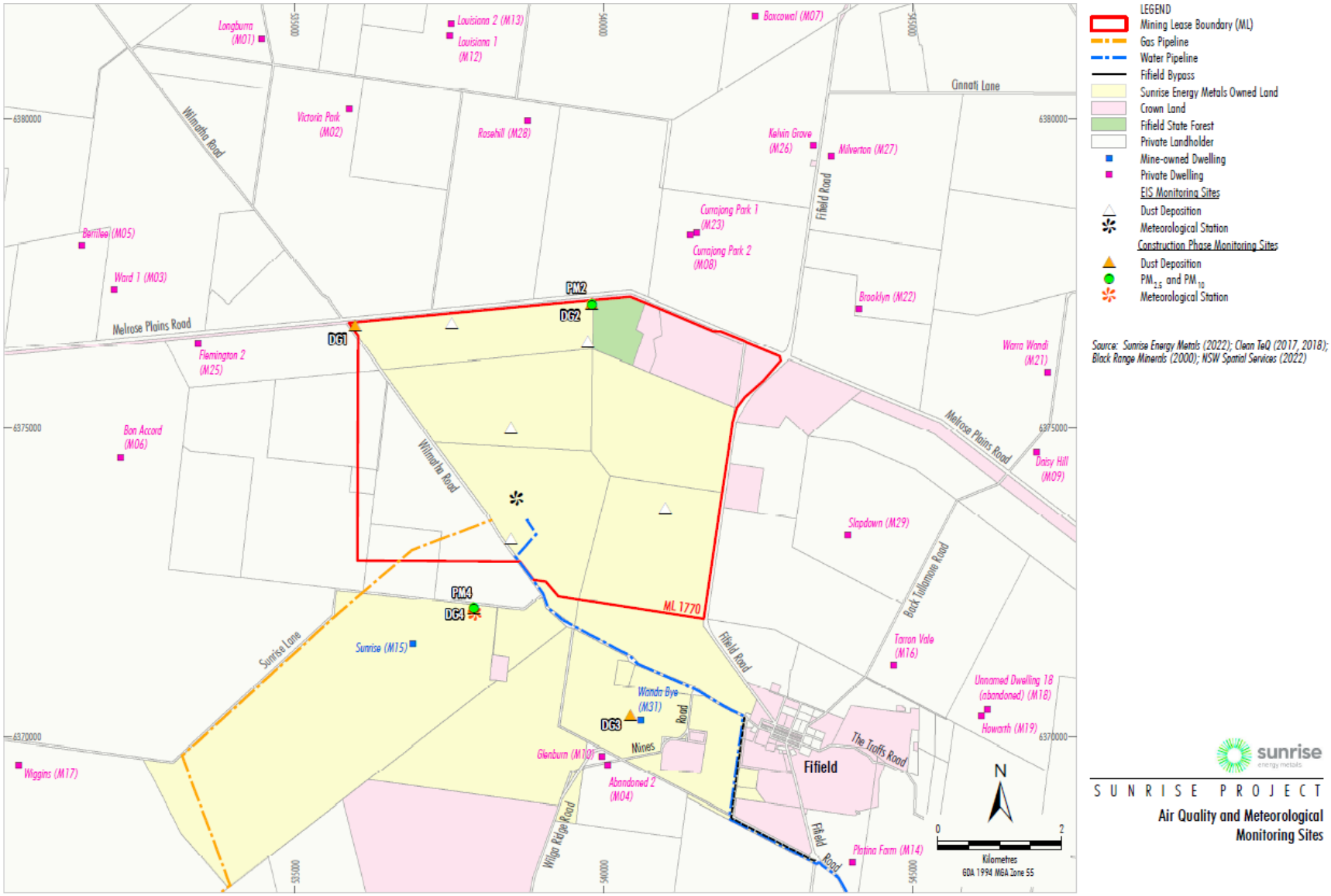
- PM_{10} (particulate matter with an aerodynamic diameter less than or equal to 10 micrometres [µm]);
- $PM_{2.5}$ (particulate matter with an aerodynamic diameter less than or equal to 2.5 µm); and
- Depositional dust (insoluble solids).

The location of the monitoring stations is shown in Figure 2.

The real time (continuous) particulate monitors (PM_{10} and $PM_{2.5}$) were required to be in place prior to the commencement of construction activities on ML 1770, in accordance with Condition M2.2 of EPL 21146. Two solar powered T640x monitors were installed at two locations in the vicinity of the Project in December 2019. One was installed adjacent to the Automatic Weather Station (**AWS**) and approved accommodation camp location, and the other on the northern boundary of the mine site (Figure 2). Both monitors have been operating since they were installed in 2019. This allows time for collection of background data, and calibration of the units prior to the commencement of construction activities on ML 1770.

Depositional dust monitoring is undertaken at locations representative of nearby sensitive receivers, via a network of four static dust deposition gauges. In accordance with the approved AQGGMP, four dust deposition gauges were installed in January 2019 (Figure 2), prior to exploration or construction activities being undertaken. Monitoring was undertaken monthly from the four locations during the Reporting Period.

Figure 2: Air quality and meteorological monitoring sites



6.1.2 Environmental Performance

Depositional Dust Monitoring

Dust deposition results were generally lower during 2024 compared to the previous year. This is assumed to be due to the wetter conditions experienced in 2024 compared to the significantly drier year prior. Agricultural activities (e.g. ploughing, harvesting and/or harvesting truck movements) have contributed to the dust levels at various times of the year, as no exploration activities were conducted on ML 1770 during the Reporting Period. DG2 was significantly elevated compared to the other dust gauges across most months and is assumed to be as a result of agricultural activities (i.e. harvesting) at the neighbouring property. No results were obtained for DG3 during October as the bottle was broken during transit to the laboratory.

Results for each month have been published on the SEM website at https://www.sunriseem.com/sunrise-project/reports/ and are presented below in Figure 3.

Figure 3: Dust Deposition (Insoluble Solids) 2024

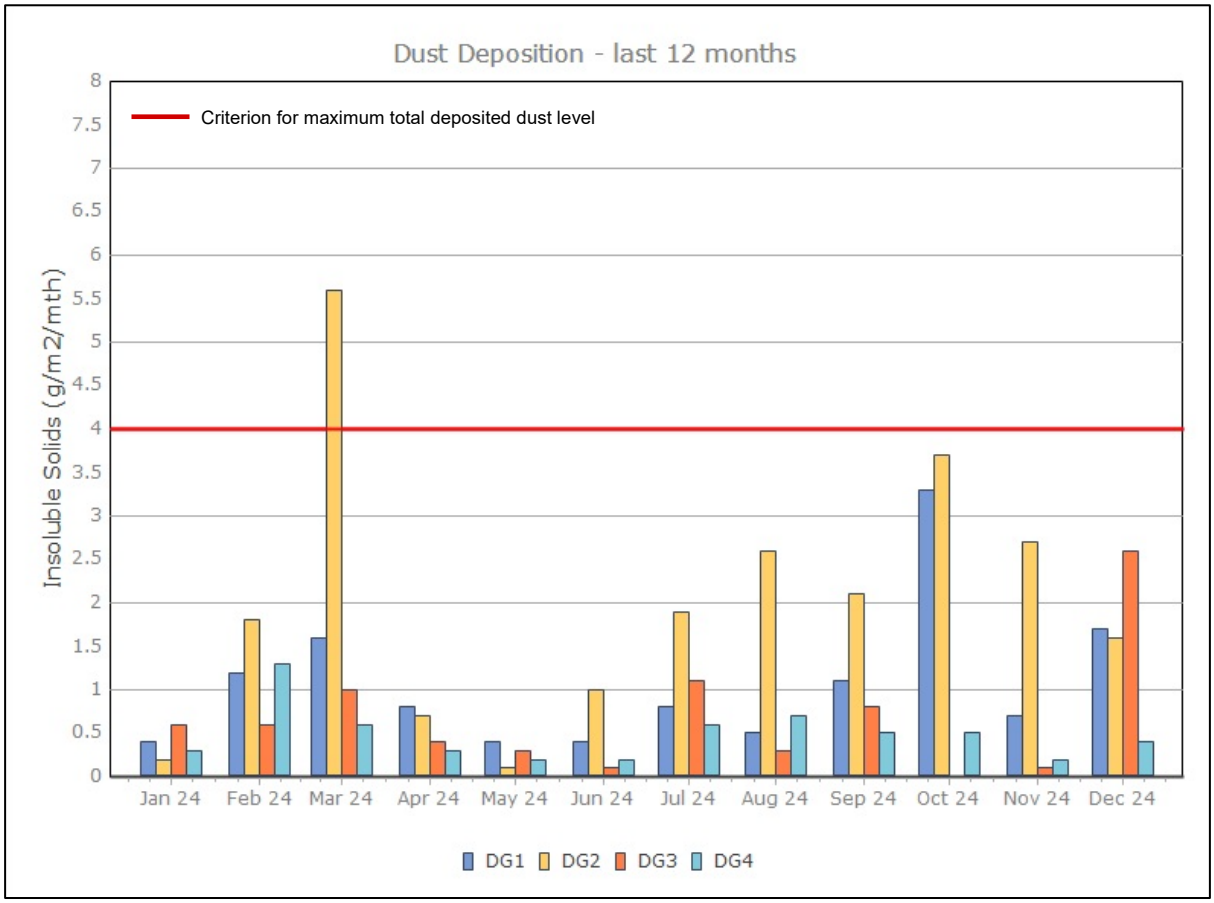


Table 8 in Condition 21, Schedule 3 of the Development Consent sets the long-term criteria for deposited dust (insoluble solids). The permitted maximum total deposited dust level averaged over a year is 4 grams per metre squared per month (g/m²/month), while the maximum increase (incremental increase due to the development on its own) is 2 g/m^2/month. Table 8 shows the 2024 reporting period annual average, along with the previous data. The baseline monitoring data (annual average) collected for the EIS (September 1997 – August 2000) is also shown as a comparison.

Table 8: Maximum Total Deposited Dust Level - Annual Average

Year	Criterion	DG1	DG2	DG3	DG4	ALL
2024	4g/m^2/month	1.1	2.0	0.8	0.5	1.1
2023		1.4	2.9	0.8	1.4	1.6
2022		1.1	1.3	0.5	0.6	0.9
2021		2.1	1.0	3.7	1.8	2.1
2020		3.1	2.6	2.3	3.2	2.8
2019		3.4	2.8	2.5	3.0	2.9
EIS (2000)						2.5

Particulate Matter Monitors

Monitoring results have been reviewed (as per Section 11.1 of the approved AQGGMP) and a summary is presented below. Daily data for PM_{10} and $PM_{2.5}$ is shown in Appendix 1B, 1C and 1D. One exceedance of the 24-hour average criteria for PM_{10} and $PM_{2.5}$ occurred at monitoring sites PM2 and PM4 on 23 February 2024 (Table 9). No activities were being undertaken by SEM on ML1770 at this time. Regional air quality was poor at this time.

Table 9: Short term impact assessment criterion for particulate matter - 2024 exceedances

Pollutant	Averaging Period	Criterion	PM2	PM4
PM_{10}	24 hour	50 µg/m^3	50.39	55.69
$PM_{2.5}$	24 hour	25 µg/m^3	27.95	30.54

a - excluding extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.

Condition 21, Schedule 3 (Table 6) of the Development Consent sets the long-term criteria for particulate matter (excluding extraordinary events such as bushfires, dust storms etc.). The 2024 results against the criterion are shown below in Table 10.

Table 10: Long term impact assessment criteria for particulate matter - 2024 results

Year	PM_{10} (µg/m^3)		$PM_{2.5}$ (µg/m^3)		TSP[1] (µg/m^3)	
	PM2	PM4	PM2	PM4	PM2	PM4
2024	12.86	13.30	4.63	4.77	32.15	33.25
2023	12.79	13.18	4.67	4.79	31.97	32.95
2022	9.14	8.88	3.19	3.14	22.82	22.66
2021	12.5	11.8	4.2	3.9	31	30
2020	10.4	12.9	3.6	4.25	26	32
Criterion	25		8		90	

[1] Estimated based on PM_{10} being 40% of TSP levels (NSW Minerals Council, 2000).
a - excluding extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.

6.1.3 Reportable Incidents

There were no reportable incidents during the Reporting Period.

No community complaints were received regarding air quality from nearby sensitive receivers at any time during the Reporting Period.

6.1.4 Management Issues and Implemented Actions

Management Issue

The depositional dust gauge at DG3 was broken during transit to the laboratory in November 2024. No analysis could be undertaken, therefore no result for dust from this location was obtained for October 2024.

No other management issues occurred with the depositional dust gauges during the Reporting Period.

Implemented Action

Additional care to be taken when packaging dust bottles for transit to the laboratory.

Management Issue

The particulate matter monitor at PM4 suffered instrument failure during the period 7 – 23 June 2024. No data was recorded during this time. The instrument was repaired on 23 June, with data collection restored from 24 June 2024.

No other management issues occurred with the particulate matter monitors during the Reporting Period.

Implemented Action

The failed instrument part was replaced to restore data collection at PM4 on 23 June 2024. Monthly maintenance is undertaken by SEM on the particulate matter monitors, with six monthly maintenance undertaken by the equipment supplier to minimise downtime. No other actions were required to be undertaken during the Reporting Period.

6.1.5 Further Improvements

No further improvements are proposed.

6.2 Meteorological Monitoring

The Development Consent (Schedule 3, Condition 25) requires a meteorological station to operate in the vicinity of the mine site for the life of the development (after establishment). Other than described below, no meteorological monitoring was required to be undertaken at other Project areas (e.g. ML 1769) during the Reporting Period.

6.2.1 Environmental Management

Monitoring Programme

The AWS [meteorological station] (Figure 2), located on property owned by SEM (in close proximity to ML 1770), continued to collect meteorological data during the Reporting Period in accordance with the required parameters listed in Condition M4 of the EPL. The AWS (installed in 2018) measures real time wind speed and direction (at 10 m), temperature (at 2 m and 10 m), barometric pressure, humidity, solar radiation and rainfall.

Real time meteorological data from the AWS can be accessed remotely. The data has been used to undertake noise modelling for MOD 7 as well as proactive rainfall runoff predictions and thereby surface water monitoring opportunities.

Six monthly independent maintenance and calibration of the AWS is also undertaken to ensure valid data is being recorded.

Effectiveness of Monitoring Programme

The strategies implemented during the Reporting Period were considered to be effective.

Variations from Proposed Control Strategies

There were no variations from the proposed control strategies during the Reporting Period.

6.2.2 Environmental Performance

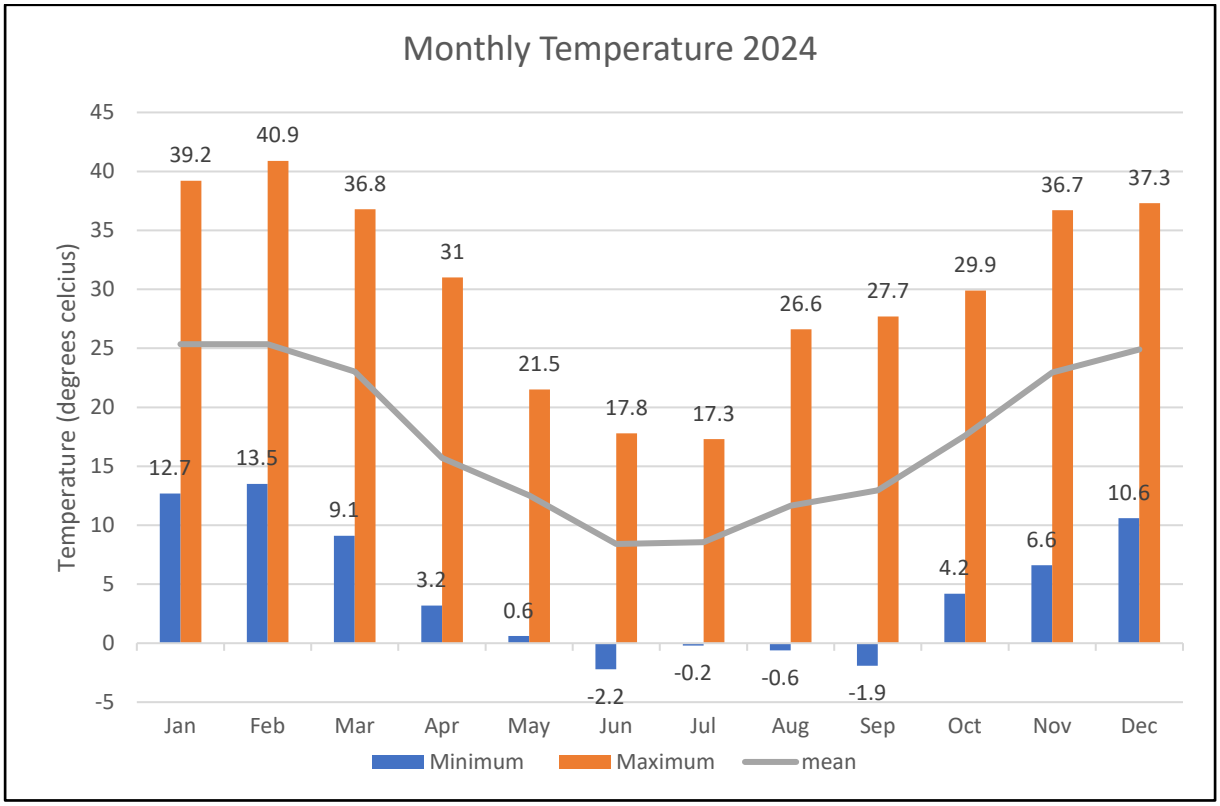
Temperature

Average monthly maximum and minimum temperatures from data recorded (temperature at 2 m) by the AWS are shown below in Figure 4. The highest mean monthly maximum temperature

(25.35 degrees Celsius [°C]) occurred in January and February and the lowest mean monthly minimum temperature (8.41°C) occurred in June. This compares to 33.4°C (January) and 2.6°C (July) stated in the Project EIS as recorded at the Condobolin Agricultural Research Station (Station #50052) (Appendix 2). The maximum and minimum daily temperatures for the year were generally lower than average.

The highest maximum daily temperature of 40.9°C was recorded in February and the lowest minimum daily temperature in June of -2.2°C.

Figure 4: Monthly Temperature Records for 2024 at the Sunrise AWS



Rainfall

Total rainfall of 795mm was recorded by the AWS during the 2024 reporting period as shown in Table 11 and Figure 5. This total is below the mean annual rainfall described in the EIS of 480 mm recorded at the Murrumbogie Station at Trundle (Murrumbogie Station (#50028) (Figure 6). This is the nearest long-record daily rainfall station located approximately 30 km southeast of the mine site. Monthly totals are also shown in Table 11.

Rainfall was greater than the regional average in most months, except for August, September and October. Annual rainfall recorded by the AWS over the period 2019 – 2024 is shown in Figure 6.

Table 11: Monthly rainfall recorded by the AWS (2019-2024)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2019	50	62	13	0	29	14	19	9	6	13	20	0	**236**
2020	24	60	96	143	15	48	73	68	35	90	28	115	**795**
2021	93	116	200	0	16	89	72	37	51	28	179	87	**968**
2022	108	15	83	132	115	9	54	88	116	180	101	17	**1019**
2023	97	1	68	32	5	36	30	11	5	19	60	79	**444**
2024	98	61	28	58	99	40	47	27	27	18	191	101	**795**
Average (Murrumbogie Station 50028)	51	43	41	37	39	39	36	37	33	42	38	44	**480**

Figure 5: Monthly Rainfall Records (and cumulative) for the 2024 calendar year at the Sunrise AWS

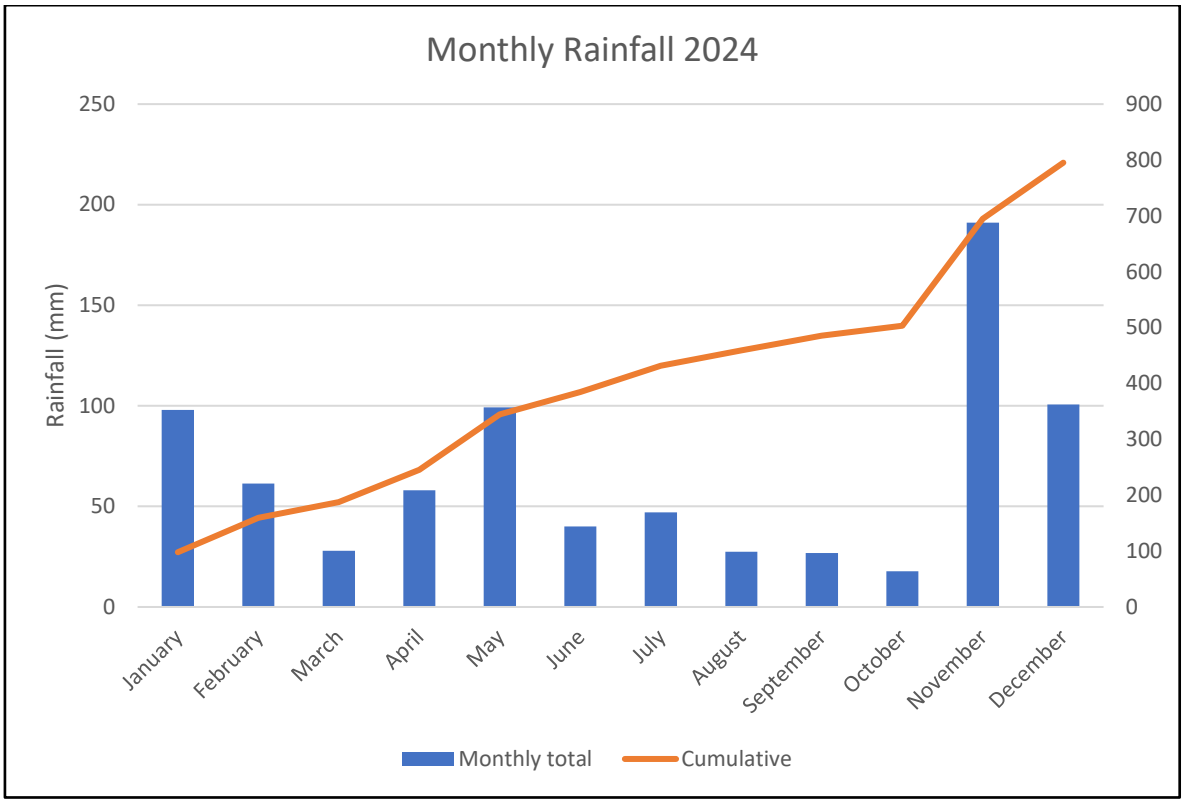
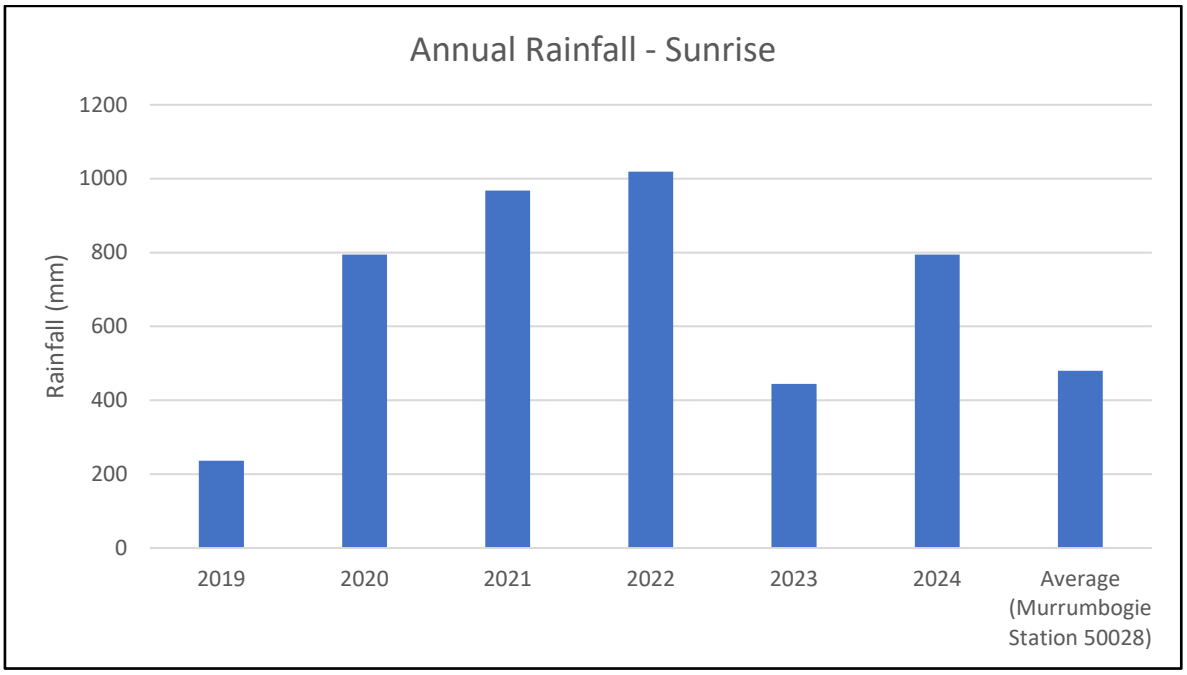


Figure 6: Annual Rainfall Trend (2019-2024)

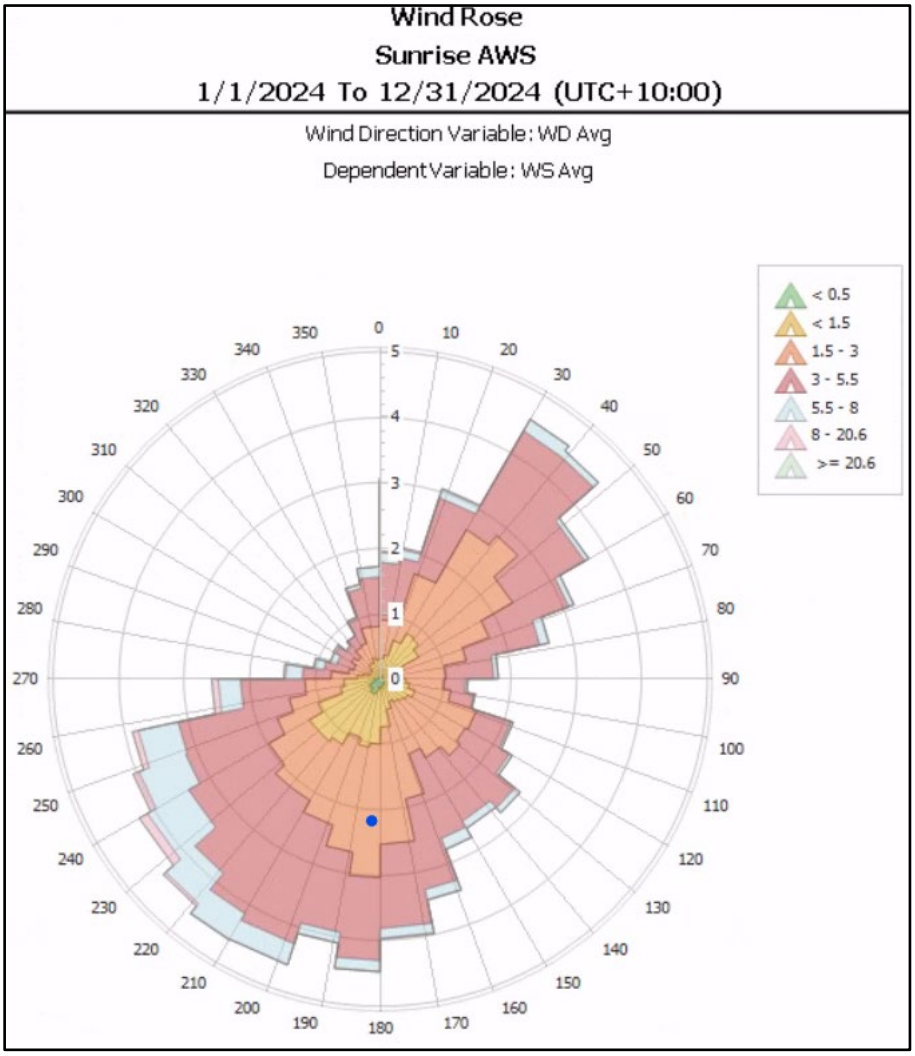


Wind

Wind speed and direction (blowing from) data for the 2024 reporting period are presented in the wind rose in Figure 7. Wind speed values are displayed as metres per second (m/s). Monthly wind roses are presented in Appendix 2A.

The prevailing wind directions during the Reporting Period were winds blowing from the north-east and south-west directions. Summer and Spring months had more north-east and south-west winds, winter was predominantly south-westerly.

Figure 7: Annual Wind Rose 2024 (Wind Speed metres/sec)



6.2.3 Reportable Incidents

There were no reportable incidents during the Reporting Period,

6.2.4 Further Improvements

No further improvements are proposed for the next reporting year.

6.3 Construction Noise

The Development Consent (Schedule 3, Condition 9) requires development of a Noise Management Plan (**NMP**) for the Project. The construction phase NMP (Mod 7 version) was approved by the DPHI on the 12 September 2022.

Other than described below, no noise monitoring was required to be undertaken at other Project areas (e.g. ML 1769) during the Reporting Period.

6.3.1 Environmental Management

Control Strategies

Noise from construction activities was identified in the NMP as a potential impact to sensitive receivers surrounding the mine site. The noise management and control measures to be implemented during the construction phase of the Project are consistent with Strategies 1 to 7 described in the ICNG.

Noise management and control measures include:

- planning controls; and
- controls on construction activities.

Effectiveness of Control Strategies

None of the control strategies listed above were required to be implemented during the Reporting Period as construction activities are yet to commence. No noise complaints were received during the Reporting Period.

Variations from Proposed Strategies

There were no variations from the proposed control strategies during the Reporting Period.

Monitoring Programme

The NMP states the noise monitoring program will commence prior to the commencement of Project construction activities. Attended noise monitoring will be conducted at various locations considered representative of sensitive receivers in the areas that may be potentially influenced by initial construction activities.

Operator-attended noise monitoring will be conducted on a quarterly basis at four locations representative of the privately-owned receivers most likely to be affected by noise generated by the initial construction activities. Monitoring would be conducted in accordance with *Australian Standard 1055:2018 Acoustics – Description and measurement of environmental noise*, the Noise Policy for Industry and the requirements (including applicable meteorological conditions) of Condition 6, Schedule 3 of the Development Consent.

Quarterly attended noise monitoring was commenced in Q1 in 2019 and ceased in Q1 in 2020 at four nearby sensitive receivers.

Variations from Proposed Monitoring Programme

No construction activities were planned for 2024, and as more than 12 months of monitoring had already been conducted as a baseline, further monitoring was not deemed necessary. The attended noise monitoring programme will recommence prior to the start of construction activities.

6.3.2 Environmental Performance

Monitoring Results

Noise monitoring was not undertaken during 2024.

6.3.3 Reportable Incidents

There were no reportable incidents during the Reporting Period.

6.3.4 Further Improvements

No further improvements are proposed.

6.4 Erosion and Sediment

The Development Consent (Schedule 3, Condition 30(b)) requires a detailed description of erosion and sediment control strategies in the Surface Water Management Plan (**SWMP**). A construction phase SWMP (Mod 7 version) for the Project was approved by the DPHI on the 27 June 2022.

6.4.1 Reportable Incidents

There were no reportable incidents during the Reporting Period.

6.4.2 Further Improvements

The erosion control measures outlined in the SWMP will be implemented prior to commencement of initial Project construction activities, including the construction of sediment ponds and installation of silt fences and hay bales where necessary to control erosion. Disturbance areas will also be kept to a minimum to minimise erosion and sedimentation issues.

6.5 Flora

Management of flora for the initial Project construction activities is described in the approved construction phase Biodiversity Management Plan and Revegetation Strategy (**BMP-RS**). The BMP-RS is required by Conditions 33 and 35, Schedule 3 of the Development Consent.

6.5.1 Environmental Management

Control Strategies

Vegetation clearance activities are managed using the Ground Disturbance Permit process and Vegetation Clearance Protocol (**VCP**) as outlined in the BMP-RS. The VCP involves:

- Clearing restrictions;
- Pre-clearance fauna surveys;
- Applying clearing methods to minimise impact on fauna;
- Salvaging of material for habitat enhancement;
- Installation of artificial bat roosts; and
- Reporting.

Vegetation clearance activities associated with construction of the Project will commence during a future reporting period and will be implemented using the Ground Disturbance Permit process and VCP as outlined in the BMP-RS.

Effectiveness of Control Strategies

No control strategies were required to be implemented during the Reporting Period.

Variations from proposed Control Strategies

There were no variations from the proposed control strategies during the Reporting Period.

6.5.2 Reportable Incidents

There were no reportable incidents during the Reporting Period.

6.6 Fauna

Management of fauna for the initial Project construction activities is described in the approved construction phase BMP-RS. The BMP-RS is required by Schedule 3, Conditions 33 and 35 of the Development Consent.

6.6.1 Environmental Management

Control Strategies

Vegetation clearance activities are managed using the Ground Disturbance Permit process and VCP as outlined in the BMP-RS. No vegetation clearing activities were undertaken during the Reporting Period.

Vegetation clearance activities associated with construction of the Project will commence during a future reporting period and will be implemented using the Ground Disturbance Permit process and VCP as outlined in the BMP-RS.

The Development Consent (Schedule 3, Condition 35(c)) requires measures to identify and manage significant impacts on threatened fauna species not identified in the EIS. As described in the BMP-RS, no threatened fauna species are likely to be significantly affected by the Project, therefore measures to manage significant impacts are not required and general measures to manage impacts on threatened species will be applied (e.g. implementing the VCP).

Effectiveness of Control Strategies

No control strategies were required to be implemented during the Reporting Period.

Variations from proposed Control Strategies

There were no variations from the proposed control strategies during the Reporting Period.

6.7 Weeds and Pests

Weeds and pests were managed as per the approved construction phase BMP-RS.

6.7.1 Environmental Management

Control Strategies

In accordance with the BMP-RS, control strategies for weed management on SEM owned land include the following:

- identification of weeds by regular site inspections;
- mechanical removal of identified noxious weeds and/or the application of approved herbicides in authorised areas;
- implementing follow-up site inspections to determine the effectiveness of weed control measures; and
- where practicable, prevention of the establishment of new weeds on SEM owned land by minimising seed transport of weed species to and from the Project using a vehicle inspection process (primarily for use on agricultural and earthmoving equipment that are likely to carry weed seeds).

The implementation of weed management strategies occur according to seasonal and climatic requirements.

The pest control activities within the Project areas are described in the BMP-RS and include the following measures:

- regular property inspections to assess the status of pest populations within SEM owned land;
- implement pest control methods for declared pests (i.e. rabbits, pigs and wild dogs) in accordance with Pest Control Orders under the NSW *Local Land Services Act, 2013*; and
- inspections to assess the effectiveness of control measures implemented and review these if necessary.

Effectiveness of Control Strategies

Weeds

The control strategies implemented during the Reporting Period were considered effective.

Several weed spraying events occurred during the Reporting Period including:

- a total of 144 man hours of weed spraying to control Bathurst Burr weed; and
- a total of two man hours of week spraying to control Noogoora Burr; and
- broad acre spraying of weeds on cultivated land on properties located within the MLs held by SEM (Syerston, Kingsdale and Slapdown).

Twenty-three African Boxthorn plants were sprayed on the property. Property inspections resulted in no sightings of the Apple of Sodom weed.

Feral Pests

Feral animal sightings were recorded in a register during the Reporting Period. A coordinated fox control program was conducted with a number of near neighbours in October 2024. Of the baits laid, 88% were taken, resulting in a reduction in the fox population within the property.

A targeted feral pig eradication program was conducted throughout 2024. Eighty eight feral pigs were eradicated from ML 1770. Eighteen goats were also removed from ML 1770.

Variations from Proposed Control Strategies

There were no variations from the proposed control strategies during the Reporting Period.

6.7.2 Environmental Performance

Monitoring

Weekly and monthly monitoring of weeds and pests continued as described in the BMP-RS.

6.7.3 Performance Outcomes

Weed Management

The performance indicator for weed management is the extent of weed species, which will be reduced then maintained at 40% below the baseline weed abundance percentage across the mine site, and that no new priority weed species will be introduced. Weed control actions undertaken, as described above, were considered effective, however the performance indicator was not applicable due to insufficient baseline data, as described in Section 6.7.5.

Pest Management

The performance indicator is the extent of feral animal species, which will be reduced then maintained at 25% below the feral animal abundance baseline across the mine site. Feral animal control actions undertaken, as described above, were considered effective however, the performance indicator was not applicable due to insufficient baseline data, as described in Section 6.7.5.

6.7.4 Reportable Incidents

There were no reportable incidents during the Reporting Period.

6.7.5 Further Improvements

Consideration will be given to conducting an additional baseline survey in the future (prior to commencement of construction activities on ML 1770) as the 2019 “drought” baseline survey [4] is not considered representative. This was confirmed by the baseline survey’s findings:

- Overall the study areas exhibited a low abundance of weeds in line with the presence of stock, the time of year surveys were conducted and the drought conditions.

- In general, populations of vertebrate pest species were in low concentrations across the two study sites. This was due mainly to the severe drought conditions experienced translating to meagre food and water available to support significant populations.

6.8 Aboriginal Heritage

The Development Consent (Schedule 3, Condition 40) requires the development of a Heritage Management Plan (**HMP**) for the Project. The HMP (Mod 7 version) was submitted to the DPHI for approval and subsequently approved on the 16 June 2022.

Aboriginal Heritage Impact Permits (**AHIPs**) (#C0003049 and #C0003887) are issued for the Project. AHIP #C0003049 was issued by the NSW Office of Environment and Heritage (**OEH**) on the 10 October 2017 for a period of 10 years and covers ML 1770 and other components of the Project (e.g. limestone quarry, rail siding etc) [5]. AHIP #C0003887 was issued by the OEH on the 10 August 2018 for a period of 23 years and covers the accommodation camp on the Sunrise property [6].

6.8.1 Environmental Management

Control Strategies

The HMP and AHIPs set out the salvage, excavation, monitoring and other management measures required to be undertaken for each of the registered archaeological sites and other Aboriginal objects within the Project area. In general, the strategies include protection, investigation, collection, excavation, documentation and storage of Aboriginal objects in an on-site temporary "Keeping Place".

Effectiveness of Control Strategies

No control strategies were required to be implemented during the Reporting Period.

Variations from Proposed Control Strategies

There were no variations from the proposed control strategies during the Reporting Period.

6.8.2 Environmental Performance

Monitoring

No activities impacting on Aboriginal cultural heritage were undertaken during the Reporting Period.

Performance Outcomes

No non-compliance issues were identified during the Reporting Period.

6.8.3 Reportable Incidents

There were no reportable incidents during the Reporting Period.

6.8.4 Further Improvements

No further improvements are proposed for the next reporting period.

6.9 European Heritage

The Development Consent (Schedule 3, Condition 40) requires the preparation of a HMP for the Project. The HMP (Mod 7 version) was submitted to the DPHI for approval and subsequently approved on the 16 June 2022.

Sites of known and potential historic heritage have been identified within the Project area and are descried in the HMP. These sites include the old magnesite mining area on ML 1770; the pastoral outstation on ML 1770; and pine trunk telephone poles and a log hut along the gas pipeline route. All these sites have been assessed as being significant on the local level, however no sites of State significance have been identified in the Project area.

No impact to any sites of historic heritage occurred during the Reporting Period. Prior to the commencement of construction activities, sites recommended for avoidance (such as the pastoral outstation) will be temporarily fenced to avoid any inadvertent disturbance.

6.9.1 Reportable Incidents

There were no reportable incidents during the Reporting Period.

6.9.2 Further Improvements

No further improvements are proposed for the next reporting period.

7 WATER MANAGEMENT

7.1 Water Supply

A summary of the Water Access Licences (**WALs**) held by SEM is shown in Table 12.

Table 12: Summary of Project Water Access Licences

Water Licence #	Water Sharing Plan, Source, Management Zone	Entitlement (Share component - Units)	Passive Take/Inflows (ML)	Active Pumping (ML)	TOTAL (ML)
Groundwater					
WAL32068	*Water Sharing Plan for the Lachlan Alluvial Groundwater Sources 2020.* Upper Lachlan Alluvial Groundwater Source. Upper Lachlan Alluvial Zone 5 Management Zone	3,154	-	0	0
WAL28681 (pit dewatering)	*Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources 2011.* Lachlan Fold Belt Murray Darling Basin Groundwater Source. Lachlan Fold Belt MDB (Other) Management Zone	243	0	0	0
Surface Water					
WAL6679	*Water Sharing Plan for the Lachlan Regulated River Water Source 2016.* Lachlan Regulated River Water Source.	123[1]	-	0	0
WAL42370		0[2]	-	0	0
WAL1798		3001	-	0	0

ML – megalitre for the previous water year

[1] General Security

[2] High Security

In addition, SEM also holds WAL39837 (766 units) in the Upper Lachlan Alluvial Groundwater Source, Upper Lachlan Alluvial Zone 5 Management Zone however, this WAL does not form part of the Project water supply.

7.1.1 Surface Water

No surface water was extracted or used during the previous water year as shown in Table 12.

SEM holds Water Supply Works Approval (WSWA 70WA617095) for surface water extraction infrastructure located next to the Project borefields. The WSWA was not varied during the Reporting Period.

7.1.2 Groundwater

No groundwater was extracted from the Project borefields during the previous water year (Table 12). As shown in section 7.1, SEM holds three groundwater Water Access Licences:

- WAL 32068 in the Upper Lachlan Alluvial Groundwater Source (Upper Lachlan Alluvial Zone 5 Management Zone) for 3,154 share components under the Water Sharing Plan for the Lachlan Unregulated and Alluvial Water Sources 2020;
- WAL 39837 in the Upper Lachlan Alluvial Groundwater Source (Upper Lachlan Alluvial Zone 5 Management Zone) for 766 share components under the Water Sharing Plan for the Lachlan Unregulated and Alluvial Water Sources 2020 (does not form part of the Project water supply); and
- WAL 28681 in the Lachlan Fold Belt Murray-Darling Basin (MDB) Groundwater Source (Lachlan Fold Belt MDB [Other] Management Zone), for 243 share components under the Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources 2020.

SEM holds Water Supply Works Approval (WSWA 70CA614098) for groundwater bores located at the Project borefields. The WSWA was amended (12/4/2024) by NSW DCCEEW to make the new bores inactive following the conclusion of the pump testing.

Pump testing was undertaken in early 2024 on production bores SRLPB03 (10-16 January), SRLPB04 (26 January – 2 February) and SRLPB05 (15-26 January) – these bores were installed during 2023. A 72-hour constant discharge test was completed in each installed production bore, followed by a 48-hour monitored recovery test followed each constant-discharge test.

7.2 Surface Water

The Development Consent (Schedule 3, Condition 30) requires the development of a Water Management Plan (WMP) which must include a SWMP for the Project (Schedule 3, Condition 30(b) of the Development Consent). The construction phase WMP (Mod 7 version), including the construction phase SWMP, was approved by DPHI on 26 June 2022.

The Mod 7 version of the SWMP was approved by DPHI on the 27 June 2022.

7.2.1 Environmental Management

Monitoring Programme

There were four rainfall events during the year that generated enough surface water flow to enable surface water monitoring to take place. Only one of these events had flowing water at all seven monitoring points. Water quality results from the sampling events are shown in Appendix 4.

Surface water monitoring locations within and surrounding ML 1770 are shown in Figure 8.

These surface water samples have provided important baseline water quality information for the site and will be used to generate site specific trigger levels for water quality prior to the commencement of construction activities within ML 1770.

7.2.2 Reportable Incidents

There were no reportable incidents to DPHI for the Reporting Period.

7.2.3 Further Improvements

No further improvements are proposed for the next reporting period.

7.3 Groundwater

The Development Consent (Schedule 3, Condition 30) requires the development of a WMP which must include a Groundwater Management Plan for the Project (Schedule 3, Condition 30 (c) of the Development Consent). The construction phase WMP (Mod 7 version), including the construction phase Groundwater Management Plan, was approved by DPE on 26 June 2022.

The Mod 7 version of the Groundwater Management Plan was approved by DPHI on 13 May 2022. This version was updated to include references to Mod 7 and includes trigger levels at several bores surrounding the Project borefield, that have been agreed between SEM and DPE-Water.

7.3.1 Environmental Performance

Monitoring – Mining Lease

Two groundwater monitoring events occurred within ML 1770 during the Reporting Period. Water samples were collected for analysis and Standing Water Levels (SWLs) were measured in May/June and December 2024. Groundwater monitoring locations within and surrounding ML 1770 are shown on Figure 9. Manually gauged and recorded standing water level results as well as results of continuous measurements recorded by automatic SWL dataloggers are shown in Appendix 5. Groundwater quality results from the sampling events are shown in Appendix 5.

The standing water level measurements and water quality data have provided important baseline information for the site.

Monitoring – Borefields

Two groundwater monitoring events at the borefields occurred during the Reporting Period, with water samples collected for analysis and SWLs measured in May and December 2024. Manually gauged and recorded SWL results and results of continuous measurements recorded by automatic

SWL dataloggers are shown in Appendix 5. Groundwater monitoring locations within the borefields are shown in Figure 10. Groundwater quality results from both monitoring events are shown in Appendix 5.

The groundwater standing water level measurements and water quality results have provided important baseline information on the borefields.

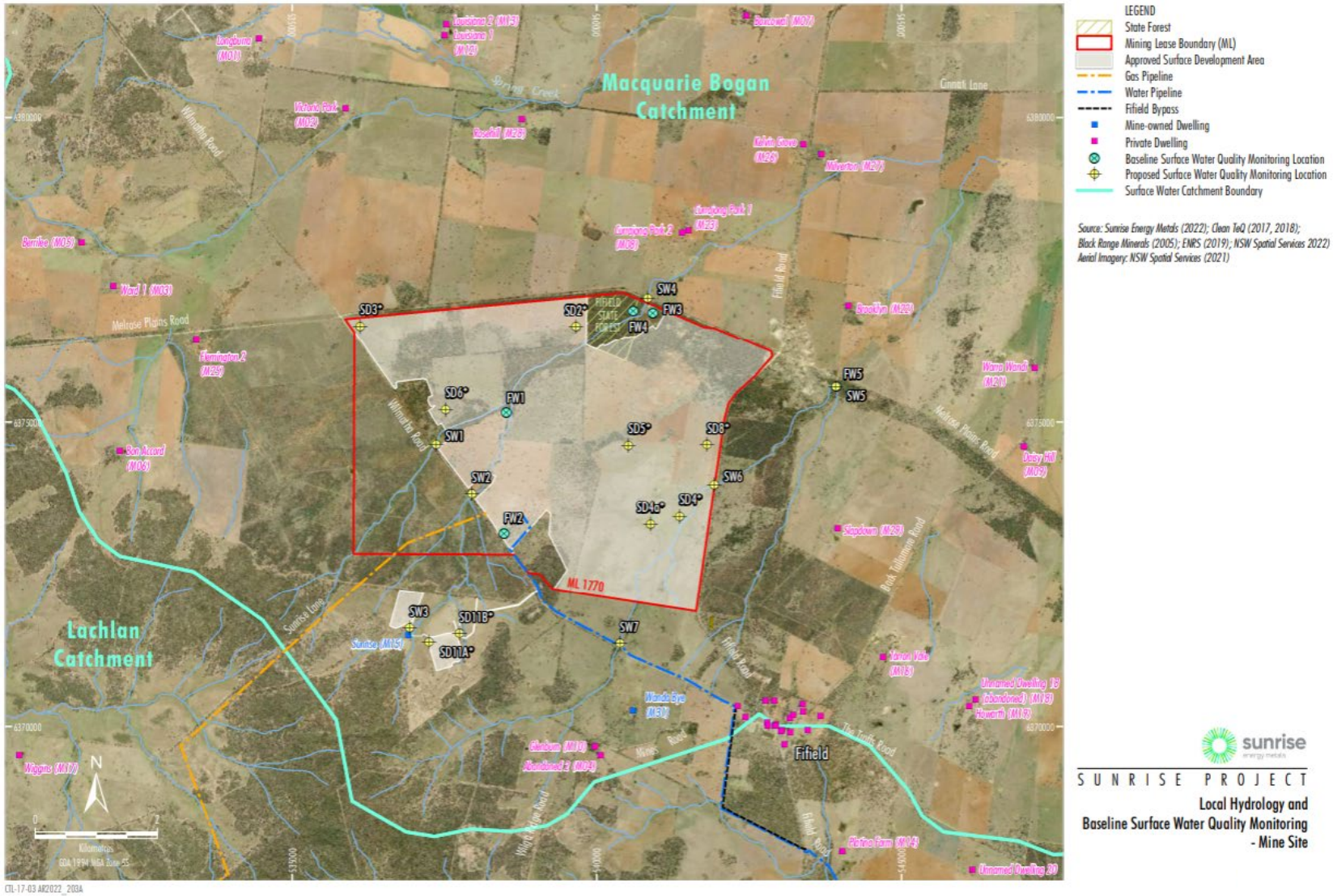
7.3.2 Reportable Incidents

There were no reportable incidents during the Reporting Period.

7.3.3 Further Improvements

No further improvements were implemented during the Reporting Period.

Figure 8: Local hydrology and baseline surface water quality monitoring – mine site



7.3.4 Management Issues and Implemented Actions

Management Issue:

Three of the installed water level loggers at the mine site (within GAM3, GAM16 and GAM101) had been found to have failed during the reporting period. The loggers stopped recording data at various times during the monitoring interval between December 2023 and May 2024. Data could not be retrieved.

Implemented Action:

New water level loggers were installed at GAM3, GAM16 and GAM101 in July 2024. The new loggers are Solinst Levelogger 5.

Figure 9: Groundwater monitoring locations within and in the vicinity of ML 1770

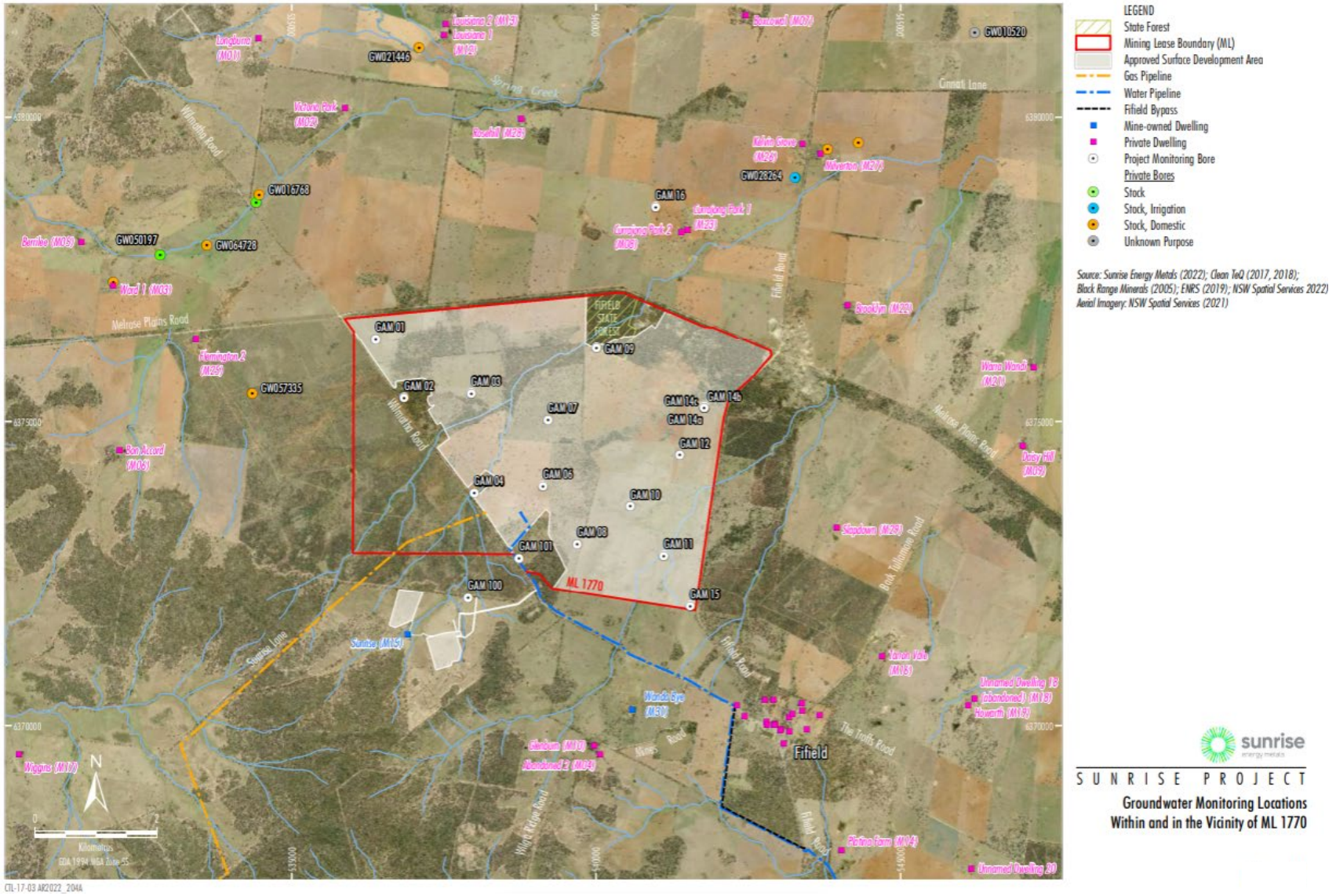
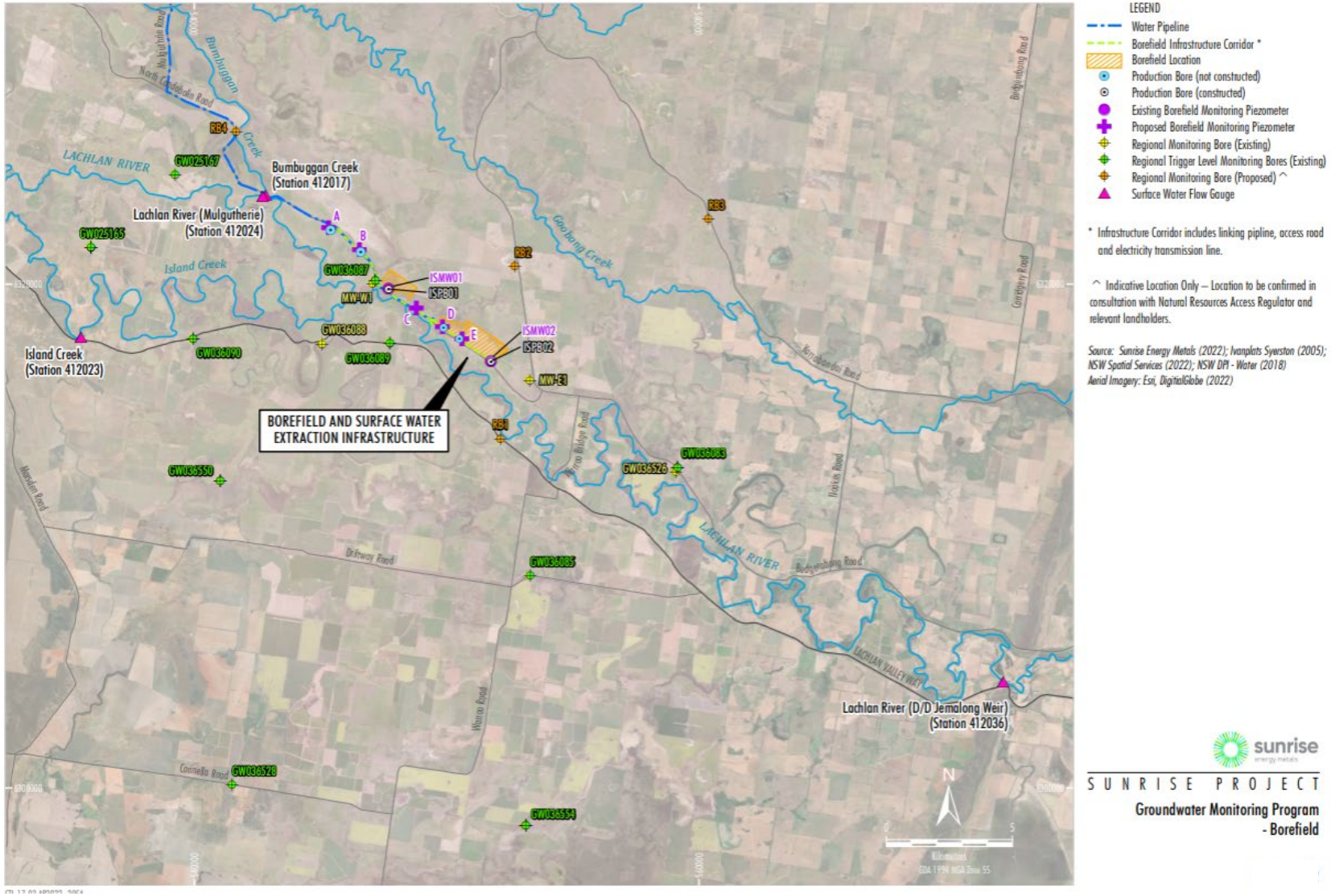


Figure 10: Groundwater monitoring program – borefield



8 REHABILITATION

The Development Consent (Schedule 3, Condition 57) requires the preparation of a Rehabilitation Strategy for the Project. Previously, a construction phase Rehabilitation Management Plan (required under the Mod 4 Development Consent) was prepared and approved by DPHI on 15 August 2019. Prior to any construction activities being undertaken, a Rehabilitation Strategy for the Project will be prepared and approved by DPHI. Changes to the Mining Regulations during 2022 imposed a new requirement for a Rehabilitation Management Plan for the Mining Leases once the security bond increases above the minimum amount. SEM will prepare this Rehabilitation Management Plan and associated documents when required, during a future reporting period.

8.1 Rehabilitation of Disturbed Land

No ground disturbing exploration activities occurred during the Reporting Period within ML 1770. Therefore no rehabilitation was required as a result.

8.2 Rehabilitation Monitoring

Visual monitoring of rehabilitation resulting from previous exploration activities was undertaken during the Reporting Period. No significant issues were observed.

8.3 Performance Indicators

Performance indicators and completion/relinquishment criteria were described in the Mod 4 Sunrise Project Rehabilitation Management Plan (now superseded). Performance indicators will be described in the new Rehabilitation Strategy for the Project (this will be developed once construction proceeds).

During the next reporting period, rehabilitation monitoring activities will continue in accordance with the ML conditions.

9 COMMUNITY RELATIONS

SEM communicates with respect and works hard to listen to our communities and achieve constructive dialogue. The company has a Community Engagement Policy, available on its website, that defines the principles guiding the company's interactions with its communities. The policy outlines SEM's commitment to active engagement, clear communication, community investment, dispute resolution and how it works with its local indigenous communities.

SEM actively interacts with the community to leverage its combined capabilities and create mutually beneficial outcomes. The company's intention is to work together with communities to achieve long-term shared value.

SEM also engages with communities early and regularly, listens to their input and aims to communicate with respect and achieve constructive dialogue. Multiple, audience-appropriate communication channels are used to deliver consistent and timely information.

9.1 Community Complaints

The Project Development Consent requires SEM to implement a procedure to receive, handle, respond to and record complaints, and resolve any disputes that may arise. SEM responds quickly to community dissatisfaction. It aims to resolve complaints at the lowest level, as quickly as possible and to deliver long-term resolutions.

SEM has a toll-free, 24-hour community complaint line (1800 952 277) in place to receive community concerns. The phone number is publicised on the SEM Sunrise website and in all community publications. Telephone calls are answered by an operator who records details (date and time of call, name, contact details, details of the complaint and whether an immediate response is required) and emails the record to SEM via community@sunriseem.com. Calls that require an immediate response outside business hours are sent to the Environment, Approvals & Community Lead for immediate response. SEM responds to calls within 24 hours or on the next business day. SEM investigates all complaints thoroughly, always working towards a mutually agreeable and long-lasting solution.

Complaints may also be submitted through stakeholder interactions that may occur between SEM personnel and community members from time to time. All employees and contractors receive information about the SEM Sunrise Complaints Management Process during the general induction process.

Zero community complaints were received during the Reporting Period.

9.2 Community Liaison

Community Consultative Committee

The Community Consultative Committee (**CCC**) was re-established in October 2017 and provides a forum for discussion between SEM and representatives of the local community, stakeholder groups and the local councils on issues directly relating to the Project.

During the Reporting Period, the annual meeting of the CCC (held in June 2024) was conducted in accordance with the Development Consent (Schedule 5, Condition 7). The meeting was offered online and in person.

The CCC met in the Project local government area (Condobolin township, Lachlan Shire). At the meeting, SEM provided a Project update, information relating to environmental management and community engagement activities and addressed questions and concerns raised by CCC members. Minutes were taken from the meeting and published on the SEM webpage (https://www.sunriseem.com/sunrise-project/community-consultative-committee/) along with a copy of the presentation.

Members of the Sunrise Project CCC attended a site visit of the Sunrise Project site on Tuesday 3rd September 2024. The site visit was a suggestion from one of the committee members at the June CCC meeting.

The group met at the site office located on ML 1770, and SEM provided a site induction including an overview of the project and opportunity for questions about the Project. SEM also mentioned that they are currently updating the 2016 feasibility study for the standalone Scandium Project (part of the larger nickel/cobalt project). There is high grade scandium located generally around the periphery of the nickel and cobalt resource, and there may be an opportunity to extract this. Developments in the scandium market have driven this feasibility study update.

At the completion of the site induction presentation, SEM showed CCC members a strata column of the groundwater bores drilled mid-2023. The strata column shows the soil properties for each metre drilled, and clearly defines the three groundwater aquifers found at the Project borefield near Waroo. The three new bores are installed to extract water from the Lachlan aquifer (approximately 100-120m below surface).

SEM then took the group for a tour of ML 1770, including the future processing plant and mining pit areas, tailings storage facility location and air quality monitors and a number of groundwater monitoring locations. SEM also showed some members the site for the accommodation camp.

This knowledge of the site will be invaluable to committee members to aid in robust discussions at future CCC meetings.

Community Consultation

SEM has a detailed Community Engagement Plan in place, which supports the Community Engagement Policy and provides more detail around the company's commitment to proactive listening, consultation, and communication.

SEM engages through a range of consultation tools including individual stakeholder and public meetings, advertised community events, newsletters and the operation of shop fronts in Condobolin and Parkes as required. SEM policies and guidelines inform interactions with communities affected by SEM's activities.

During the Reporting Period, SEM managed to attend meetings with stakeholders, such as:

- Individual stakeholders;
- Landholders;
- Near neighbours; and
- Local Government and State agencies.

SEM also provided Project update presentations and or briefings to various groups during the Reporting Period, including:

- Local Councils; and
- Various State agencies.

Aboriginal Consultation

SEM acknowledges the Indigenous people on whose land the company operates. SEM is committed to working with organisations representing Indigenous people to form partnerships that build capacity and generate long-term value. This commitment is outlined in SEM's Community Engagement Policy.

Through membership on the CCC, the Wiradjuri Condobolin Corporation is provided with regular updates on the Project and SEM has contact with this organisation outside of the CCC meetings.

9.3 Community Investment

SEM's guiding principle for community investment is to achieve meaningful outcomes that benefit as many people as possible in the community. For SEM, the definition of community investment includes financial and non-financial contributions.

The current pre-construction investment program includes small-scope direct financial contributions, complemented by important non-financial contributions such as time spent supporting schools and community organisations.

SEM provided financial support during the Reporting Period to the Trundle Bush Tucker Day, the Trundle Back in Time event and the local agricultural shows (including Tullamore, Trundle, Bedgerabong, Parkes, Condobolin and Forbes).

10 INDEPENDENT ENVIRONMENTAL AUDIT

The Development Consent (Schedule 5, Condition 10) requires an Independent Environmental Audit (**IEA**) to be commissioned within one year of the commencement of the development after 6 May 2017.

Construction of three Project borefield production bores during 2023 recommenced the Project (after 6 May 2017), triggering the IEA requirement. However, as the scope of installing the three production bores was minimal compared to actual commencement of construction on site, SEM requested a deferral of the IEA as per Schedule 5, Condition 10 of the Development Consent until after the actual commencement of construction of the mine occurs.

The DPHI granted an extension of time for the Independent Environmental Audit until one year from the commencement of construction of the mine and processing facility (letter dated 27/2/2024).

11 INCIDENTS AND NON-COMPLIANCES DURING THE REPORTING PERIOD

No reportable incidents or non-compliances attributable to the Sunrise Project occurred during the Reporting Period.

12 ACTIVITIES TO BE COMPLETED IN THE NEXT REPORTING PERIOD

12.1 Exploration

Exploration activities within ML1770 during the next Reporting Period may include a resource definition drilling campaign focussed on scandium.

12.2 Project Early Works

The following activities are proposed during the next reporting period:

- Minor preparatory works, including installation of services and ancillary infrastructure.

12.3 Project Development

SEM is proposing to commence initial Project construction activities subject to a final investment decision and completion of a financing package. Initial construction activities associated with ML 1770 include commencement of the following:

- Development of the mine, including:
    - Site establishment and earthworks;
    - Construction of site access roads and haul roads;
    - Processing facility earthworks;
    - Establishment of temporary facilities required for construction activities (e.g. offices, laydown areas, communications infrastructure);
    - Construction of the mine infrastructure area including the offices, workshops, warehouse, laboratory and amenities buildings, fuel storage areas, potable water treatment plant and car parking facilities;
    - Construction of the tailings storage facility and evaporation pond;
    - Construction of water management infrastructure including the raw water dam, water storage dam and sediment dams;
    - Construction and operation of the concrete batch plant;
    - Development of gravel and clay borrow pits (including blasting and crushing);
    - Installation of appropriate fencing and barriers for public safety and security for mining and construction; and
    - Other associated minor infrastructure, plant, equipment and activities.
- Development and operation of the accommodation camp;
- Installation of the borefields infrastructure;
- Installation and operation of the surface water extraction and associated infrastructure and water pipeline;
- Road upgrades; and
- Upgrades to the proposed oversized transport route.

A new RMP will be prepared and submitted to the Resources Regulator prior to construction activities commencing.

13 References

[1]	NSW Government, “Annual Review Guideline – Post-approval Requirements for State Significant Mining Developments,” 2015.
[2]	NSW Resources Regulator, “Annual Rehabilitation Report and Forward Program for Large Mines,” 2021. [Online]. Available: https://www.resourcesregulator.nsw.gov.au/sites/default/files/documents/form-and-way-annual-rehabilitation-report-and-forward-program-for-large-mines.pdf
[3]	Corkery RW, “Seventh Annual Exploration Report for ML 1770 “Sunrise Project” - 16 February 2024 to 15 February 2025.,” 2025.
[4]	Area Environmental, “Weeds and Vertebrate Pests Baseline Survey Report ML1770 and Sunrise Accommodation Camp,” 2019.
[5]	Landskape, “Analysis of Aboriginal Lithic Assemblages Aboriginal Heritage Impact Permit C0003887,” 2019.
[6]	Landskape , “Analysis of Aboriginal Stone Quarry Aboriginal Heritage Impact Permit C0003049,” 2020.
[7]	NSW Department of Planning and Environment, Division of Resources and Geoscience, “Exploration Code of Practice: Rehabilitation,” 2015.

GLOSSARY OF TERMS

AQGGMP	Air Quality and Greenhouse Gas Management Plan
AR	Annual Review
AWS	Automatic Weather Station
BCD	NSW Biodiversity & Conservation Division (formerly OEH)
BCS	NSW Biodiversity, Conservation and Science Directorate (formerly BCD)
BMP-RS	Biodiversity Management Plan and Revegetation Strategy
CCC	Community Consultative Committee
CPHR	NSW DCCEEW Environment and Heritage – Conservation Programs, Heritage and Regulation
DPHI	Department of Planning, Housing and Infrastructure
DRG	Division of Resources and Geoscience
EMP	Environmental Management Plan
EPA	NSW Environment Protection Authority
FCNSW	Forestry Corporation of New South Wales
GWMP	Groundwater Management Plan
HMP	Heritage Management Plan
IEA	Independent Environmental Audit
LEP	Local Environmental Plan
ML	Mining Lease
MOP	Mining Operations Plan
NHVR:	National Heavy Vehicle Regulator
NMP	Noise Management Plan
NRAR	NSW Natural Resources Access Regulator
NSW Resources	NSW Resources
OEH	NSW Office of Environment and Heritage
RAP	Registered Aboriginal Party
RMP	Rehabilitation Management Plan
RR	NSW Resources Regulator
SWL	Standing Water Level
SWMP	Surface Water Management Plan
VCP	Vegetation Clearance Protocol
WMP	Water Management Plan

APPENDIX 1: AIR QUALITY MONITORING RESULTS

1A – Depositional Dust Results

1B – PM2.5 Daily Average Results

1C – PM10 Daily Average Results

1D – Particulate Matter Results (Graphs) 24hr Average

1A – Depositional Dust Results

Table A-1. Summary of depositional dust (insoluble solids) monitoring results 2024

Month			Insoluble Solids (g/m²/month)			
	Start	End	DG1	DG2	DG3	DG4
JAN	1/1/2024	3/2/2024	0.4	0.2	0.6	0.3
FEB	3/2/2024	1/3/2024	1.2	1.8	0.6	1.3
MAR	1/3/2024	2/4/2024	1.6	5.6	1.0	0.6
APR	2/4/2024	1/5/2024	0.8	0.7	0.4	0.3
MAY	1/5/2024	30/5/2024	0.4	0.1	0.3	0.2
JUN	30/5/2024	1/7/2024	0.4	1.0	<0.1	0.2
JUL	1/7/2024	1/8/2024	0.8	1.9	1.1	0.6
AUG	1/8/2024	2/9/2024	0.5	2.6	0.3	0.7
SEP	2/9/2024	1/10/2024	1.1	2.1	0.8	0.5
OCT	1/10/2024	1/11/2024	3.3	3.7	*	0.5
NOV	1/11/2024	2/12/2024	0.7	2.7	0.1	0.2
DEC	2/12/2024	31/12/2024	1.7	1.6	2.6	0.4
ANNUAL AVERAGE (Mean)			1.4	2.9	1.1	2.0
MEDIAN			1.1	2.5	0.8	1.9
MAXIMUM			6.8	6.9	3.3	5.6
MINIMUM			0.3	1.2	0.4	0.1

**NB: DG3 October bottle was broken in transit*

1B – PM2.5 Daily Average Results

Table A-2. Annual Summary - Daily AVG For PM2.5 STP (µg/m³) - Site PM2

Excluded - Equipment Failure

Agricultural activities by neighbours

Jan 2024 to Dec 2024

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	5.616	7.604	7.67	8.452	3.298	3.691	1.802	2.005	3.302	3.78	3.574	2.948	
2	4.808	4.833	5.341	4.707	1.967	3.572	1.435	1.85	5.353	6.3	6.28	2.971	
3	5.665	6.505	4.446	2.879	2.551	2.987	1.171	1.813	6.053	5.094	7.816	2.371	
4	6.643	6.826	5.805	6.47	1.993	2.993	1.299	1.884	7.416	5.488	7.363	3.056	
5	4.039	4.532	6.401	1.32	1.473	3.74	1.565	3.072	9.538	4.335	6.444	6.041	
6	5.236	2.965	5.302	1.939	1.162	4.02	1.56	2.073	7.358	3.689	8.555	4.045	
7	5.269	3.349	4.953	2.503	2.051	1.325	2.061	2.593	5.472	4.547	6.657	3.56	
8	3.275	3.727	5.736	12.926	2.053	3.175	1.866	3.263	2.976	3.956	3.783	3.211	
9	4.084	5.601	5.069	4.13	3.222	5.417	2.033	4.155	3.753	2.813	3.501	3.767	
10	5.873	3.856	4.309	3.433	2.369	1.763	3.006	4.533	3.505	4.718	5.881	4.002	
11	5.956	4.759	4.18	4.557	1.679	1.858	2.315	6.261	4.643	4.672	8.19	4.352	
12	5.552	4.108	6.038	4.665	1.45	3.161	1.742	4.961	3.992	5.053	5.651	3.777	
13	5.494	4.646	5.879	8.252	1.199	3.657	1.723	2.388	3.376	6.304	5.51	4.465	
14	6.028	7.799	7.525	6.948	3.08	3.941	1.873	1.603	3.381	4.93	4.788	3.968	
15	3.115	5.426	4.481	5.985	3.759	2.621	1.062	2.494	1.584	4.19	5.974	5.525	
16	4.761	5.435	4.401	6.433	4.664	2.125	1.112	3.168	3.256	3.958	9.992	8.917	
17	2.959	3.268	3.712	11.664	5.696	3.723	3.546	2.439	2.465	6.148	6.788	5.783	
18	3.355	3.838	3.958	8.438	4.238	3.674	2.096	1.355	2.421	6.03	3.991	6.571	
19	2.329	3.962	4.778	4.058	3.65	3.568	1.546	1.922	3.529	1.661	3.571	6	
20	2.854	2.879	3.406	3.922	2.722	3.31	4.994	7.868	3.97	4.029	5.369	5.63	
21	3.246	4.382	3.922	3.025	2.414	1.791	5.731	3.672	3.005	6.63	6.088	13.963	
22	4.834	5.104	3.664	4.424	3.114	5.667	3.686	2.823	2.651	6.722	6.549	14.873	
23	5.918	27.953	3.438	4.46	4.556	2.265	3.489	2.694	4.369	6.205	5.879	7.93	
24	5.392	12.627	3.761	4.255	5.518	1.372	3.447	5.36	5.414	4.279	9.122	4.395	
25	6.428	4.304	3.371	6.828	5.192	2.738	5.324	8.799	11.425	3.086	7.902	4.994	
26	5.802	6.351	6.005	5.53	5.091	2.001	1.832	4.374	4.905	3.363	5.888	6.075	
27	5.119	10.302	8.807	5.591	5.081	2.813	1.404	2.504	2.286	4.78	4.767	7.19	
28	3.62	9.906	14.285	4.947	8.551	2.358	1.572	2.904	1.831	4.325	5.048	3.934	
29	7.452	7.481	11.479	7.53	6.513	3.926	2.154	6.282	2.981	5.137	4.408	3.688	
30	6.478		9.624	5.861	6.11	1.832	1.662	4.674	4.037	5.238	4.37	6.906	
31	5.352		11.481		2.635		2.01	4.039		5.03		4.356	
AVG	4.92	6.36	5.91	5.54	3.52	3.04	2.34	3.54	4.34	4.73	5.99	5.46	**4.64**

Table A-3. Annual Summary - Daily AVG For PM2.5 STP (µg/m³) - Site PM4

Excluded - Equipment Failure

Agricultural activities by neighbours

Jan 2024 to Dec 2024

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	5.818	7.951	6.896	8.962	3.276	3.958	2.022	2.27	3.182	4.168	3.493	2.961	
2	5.051	4.902	5.309	4.753	2.132	3.72	1.599	1.867	5.626	6.661	6.528	2.998	
3	5.872	6.496	4.687	3.282	3.029	3.278	1.278	1.733	6.324	5.477	7.193	2.563	
4	6.805	6.712	5.981	6.827	2.023	2.948	1.373	2.066	6.757	5.717	6.81	3.083	
5	4.072	4.842	6.056	1.385	1.601	4.077	1.819	3.31	10.129	3.66	6.11	6.289	
6	5.399	3.256	5.263	2.314	1.313	3.747	1.771	2.186	7.691	3.638	8.884	4.258	
7	5.306	3.648	5.12	2.883	1.953		2.305	3.185	5.641	4.445	6.886	3.774	
8	3.194	3.891	6.028	13.3	2.006		1.927	3.677	3.039	4.081	3.774	3.425	
9	4.131	5.554	5.193	4.479	3.73		2.094	4.255	3.611	2.92	3.743	4.142	
10	5.408	4.349	4.478	3.689	2.616		2.866	4.895	3.362	2.796	5.407	4.186	
11	6.141	5.009	4.071	4.194	1.801		2.015	6.756	5.195	4.445	8.317	4.516	
12	5.666	4.403	4.828	4.82	1.581		1.946	5.346	3.969	5.212	5.856	3.991	
13	5.811	4.015	6.648	8.667	1.315		1.943	2.455	2.361	6.065	5.409	3.559	
14	6.158	8.642	6.984	7.936	3.558		1.821	1.545	3.259	4.974	4.282	3.892	
15	3.041	5.705	4.671	6.39	4.466		1.114	2.73	1.672	4.338	5.565	4.38	
16	4.103	5.527	4.627	7.745	5.422		1.215	2.903	3.243	4.014	5.309	8.79	
17	3.106	3.239	4.149	13.229	6.083		3.672	2.682	2.427	6.321	5.915	5.746	
18	3.518	3.85	4.133	9.077	4.496		1.877	1.48	1.924	6.063	4.263	7.072	
19	2.456	4.107	4.835	4.494	3.854		1.593	2.184	3.459	1.811	3.885	5.473	
20	2.93	2.946	3.681	3.884	2.933		5.279	8.575	3.689	4.416	6.266	5.713	
21	3.308	4.136	4.35	3.629	2.645		5.935	3.981	2.681	6.589	6.211	15.009	
22	4.77	5.312	4.061	4.027	2.951		3.599	2.769	2.381	5.778	5.554	15.118	
23	6.238	30.541	3.652	3.952	4.508		3.06	2.883	2.953	5.392	5.762	8.398	
24	5.442	13.363	3.973	4.487	5.929	1.792	3.7	5.542	4.222	4.344	5.627	4.354	
25	6.124	4.379	3.863	7.473	5.403	3.522	5.708	9.301	12.553	3.169	5.081	3.823	
26	5.623	6.232	6.645	5.576	5.3	2.093	2.066	4.709	4.9	3.219	5.798	5.804	
27	5.426	10.78	10.527	5.39	4.552	2.004	1.591	2.923	3.103	4.135	4.968	7.352	
28	3.885	8.635	15.522	4.218	8.289	1.794	1.627	3.44	2.018	4.243	4.986	4.115	
29	8.902	6.392	12.028	7.729	6.58	4.077	2.26	7.14	3.065	5.132	4.433	3.362	
30	6.912		10.485	6.228	6.999	2.023	1.84	5.145	4.209	4.91	4.205	6.973	
31	5.495		11.868		2.866		2.066	4.079		4.744		4.496	
AVG	5.04	6.51	6.15	5.83	3.72	3.00	2.42	3.81	4.29	4.61	5.55	5.47	**4.70**

1C – PM10 Daily Average Results

Table A-4. Annual Summary - Daily AVG For PM10 STP (µg/m³) - Site PM2

Excluded - Equipment Failure

Agricultural activities by neighbours

Jan 2024 to Dec 2024

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	11.676	26.629	13.958	19.674	7.869	8.817	3.495	5.844	9.641	9.468	15.388	7.581	
2	11.171	25.149	19.601	12.152	6.601	7.057	3.184	6.097	18.619	14.216	17.893	8.894	
3	12.397	25.014	17.955	7.855	8.873	5.061	3.158	5.819	14.967	12.484	27.75	5.528	
4	12.165	27.754	20.254	14.159	5.134	5.773	3.35	5.451	24.919	14.175	27.565	7.048	
5	9.534	11.067	20.86	3.973	3.28	7.526	3.834	7.113	22.437	13.465	24.059	12.382	
6	12.999	8.919	18.008	4.696	4.48	6.167	3.606	3.84	17.182	9.785	24.944	9.324	
7	14.916	9.712	14.894	4.726	5.662	3.177	4.734	5.208	12.079	10.143	18.249	8.372	
8	6.454	9.544	16.46	17.22	5.356	5.433	3.776	7.664	8.627	11.463	10.848	8.864	
9	7.651	15.418	15.55	11.229	7.089	8.073	3.411	8.219	11.684	8.338	13.057	11.522	
10	12.894	10.259	13.434	8.94	6.385	3.189	5.471	8.91	9.494	16.185	20.906	13.994	
11	11.723	12.266	14.859	11.356	4.656	4.396	3.755	9.719	12.554	15.712	21.809	16.447	
12	12.134	11.389	25.234	11.567	3.969	7.948	3.361	8.975	9.161	15.313	12.438	15.29	
13	14.519	17.93	21.195	17.978	3.629	8.751	3.672	6.654	11.066	17.491	13.236	19.011	
14	14.379	20.046	33.14	16.637	6.018	8.846	4.111	2.873	10.147	14.674	16.847	15.245	
15	10.009	15.582	19.746	15.453	8.172	4.85	2.348	3.582	5.825	11.25	22.614	21.109	
16	14.195	11.802	10.965	17.132	9.316	3.91	2.502	5.942	11.569	7.331	43.755	24.131	
17	7.994	10.694	10.286	23.531	11.817	7.657	6.159	5.828	8.511	13.859	28.753	26.236	
18	9.359	12.644	8.619	20.91	11.423	7.713	4.063	3.024	10.326	13.352	12.65	22.032	
19	7.076	11.197	12.805	12.868	10.233	7.595	3.908	4.194	14.429	6.201	12.175	20.582	
20	9.185	8.187	10.464	13.073	7.882	7.838	13.966	13.936	12.517	10.158	15.533	18.13	
21	11.632	11.734	10.783	9.386	7.802	3.254	14.541	8.296	9.807	14.931	22.352	31.882	
22	15.263	14.179	10.266	12.634	10.892	7.577	7.798	6.863	8.575	18.927	27.193	32.371	
23	16.804	50.386	8.442	13.831	14.72	3.834	7.568	6.591	16.888	20.862	23.575	25.64	
24	17.796	26.158	8.811	17.577	15.663	3.454	8.928	11.521	23.31	15.027	37.062	15.534	
25	23.817	11.834	11.113	18.104	12.588	6.299	11.364	14.138	19.441	11.303	35.521	17.122	
26	20.908	20.614	17.648	16.547	11.318	6.008	3.929	11.731	8.557	12.192	20.679	22.656	
27	15.959	27.583	21.371	16.322	13.144	5.682	2.996	6.306	6.182	17.552	10.586	29.796	
28	13.182	35.56	28.83	16.282	22.546	6.875	4.34	9.449	5.384	16.354	10.39	14.538	
29	18.96	29.32	22.006	18.53	18.282	8.948	5.778	16.939	6.847	18.484	8.645	13.729	
30	22.159		18.152	15.246	15.689	4.239	4.554	14.085	10.237	20.283	6.997	18.237	
31	20.23		23.242		7.636		4.947	13.168		20.882		17.878	
AVG	13.52	18.23	16.74	13.99	9.29	6.20	5.25	8.00	12.37	13.93	20.12	17.13	**12.90**

Table A-5. Annual Summary - Daily AVG For PM10 STP (µg/m³) - Site PM4

Excluded - Equipment Failure

Agricultural activities by neighbours

Jan 2024 to Dec 2024

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	12.557	31.158	12.696	23.707	8.161	9.578	4.216	6.132	9.569	10.686	14.615	7.281	
2	11.31	27.462	20.094	12.774	7.246	7.507	3.756	5.144	18.271	15.571	19.476	8.708	
3	13.167	26.291	20.734	9.442	9.966	5.656	3.825	5.129	15.534	14.364	25.049	6.287	
4	12.602	29.214	22.112	15.766	4.841	5.407	3.767	6.015	16.971	15.109	25.522	6.856	
5	10.268	13.009	18.476	3.994	3.843	8.313	4.589	7.723	23.759	9.66	21.738	12.713	
6	13.961	9.824	18.85	5.743	5.553	5.755	5.082	3.806	18.238	9.885	27.653	9.868	
7	15.966	11.38	16.215	5.999	6.158		5.693	5.762	12.835	9.573	18.98	9.063	
8	7.034	10.296	18.056	17.835	5.293		3.839	7.547	10.355	12.282	10.977	9.746	
9	7.445	13.638	16.073	12.645	9.201		4.065	8.334	10.149	8.354	14.81	13.269	
10	10.035	11.817	14.826	9.895	7.433		5.505	9.82	8.678	6.455	19.066	14.123	
11	12.412	13.972	14.91	11.612	4.39		3.769	10.696	13.15	15.244	21.76	19.36	
12	12.896	12.806	20.837	11.685	4.15		3.791	9.532	8.647	16.796	12.691	18.29	
13	15.96	15.647	23.991	18.889	4.047		4.137	6.204	5.301	16.297	12.48	15.552	
14	15.136	22.435	32.108	18.526	7.43		3.856	2.906	9.048	14.293	14.562	16.403	
15	11.393	16.998	22.009	17.252	9.585		2.611	4.012	5.844	11.722	18.282	18.887	
16	11.651	12.259	12.061	19.428	10.539		2.751	5.202	10.724	7.415	16.78	24.226	
17	9.012	10.441	10.921	25.11	12.392		6.447	6.58	8.25	14.178	23.506	27.832	
18	9.901	12.462	8.552	23.033	12.052		3.818	3.19	9.063	13.288	14.255	25.298	
19	7.417	12.202	12.453	13.855	11.062		3.898	4.665	13.868	6.389	13.666	18.33	
20	9.444	8.45	11.803	12.803	8.344		15.763	15.621	11.11	11.329	21.359	19.239	
21	13.563	10.634	14.104	10.895	8.871		15.001	8.755	8.292	14.344	25.104	35.827	
22	15.6	15.289	12.508	11.506	8.575		7.917	6.498	7.482	14.683	23.206	32.733	
23	19.127	55.689	9.376	11.392	12.144		8.055	7.205	9.452	15.892	24.104	28.321	
24	19.646	28.708	9.796	19.089	15.388	13.579	9.289	11.49	16.123	15.324	20.072	15.765	
25	23.896	11.34	13.675	19.774	12.608	8.629	12.12	15.112	20.19	12.165	21.325	13.931	
26	20.648	20.89	18.814	16.43	10.821	6.796	4.37	12.727	8.532	12.332	20.042	22.24	
27	18.022	29.989	26.006	14.231	10.629	4.802	3.491	7.084	7.781	15.263	12.127	30.357	
28	14.711	30.171	28.8	12.513	19.296	5.383	4.269	10.546	5.791	17.203	10.374	15.536	
29	22.573	26.357	20.73	17.661	14.744	10.224	6.025	18.962	6.743	18.178	8.583	13.095	
30	26.827		19.002	16.913	17.059	4.67	4.772	14.901	10.441	18.456	7.087	18.569	
31	23.153		23.863		8.377		5.581	12.476		18.934		19.135	
AVG	14.43	18.99	17.56	14.68	9.36	7.41	5.68	8.38	11.34	13.28	17.98	17.64	**13.06**

1D – Particulate Matter Results (Graphs) 24hr Average

Figure A-1 Particulate Matter (PM_{10}) 24 hour average and compliance criteria

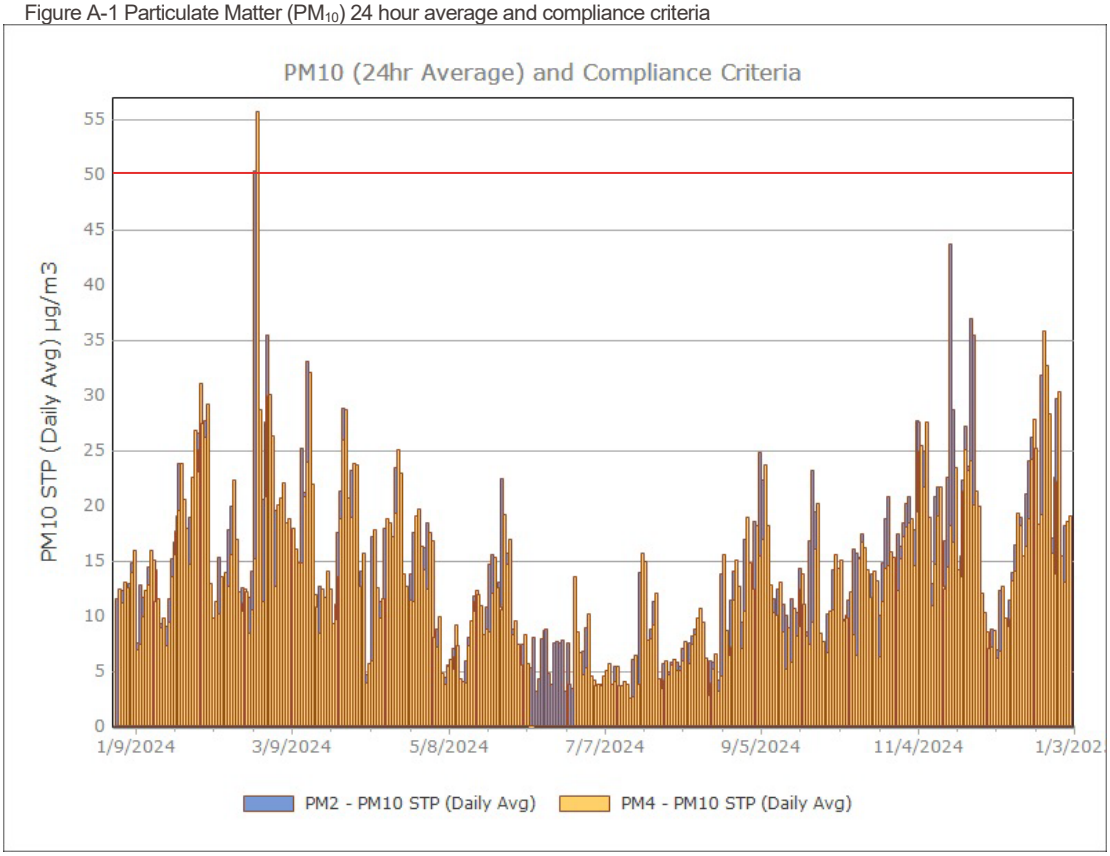
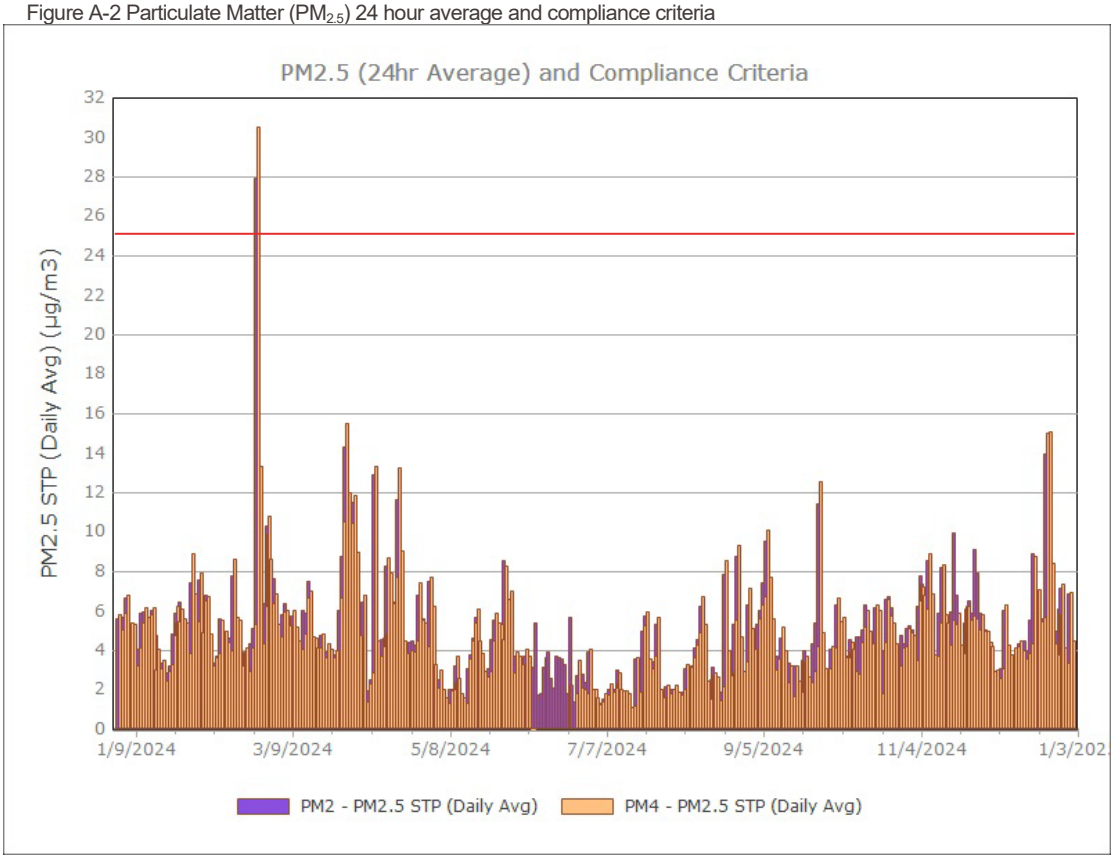
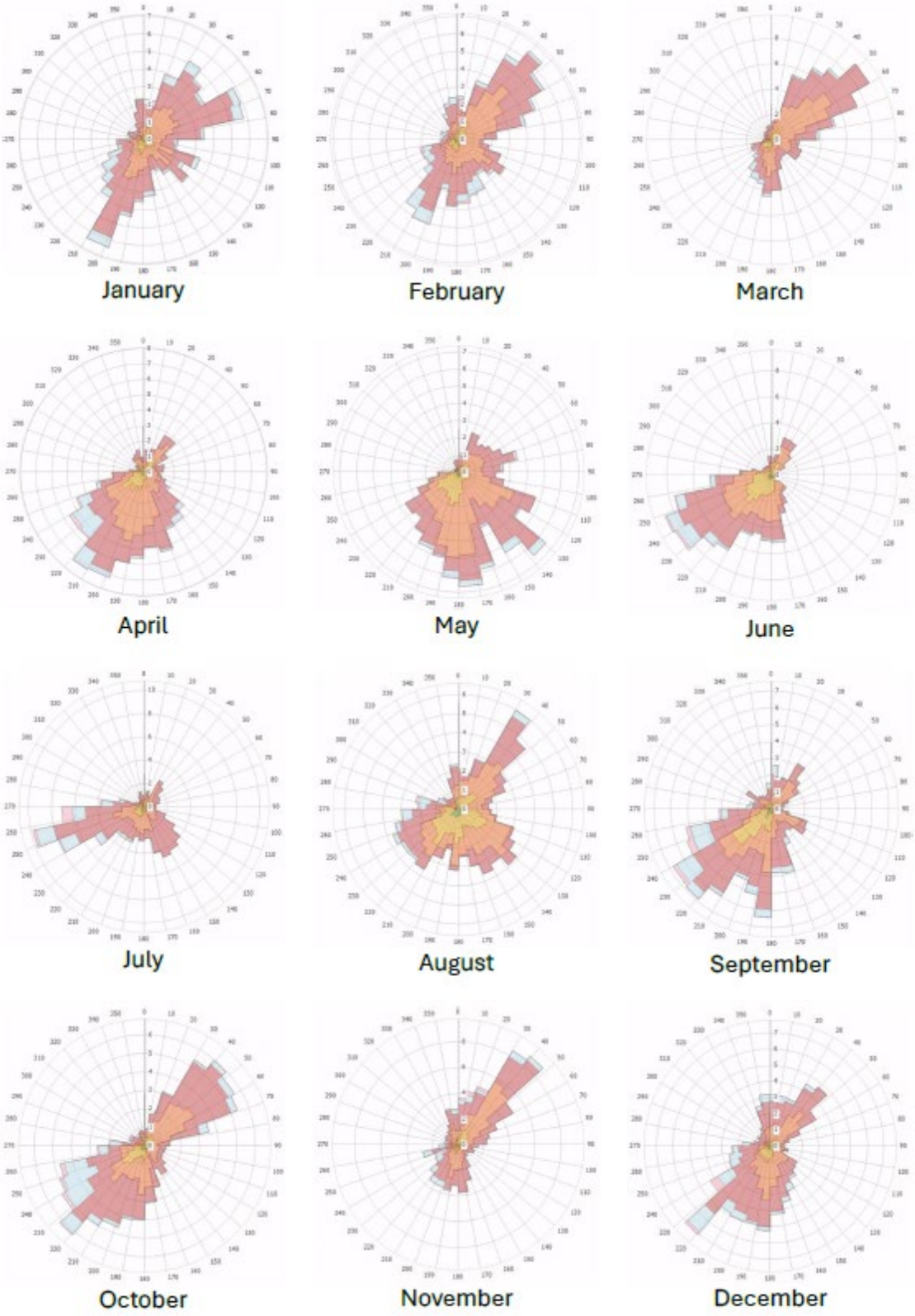


Figure A-2 Particulate Matter ($PM_{2.5}$) 24 hour average and compliance criteria



APPENDIX 2: METEOROLOGICAL MONITORING RESULTS

2A – Wind Roses - Monthly



2B – Temperature - Monthly

Table A-6 Summary of Mean Daily Temperatures

Month			Mean Daily Temperature									
	EIS (Station #50052)		AWS 2020		AWS 2021		AWS 2022		AWS 2023		AWS 2024	
	Maximum (°C)	Minimum (°C)	Maximum (°C)	Minimum (°C)	Minimum (°C)	Minimum (°C)	Maximum (°C)	Minimum (°C)	Maximum (°C)	Minimum (°C)	Maximum (°C)	Minimum (°C)
January	33.4	17.6	36.7	22.2	31.4	17.0	35.9	12.8	38.3	11.9	39.2	12.7
February	32.5	17.8	29.3	19.3	29.9	16.1	35.4	11.7	39.2	5.7	40.9	13.5
March	29.3	14.8	26.5	15.7	26.4	13.4	33.9	9	40.4	6.8	36.8	9.1
April	24.3	9.7	21.3	10.3	22.9	7.1	27.9	5.3	27.8	3.1	31.0	3.2
May	19.4	6.8	17.2	6.6	18.8	5.2	23.7	1.5	23.2	-1.7	21.5	0.6
June	15.6	3.8	15.1	4.2	15.1	3.5	18.7	-1.1	24.5	-3.9	17.8	-2.2
July	14.9	2.6	14.1	4.4	13.8	2.8	19.9	-2.6	22.1	-4.4	17.3	-0.2
August	16.8	3.4	14.4	3.5	16.8	3.4	22.1	-0.6	24.8	-2.2	26.6	-0.6
September	19.7	5.4	20.8	6.91	20.0	4.9	21.3	1.2	34.2	-1.7	27.7	-1.9
October	24.5	9.2	25.4	10.2	22.3	7.7	25.5	3.7	35.3	2.2	29.9	4.2
November	28.2	12.6	30.7	14.3	24.4	12.8	31.3	4.1	36.5	5.1	36.7	6.6
December	31.7	15.5	29.9	14.8	29.5	14.3	35.4	4.8	41.2	11.4	37.3	10.6

APPENDIX 3: NOISE MONITORING RESULTS

No noise monitoring undertaken in 2024

APPENDIX 4: SURFACE WATER MONITORING RESULTS

Table A-7 Surface Water Monitoring – Analytical Results 2024

LOC ID	Analytes	Units	LOR	SW1	SW1	SW2	SW2	SW2	SW2	SW3	SW3	SW3	SW3	SW4	SW4
Sampling Date				30/11/2024	8/12/2024	6/2/2024	11/5/2024	30/11/2024	8/12/2024	6/2/2024	12/5/2024	30/11/2024	8/12/2024	30/11/2024	8/12/2024
Major Cations (mg/L)	Calcium	mg/L	0.5	3	4	3	0.8	3	3	2	0.8	2	2	4	5.4
	Magnesium	mg/L	0.5	1	2	1	0.7	1	1	2	1	2	1	2	2
	Sodium	mg/L	0.5	3	6.6	3	8.1	5.4	8.0	9.4	14	6.6	7.6	4	6.3
	Potassium	mg/L	0.5	7.7	9.1	8.9	9.2	10	8.5	9.0	7.5	8.9	6.8	9.1	9.4
Major Anions (mg/L)	Sulphate	mg/L	5	<1	1	<1	2	1	2	3	4	2	2	<1	1
	Chloride	mg/L	1	5	9	4	12	8	9	15	24	12	10	5	8
	Bicarbonate Alkalinity (as CaCO3)	mg/L	20	17	26	20	21	19	25	17	16	13	13	21	32
	Carbonate Alkalinity (as CaCO3)	mg/L	10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	Hydroxide Alkalinity (as CaCO3)	mg/L	20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	Total Alkalinity (as CaCO3)	mg/L	20	17	26	20	21	19	25	17	16	13	13	21	32
Heavy Metals (TOTAL) (mg/L)	Aluminium	mg/L	0.05	0.4	0.59	0.99	3.1	1.0	1.1	4.5	5.8	1.4	1.1	0.80	0.87
	Arsenic	mg/L	0.001	<0.001	0.001	<0.001	0.002	0.002	0.002	0.002	0.003	0.002	0.002	<0.001	0.001
	Boron	mg/L	0.01	0.05	0.06	0.08	0.03	0.04	0.06	0.06	0.03	0.04	0.05	0.05	0.06
	Cadmium	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium	mg/L	0.001	<0.001	0.001	0.001	0.004	0.002	0.002	0.004	0.006	0.002	0.002	0.002	0.002
	Cobalt	mg/L	0.001	0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.002	0.002	0.001	<0.001	0.001	<0.001
	Copper	mg/L	0.001	0.006	0.004	0.007	0.004	0.004	0.004	0.007	0.005	0.003	0.003	0.004	0.004
	Iron	mg/L	0.05	0.44	1.3	0.98	3.1	1.5	1.6	4.8	5.4	1.6	1.7	1.1	1.4
	Lead	mg/L	0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	0.002	0.004	0.001	<0.001	<0.001	<0.001
	Lithium	mg/L		<0.001	0.002	0.008	0.004	0.002	0.003	0.007	0.008	0.004	0.004	0.002	0.002
	Manganese	mg/L	0.005	0.14	0.02	0.057	0.03	0.05	0.02	0.05	0.04	0.065	0.01	0.054	0.03
	Nickel	mg/L	0.001	0.004	0.002	0.014	0.004	0.003	0.003	0.006	0.007	0.004	0.003	0.004	0.004
	Vanadium	mg/L		0.002	0.003	0.004	0.006	0.004	0.004	0.007	0.009	0.003	0.003	0.003	0.003
	Zinc	mg/L	0.005	0.026	0.005	0.013	0.015	0.013	0.008	0.026	0.017	0.008	0.004	0.006	0.003
Heavy Metals (Dissolved) (mg/L)	Aluminium	mg/L	0.05	0.46	0.28	2.0	2.4	1.3	0.60	3.0	5.9	1.6	0.51	0.74	0.5
	Arsenic	mg/L	0.001	<0.001	0.001	<0.001	<0.001	0.001	0.001	0.001	0.002	0.001	0.001	<0.001	<0.001
	Boron	mg/L	0.01	0.05	0.04	0.03	0.02	0.04	0.06	0.03	0.02	0.04	0.05	0.05	0.06
	Cadmium	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium	mg/L	0.001	<0.001	<0.001	0.001	0.002	0.001	0.001	0.002	0.005	0.002	0.001	0.001	0.001

	Cobalt	mg/L	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
	Copper	mg/L	0.001	0.003	0.003	0.005	0.002	0.003	0.003	0.003	0.003	0.002	0.002	0.003	0.003
	Iron	mg/L	0.05	0.26	0.52	1.1	1.6	0.85	0.70	2.0	3.7	1.0	0.67	0.48	0.62
	Lead	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
	Lithium	mg/L		<0.001	0.002	0.002	0.004	0.002	0.003	0.011	0.007	0.004	0.004	0.001	0.002
	Manganese	mg/L	0.005	0.11	<0.005	0.052	<0.005	0.006	<0.005	<0.005	0.02	0.009	0.01	<0.005	<0.005
	Nickel	mg/L	0.001	0.002	0.002	0.003	0.003	0.003	0.003	0.004	0.006	0.003	0.003	0.004	0.003
	Vanadium	mg/L		0.002	0.002	0.002	0.003	0.002	0.002	0.002	0.006	0.002	0.002	0.002	0.002
	Zinc	mg/L	0.005	0.005	0.002	0.008	0.008	0.008	0.004	0.006	0.024	0.008	0.003	0.003	0.001
Others	**pH (Lab)**	pH units	0.1	6.4	6.6	6.4	7.0	6.3	6.6	6.3	6.7	6.1	5.9	6.4	6.7
	EC (Lab)			58	82	62	100	73	80	100	120	79	76	65	88
	TDS	mg/L	10	35	49	37	60	44	48	61	72	47	46	39	53
	TSS	mg/L	5	6	73	12	36	25	17	45	34	25	23	28	16
	Hardness mg equivalent CaCO3/L	mg/L	1	13	16	14	4.9	12	13	11	7.5	12	10	17	22
Field	**Turbidity (Field)**	NTU		5.8	180	22	110	22	42	110	170	23	38	11	39
	pH (Field)	pH units		6.91	6.32	6.43	8.20	6.64	6.41	6.32	7.61	6.22	6.36	6.38	6.62
	EC (Field)			66.7	90.3	71.7	89.7	80.4	89.8	109.6	129.5	88.6	79.9	73.7	98.8
	Temperature	**C⁰**		25.3	24.3	24.7	15.9	26.3	25.6	26.4	17.7	26.0	24.7	24.2	24.2

Table A-7 Surface Water Monitoring – Analytical Results 2024

LOC ID	Analytes	Units	LOR	SW5	SW6	SW7	SW7
Sampling Date				8/12/2024	8/12/2024	30/11/2024	8/12/2024
Major Cations (mg/L)	Calcium	mg/L	0.5	3	4	2	4
	Magnesium	mg/L	0.5	2	2	1	2
	Sodium	mg/L	0.5	5	4	3	4
	Potassium	mg/L	0.5	11	14	11	9.8
Major Anions (mg/L)	Sulphate	mg/L	5	<1	<1	<1	<1
	Chloride	mg/L	1	5	5	5	5
	Bicarbonate Alkalinity (as CaCO3)	mg/L	20	33	32	20	28
	Carbonate Alkalinity (as CaCO3)	mg/L	10	<5	<5	<5	<5
	Hydroxide Alkalinity (as CaCO3)	mg/L	20	<5	<5	<5	<5
	Total Alkalinity (as CaCO3)	mg/L	20	33	32	20	28
Heavy Metals (TOTAL) (mg/L)	Aluminium	mg/L	0.05	1.1	0.58	0.95	0.78
	Arsenic	mg/L	0.001	0.001	0.002	0.001	0.002
	Boron	mg/L	0.01	0.07	0.05	0.04	0.05
	Cadmium	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium	mg/L	0.001	0.002	0.001	0.002	0.002
	Cobalt	mg/L	0.001	0.002	<0.001	<0.001	<0.001
	Copper	mg/L	0.001	0.006	0.003	0.003	0.003
	Iron	mg/L	0.05	2.6	1.2	1.5	1.5
	Lead	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
	Lithium	mg/L		0.002	0.002	0.002	0.002
	Manganese	mg/L	0.005	0.098	0.02	0.03	0.03
	Nickel	mg/L	0.001	0.004	0.002	0.002	0.002
	Vanadium	mg/L		0.006	0.003	0.003	0.003
	Zinc	mg/L	0.005	0.005	0.008	0.007	0.006
Heavy Metals (Dissolved) (mg/L)	Aluminium	mg/L	0.05	0.36	0.28	0.75	0.30
	Arsenic	mg/L	0.001	0.001	0.001	<0.001	0.001
	Boron	mg/L	0.01	0.07	0.05	0.03	0.04
	Cadmium	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
	Cobalt	mg/L	0.001	<0.001	<0.001	<0.001	<0.001

	Copper	mg/L	0.001	0.004	0.003	0.002	0.002
	Iron	mg/L	0.05	1.0	0.54	0.59	0.54
	Lead	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
	Lithium	mg/L		0.002	0.002	0.002	0.002
	Manganese	mg/L	0.005	0.007	<0.005	<0.005	<0.005
	Nickel	mg/L	0.001	0.003	0.002	0.002	0.002
	Vanadium	mg/L		0.003	0.002	0.002	0.002
	Zinc	mg/L	0.005	0.001	0.005	0.004	0.003
Others	**pH (Lab)**	pH units	0.1	6.5	6.6	6.4	6.5
	EC (Lab)			76	82	63	72
	TDS	mg/L	10	46	49	38	43
	TSS	mg/L	5	50	17	28	30
	Hardness mg equivalent CaCO3/L	mg/L	1	17	16	10	15
Field	**Turbidity (Field)**	NTU		37	16	14	34
	pH (Field)	pH units		6.44	6.59	6.26	6.94
	EC (Field)			84.7	91.8	71.5	80.3
	Temperature	**C⁰**		25.7	24.8	24.8	23.2

APPENDIX 5: GROUNDWATER MONITORING RESULTS

5A - Groundwater Bores – Standing Water Level

5B - Groundwater Monitoring - Water Chemistry

5A - Groundwater Bores – Standing Water Level

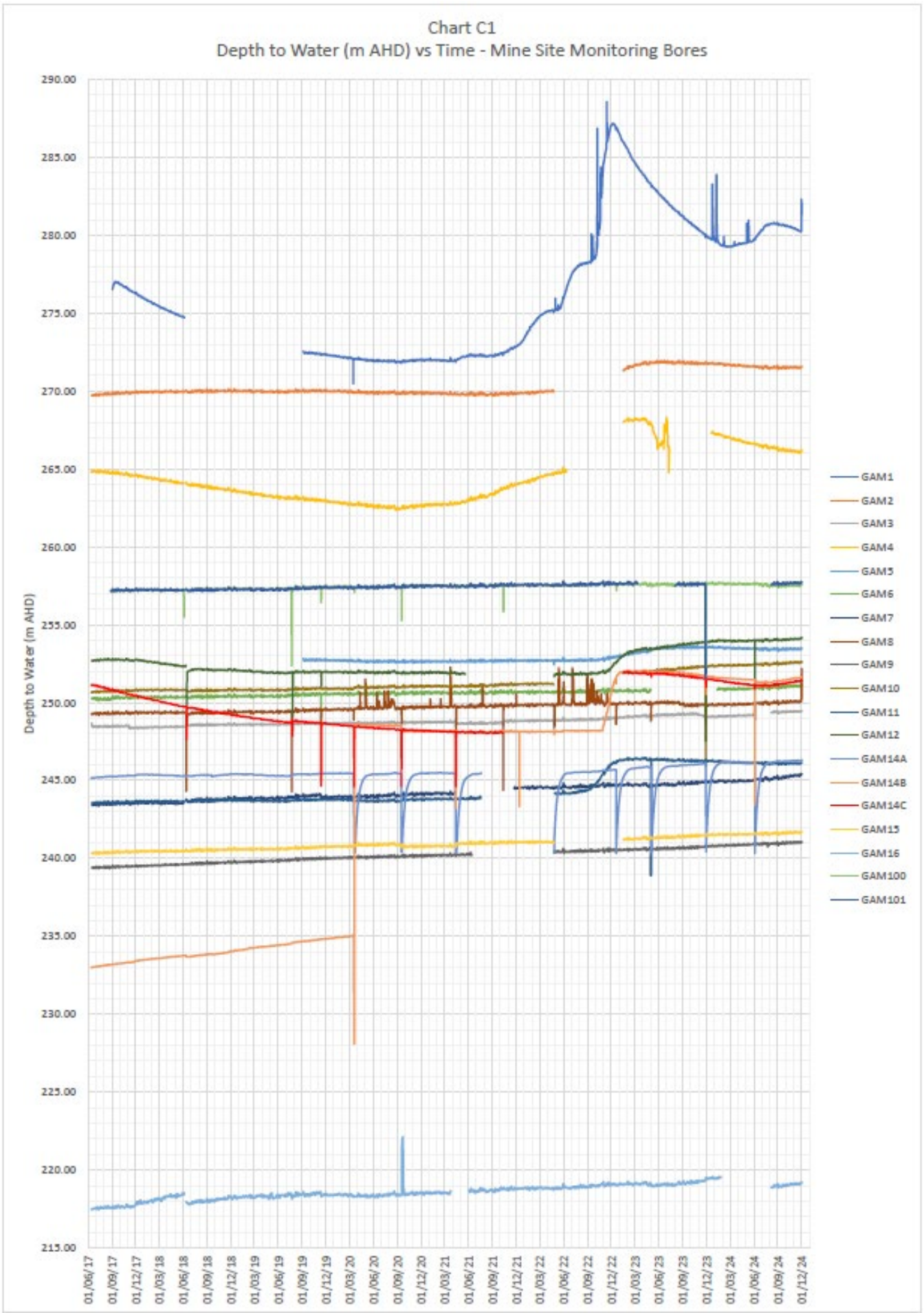
Table A-7 Minesite Groundwater monitoring – Standing Water Levels

Monitoring Bore ID	Standing Water Level (m AHD)											
	Jul 2019	Nov 2019	Mar 2020	Sep 2020	Apr 2021	Oct 2021	Apr 2022	Dec 2022	May 2023	Nov 2023	May 2024	Dec 2024
GAM01	272.63	272.34	272.04	271.87	271.95	272.43	275.18	286.93	283.26	280.03	279.80	281.08
GAM02	269.96	269.98	269.88	269.82	269.75	269.79	270.07	270.96	271.85	271.79	271.64	271.58
GAM03	248.63	248.67	248.64	248.65	248.68	248.75	248.76	248.88	249.17	249.27	249.34	249.41
GAM04	263.14	263.07	262.67	262.46	262.7	263.69	264.76	267.68	268.14	267.47	266.66	265.47
GAM05	252.67	252.76	252.65	252.59	252.58	252.65	252.65	252.89	253.31	253.59	253.50	253.46
GAM06	250.45	250.63	250.49	250.55	250.55	250.64	250.68	250.67	250.70	250.89	250.99	251.07
GAM07	243.69	243.93	243.87	244.00	244.15	244.34	244.33	244.5	244.53	244.82	244.91	245.25
GAM08	249.47	249.64	249.53	249.67	249.69	249.76	249.81	249.79	249.90	250.08	250.18	251.52
GAM09	239.92	240.03	240.02	240.13	240.18	240.32	240.43	240.5	240.56	240.82	240.92	240.99
GAM10	250.84	250.90	250.84	250.90	250.95	251.03	251.12	251.76	251.93	252.30	252.35	252.52
GAM11	243.70	243.75	243.69	243.74	243.8	243.93	244.11	246.04	246.22	246.21	246.00	245.97
GAM12	252.00	251.98	251.89	251.86	251.85	251.87	251.79	252.55	253.44	253.93	253.99	254.17
GAM14A	245.37	245.45	245.44	245.44	245.47	245.52	245.47	245.69	245.85	246.09	246.15	246.34
GAM14B	234.58	234.81	235.01	248.39	248.21	248.14	248.09	251.51	251.90	251.65	251.30	251.50
GAM14C	248.79	248.65	248.42	248.26	248.11	248.09	248.04	251.57	251.88	251.59	251.14	251.45
GAM15	240.64	240.71	240.71	239.28	240.85	240.91	240.97	241.02	241.19	241.51	241.50	241.61
GAM16	218.24	218.45	218.29	218.46	218.6	218.77	218.78	218.95	219.03	219.51	219.56	219.87
GAM100	257.37	257.40	257.39	257.45	257.49	257.55	257.57	257.56	257.56	257.78	257.72	257.72
GAM101	257.27	257.48	257.32	257.39	257.4	257.5	257.52	257.49	257.53	257.72	257.66	257.65

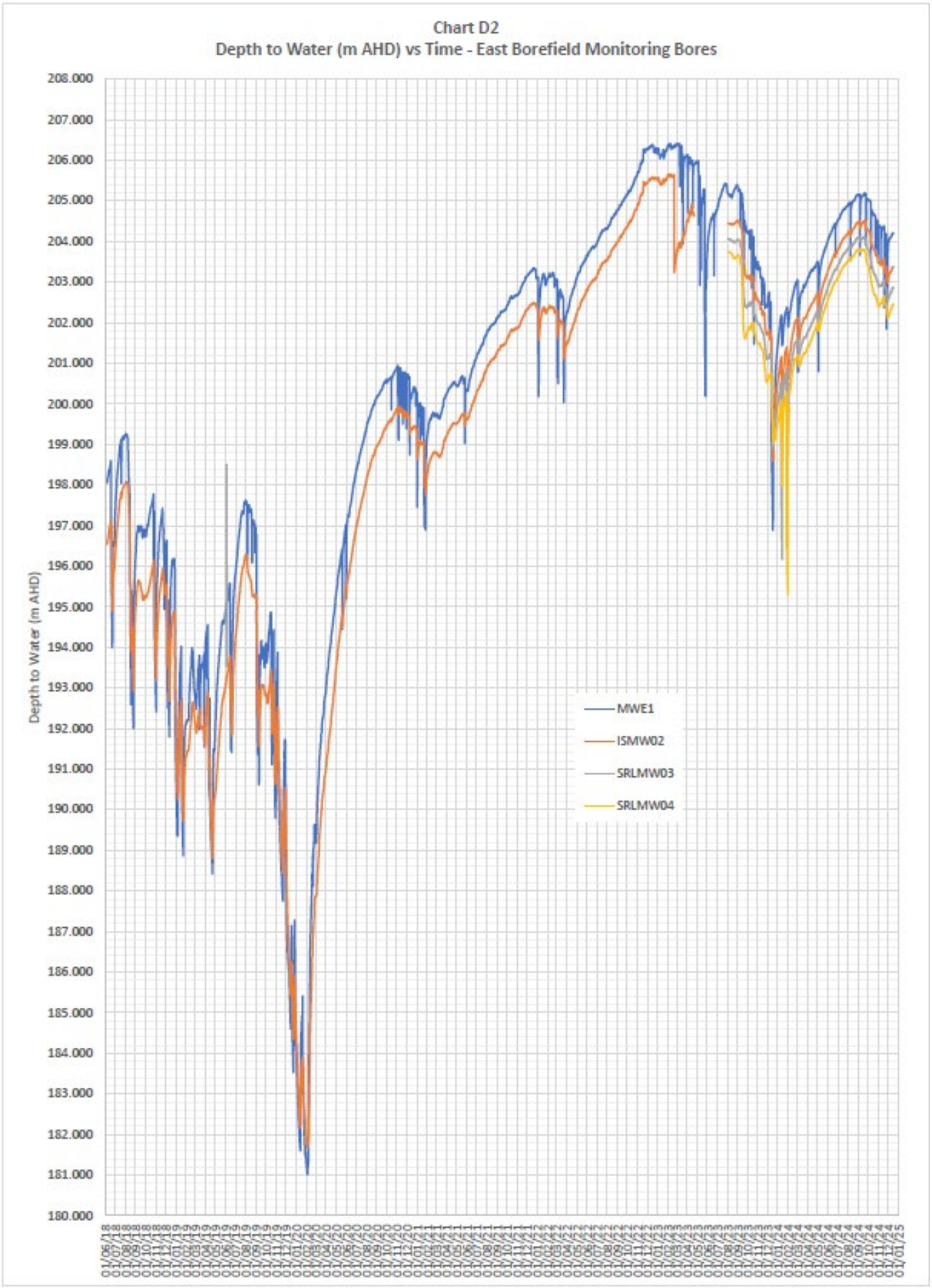
Table A-8 Borefields Groundwater monitoring – Standing Water Levels

Monitoring Bore ID	Standing Water Level (m AHD)											
	Jul 2019	Nov 2019	Mar 2020	Sep 2020	Apr 2021	Oct 2021	Apr 2022	Jan 2023	May 2023	Nov 2023	May 2024	Dec 2024
Borefields Monitoring Bores – West												
ISMW01	193.58	189.86	185.35	197.02	196.94	199.56	199.76	203.27	202.56	199.33	201.36	201.08
MWW1	198.39	198.22	188.78	199.18	199.23	201.81	202.48	205.68	204.32	203.26	202.85	202.73
SRLMW06A										200.20	201.90	201.76
SRLMW06B										200.25	201.95	201.82
SRLMW06C										204.75	204.22	204.16
Borefields Monitoring Bores – East												
ISMW02	196.01	189.79	189.86	199.40	199.39	201.12	202.08	205.35	204.19	202.06	203.16	203.36
MWE1	197.39	188.99	200.31	200.57	200.22	202.65	202.99	206.11	204.23	202.66	203.92	204.19
SRLMW03										201.56	202.76	202.87
SRLMW04										201.00	202.47	202.47

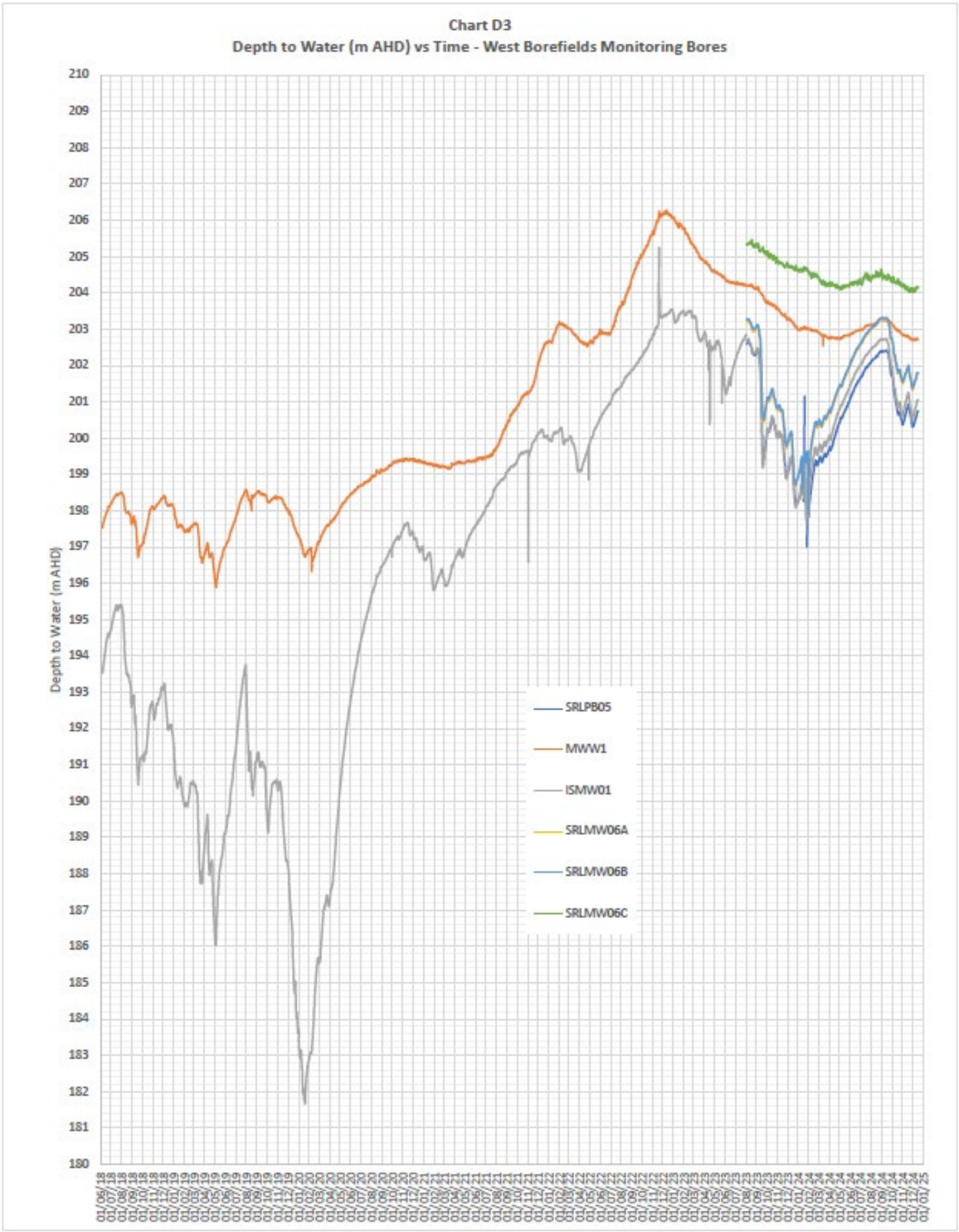
Groundwater Monitoring - Minesite Bores - Continuous logger data (Depth to water mAHD)



Groundwater Monitoring – East Borefield Monitoring Bores - Continuous logger data (Depth to water mAHD) vs Time



Groundwater Monitoring – West Borefield Monitoring Bores - Continuous logger data (Depth to water mAHD) vs Time



5B - GROUNDWATER MONITORING – WATER CHEMISTRY

Table A-9 Groundwater Water Monitoring – Minesite Bores - Analytical Results 2024

Bore ID	Analytes	Units	LOR	GAM01	GAM01	GAM02	GAM02	GAM03	GAM03	GAM04	GAM04	GAM05	GAM05	GAM06	GAM06	GAM07	GAM07
Date				3/12/2024	5/06/2024	3/12/2024	3/06/2024	18/12/2024	4/06/2024	18/12/2024	3/06/2024	18/12/2024	4/06/2024	3/12/2024	3/06/2024	18/12/2042	5/06/2024
Major Cations (mg/L)	Calcium	mg/L	0.5	34	32	80	65	29	29	73	77	66	71	340	330	3	3
	Magnesium	mg/L	0.5	2	2	78	61	230	200	86	78	120	120	530	460	79	67
	Sodium	mg/L	0.5	66	72	45	36	36	42	76	73	28	34	560	460	240	220
	Potassium	mg/L	0.5	2	2	2	2	2	2	3	3	1	1	14	13	5.6	5.9
Major Anions (mg/L)	Sulphate	mg/L	5	15	17	11	10	8	9	22	24	17	18	470	530	22	21
	Chloride	mg/L	1	13	14	55	56	36	40	90	98	100	110	1700	1700	250	250
	Bicarbonate Alkalinity (as $CaCO_3$)	mg/L	20	180	180	440	430	1000	980	550	520	570	550	780	740	340	310
	Carbonate Alkalinity (as $CaCO_3$)	mg/L	10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	53	51
	Hydroxide Alkalinity (as $CaCO_3$)	mg/L	20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	Total Alkalinity (as $CaCO_3$)	mg/L	20	180	180	440	430	1000	980	550	520	570	550	780	740	400	360
Heavy Metals (Dissolved) (mg/L)	Aluminium	mg/L	0.05	<0.01	0.040	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Arsenic	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Boron	mg/L	0.02	0.050	0.060	0.080	0.080	0.100	0.100	0.200	0.100	0.080	0.080	0.200	0.200	0.040	0.050
	Cadmium	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium	mg/L	0.001	<0.001	<0.001	0.024	0.020	0.022	0.025	0.009	0.011	0.058	0.067	0.009	0.008	<0.001	<0.001
	Cobalt	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper	mg/L	0.001	0.009	0.003	0.002	<0.001	0.001	0.002	0.013	0.008	<0.001	<0.001	0.012	0.004	<0.001	<0.001
	Iron	mg/L	0.05	<0.01	0.010	<0.01	<0.01	<0.01	<0.01	<0.01	0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Lead	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Manganese	mg/L	0.005	0.008	0.009	<0.005	<0.005	<0.005	<0.005	0.011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Mercury	mg/L	0.0001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.0001	0.0002	<0.00005	<0.00005
	Nickel	mg/L	0.001	0.002	0.009	0.001	<0.001	0.009	0.013	0.003	0.003	0.005	0.008	0.018	0.061	<0.001	<0.001
	Silver	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Vanadium	mg/L	0.005	0.004	0.004	0.034	0.029	0.002	0.002	0.018	0.023	0.007	0.009	0.019	0.016	<0.001	<0.001
	Zinc	mg/L	0.005	0.043	0.042	0.021	0.006	0.003	0.012	0.010	0.025	0.003	0.011	0.054	0.022	0.002	0.005
Nutrients (mg/L)	Nitrate (as N)	mg/L	0.02	6.200	6.700	0.530	0.450	0.810	0.640	4.500	3.700	2.200	1.700	0.220	0.200	0.073	0.076
	Nitrite (as N)	mg/L	0.02	0.140	0.300	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Ammonia (as N)	mg/L	0.01	<0.005	<0.005	<0.005	<0.050	0.021	0.008	0.014	<0.005	0.014	<0.005	<0.005	0.005	0.023	0.009
	Total Kjeldahl Nitrogen (as N)*	mg/L	0.2	0.6	0.9	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	<0.1	0.2	<0.1	<0.1	<0.1	<0.1
	Total Nitrogen (as N)	mg/L	0.2	6.90	7.90	0.60	0.50	0.80	0.70	4.60	4.20	2.20	1.90	0.30	0.20	<0.1	<0.1
	Phosphate total (as P)	mg/L	0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Others	TDS	mg/L	10	260	300	440	510	970	760	790	760	860	700	5200	4100	840	790
	Electrical Conductivity (Lab)	uS/cm	10	420	450	890	890	1600	1600	1200	1300	1300	1300	6600	6600	1600	1500
Field	Temperature	°C		20.1	19.0	20.7	19.8	22.2	20.7	21.1	19.4	21.9	18.4	22.1	19.8	21.8	19.9
	pH	pH units		6.96	6.55	7.17	7.37	7.37	7.28	6.98	7.00	7.15	7.18	6.72	6.75	8.77	8.80
	Electrical Conductivity	uS/cm		421	404	910	815	1696	1525	1281	1129	1349	1152	6879	6232	1749	1494
	Dissolved Oxygen	ppm		0.86	0.16	5.00	4.51	5.62	3.67	5.52	4.05	5.12	7.17	2.37	2.08	2.73	0.56

Table A-9 Groundwater Water Monitoring – Minesite Bores - Analytical Results 2024 (cont.)

Bore ID	Analytes	Units	LOR	GAM08	GAM08	GAM09	GAM09	GAM10	GAM10	GAM11	GAM11	GAM12	GAM12	GAM14A	GAM14A	GAM14B	GAM14B
Date				3/12/2024	3/06/2024	3/12/2024	3/06/2024	17/12/2024	4/06/2024	17/12/2024	4/06/2024	17/12/2024	4/06/2024	17/12/2024	4/06/2024	17/12/2024	4/06/2024
Major Cations (mg/L)	Calcium	mg/L	0.5	91	110	2	1	190	210	340	390	66	66	60	65	85	72
	Magnesium	mg/L	0.5	180	210	170	130	360	370	510	550	9.5	9.6	29	31	120	110
	Sodium	mg/L	0.5	1000	1400	73	69	620	730	2000	2000	240	220	220	220	180	180
	Potassium	mg/L	0.5	19	24	3	3	16	18	23	26	6.5	6.8	4	5	7	7.1
Major Anions (mg/L)	Sulphate	mg/L	5	1100	1500	33	32	590	580	1600	1600	270	290	110	120	61	63
	Chloride	mg/L	1	1100	1500	76	76	1900	1800	4200	4100	150	170	270	300	280	290
	Bicarbonate Alkalinity (as $CaCO_3$)	mg/L	20	690	810	620	580	850	840	820	810	93	93	170	170	510	480
	Carbonate Alkalinity (as $CaCO_3$)	mg/L	10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	Hydroxide Alkalinity (as $CaCO_3$)	mg/L	20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	Total Alkalinity (as $CaCO_3$)	mg/L	20	690	810	620	580	850	840	820	810	93	93	170	170	510	480
Heavy Metals (Dissolved) (mg/L)	Aluminium	mg/L	0.05	0.110	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.010	<0.01	<0.01	<0.01	<0.01
	Arsenic	mg/L	0.001	0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.003	0.002	0.002	0.001	0.001
	Boron	mg/L	0.02	0.200	0.100	0.100	0.100	0.200	0.100	0.200	0.200	0.310	0.280	0.540	0.460	0.250	0.220
	Cadmium	mg/L	0.0002	0.0003	0.0008	<0.0001	<0.0001	<0.0001	0.0001	0.0004	0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium	mg/L	0.001	0.001	<0.001	0.069	0.084	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Cobalt	mg/L	0.001	0.005	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper	mg/L	0.001	0.009	0.001	0.003	0.004	0.002	0.005	0.010	0.047	0.001	0.002	<0.001	<0.001	0.011	0.016
	Iron	mg/L	0.05	0.090	0.150	<0.01	<0.01	0.010	0.030	<0.01	<0.01	0.050	0.070	<0.01	0.020	<0.01	<0.01
	Lead	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Manganese	mg/L	0.005	0.220	0.350	<0.005	<0.005	0.006	<0.005	<0.005	0.032	0.045	0.054	0.140	0.170	0.770	0.810
	Mercury	mg/L	0.0001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	Nickel	mg/L	0.001	0.013	0.040	0.009	0.005	0.036	0.058	0.015	0.120	0.003	0.003	0.003	0.008	0.008	0.013
	Silver	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Vanadium	mg/L	0.005	0.015	0.012	<0.001	<0.001	0.002	0.002	<0.001	0.001	0.004	0.004	<0.001	<0.001	0.020	0.021
	Zinc	mg/L	0.005	0.027	0.029	0.010	0.005	0.013	0.027	0.024	0.046	0.002	0.003	0.004	0.005	0.007	0.013
Nutrients (mg/L)	Nitrate (as N)	mg/L	0.02	1.400	0.061	0.110	0.088	0.170	0.110	3.200	2.400	0.098	0.040	<0.005	<0.005	9.000	7.100
	Nitrite (as N)	mg/L	0.02	0.014	0.012	<0.005	<0.005	<0.005	0.005	<0.005	0.008	0.006	<0.005	<0.005	<0.005	1.300	0.940
	Ammonia (as N)	mg/L	0.01	0.140	0.019	0.031	<0.005	0.072	0.010	0.095	0.061	0.240	0.083	0.140	0.050	0.023	0.012
	Total Kjeldahl Nitrogen (as N)*	mg/L	0.2	0.2	0.1	<0.1	<0.1	0.3	<0.1	<0.1	0.2	<0.1	0.2	<0.1	0.1	0.1	1.2
	Total Nitrogen (as N)	mg/L	0.2	1.70	0.20	0.10	<0.1	0.40	0.10	3.20	2.60	0.10	0.20	<0.1	0.10	10.00	9.20
	Phosphate total (as P)	mg/L	0.01	0.1	0.09	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	0.07
Others	TDS	mg/L	10	4000	5500	720	660	4400	9000	10000	9600	870	880	890	880	1200	1100
	Electrical Conductivity (Lab)	uS/cm	10	6200	8100	1200	1200	6600	6900	13000	14000	1300	1400	1500	1500	1900	2000
Field	Temperature	°C		21.3	20.7	21.0	19.7	22.1	19.1	25.1	18.9	23.2	20.0	24.4	19.2	23.5	19.8
	pH	pH units		6.96	6.72	7.55	7.75	6.78	6.80	6.69	6.69	7.93	8.08	7.66	7.71	7.55	7.56
	Electrical Conductivity	uS/cm		6421	8166	1266	1129	7074	6289	14120	12710	1394	1240	1564	1368	2038	1774
	Dissolved Oxygen	ppm		0.72	0.97	2.98	3.25	2.86	7.33	4.44	1.98	0.23	0.45	0.31	0.49	0.38	0.59

Table A-9 Groundwater Water Monitoring – Minesite Bores - Analytical Results 2024 (cont.)

Bore ID	Analytes	Units	LOR	GAM14C	GAM14C	GAM15	GAM15	GAM16	GAM16	GAM100	GAM100	GAM101	GAM101	Berillee	Berillee	Victoria Park
Date				17/12/2024	4/06/2024	17/12/2024	4/06/2024	18/12/2024	5/06/2024	18/12/2024	3/06/2024	18/12/2024	3/06/2024	18/12/2024	5/06/2024	18/12/2024
Major Cations (mg/L)	Calcium	mg/L	0.5	53	48	110	120	220	240	15	14	44	38	120	38	57
	Magnesium	mg/L	0.5	140	130	180	170	520	560	83	83	120	99	210	99	70
	Sodium	mg/L	0.5	160	160	410	490	380	450	1400	1300	1500	1400	230	1400	130
	Potassium	mg/L	0.5	5	5.4	8.7	9.3	18	20	27	27	21	68	9	68	5
Major Anions (mg/L)	Sulphate	mg/L	5	35	38	470	490	220	230	490	450	650	630	79	630	44
	Chloride	mg/L	1	240	260	420	440	2100	2100	1300	1200	1600	1500	640	1500	140
	Bicarbonate Alkalinity (as CaCO3)	mg/L	20	630	590	940	920	640	630	1700	1600	1500	1600	480	1600	440
	Carbonate Alkalinity (as CaCO3)	mg/L	10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	Hydroxide Alkalinity (as CaCO3)	mg/L	20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	Total Alkalinity (as CaCO3)	mg/L	20	630	590	940	920	640	630	1700	1600	1500	1600	480	1600	440
Heavy Metals (Dissolved) (mg/L)	Aluminium	mg/L	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.030	<0.01	<0.01	<0.01	<0.01	<0.01
	Arsenic	mg/L	0.001	0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.003	<0.001	0.003	0.002
	Boron	mg/L	0.02	0.230	0.210	0.200	0.200	0.220	0.200	0.100	0.100	0.100	0.100	0.220	0.100	0.210
	Cadmium	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium	mg/L	0.001	0.003	0.003	<0.001	<0.001	0.003	0.003	<0.001	<0.001	<0.001	0.006	0.001	0.006	0.003
	Cobalt	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	0.005	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper	mg/L	0.001	0.003	0.005	<0.001	<0.001	0.002	0.002	<0.001	<0.001	<0.001	0.003	<0.001	0.003	0.002
	Iron	mg/L	0.05	<0.01	<0.01	0.550	1.100	<0.01	<0.01	0.010	0.350	0.020	<0.01	<0.01	<0.01	<0.01
	Lead	mg/L	0.001	0.003	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Manganese	mg/L	0.005	<0.005	<0.005	0.110	0.130	<0.005	<0.005	0.320	0.410	0.110	0.120	<0.005	0.120	<0.005
	Mercury	mg/L	0.0001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.0001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	Nickel	mg/L	0.001	0.004	0.005	0.012	0.050	0.041	0.010	0.017	0.017	0.014	0.053	<0.001	0.053	<0.001
	Silver	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Vanadium	mg/L	0.005	0.017	0.022	<0.001	<0.001	0.004	0.005	0.005	0.002	0.008	0.013	0.032	0.013	0.030
	Zinc	mg/L	0.005	0.008	0.017	0.026	0.052	0.037	0.029	0.006	0.014	0.009	0.017	0.004	0.017	0.003
Nutrients (mg/L)	Nitrate (as N)	mg/L	0.02	7.700	6.700	0.006	<0.005	0.430	0.320	0.008	0.030	0.005	0.006	0.890	0.006	2.300
	Nitrite (as N)	mg/L	0.02	0.027	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	<0.005	<0.005	0.007	<0.005	<0.005
	Ammonia (as N)	mg/L	0.01	0.091	<0.005	0.020	0.012	0.015	<0.005	0.062	0.032	0.029	0.170	0.086	0.170	0.096
	Total Kjeldahl Nitrogen (as N)*	mg/L	0.2	1.1	0.7	0.8	<0.1	0.2	<0.1	0.2	<0.1	<0.1	0.2	<0.1	0.2	0.8
	Total Nitrogen (as N)	mg/L	0.2	8.8	7.50	0.9	<0.1	0.6	0.30	0.2	<0.1	<0.1	0.30	0.900	0.30	3.200
	Phosphate total (as P)	mg/L	0.01	0.07	<0.05	0.08	0.2	0.1	0.09	0.58	0.09	0.2	0.2	<0.05	0.2	<0.05
Others	TDS	mg/L	10	1200	1100	2400	2300	4800	3400	3900	4000	4000	4300	2700	4300	840
	Electrical Conductivity (Lab)	uS/cm	10	1900	1900	3600	3700	6800	7000	6800	6900	7400	7600	3000	7600	1300
Field	Temperature	°C		21.8	19.9	22.2	18.5	28.2	19.2	21.7	19.7	22.5	19.8	22.7	21.0	20.1
	pH	pH units		7.24	7.20	6.77	6.77	6.63	6.63	7.27	7.06	7.06	7.79	7.02	7.25	6.98
	Electrical Conductivity	uS/cm		1992	1787	3860	3305	7554	6501	6678	6342	7828	6893	3186	3038	1326
	Dissolved Oxygen	ppm		4.51	9.31	0.76	0.62	5.46	4.25	7.51	0.50	0.62	0.45	4.54	5.22	7.19

Table A-9 Groundwater Water Monitoring – Borefield Bores - Analytical Results 2024 (cont.)

Bore ID	Analytes	Units	LOR	ISMW01	ISMW01	ISMW02	ISMW02	MWE1	MWE1	MWW1	MWW1
Date				16/12/2024	28/05/2024	16/12/2024	27/05/2024	16/12/2024	27/05/2024	16/12/2024	28/05/2024
Major Cations (mg/L)	Calcium	mg/L	0.5	18	11	26	22	14	18	19	14
	Magnesium	mg/L	0.5	17	12	21	19	14	18	17	14
	Sodium	mg/L	0.5	120	120	180	210	27	120	32	48
	Potassium	mg/L	0.5	4	4	3	3	2	2	2	2
Major Anions (mg/L)	Sulphate	mg/L	5	43	38	60	64	11	42	19	16
	Chloride	mg/L	1	140	140	220	250	34	160	51	43
	Bicarbonate Alkalinity (as CaCO3)	mg/L	20	150	150	180	180	110	140	140	140
	Carbonate Alkalinity (as CaCO3)	mg/L	10	<5	<5	<5	<5	<5	<5	<5	<5
	Hydroxide Alkalinity (as CaCO3)	mg/L	20	<5	<5	<5	<5	<5	<5	<5	<5
	Total Alkalinity (as CaCO3)	mg/L	20	150	150	180	180	110	140	140	140
Heavy Metals (Dissolved) (mg/L)	Aluminium	mg/L	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Arsenic	mg/L	0.001	0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Boron	mg/L	0.02	0.060	0.050	0.070	0.070	0.040	0.060	0.030	0.030
	Cadmium	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Cobalt	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.003
	Copper	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001
	Iron	mg/L	0.05	0.620	0.550	0.320	0.480	<0.01	<0.01	0.060	0.020
	Lead	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Manganese	mg/L	0.005	0.031	0.034	0.025	0.036	<0.005	0.006	0.330	0.490
	Mercury	mg/L	0.0001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	Nickel	mg/L	0.001	0.002	0.005	0.003	0.003	0.003	0.016	0.004	0.006
	Silver	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Vanadium	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Zinc	mg/L	0.005	0.006	0.004	0.020	0.008	0.039	0.067	0.016	0.010
Nutrients (mg/L)	Nitrate (as N)	mg/L	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.008
	Nitrite (as N)	mg/L	0.02	<0.005	<0.005	<0.005	<0.005	0.052	<0.005	<0.005	<0.005
	Ammonia (as N)	mg/L	0.01	0.110	0.074	0.040	0.019	0.025	0.012	0.006	<0.005
	Total Kjeldahl Nitrogen (as N)*	mg/L	0.2	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Total Nitrogen (as N)	mg/L	0.2	0.200	0.20	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Phosphate total (as P)	mg/L	0.01	0.1	0.09	0.06	0.06	<0.05	<0.05	2.5	2.8
Others	TDS	mg/L	10	460	670	640	640	230	500	280	260
	Electrical Conductivity (Lab)	uS/cm	10	750	780	1100	1200	300	830	400	400
Field	Temperature	°C		20.8	17.5	21.5	20.0	21.8	19.3	21.0	17.7
	pH	pH units		6.94	6.89	6.70	6.67	6.24	6.31	6.35	6.32
	Electrical Conductivity	uS/cm		840	670	1183	1107	337	745	446	360
	Dissolved Oxygen	ppm		0.41	0.43	0.35	0.50	0.67	1.00	0.51	0.80

Table A-9 Groundwater Water Monitoring – Borefield Bores - Analytical Results 2024 (cont.)

Bore ID	Analytes	Units	LOR	SRLMW03	SRLMW03	SRLMW04	SRLMW03	SRLMW06A	SRLMW06A	SRLMW06B	SRLMW06B	SRLMW06C	SRLMW06C
Date				16/12/2024	27/5/2024	16/12/2024	27/05/2024	16/12/2024	27/05/2024	16/12/2024	27/05/2024	16/12/2024	27/05/2024
Major Cations (mg/L)	Calcium	mg/L	0.5	37	24	36	24	28	19	12	9.3	140	86
	Magnesium	mg/L	0.5	30	22	30	22	23	18	10	8.9	110	72
	Sodium	mg/L	0.5	250	300	250	290	190	230	93	100	130	110
	Potassium	mg/L	0.5	4	4	4	4	3	3	2	2	3	3
Major Anions (mg/L)	Sulphate	mg/L	5	90	92	89	85	67	69	28	23	110	87
	Chloride	mg/L	1	350	360	350	350	240	270	96	93	550	460
	Bicarbonate Alkalinity (as CaCO3)	mg/L	20	200	200	200	200	190	180	140	140	220	170
	Carbonate Alkalinity (as CaCO3)	mg/L	10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	Hydroxide Alkalinity (as CaCO3)	mg/L	20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	Total Alkalinity (as CaCO3)	mg/L	20	200	200	200	200	190	180	140	140	220	170
Heavy Metals (Dissolved) (mg/L)	Aluminium	mg/L	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Arsenic	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.006	0.006
	Boron	mg/L	0.02	0.070	0.060	0.070	0.060	0.070	0.060	0.060	0.050	<0.02	<0.02
	Cadmium	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Cobalt	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.030	0.013
	Copper	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Iron	mg/L	0.05	1.000	1.100	0.950	0.950	0.350	0.500	0.020	0.020	3.800	3.200
	Lead	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Manganese	mg/L	0.005	0.063	0.073	0.062	0.070	0.045	0.048	0.009	0.005	7.900	5.400
	Mercury	mg/L	0.0001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	Nickel	mg/L	0.001	0.003	0.003	0.003	0.003	0.003	0.002	0.008	0.011	0.024	0.020
	Silver	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Vanadium	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Zinc	mg/L	0.005	0.017	0.005	0.013	0.005	0.011	0.004	0.016	0.011	0.075	0.052
Nutrients (mg/L)	Nitrate (as N)	mg/L	0.02	<0.005	0.010	<0.005	<0.005	<0.005	0.008	<0.005	0.020	<0.005	<0.005
	Nitrite (as N)	mg/L	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.040	<0.005	<0.005	<0.005
	Ammonia (as N)	mg/L	0.01	0.054	0.051	0.042	0.038	0.025	0.023	0.008	<0.005	0.043	0.052
	Total Kjeldahl Nitrogen (as N)*	mg/L	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
	Total Nitrogen (as N)	mg/L	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.100	<0.1
	Phosphate total (as P)	mg/L	0.01	0.1	0.05	0.06	0.06	<0.05	0.06	<0.05	<0.05	<0.05	<0.05
Others	TDS	mg/L	10	870	870	830	880	680	710	360	340	1200	1200
	Electrical Conductivity (Lab)	uS/cm	10	1500	1600	1500	1600	1200	1300	560	600	2100	1900
Field	Temperature	°C		24.5	20.2	22.0	19.3	23.6	20.0	24.3	18.8	22.2	20.0
	pH	pH units		6.79	6.75	6.80	6.75	6.79	6.73	6.53	6.54	5.70	5.92
	Electrical Conductivity	uS/cm		1692	1515	1643	1438	1277	1183	623	537	2353	1717
	Dissolved Oxygen	ppm		0.34	0.53	0.31	0.53	0.38	0.71	0.79	1.05	1.63	1.96