

**HERA MONTHLY ENVIRONMENTAL MONITORING  
SUMMARY JANUARY 2024**



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## 1. Intent

This monthly environmental monitoring report is a requirement under section 66(6) of the NSW Protection of the Environment Operations Act 1997 (POEO Act), in which holders of an environment protection licence make their pollution monitoring data publicly available. This report is intended to keep the community, stakeholders, and regulators informed of the Hera mine's environmental performance and to maintain a transparent and accountable reporting system.

## 2. Scope

This report covers all of Hera's environmental monitoring conditions for January 2024. These conditions, where applicable, are measured against Hera's Environmental Protection Licence (EPL), development consent conditions and Australian Standards to determine Hera's compliance.

These conditions include;

- Weather Conditions
- Surface Water Monitoring results
- Ground Water Monitoring results
- Noise Monitoring results
- Blasting monitoring results
- Air Quality Monitoring results
- Gold Room Stack Monitoring
- Concentrate Transport
- Complaints

## 3. Definitions

Term	Definition
mm/s	The peak of the vibration in millimeters per second
Insoluble Solids	The insoluble portion of the dust deposited in dust deposition gauge
Total Lead	Including dissolved lead in the liquid portion and the lead particulates in the filter paper following laboratory analysis
g/m <sup>2</sup> /month	Grams per square meter per month
dB (L)	Decibel (linear maximum)
dB LA <sub>eq</sub> (15 minute)	Decibel (linear weighted average over 15 minutes)
CN Free	Free Cyanide (Hydrogen Cyanide and Cyanide ions in solution)
CN WAD	Weak Acid Dissociable Cyanide (includes Cyanide species liberated at moderate pH of 4.5)
TSS	Total Suspended Solids

### 4. Maps

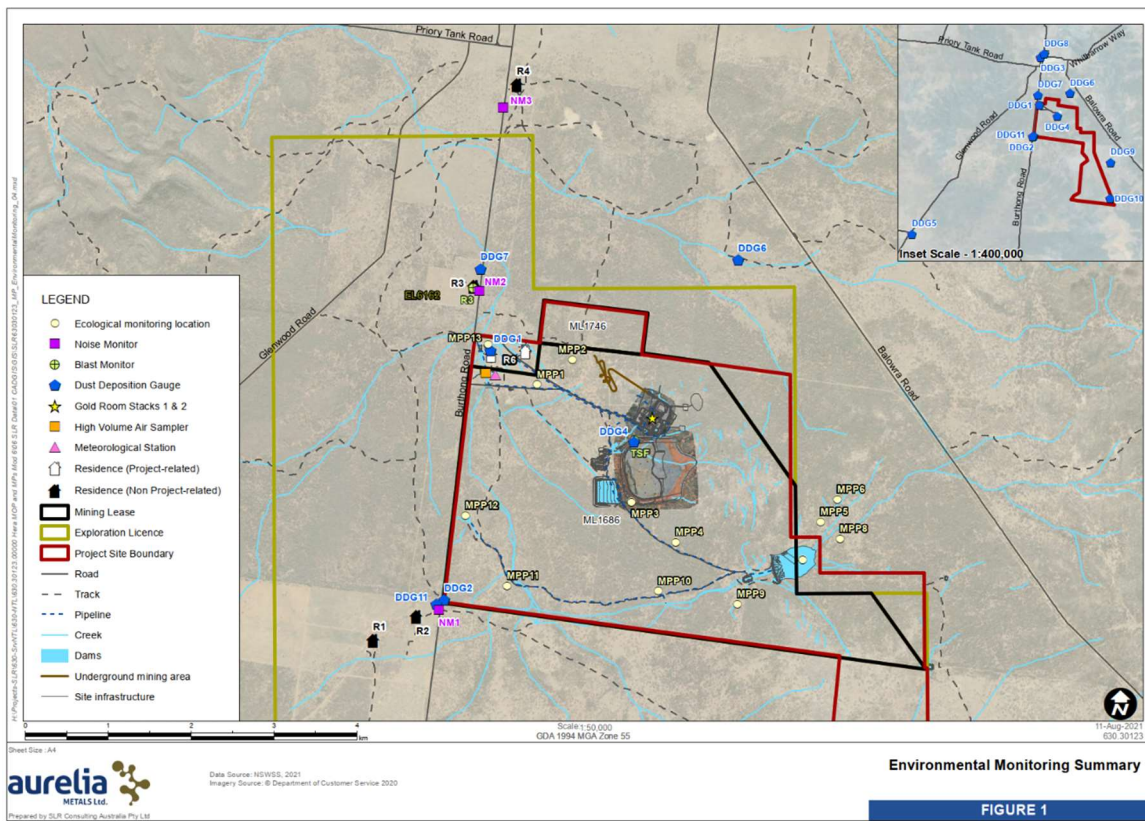


Figure 1 - Hera Environmental Monitoring Locations

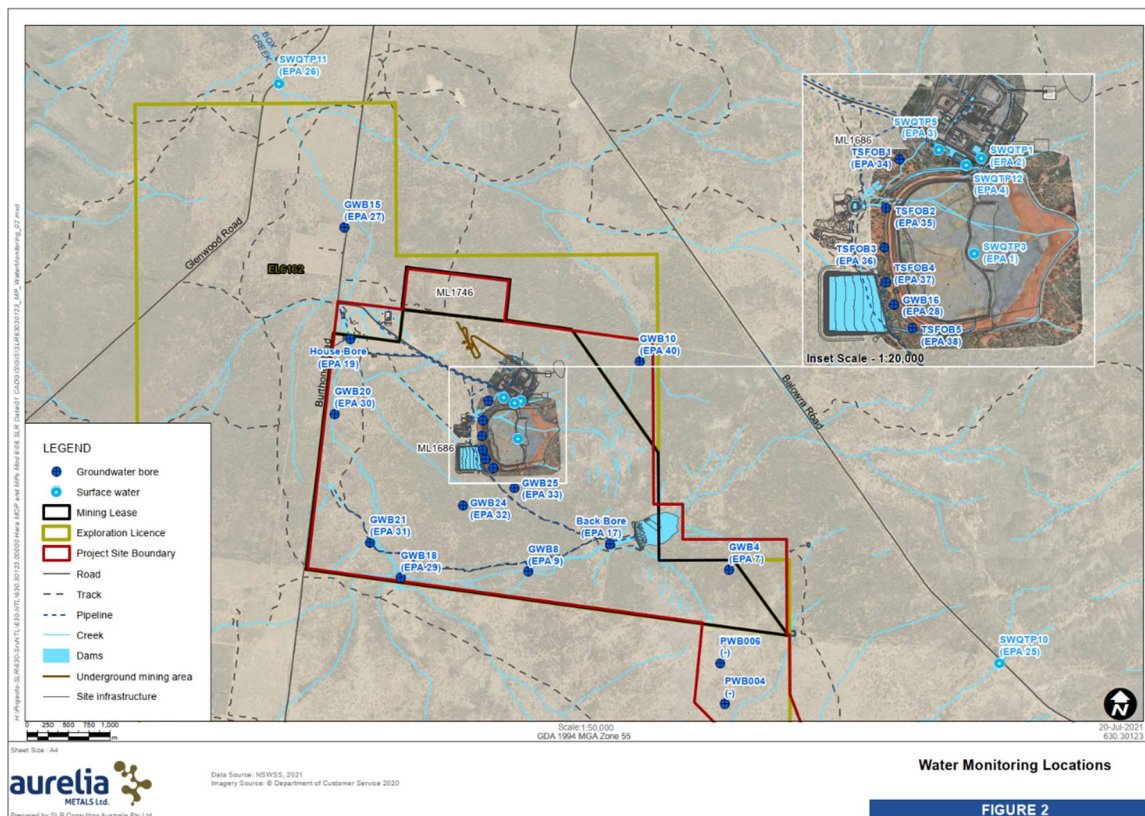


Figure 2 - Hera Water Monitoring Locations



## 5. Monitoring Results

### 5.1. Weather

The meteorology monitoring data is acquired through Hera’s weather station located on the Hera Mine site, approximately 4km south of the town of Nymagee, NSW, Refer Figure 1.

Meteorological monitoring is conducted on a continuous basis. Table 1 shows a summary of the data collected by the weather station this month. Figure 3 is the wind rose for the month of January 2024.

TABLE 1: Summary of meteorological data for January 2024

Parameter	No. of measurements for the month	Minimum Value	Mean Value	Median Value	Maximum value	Total
Air Temperature (°C)	Continuous	9.38	25.18	25.20	40.58	-
Wind Speed (m/s)	Continuous	0.00	8.93	8.89	32.17	-
Sigma Theta (°)	Continuous	1.81	23.84	20.16	102.48	-
Rainfall (mm)	Continuous	0.00	0.00	0.00	4.80	17.60
Relative Humidity (%)	Continuous	7.80	44.35	38.68	98.36	-

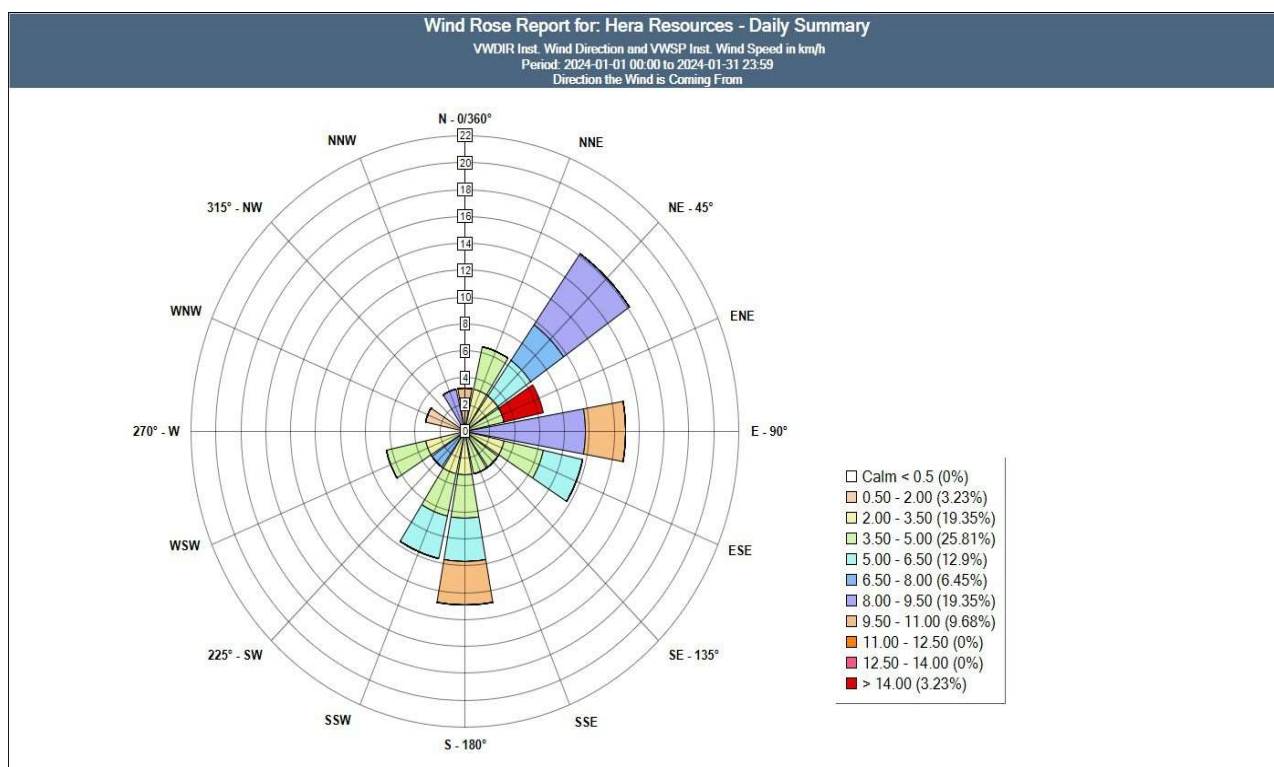


Figure 3 - Wind Rose for January 2024

## 5.2. Water

Water monitoring involves collecting water samples from several locations around site. The water samples are submitted to a NATA accredited laboratory for physical and chemical analysis. Analysis of pH and electrical conductivity are obtained in the field using a handheld monitor.

### Surface Water

Hera has 6 licence points associated with surface water. Four of these points are located within the mining lease and two are located off the mining lease, with one upstream and another downstream of the lease, refer **Figure 2**.

Due to the site entering a Care and Maintenance phase no processing was completed during January. As a result, there were no surface water quality results for licence points.

### Groundwater

Hera has 17 licence points associated with groundwater. These points are located around the Project Area, (refer **Figure 2**) and are a combination of observation bores, production bores and piezometers. Monitoring is conducted quarterly and was due to be completed in December 2023 however was deferred to January 2024 due to wet weather. Results were presented in table 2 and 3.

**TABLE 2: Summary of groundwater monitoring results for January 2024**

Licence Point	Analyte (mg/L)													
	Sb	As	HCO3-	B	Cd	Ca	CO3-2	Cl	Cr	Cu	CN-(Free)	CN-(Total)	CN-(WAD)	EC (mS/cm)
7	<0.001	0.001	739	0.61	<0.0001	226	<1	1330	<0.001	<0.001	<0.004	<0.004	<0.004	5.98
9	0.001	<0.001	565	0.89	<0.0001	203	<1	1090	<0.001	<0.001	<0.004	<0.004	<0.004	5.9
17	No water for sampling													
19	No water for sampling													
27	0.009	0.002	467	1.48	<0.0001	75	<1	1160	<0.001	0.006	<0.004	<0.004	<0.004	5.62
28	0.002	0.002	505	0.9	<0.0001	337	<1	1050	<0.001	<0.001	<0.004	<0.004	<0.004	6.98
29	0.006	<0.001	354	0.57	<0.0001	50	<1	358	<0.001	<0.001	<0.004	<0.004	<0.004	2.01
30	0.001	0.003	594	1.76	<0.0001	71	<1	1420	<0.001	<0.001	<0.004	<0.004	<0.004	7.14
31	0.002	<0.001	513	0.76	<0.0001	153	<1	1320	<0.001	<0.001	<0.004	<0.004	<0.004	6.08
32	No water for sampling													
33	No water for sampling													
34											Dry			
35											Dry			
36											Dry			
37											Dry			
38											Dry			
40	<0.001	<0.001	660	0.63	<0.0001	204	<1	1260	<0.001	<0.001	<0.004	<0.004	<0.004	5.58

**TABLE 3: Summary of groundwater monitoring results for January 2024**

Licence Point	Analyte (mg/L)													SWL (m)
	Fe	Pb	Mg	Hg	Mo	Ni	pH	K	Ag	Na	Sn*	TDS	Zn	
7	0.07	<0.001	215	<0.0001	<0.001	0.001	6.95	20	<0.001	652	<0.001	3400	<0.005	59.73
9	<0.05	<0.001	222	<0.0001	<0.001	0.041	7.22	26	<0.001	705	<0.001	3700	0.015	Tap
17	No water for sampling													Tap
19	No water for sampling													Tap
27	<0.05	<0.001	127	<0.0001	0.001	0.002	7.16	34	<0.001	856	<0.001	3120	0.107	58.57
28	<0.05	<0.001	307	<0.0001	<0.001	0.081	6.77	31	<0.001	720	<0.001	4230	0.018	96.7
29	<0.05	<0.001	44	<0.0001	0.002	0.002	7.3	13	<0.001	262	<0.001	934	<0.005	77.56
30	<0.05	0.004	104	<0.0001	<0.001	0.004	7.65	34	<0.001	1370	<0.001	4120	0.014	67.41
31	<0.05	<0.001	292	<0.0001	<0.001	0.01	7.36	20	<0.001	826	0.001	4300	0.006	Tap
32	No water for sampling													Tap
33	No water for sampling													Tap
34														Dry
35														Dry
36														Dry
37														Dry
38														Dry
40	0.13	<0.001	206	<0.0001	<0.001	0.002	7.24	16	<0.001	649	<0.001	3270	0.006	82.26



### 5.3. Noise

The Company has four licenced monitoring points (R1, R2, R3 and R4) located along the Burthong Road (**Figure 1**). The locations are strategically placed near the Hera Mine's nearest neighbours. R1 and R2 are measured from the same point as both neighbours are in very close proximity to each other.

The annual noise assessment was carried out by Muller Accoustic Consulting on 18 and 19 April 2023. Results are presented in the April Website Monthly Report.

Hera holds a Noise and Blast agreement with the Landholder of R3. The agreement has been provided to the EPA and the Department of Planning and Environment (DPE).

### 5.4. Blast Monitoring

The blast monitor is located adjacent to the dwelling on the nearest neighbour's property (**Figure 1**).

Due to the site entering a Care and Maintenance phase there was no blasting undertaken during January.

Hera holds a Noise and Blast agreement with the Landholder of R3. The agreement has been provided to the EPA and DPE.

### 5.5. Air Quality

The Company has two High Volume Air Samplers (HVAS), designed to sample Particulate matter less than 10  $\mu\text{m}$  (PM10) or Total Suspended Particulate (TSP) matter and two Dust Deposition Gauges (DDG). Refer to **Figure 1** for location of the sampling points.

Results for air quality monitoring conducted in January have been summarised in

TABLE 4**able 2**. No exceedances were recorded.

TABLE 4: Summary of Air Quality monitoring results for January 2024

Pollutant	Unit	Limit	Averaging Period	Result
TSP	$\mu\text{g}/\text{m}^3$	90	Annual	34.63
PM-10	$\mu\text{g}/\text{m}^3$	25	Annual	14.15
<b>High Volume Air Samplers (PM<sub>10</sub>)</b>				
4/01/2024	$\mu\text{g}/\text{m}^3$	50	24 Hour	13.5
7/01/2024	$\mu\text{g}/\text{m}^3$	50	24 Hour	13.7
17/01/2024	$\mu\text{g}/\text{m}^3$	50	24 Hour	23
21/01/2024	$\mu\text{g}/\text{m}^3$	50	24 Hour	6.5
29/01/2024	$\mu\text{g}/\text{m}^3$	50	24 Hour	19.8
<b>Dust Deposition Gauges</b>				
Deposited Dust (DDG 1)	$\text{g}/\text{m}^2/\text{month}$	4	Annual	1.48
Deposited Dust (DDG2)	$\text{g}/\text{m}^2/\text{month}$	4	Annual	2.48

## 5.6. Gold Room Stack Monitoring

Hera has two licenced gold room stack monitoring points (Refer to Figure 1).

Gold Room stack monitoring is conducted on an annual basis. Annual monitoring was conducted and reported on in January 2022.

Due to the site entering a Care and Maintenance phase the annual gold room stack monitoring was not completed.

## 5.7. Concentrate Transport

The Company is licenced to transport 60,000 tonnes of lead/zinc concentrate from the Hera site to Hermidale rail siding during daylight hours only. Hera is limited to eight truck movements per day averaged over a calendar month (two truck movements to Hermidale rail is defined as entering and leaving the site).

Due to the site entering a Care and Maintenance phase there were no truck movements during January 2024.

## 5.8. Complaints

No complaints were received this month as presented in **Table 3**.

**TABLE 5: Summary of complaints received in January 2024**

Date	Complaint Category
-	-