

HERA-FEDERATION MONTHLY ENVIRONMENTAL MONITORING SUMMARY MAY 2025



Table of Contents

1. INTENT	3
2. SCOPE	3
3. DEFINITIONS.....	3
4. MAPS.....	4
5. MONITORING RESULTS	8
5.1. Weather.....	8
5.2. Water	9
Surface Water	9
Groundwater	9
5.3. Noise.....	9
5.4. Blast Monitoring.....	10
5.5. Air Quality	12
5.6. Gold Room Stack Monitoring	13
5.7. Ore and Waste Rock Transport.....	13
5.8. Concentrate Transport	14
5.9. Complaints	14

Author	Lucija Hossack
Version	1.0
Date Created	June 2025
Review Date	September 2025

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-Federation mine's environmental performance and to maintain a transparent and accountable reporting system.

2. Scope

This report covers all of Hera-Federation's environmental monitoring conditions for May 2025. These conditions, where applicable, are measured against Hera-Federation's Environmental Protection Licence (EPL), development consent conditions and Australian Standards to determine Hera-Federation'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
- Ore transport
- 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
dB (L)	Decibel (linear maximum)
dB LA _{eq} (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

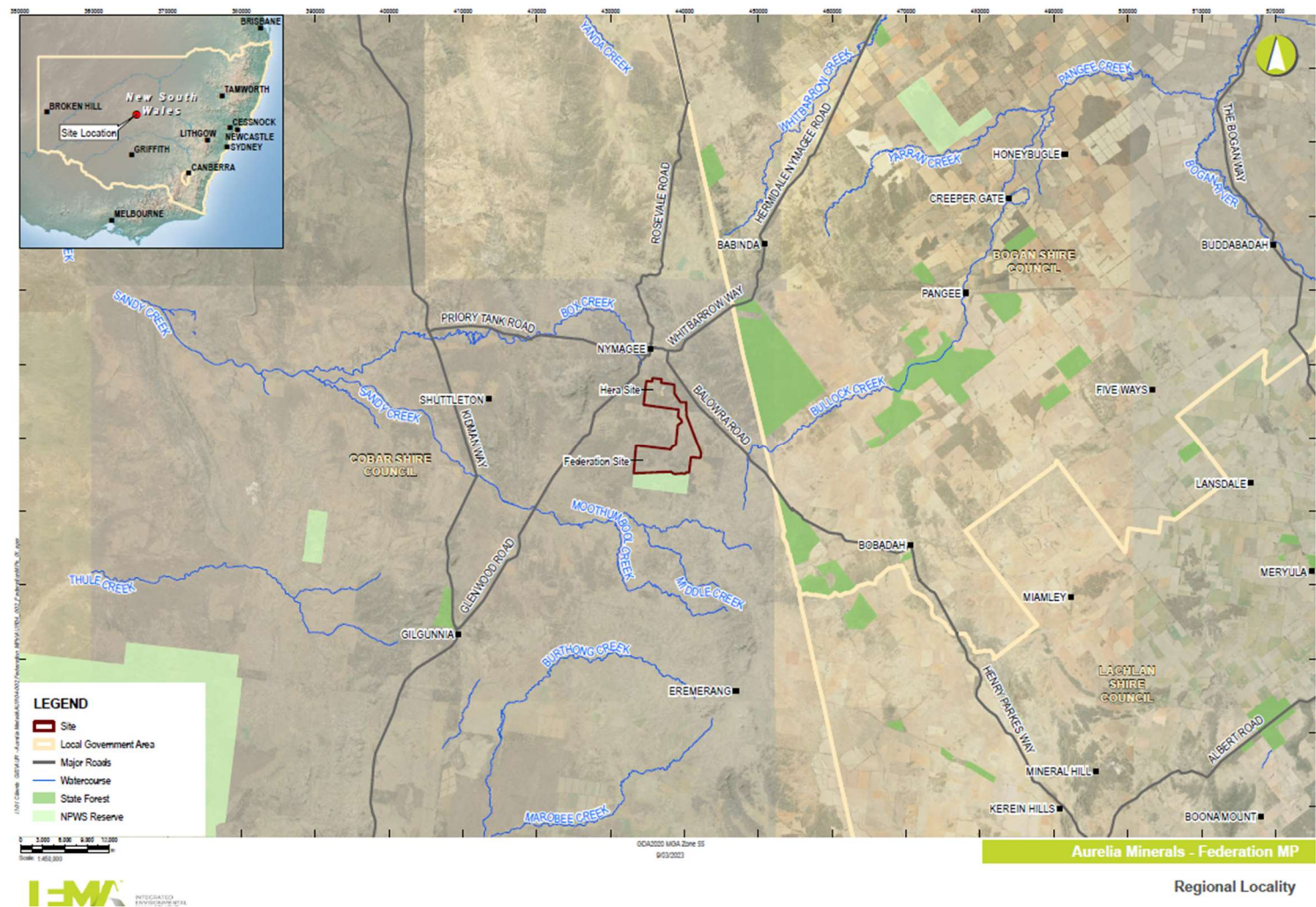


Figure 1 – Hera-Federation regional locality



Figure 2 – Hera Surface Water Monitoring Locations



Figure 3 – Federation Surface Water Monitoring Locations

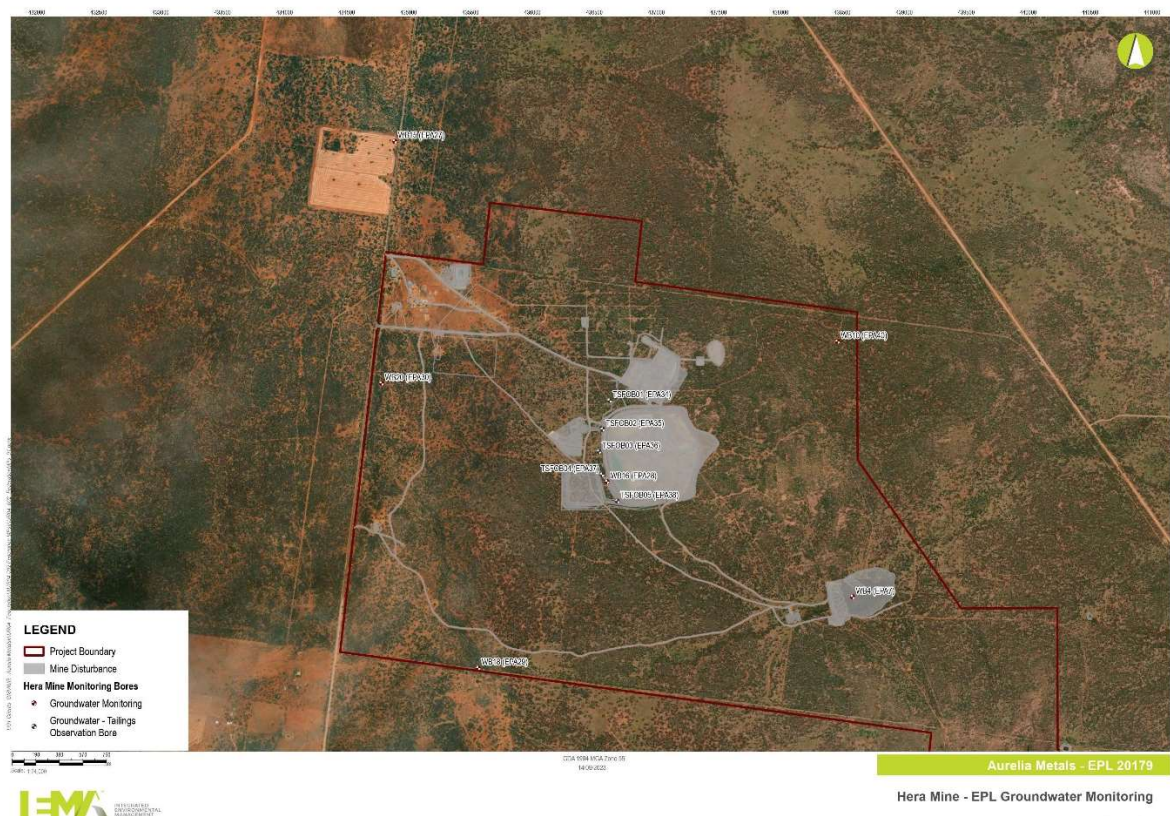


Figure 4 – Hera Groundwater Monitoring Locations



Figure 5 – Federation Groundwater Monitoring Locations



Figure 6 – Federation Groundwater Monitoring bores

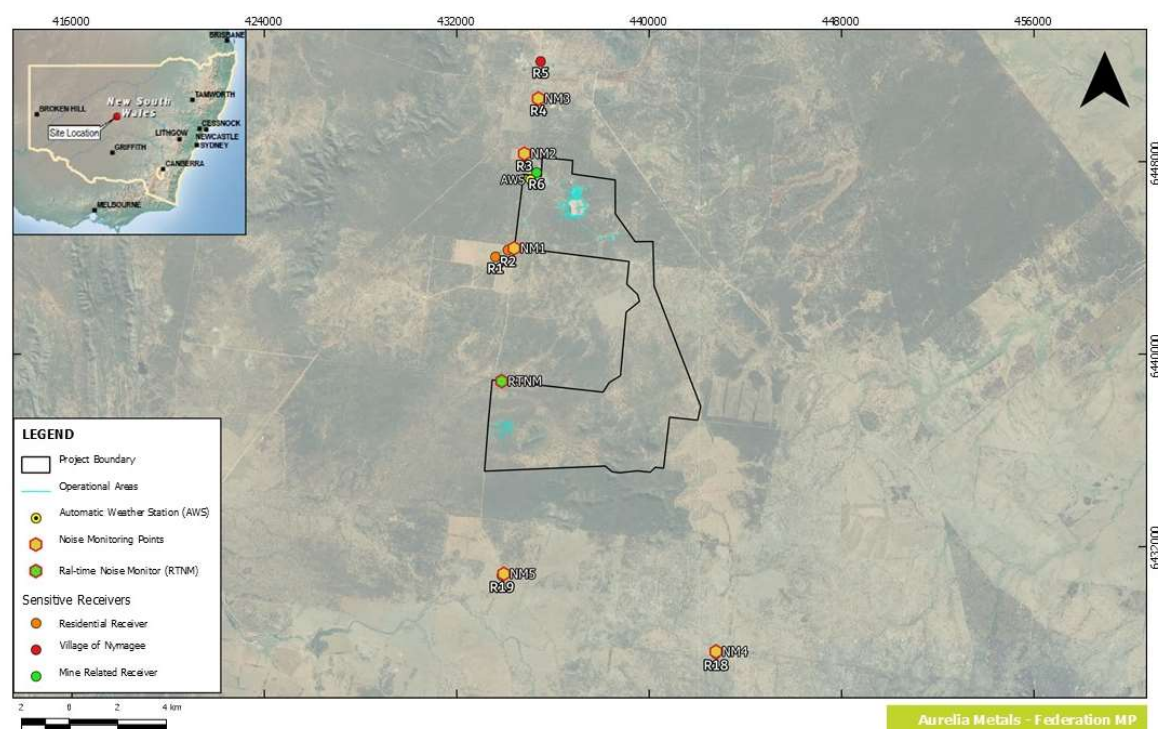


Figure 7 – Hera-Federation Noise Monitoring locations



Parameter	No. of measurements for the month	Minimum Value	Mean Value	Median Value	Maximum value	Total
Air Temperature (°C)	Continuous	0.35	13.27	13.11	25.26	-
Wind Speed (m/s)	Continuous	0.00	6.09	5.12	23.75	-
Sigma Theta (°)	Continuous	1.63	19.95	16.31	97.81	-
Rainfall (mm)	Continuous	0.00	0.01	0.00	2.80	26
Relative Humidity (%)	Continuous	22.80	66.71	67.91	98.56	-

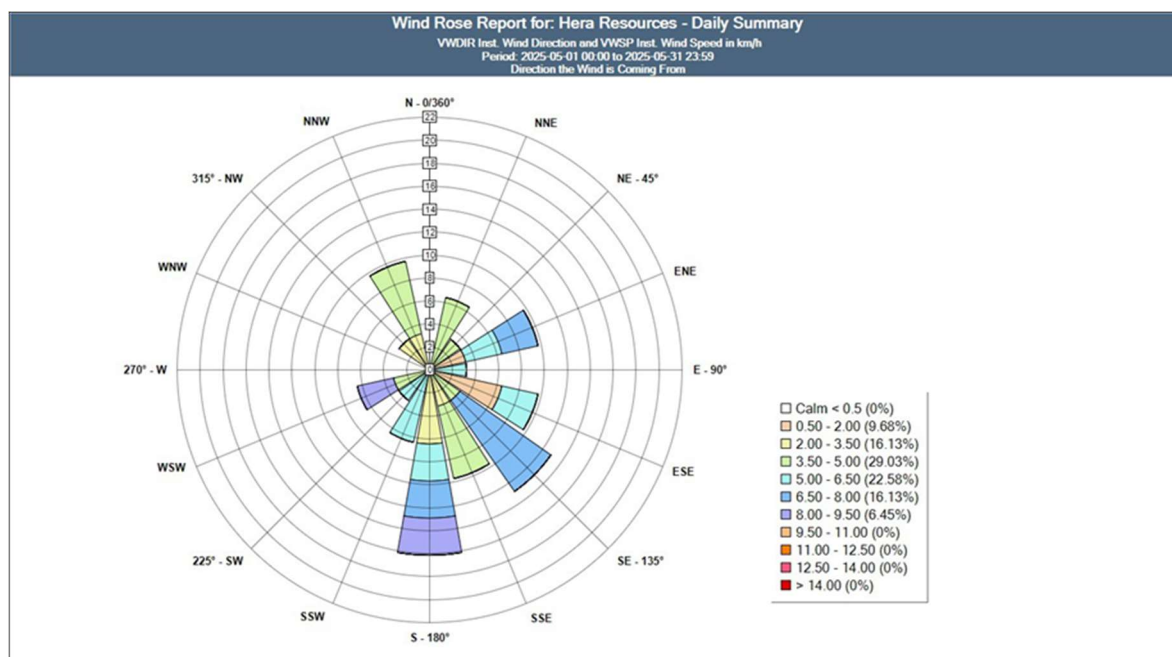


Figure 9 - Wind Rose for May 2025

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 Hera site being in a Care and Maintenance phase no processing was completed during May 2025. As a result, there were no surface water quality results for licence points.

Federation has 3 surface monitoring points (refer to **Figure 3**), all of which are triggered upon discharge. No discharge occurred during May 2025

Groundwater

Hera has 11 licence points associated with groundwater. These points are located around the Project Area, (refer **Figure 4**) and are a combination of observation bores, productions bores and piezometers. Monitoring is conducted quarterly for SWL and water chemistry is completed annually. Annual sampling was completed in June 2024 and quarterly SWL monitoring in March 2025.

Federation has 16 licence points associated with groundwater (Refer to **Figure 5** and **Figure 6**). Monitoring is conducted quarterly for SWL and water chemistry and was completed in March 2025.

5.3. Noise

The Company has six licenced monitoring points (R1, R2, R3, R4 and R18, R19) located along the Burthong and Balowra Road (**Figure 7**). The locations are strategically placed near the Hera-Federation'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 13 to 16th May 2024. Results were presented in the May 2024 monthly website report. The annual noise assessment will be carried out by Muller Accoustic Consulting on 3rd and 4th of June 2025.

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 Housing and Infrastructure (DPHI).

5.4. Blast Monitoring

The blast monitor is located between the mining operations and the nearest residential receiver (**Figure 7**).

During November 2024 DPHI was notified that Hera-Federation had commenced mining with associated blasting.

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

A total of 76 blasts were completed during the month with no exceedances of blasting criteria. Blast monitoring results are presented in **Table 2**.

TABLE 2: Blast monitoring results for May 2025

Date	Time	Vibration (mm/s)	Overpressure (dB)
1/05/2025	06:32	0.02	72.6
1/05/2025	14:08	0.11	90.0
1/05/2025	19:14	0.02	78.2
2/05/2025	00:10	0.01	71.0
2/05/2025	06:30	0.01	77.8
2/05/2025	16:28	0.02	86.4
2/05/2025	18:29	0.01	71.8
3/05/2025	06:31	0.02	73.3
3/05/2025	10:31	0.02	84.4
3/05/2025	18:31	0.02	73.9
4/05/2025	01:20	0.02	79.9
4/05/2025	06:40	0.03	81.1
4/05/2025	18:42	0.02	73.3
5/05/2025	06:40	0.02	71.8
5/05/2025	15:11	0.02	82.8
6/05/2025	03:44	0.02	71.0
6/05/2025	18:46	0.02	73.9
7/05/2025	05:46	0.02	73.3
8/05/2025	00:26	0.02	71.8
8/05/2025	06:35	0.02	71.8
8/05/2025	14:35	0.02	84.1
8/05/2025	19:05	0.02	74.5
9/05/2025	03:00	0.01	71.8
9/05/2025	06:43	0.02	78.2
9/05/2025	18:35	0.02	72.6

Date	Time	Vibration (mm/s)	Overpressure (dB)
10/05/2025	06:30	0.02	81.6
10/05/2025	18:30	0.02	75.6
11/05/2025	01:58	0.02	90.3
11/05/2025	18:38	0.02	72.6
12/05/2025	02:28	0.02	76.6
12/05/2025	06:31	0.01	75.6
12/05/2025	18:49	0.01	72.6
13/05/2025	01:44	0.02	73.3
13/05/2025	16:23	0.02	78.6
14/05/2025	05:32	0.02	76.6
14/05/2025	18:27	0.02	75.1
15/05/2025	06:25	0.02	76.1
15/05/2025	18:24	0.02	76.6
16/05/2025	06:29	0.02	75.1
16/05/2025	18:26	0.02	78.2
17/05/2025	06:46	0.03	72.6
17/05/2025	18:21	0.02	77.0
18/05/2025	06:59	0.02	77.0
18/05/2025	18:16	0.02	77.8
19/05/2025	06:33	0.02	107.8
19/05/2025	18:33	0.02	78.2
19/05/2025	22:29	0.01	82.6
20/05/2025	06:36	0.01	75.6
20/05/2025	19:03	0.02	76.1
21/05/2025	02:00	0.02	71.8
21/05/2025	18:29	0.01	75.6
22/05/2025	23:59	0.02	75.1
22/05/2025	06:23	0.02	73.9
22/05/2025	18:26	0.02	76.6
22/05/2025	22:19	0.01	78.6
23/05/2025	06:54	0.02	83.2
23/05/2025	18:19	0.02	71.8
24/05/2025	06:23	0.02	73.9
24/05/2025	18:29	0.02	71.8
24/05/2025	22:27	0.01	71.8
25/05/2025	06:28	0.02	75.6
25/05/2025	18:30	0.03	72.6
26/05/2025	06:24	0.02	80.5
26/05/2025	15:34	0.03	79.6

Date	Time	Vibration (mm/s)	Overpressure (dB)
27/05/2025	06:20	0.02	71.8
27/05/2025	15:03	0.03	102.4
27/05/2025	18:34	0.01	79.0
28/05/2025	05:35	0.02	76.1
28/05/2025	16:32	0.02	76.6
29/05/2025	06:19	0.02	75.6
29/05/2025	18:45	0.02	75.1
30/05/2025	06:26	0.02	78.6
30/05/2025	18:34	0.02	76.6
31/05/2025	03:00	0.01	78.6
31/05/2025	18:31	0.02	73.9
31/05/2025	22:40	0.03	77.4

5.5. Air Quality

Two High Volume Air Samplers (HVAS), designed to sample Particulate matter less than 10 µm (PM10) or Total Suspended Particulate (TSP) matter an EBAM and two E-samplers form the Hera-Federation air quality monitoring network (refer to **Figure 8**).

Results for air quality monitoring conducted in May 2025 have been summarised in **TABLE 3**. An exceedance was recorded on 27 May 2025 for E-Sampler 2. A non-compliance notification has been submitted to DPHI.

EBAM and E-Sampler results are presented in **Figure 10**.

TABLE 3: Summary of HVAS monitoring results for May 2025

Pollutant	Unit	Limit	Averaging Period	Result
TSP	µg/m ³	90	Annual	40.06
PM-10	µg/m ³	25	Annual	14.43
High Volume Air Sampler (PM₁₀)				
6/05/2025	µg/m ³	50	24 Hour	33.8
12/05/2025	µg/m ³	50	24 Hour	7.4
18/05/2025	µg/m ³	50	24 Hour	9.3
24/05/2025	µg/m ³	50	24 Hour	23.9
30/05/2025	µg/m ³	50	24 Hour	2.8

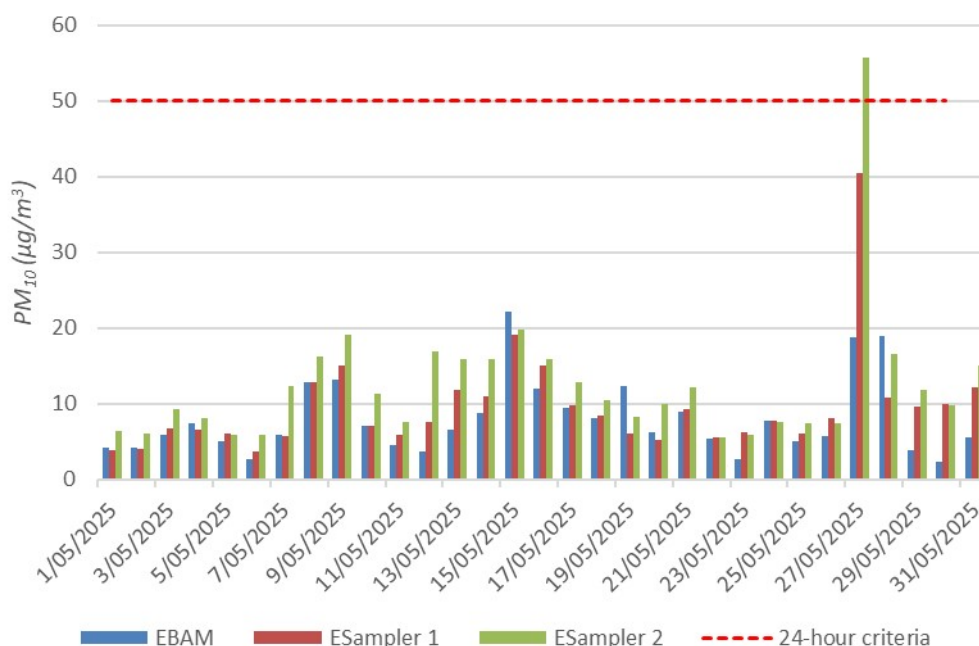


Figure 10 – EBAM plus PM₁₀ Daily Average Concentration – May 2025

5.6. Gold Room Stack Monitoring

Hera-Federation has two licenced gold room stack monitoring points (Refer to **Figure 8**).

The Hera site is on Care and Maintenance and no stack monitoring will be undertaken unless the gold room operations recommence.

5.7. Ore and Waste Rock Transport

The Company is licenced to transport 600,000 tonnes annually (FY) of ore from the Hera-Federation site to The Peak mine between 7am to 10pm daily.

During November 2024 DPHI was notified that Hera-Federation had commenced mining and trucking of ore to The Peak Mine.

Truck movements per day and quantity of ore transported is presented in **Table 4**.

TABLE 4: Truck movements and quantity trucked to Peak Mine for May 2025

Date	No. truck movements*/day	Quantity (Dry tonnes)
1-May	30	1143.1
2-May	16	616.15
3-May	28	1079.4
4-May	14	535.85
5-May	40	1456.55
6-May	46	1713.85
7-May	42	1569.45
8-May	34	1281.75
9-May	40	1490.25
10-May	32	1200.4

Date	No. truck movements*/day	Quantity (Dry tonnes)
11-May	40	1492.45
12-May	0	0
13-May	40	477.75
14-May	38	1402.55
15-May	20	739.8
16-May	24	879.25
17-May	20	753.8
18-May	0	0
19-May	8	308.35
20-May	16	618.75
21-May	12	465.05
22-May	6	231.65
23-May	0	0
24-May	12	464.8
25-May	0	0
26-May	0	0
27-May	0	0
28-May	6	232.55
29-May	6	231.6
30-May	6	233.25
31-May	16	616.9
TOTAL		21 235.25

** Note: A return trip from Federation to Peak Mine and back is considered to be 2 movements.*

5.8. Concentrate Transport

The Company is licenced to transport 155,000 tonnes of lead/zinc concentrate from the Hera site to Hermidale rail siding from 7am to 7pm daily.

The Federation site does not produce concentrate.

The Hera site is on Care and Maintenance and no concentrate movements have occurred during May 2025

5.9. Complaints

TABLE 5: Summary of Complaints received May 2025

Date	Complaint Category
14/05/2025	Operational Hours – Ore trucks operating outside approved hours
22/05/2025	Noise – Noise generated by ore trucks impacting 2 residences