Rasp Mine
Monthly Environmental Monitoring Report
June 2025

INTRODUCTION

Broken Hill Operations Pty Ltd (BHO) [a wholly owned subsidiary of Broken Hill Mines (BHM)] owns and operates the Rasp Mine (the Mine), which is located centrally within the City of Broken Hill on Consolidated Mine Lease 7 (CML7).

Mining has been undertaken within CML7 since 1885. The existing operations at the Rasp Mine include underground mining operations, a processing plant producing zinc and lead concentrates and a rail siding for concentrate dispatch. These operations are undertaken in accordance with Project Approval 07_0018 under Part3A of the Environmental Planning and Assessment Act 1979 (EP&A Act).

As the holder of an Environmental Protection Licence, 12559, BHO is required, under Section 66(6) of the NSW *Protection of the Environment Operations Act 1997,* to publish pollution monitoring data. In addition, BHO is required to publish data in accordance with its Project Approval 07_0018 Schedule 4 Condition 9. These documents can be found on the Broken Hill Mines web pages at www.coolabahmetals.com.au/sustainability-1.

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1 Air Quality

Table 1 below shows the following pollutants as listed in the Project Approval DA 07_0018 are required to be monitored in EPL 12559:

Table 1: EPL 12559 monitoring criteria

Long Term Criteria for Particulate Matter

Pollutant	Averaging Period	Criterion
Total solid particles (TSP)	Annual	90 µg/m^3
Particulate matter < 10 µm (PM_{10})	Annual	25 µg/m^3

Short Term Criterion for Particulate Matter

Pollutant	Averaging Period	Criterion
Particulate matter < 10 µm (PM_{10})	24 hour	50 µg/m^3

Long Term Criteria for Deposited Dust

Pollutant	Averaging Period	Maximum Project Contribution	Maximum Total Deposited Dust Level
Deposited dust	Annual	2 g/m^2/month	4 g/m^2/month

1.1 High Volume Air Samplers

There are four high volume air samplers used to measure ambient air quality at the Rasp Mine – HVAS (EPL10) and HVAS1 (EPL11) are located at the Silver Tank, central and to the south of the mine lease, and HVAS2 (EPL12) and HVAS3 (EPL57) are located adjacent to and north of Blackwood Pit. A map indicating these locations can be found in appendix 1. HVAS and HVAS3 sample for total suspended particulates (TSP) and lead dust, and HVAS1 and HVAS2 sample for particulate matter less than 10 microns (PM_{10}) and lead dust.

TABLE 2: HVAS (EPL10) - Silver Tank (On Site) Results for June 2025

DATE	TSP (µg/m^3)	Lead (µg/m^3)
04-June-25	10.1	0.012
10-June-25	18.6	0.079
16-June-25	29.6	0.106
22-June-25	42.1	0.205
28-June-25	14.7	0.022

HVAS (EPL10) is located on the southern boundary of Rasp Mine and while limit criteria do not apply at this point, they do apply at the closest residential location.

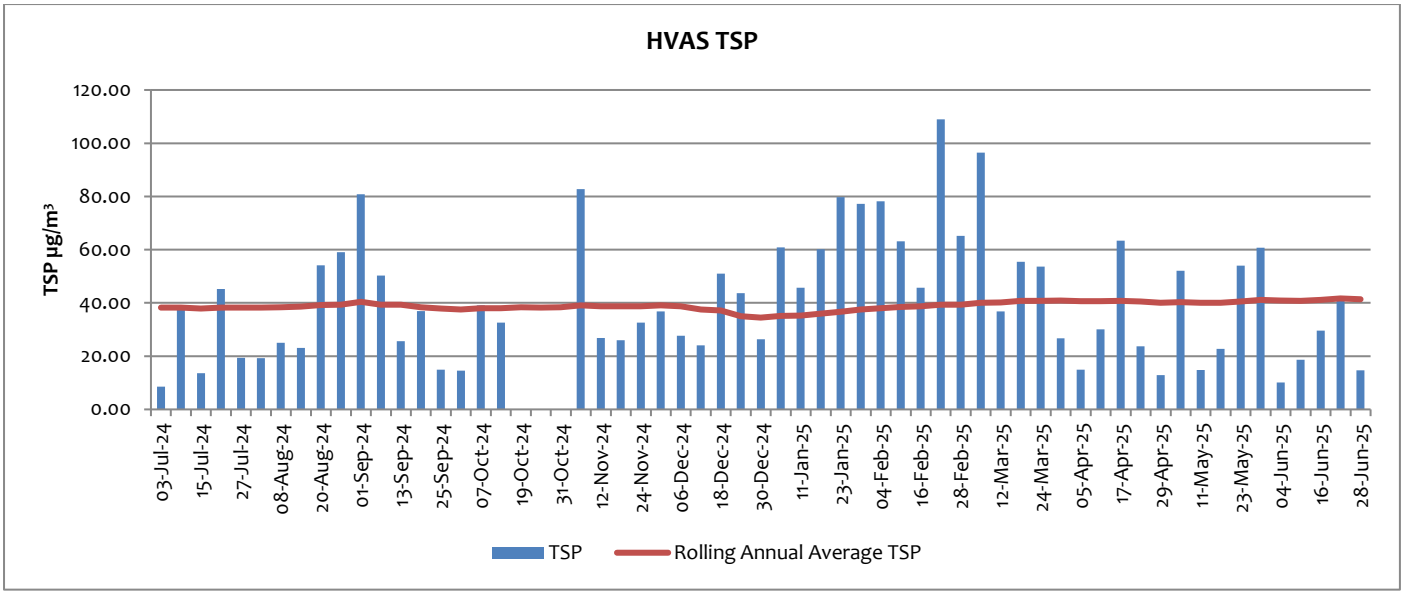

Figure 1: HVAS TSP measurements 12-month overview

TSP dust results at HVAS for the month of June were on average lower than measurements from previous month (see figure 1). The highest TSP result measured at HVAS (EPL10) for June was 41.7 µg/m^3 sampled on the 22 June. The wind sensor from the on-site weather station indicated that relatively strong winds were blowing from the north during short periods, as shown in figure 11 below, implying an on-site origin for the dust. Water carts apply water to site roads daily and dust suppressant is applied to free areas and unsealed roads. The annual rolling average for TSP at this location is 41.3 µg/m^3 at the end of June, slightly higher than the average of 38.2 µg/m^3 at the beginning of July 2024.

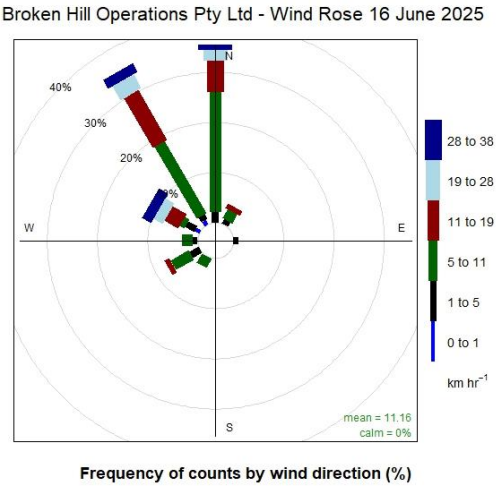

Figure 2: Wind roses for 16 June

The annual rolling average for TSP is determined using data with extreme dust events included.

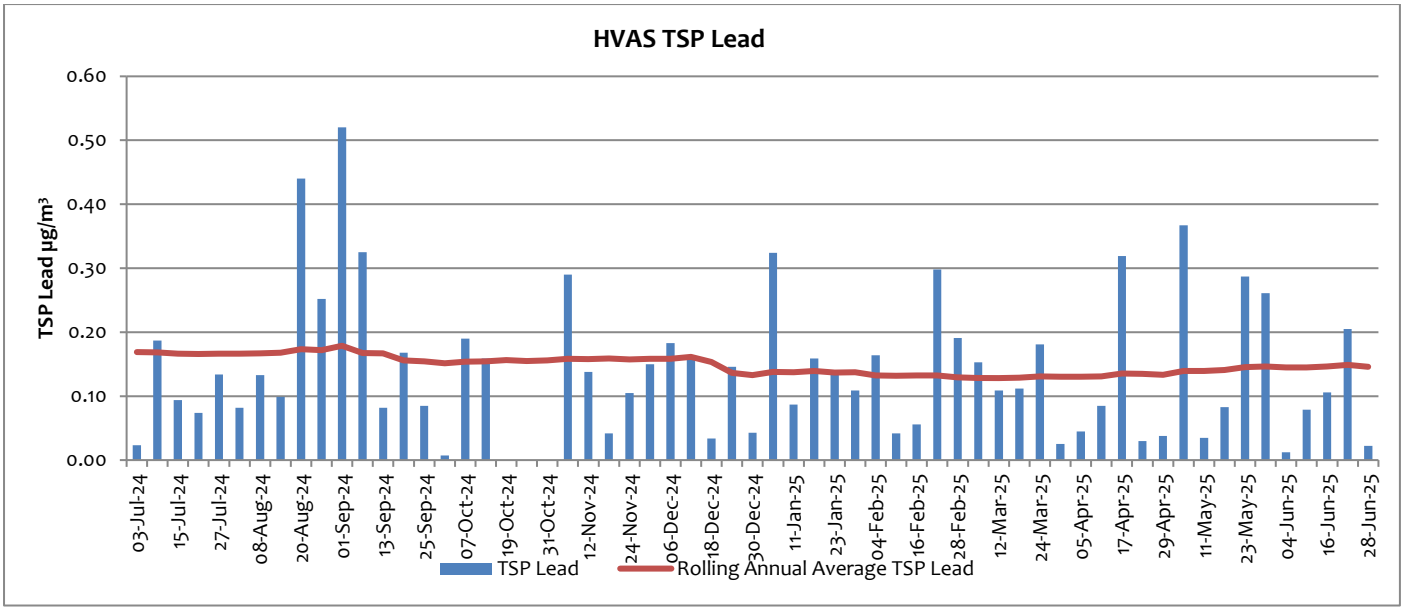

Figure 3: Lead in HVAS TSP measurements 12-month overview

TSP Lead dust results at HVAS for the month of June were on average slightly lower to previous months (see figure 3 above). The highest TSP Lead level recorded was 0.21 µg/m^3 on 22 June. As noted in the paragraph above (see wind rose in figure 11), wind was blowing from the north on that day, suggesting that the lead originated from on-site sources. Water carts apply water to site roads daily and dust suppressant is applied to free areas and unsealed roads.

The rolling annual average for TSP Lead in June 2025 was 0.15 µg/m^3, lower than the rolling annual average of 0.17 µg/m^3 for TSP Lead at the end of June 2024.

HVAS1 (EPL11) - Silver Tank (On Site) Results for June 2025

DATE	PM_{10} (µg/m^3)	PM_{10} Lead (µg/m^3)
04-June-25	4.7	<0.007
10-June-25	2.2	0.009
16-June-25	8.2	0.019
22-June-25	7.3	0.023
28-June-25	5.7	0.007

HVAS1 (EPL11) is located on the southern boundary of Rasp Mine and while limit criteria do not apply at this point, they do apply at the closest residential location.

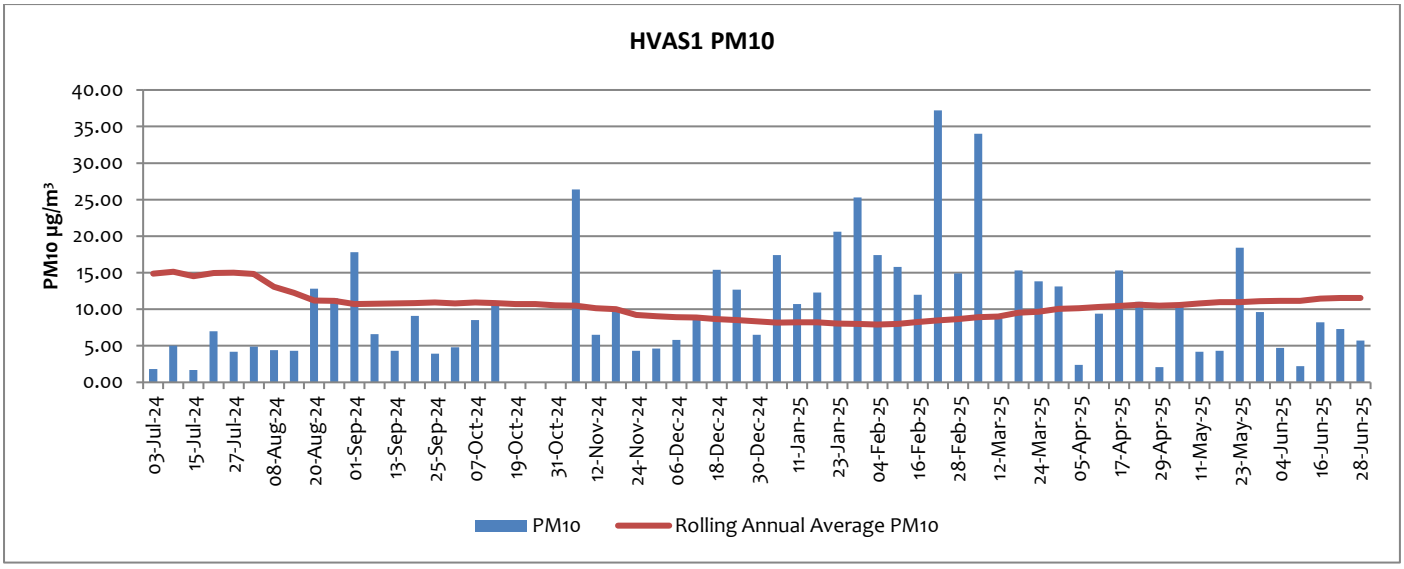

Figure 4: HVAS01 PM10 measurements 12-month overview

PM_{10} dust results at HVAS1 for the month of June were quite homogeneous, low, and similar to levels measured in previous month. The highest PM_{10} dust level for June was measured on 16 June (see figure 4 above) for which the recorded dust mass concentration was 8.2 µg/m³. The northerly wind direction on that day (see relevant wind rose in figure 2) suggests that the dust originated from on-site sources.

Water carts apply water to site roads daily and dust suppressant is applied to free areas and unsealed roads. The annual rolling average for PM_{10} dust at this location is 11.5 µg/m³ at the end of June 2025, lower than the annual rolling average at the end of June 2024 which was 14.7 µg/m³. External and extreme dust events are recorded in measurements.

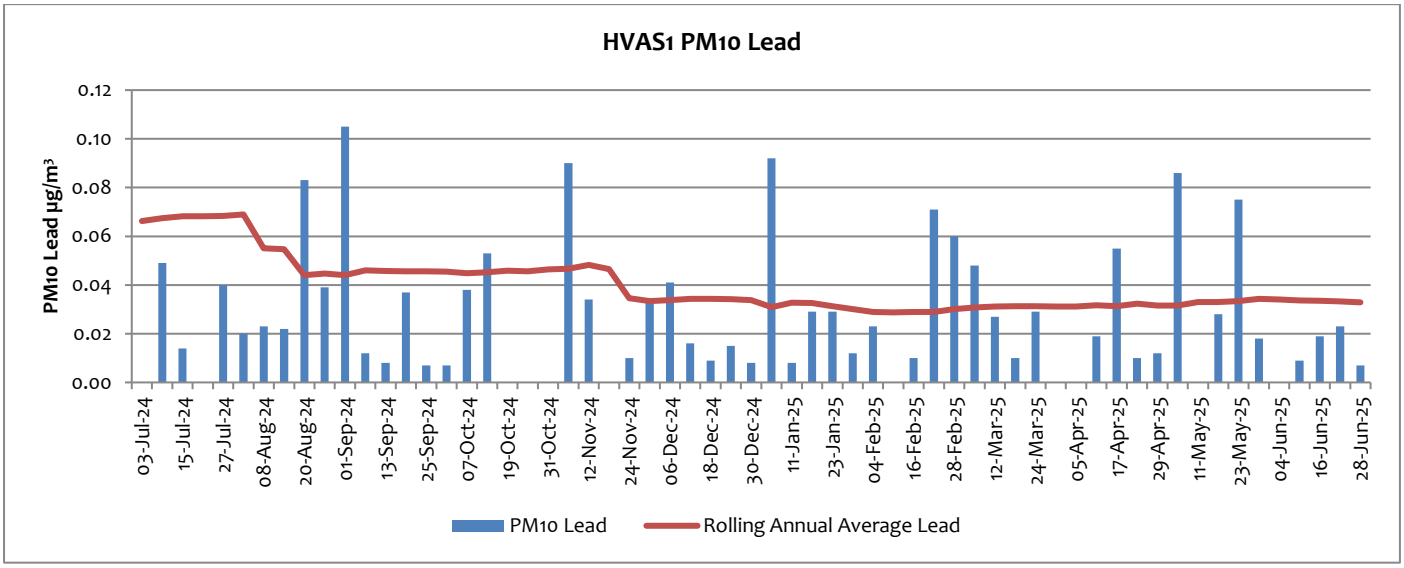

Figure 5: Lead in HVAS01 PM10 measurements 12-month overview

PM_{10} Lead dust results at HVAS1 in the month of June were on average lower than measurements from previous month. The highest Lead PM_{10} result was 0.02 µg/m³ on 22 June when winds were blowing from the north (see figure 11 below), suggesting contribution from internal sources. Water carts apply water to site roads daily and dust

suppressant is applied to free areas and unsealed roads. The rolling annual average for PM_{10} Lead in June was 0.03 µg/m^3, lower than the average of 0.07 µg/m^3 in June 2024.

HVAS 2 (EPL12) – Blackwood Pit (On Site) Results for June 2025

HVAS2 (EPL12) is located on the northern boundary of Rasp Mine and while limit criteria do not apply at this point, they do apply at the closest residential location.

DATE	PM_{10} (µg/m^3)	PM_{10} Lead (µg/m^3)
04-June-25	4.5	<0.007
10-June-25	2.0	<0.007
16-June-25	7.8	0.01
22-June-25	9.2	0.021
28-June-25	5.4	0.01

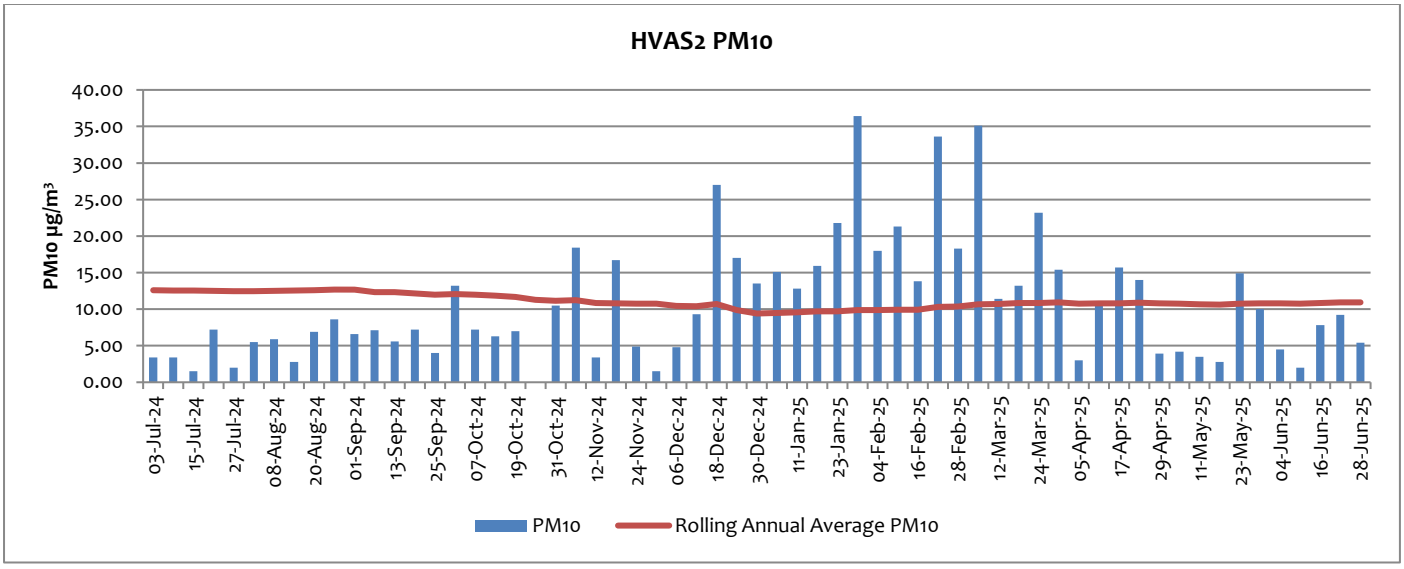

Figure 6: HVAS02 PM10 measurements 12-month overview

HVAS02 PM10 measurements in the month of June were similar to the measurements from previous month, with more homogeneous values higher than levels measured during winter season. The highest recorded PM_{10} dust reading was 9.2 µg/m^3 on 22 June when winds were blowing from northerly directions, suggesting contribution from off-site sources. The annual rolling average for PM_{10} dust at this location is 10.9 µg/m^3 at the end of June, down from 12.5 µg/m^3 in June 2024. The decrease is clearly impacted by the low values measured during the period outside the summer season (see figure 6 above).

The annual rolling average for PM_{10} dust is determined using data with extreme dust events included.

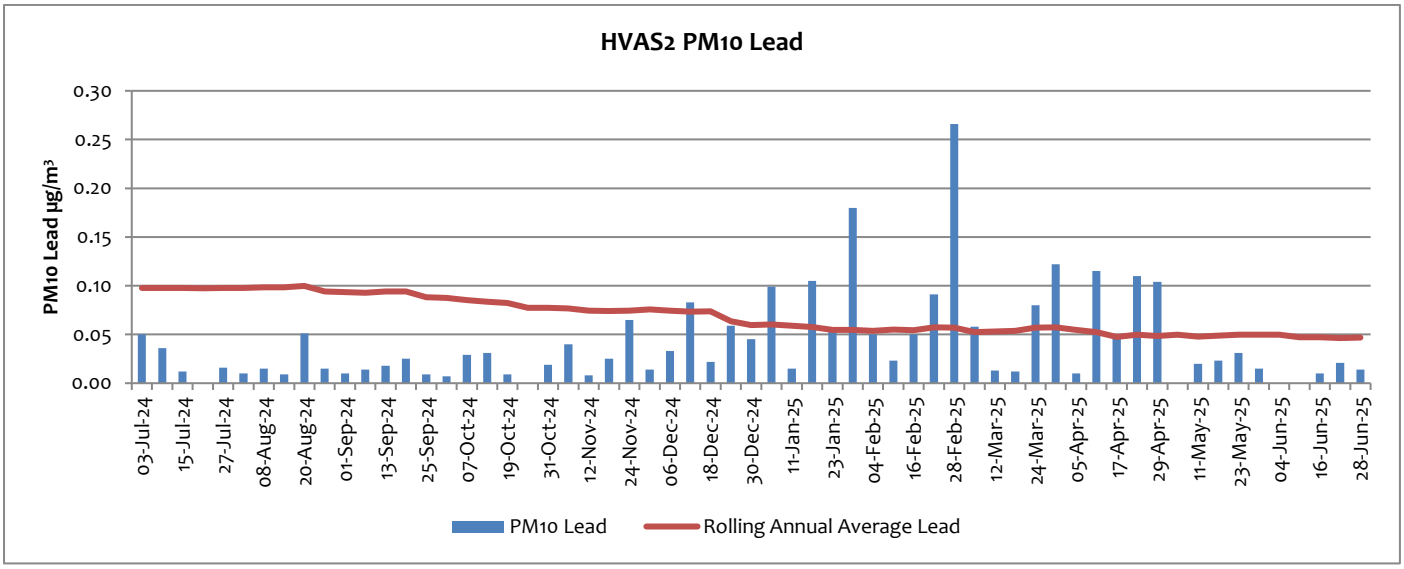

Figure 7: Lead in HVAS02 PM10 measurements 12-month overview

PM_{10} lead levels in June are very low and comparable to those recorded over the past month. The highest recorded PM_{10} Lead dust reading was 0.02 µg/m^3 on 22 June when predominant winds were from the north (see figure 11) suggesting contribution from external sources. The surface of Blackwoods TSF2 is treated with dust suppressant and the TSF spray system has been installed and is operational. The rolling annual average for PM_{10} Lead in June was 0.05 µg/m^3, down from 0.1 µg/m^3 in June 2024.

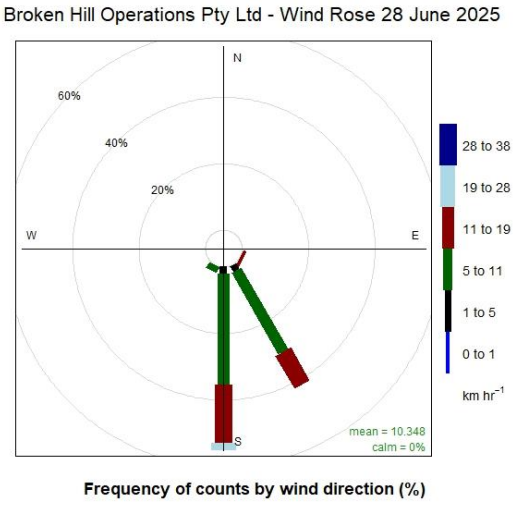

Figure 8: Wind rose for 28 June

HVAS 3 (EPL57) – Blackwood Pit (On Site) Results for June 2025

HVAS3 (EPL57) is located on the northern boundary of Rasp Mine and while limit criteria do not apply at this point, they do apply at the closest residential location.

DATE	TSP (µg/m³)	Lead (µg/m³)
04-June-25	18.3	0.021
10-June-25	7.2	0.014
16-June-25	15.6	0.031
22-June-25	18.3	0.052
28-June-25	22.6	0.051

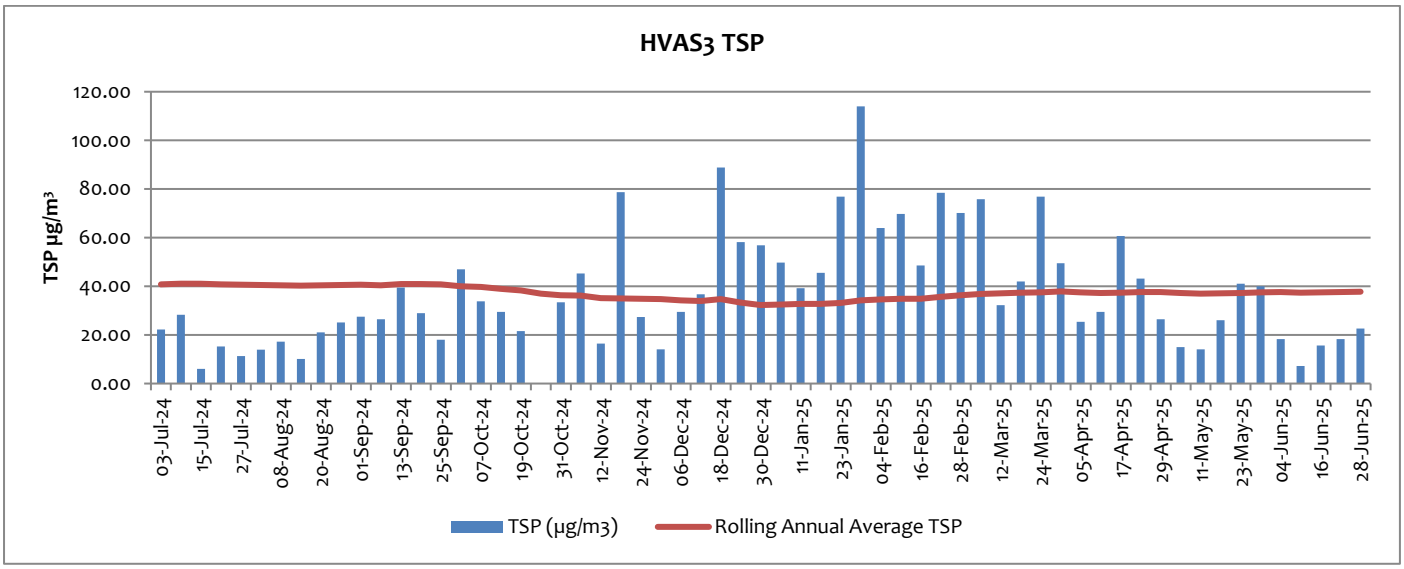

Figure 9: HVAS03 TSP measurements 12-month overview

As it can be seen on figure 9 above, TSP levels at HVAS3 were highest on 28 June with a result of 22.6 µg/m³. The wind sensor from the on-site weather station indicated that relatively weak winds—mostly light to gentle breezes—were blowing from the south, as shown in figure 8 above, implying that the source was internal to the mining site. The ratio between TSP and PM10 was significantly higher on this day compared to other sampling days of the month, indicating a greater presence of coarse dust. The surface of Blackwoods TSF2 is treated with dust suppressant and the TSF spray system has been installed and is operational. The annual rolling average for TSP dust at this location is 37.7 µg/m³ at the end of June, slightly down from 40.7 µg/m³ in June 2024.

The annual rolling average for TSP is determined using data with extreme dust events included.

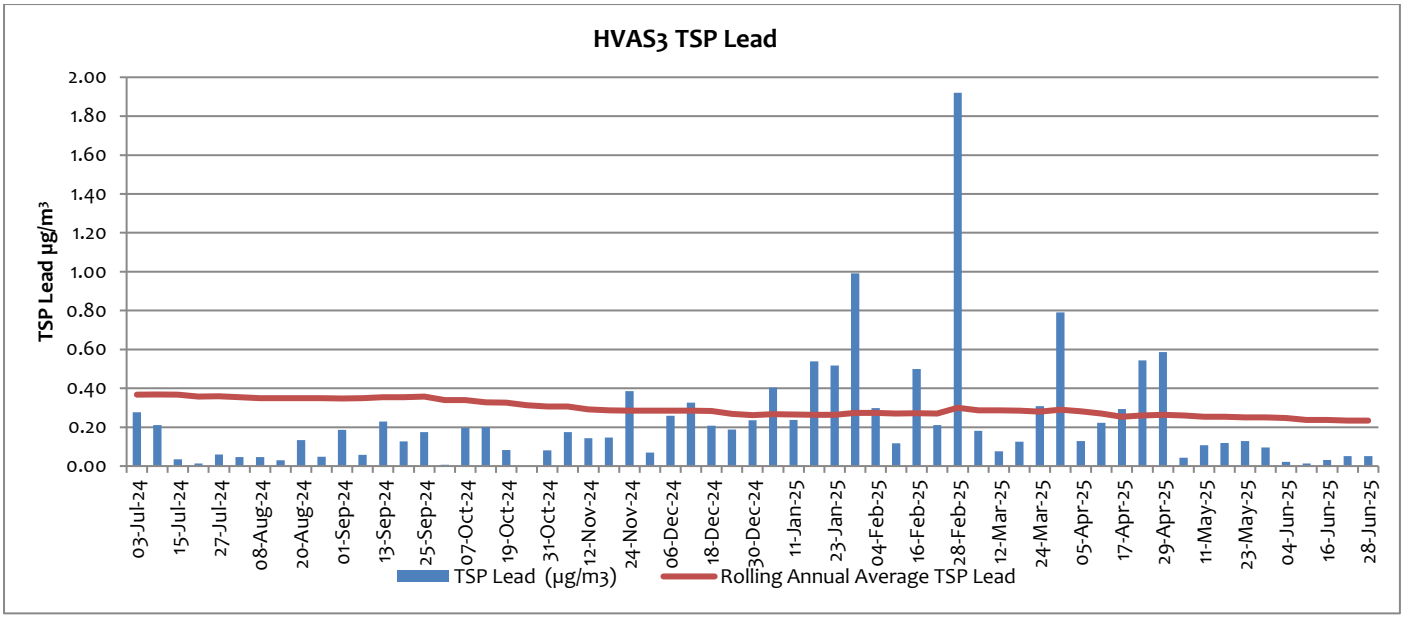

Figure 10: Lead in HVAS03 TSP measurements 12-month overview

TSP Lead levels in June were lower than those from previous month (see figure 10 above). A lead concentration of 0.5 µg/m^3 was recorded as the highest monthly value on both 22 and 28 June. It was sampled when winds were from the South (see figures 11 and 8 respectively), suggesting contribution from both off-site and on-site activities. The rolling annual average for TSP Lead in June was 0.22 µg/m^3, slightly down from 0.37 µg/m^3 in June 2024. The surface of Blackwoods TSF2 is treated with dust suppressant and the TSF spray system has been installed.

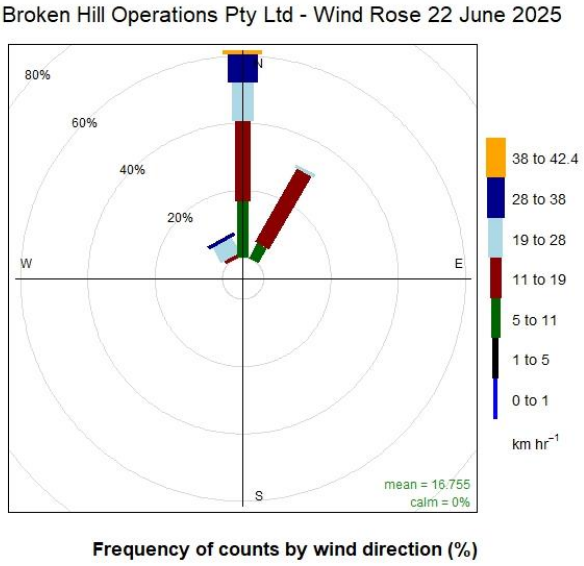

Figure 11: Wind rose for 22 June

1.2 Tapered Element Oscillating Microbalance Sampling (TEOM)

There are two Tapered Element Oscillating Microbalance (TEOM) monitoring units used to measure ambient air quality at the Rasp Mine – TEOM1 (EPL13) is located off-site within the perimeter fence of Essential Water south of the mine lease, and TEOM2 (EPL14) is located on-site adjacent to Blackwood Pit to the north of the mine lease. A map indicating these locations can be found in appendix 1. TEOM1 and TEOM2 are designed to operate continuously and monitor concentrations of particulate matter less than 10 microns (PM_{10}) in size with a time resolution of five minutes.

Project Approval 07_0018 criteria apply to TEOM1 and TEOM2, with two criteria listed for PM10, a 24-hour average criteria of 50 ug/m^3 and an annual average criteria of 25 ug/m^3. Both Project Approval and Environment Protection Licence criteria exclude dust storms and other extraordinary events.

TEOM data is validated by third party NATA-accredited consultants using Australian Standards and internal procedures, and is used to populate the table of TEOM monthly data provided below.

Validated hourly data outputs from both instruments with no correction for extreme/external events are shown in figure 12 below.

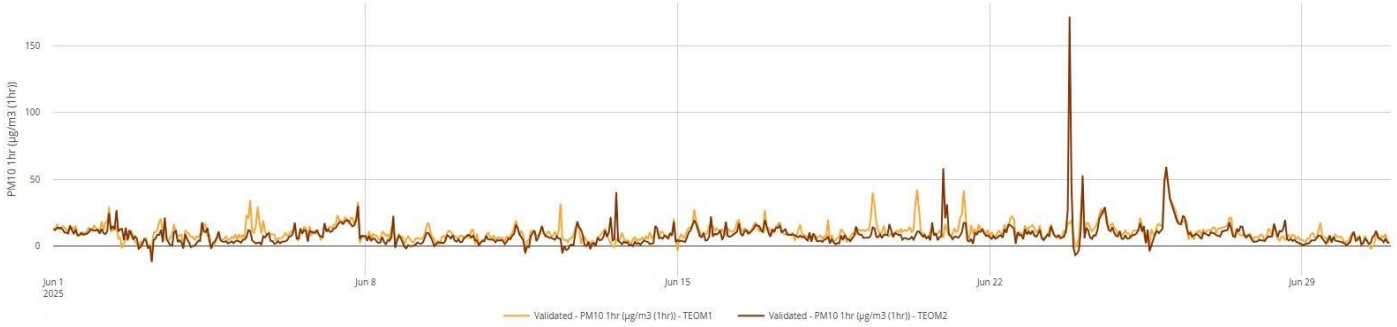

Figure 12: TEOM1 and TEOM2-Raw validated hourly-averaged PM10 concentrations

PM10 concentrations exceeded 100 µg/m^3 during one episode this month on 23 June. Figure 13 shows in more detail the measurements obtained on that day. The wind rose shows wind sensor data measured during a 12 hour period, with maximum measured PM_{10} concentration of 171.9 µg/m^3 at site 2 at 19:00. It clearly shows that the predominant winds blew relatively strongly from the North and brought in dust measured by TEOM2 from sources external to the mine facility. The measurements were therefore removed from the final TEOM data set.

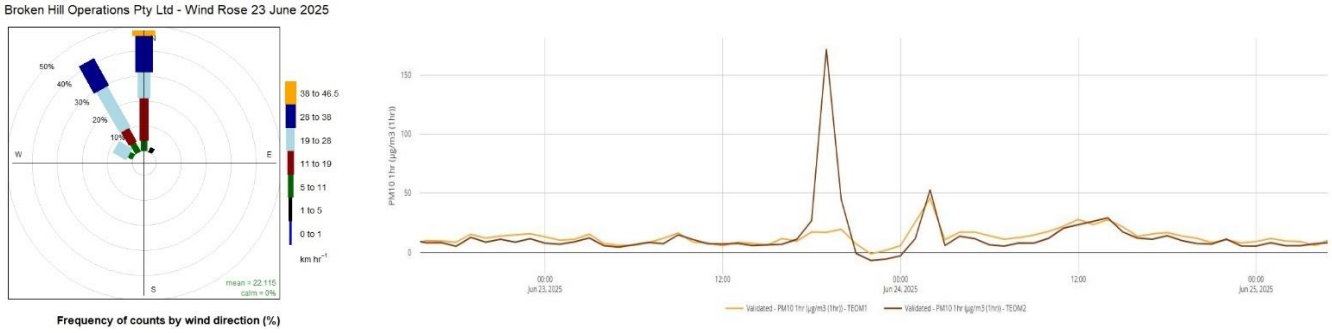

Figure 13: TEOM and wind sensor measurements on 23 June

Figure 14 below shows two polar plots generated for both PM_{10} measuring sites, i.e. TEOM1 at site 1 and TEOM2 at site 2. Polar plots are useful tools for visualising how PM_{10} concentrations vary with wind direction and wind speed. Both plots show that hourly PM_{10} concentrations stayed below 50 µg/m^3 during this monitoring period. As expected, the highest PM_{10} concentrations were generated when sites experienced highest wind speeds (yellow and reddish zones on these plots, located furthest from centres of plots).

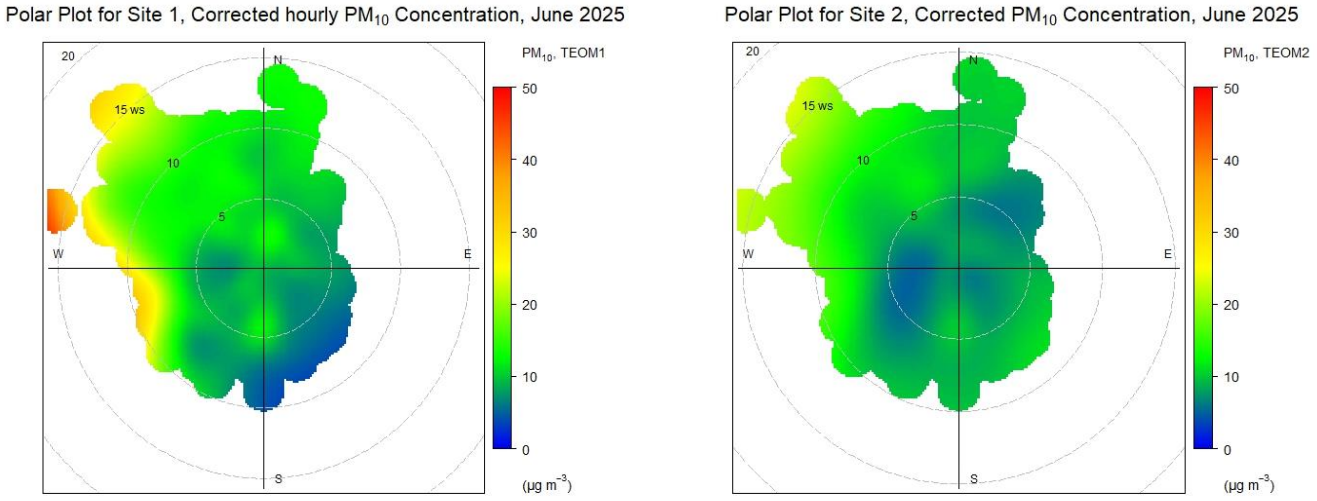

Figure 14: Polar plots, PM10 concentrations measured at site 1 and site 2 in June 2025

TEOM1 (EPL13) (Off Site) and TEOM2 (EPL14) (On Site) Validated Results for June 2025

Particulate Matter <10 Microns 24Hr Average				
Date	TEOM 1 (µg/m³)	Compliant with 50µg/m³ 24hr average?	TEOM 2 (µg/m³)	Compliant with 50µg/m³ 24hr average?
1/06/2025	12.2	Y	11.2	Y
2/06/2025	9.1	Y	10.1	Y
3/06/2025	8.4	Y	4.7	Y
4/06/2025	6.7	Y	4.7	Y
5/06/2025	12.4	Y	4.8	Y
6/06/2025	9.1	Y	8.1	Y
7/06/2025	15.6	Y	14.4	Y
8/06/2025	7.3	Y	4.2	Y
9/06/2025	7.2	Y	4.1	Y
10/06/2025	6.7	Y	4.9	Y
11/06/2025	8.6	Y	6.6	Y
12/06/2025	8.6	Y	4.8	Y
13/06/2025	5.0	Y	6.0	Y
14/06/2025	7.4	Y	5.7	Y
15/06/2025	12.4	Y	9.2	Y
16/06/2025	13.3	Y	11.7	Y
17/06/2025	10.2	Y	9.2	Y
18/06/2025	7.5	Y	5.3	Y
19/06/2025	13.6	Y	8.8	Y
20/06/2025	13.1	Y	7.5	Y
21/06/2025	13.4	Y	9.4	Y
22/06/2025	12.4	Y	9.3	Y
23/06/2025	9.5	Y	7.9	Y
24/06/2025	16.0	Y	11.6	Y
25/06/2025	10.4	Y	8.7	Y
26/06/2025	10.8	Y	11.1	Y
27/06/2025	10.8	Y	9.2	Y
28/06/2025	7.5	Y	7.0	Y
29/06/2025	6.6	Y	3.9	Y
30/06/2025	5.0	Y	4.7	Y

NA - sample collected but data invalid; NS – insufficient sample collected

The data capture rate for the TEOM1 and TEOM2 monitors in June were 99.6% and 99.4%, respectively, both exceeding the 95% requirement.

The rolling annual average for PM10 at TEOM1 with external dust events and invalid data removed for the period June 2024 to June 2025 is 13.0 µg/m^3, the same value as at the beginning of the annual period.

The rolling annual average for PM10 at TEOM2 with external dust events and invalid data removed for the period June 2024 to June 2025 is 13.9 µg/m^3, slightly lower than the rolling annual average of 14.9 µg/m^3 at the beginning of the reporting period.

Data collected for the dates of 7, 20, 23 to 26 June have been slightly corrected due to the impact from external events, with very limited impact on the final dataset.

Six-monthly servicing of TEOMs was conducted on 11 June. A portable PM_{10} monitor is located adjacent to TEOM2 to provide real-time dust readings and dust level alerts whilst the TEOM was undergoing servicing and testing. Three-monthly maintenance took place on 21 March and 04 April.

The PM_{10} 24-hour rolling annual average for both TEOM sites remain below the annual average criteria of 25 ug/m^3.

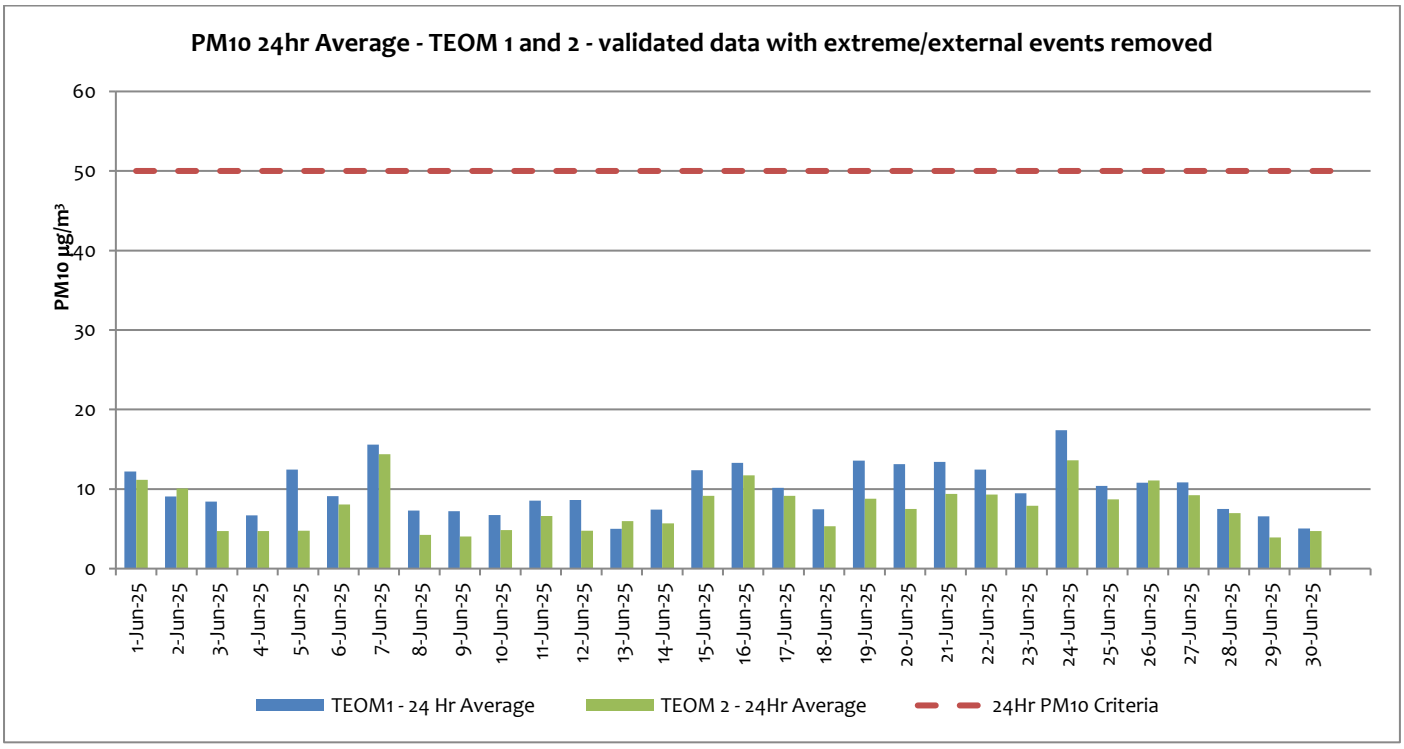

Figure 15: Site 1 and site 2 PM10 24-hour averaged measurements

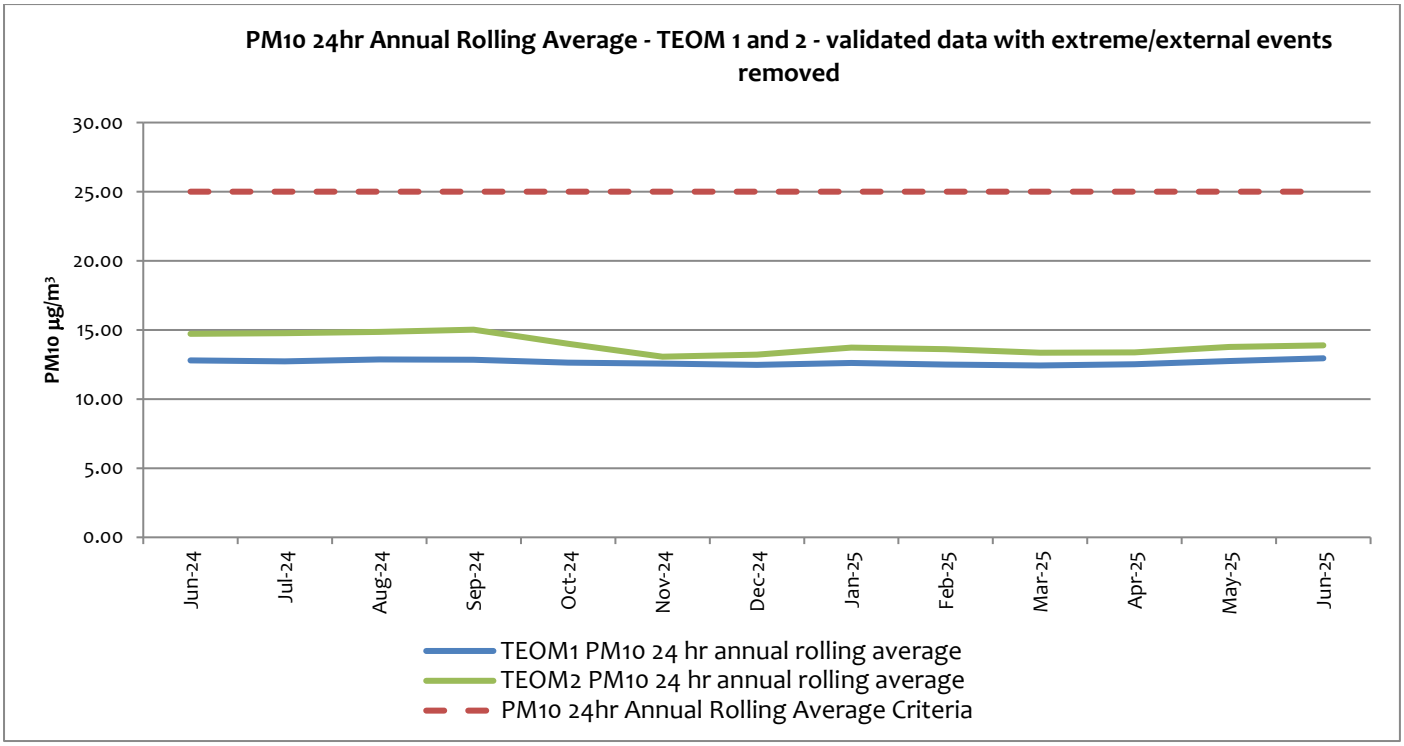

Figure 16: Site 1 &2 - Annual rolling average PM10 measurements 12-month overview

1.3 Dust Deposition Sampling

There are seven dust deposition gauges to measure ambient air quality at the Rasp Mine – D1 to D7. D1 and D6 are located off-site, D1 near the St Johns training facility north of the Rasp Mine and D6 in Casuarina Avenue south of the Rasp Mine. D2 to D5 and D7 are located on the mine lease in various locations. A map indicating these locations can be found on the Rasp Mine web site. Dust samples are collected monthly and analysed for total deposited dust and deposited lead dust.

Dust Deposition Gauges D1 (EPL3) to D7 (EPL9) – Results for June 2025

Total Deposited Dust (g/m^2.Month)							
Sample Period	D1 (off site)	D2 (off site)	D3 (on site)	D4 (off site)	D5 (on site)	D6 (off site)	D7 (on site)
June 2025	0.2	0.4	0.3	1.2	4.6	0.3	<0.1
Annual Rolling Average	0.88	1.17	0.99	2.49	2.18	1.72	1.05
Background (2010)	4.0	3.1	4.3	5.7	-1	5.8	-1

Note: "1"= background not available, N/A = not applicable as dust deposition unit is located on site, NS = No sample

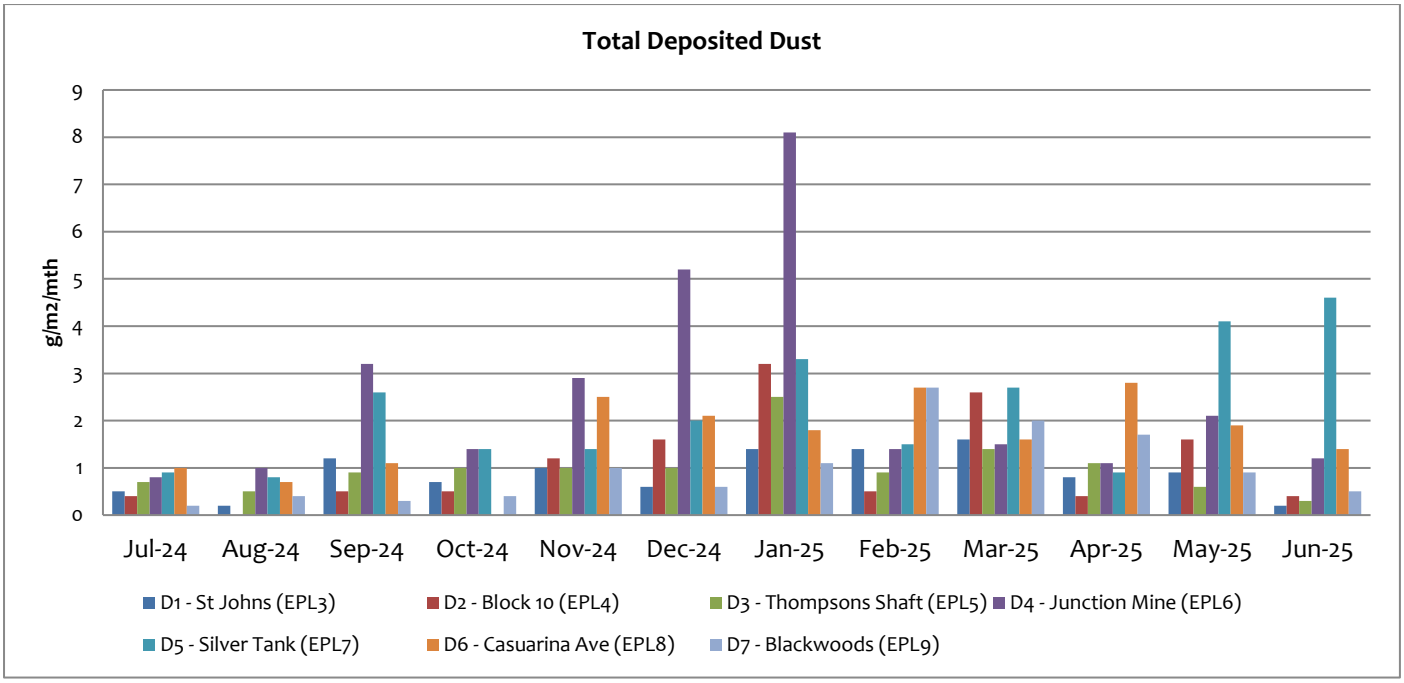

Figure 17: Total deposited dust collected by 7 dust gauges - 12-month overview

All dust levels recorded by the Dust Gauges in June 2025 were lower compared to the results from the previous month, except for D5 Silver Tank, located on-site. This on-site gauge measured the highest dust levels in June. All results for this month were otherwise relatively low, below 2 g/m^2 month for 2 gauges (D4, D6) and even below 1 g/m^2.month for 4 gauges (D1, D2, D3 and D7).

Dust Deposition Gauges that are located off-site must adhere to criteria for annually averaged deposited dust of 4 g/m^2.month.

Dust suppressant is applied to unsealed areas of the site and roads are frequently watered using water carts in an attempt to control dust emissions. The waste dump adjacent to the rail loadout is treated with dust suppressant to capture any loose dust accumulating on the lower batters and on the upper surface.

Total Deposited Lead (g/m^2.Month)

Sample Period	D1 (off Site)	D2 (on site)	D3 (on site)	D4 (on site)	D5 (on site)	D6 (off Site)	D7 (on site)
June 2025	0.0009	<0.0001	0.0020	0.0008	0.0074	<0.0001	<0.0001
Background (2010)	0.0034	0.005	0.005	0.006	-1	0.004	-1

Note: "1"= background not available, NS = No sample

There are no guidelines for deposited lead dust. As shown in Figure 18 below, lead levels in June 2025 slightly increased compared to the previous month but remained significantly below the results from the summer months and well below the background levels recorded in 2010. D5 sampled a significantly higher surface concentration of TSP Lead by comparison to the previous month, and the highest concentration among all dust gauge measurements for June, recording 0.0074 g/m^2.month. The confirmed high value recorded at D7 Blackwoods in February (0.0819 g/m^2.month) is not displayed properly on figure 18 below due to the choice of y-axis scale, more suitable for the dataset. Although winds were quite scattered in most directions, the predominant wind direction for June was from

the North as shown in the Wind Rose in Section 4 (figure), the source of Lead for both dust gauges was likely to be on-site.

Dust suppressant is applied to unsealed areas of the site and roads are frequently watered using water carts in an attempt to control dust emissions. The waste dump adjacent to the rail loadout is treated with dust suppressant to capture any loose dust accumulating on the lower batters and on the upper surface.

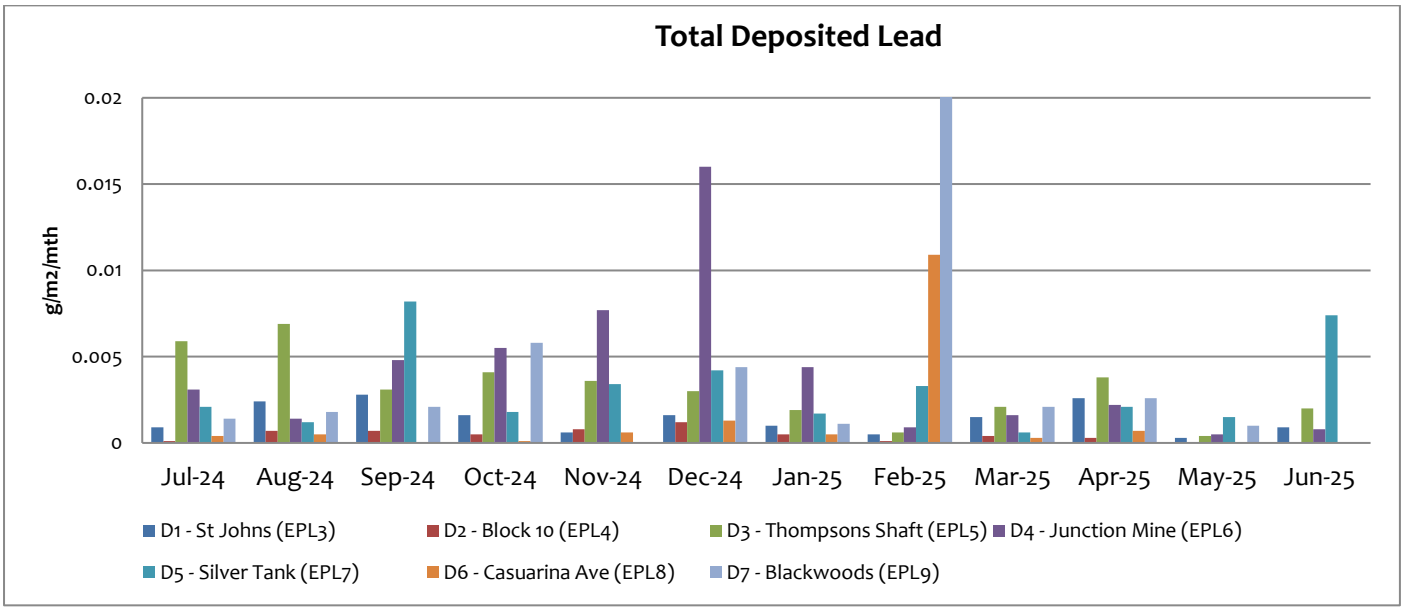

Figure 18: Lead deposited dust collected by 7 dust gauges - 12-month overview

1.4 Ventilation Outlets and Bag House Monitoring

There are two locations to measure pollutants from exhausts or stacks; these include the Primary Ventilation Shaft, measuring pollutants from underground firings, and the Baghouse Stack at the crusher measuring dust. Each are located on site; the Primary Ventilation Shaft is located centrally and to the north of the mine lease and the Primary Crusher Baghouse Stack is located within the area of the processing plant to the east of the lease. Shaft 6 (EPL56) was removed as a monitoring location with the variation of EPL12559 in March 2019 as it became an intake rather than an exhaust in June 2018. A map indicating these locations can be found on the Rasp Mine web site. Samples are collected quarterly and analysed for a number of parameters listed in below. Reference to the item required in the Rasp Mine Environment Protection Licence (EPL) is provided below. Emissions monitoring is conducted quarterly.

The following criteria apply:

Primary Ventilation Shaft (EPL1)

	Unit	Criteria
Nitrogen Oxides	mg/m^3	350
Volatile Organic Compounds	mg/m^3	40

Primary Ventilation Shaft (EPL1) and Crusher Baghouse (EPL2)

	Unit	Criteria
Total Suspended particles (TSP)	mg/m^3	20
Type 1 and Type 2[1]	mg/m^3	1

Note 1: **"**Type 1 substance" means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements.
"Type 2 substance" means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements.

Primary Vent Shaft (EPL1) and Crusher Baghouse (EPL2) Results for June 2025

The latest round of emissions monitoring was conducted at the Primary Vent Shaft (EPL1) and the Crusher Baghouse (EPL2) on 17 and 18 June 2025. Results were within limits and are provided below.

Parameter	Unit	Primary Vent Shaft (EPL1)	Crusher Baghouse (EPL2)
Dry Gas Density	kg/Nm^3	1.29	1.29
Moisture	%	2.4	2.2
Molecular weight of stack gases	g/Nm^3	1,288	1,288
Temperature	°C	26.0	13.0
Nitrogen Oxides	mg/Nm^3	2.07	NA
Volatile Organic Compounds	mg/m^3	0.07	NA
Total Suspended particles	mg/Nm^3	<1.91	<1.94
Type 1 and Type 2	mg/Nm^3	0.12	0.04
Velocity	m/sec	12.0	22.2
Volumetric Flowrate	Nm^3/sec	190	9

2 Noise

2.1 Blasting (Vibration and Overpressure)

There are five compliance vibration monitors at various locations measuring for vibration and overpressure from blast firings. These include V1 to V5 which are located on-site and off-site. A map indicating these locations can be found on the Rasp Mine web site. In addition, there are a number of roving monitors which may be used to monitor vibration and overpressure at particular locations as required. Monitors operate continuously and are automatically triggered to record when a blast occurs. The following conditions apply as listed in the PA 07_0018 and EPL 12559:

Blasting Criteria (Western Mineralisation and Main Lodes excluding Block 7)

Location	Airblast Overpressure (dB(Lin Peak))	Ground Vibration (mm/s)	Allowable Exceedance (for production and development blasts)
Residence on privately owned land (7am-7pm)	115	5	5% of the total number of blasts over a 12-month period[1]
(7am-7pm)	120	10	0%
(7pm-10pm)	105	-	-
(10pm-7am)	95	-	-
Public Infrastructure	-	100	0%

Note 1: Does not apply until completion of Pollution Reduction Program on the EPL at the end of 2018. Applies to EPL criteria in the period for the Annual Return 3 Nov to 2 Nov the following year and to DPE criteria in the reporting period 1 Jul to 30 Jun each year.

Blasting Criteria (Block 7)

Location	Airblast Overpressure (dB(Lin Peak)	Ground Vibration (mm/s)	Allowable Exceedance (for production and development blasts)
Residence on privately owned land (7am-7pm)	115	3 (interim)	5% of the total number of blasts over a 12-month period[1]
(7am-7pm)	120	10	0%
(7pm-10pm)	105	-	-
(10pm-7am)	95	-	-
Broken Hill Bowling Club, Italio (Bocce) Club, Heritage Items within CML7	-	50	0%
Perilya Southern Operations	-	100	0%
Public Infrastructure	-	100	0%

Note 1: Applies to EPL criteria in the period for the Annual Return 3 Nov to 2 Nov the following year and to DPE criteria in the reporting period 1 Jul to 30 Jun each year.

In addition the following conditions also apply:

- Production blasts may occur between 6.45 am and 7.15 pm on any day
- 1 production blast per day, with 6 per week averaged over a calendar year
- 6 development blasts per day, with 42 per week averaged over a calendar year

Blasting Data Summary Results for June 2025 (annual period)

Total Blasts:

- 0 production blasts occurred before 6.45 am or after 7.15 pm
- The number of Production blasts averaged 1.5 per week over the previous calendar year
- The number of Development blasts averaged 10.4 per week over the previous calendar year

Western Mineralisation and Main Lodes (excluding Block 7):

- 0 Blast recorded >5 mm/s
- 0 Blasts recorded >10 mm/s
- 0 development blasts recorded an over pressure level over 95 dBL (10pm to 7am)
- 0 development blasts recorded an over pressure level over 105 dBL (7pm to 10pm)
- 0 Blasts recorded an over pressure level over 115dBL (7am to 7pm)
- 0 Blasts recorded an over pressure level over or 120 dBL at any time
- Percentage of development blasts over 5 mm/sec for the annual period = 0%
- Percentage of production blasts over 5 mm/sec for the annual period = 0%

Block 7:

- 0 Blasts recorded >3 mm/s
- 0 Blasts recorded >10 mm/s
- 0 Blasts recorded >50 mm/s at V6
- 0 development blasts recorded an over pressure level over 95 dBL (10pm to 7am)
- 0 development blasts recorded an over pressure level over 105 dBL (7pm to 10pm)
- 0 Blasts recorded an over pressure level over 115 dBL (7am to 7pm)
- 0 Blasts recorded an over pressure level over or 120 dBL at any time
- Percentage of development blasts over 3mm/sec for the annual period = 0%
- Percentage of production blasts over 3mm/sec for the annual period =100%

There have been no production blasts in the Western Mineralisation and Main Lodes producing vibration at monitors over 5 mm/sec for the 12-month period.

There have been no production blasts in Block 7 for the 12-month period.

2.2 Noise

Noise monitoring is undertaken as per the NSW Noise Policy for Industry at a frequency of once per annum. Attended environmental noise monitoring was done during the night period of 20 and 21 December 2024 at 14 monitoring locations. Noise levels from site complied with relevant limits at all monitoring locations during the December 2024 survey.

3 Water

3.1 Groundwater

There are eighteen sampling locations for groundwater. GW01 (EPL37) to GW16 (EPL52) are piezometers installed at various locations around the mine site and are sampled quarterly. There are also two sampling locations for water pumped from underground mining, Shaft 7 (EPL53) and Kintore Pit (EPL54), which are sampled monthly. A map indicating these locations can be found on the Rasp Mine web site. Groundwater monitoring is scheduled for completion in March, June, September and December. No limits are applied in the EPL to the results from groundwater monitoring. Levels for all parameters are stable.

Ground and Mine Water Monitoring Requirements

EPA Identification Number	Frequency	Parameters to be analysed
Shaft 7 EPL53	Monthly	alkalinity (calcium carbonate ($CaCO_3$)), cadmium (Cd), calcium (Ca), chloride (Cl), electrical conductivity (EC), iron (Fe), lead Pb), magnesium (Mg), manganese (Mn), pH, sodium (Na), sulphate (SO4), total dissolved solids (TDS) and zinc (Zn)
Kintore Pit (U/G dewatering) EPL54	Monthly	
Piezometers EPL37 (GW01) to EPL52 (GW16)	Quarterly	

Shaft 7 (EPL53) and Kintore Pit (EPL54) Results for June 2025

Sample Point	pH	EC (µS/cm²)	TDS (mg/l)	Alkalinity ($CaCO_3$) (mg/l)	SO4 (mg/l)	Cl (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	Cd (mg/l)	Pb (mg/l)	Mn (mg/l)	Zn (mg/l)	Fe (mg/l)
Shaft 7 (EPL53)	No pumping													
Kintore Pit (EPL54)	6.07	14400	16400	4	6230	1960	510	343	1840	4.29	1.93	535	1340	0.06

Groundwater Bores (EPL37 - EPL52) Results for June 2025

Sample Point	pH	EC (µS/cm²)	TDS (mg/l)	Alkalinity ($CaCO_3$) (mg/l)	SO4 (mg/l)	Cl (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	Cd (mg/l)	Pb (mg/l)	Mn (mg/l)	Zn (mg/l)	Fe (mg/l)
GW01 (EPL37)	4.34	7840	7660	2	4010	576	210	268	1120	0.105	0.023	207	154	<0.05
GW02 (EPL38)	Bore Dry													
GW03 (EPL39)	5.53	14600	13700	<1	4720	2860	597	309	1950	0.576	0.753	462	367	14.0
GW04 (EPL40)	6.48	14400	12400	308	4810	2660	619	479	2130	0.017	0.030	17.5	6.4	<0.05
GW05 (EPL41	5.85	13300	12400	35	4600	2530	590	321	1830	0.976	0.026	247	187	0.39
GW06 (EPL42)	5.73	14500	14100	50	5210	2620	575	416	2020	1.55	0.031	394	239	<0.05
GW07 (EPL43)	5.82	12300	11900	30	4820	1810	560	282	1620	2.51	0.586	320	379	<0.05
GW08 (EPL44)	5.8	11200	11100	15	3940	2170	614	228	1300	2.00	0.235	333	499	<0.05
GW09 (EPL45)	6.4	10800	10000	124	4080	1740	656	419	1260	0.661	<0.001	48.1	56.4	<0.05
GW10 (EPL46)	6.46	14100	12200	242	4500	2680	621	447	2090	0.287	<0.001	20.7	23.8	<0.05
GW11 (EPL47)	6.04	3210	2800	15	1380	318	315	73	301	1.16	0.326	8.90	52.2	<0.05
GW12 (EPL48)	Bore Dry													
GW13 (EPL49)	Bore Dry													
GW14 (EPL50)	Bore Dry													
GW15 (EPL51)	Bore Dry													
GW16 (EPL52)	Bore Dry													

3.2 Surface Water Sample Record

There are seven sampling locations for surface water, these include surface water basins located on the mine lease to capture and retain rainfall and two locations up and down stream of an ephemeral creek located south of the mine lease boundary. A map indicating these locations can be found in Appendix 1. Based on historical data, sampling is most likely to be undertaken in October (highest rainfall month as recorded by Bureau of Meteorology) and April.

Surface Water Monitoring Requirements

Description	Frequency	Parameters to be Analysed
Federation Way Culvert EPL29/S31-1	2 x per year, six months apart	cadmium (Cd), chloride (Cl), electrical conductivity (EC), lead Pb), manganese (Mn), pH, sodium (Na), sulphate (SO4), total dissolved solids (TDS) and zinc (Zn)
Ryan Street Dam EPL31/S49	2 x per year, six months apart	
Adjacent Olive Grove EPL32/S1A	2 x per year, six months apart	
Adjacent Bowls Club EPL33 /S9-B2	2 x per year, six months apart	
Horwood Dam EPL34/S34	2 x per year, six months apart	
Upstream Bonanza St EPL35	2 x per year, six months apart	
Downstream Sydney Rd EPL36	2 x per year, six months apart	

Surface Water Results for June 2025

No surface water samples were collected in June.

4 Weather Data

The weather station continuously monitors the following parameters as per Point 55 of the Environmental Protection Licence.

The following parameters are required to be recorded each month as listed in the EPL 12559:

Rasp Mine Weather Station (EPL55) Monitoring Requirements

Parameter	Sampling method	Units of measure	Averaging period	Frequency
Temperature at 10 metres	AM-4	degrees Celsius	15 minutes	Continuous
Wind Direction at 10 metres	AM-4	degrees in a clockwise direction from True North	15 minutes	Continuous
Wind Speed at 10 metres	AM-4	metres per second	15 minutes	Continuous
Rainfall	AM-4	millimetres	1 hour	Continuous
Sigma theta	AM-2 & AM-4	degrees	15 minutes	Continuous

The wind rose provided below indicates that the predominant wind direction for the month of June was from the North.

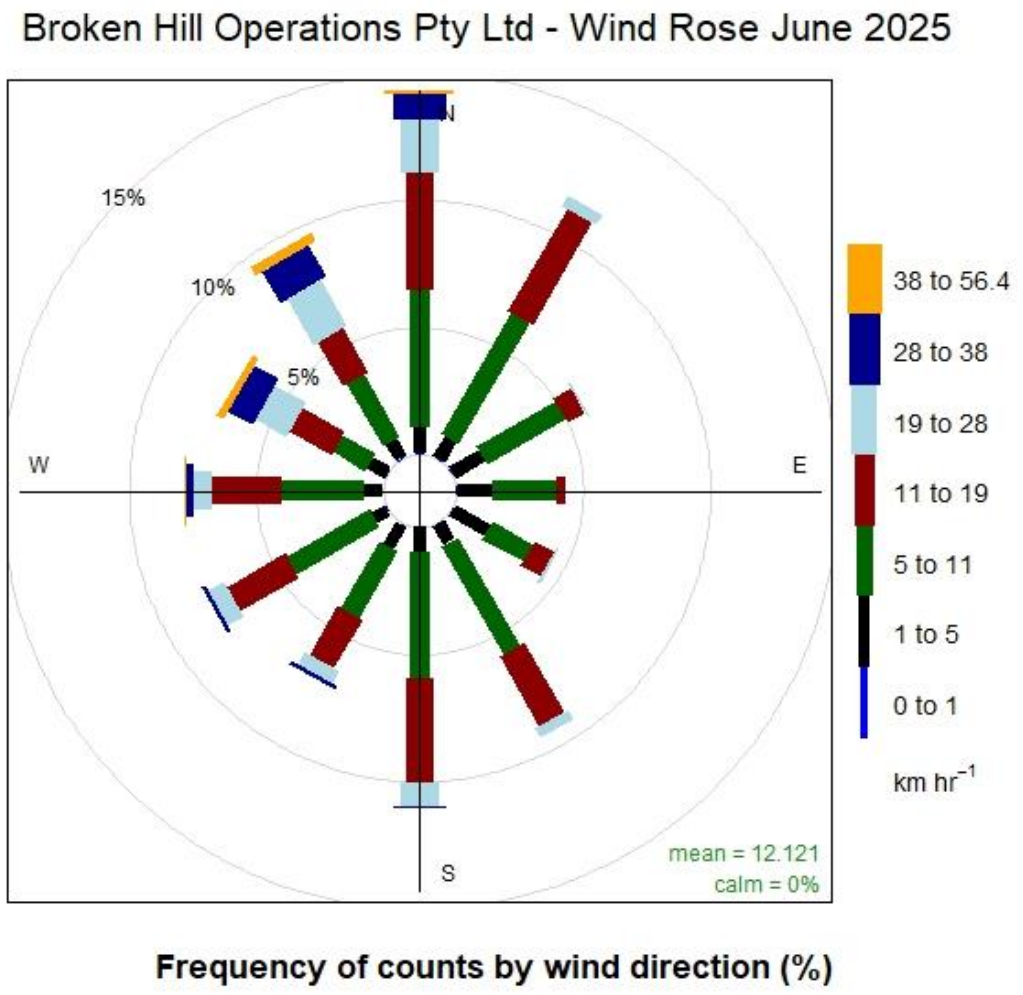

Figure 19: Wind rose for June 2025

Weather Data Summary for June 2025

Date	Temperature @ 10m (°C)		Wind Speed @ 10m (km/hr)		Predominant Wind Direction @ 10m		Rainfall (mm)
	Min	Max	Min	Max	Cardinal	Degree	Total
1-Jun-25	11.5	19.4	0.5	14.5	NE	41	0
2-Jun-25	13.1	15.5	0.1	21.3	ENE	69	10.27
3-Jun-25	9.2	17.5	0.9	33.2	SSW	208	0
4-Jun-25	3.3	11.8	1.8	27.8	SSE	163	0
5-Jun-25	5.9	12.2	0.9	30.5	NNE	24	0
6-Jun-25	10.6	13.9	4.4	44.9	NNW	348	0
7-Jun-25	7.4	15.2	1.6	53.8	WNW	297	0.49
8-Jun-25	4.8	10.7	1.5	33.3	W	266	0.28
9-Jun-25	3.1	12.4	0.8	30.5	WSW	242	0
10-Jun-25	5.6	13.2	0.9	24.7	W	261	0
11-Jun-25	7	13.4	0.7	22.9	W	268	0
12-Jun-25	7.7	14.5	0.7	25	N	10	0.01
13-Jun-25	6.5	14.2	0.7	22.9	ESE	110	0
14-Jun-25	7.4	16.1	1.2	41.7	N	3	0
15-Jun-25	6.8	14.1	0.9	17.1	W	276	0
16-Jun-25	8.1	15.9	0.4	40.9	NNW	333	0
17-Jun-25	7.4	13.6	1.5	18.4	SSW	207	0
18-Jun-25	5.6	13.1	0.3	13.2	NE	50	0
19-Jun-25	7.3	15.2	0.3	16.5	NNE	22	0
20-Jun-25	9.2	16.1	0.4	12.6	NE	40	0
21-Jun-25	7.8	18.4	1.5	24	NNE	25	0
22-Jun-25	10	20.1	3.9	48.1	N	6	0
23-Jun-25	13.4	20.6	2.6	49.1	N	354	0.24
24-Jun-25	8.9	13.8	1.5	61.3	NW	310	0
25-Jun-25	7	15.6	2.5	50.1	W	277	0
26-Jun-25	4.3	11.6	2.9	23.2	SSE	160	0
27-Jun-25	4.5	11.4	1.6	24.6	SE	142	0.02
28-Jun-25	3	11.1	1.3	25.6	S	169	0
29-Jun-25	3.8	12.7	1.1	31.5	SSE	166	0
30-Jun-25	5.7	11.7	3.3	23.6	S	190	0

There was a total rainfall of 11.3 mm in June 2025.

5 Data Log

Sample	Result Received
Hi-Volume Samples	25-07-2025
TEOM	28-07-2025
Dust Deposition	12-08-2025
Vents & Bag House	25-07-2025
Noise	09-04-2025
Water	25-06-2025
Blast vibration and overpressure	01-07-2025
Weather	01-07-2025
Date posted to web site	29-08-2025

6 Correction Log

No corrections.

7 Appendix 1 – Monitoring Locations