



Rasp Mine
Monthly Environmental Monitoring Report
November 2025

INTRODUCTION

Broken Hill Operations Pty Ltd (BHOP) [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, BHOP is required, under Section 66(6) of the NSW *Protection of the Environment Operations Act 1997*, to publish pollution monitoring data. In addition, BHOP 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 (PM₁₀) and lead dust.

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

DATE	TSP (µg/m ³)	Lead (µg/m ³)
01-November-25	34.50	0.115
07-November-25	122.00	0.689
13-November-25	61.80	0.311
19-November-25	59.40	0.301
25-November-25	51.00	0.184

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.

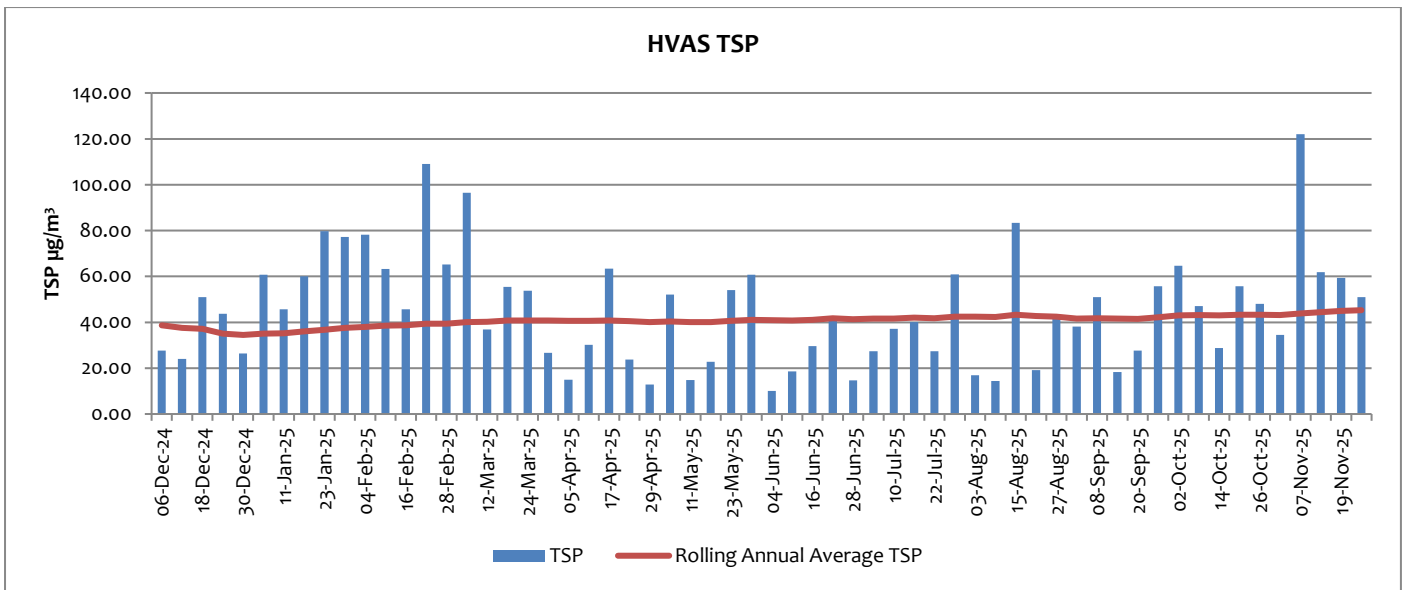


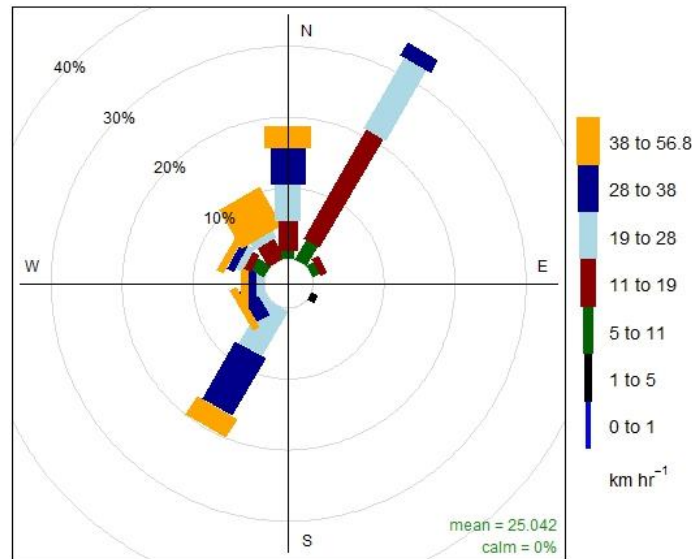
Figure 1: HVAS TSP measurements 12-month overview

TSP dust results at HVAS for the month of November were on average higher than measurements from previous months (see figure 1). The highest TSP result measured at HVAS (EPL10) for November was 122.0 µg/m³ sampled on the 7 November. This is also the highest TSP value measured during the last twelve months. The wind sensor from the on-site weather station indicated that winds were blowing predominantly from NE with relatively low force ranging mostly from light breeze to moderate breeze. However, stronger winds ranging from strong breeze up to near gale blew during half of the day from several wind directions including NNW, North and SSW, as shown in figure 2 below. The wind roses and TEOM measurements shown in figure 13b, together with the assessment presented in section 1.2, imply that the source was potentially partially external to the mining site.

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 45.3 µg/m³ at the end of November, higher than the average of 39.2 µg/m³ at the beginning of November 2024.

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

Broken Hill Operations Pty Ltd - Wind Rose 07 Nov. 2025



Frequency of counts by wind direction (%)

Figure 2: Wind rose for 07 November

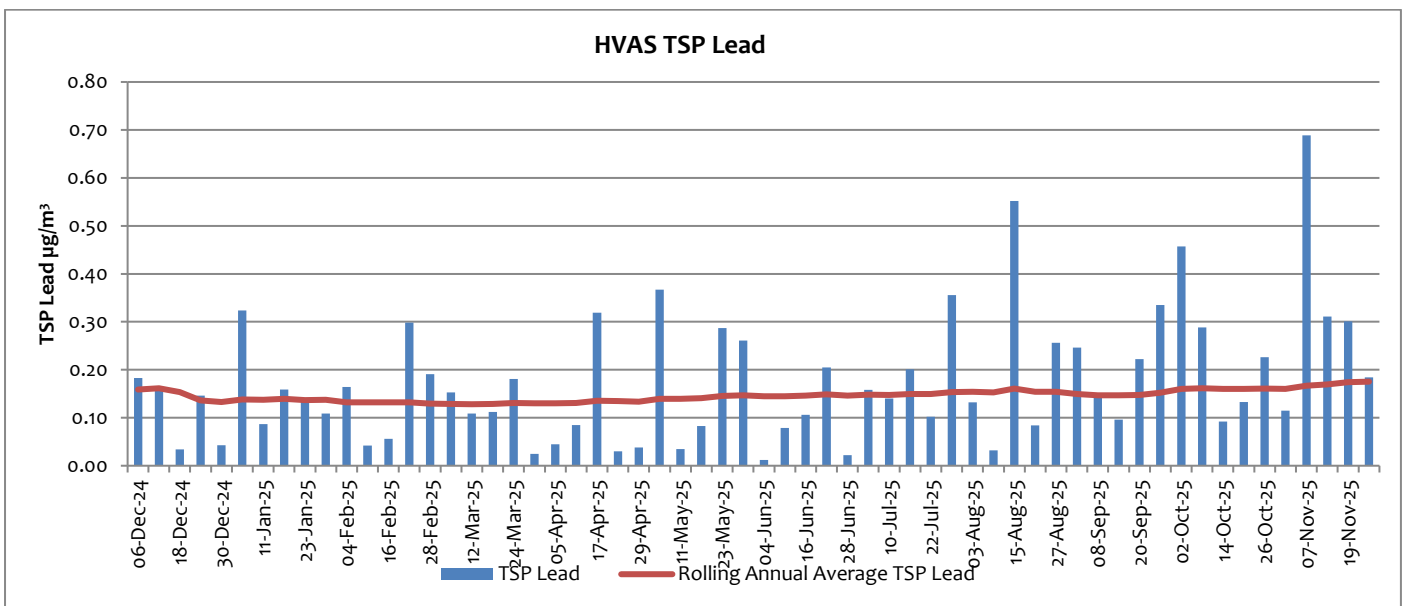


Figure 3: Lead in HVAS TSP measurements 12-month overview

TSP Lead dust results at HVAS for the month of November were on average higher than previous months (see figure 3 above). The highest TSP Lead level for November was $0.689\mu\text{g}/\text{m}^3$ on 7 November. This is also the highest TSP Lead value measured during the last twelve months. As noted above (see wind rose in figure 2), wind directions were rather scattered with strong winds blowing from both SSW, NNW and North, suggesting that the Lead potentially partially 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 November 2025 was 0.18 $\mu\text{g}/\text{m}^3$, slightly higher than the rolling annual average of 0.16 $\mu\text{g}/\text{m}^3$ for TSP Lead at the beginning of December 2024.

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

DATE	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM ₁₀ Lead ($\mu\text{g}/\text{m}^3$)
01-November-25	5.60	0.027
07-November-25	38.80	0.166
13-November-25	13.70	0.075
19-November-25	12.20	0.048
25-November-25	12.60	0.033

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.

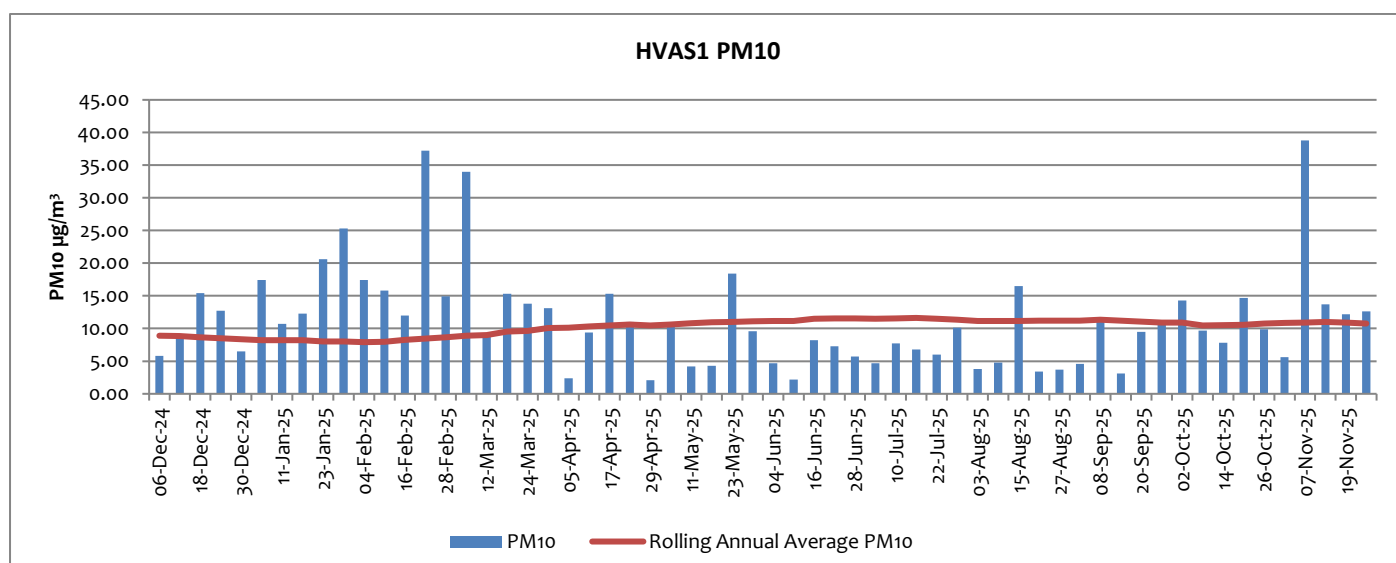


Figure 4: HVAS01 PM10 measurements 12-month overview

PM₁₀ dust results at HVAS1 for the month of November were higher than those in the previous month. All measured values except one (1 November) were above the 12-month rolling average. The highest PM₁₀ dust level for November was measured on 7 November (see figure 4 above). This is also the highest PM₁₀ value measured during the last twelve months. The dust mass concentration reached 38.8 $\mu\text{g}/\text{m}^3$ for this sample. As mentioned earlier, the wind sensor from the on-site weather station indicated that strong winds—mostly strong breeze to near gale—were frequently blowing from essentially three directions i.e. North, NNW and SSW, on 7 November, as shown in figure 2 above. This implies that the source was potentially partially internal to the mining site.

Water carts apply water to site roads daily and dust suppressant is applied to free areas and unsealed roads.

The annual rolling average for PM₁₀ dust at this location is 10.8 $\mu\text{g}/\text{m}^3$ at the end of November 2025, higher than the annual rolling average at the end of November 2024 which was 9.0 $\mu\text{g}/\text{m}^3$.

External and extreme dust events are recorded in measurements.

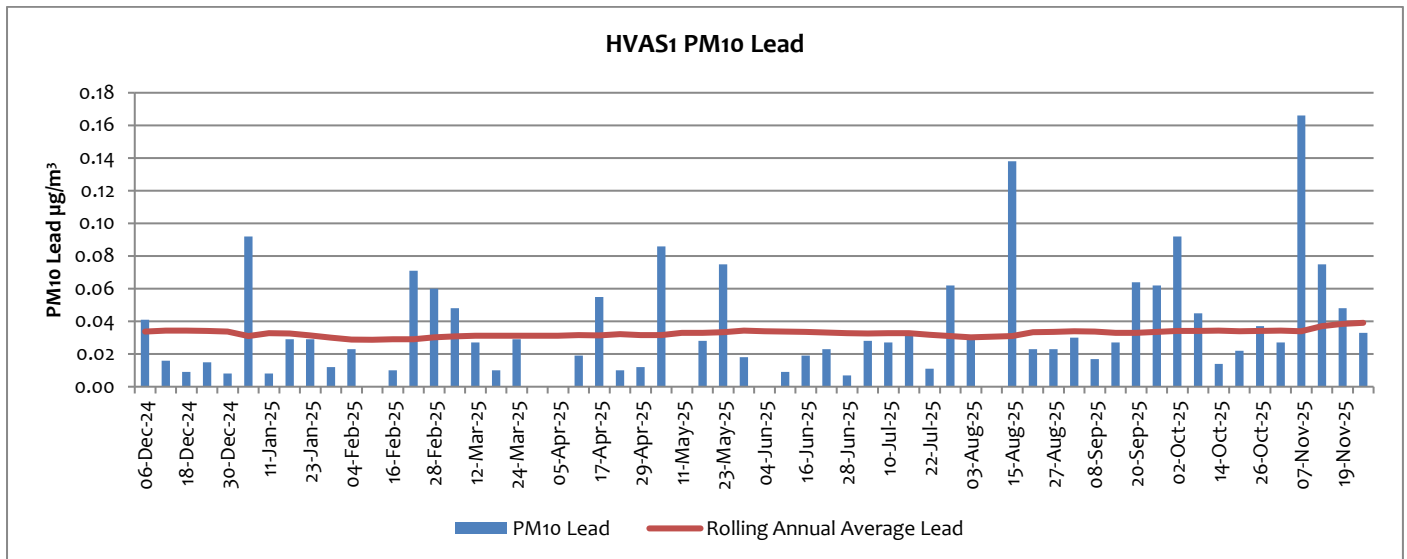


Figure 5: Lead in HVAS01 PM10 measurements 12-month overview

PM₁₀ Lead dust results at HVAS1 in the month of November were heterogenous and on average higher than measurements from previous month (see figure 5 above). The highest Lead PM₁₀ result for November was 0.17 µg/m³ on 7 November and was also the highest measured during the last twelve months. As mentioned above, weather conditions on that day imply that the source was potentially partially internal to the mining site.

Water carts apply water to site roads daily and dust suppressant is applied to free areas and unsealed roads. The rolling annual average for PM₁₀ Lead in November was 0.04 µg/m³, higher than the average of 0.03 µg/m³ in November 2024.

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

DATE	PM ₁₀ (µg/m ³)	PM ₁₀ Lead (µg/m ³)
01-November-25	7.50	0.033
07-November-25	66.90	0.287
13-November-25	12.60	0.035
19-November-25	10.80	0.089
25-November-25	16.90	0.075

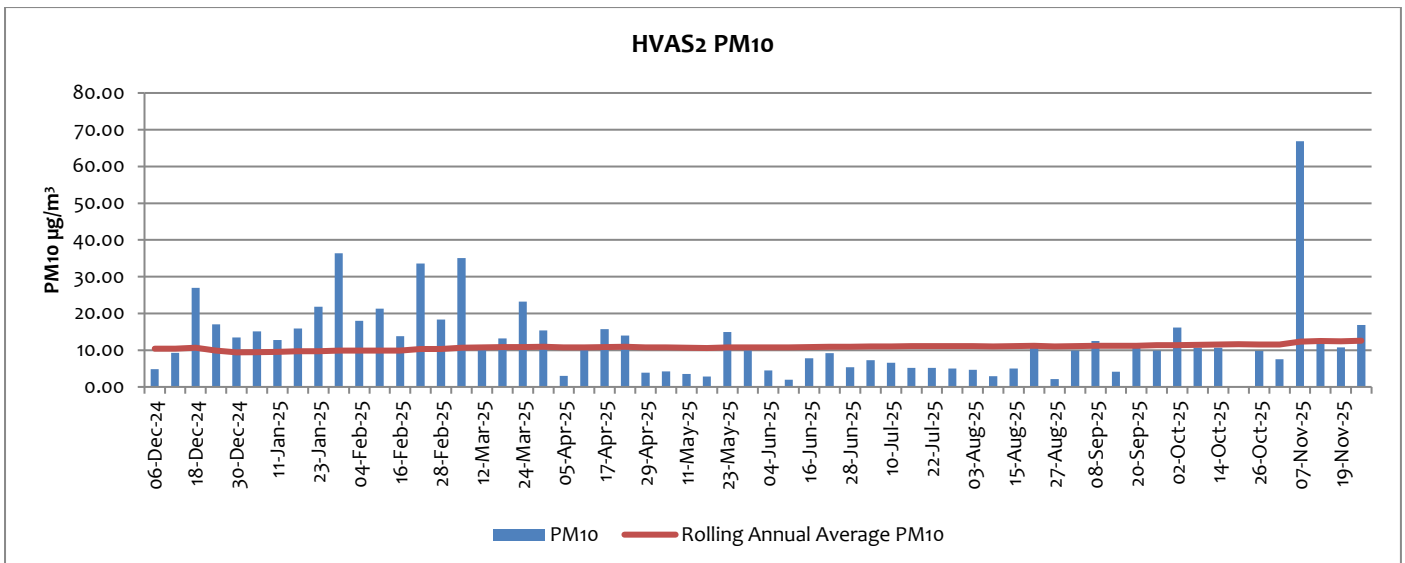


Figure 6: HVAS02 PM10 measurements 12-month overview

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.

The sample collected by High Volume Air Samplers HVAS2 (PM₁₀) on 20.10.2025 did not comply with AS/NZS 3580.9.6:2015 and AS/NZS 3580.9.3:2015 as the required sampling time of 24 ±1 hours was not achieved for this sample. It is therefore not shown on figures 6 and 7.

HVAS02 PM₁₀ measurements in the month of November were on average higher than those measurements from the previous three months (see figure 6 above). The highest recorded PM₁₀ dust reading for November was 66.9 µg/m³ on 7 November. The assessment done in section 1.2 for that day suggests contribution from both on-site and off-site sources. The annual rolling average for PM₁₀ dust at this location is 12.6 µg/m³ at the end of November, up from 10.7 µg/m³ in November 2024.

The annual rolling average for PM₁₀ dust is determined using data with extreme dust events included.

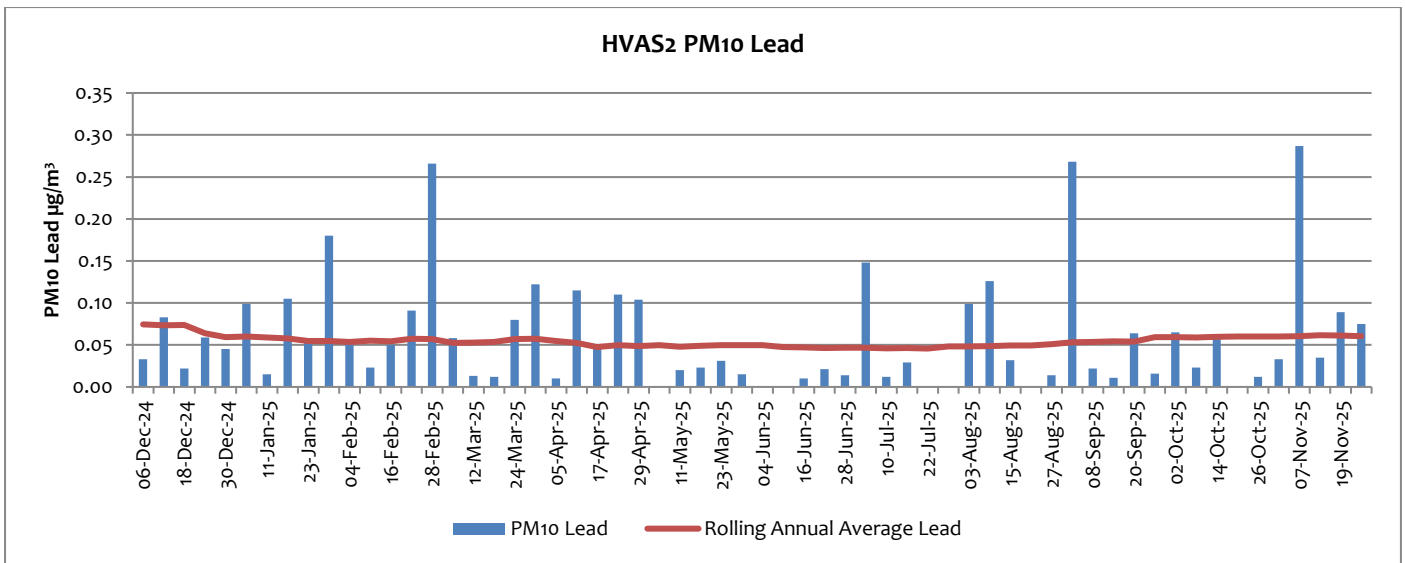


Figure 7: Lead in HVAS02 PM10 measurements 12-month overview

PM₁₀ lead levels in November were on average higher than those recorded over the previous month. The sample from 7 November stood out as significantly elevated—more than four times greater than the 12-month rolling average (see figure 7 above). This high PM₁₀ lead dust reading is not only the highest recorded in November but also the highest in the past twelve months. The concentration of 0.29 µg/m³ was measured when winds blew occasionally strongly from both southerly and northerly directions (see section 1.2), suggesting a possible 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 PM₁₀ Lead in November was 0.06 µg/m³, down from 0.08 µg/m³ in November 2024.

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

DATE	TSP (µg/m ³)	Lead (µg/m ³)
01-November-25	22.5	0.110
07-November-25	151	0.499
13-November-25	21	0.070
19-November-25	42.2	0.392
25-November-25	45.3	0.377

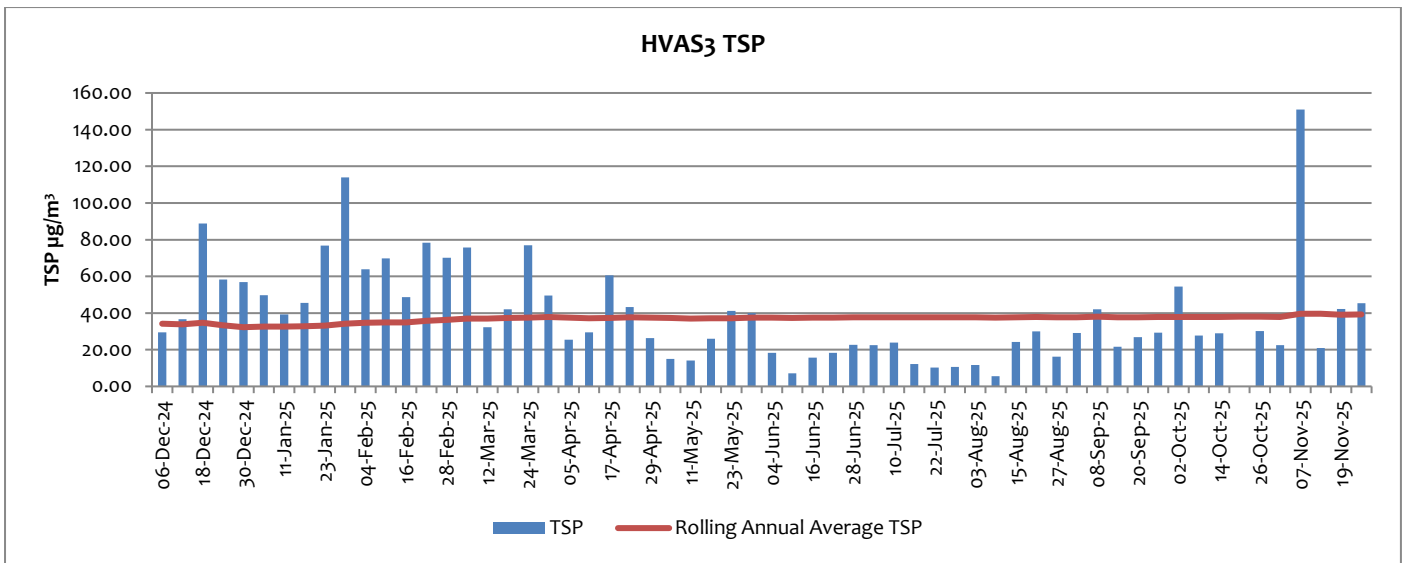


Figure 8: HVAS03 TSP measurements 12-month overview

The samples collected by High Volume Air Samplers HVAS3 (TSP) on 20.10.2025 did not comply with AS/NZS 3580.9.6:2015 and AS/NZS 3580.9.3:2015 as the required sampling time of 24 ±1 hours was not achieved for these samples.

As it can be seen on figure 8 above, TSP levels at HVAS3 were highest on 7 November with a result of 151.0 µg/m³. It was also the highest TSP level measured by HVAS3 over the last 12 months. The weather conditions on that day imply that the source was both internal and external to the mining site. 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 39.3 µg/m³ at the end of November, up from 34.8 µg/m³ in November 2024.

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

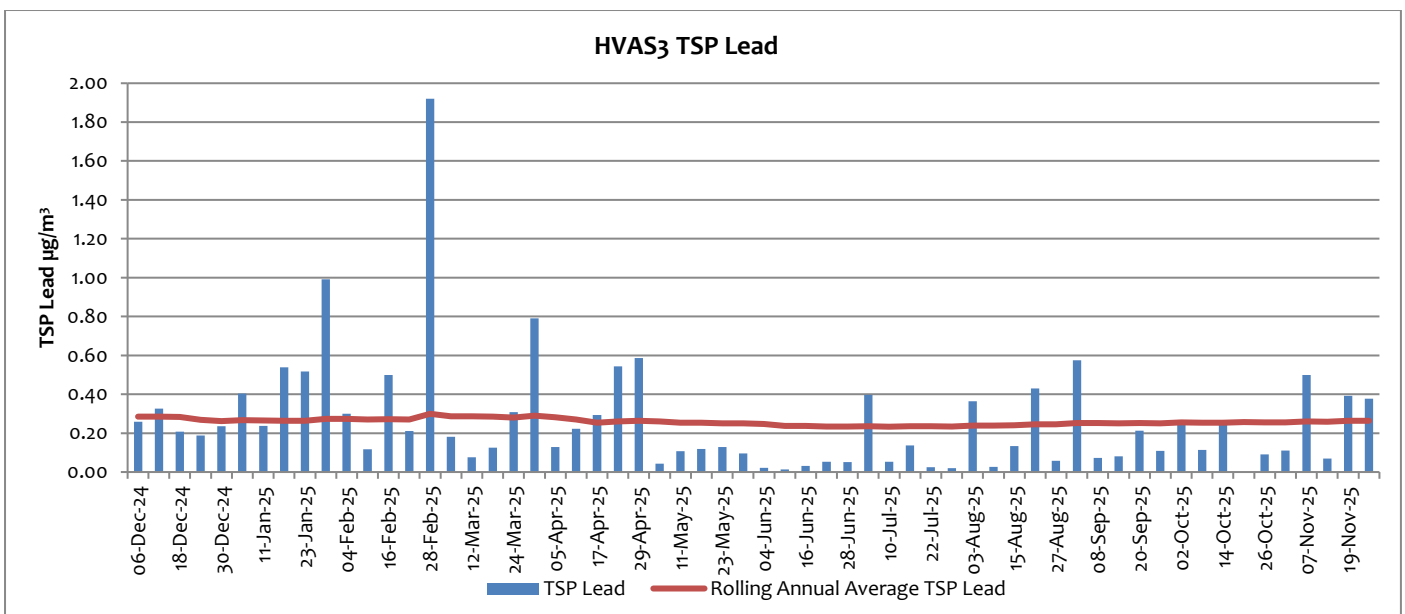


Figure 9: Lead in HVAS03 TSP measurements 12-month overview

TSP Lead levels in November were higher than those from previous month (see figure 9 above). The highest value observed during this period was observed on 7 November. The weather conditions on that day suggest contribution from both on-site and off-site sources. The rolling annual average for TSP Lead in November was $0.26 \mu\text{g}/\text{m}^3$, slightly down from $0.29 \mu\text{g}/\text{m}^3$ in November 2024. The surface of Blackwoods TSF2 is treated with dust suppressant and the TSF spray system has been installed.

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 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 at TEOM1 and TEOM2, with two criteria listed for PM_{10} , a 24-hour average criteria of $50 \mu\text{g}/\text{m}^3$ and an annual average criteria of $25 \mu\text{g}/\text{m}^3$. 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 10 below.

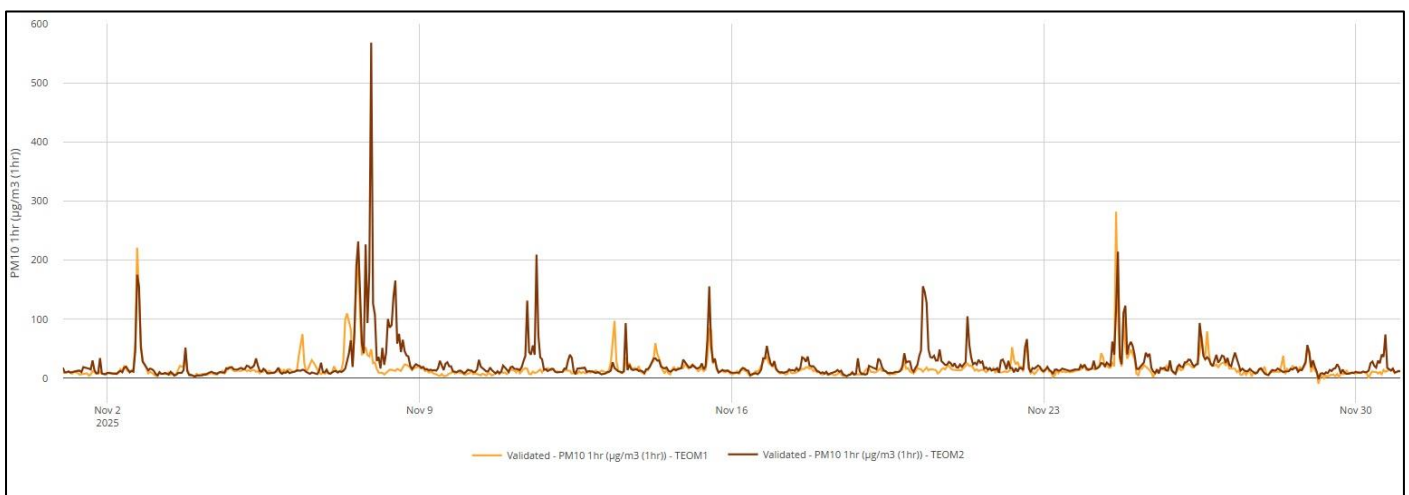


Figure 10: TEOM1 and TEOM2-Raw validated hourly-averaged PM_{10} concentrations

PM_{10} concentrations exceeded $200 \mu\text{g}/\text{m}^3$ during four episodes in this month: on 2, 7, 11 and 24.

On 2 November, PM_{10} monitors from both sites measured elevated PM_{10} concentrations, reaching a maximum of $221.1 \mu\text{g}/\text{m}^3$ at Site 1 at 4:00pm. Figure 11 below shows in more details the measurements obtained on that day. The wind rose shows wind sensor data measured during that day, with winds blowing predominantly from the west and occasionally strongly from the WNW. Windspeeds measured by the onsite weather station registered a

maximum hourly wind speed of 53.3km/h at 4:00PM. Both sites were almost equally affected, indicating that the dust associated with the episode likely originated from a regional dust event.

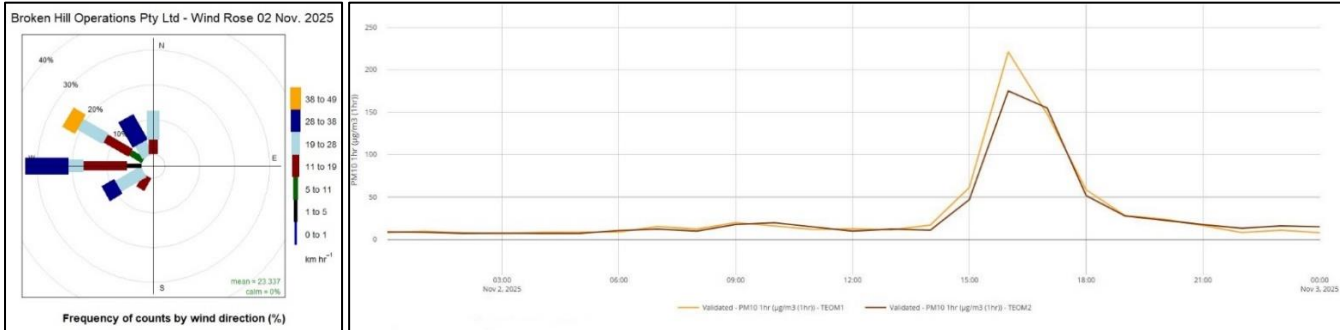
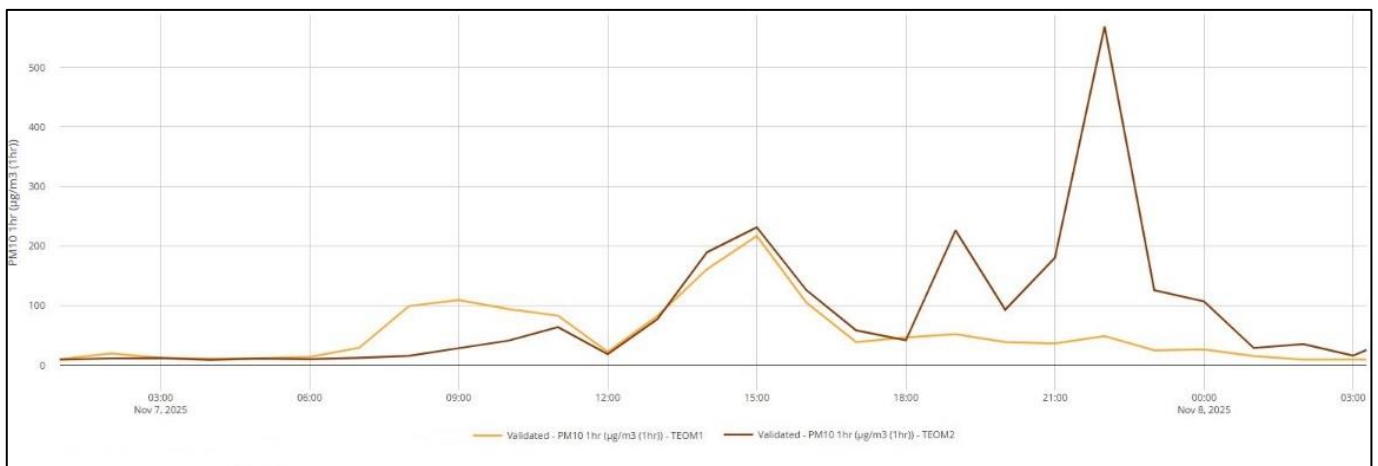


Figure 11: TEOM and wind sensor measurements on 02 November

A similar episode took place on 7 November, starting in the morning and ending at 6:00pm. The maximum measured PM₁₀ concentrations during this period were 217.2 and 231.5µg/m³ at sites 1 and 2 respectively, at 3:00pm. At that time, the wind speed reached a maximum of 62.5km/h and originated from NNW. The wind rose on left in figure 13b displays the origin and force of the wind between 7:00am and 6:00pm. The dust origin is therefore likely to be offsite.

As shown by the wind rose on the bottom-right of figure 12 below, winds changed direction after 6:00pm but kept on blowing with relatively high speeds. Although the southerly winds brought some off-site dust measured by TEOM1, most of it had an onsite origin. The PM₁₀ concentration measured at site 2 reached a maximum of 568.3µg/m³ at 10:00pm. Based on this assessment, data were corrected and the 24-hour average PM₁₀ concentration for 7 November remained below the 50µg/m³ limit.



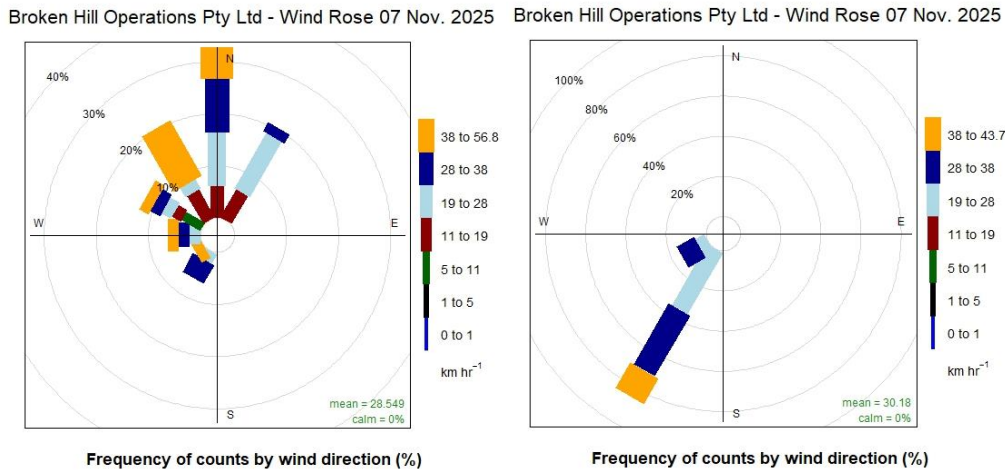


Figure 12: TEOM and wind sensor measurements on 7 November

As shown on figure 13 below, the episode on 11 November occurred while winds were predominantly blowing from the south, with speeds ranging mostly between moderate to fresh breeze. Site 2 recorded elevated PM10 concentrations during most business hours, indicating a potential onsite origin of the dust.

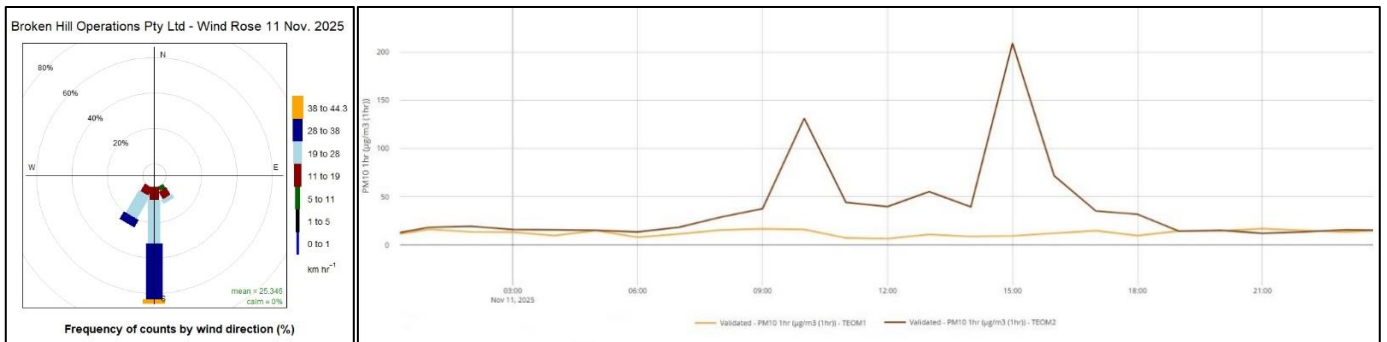


Figure 13: TEOM and wind sensor measurements on 11 November

Elevated PM10 concentrations were measured by both site 1 and 2 on 24 November. Figure 14 below shows a wind rose on the left, generated with wind directions and wind speeds recorded between 12:00am and 10:00pm on that day. The graph on the right displays PM10 concentrations from both sites over the same period. PM10 levels at both sites followed the same pattern for most of the day, with winds predominantly blowing from the north. The dust measured on that day is most likely of off-site origin.

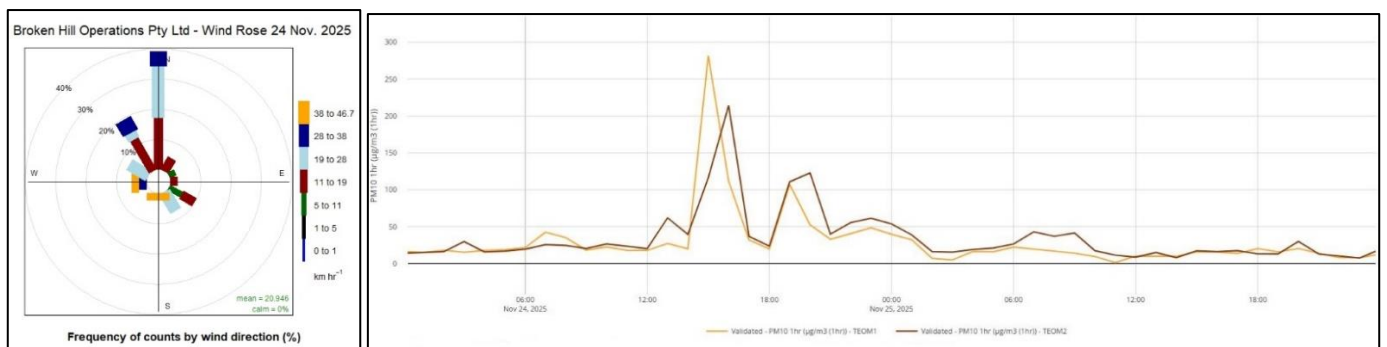


Figure 14: TEOM and wind sensor measurements on 24 November

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

Particulate Matter <10 Microns 24Hr Average				
Date	TEOM 1 (µg/m ³)	Compliant with 50µg/m ³ 24hr average?	TEOM 2 (µg/m ³)	Compliant with 50µg/m ³ 24hr average?
1/11/2025	8.4	Y	13.3	Y
2/11/2025	11.4	Y	9.4	Y
3/11/2025	8.5	Y	9.1	Y
4/11/2025	9.9	Y	11.0	Y
5/11/2025	11.9	Y	14.4	Y
6/11/2025	19.7	Y	11.2	Y
7/11/2025	14.5	Y	47.4	Y
8/11/2025	4.3	Y	42.1	Y
9/11/2025	8.7	Y	15.9	Y
10/11/2025	7.5	Y	13.9	Y
11/11/2025	7.4	Y	33.3	Y
12/11/2025	10.5	Y	15.0	Y
13/11/2025	18.9	Y	12.4	Y
14/11/2025	19.7	Y	19.8	Y
15/11/2025	13.2	Y	15	Y
16/11/2025	13.9	Y	16	Y
17/11/2025	11.8	Y	16.9	Y
18/11/2025	6.8	Y	9.4	Y
19/11/2025	12.5	Y	17.8	Y
20/11/2025	11.2	Y	40.4	Y
21/11/2025	13.1	Y	23.8	Y
22/11/2025	19.3	Y	21.4	Y
23/11/2025	12.4	Y	14.9	Y
24/11/2025	19.9	Y	18.2	Y
25/11/2025	13.9	Y	19.8	Y
26/11/2025	19	Y	21.8	Y
27/11/2025	13.2	Y	19.3	Y
28/11/2025	14.1	Y	13.1	Y
29/11/2025	6.5	Y	11.9	Y
30/11/2025	10.1	Y	19.8	Y

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

The data capture rate for the TEOM1 and TEOM2 monitors in November were 99.8% and 99.3%, respectively . Both instruments went through an annual maintenance in July that includes a 72hr zero-filter test. No dust data was collected at these units during this period of maintenance.

The rolling annual average for PM₁₀ at TEOM1 with external dust events and invalid data removed for the period November 2024 to November 2025 is 12.7 µg/m³, similar to the rolling annual average of 12.7 µg/m³ 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 November 2024 to November 2025 is 14.6 µg/m³, higher than the rolling annual average of 13.2 µg/m³ at the beginning of the reporting period.

Data collected for the 2, 7, 11 and 24 November have been corrected due to the impact from dust storms and external events, with some impact on final dataset.

As mentioned above, annual servicing took place between 8 July and 11 July. A portable PM₁₀ 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 4 April, as well as on 9 October and 29 October.

As shown on figure 16 below, the PM₁₀ 24-hour rolling annual average for both TEOM sites remain well below the annual average criteria of 25 ug/m³.

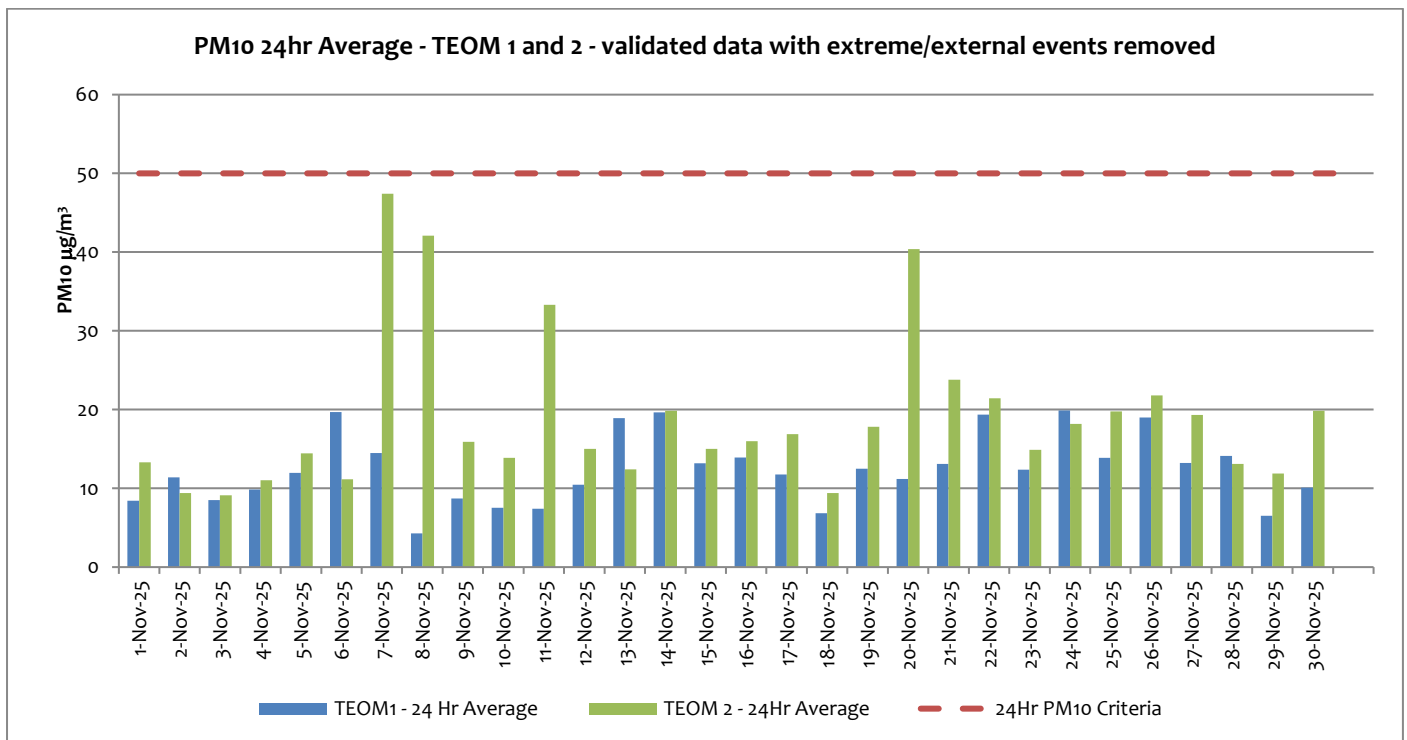


Figure 15: Site 1 and site 2 PM10 24-hour averaged measurements

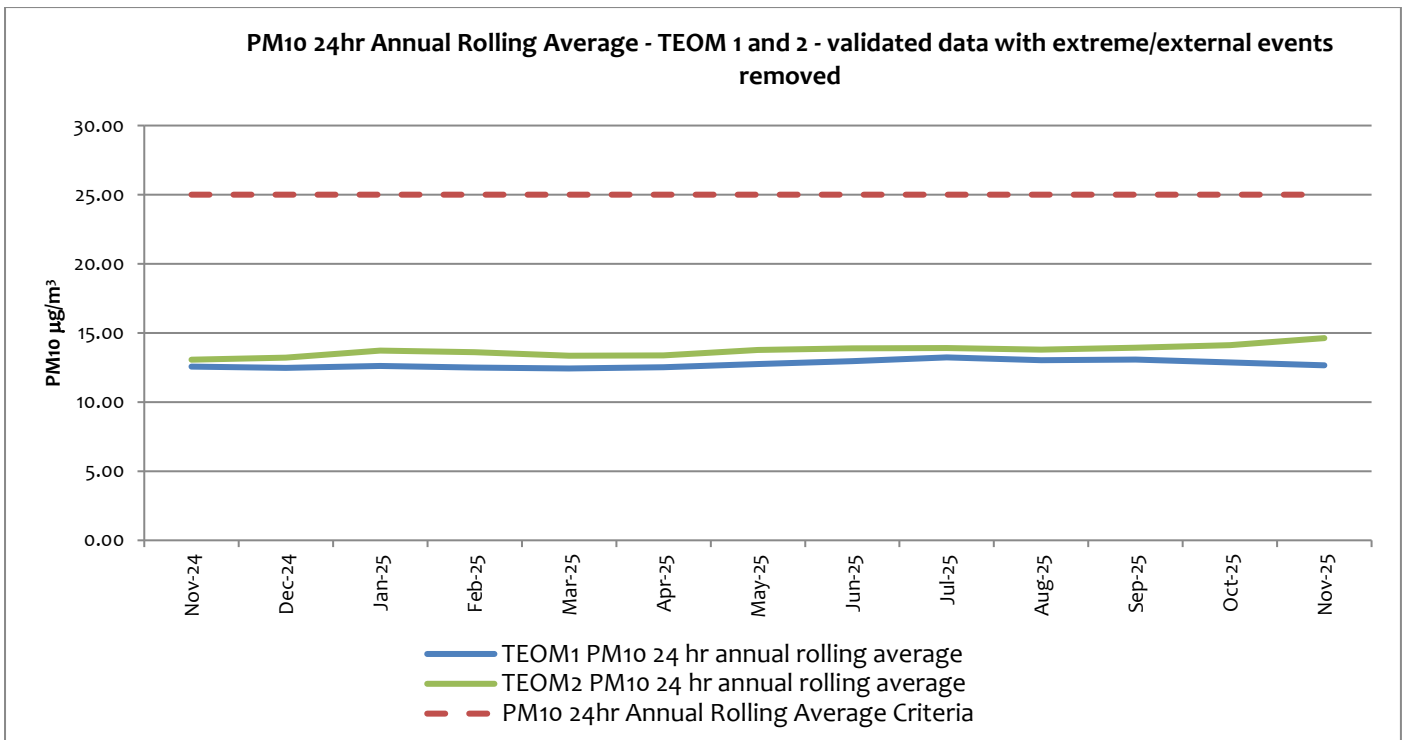


Figure 16: Sites 1 & 2 - Annual rolling average PM10 measurements 12-month overview

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 in the Appendix. 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 November 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)
November 2025	1.2	0.8	1	1.9	4.1	2.7	0.6
Annual Rolling Average	0.94	1.30	1.09	2.54	2.83	1.86	1.03
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

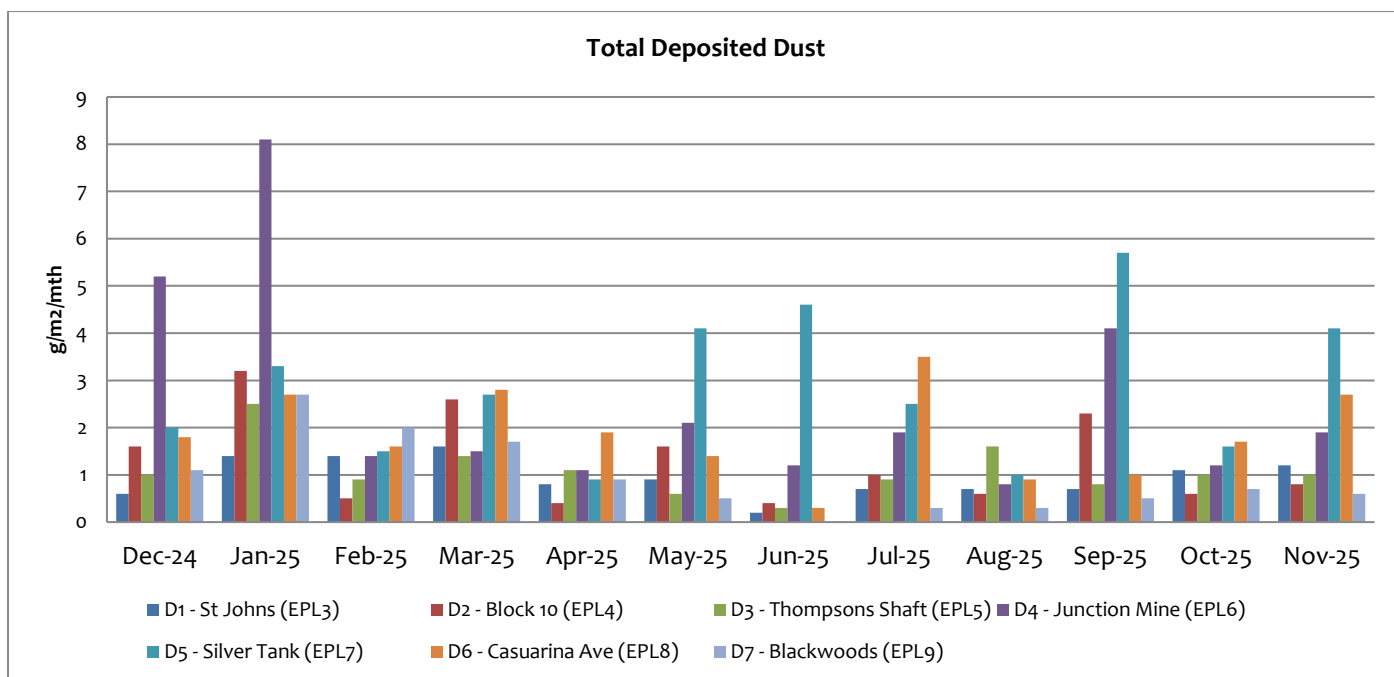


Figure 17: Total deposited dust collected by 7 dust gauges - 12-month overview

Dust levels recorded by the Dust Gauges in November 2025 were quite heterogenous compared to the results from the previous month. The highest dust levels in November were recorded in the D5 Silver Tank gauge. Results from D4 and D6 also stood out with noticeably higher values, while all other gauges collected monthly surface dust concentrations below or close to 1 g/m².month. D1, D5 and D6 exceeded their respective 12-month rolling averages, whereas the remaining sites recorded concentrations below theirs.

Dust Deposition Gauges that are located off-site must adhere to criteria for annually averaged deposited dust of 4 g/m².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/m².Month)

Sample Period	D1 (off Site)	D2 (on site)	D3 (on site)	D4 (on site)	D5 (on site)	D6 (off Site)	D7 (on site)
November 2025	0.0037	0.0008	0.004	0.005	0.0168	0.0024	0.0022
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 November 2025 were on average higher compared to the previous month. All Lead levels remained below the background levels recorded in 2010, except for D1. D5 Silver Tank sampled the maximum value for this month, with monthly surface concentration of 0.0168 g/m².month. D5 has consistently collected significantly more lead than the other gauges over the past six months, with the exception of August, when D3 recorded the highest value.

The confirmed high value recorded at D7 Blackwoods in February (0.0819 g/m².month) is not displayed properly on figure 18 below due to the choice of y-axis scale, more suitable for the dataset.

As shown in the Wind Rose in Section 4 (figure 19), winds blew most frequently from southerly directions. The strongest winds blew from the South and SSW directions. Given the locations of D5 (see appendix 1), the source of Lead for D5 dust gauge is likely partially off-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.

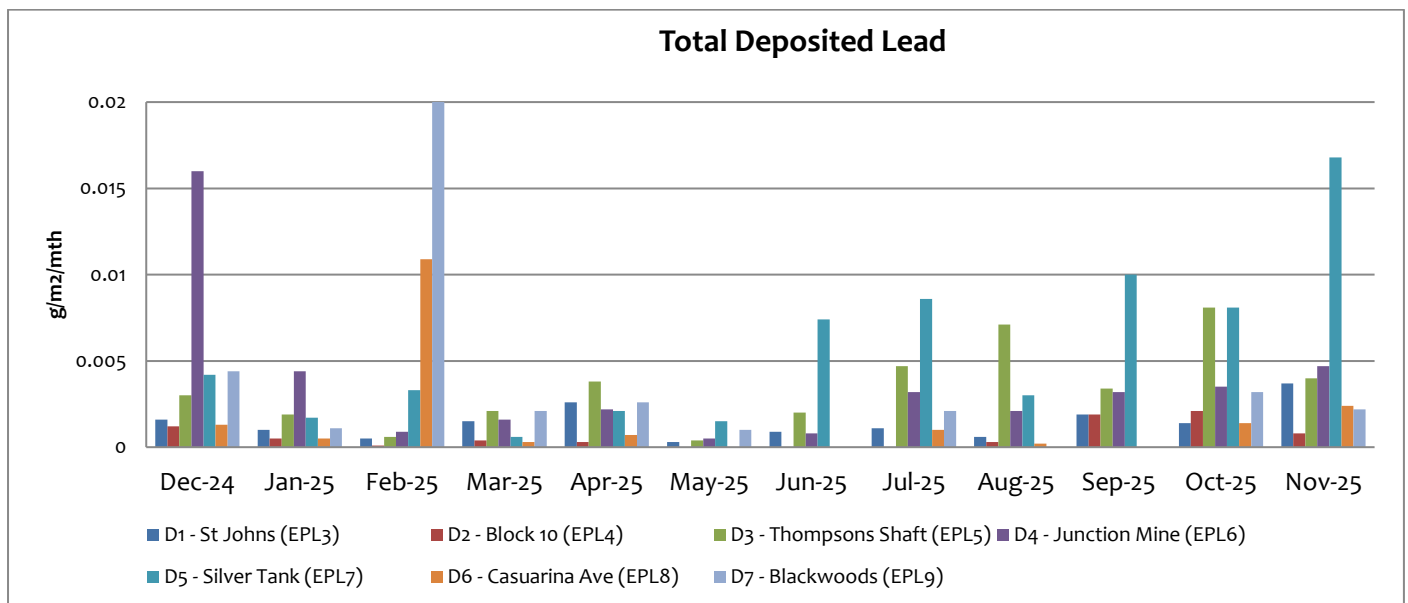


Figure 18: Lead deposited dust collected by 7 dust gauges - 12-month overview

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 2¹	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 September 2025

The latest round of quarterly emissions monitoring was conducted at the Primary Vent Shaft (EPL1) and the Crusher Baghouse (EPL2) on 23 and 24 September 2025. Results were within limits and are provided below.

Parameter	Unit	Primary Vent Shaft (EPL1)	Crusher Baghouse (EPL2)
Dry Gas Density	kg/Nm ³	1.3	1.3
Moisture	%	1.5	1.8
Molecular weight of stack gases	g/Nm ³	1,288	1,288
Temperature	°C	24.0	15.0
Nitrogen Oxides	mg/Nm ³	<2.05	N.A
Volatile Organic Compounds	mg/m ³	<0.43	NA
Total Suspended particles	mg/Nm ³	2.78	13.8
Type 1 and Type 2	mg/Nm ³	0.04	0.47
Velocity	m/sec	12.1	22.2
Volumetric Flowrate	Nm ³ /sec	227	11

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, Italo (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 November 2025 (annual period)

Total Blasts:

- 0 production blasts occurred before 6.45 am or after 7.15 pm
- The number of Production blasts averaged 1.1 per week over the previous calendar year
- The number of Development blasts averaged 20.6 per week over the previous calendar year

Western Mineralisation and Main Lodes (excluding Block 7):

- 3 Blasts 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 = 5.3%

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 = 0%

There have been three production blasts in the Western Mineralisation and Main Lodes producing vibration at monitors over 5 mm/sec for the 12-month period from 1 January 2025 to 31 December 2025. This result is an exceedance of the 5% limit for blasts to record results over 5mm/s for a 12-month period. This exceedance has been reported to regulators.

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.

Annual monitoring was conducted again in December 2025 and BHO are awaiting the final report.

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 (SO ₄), 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 November 2025

Sample Point	pH	EC (µS/cm ²)	TDS (mg/l)	Alkalinity (CaCO ₃) (mg/l)	SO ₄ (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)														
Kintore Pit (EPL54)	6.14	13300	15800	6	5840	1770	492	377	1820	2.99	2.25	407	1040	<0.05

Groundwater Bores (EPL37 - EPL52) Results for November 2025

No groundwater samples were collected in November.

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	
Ryan Street Dam EPL31/S49	2 x per year, six months apart	cadmium (Cd), chloride (Cl), electrical conductivity (EC), lead Pb), manganese (Mn), pH, sodium (Na), sulphate (SO ₄), total dissolved solids (TDS) and zinc (Zn)
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 November 2025

No surface water samples were collected in November.

4 Weather Data

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

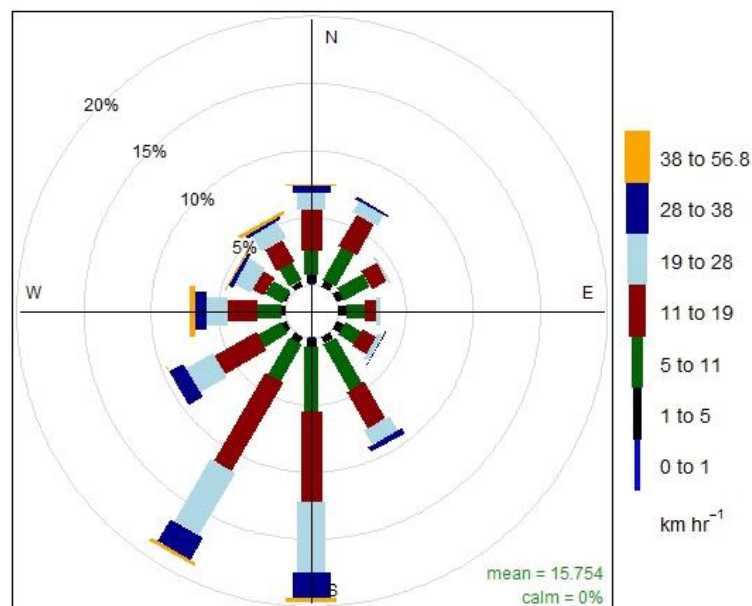
The following parameters are required to be recorded each month as listed in the EPL 12559:

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 dominant wind directions for the month of November were from South and SSW, with frequencies reaching almost 40%. The most usual wind speed during this month fell within the category of gentle breeze (12 to 19 km/h). Higher wind speeds were measured with S to SW origins mostly, reaching occasionally strong breeze to near gale levels (38 to 61km/h). The maximum wind speed measured by the onsite wind sensor was 62.5 km/h on 7 November, with predominant wind direction from NNW.

BHO Pty Ltd - Wind Rose November 2025



Frequency of counts by wind direction (%)

Figure 19: Wind rose for November 2025

Weather Data Summary for November 2025

Date	Temperature @ 10m (°C)		Wind Speed @ 10m (km/hr)		Predominant Wind Direction @ 10m		Rainfall (mm)
	Min	Max	Min	Max	Cardinal	Degree	Total
1-Nov-25	15.9	29.1	1.8	32.2	S	171	0
2-Nov-25	16.3	33.7	0.3	53.3	NNW	332	0.86
3-Nov-25	10.6	18.6	1.8	46.1	WSW	254	0.03
4-Nov-25	6.3	18.8	0.9	47.1	WSW	255	0
5-Nov-25	8.9	23.7	0.4	21.1	SSW	192	0
6-Nov-25	15.9	24.6	0.4	29.6	NNE	22	0.05
7-Nov-25	18.1	34.8	0.6	62.5	NNW	327	0.1
8-Nov-25	11.3	19.8	5.7	54.2	S	189	0
9-Nov-25	8.2	20.5	2.7	36.8	S	173	0
10-Nov-25	9.9	22.9	0.2	32.8	S	188	0
11-Nov-25	12	19.4	2.4	49.3	S	185	0
12-Nov-25	10	24.2	0.6	21.5	E	92	0
13-Nov-25	16.6	26.7	0.5	32.5	N	3	0.01
14-Nov-25	18.4	31.7	0.9	41.6	N	351	0
15-Nov-25	17.6	26	0.6	51.7	WNW	284	0.05
16-Nov-25	14.2	25.2	1.4	42.5	WSW	237	0
17-Nov-25	13.4	22.3	4.9	42.6	SW	219	0
18-Nov-25	14.5	27.1	0.3	23.4	SSW	198	0
19-Nov-25	17.6	30.8	0.5	30.2	SSW	200	0
20-Nov-25	14	24.3	4.3	44.3	S	172	0
21-Nov-25	13.4	23.7	1	36.2	SE	140	0
22-Nov-25	17.9	26.7	0.3	39.7	ESE	105	0.63
23-Nov-25	16.1	36.3	1.2	27.7	ENE	62	0
24-Nov-25	26.4	38.7	1.1	57.3	N	6	0.12
25-Nov-25	21.1	32.7	2.9	41.6	SW	234	0
26-Nov-25	18.1	30.5	1.9	54.5	WSW	246	0.13
27-Nov-25	13.9	27.4	0.8	31.3	SSW	210	0
28-Nov-25	16.5	30.8	0.7	36.1	W	270	0.52
29-Nov-25	13.7	22.6	1.2	40.6	SSW	210	0.69
30-Nov-25	13	22	1.7	42.4	SW	217	0.42

There was a total rainfall of 3.61 mm in November 2025.

5 Data Log

Sample	Result Received
Hi-Volume Samples	09-12-2025
TEOM	30-12-2025
Dust Deposition	24-12-2025
Vents & Bag House	27-10-2025
Noise	09-04-2025
Water	25-11-2025
Blast vibration and overpressure	01-12-2025
Weather	01-12-2025
Date posted to web site	20-01-2026

6 Correction Log

The samples collected by High Volume Air Samplers HVAS2 (PM10) and HVAS3 (TSP) on 20.10.2025 were wrongly reported in last monthly environmental website report. These measurements did not comply with AS/NZS 3580.9.6:2015 and AS/NZS 3580.9.3:2015 as the required sampling time of 24 ±1 hours was not achieved for these samples.

7 Appendix 1 – Monitoring Locations

