

PEAK MONTHLY ENVIRONMENTAL MONITORING  
SUMMARY SEPTEMBER 2022

TECHNICAL  
REPORT



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## 1. Intent

This monthly environmental summary 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 Peak Gold Mine's (PGM's) environmental performance and to maintain a transparent and accountable reporting system.

## 2. Scope

This report covers all PGMs environmental monitoring conditions covered for September 2022. These conditions, where applicable, are measured against PGMs Environment Protection Licence (EPL 3596), development consent conditions and Australian Standard to determine PGMs compliance.

These conditions include;

- Weather Conditions
- Surface Water Monitoring results
- Noise Monitoring results
- Air Quality Monitoring results
- Blasting monitoring results
- Haulage Movements

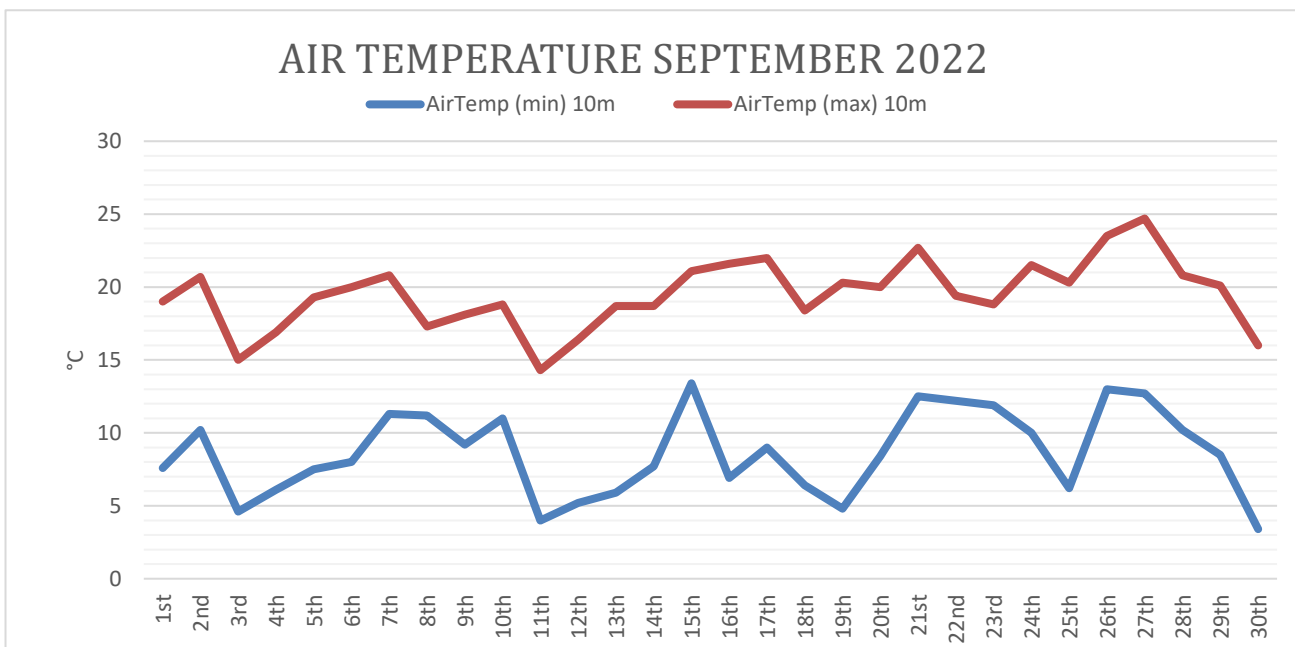
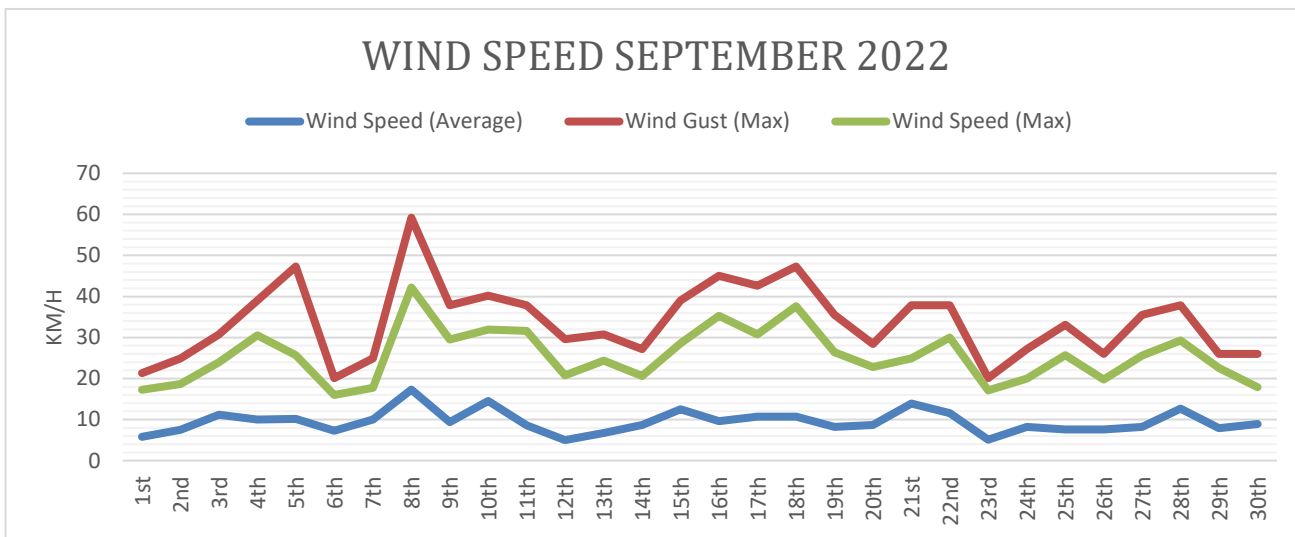
## 3. Definitions

Term	Definition
mm/s	The peak of the vibration in millimetres 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 metre per month
dB (L)	Decibel (linear maximum)
dB LAeq (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

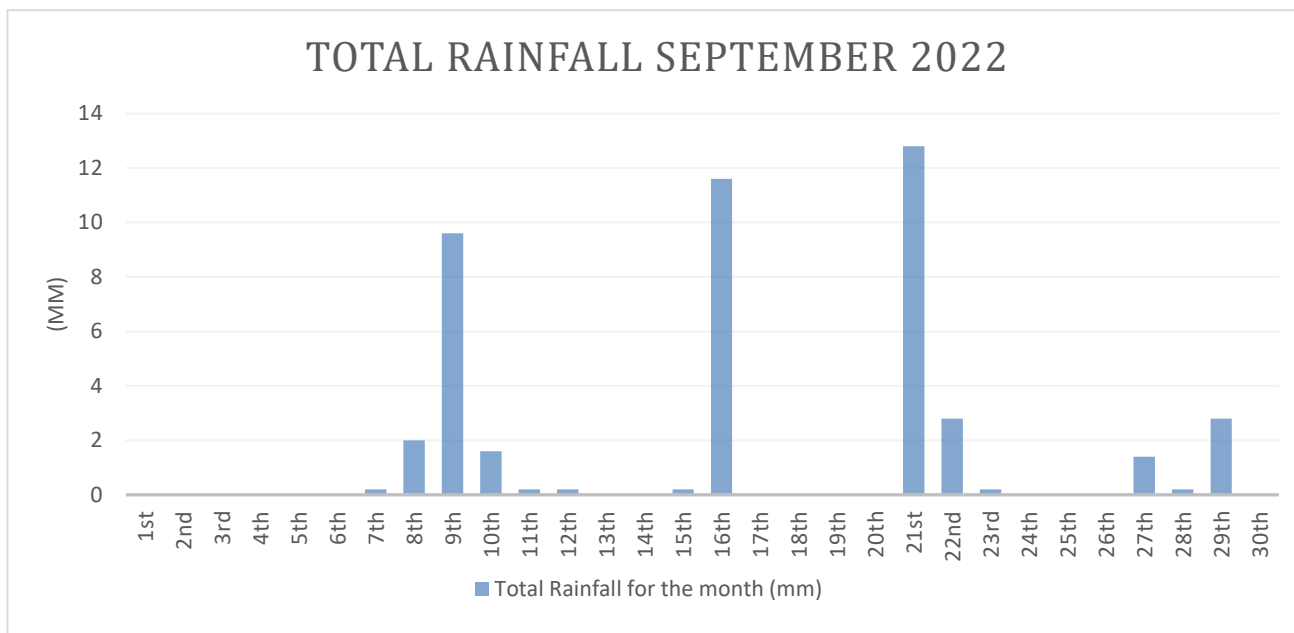
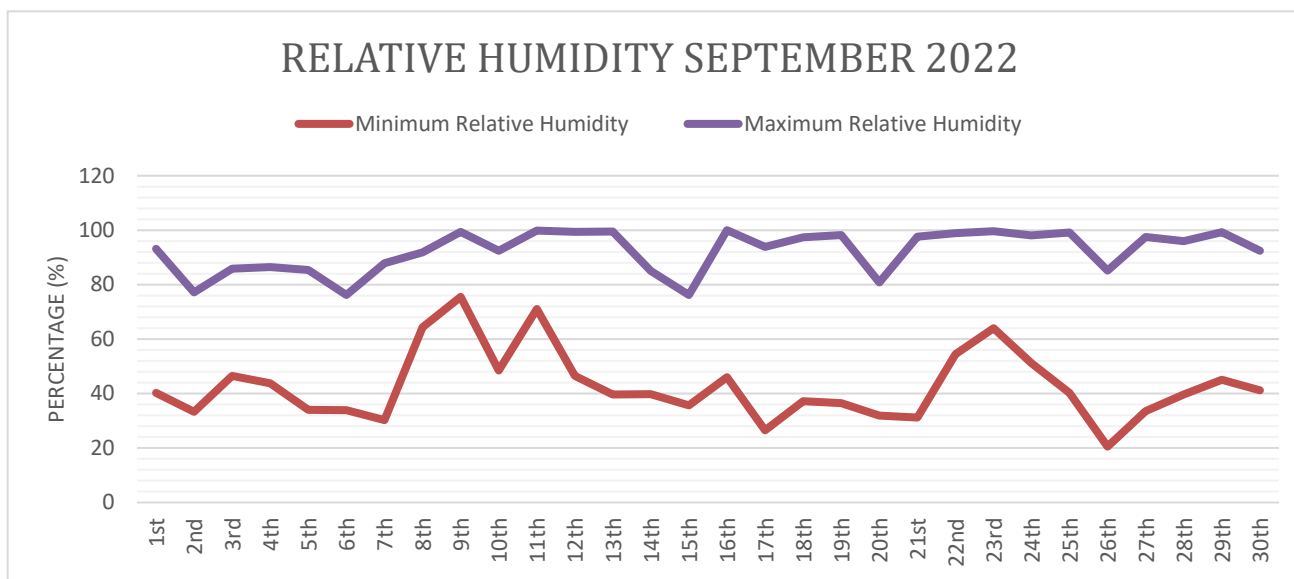
## 4. Monitoring Results

### 4.1 Weather

The meteorology monitoring data is acquired through PGM’s weather station located 2km South of Cobar. The BOM website can also be used as an alternate source for this monitoring data.



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Graphs 1-4: Summary of meteorological data for September 2022

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## 4.2 Surface Water

Surface 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. Table 1 gives the results as per the PGM EPL requirements.

Table 1: Surface Water monitoring results (\*No monitoring required)

Location	Sampled	Received	Published	Limit	WAD CN (mg/L)	CN Free (mg/L)	TSS (mg/L)	Oil & Grease
Recycled Water Dam	7/09/2022	04/10/2022	07/10/2022	No Limit	0.010	0.009	14	*
Raw Water Tank	7/09/2022	04/10/2022	07/10/2022	No Limit	<0.004	<0.004	32	*
Spain's Dam	7/09/2022	04/10/2022	07/10/2022	No Limit	*	*	6	<5
Decant Dam	7/09/2022	04/10/2022	07/10/2022	No Limit	<0.040	<0.040	31	*

## 4.3 Noise Monitoring

A hand-held monitor is used by PGM employees to monitor noise levels at times set out by the EPL and development consent conditions. Noise monitoring is conducted at the closest resident (Figure 1) and sporadically depending on operational requirements. PGMs closest monitoring point is located at the Dellavale boundary, approximately 400m closer to the mine noise than the residence. To determine the noise level (dB) experienced at the residence, sound intensity  $I$  and the inverse square law  $1/r^2$  is calculated based on the residences distance from mine noise source.

Noise monitoring results are below in Table 3. Licenced noise limits set by the EPL and development consent conditions are given in Table 2.

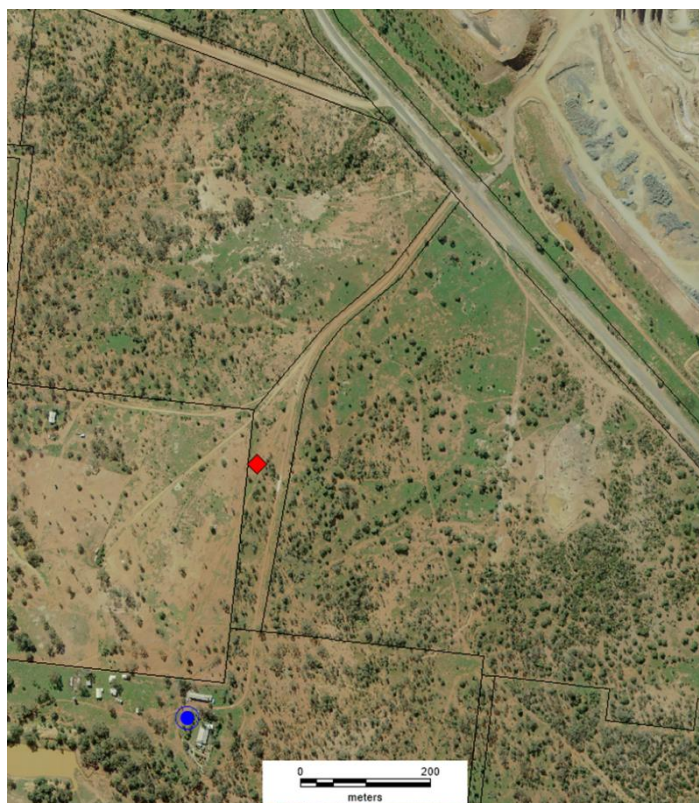


Figure 1: Location of the "Dellavale" properties house (blue circle) and noise monitoring location (red diamond).

Table 2: Noise Monitoring levels

Time Band	Day	Noise Level (dB)
7:00am – 6:00pm	Mon – Fri	45
6:00pm – 10:00pm	Mon – Fri	40
10:00pm – 7:00am	Mon – Fri	35
7:00am – 1:00pm	Sat	45
1.00pm – 7:00am	Sat	35
12:00am – 12:00pm	Sun	35

Table 3: Attended Noise Monitoring Results

Location	Sampled & Obtained	Published	Time	LA 10 (dB) Limit	LA 10 (dB) Monitoring Result at Monitor Location	LA 10 (dB) Calculated Monitoring Result at Residence	Key Noise Source	Complies
Dellavale	27/09/2022	29/09/2022	7.30am	45	48.8	44.8	Birds chirping	Yes**

\* Data Invalid due to high wind speed i.e. 3.28-3.55m/s. This is higher than allowable EPL limit of 3m/s.

\*\* It complies due to noise not being emitted by PGM

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## 4.4 Air Quality

Fall out dust deposition bottles are currently used to monitor air quality. The bottles are positioned in the field (Figure 2) for a period of  $30 \pm 2$  days. Monitoring is required to be undertaken quarterly however, we conduct monthly monitoring. The bottles are then sent to Australian Laboratory Services (ALS) for external analysis.

PGM has no set limits for air quality monitoring levels. However, PGM takes on board the EPA's best practice limit of  $4\text{g}/\text{m}^2/\text{time}$  (limit is applicable to a 12-month averaging period). If the 12-month rolling average of a result is greater than  $4\text{g}/\text{m}^2/\text{time}$ , the cause will be investigated.



Figure 2: Location of dust gauges on PGM Mining Leases

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Table 4: Air Quality Results

Site	Location	Sampled	Received	Published	Australian Standard Limit (g/m <sup>2</sup> /month)	Insoluble Solids (g/m <sup>2</sup> /month)	Total Lead (g/m <sup>2</sup> /month)	Complies
<b>DM1</b>	NW corner of tailings dam	02/09/23 - 03/10/23	03/01/23	20/01/23	4	0.5	0.000648	Yes
<b>DM2</b>	SW corner of tailings dam	02/09/23 - 03/10/23	03/01/23	20/01/23	4	0.5	0.00138	Yes
<b>DM3</b>	Carpark	02/09/23 - 03/10/23	03/01/23	20/01/23	4	0.8	0.0118	Yes
<b>DM4</b>	NE corner of PGM magazine	02/09/23 - 03/10/23	03/01/23	20/01/23	4	0.8	0.00162	Yes
<b>Dellavale</b>	1.3km ESE of New Cobar	02/09/23 - 03/10/23	03/01/23	20/01/23	4	0.5	0.000660	Yes
<b>Bimbimbie</b>	1.2km SW of New Cobar	02/09/23 - 03/10/23	03/01/23	20/01/23	4	1.2	0.000284	Yes

## 4.5 Blast Monitoring

The vibration monitoring results displayed in Table 6 represents all blast vibration events that were triggered at the New Occidental, Fort Bourke and/or Dellavale monitors (Figure 3).

As seen in Table 6 blasting events for the month were below PGMs EPL limits. Vibration limits set by the NSW Environmental Protection Authority (EPA) can be viewed in Table 5.

The compliance against the overall 12-month period will be reported in the EPL Annual Return.



Figure 3: Location of Vibration Monitors on PGM's Mining Lease

Table 5: PGM EPL Limits

Peak Particle Velocity (mm/s)	Allowable Exceedance
5.00	<5% of the total number of blasts in a 12-month period are to be above 5mm/s
10.00	NIL

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Table 6: Vibration Results

Location	Sampled & Received	ID	New Occidental (mm/s)	Fort Bourke (mm/s)	Dellavale (mm/s)	Complies
Peak	02-09-22	CRS 9405 765 505	No Trigger	No Trigger	No Trigger	Yes
Peak	03-09-22	S4U 9131 725 450	No Trigger	No Trigger	No Trigger	Yes
Peak	04-09-22	PVD 8750 NTH 880	No Trigger	No Trigger	No Trigger	Yes
New Cobar	13-09-22	JUB_21_NTH_605	No Trigger	No Trigger	No Trigger	Yes
New Cobar	15-09-22	JUB_21_NTH_605	No Trigger	1.49	No Trigger	Yes
New Cobar	17-09-22	JUB 25 NTH 420	No Trigger	No Trigger	No Trigger	Yes
Peak	18-09-22	S4U 9131 725 450	No Trigger	No Trigger	No Trigger	Yes
Peak	18-09-22	S4U 9131 725 450	No Trigger	No Trigger	No Trigger	Yes
Peak	20-09-22	PVD 8750 NTH 880	No Trigger	No Trigger	No Trigger	Yes
Peak	21-09-22	PVD_8720_STH_565	No Trigger	No Trigger	No Trigger	Yes
Peak	24-09-22	S4U 9131 725 450	No Trigger	No Trigger	No Trigger	Yes
New Cobar	25-09-22	JUB_25_NTH_420	No Trigger	1.43	No Trigger	Yes
Peak	28-09-22	PVD 8750 STH 565	No Trigger	No Trigger	No Trigger	Yes
New Cobar	29-09-22	JUB 21 NTH 575	No Trigger	No Trigger	No Trigger	Yes

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## 4.6 Haulage Movements

PGM is required to monitor the number of truck loads undertaken from New Cobar to the Peak site as per current consent conditions. In the month of September, 750 truck loads were permitted to be delivered to Peak Gold Mine. In total, 226 truck loads were completed. Table 7 shows a summary of the trucking for the month.

Table 7: Haulage Summary

Date	Truck Loads
01-09-22	0
02-09-22	0
03-09-22	0
04-09-22	0
05-09-22	0
06-09-22	0
07-09-22	0
08-09-22	0
09-09-22	0
10-09-22	0
11-09-22	0
12-09-22	20
13-09-22	20
14-09-22	20
15-09-22	20
16-09-22	0
17-09-22	0
18-09-22	0
19-09-22	22
20-09-22	23
21-09-22	0
22-09-22	0
23-09-22	0
24-09-22	0
25-09-22	0
26-09-22	23
27-09-22	24
28-09-22	7
29-09-22	19
30-09-22	28
<b>Daily Average</b>	<b>7.5</b>