

PEAK MONTHLY ENVIRONMENTAL MONITORING  
SUMMARY JANUARY 2023

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 January 2023. 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

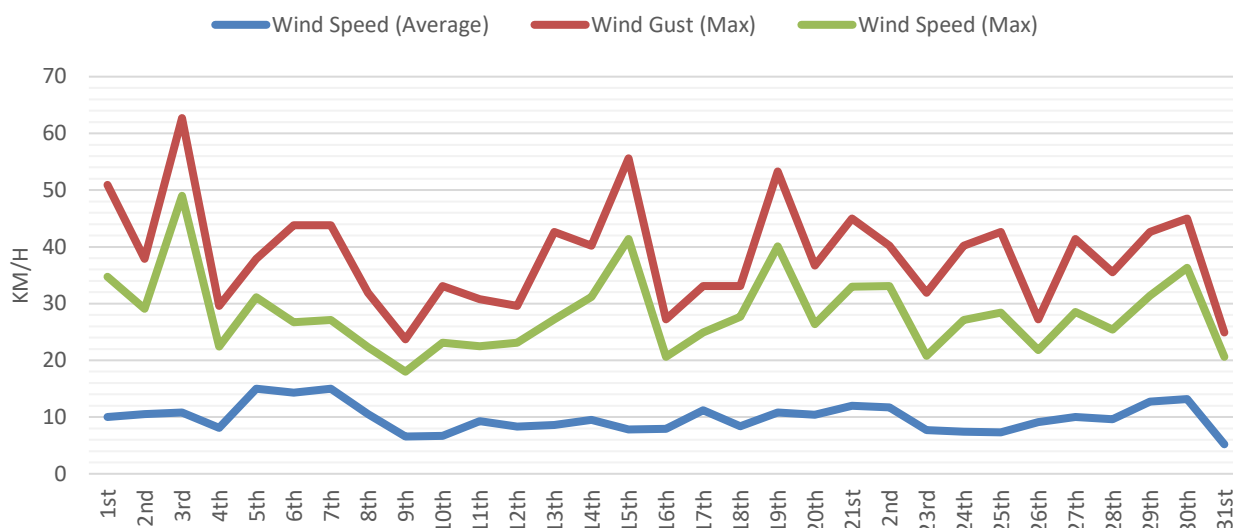
Term	Definition
mm/s	The peak of the vibration in millimetres per second
Insoluble Solids	The insoluble portion of the dust deposited in dust deposition gauge
Total Lead	Including dissolved lead in the liquid portion and the lead particulates in the filter paper following laboratory analysis
g/m <sup>2</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

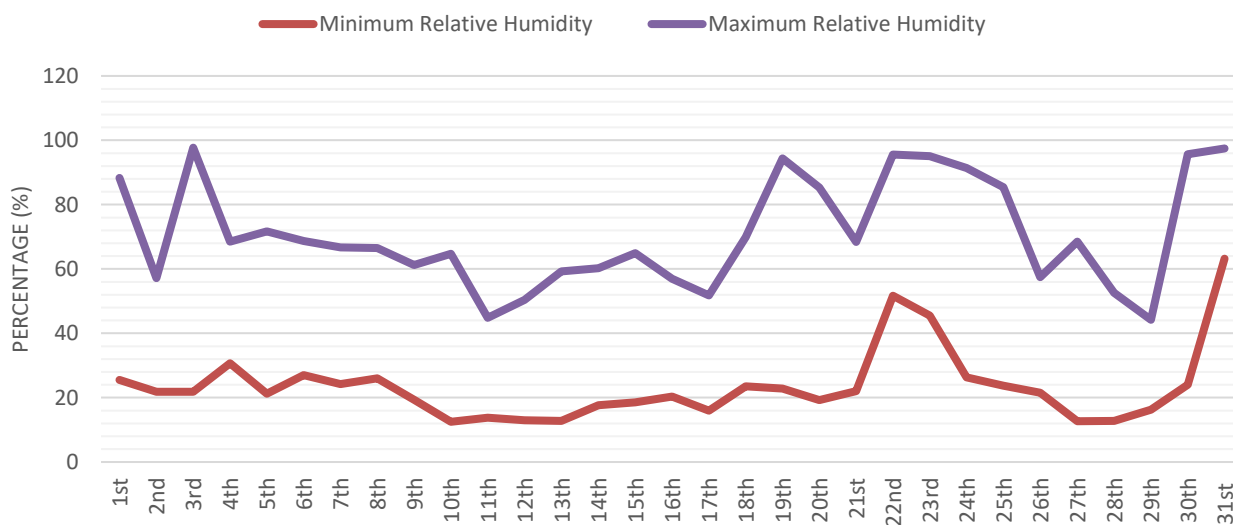
### 4.1 Weather

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.

#### WIND SPEED JANUARY 2023

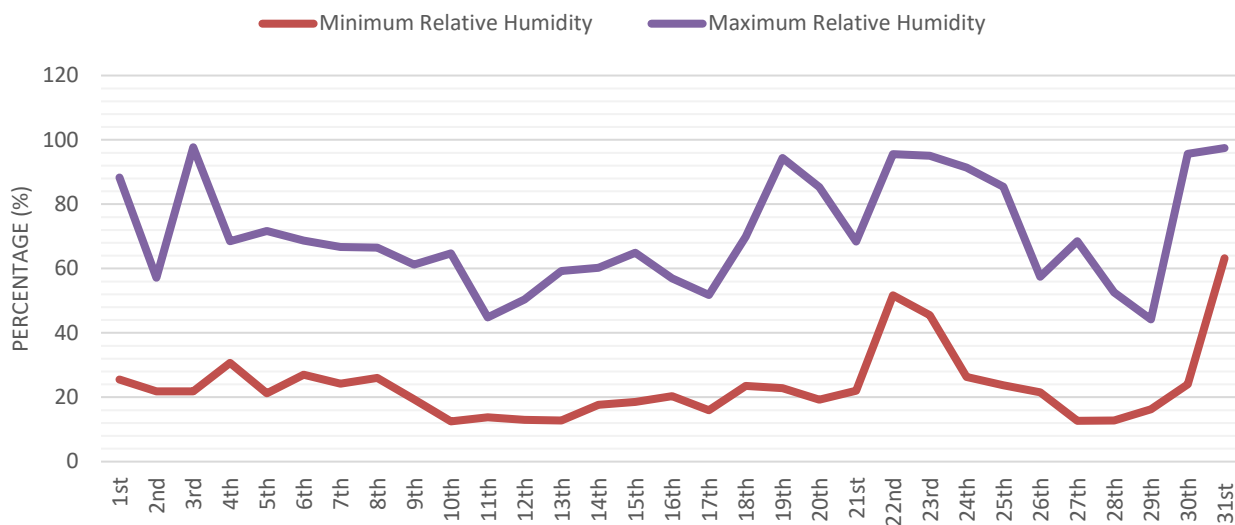


#### RELATIVE HUMIDITY JANUARY 2023

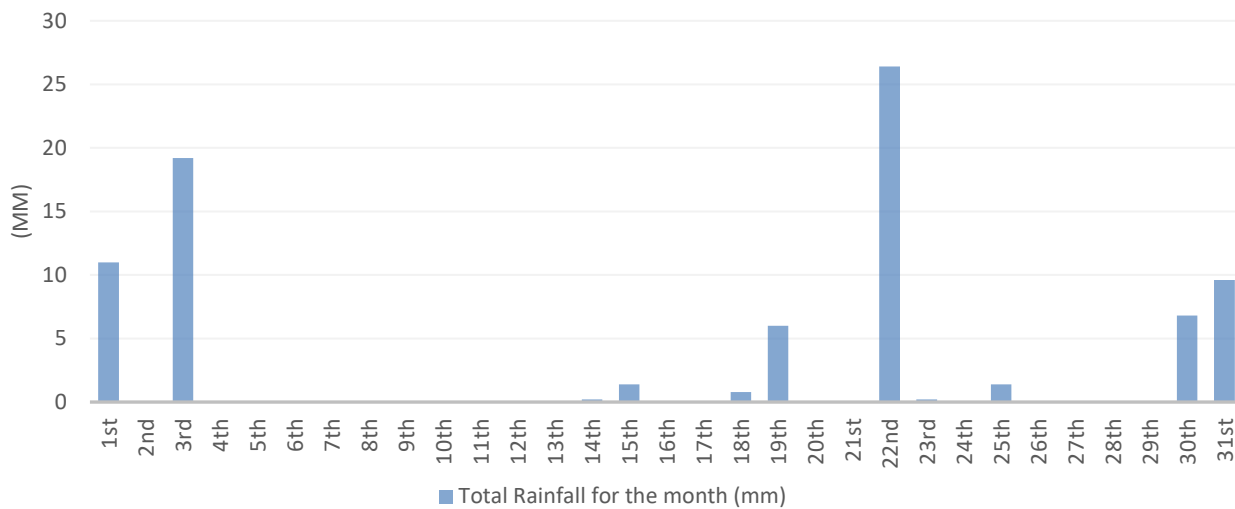


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### RELATIVE HUMIDITY JANUARY 2023



### TOTAL RAINFALL JANUARY 2023



Graphs 1-4: Summary of meteorological data for January 2023

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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	05/01/23	09/01/23	17/01/23	No Limit	0.101	0.087	<5	*
Raw Water Tank	05/01/23	09/01/23	17/01/23	No Limit	<0.004	<0.004	7	*
Spain's Dam	05/01/23	09/01/23	17/01/23	No Limit	*	*	24	6
Decant Dam	05/01/23	09/01/23	17/01/23	No Limit	0.017	0.016	<5	*

## 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 residence 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.

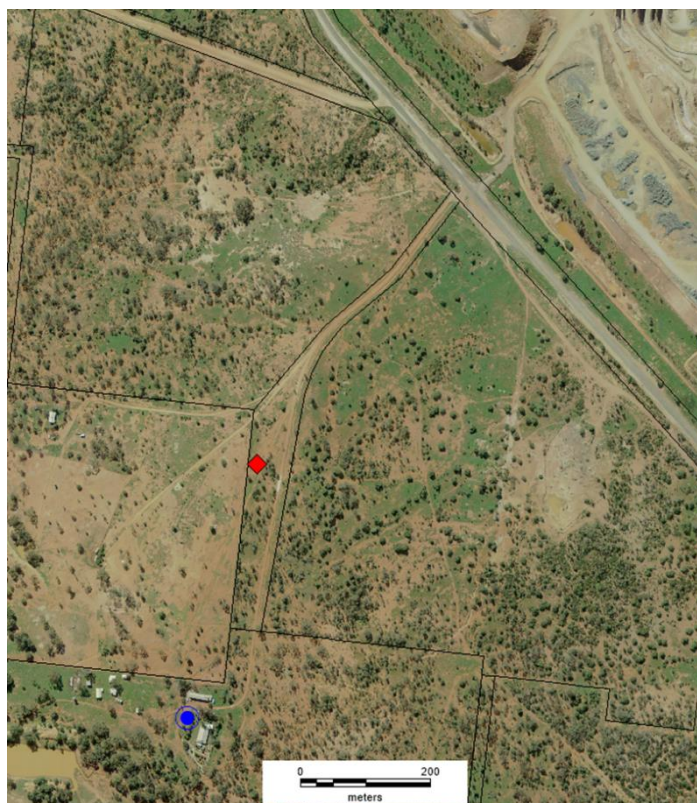


Figure 1: Location of the "Dellavale" properties house (blue circle) and noise monitoring location (red diamond).

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	10/01/23	20/01/23	10:25	45	39.6	35.62	Birds and New Cobar works	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
DM1	NW corner of tailings dam	4/01/23 – 2/02/23	7/02/23	21/02/23	4	1.1	0.000337	Yes
DM2	SW corner of tailings dam	4/01/23 – 2/02/23	7/02/23	21/02/23	4	1.4	0.00278	Yes
DM3	Carpark	4/01/23 – 2/02/23	7/02/23	21/02/23	4	1.9	0.00315	Yes
DM4	NE corner of PGM magazine	4/01/23 – 2/02/23	7/02/23	21/02/23	4	1.9	0.000836	Yes
Dellavale	1.3km ESE of New Cobar	4/01/23 – 2/02/23	7/02/23	21/02/23	4	1.6	0.000135	Yes
Bimbimbie	1.2km SW of New Cobar	4/01/23 – 2/02/23	7/02/23	21/02/23	4	1.9	0.000279	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	01-01-23	CRS_9690_795_485	No Trigger	No Trigger	No Trigger	Yes
Peak	02-01-23	KRS_1080_680_595	No Trigger	No Trigger	No Trigger	Yes
Peak	06-01-23	CRS_9405_780_505	No Trigger	No Trigger	No Trigger	Yes
Peak	12-01-23	KRS_1105_665_605	No Trigger	No Trigger	No Trigger	Yes
Peak	13-01-23	KRS_1080_680_595	No Trigger	No Trigger	No Trigger	Yes
Peak	14-01-23	KRS_1105_665_605	No Trigger	No Trigger	No Trigger	Yes
Peak	15-01-23	PVD_8720_715_870	No Trigger	No Trigger	No Trigger	Yes
Peak	18-01-23	PVD_8720_715_870	No Trigger	No Trigger	No Trigger	Yes
New Cobar	19-01-23	JUB_21_NTH_495	No Trigger	1.62	0.28	Yes
New Cobar	24-01-23	JUB_21_NTH_495	No Trigger	4.12	0.52	Yes
Peak	26-01-23	PVD_8720_STH_575	No Trigger	No Trigger	No Trigger	Yes
New Cobar	27-01-23	JUB_25_NTH_420	No Trigger	3.42	0.52	Yes
Peak	28-01-23	KRS_1080_680_595	No Trigger	No Trigger	No Trigger	Yes
Peak	31-01-23	PVD_8720_STH_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 January, 750 truck loads were permitted to be delivered to Peak Gold Mine. In total, 176 truck loads were completed. Table 7 shows a summary of the trucking for the month.

Table 7: Haulage Summary

Date	Truck Loads
01-01-23	0
02-01-23	0
03-01-23	0
04-01-23	0
05-01-23	0
06-01-23	0
07-01-23	0
08-01-23	0
09-01-23	0
10-01-23	0
11-01-23	0
12-01-23	0
13-01-23	0
14-01-23	0
15-01-23	0
16-01-23	3
17-01-23	0
18-01-23	14
19-01-23	11
20-01-23	21
21-01-23	0
22-01-23	0
23-01-23	9
24-01-23	13
25-01-23	20
26-01-23	0
27-01-23	18
28-01-23	24
29-01-23	31
30-01-23	0
31-01-23	12
<b>Daily Average</b>	<b>5.68</b>