

PEAK MONTHLY ENVIRONMENTAL MONITORING
SUMMARY JANUARY 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 of PGMs environmental monitoring conditions covered for January 2022. These conditions, where applicable, are measured against PGMs Environmental 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

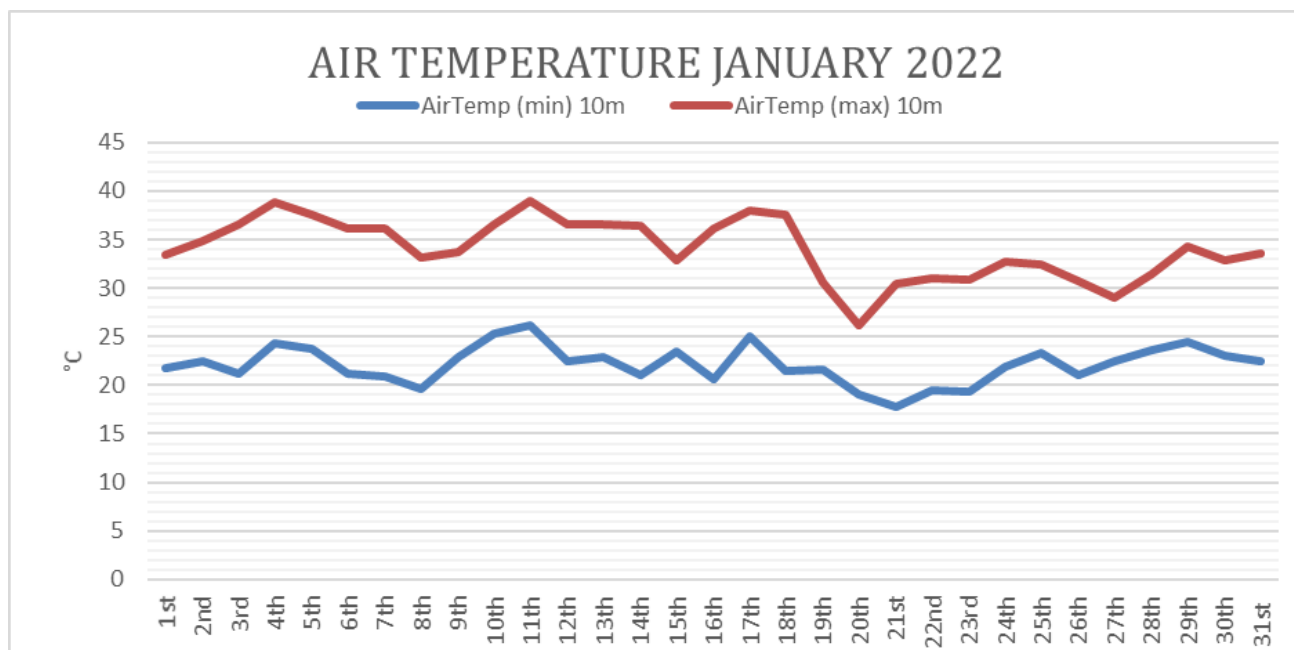
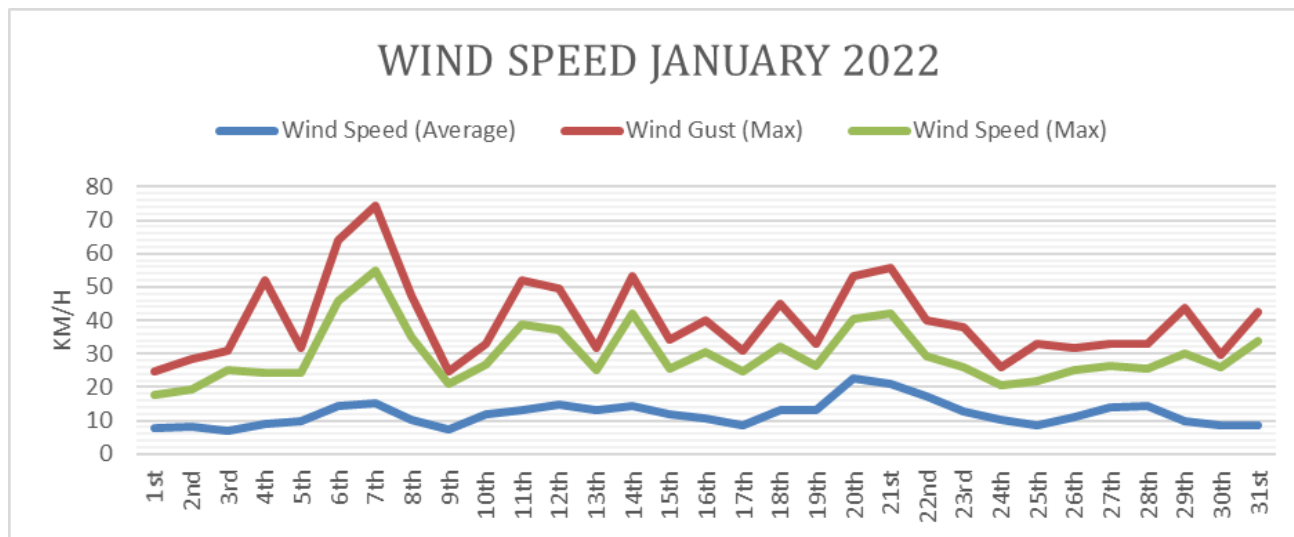
3. Definitions

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 ² /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

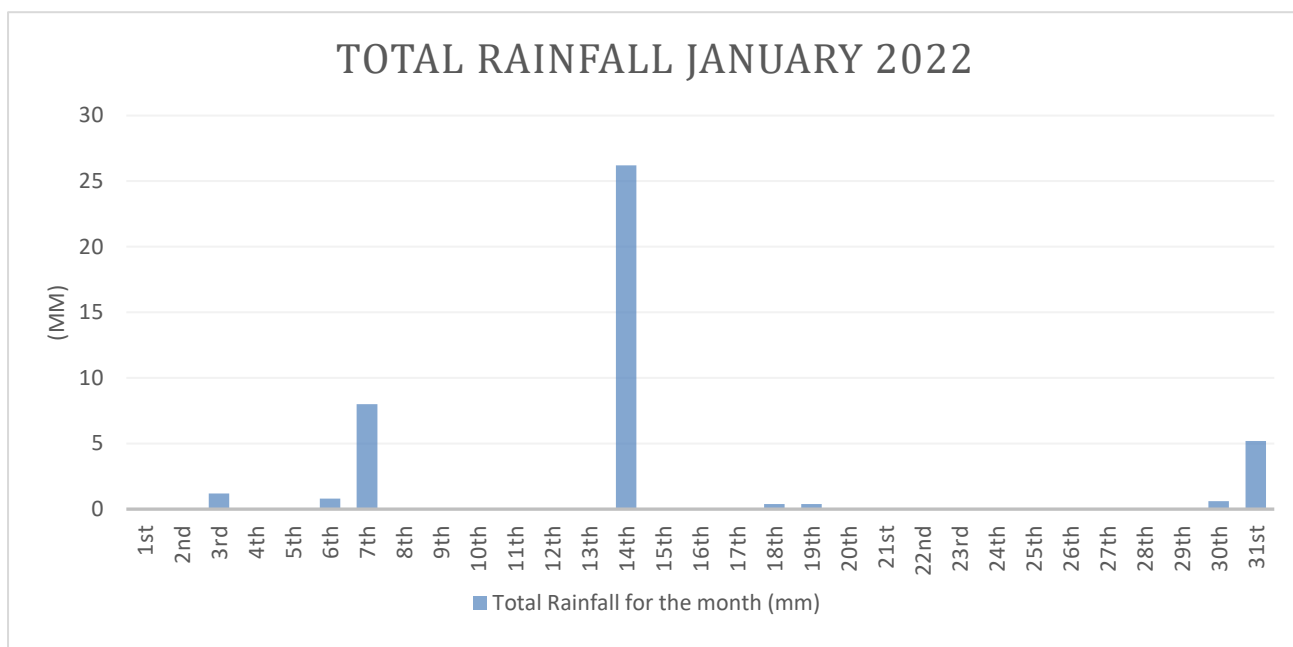
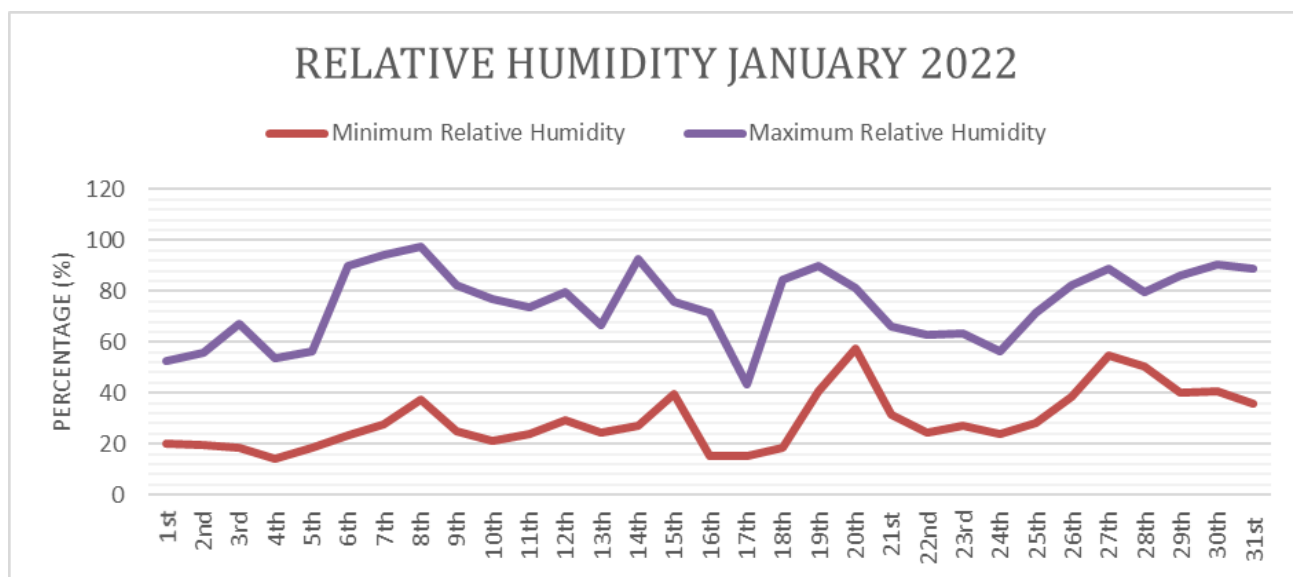
4. Monitoring Results

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 January 2022

4.2 Surface Water

Surface water monitoring involves collecting water samples from a number of 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	12/01/22	25/01/22	28/01/22	No Limit	<0.004	<0.004	22	*
Raw Water Tank	12/01/22	25/01/22	28/01/22	No Limit	<0.004	<0.004	15	*
Spain's Dam	12/01/22	25/01/22	28/01/22	No Limit	*	*	<5	<5
Decant Dam	12/01/22	25/01/22	28/01/22	No Limit	0.88	0.047	55	*

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.

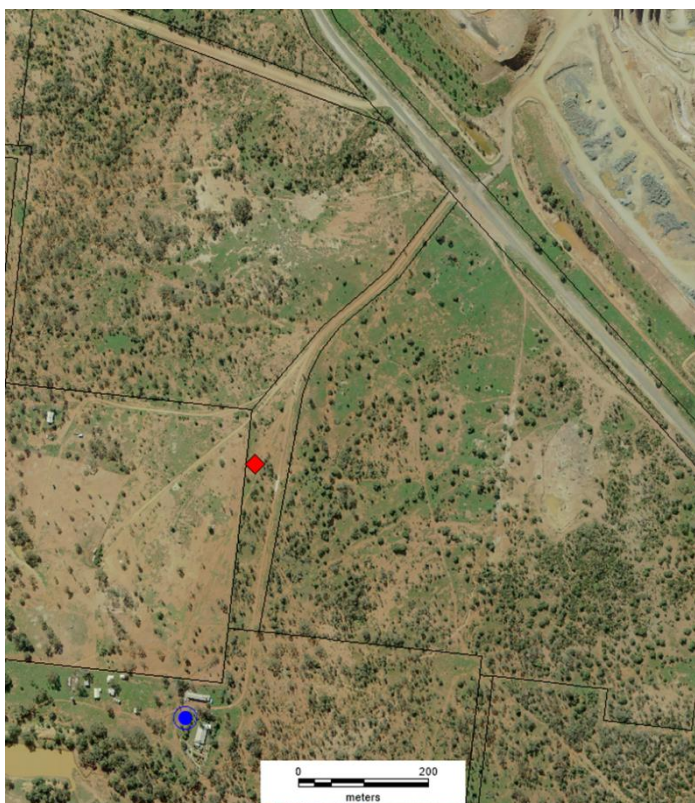


Figure 1: Location of the "Dellavale" properties house (blue circle) and noise monitoring location (red diamond).

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Table 2: Noise Monitoring levels

Time Band	Day	Noise Level (dB)
8:00am – 6:00pm	Mon – Fri	45
6:00pm – 10:00pm	Mon – Fri	40
10:00pm – 8:00am	Mon – Fri	35
8:00am – 1:00pm	Sat	45
1:00pm – 8:00am	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	17/01/22	10/02/22 9.59am	45	43.7	39.7	Birds chirping, hwy truck, car	Yes

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 ± 2 days. Monitoring is undertaken quarterly. 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 and reported in the AEMR.

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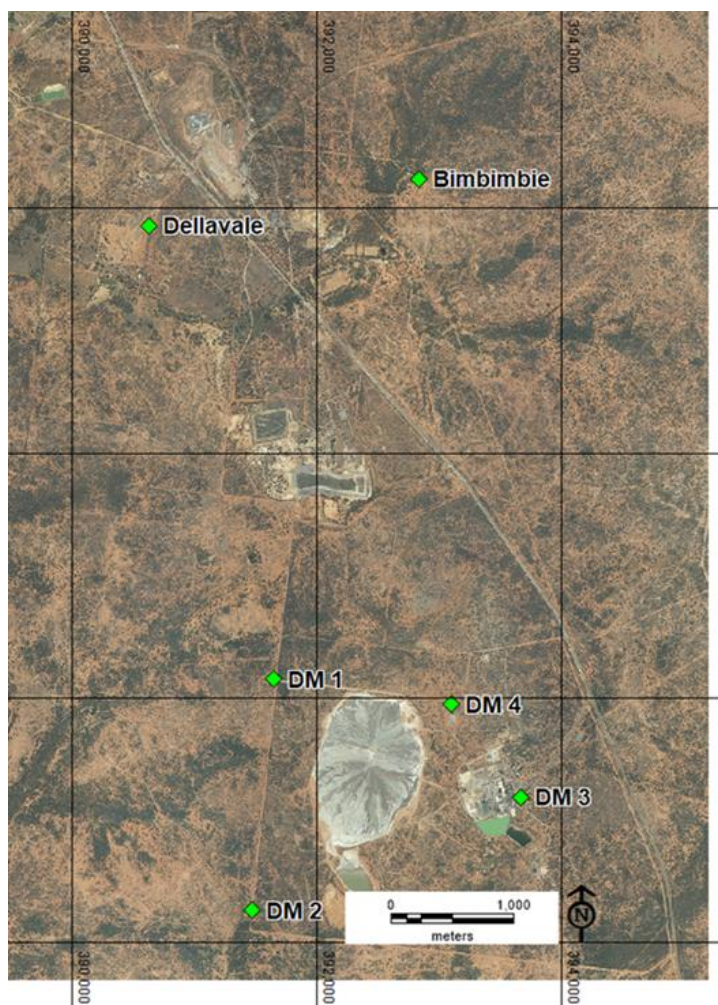


Figure 2: Location of dust gauges on PGM Mining Leases

Table 4: Air Quality Results

Site	Location	Sampled	Received	Published	Australian Standard Limit (g/m ² /month)	Insoluble Solids (g/m ² /month)	Total Lead (g/m ² /month)	Complies
DM1	NW corner of tailings dam	05/01/22 - 03/02/22	22/03/22	23/03/22	4	1.4	0.000618	Yes
DM2	SW corner of tailings dam	05/01/22 - 03/02/22	22/03/22	23/03/22	4	1.1	0.000514	Yes
DM3	Carpark	05/01/22 - 03/02/22	22/03/22	23/03/22	4	1.5	0.00418	Yes
DM4	NE corner of PGM magazine	05/01/22 - 03/02/22	22/03/22	23/03/22	4	1.7	0.00218	Yes
Dellavale	1.3km ESE of New Cobar	05/01/22 - 03/02/22	22/03/22	23/03/22	4	0.8	0.001218	Yes
Bimbimbie	1.2km SW of New Cobar	05/01/22 - 03/02/22	22/03/22	23/03/22	4	1.6	0.000122	Yes

4.5 Blast Monitoring

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

As seen in Table 6 all blasting events for the month were below PGMs EPL limits. Vibration limits set by the NSW Environment 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 and Annual Environmental Management Report (AEMR).



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

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
New Cobar	03/01/22	NCB_30_STH_085	No Trigger	2.055	0.649	Yes
New Cobar	07/01/22	NCB_30_STH_085	No Trigger	2.723	1.394	Yes
Peak	07/01/22	8685 STH 680	No Trigger	No Trigger	No Trigger	Yes
Peak	16/01/22	KRS_1155-1120 RA	No Trigger	No Trigger	No Trigger	Yes

4.6 Haulage Movements

PGM is required to monitor the number of haulage movements undertaken from New Cobar to the Peak site as per current consent conditions. A trucking movement includes the travel from New Cobar to the Peak site and return to New Cobar. In the month of January, 775 truck movements were permitted to be undertaken. In total, 298 truckloads were completed. Table 7 shows a summary of the trucking movements for the month.

Table 7: Haulage Summary

Date	Truck Movements
01-01-22	0
02-01-22	0
03-01-22	15
04-01-22	13
05-01-22	19
06-01-22	14
07-01-22	0
08-01-22	10
09-01-22	15
10-01-22	17
11-01-22	16
12-01-22	16
13-01-22	17
14-01-22	8
15-01-22	16

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Date	Truck Movements
16-01-22	15
17-01-22	12
18-01-22	0
19-01-22	16
20-01-22	18
21-01-22	16
22-01-22	12
23-01-22	12
24-01-22	18
25-01-22	15
26-01-22	12
27-01-22	12
28-01-22	0
29-01-22	0
30-01-22	0
31-01-22	0
Daily Average	10.7

