Peak Gold Mines

MONTHLY ENVIRONMENTAL MONITORING SUMMARY

REPORT

EPL 3596
Hillston Road, Cobar
NSW 2835

November 2021

Contents

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 November 2021. These conditions, where applicable, are measured against PGMs Environmental Protection Licence (EPL), development consent conditions and Australian Standard to determine PGMs compliance. The conditions include;

- Blasting monitoring results;

- Air Quality Monitoring results;

- Noise Monitoring results;

- Surface Water Monitoring results; and

- Weather Conditions.

3. DEFINITIONS

mm/s – the peak of the vibration in millimetres per second

Insoluble Solids – the insoluble portion of the dust deposition

Total Lead – Including dissolved lead in the liquid portion and the lead particulates in the filter paper following laboratory analysis

g/m2/month – grams per square meter 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. VIBRATION

The vibration monitoring results displayed in Table 4.1a represents all blast vibration events that were trigged at the New Occidental, Fort Bourke and/or Dellavale monitors (Figure 1).

As seen in Table 4.1a all 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 4.1b.

The compliance against the overall 12-month period will be reported in the EPL Annual Return and Annual Environmental Management Report (AEMR).

Table 4.1a New Occidental, Fort Bourke and Dellavale Vibration Results

Location	Date Sampled & Received	ID	New Occidental (mm/s)	Fort Bourke (mm/s)	Dellavale (mm/s)	Complies (Y/N)
Peak	02/11/21	CRS_9405_820_56	No Trigger	No Trigger	No Trigger	Y
New Cobar	08/11/21	NCB_23_STH_25	No Trigger	3.523	0.918	Y
New Cobar	09/11/21	41 NTH 475	No Trigger	1.754	1.221	Y
Peak	11/11/21	CRS_9405_820_56	No Trigger	No Trigger	No Trigger	Y
Peak	12/11/21	9690-9665 RAR	No Trigger	No Trigger	No Trigger	Y
Peak	15/11/21	9665_STH_490_530	No Trigger	No Trigger	No Trigger	Y
New Cobar	17/11/21	NCB_23_STH_25	No Trigger	4.12	1.367	Y
Peak	23/11/21	KRS_1130_STH_62	No Trigger	No Trigger	No Trigger	Y
Peak	29/11/21	KRS_1130_STH_62	No Trigger	No Trigger	No Trigger	Y

Table 4.1b 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

**Figure 1: Location of Vibration Monitors on PGM's Mining Leases.**

4.2. 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 EPAs best practice limit of 4g/m²/time (limit is applicable to a 12-month averaging period). If the 12-month rolling average of a result is greater than 4g/m²/time, the cause will be investigated and reported in the AEMR.

Table 4.2a Air Quality Results

Site	Location	Date			Australian Standard Limit (g/m²/month)	Insoluble Solids (g/m²/month)	Total Lead (g/m²/month)	Complies
		Sampled	Obtained	Published				
DM1	NW corner of tailings dam	05/11/21-06/12/21	29/12/21	04/01/22	4	Bottle Broken by the lab during analysis		
DM2	SW corner of tailings dam	05/11/21-06/12/21	29/12/21	04/01/22	4	0.5	0.0000963	Y
DM3	Carpark	05/11/21-06/12/21	29/12/21	04/01/22	4	0.8	0.00575	Y
DM4	NE corner of PGM magazine	05/11/21-06/12/21	29/12/21	04/01/22	4	0.5	0.000308	Y
Dellavale	1.3km ESE of New Cobar	05/11/21-06/12/21	29/12/21	04/01/22	4	0.7	0.000150	Y
Bimbimbie	1.2km SW of New Cobar	05/11/21-06/12/21	29/12/21	04/01/22	4	0.9	0.0000590	Y
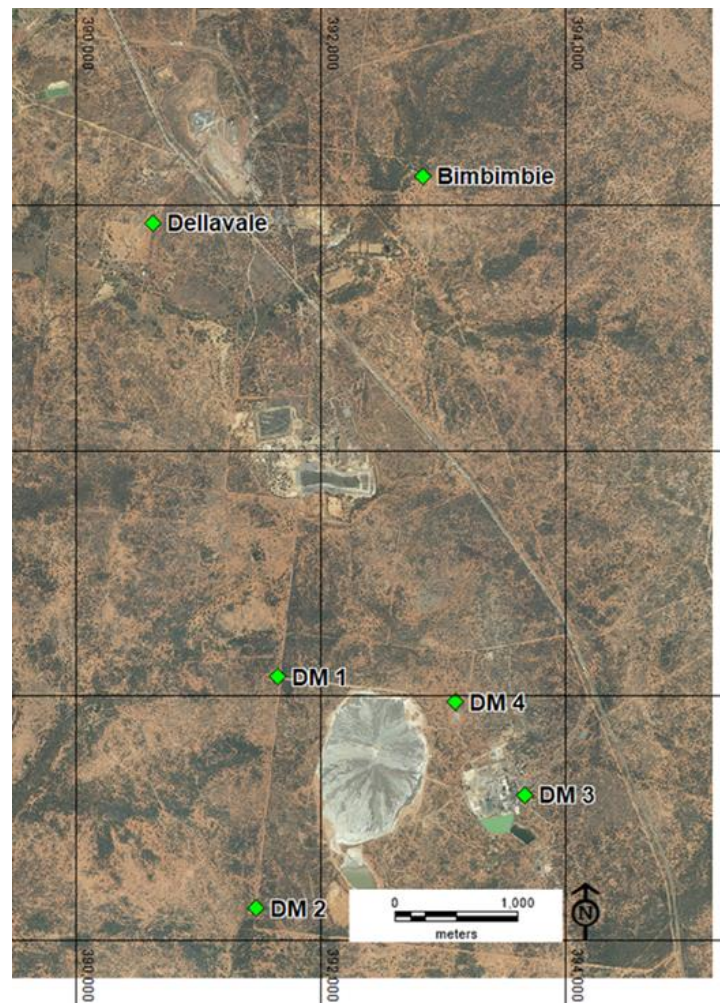
Figure 2: Location of dust gauges on PGM Mining Leases.

4.3. NOISE

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 3) 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 and licenced noise limits set by the EPL and development consent conditions are given in Table 4.3a respectively.

Table 4.3a Attended Noise Monitoring Results

Location	Date		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
	Sampled & Obtained	Published						
Dellavale	05/11/2021	08/11/2021	12.45pm	45	41.4	37.4	Birds chirping, car on highway	YES

Table 4.3b Noise Monitoring

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
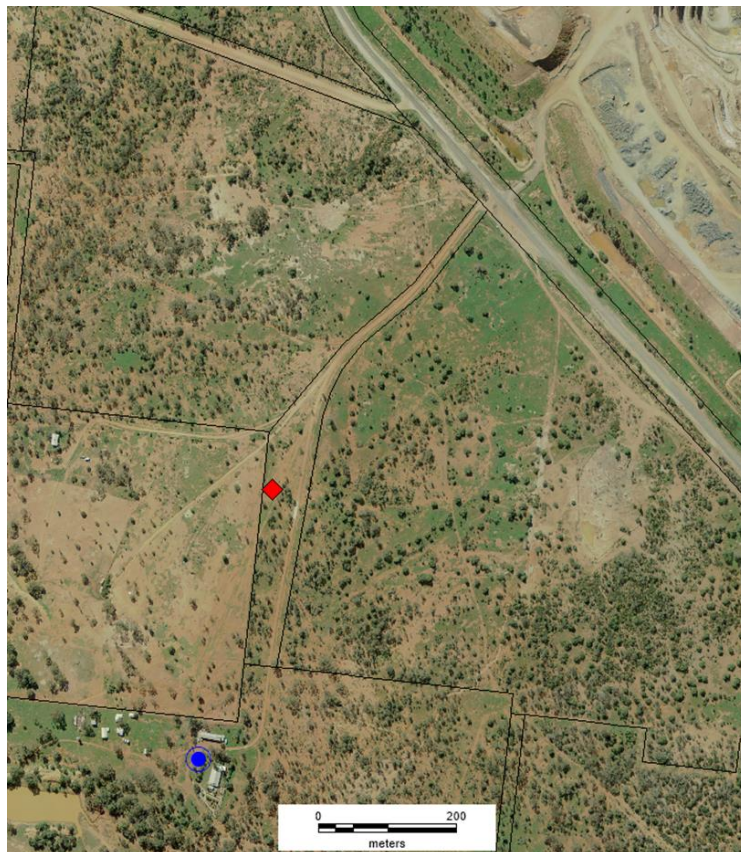
Figure 3: Location of the "Dellavale" properties house (blue circle) and noise monitoring location (red diamond).

4.4. 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 4.4 gives the results as per the PGM EPL requirements.

Table 4.4 Water Monitoring Data

Point	Sampled	Received	Published	Limit	WAD CN (mg/L)	CN Free (mg/L)	TSS (mg/L)	Oil & Grease	Complies
Recycled Water Dam	09/11/21	11/11/21	13/12/21	No Limit	<0.004	<0.004	16	*	Yes
Raw Water Tank	09/11/21	11/11/21	13/12/21	No Limit	<0.004	<0.004	28	*	Yes
Spain's Dam	09/11/21	11/11/21	13/12/21	No Limit	*	*	<5	<5	Yes
Decant Dam	09/11/21	11/11/21	13/12/21	No Limit	0.066	<0.040	<5	*	Yes

*No monitoring required.

4.5. HAULAGE MOVEMENTS

PGM is required to monitor the number of haulage movements undertaken from New Cobar to Peak site as per current consent conditions. A trucking movement includes the travel from New Cobar to Peak site and return to New Cobar. In the month of November, 750 truck movements were permitted to be undertaken. In total, 149 truckloads were completed. Table 4.5 shows a summary of the trucking movements for the month.

Table 4.5 Haulage Summary

Date	Truck Movements
01-11-21	0
02-11-21	24
03-11-21	0
04-11-21	0
05-11-21	0
06-11-21	0
07-11-21	0
08-11-21	0
09-11-21	0
10-11-21	0

11-11-21	0
12-11-21	0
13-11-21	0
14-11-21	0
15-11-21	7
16-11-21	20
17-11-21	11
18-11-21	19
19-11-21	18
20-11-21	22
21-11-21	0
22-11-21	0
23-11-21	0
24-11-21	0
25-11-21	0
26-11-21	0
27-11-21	0
28-11-21	0
29-11-21	28
01-11-21	0
Daily Average	**5.7**

4.6. 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.

AIR TEMPERATURE NOVEMBER 2021

RELATIVE HUMIDITY NOVEMBER 2021

TOTAL RAINFALL NOVEMBER 2021