TOMINGLEY
GOLD OPERATIONS PTY LTD
(A wholly owned subsidiary of Alkane Resources Ltd)
ABN 53 149 040 371

TOMINGLEY GOLD PROJECT

Monthly Environmental Monitoring Report

May 2020

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Document History

DATE	VERSION	REASON FOR CHANGE	AUTHOR
	1	Submitted for Information	DP

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1. Introduction and Scope

This Monthly Environmental Monitoring Report has been prepared to collate environmental monitoring data undertaken for the Tomingley Gold Project during the month of May 2020.

This report also compares data collected to targets and provides commentary on environmental issues during the month.

2. Weather for May 2020

A. Weather Station Data

TGO WEATHER DATA IS PRESENTED BELOW.

Figure 1. May 2020 wind rose

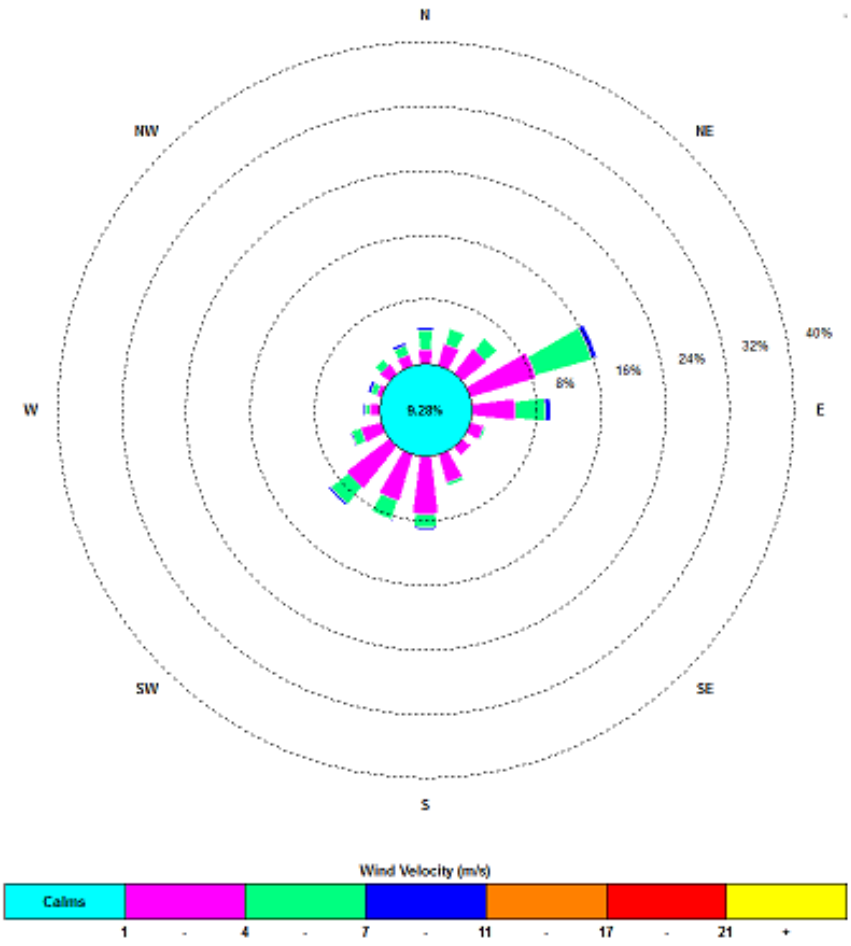


Figure 2. Rainfall May 2020

May 2020	Rainfall (mm)	Year to Date Total (mm)
Total Rainfall	32.6	313.2

3. Monitoring Locations

FIGURE 3 indicates the location of where monitoring is undertaken for the project. Any additional monitoring undertaken will be discussed within the body of this report.

Figure 3. TGO water and vegetation monitoring points

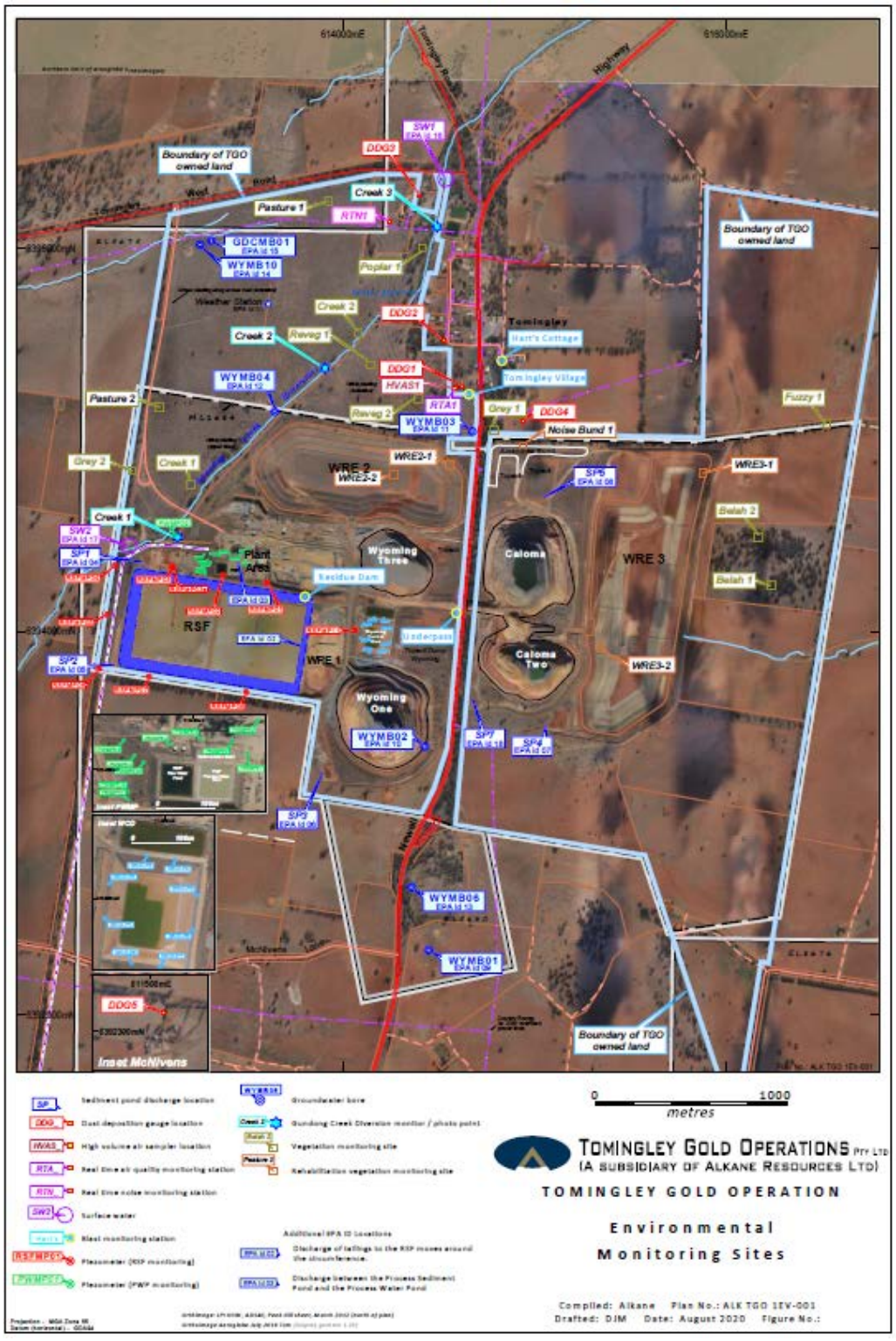
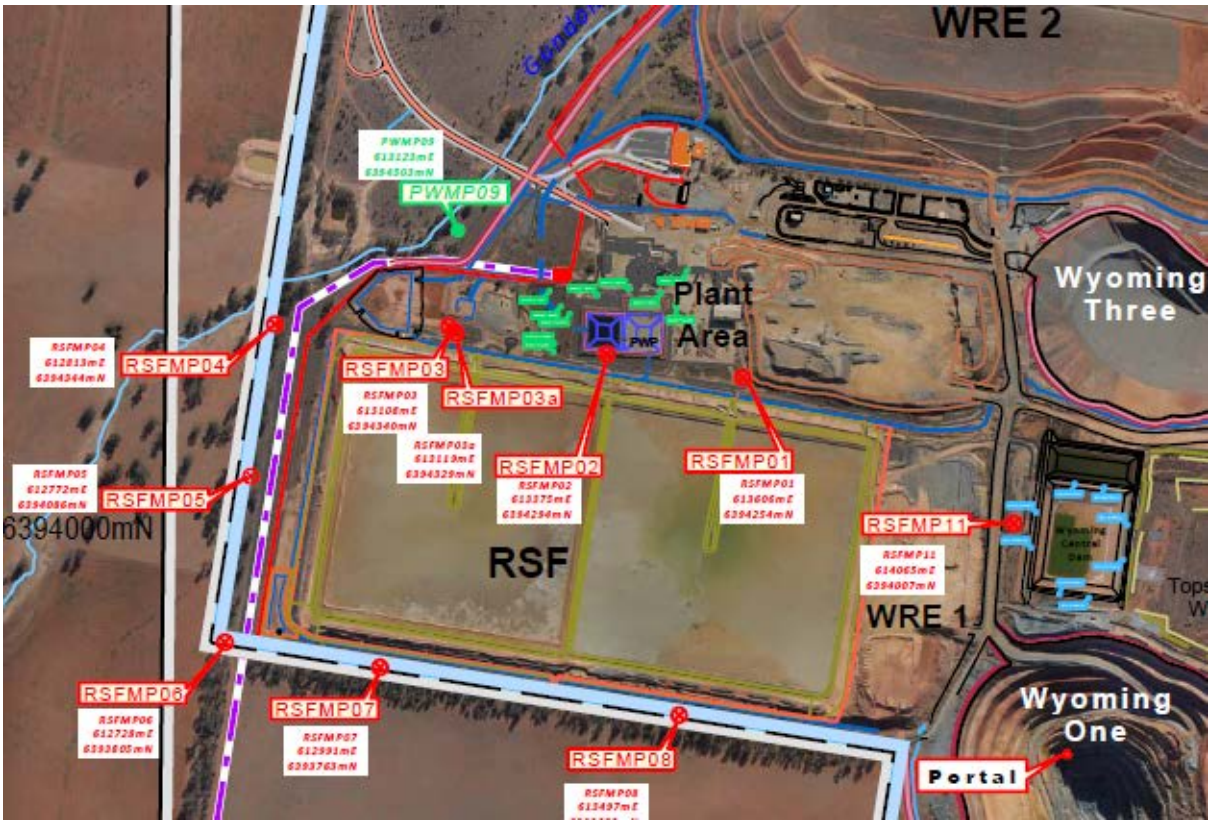


Figure 4 indicates the location of environmental and survey monitoring points on and around the Residue Storage Facility.

Figure 4. Residue Storage Facility monitoring points



4. Air Quality Monitoring

A. PM10 Monitoring

PM10 is measured via a Tapered Element Oscillating Microbalance (TEOM) located at the southern edge of the Tomingley Village. This machine transmits real-time data via the internet to a computer located on site.

The Performance Criteria for PM10 has been set at an Annual Average of 30ug/m^3 and a 24-Hour Average of 50ug/m^3.

The current annual average of all PM10 data at the end of May was 60.7ug/m^3, above the Approval limit. This average has been calculated using all recorded data for May which includes each of the numerous dust storms and smoke from bushfires that occurred in January and February.

There were nil elevated readings recorded during May.

Figure 5. TEOM Data May 2020

Date	24-hour Average	Annual Rolling Average	Comment/s
1/05/2020	6.9	61.0	
2/05/2020	6.1	60.9	
3/05/2020	7.0	60.9	Recalc using 1hr average data. 3hrs of power outage data excluded
4/05/2020	11.3	60.9	
5/05/2020	9.9	60.9	
6/05/2020	17.0	60.8	
7/05/2020	17.6	60.9	
8/05/2020	14.0	60.8	
9/05/2020	14.6	60.8	
10/05/2020	10.2	60.8	
11/05/2020	14.0	60.8	
12/05/2020	12.1	60.8	Recalc using 1hr average data. 2hrs of data excluded due to quaterly calibration
13/05/2020	13.6	60.8	
14/05/2020	22.4	60.8	
15/05/2020	20.2	60.8	
16/05/2020	15.5	60.8	
17/05/2020	40.5	60.9	
18/05/2020	14.0	60.8	
19/05/2020	11.1	60.8	
20/05/2020	14.7	60.8	
21/05/2020	7.8	60.8	
22/05/2020	7.9	60.8	
23/05/2020	9.6	60.7	
24/05/2020	10.5	60.7	
25/05/2020	10.7	60.6	
26/05/2020	12.9	60.6	
27/05/2020	13.7	60.6	
28/05/2020	14.9	60.6	
29/05/2020	15.3	60.6	
30/05/2020	13.2	60.6	
31/05/2020	10.7	60.6	
Average	**13.5**		
	Yellow shading indicates 24-hr criteria (50µg/m3) exceedance		*Units = µg/m3*

B. Depositional Dust

Depositional Dust monitoring undertaken during this month returned the results indicated in Table 1 below. The performance criteria for deposited dust is averaged over 12 months with a maximum total average of 4g/m2/month.

Table 1. Dust Deposition Results May 2020

Location	Date Monitored	Total Insoluble Matter (g/m2/month) May	Total Insoluble Matter (g/m2/month) April	Change in Total Insoluble Matter
DDG1	4/05/2020 – 02/06/2020	1.2	2.1	- 0.9
DDG2	4/05/2020 – 02/06/2020	0.6	1.1	- 0.5
DDG3	4/05/2020 – 02/06/2020	0.5	1.6	- 1.1
DDG4	4/05/2020 – 02/06/2020	0.9	2.3	- 1.4
DDG5	4/05/2020 – 02/06/2020	0.9	1.8	- 0.9

C. High Volume Air Sampler - Total Suspended Particulates

High Volume Air Sampling (HVAS) for Total Suspended Particulates (TSP) was undertaken this month. Table 2 below provides the results.

The performance criteria for TSP is averaged over 12 months.

Table 2. Hi-Volume Air Sampler Data May 2020

Location	Sample Date	Results (TSP µg/m³)	Performance Criteria (Annual Average)
HVAS1	1/05/2020	28.4	90 µg/m3.
HVAS1	7/05/2020	24.2	
HVAS1	13/05/2020	32.6	
HVAS1	19/05/2020	28.9	
HVAS1	25/05/2020	16.8	
HVAS1	31/05/2020	20.7	

5. Noise Monitoring

A. Real-Time Noise Monitoring

Real-time noise monitoring data showed no exceedances during the month of May. A full report is provided separately on the Alkane webpage.

6. Surface Water Monitoring

A. Gundong Creek

Gundong Creek flowed during May and additional samples were undertaken the weeks the creek was flowing in accordance with the TGO Water Management Plan. All results were within specified ranges.

B. Sedimentation Ponds

No discharge was experienced from any of the sediment ponds during the month.

7. Groundwater Monitoring

Quarterly groundwater monitoring was undertaken during March in line with licence requirements.

Results from the monitoring fell within expected limits. The next round of monitoring is due in June.

8. Blast Monitoring

Blasting is no longer carried out in the TGO open cut pits and vibration and decibels are monitored from several locations. Underground blasting commenced during January however since then the blasts recorded vibrations below the trigger for the site monitoring equipment.

Blasts that trigger the monitoring equipment are recorded and the data is retained on site. There were no blast exceedances during May.

9. Residue Storage Facility

Residue from the processing plant is discharged into the Residue Storage Facility or RSF. The Environmental Protection Licences dictates that the Weak Acid Dissociable (WAD) Cyanide found in this residue must be less than 20 milligrams per litre for 90% of the time and less than 30 milligrams per litre for 100% of the time.

WAD cyanide discharge levels are shown below with the maximum reading below the 100th percentile limit of 30ppm.

- Monthly average: 2.99ppm

- Daily maximum: 5.65ppm
- Daily minimum: 1.27ppm
- Number of exceedances: 0

10. Biodiversity Monitoring

Fauna deaths:

- No fauna deaths were recorded during May.