

TOMINGLEY GOLD PROJECT

Monthly Environmental Monitoring Report

July 2020

TOMINGLEY GOLD PROJECT

Monthly Environmental Monitoring Report

July 2020

Document History

DATE	VERSION	REASON FOR CHANGE	AUTHOR
	1	Submitted for Information	DP

Table of Contents

1. INTRODUCTION AND SCOPE	4
2. WEATHER FOR JULY 2020.....	4
A. Weather Station Data	4
3. MONITORING LOCATIONS	5
4. AIR QUALITY MONITORING.....	6
A. PM10 Monitoring	6
B. Depositional Dust	7
C. High Volume Air Sampler - Total Suspended Particulates.....	8
5. NOISE MONITORING.....	8
A. Real-Time Noise Monitoring.....	8
6. SURFACE WATER MONITORING	8
A. Gundong Creek	8
B. Sedimentation Ponds.....	8
7. GROUNDWATER MONITORING.....	9
8. BLAST MONITORING.....	9
9. RESIDUE STORAGE FACILITY	9
10. BIODIVERSITY MONITORING.....	9

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 July 2020.

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

2. Weather for July 2020

A. Weather Station Data

TGO WEATHER DATA IS PRESENTED BELOW.

Figure 1. July 2020 wind rose

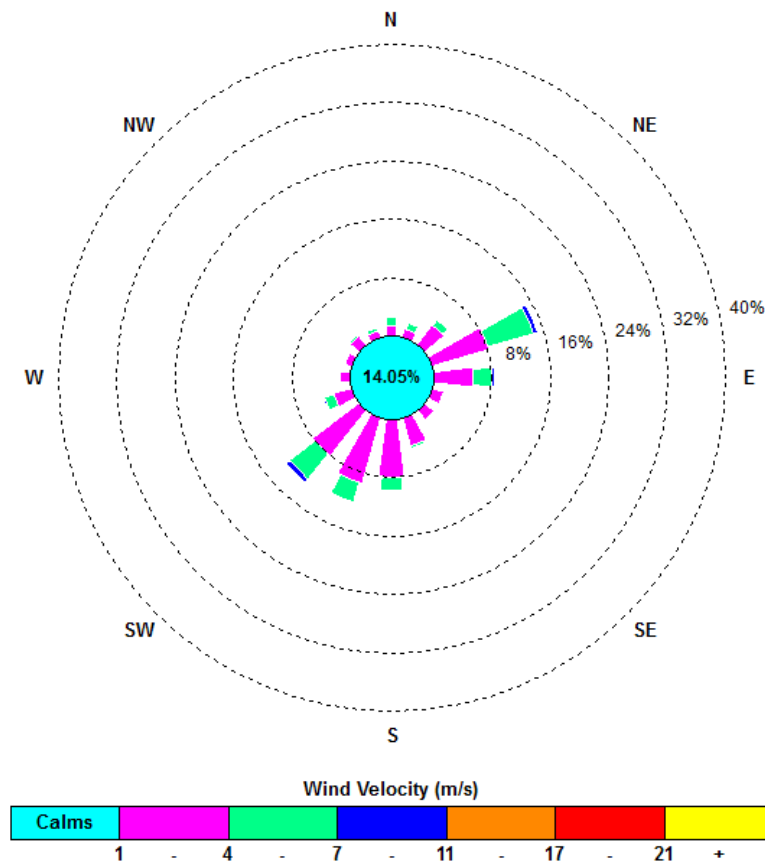


Figure 2. Rainfall July 2020

July 2020	Rainfall (mm)	Year to Date Total (mm)
Total Rainfall	76.6	439.8

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

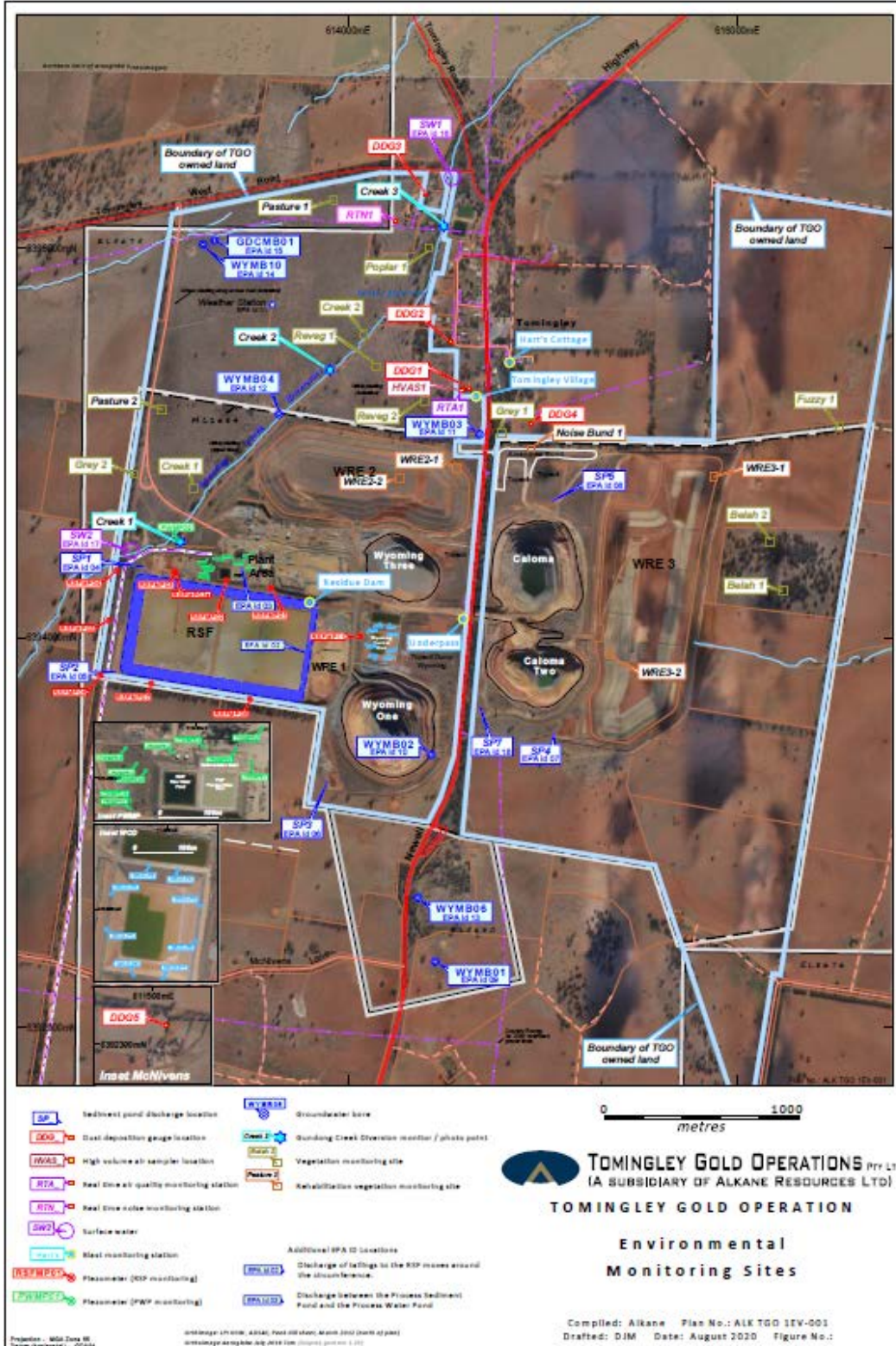
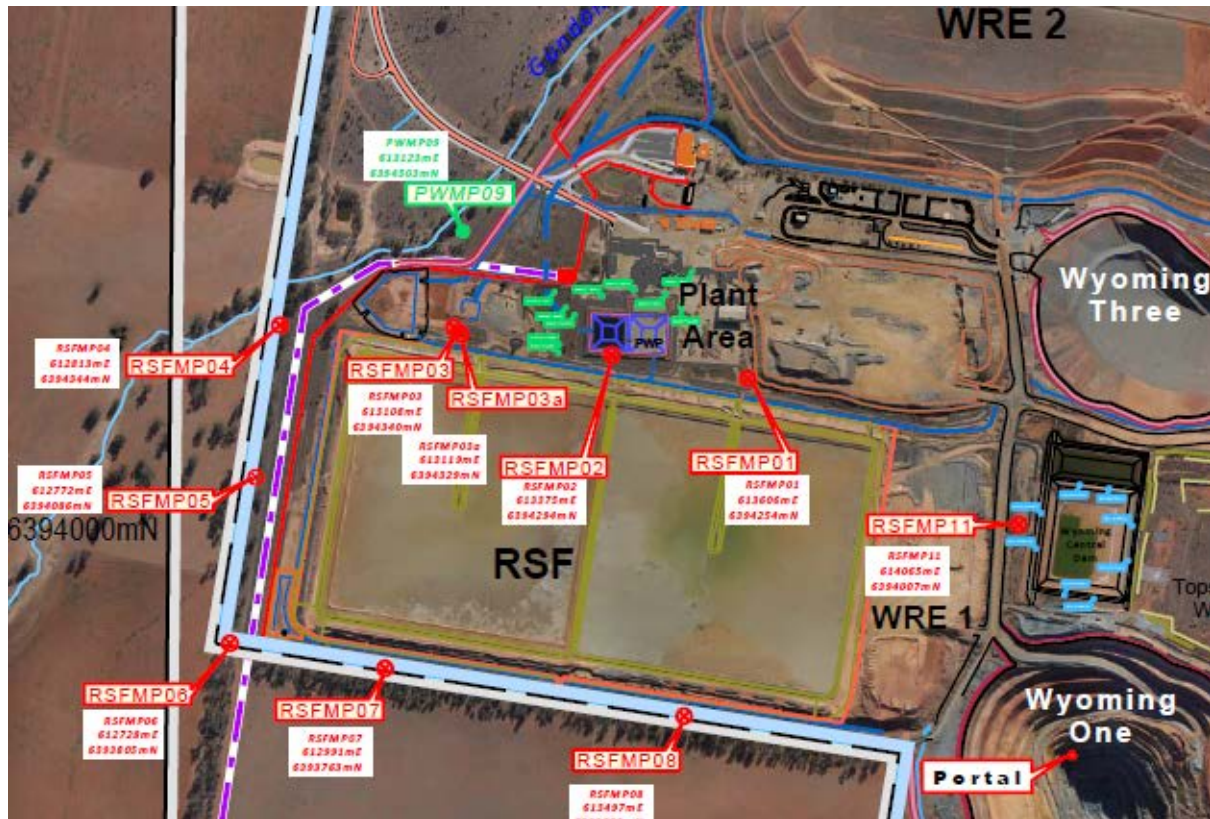


Figure 4 indicates the location of environmental and survey monitoring points on and around the Residue Storage Facility.

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/m³ and a 24-Hour Average of 50ug/m³.

The current annual average of all PM10 data at the end of July was 59.6 ug/m³, above the Approval limit. This average has been calculated using all recorded data for July which includes each of the numerous dust storms and smoke from bushfires in January and February.

There were nil elevated readings recorded during July.

Figure 5. TEOM Data July 2020

Date	24-hour Average	Annual Rolling Average	Comment/s
1/07/2020	13.0	60.1	
2/07/2020	12.2	60.1	
3/07/2020	10.3	60.1	
4/07/2020	8.9	60.1	
5/07/2020	6.6	60.1	
6/07/2020	8.2	60.1	
7/07/2020	7.2	60.1	
8/07/2020	9.7	60.1	
9/07/2020	10.3	60.1	
10/07/2020	7.4	60.1	
11/07/2020	4.4	60.1	
12/07/2020	4.4	60.0	
13/07/2020	4.5	60.0	
14/07/2020	5.4	60.0	
15/07/2020	6.1	60.0	
16/07/2020	7.0	60.0	
17/07/2020	7.9	59.9	
18/07/2020	6.5	59.9	
19/07/2020	8.4	59.9	
20/07/2020	11.9	59.9	
21/07/2020	13.0	59.9	
22/07/2020	11.6	59.9	
23/07/2020	14.7	59.9	
24/07/2020	13.0	59.7	
25/07/2020	9.1	59.7	
26/07/2020	4.9	59.7	
27/07/2020	8.5	59.6	
28/07/2020	7.0	59.6	
29/07/2020	8.7	59.6	
30/07/2020	7.6	59.6	
31/07/2020	10.4	59.6	
Average	8.7		
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 July 2020

Location	Date Monitored	Total Insoluble Matter (g/m2/month) July	Total Insoluble Matter (g/m2/month) June	Change in Total Insoluble Matter
DDG1	06/07/2020 – 04/08/2020	0.8	0.7	1.0
DDG2	06/07/2020 – 04/08/2020	0.7	0.5	0.2

DDG3	06/07/2020 – 04/08/2020	0.2	0.4	- 0.2
DDG4	06/07/2020 – 04/08/2020	0.4	0.5	- 0.1
DDG5	06/07/2020 – 04/08/2020	0.3	1.1	- 0.8

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 July 2020

Location	Sample Date	Results (TSP $\mu\text{g}/\text{m}^3$)	Performance Criteria (Annual Average)
HVAS1	6/07/2020	12.6	90 $\mu\text{g}/\text{m}^3$.
HVAS1	12/07/2020	4.4	
HVAS1	18/07/2020	10.6	
HVAS1	24/07/2020	19.4	
HVAS1	30/07/2020	6.6	

5. Noise Monitoring

A. Real-Time Noise Monitoring

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

6. Surface Water Monitoring

A. Gundong Creek

Gundong Creek flowed during June 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 June in line with licence requirements.

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

8. Blast Monitoring

During July a short open cut campaign was undertaken in the Caloma One pit with a number of blasts being carried out in accordance with the TGO Project Approval and EPL.

All blasts that trigger the monitoring equipment are recorded and the data is retained on site.

There were no blast exceedances during July.

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: 2.61ppm
- Daily maximum: 5.188ppm
- Daily minimum: 1.146ppm
- Number of exceedances: 0

10. Biodiversity Monitoring

Fauna deaths:

- No fauna deaths were recorded during July.