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

February 2018

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

February 2018

Document History

DATE	VERSION	REASON FOR CHANGE	AUTHOR
	Rev 1	Submitted for Information	CH

Table of Contents

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 February 2018.

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

2. Weather for February 2018

A. Weather Station Data

TGO WEATHER DATA IS PRESENTED BELOW.

Figure 1. January 2018 wind rose

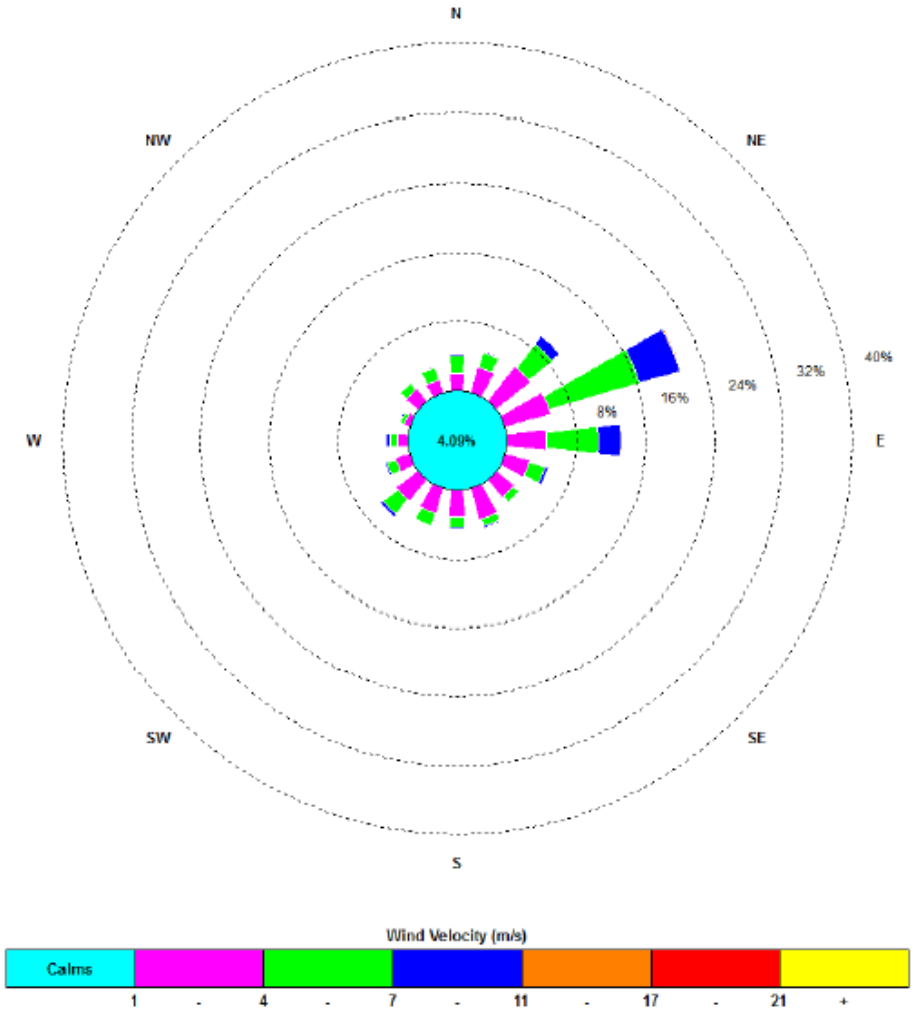


Figure 2. Rainfall February 2018

February 2018	Rainfall (mm)
January 11	0.2
January 19	3.4
January 25	0.2
Total Rainfall	3.8

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

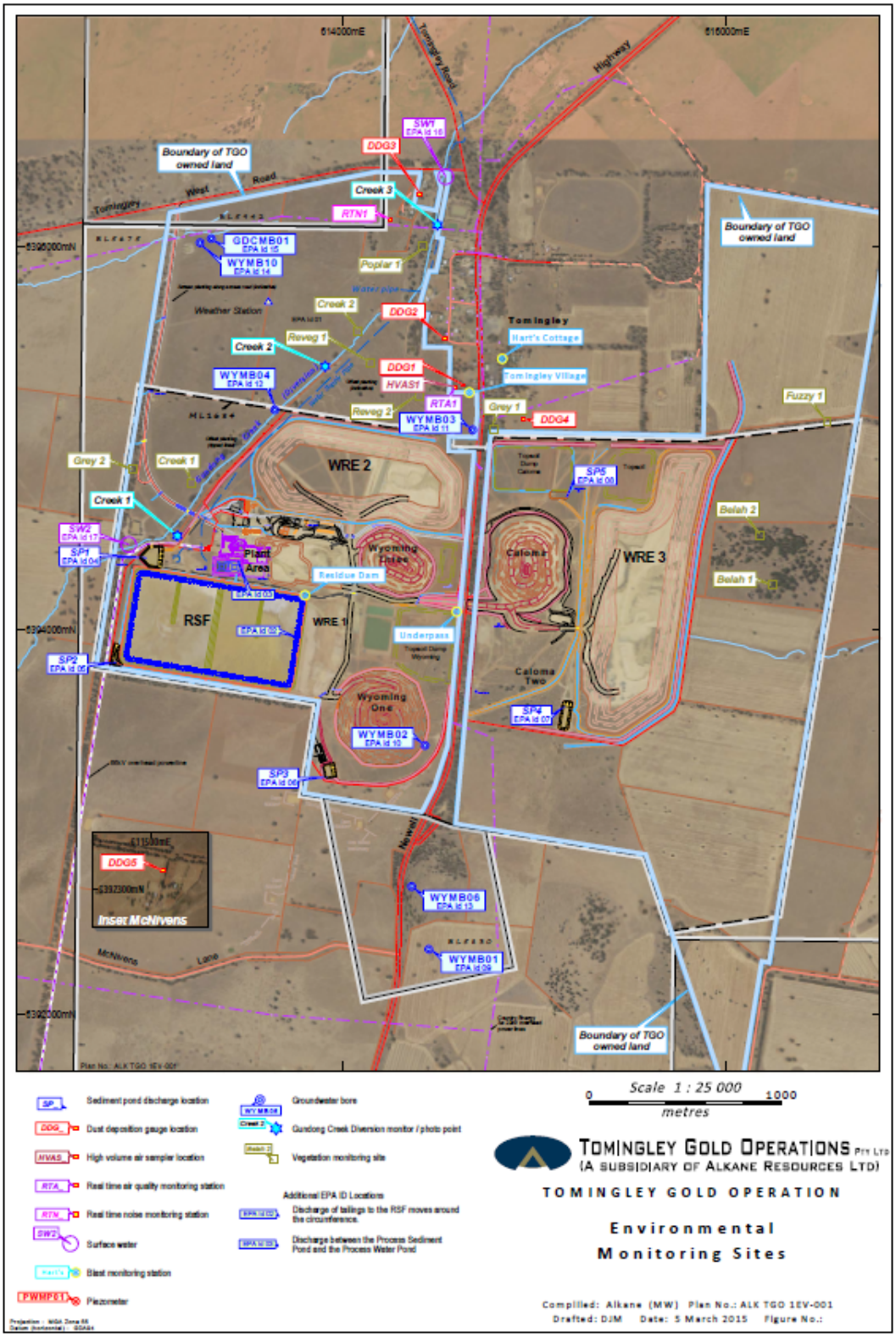
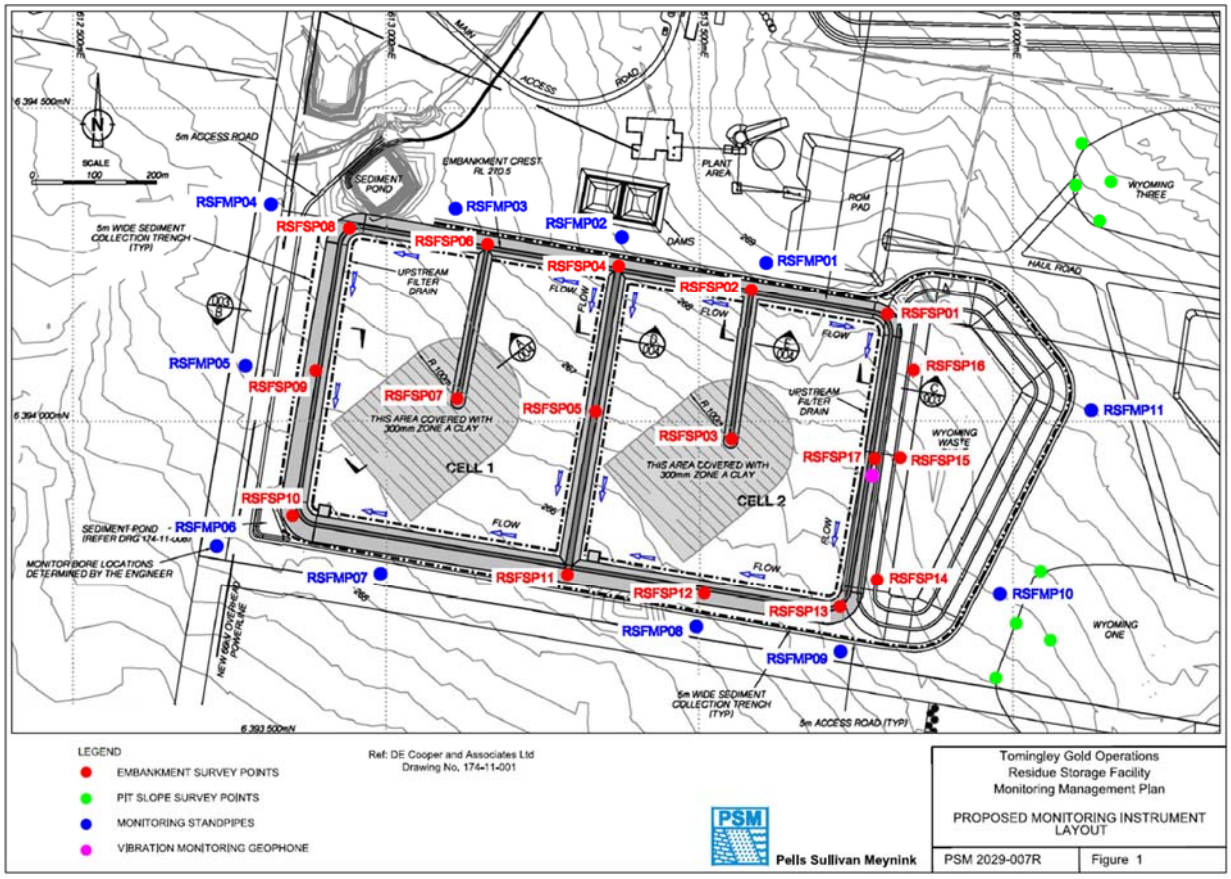


Figure 4 indicates the location of environmental and survey monitoring points on and around the Residue Storage Facility.

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/m^3 and a 24-Hour Average of 50ug/m^3.

The annual average at the end of September was 18.5ug/m^3, well below the license limit.

Figure 5. TEOM Data February 2018

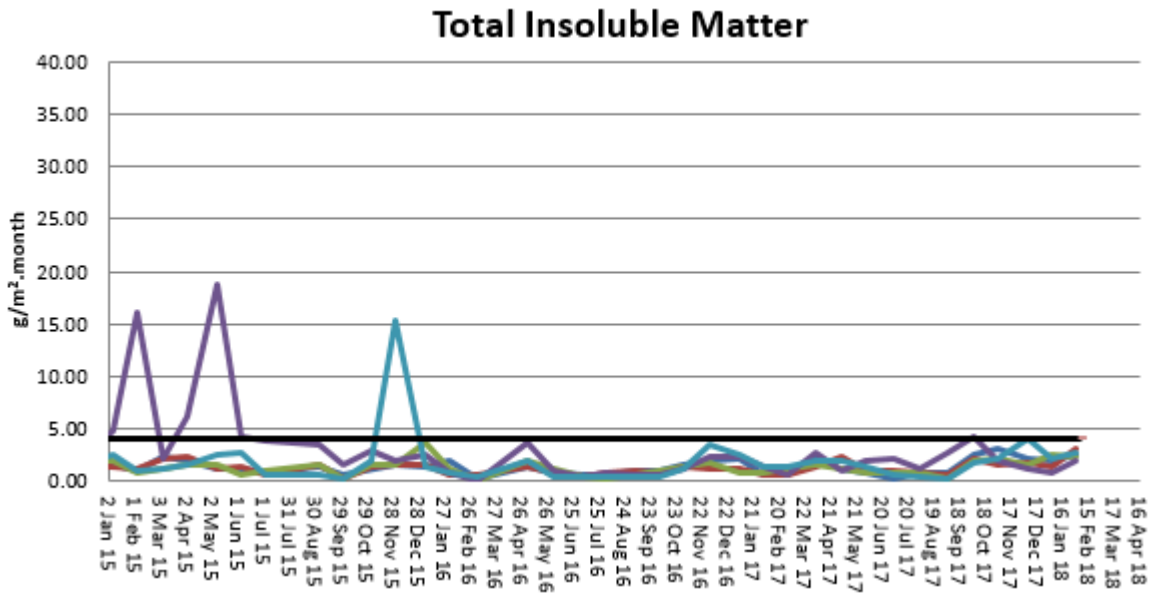
Date	24 Hr Averages (µg/m3)	Running Average (µg/m3)	Comment
1/02/2018	No data	20.2	Insufficient data for 24 hour averaging purposes
2/02/2018	8.6	20.2	
3/02/2018	5.1	20.1	1 hour average data used
4/02/2018	3.2	20.0	
5/02/2018	4.3	20.0	
6/02/2018	4.3	19.9	
7/02/2018	4.7	19.9	
8/02/2018	4.2	19.8	
9/02/2018	5.3	19.8	
10/02/2018	7.2	19.8	1 hour average data used
11/02/2018	7.3	19.7	
12/02/2018	6.6	19.5	
13/02/2018	6.1	19.5	
14/02/2018	9.3	19.5	
15/02/2018	7.3	19.4	
16/02/2018	6.3	19.4	
17/02/2018	10.2	19.2	
18/02/2018	6.5	19.2	
19/02/2018	9.7	19.1	1 hour average data used
20/02/2018	5.5	19.0	1 hour average data used
21/02/2018	4.9	18.9	
22/02/2018	3.8	18.8	
23/02/2018	4.4	18.7	
24/02/2018	5.3	18.6	
25/02/2018	6.4	18.6	
26/02/2018	5.8	18.5	1 hour average data used
27/02/2018	5.6	18.5	
28/02/2018	3.8	18.5	
Average	**6.0**		
	24 Hour Criteria Exceedance		

Note: For comparison purposes, highlighted results indicate levels above the EPA and NEPM 24-hour maximum criteria for PM_{10}

B. Depositional Dust

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

Figure 6. Dust Deposition Results 2015 - 2018

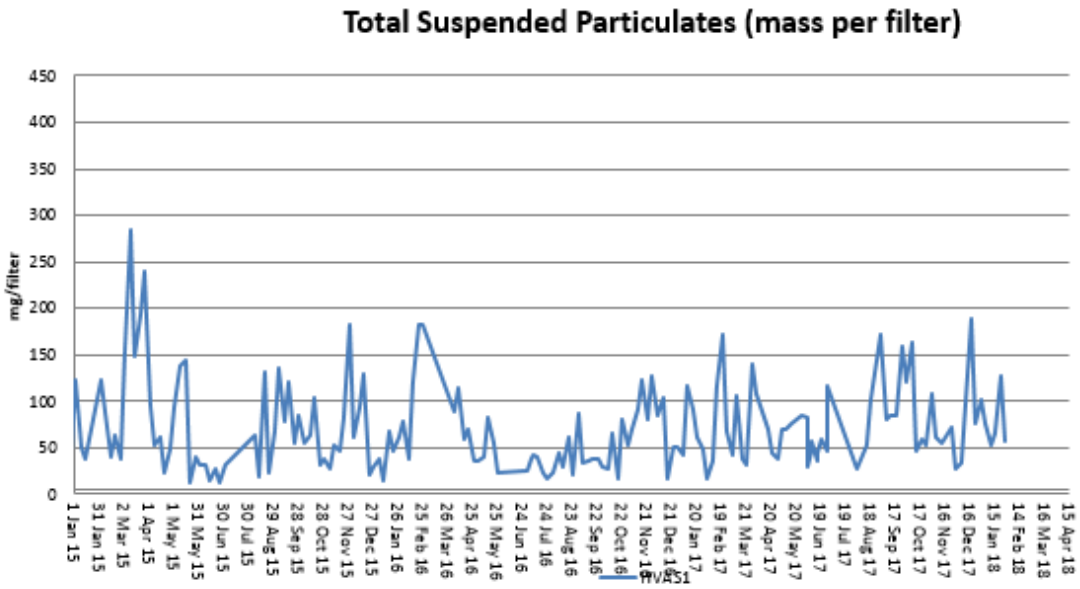


C. High Volume Air Sampler - Total Suspended Particulates

High Volume Air Sampling (HVAS) for Total Suspended Particulates (TSP) was undertaken this month. Figure 7 below provides the results.

The performance criteria for TSP is averaged over 12 months

Figure 7. Hi-Volume Air Sampler Data 2015 - 2018



5. Noise Monitoring

A. Real-Time Noise Monitoring

Real-time noise monitoring data showed no exceedances during the month of February.

6. Surface Water Monitoring

A. Gundong Creek

Gundong Creek did not flow during January and as such no samples were taken.

B. Sedimentation Ponds

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

7. Groundwater Monitoring

Groundwater was undertaken during December in line with license requirements.

Results from this round of monitoring fell within expected limits.

A further round of monitoring is scheduled in for March.

8. Blast Monitoring

Blasts are carried out in all open cut pits and vibration and decibels are monitored from several locations. Below are the vibration results recorded from the monitors at Hart's Cottage and Tomingley Village.

Figure 8. Blast Monitoring

EventKey	Date/Time	Max R (mm/s)	Location
84582	1/02/2018 12:51	0.12	Harts Cottage
84582	1/02/2018 12:51	0.11	Tomingley Village
84690	3/02/2018 14:55	0.08	Harts Cottage
84690	3/02/2018 14:55	0.1	Tomingley Village
84760	5/02/2018 14:53	0.07	Harts Cottage
84760	5/02/2018 14:53	0.08	Tomingley Village
84854	8/02/2018 13:55	0.11	Harts Cottage
84854	8/02/2018 13:55	0.1	Tomingley Village
84917	12/02/2018 13:15	0.15	Harts Cottage
84917	12/02/2018 13:15	0.19	Tomingley Village
84970	14/02/2018 12:53	0.05	Harts Cottage
84970	14/02/2018 12:53	0.05	Tomingley Village
85148	17/02/2018 15:27	0.09	Harts Cottage
85148	17/02/2018 15:27	0.09	Tomingley Village
85206	19/02/2018 13:56	0.09	Harts Cottage
85206	19/02/2018 13:56	0.08	Tomingley Village
85326	21/02/2018 16:46	0.05	Harts Cottage
85326	21/02/2018 16:46	0.05	Tomingley Village
85472	26/02/2018 14:09	0.1	Harts Cottage
85472	26/02/2018 14:09	0.11	Tomingley Village
85507	27/02/2018 14:32	0.13	Harts Cottage
85507	27/02/2018 14:32	0.12	Tomingley Village

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 well below the 100th percentile limit of 30ppm.

- Monthly average: 4.00 ppm
- Daily maximum: 1346 ppm on 5th February
- Daily minimum: 1.30 ppm on 13th February
- Number of exceedances: zero

10. Biodiversity Monitoring

Fauna deaths:

- No fauna deaths were recorded during February.

Vertebrate pests

- A program of trapping feral cats and foxes has continued with no feral cats being captured during February.