



**TOMINGLEY**  
GOLD OPERATIONS PTY LTD  
(A wholly owned subsidiary of Alkane Resources Ltd)

# Tomingley Gold Project

## Monthly Environmental Monitoring Report – March 2014



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Revision Number	Revision Date	Prepared By	Comments
Revision 1	March 2014	Mark Williams	Submitted for Information

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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 March 2014.

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

## 2. WEATHER FOR MARCH 2014

### 2.1 WEATHER STATION DATA

TGO weather data is presented below.

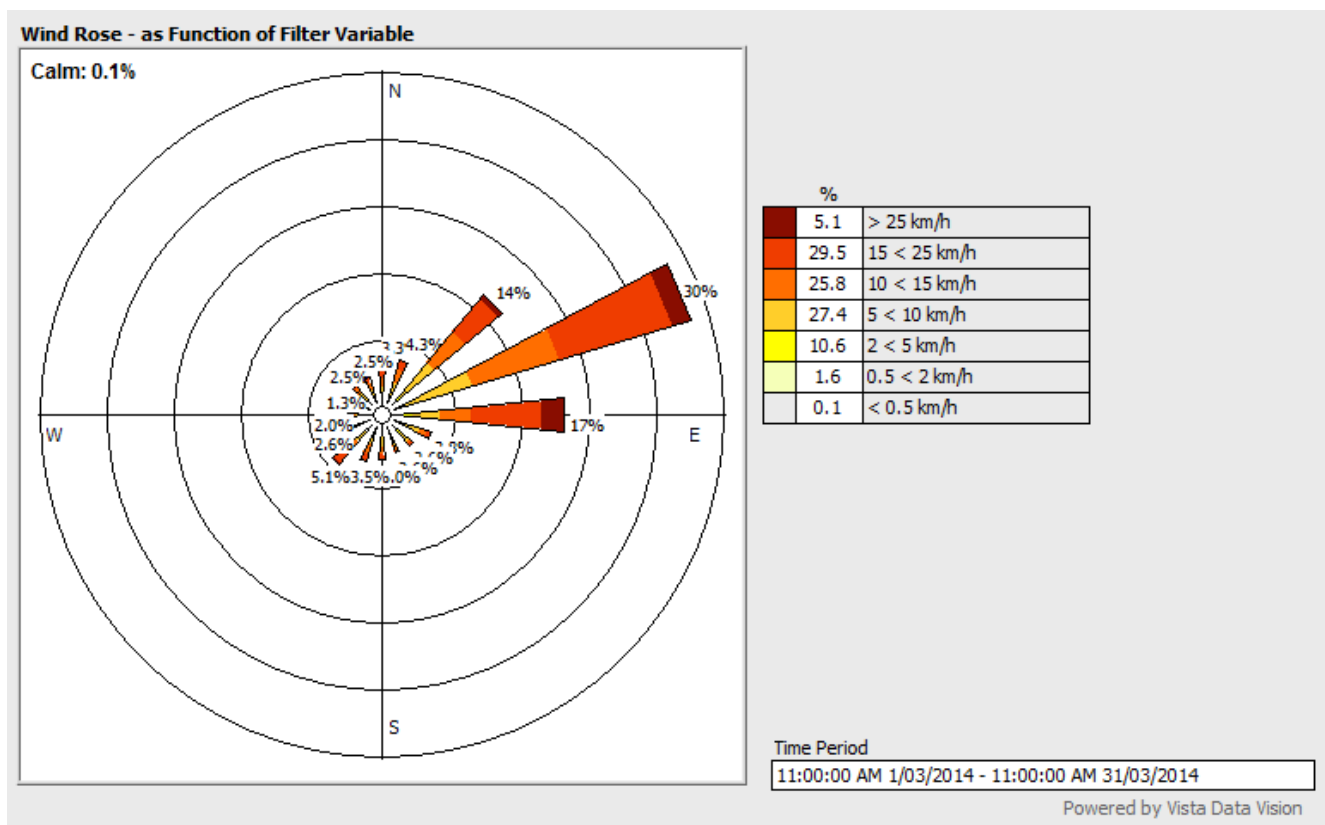


Figure 1. March 2014 wind monitoring station data

<b>March</b>	<b>Amount (millimetres)</b>
<i>01/03/2014</i>	44.4
<i>06/03/2014</i>	23.0
<i>16/03/2014</i>	4.6
<i>24/03/2014</i>	17.6
<i>25/03/2014</i>	3.6
<i>26/03/2014</i>	25.0
<i>27/03/2014</i>	20.6
<i>28/03/2014</i>	1.8
<i>29/03/2014</i>	0.2
<b>Total</b>	<b>140.8 mm</b>

**Table 1.** March 2014 rainfall data

### 3. MONITORING LOCATIONS

Figure 2 indicates the location of where monitoring is undertaken for the project. Any additional monitoring undertaken will be discussed within the body of this report.

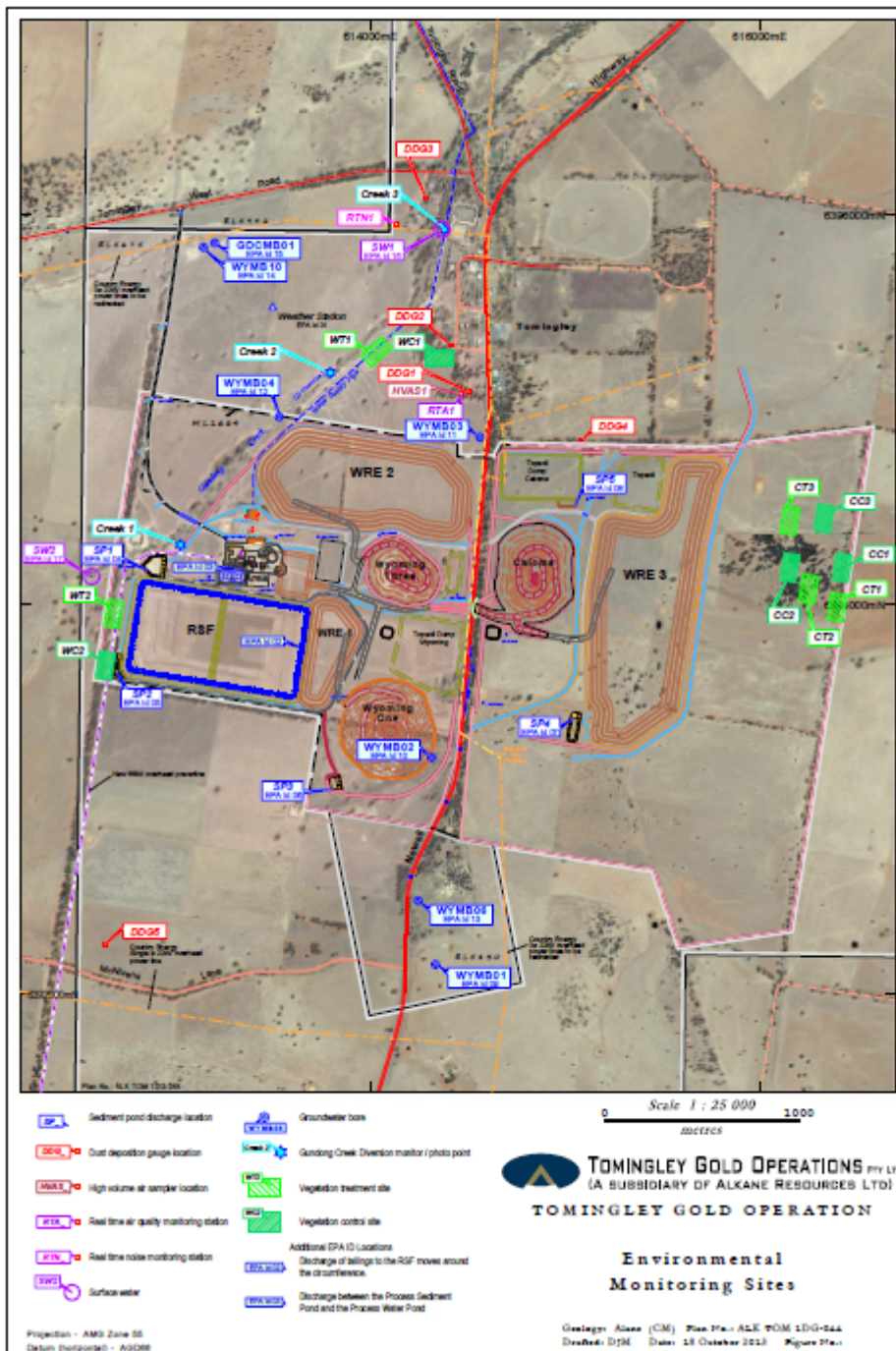


Figure 2. TGO water and vegetation monitoring points.

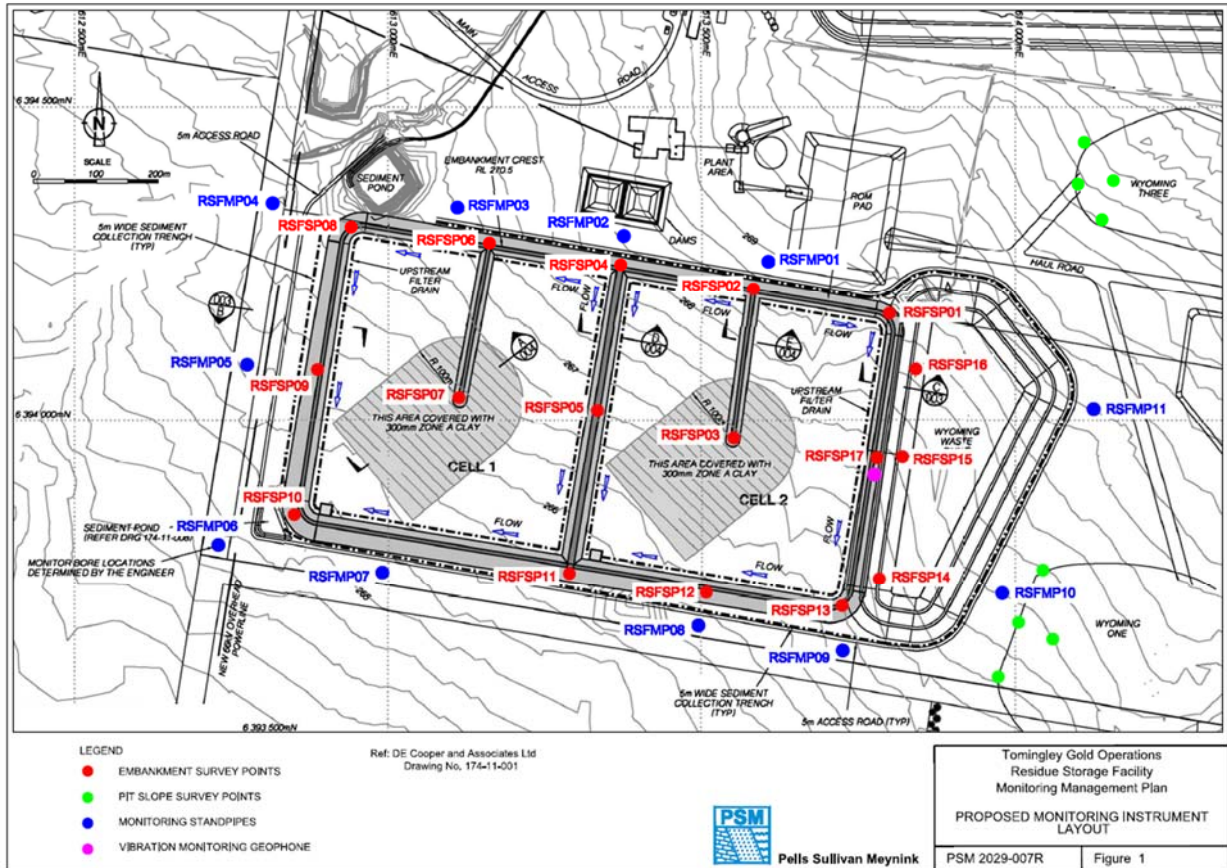


Figure 3. Residue Storage Facility monitoring points.

## AIR QUALITY MONITORING

### 3.1 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<sup>3</sup> and a 24-Hour Average of 50ug/m<sup>3</sup>.

During a service visit by a TEOM technician, the TEOM was confirmed to be operating inappropriately and was shipped for repair.



### 3.2 DEPOSITIONAL DUST

Depositional Dust monitoring undertaken during March 2014 returned the results indicated in Table 3 below.

Location	Date Monitored	Insoluble solids (g/m <sup>2</sup> /month)	Maximum increase in deposited dust level
DDG1	01/03/2014 – 01/04/2014	1.4	A notable increase in deposited dust level was recorded from DDG4. This increase was of 32.4g/m <sup>2</sup> . points. This high reading is considered to be a result of ploughing activities in the paddock adjacent to the mine site during the month.
DDG2	01/03/2014 – 01/04/2014	2.3	
DDG3	01/03/2014 – 01/04/2014	1.2	
DDG4	01/03/2014 – 01/04/2014	34.5	
DDG5	01/03/2014 – 01/04/2014	4.5	
DDG BP	01/03/2014 – 01/04/2014	2.0	
DDG Truck stop	01/03/2014 – 01/04/2014	3.6	

**Table 3.** Deposited Dust results for March 2014

### 3.3 HIGH VOLUME AIR SAMPLER - TOTAL SUSPENDED PARTICULATES

High Volume Air Sampling (HVAS) for Total Suspended Particulates (TSP) was undertaken during February 2014. Table 4 below provides the results. During sampling from 14 – 15 March it was noted that private land adjacent to the HVAS monitor was ploughed. The high recording is considered to be a result of this activity.

The performance criteria for TSP is averaged over 12 months.

Location	Sheet ID	Date On	Date Off	Results (TSP µg/m <sup>3</sup> )	Performance Criteria (Annual Average)
HVAS1	8892895	02/03/2014	03/03/2014	11.8	90 mg/m <sup>3</sup>
HVAS1	8892896	08/03/2014	09/03/2014	21.6	
HVAS1	8892897	14/03/2014	15/03/2014	50.2	
HVAS1	8892898	20/03/2014	21/03/2014	31.9	
HVAS1	8892899	27/03/2014	28/03/2014	13.9	

**Table 4.** High Volume Air Sampler Data for March 2014

## 4. NOISE MONITORING

### 4.1 REAL-TIME NOISE MONITORING

Due to a circuit board failure the monitor was off line for significant period in March. It has since been repaired and is fully operational.



## **4.2 HAND HELD NOISE MONITORING**

Hand held noise monitoring was carried out on two occasions during March 2014. Both these were triggered by reports of notable noise being heard off site. Efforts have been made to identify the sources of the noise and reduce the impact of noise on the community.

## **5. SURFACE WATER MONITORING**

### **5.1 GUNDONG CREEK**

Gundong Creek did not flow during the monitoring period and therefore no samples were collected.

### **5.2 SEDIMENTATION PONDS**

There was no discharge from the sedimentation ponds during March 2014. A large amount of rain was received in early March and, although there was no discharge from the sedimentation ponds, Sed Ponds number 3, 4 and 5 were sampled as a precaution and data gathering exercise.

## **6. GROUNDWATER MONITORING**

Groundwater monitoring is carried out quarterly. All ground water monitoring piezometers were sampled in March by contractors. Results for this monitoring are pending.

## **7. BIODIVERSITY MONITORING**

Native fauna sightings:

- A Little Forest Bat was seen close to the mine administration building.
- A Sacred Kingfisher was seen close to the mine administration building.
- Several Kangaroos were seen on several occasions in the front paddock.
- A White-necked Heron was seen on a couple of occasions.
- An Australian Hobby was seen in the vegetation along Tomingley West Road and the main mine entrance road.
- Black Kites were seen on two occasions.
- A group of around six Grey-crowned Babblers were seen at the south western corner of the mine site, and in the continuation of this vegetation corridor into surrounding property.

Native animal rescue:

No native animal rescue was required this month.

Vertebrate pests:

- Foxes and Hares were sighted in the paddocks surrounding the mine.