



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

Tomingley Gold Project

Monthly Environmental Monitoring Report – November 2014



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TABLE OF REVISIONS

Revision Number	Revision Date	Prepared By	Comments
Revision 1		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 November 2014.

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

2. WEATHER FOR NOVEMBER 2014

2.1 WEATHER STATION DATA

TGO weather data is presented below.

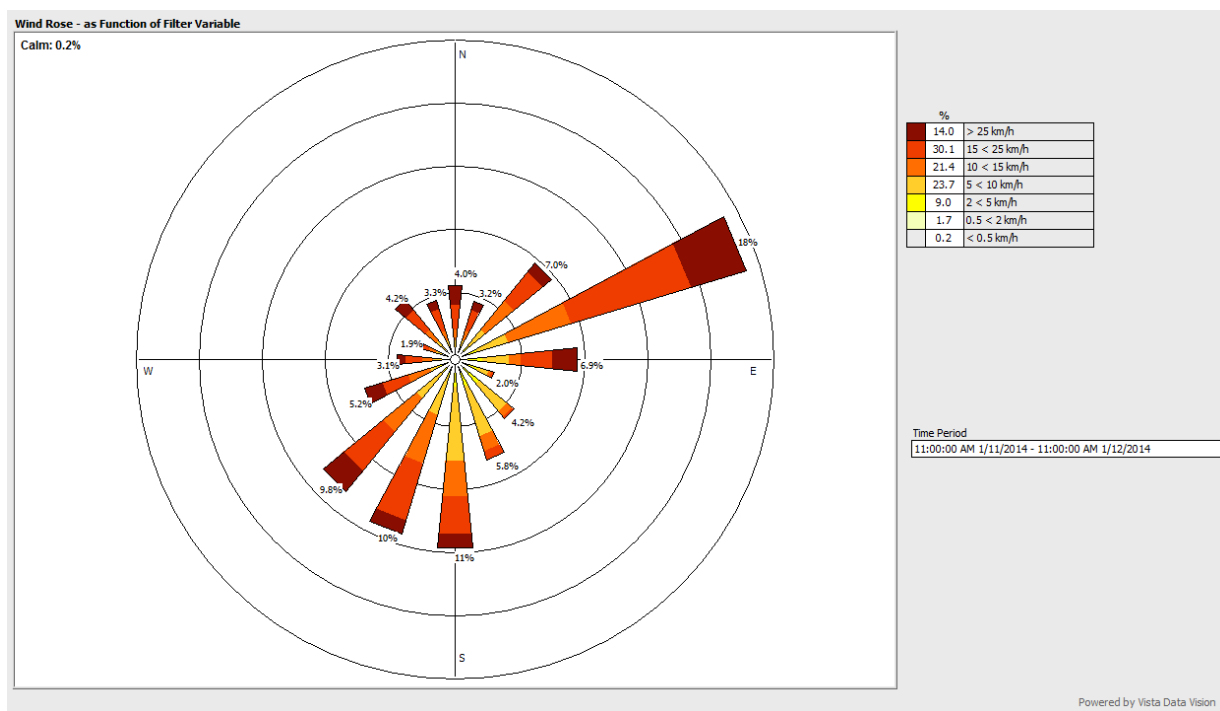


Figure 1. November 2014 wind monitoring station data

2.2 RAINFALL DATA

<i>November</i>	Amount (millimetres)
16/11/2014	5.6
25/11/2014	13.8
30/11/2014	2.4
Total	21.8 mm

Table 1. November 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.

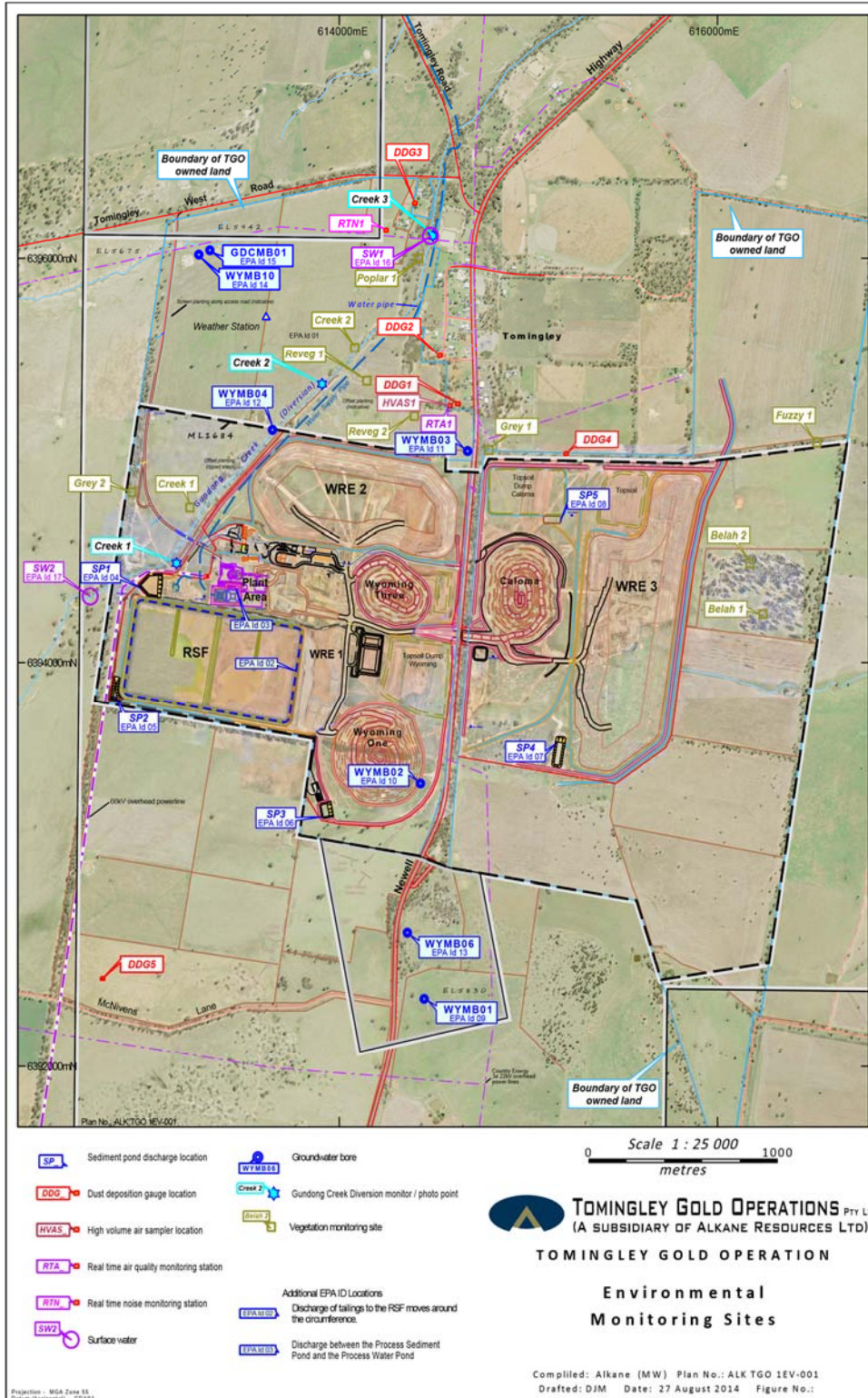


Figure 2. TGO water and vegetation monitoring points.

Figure 3 indicates the location of environmental and survey monitoring points on and around the Residue Storage Facility.

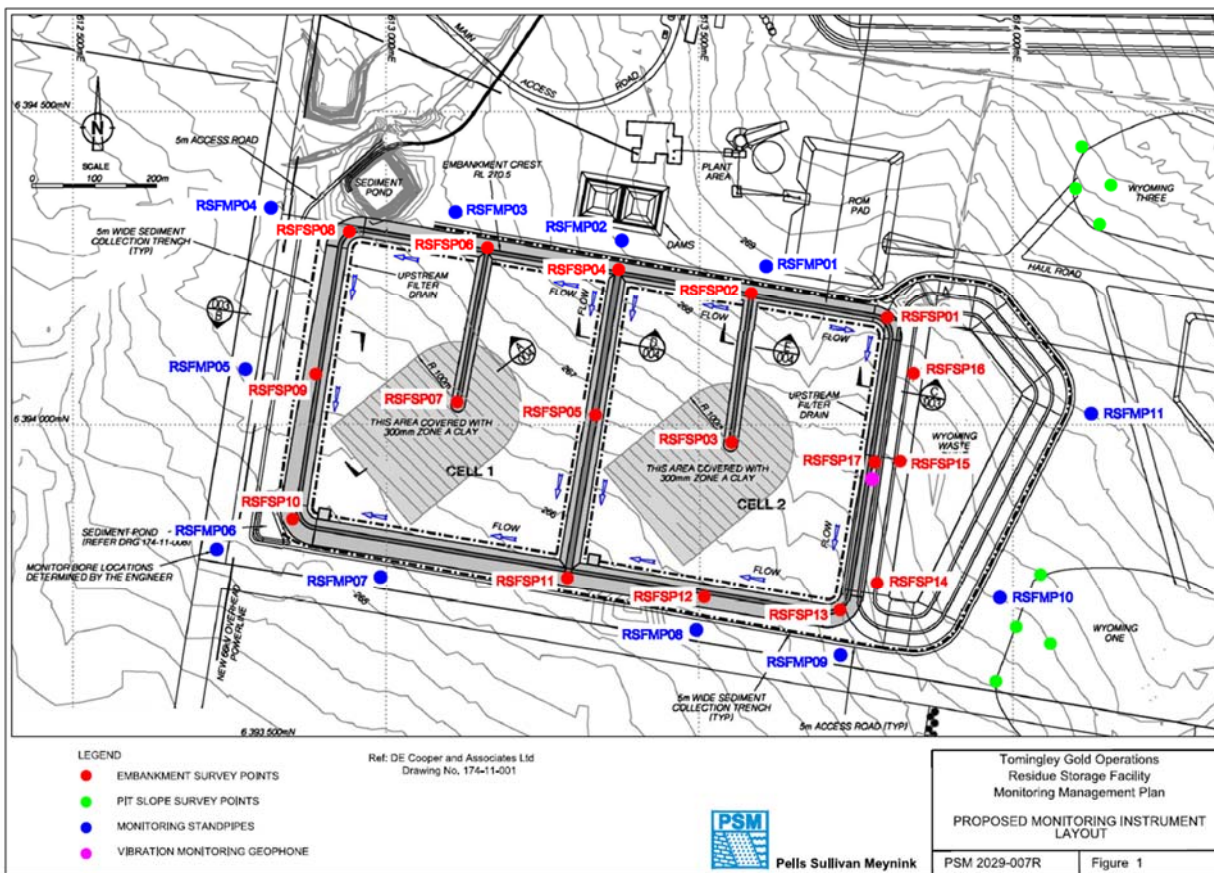


Figure 3. Residue Storage Facility monitoring points.

4. AIR QUALITY MONITORING

4.1 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/m³ and a 24-Hour Average of 50ug/m³. The 24 Hour Average was exceeded three times this month however monthly average remained below the 24 Hour Average figure.

Date	24 Hr Averages	Running Average	Comment
	(µg/m ³)		
1/11/2014	47.2	16.9	
2/11/2014	34.5	17.0	
3/11/2014	37.7	17.2	
4/11/2014	39.5	17.3	
5/11/2014	50.0	17.5	
6/11/2014	44.2	17.6	
7/11/2014	37.7	17.7	1 hr average data used
8/11/2014	28.7	17.8	
9/11/2014	34.8	17.9	
10/11/2014	63.0	18.1	
11/11/2014	46.7	18.3	
12/11/2014	31.6	18.4	
13/11/2014	30.5	18.4	
14/11/2014	40.1	18.5	
15/11/2014	84.3	18.9	1 hr average data used
16/11/2014	10.9	18.9	
17/11/2014	13.2	18.8	1 hr average data used
18/11/2014	32.0	18.9	
19/11/2014	35.2	19.0	
20/11/2014	24.0	19.0	
21/11/2014	48.3	19.2	
22/11/2014	34.9	19.2	
23/11/2014	55.9	19.4	
24/11/2014	41.9	19.5	
25/11/2014	16.7	19.5	
26/11/2014	31.3	19.6	
27/11/2014	41.0	19.7	
28/11/2014	15.3	19.7	1 hr average data used
29/11/2014	17.6	19.7	
30/11/2014	21.8	19.7	
Average	36.3		
	24 Hour criteria exceedance		

Table 2. Real time dust monitoring

4.2 DEPOSITIONAL DUST

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

Location	Date Monitored	Insoluble solids (g/m ² /month)	Maximum increase in deposited dust level
DDG1	3/11/2014 1/12/2014	1.9	DDG4 again gives the highest reading however it was lower than October levels and is within allowable levels. The greatest increase in deposited dust level was recorded at DDG3; an increase of 1.0 g/m ² /month
DDG2	3/11/2014 1/12/2014	1.3	
DDG3	3/11/2014 1/12/2014	1.9	
DDG4	3/11/2014 1/12/2014	2.2	
DDG5	3/11/2014 1/12/2014	1.6	

Table 3. Deposited Dust results for November 2014

4.3 HIGH VOLUME AIR SAMPLER - TOTAL SUSPENDED PARTICULATES

High Volume Air Sampling (HVAS) for Total Suspended Particulates (TSP) was undertaken this month. Table 4 below provides the results.

The performance criteria for TSP is averaged over 12 months. All five results this month exceeded the annual average performance criteria.

Location	Sheet ID	Date On	Date Off	Results (TSP µg/m ³)	Performance Criteria (Annual Average)
HVAS1	8895995	3 November 2014	4 November 2014	94.4	90 µg/m ³
HVAS1	8895996	9 November 2014	10 November 2014	91.4	
HVAS1	8895997	15 November 2014	16 November 2014	296	
HVAS1	9036863	21 November 2014	22 November 2014	137	
HVAS1	9036864	27 November 2014	28 November 2014	110	

Table 4. High Volume Air Sampler Data for November 2014

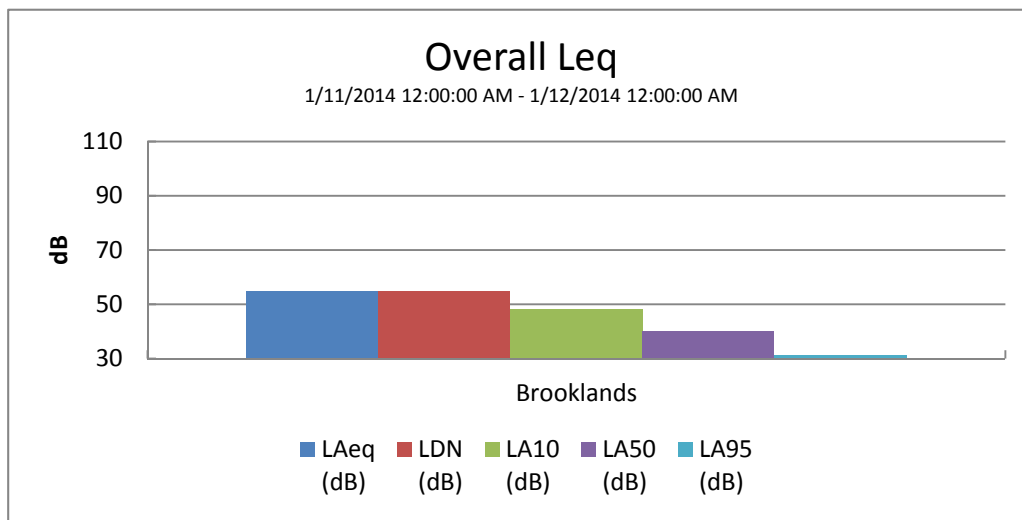
5. NOISE MONITORING

5.1 REAL-TIME NOISE MONITORING

See real-time noise monitoring data presented below.

Long Period

Tomingley Gold Site (1/11/2014 12:00 AM - 1/12/2014 12:00 AM)



Overall Data

Location	Start Time	End Time	Activity	LDN (dB)	L _{Aeq} (dB)	L _{AMin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A95} (dB)
Brooklands	1/11 12:00:00 AM	1/12 12:00:00 AM	100%	54.8	54.8	23.1	48.4	40.3	31.2

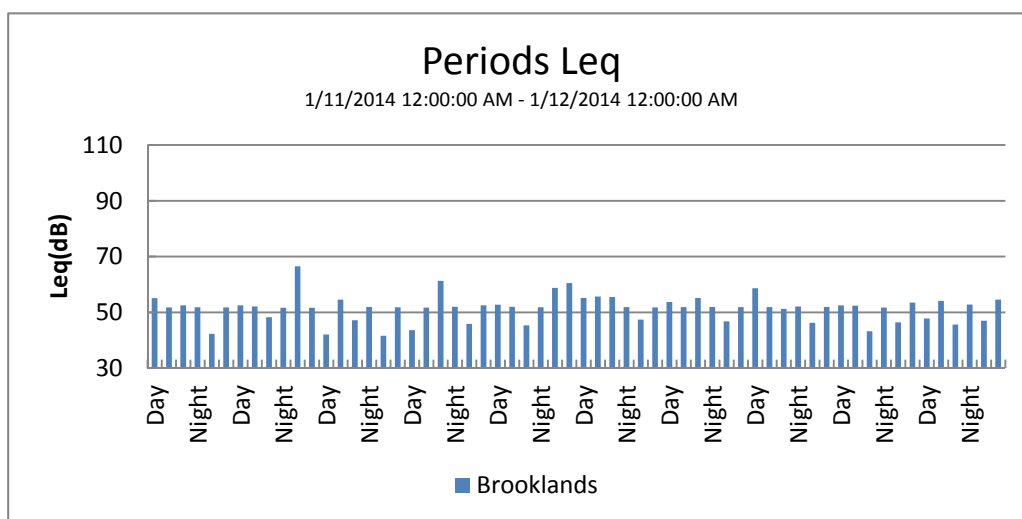


Figure 4. Fixed, real time noise monitoring data.

6. SURFACE WATER MONITORING

6.1 GUNDONG CREEK

Gundong Creek did not run the reporting period and hence water sampling did not occur.

6.2 SEDIMENTATION PONDS

No discharge or water testing occurred this month.

7. GROUNDWATER MONITORING

Groundwater monitoring is carried out quarterly and was completed in September. Next groundwater monitoring will be undertaken in December.

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 Harts Cottage and Tomingley Village.

EventKey	Event	Date/Time	Max R (mm/s)	Max AB (Pa)	Max AB (dBL)	Monitor location
58159	TMG03O	27/11/2014 17:47	0	1.03	94.2	Harts Cottage
58158	TMG03N	27/11/2014 17:34	0	0.68	90.6	Harts Cottage
58155	TMG03M	27/11/2014 15:45	0.01	0.17	78.6	Harts Cottage
58125	TMG03L	26/11/2014 15:57	0.01	1.29	96.2	Harts Cottage
58114	TMG03K	26/11/2014 13:59	0.01	0.28	83	Harts Cottage
58109	TMG03J	26/11/2014 13:01	0.33	2.19	100.8	Harts Cottage
58087	TMG03I	25/11/2014 21:53	0	0.13	76	Harts Cottage
58059	TMG03H	24/11/2014 17:56	0	0.29	83.2	Harts Cottage
58051	TMG03G	24/11/2014 12:59	0.31	1.3	96.3	Harts Cottage
58032	TMG03F	23/11/2014 18:09	0	0.32	84	Harts Cottage
58031	TMG03E	23/11/2014 16:40	0.01	0.18	79.2	Harts Cottage
58018	TMG03D	22/11/2014 16:02	0	0.64	90.2	Harts Cottage
57972	TMG03C	21/11/2014 14:34	0	0.85	92.5	Harts Cottage
57942	TMG03B	20/11/2014 13:33	0	0.18	79.2	Harts Cottage
57938	TMG03A	20/11/2014 13:01	0.24	1.19	95.5	Harts Cottage
57863	TMG039	19/11/2014 15:54	0	0.13	76.4	Harts Cottage
57710	TMG038	18/11/2014 13:02	0.19	6.53	110.3	Harts Cottage
57685	TMG037	17/11/2014 13:11	0.15	1.55	97.8	Harts Cottage
57587	TMG036	15/11/2014 12:56	0.15	1.24	95.9	Harts Cottage
57522	TMG035	13/11/2014 13:58	0.01	0.29	83.2	Harts Cottage
57521	TMG034	13/11/2014 13:52	0.29	2.4	101.6	Harts Cottage
57418	TMG033	11/11/2014 13:01	0.19	4.28	106.6	Harts Cottage
57378	TMG032	8/11/2014 20:17	0	0.2	79.8	Harts Cottage
57371	TMG031	8/11/2014 14:59	0.11	1.62	98.2	Harts Cottage
57348	TMG030	7/11/2014 13:00	0.15	1.19	95.5	Harts Cottage
57331	TMG02Z	6/11/2014 17:58	0	0.54	88.7	Harts Cottage
57330	TMG02Y	6/11/2014 17:46	0.02	1.39	96.8	Harts Cottage
57312	TMG02X	6/11/2014 12:58	0.34	4.32	106.7	Harts Cottage
57195	TMG02W	3/11/2014 12:58	0.22	3.21	104.1	Harts Cottage
58159	TMG03O	27/11/2014 17:47	0	1.33	96.5	Tomingley Village
58158	TMG03N	27/11/2014 17:34	0.01	0.8	92	Tomingley Village
58155	TMG03M	27/11/2014 15:45	0.01	0.85	92.6	Tomingley Village
58125	TMG03L	26/11/2014 15:57	0.03	2.69	102.6	Tomingley Village
58114	TMG03K	26/11/2014 13:59	0.01	0.55	88.7	Tomingley Village
58109	TMG03J	26/11/2014 13:01	0.33	2.73	102.7	Tomingley Village
58087	TMG03I	25/11/2014 21:53	0	0.23	81.1	Tomingley Village
58059	TMG03H	24/11/2014 17:56	0	1.26	96	Tomingley Village
58051	TMG03G	24/11/2014 12:59	0.29	1.08	94.7	Tomingley Village
58032	TMG03F	23/11/2014 18:09	0	3.28	104.3	Tomingley Village
58031	TMG03E	23/11/2014 16:40	0.01	0.11	74.8	Tomingley Village
58018	TMG03D	22/11/2014 16:02	0.01	2.29	101.2	Tomingley Village
57972	TMG03C	21/11/2014 14:34	0	1.61	98.1	Tomingley Village
57942	TMG03B	20/11/2014 13:33	0	1.27	96.1	Tomingley Village
57938	TMG03A	20/11/2014 13:01	0.18	1.62	98.2	Tomingley Village
57863	TMG039	19/11/2014 15:54	0	0.22	80.6	Tomingley Village
57710	TMG038	18/11/2014 13:02	0.19	10.51	114.4	Tomingley Village
57685	TMG037	17/11/2014 13:11	0.13	1.27	96.1	Tomingley Village
57587	TMG036	15/11/2014 12:56	0.15	1.12	94.9	Tomingley Village
57522	TMG035	13/11/2014 13:58	0	0.86	92.6	Tomingley Village
57521	TMG034	13/11/2014 13:52	0.24	2.46	101.8	Tomingley Village
57418	TMG033	11/11/2014 13:01	0.23	5.82	109.3	Tomingley Village
57378	TMG032	8/11/2014 20:17	0	0.14	76.9	Tomingley Village
57371	TMG031	8/11/2014 14:59	0.15	1.54	97.7	Tomingley Village
57348	TMG030	7/11/2014 13:00	0.18	1.12	94.9	Tomingley Village
57331	TMG02Z	6/11/2014 17:58	0.01	3.01	103.5	Tomingley Village
57330	TMG02Y	6/11/2014 17:46	0.02	1.75	98.8	Tomingley Village
57312	TMG02X	6/11/2014 12:58	0.45	5.43	108.7	Tomingley Village
57195	TMG02W	3/11/2014 12:58	0.28	1.6	98.1	Tomingley Village

Table 5. Blast monitoring

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.

The WAD results for this month are:

- Monthly average: 4.70 ppm
- Daily maximum: 9.77 ppm on 7 November 2014
- Daily minimum: 1.24 ppm on 4 November 2014
- Number of exceedances: zero

10. BIODIVERSITY MONITORING

- Native fauna sightings:
 - Two Wedge-tailed Eagles were seen over the paddock south of Wyoming.
 - A group of Grey-crowned Babblers were seen in a tree land along the northern edge of the Caloma pit. This group of 10 birds appeared to have around 6 fledglings with them.
 - A group of nine Grey-crowned Babblers was seen in the same tree land later in the month.
 - A Yellow Spoonbill was seen in one of the front dams.
 - Grey-crowned Babbler brood nests have been identified on TGO land on the outskirts of the site.



Photo (Ady Watson): Grey-crowned Babbler brood nest located in the vegetation corridor north of Caloma site.

- Native animal rescue:
 - A Crow with a broken wing was collected from beside the road to the magazine area. It was taken to the local veterinary surgeon and was euthanised.
- Vertebrate pests:
 - A foxes and hares observed frequently across the site during the days and nights.