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

Tomingley Gold Project

Monthly Environmental Monitoring Report – August 2015

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TABLE OF REVISIONS

Revision Number	Revision Date	Prepared By	Approved	Comments
Revision 1	17/9/15	JL/CH	MW	Submitted for Information

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 August 2015.

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

2. WEATHER FOR AUGUST 2015

2.1 WEATHER STATION DATA

TGO weather data is presented below.

Figure 1 **August 2015 Wind rose**

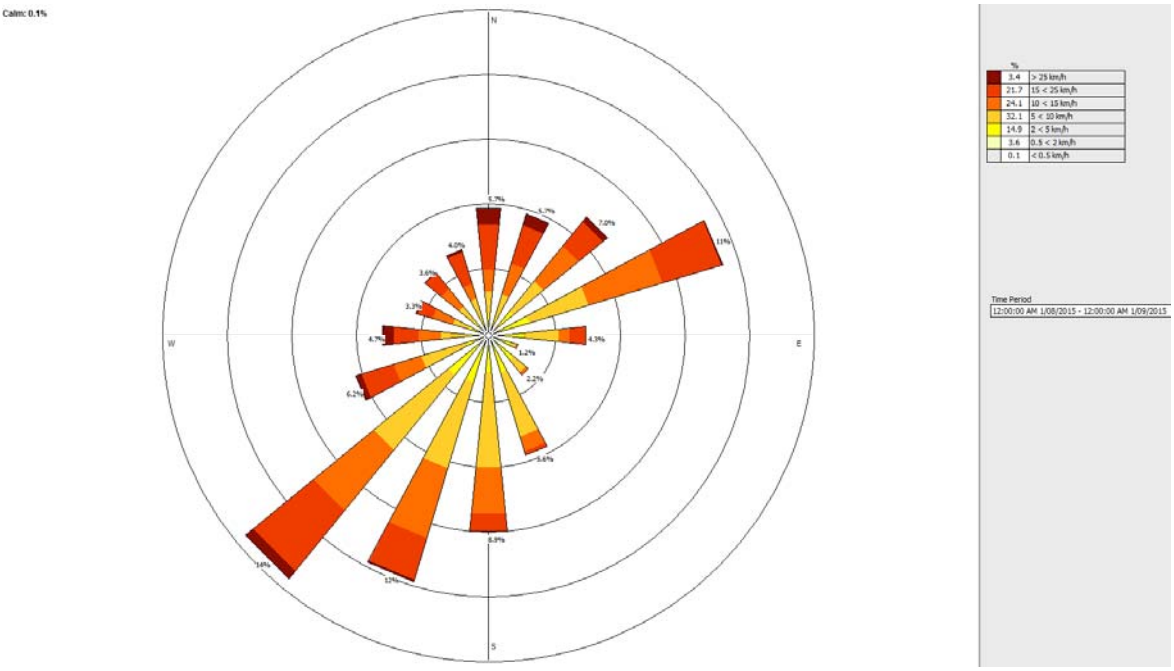


Figure 2 Rainfall August 2015

August 2015	Rainfall (mm)
5/08/2015	1
7/08/2015	0.2
12/08/2015	1.6
14/08/2015	0.2
23/08/2015	15.6
24/08/2015	1
25/08/2015	2.4
27/08/2015	0.2
28/08/2015	0.2

3. MONITORING LOCATIONS

Figure 3indicates 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

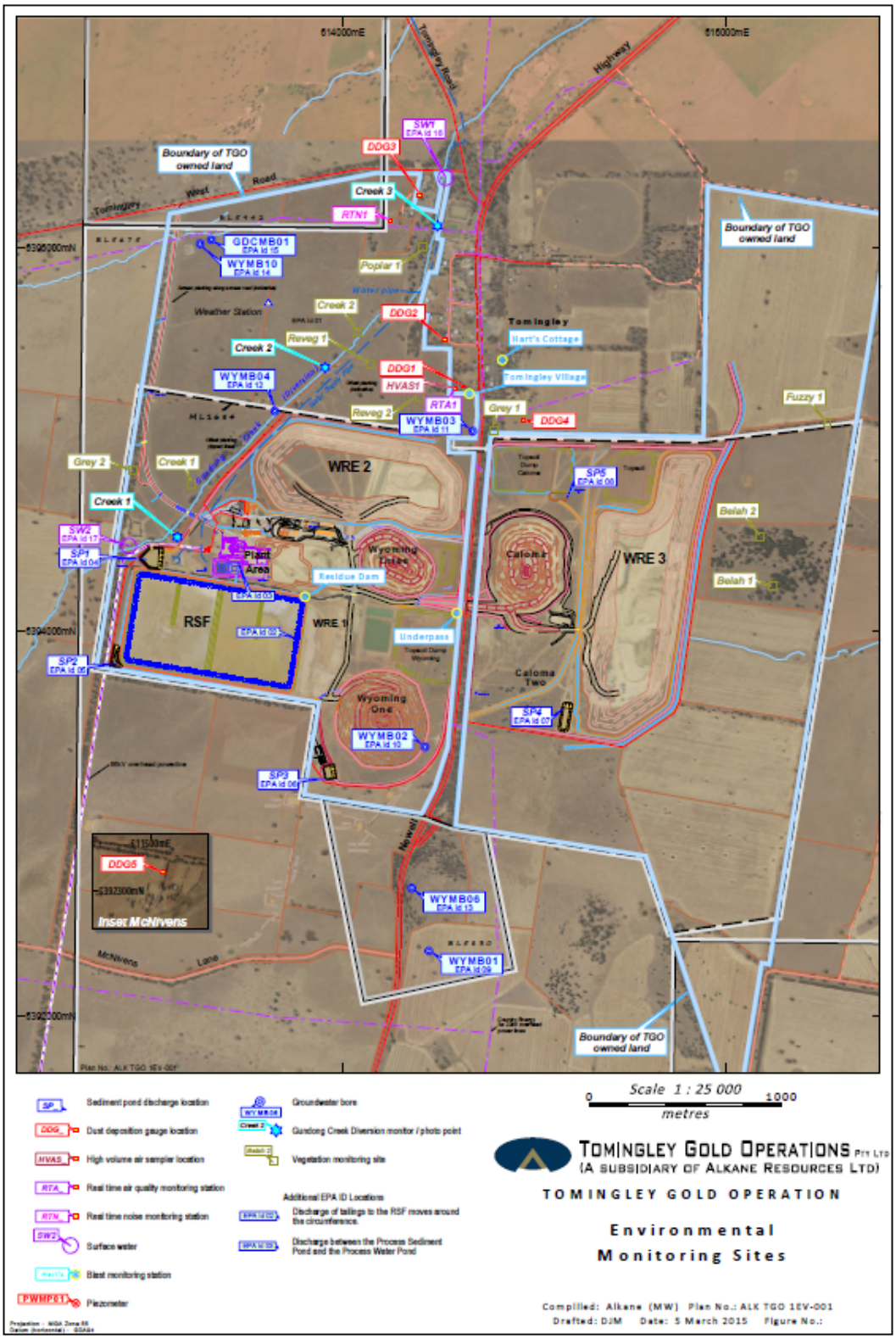
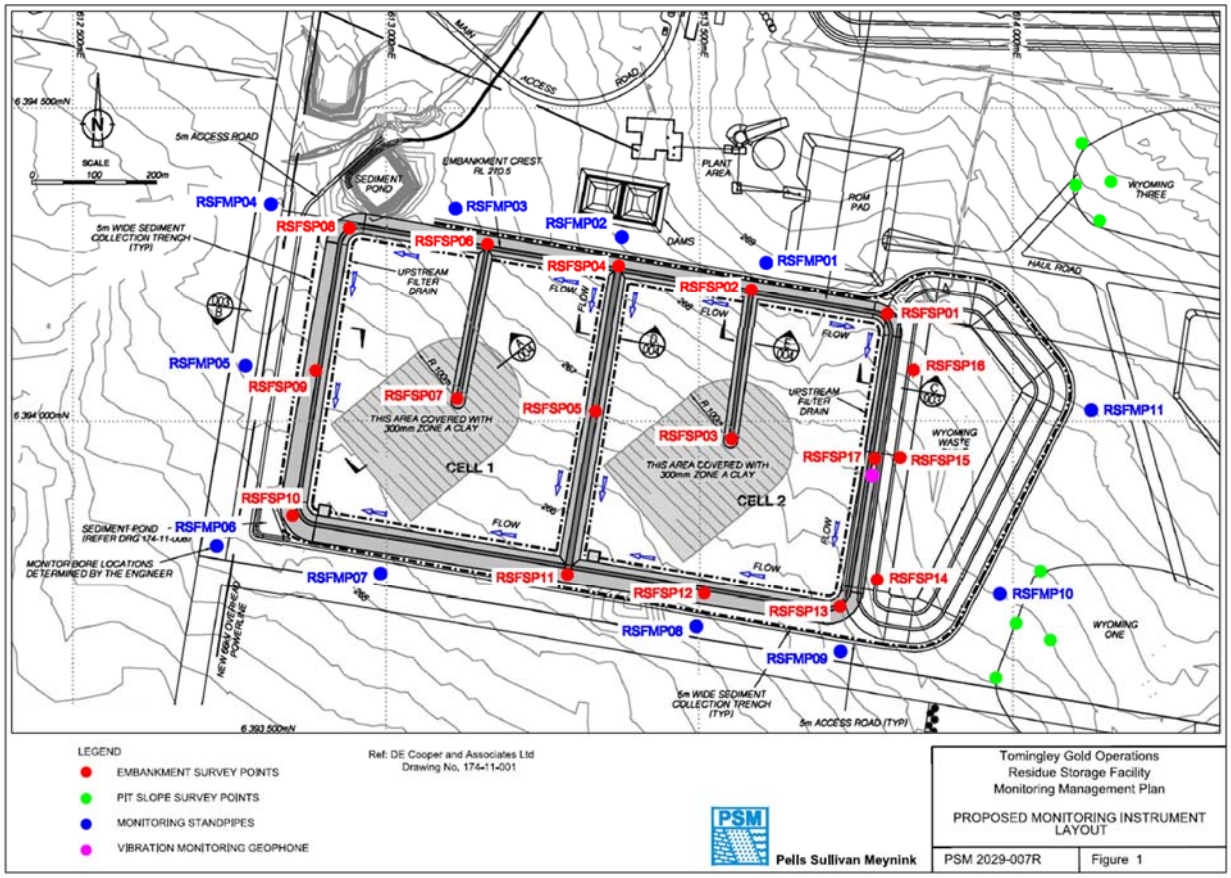


Figure 4indicates the location of environmental and survey monitoring points on and around the Residue Storage Facility.

Figure 4 Residue Storage Facility monitoring points



4. AIR QUALITY MONITORING

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/m^3 and a 24-Hour Average of 50ug/m^3. The 24 Hour Average was not exceeded month.

Figure 5 TEOM Data August 2015

Date	24 Hr Averages (µg/m3)	Running Average (µg/m3)	Comment
1/08/2015	11.3	21.8	
2/08/2015	24.2	21.9	
3/08/2015	18.2	21.9	
4/08/2015	18.0	21.9	
5/08/2015	7.3	21.9	
6/08/2015	13.0	21.8	
7/08/2015	18.9	21.8	
8/08/2015	24.0	21.9	
9/08/2015	13.1	21.8	
10/08/2015	12.6	21.8	21 hrs of 1 hr avg data used.
11/08/2015	13.1	21.8	
12/08/2015	9.0	21.7	
13/08/2015	10.4	21.7	
14/08/2015	13.0	21.7	
15/08/2015	9.8	21.7	
16/08/2015	18.4	21.7	
17/08/2015	17.0	21.8	21.5 hrs of 1 hr avg data used
18/08/2015	21.1	21.8	
19/08/2015	9.7	21.8	
20/08/2015	10.8	21.8	
21/08/2015	22.9	21.8	20 hrs of 1 hr avg data used
22/08/2015	22.8	21.9	20.5 hrs of 1 hr avg data used
23/08/2015	10.0	21.9	21 hrs of 1 hr avg data used.
24/08/2015	5.7	21.9	
25/08/2015	3.6	21.8	
26/08/2015	6.0	21.8	
27/08/2015	5.9	21.8	
28/08/2015	9.3	21.8	
29/08/2015	12.9	21.7	
30/08/2015	13.4	21.7	
31/08/2015	17.5	21.7	
Average	13.6		
	24 Hour criteria exceedance		

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

4.2 DEPOSITIONAL DUST

Depositional Dust monitoring undertaken during this month returned the results indicated in Table 3 below. The performance criteria for deposited dust is averaged over 12 months.

Figure 6 Dust Deposition Results August 2015

Location	Date Monitored	Insoluble solids (g/m^2/month)	Maximum increase in deposited dust level
DDG1	02/07/2015–04/08/2015	1.2	The greatest increase in deposited dust level was recorded at DDG3; an increase of 27.7 g/m^2/month. This increase is due • to the increase of inorganic matter – bird droppings. A deterrent structure has been fitted.
DDG2	02/07/2015–04/08/2015	0.8	
DDG3	02/07/2015–04/08/2015	0.8	
DDG4	02/07/2015–04/08/2015	31.6	
DDG5	02/07/2015–04/08/2015	0.3	

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

Figure 7 Hi-Volume Air Sampler Data August 2015

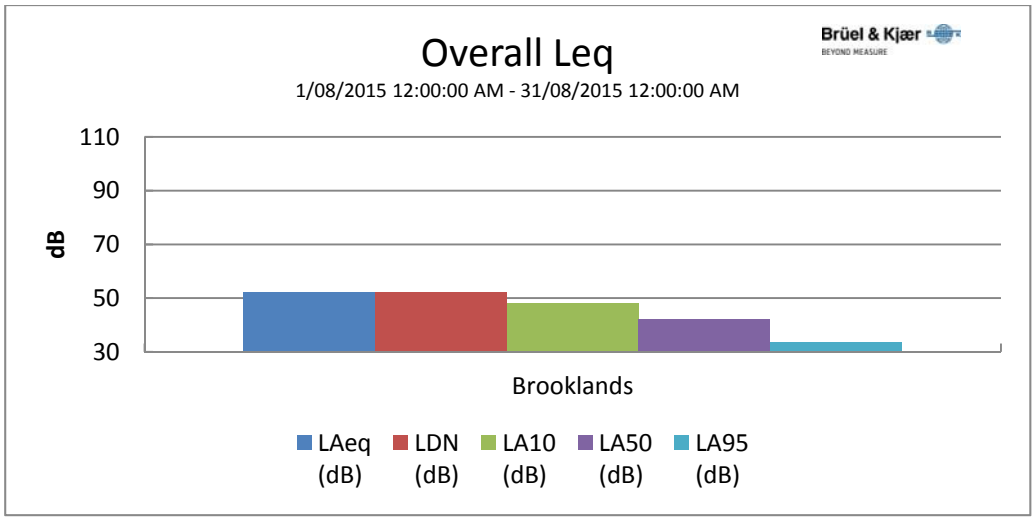
Location	Sheet ID	Date On	Date Off	Results (TSP µg/m^3)	Performance Criteria (Annual Average)
HVAS1	9153698	07/07/2015	08/07/2015	39.1	90 µg/m3.
HVAS1	9153699	13/07/2015	14/07/2015	6.2	
HVAS1	9153700	19/07/2015	20/07/2015	20.1	
HVAS1	9127545	25/07/2015	26/07/2015	17.0	
HVAS1	9127546	31/07/2015	01/08/2015	24.1	

5. NOISE MONITORING

5.1 REAL-TIME NOISE MONITORING

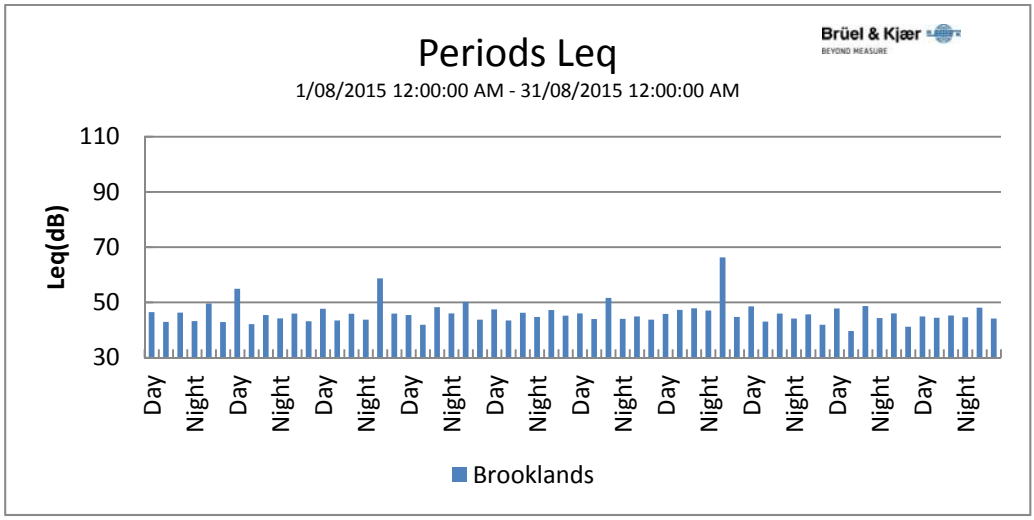
See real-time noise monitoring data presented below.

Figure 8 TGO Noise Monitoring 1/08/2015 - 31/08/2015



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	1/08 12:00:00 AM	31/08 12:00:00 AM	100%	52.0	52.0	25.2	48.0	42.0	33.4



6. SURFACE WATER MONITORING

6.1 GUNDONG CREEK

Gundong Creek continued to flow and background data collected. This data will be for internal reference and future investigations.

6.2 SEDIMENTATION PONDS

No discharge and associated water testing occurred this month.

7. GROUNDWATER MONITORING

Groundwater monitoring is carried out quarterly. As reported last month some sampling occurred in June and due to unforeseen circumstances the remainder of the June sampling had to occur in early July. Results for this sampling is outlined in **Figure 9 below.**

Figure 9 Ground water results June/July 2015

Parameter	WYMB01	WYMB02	WYMB03	WYMB04	WYMB06	WYMB10	GDCMB01
Sampling Date	08-Jul-15	09-Jul-15	08-Jul-15	08-Jul-15	09-Jul-15	09-Jul-15	24-Jun-15
Time	1538	940	1413	1230	1223	1045	1335
Sampler	CBE	CBE	CBE	CBE	CBE	CBE	CBE
Redox (mV)	-28	106	87	60	134	122	90
Field_Oxy (ppm)	1.46	1.39	4.39	2.99	2.35	3.32	3.36
Field_pH	6.84	6.85	6.66	6.78	6.79	6.84	7.24
Field_EC_uS_cm	11420	21230	19670	25.9	13530	27200	503
Field_ temp (C)	20	20.4	21.6	21	19.6	21.2	15.2
Water level below surface (m)	-38.74	-59.17	-54.06	-62.69	-37.37	-72.15	-2.18

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.

Figure 10 Blast Monitoring

EventKey	Event	Date/Time	Max R (mm/s)	Max AB (Pa)	Max AB (dBL)	Monitor Location
63972	TMG07C	31/08/2015 14:08	0	1.81	99.1	Tomingley Village
63968	TMG07B	31/08/2015 13:05	0.34	2.82	103	Tomingley Village
63967	TMG07A	31/08/2015 13:00	0.25	2.84	103	Tomingley Village
63893	TMG079	28/08/2015 12:58	0.42	3.71	105.4	Tomingley Village
63842	TMG078	26/08/2015 12:59	0.35	2.93	103.3	Tomingley Village
63823	TMG077	25/08/2015 13:00	0.38	4.34	106.7	Tomingley Village
63791	TMG076	22/08/2015 12:55	0.18	2.78	102.9	Tomingley Village
63778	TMG075	21/08/2015 12:58	0.36	1.66	98.4	Tomingley Village
63734	TMG074	19/08/2015 12:59	0.16	2.29	101.2	Tomingley Village
63682	TMG073	18/08/2015 15:02	0.45	6.97	110.8	Tomingley Village
63654	TMG072	17/08/2015 14:05	0.17	6.25	109.9	Tomingley Village
63641	TMG071	15/08/2015 14:27	0.38	3.22	104.1	Tomingley Village
63562	TMG070	12/08/2015 13:16	0.46	3.47	104.8	Tomingley Village
63534	TMG06Z	10/08/2015 14:35	0.36	2.84	103.1	Tomingley Village
63533	TMG06Y	10/08/2015 14:21	0.71	3.56	105	Tomingley Village
63506	TMG06X	7/08/2015 13:03	0.25	3.91	105.8	Tomingley Village
63484	TMG06W	6/08/2015 12:57	0.49	5.93	109.4	Tomingley Village
63469	TMG06V	5/08/2015 12:56	0.42	3.38	104.5	Tomingley Village
63414	TMG06U	3/08/2015 12:58	0.14	3.95	105.9	Tomingley Village
63363	TMG06T	1/08/2015 13:09	0.53	3.27	104.3	Tomingley Village
63972	TMG07C	31/08/2015 14:08	0	1.43	97.1	Harts Cottage
63968	TMG07B	31/08/2015 13:05	0.22	2.58	102.2	Harts Cottage
63967	TMG07A	31/08/2015 13:00	0.18	2.78	102.9	Harts Cottage
63893	TMG079	28/08/2015 12:58	0.3	2.75	102.8	Harts Cottage
63842	TMG078	26/08/2015 12:59	0.42	3.28	104.3	Harts Cottage
63823	TMG077	25/08/2015 13:00	0.39	4.12	106.3	Harts Cottage
63791	TMG076	22/08/2015 12:55	0.15	1.46	97.3	Harts Cottage
63778	TMG075	21/08/2015 12:58	0.26	1.33	96.5	Harts Cottage
63734	TMG074	19/08/2015 12:59	0.17	2.52	102	Harts Cottage
63682	TMG073	18/08/2015 15:02	0.27	6.86	110.7	Harts Cottage
63654	TMG072	17/08/2015 14:05	0.13	5.13	108.2	Harts Cottage
63641	TMG071	15/08/2015 14:27	0.25	2.8	102.9	Harts Cottage
63562	TMG070	12/08/2015 13:16	0.35	3.04	103.6	Harts Cottage
63534	TMG06Z	10/08/2015 14:35	0.28	2.4	101.6	Harts Cottage
63533	TMG06Y	10/08/2015 14:21	0.42	2.57	102.2	Harts Cottage
63506	TMG06X	7/08/2015 13:03	0.16	2.9	103.2	Harts Cottage
63484	TMG06W	6/08/2015 12:57	0.18	6.53	110.3	Harts Cottage
63469	TMG06V	5/08/2015 12:56	0.39	3.34	104.5	Harts Cottage
63414	TMG06U	3/08/2015 12:58	0.15	4.04	106.1	Harts Cottage
63363	TMG06T	1/08/2015 13:09	0.36	3	103.5	Harts Cottage

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 August 2015 are:

- Monthly average: 2.19 ppm

- Daily maximum: 6.22 ppm on 15 Aug.
- Daily minimum: 0.46 ppm on 8 Aug.
- Number of exceedances: zero

10. BIODIVERSITY MONITORING

- Fauna deaths:
  - There were no fauna deaths in the RSF for the month.
- Native fauna sightings:
  - Spotted harrier, *Circus assimillis,* was sighted on TGO farmlands to the East of site.
  - Grey-crowned Babblers, *Pomatostomus temporalis*, were seen twice this month, amongst remnant vegetation to the north and south of site. On one of these occasions, nest building was observed.
- Native animal rescue:
  - No native animal rescue were undertaken this month.
- Vertebrate pests:
  - Foxes and hares are seen occasionally.