



SUNNYSIDE COAL MINE

COMMUNITY CONSULTATIVE COMMITTEE

MEETING #5

ENVIRONMENTAL MONITORING REPORT

December 2009 – February 2010

Noise Monitoring

The noise limits applicable to operations on the Sunnyside Coal Mine, as prescribed in the Project Approval and Environment Protection Licence, are as follows:-

Day/Evening LAeq(15 minute)	Land
35	Any residence on, or more than 25% of, any privately owned land, except "Lilydale".

Impact Assessment Criteria dB(A).

Noise measurements taken since the last meeting are as tabulated below.

Attended Noise Levels – 26th November 2009 (afternoon)

Location	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources as dB(A) Leq (15 min)
Illili	4:25 pm	52	3m/s W	Wind (52), SCM inaudible
Ferndale	5:05 pm	50	4m/s W	Wind (50), SCM inaudible
Plain View	4:05 pm	50	3m/s W	Wind (50), SCM faintly audible (est. <25)
Lilydale	3:46 pm	46	2m/s W	Wind (46), birds & insects (35), SCM (est. <30)
Glendower	4:45 pm	51	3.5m/s W	Wind (51), SCM inaudible

Attended Noise Levels – 27th November 2009 (morning)

Location	Time	dB(A),Leq	Wind speed/ direction	Identified Noise Sources
Illili	8:08 am	48	<0.5m/s NW	Birds & insects (48), SCM inaudible
Ferndale	7:36 am	53	<0.5m/s NW	Traffic (53), insects (42), SCM (30)
Plain View	8:30 am	38	<0.5m/s NW	SCM (34) birds (33), traffic (32)
Lilydale	8:50 am	44	1m/s NW	Birds & insects (41), SCM (40) , wind (35)
Glendower	7:50 am	49	<0.5m/s NW	Birds & insects (49), SCM inaudible

The results indicate that, under the operational and atmospheric conditions at the time, noise emissions from the mine exceeded the noise criterion of 35 dB(A) at the monitoring location at Lilydale during the morning of 27th November 2009. This property is mine owned.

A sound level meter was also set up in the paddock adjacent to the "Roslyn" property to determine the noise levels associated with coal haulage. The noise levels from 11 trucks (6 full and 5 empty) passing the site were measured between 4.25 pm and 5.25 pm on Thursday 26th November 2009.

The weighted average noise level for each truck was 65.1 dB(A) Leq (passby) for an average duration of 25 seconds. Over the approximate 1 hour monitoring period this equates to a measured Leq of 52.7 dB(A). This correlates well with earlier measurements and calculations made at the site which determined that up to 10 vehicle movements per hour could pass the

residence before the day time noise criterion for a local road of 55 dB(A) Leq (1 hour) is exceeded.

Noise monitoring results from the monitoring conducted in February 2010 will be provided at the next CCC meeting.

Air Quality Monitoring

Deposited Dust

Deposited dust levels for the site for the last 12 months are shown in the following table and figure.

Sunnyside Mine – Deposited Dust

Month	SD1 Ferndale	SD3 Plainview	SD4 Lilydale	SD5 Ivanhoe	SD6 Illili	SD7 Innisvale
February 2009	1.4	3.2	2.2	6.5	1.3	1.8
March 2009	2.5	2.5	1.1	9.8	3.5	1.3
April 2009	0.8	4.2	0.9	9.5	0.9	1.0
May 2009	1.4	1.4	1.0	1.0	0.8	1.1
June 2009	0.3	0.5	0.1	0.4	0.2	1.0
July 2009	0.4	0.5	0.5	2.1	0.6	0.7
August 2009	1.8	1.3	1.2	32.6	4.0	0.8
September 2009	9.7	39.9	6.8	12.2	15.0	6.9
October 2009	3.7	12.2	1.9	3.2	10.0	2.3
November 2009	0.6	25.7	1.5	3.0	0.9	1.5
December 2009	1.2	1.4	1.6	1.9	1.1	1.0
January 2010	1.8	7.9	3.0	1.9	1.7	1.6
Annual Average	2.1	8.4	1.8	7.0	3.3	1.8

Deposited dust levels have generally remained at consistently low levels over the last 3 months with the exception of SD3 – “Plainview”. It is believed that the elevated dust level at “Plainview” is a result of sample contamination (bird droppings, insects, plant material) rather than impacts from mining operations.

The annual average for all sites remains below 4g/m²/month for all sites except “Plainview” and “Ivanhoe”. The annual average for “Plainview” has been affected by the dry, dusty weather conditions in late 2009 and the recent contamination issues with outlier results skewing the overall average. Relatively low dust levels at “Ivanhoe” during the last 4 months has seen the annual average reduce from 9.2 g/m²/month to 7.0 g/m²/month since the last CCC meeting. Again, outlier results at this monitor has skewed the overall average.

PM₁₀ Data

The 24hr criterion of 50µg/m³ was breached at the both monitor locations during the period 8th - 14th December 2009, as follows:

Date	Illili	Lilydale
8 th December 2009	109 µg/m ³	70 µg/m ³
14 th December 2009	67 µg/m ³	compliant

Review of other PM₁₀ units operated by Whitehaven confirmed a general spike in PM₁₀ concentrations on these days and coincided with bushfires in the region producing significant smoke haze. It is also noteworthy that the PM₁₀ unit in Tamworth operated by the DECCW experienced an increase in PM₁₀ over the period 8th – 14th December with PM₁₀ levels ranging from 24 µg/m³ to 325 µg/m³, which indicates general regional conditions were responsible for the higher concentrations recorded at the “Illili” and “Lilydale” monitors. The exceedances were referred to DoP and DECCW.

PM₁₀ measurements taken to date for the “Illili” High Volume Air Sampler are returning a running annual average of 20.76µg/m³, which is well below the annual average limit of 30µg/m³. The highest reading from this sampler is 109 µg/m³ (8th December 2009).

PM₁₀ measurements taken to date for the Lilydale High Volume Air Sampler are returning a running annual average of 15.95µg/m³ which is well below the annual average limit of 30µg/m³. The highest reading from this sampler was 70 µg/m³, also measured on 8th December 2009.

Blast Monitoring

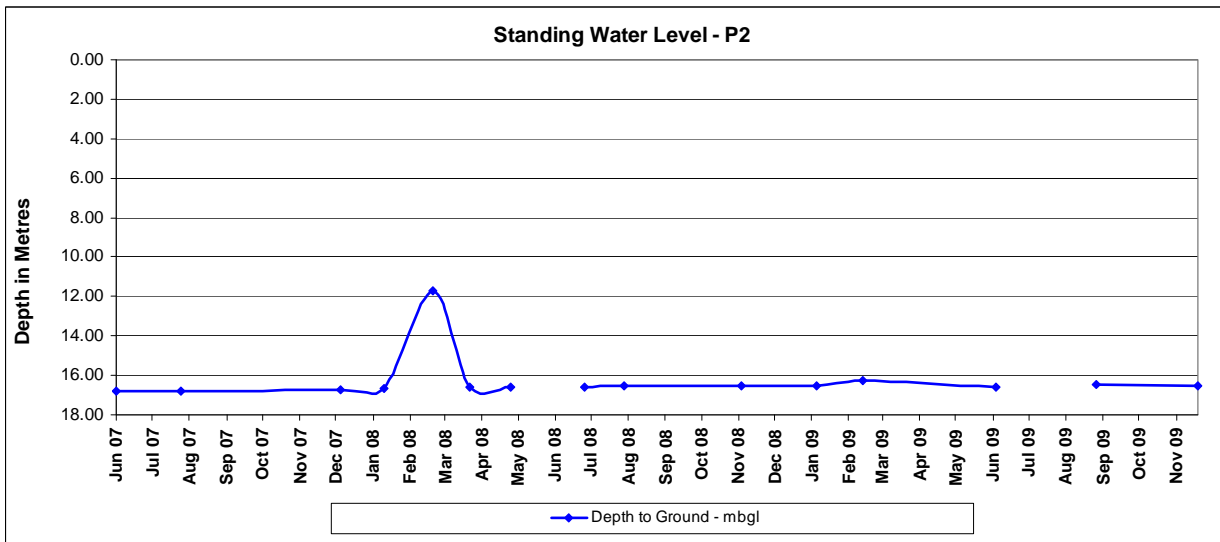
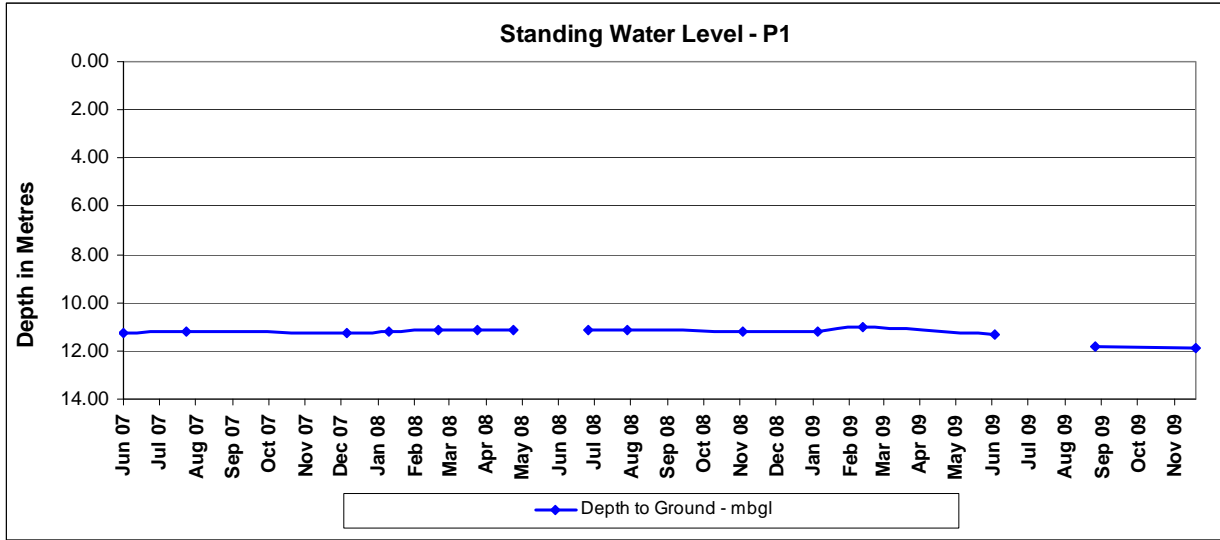
Since the first shot there have been 13 blasts. All blasts during this report period have been compliant within the limits of 115dBL and 5mm/s.

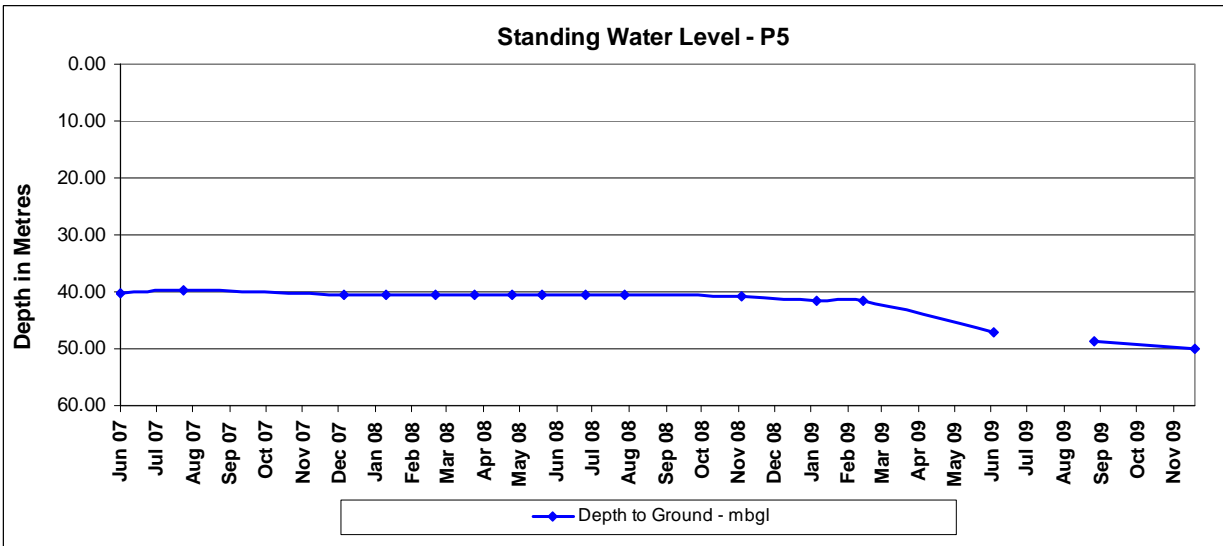
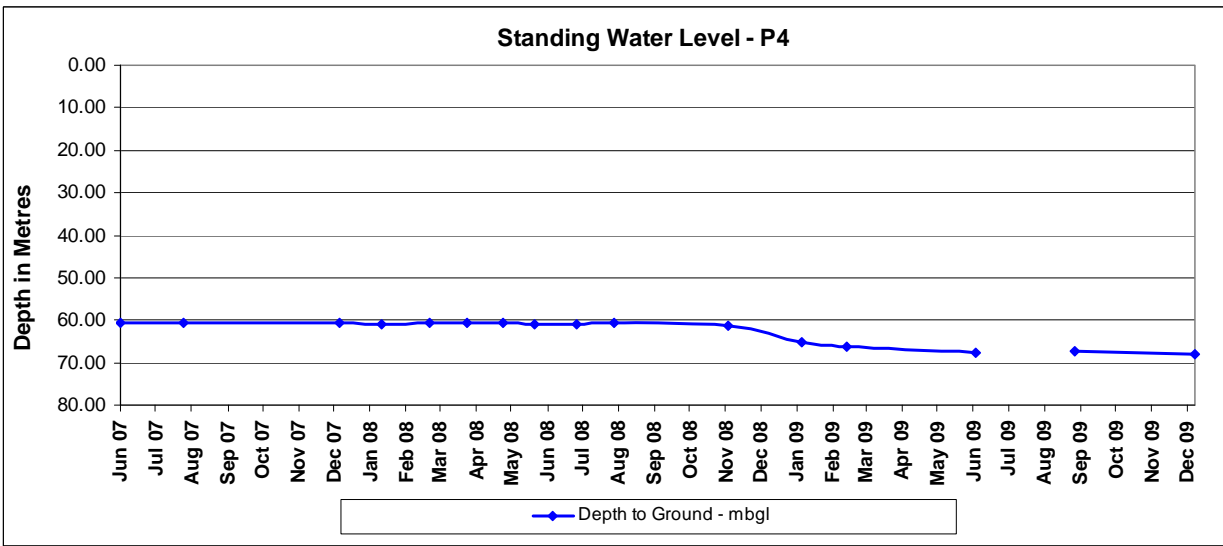
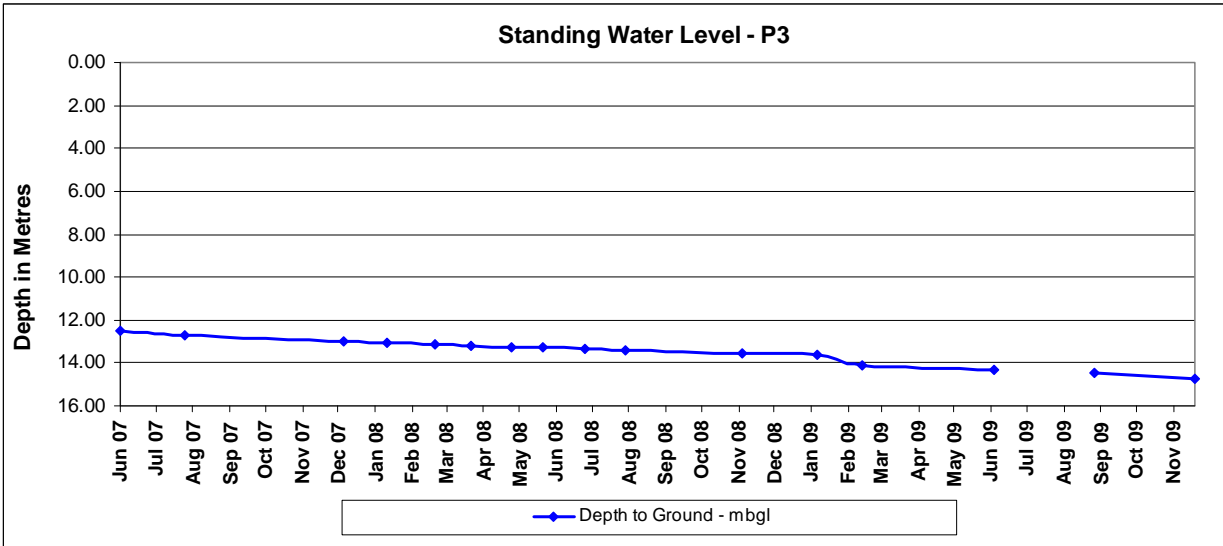
To date, the highest overpressure recorded is 114.1 dBL recorded at “Illili” on the 18th December 2009. The highest ground vibration recorded is 1.24mm/s recorded at “Illili” on the 28th November 2008.

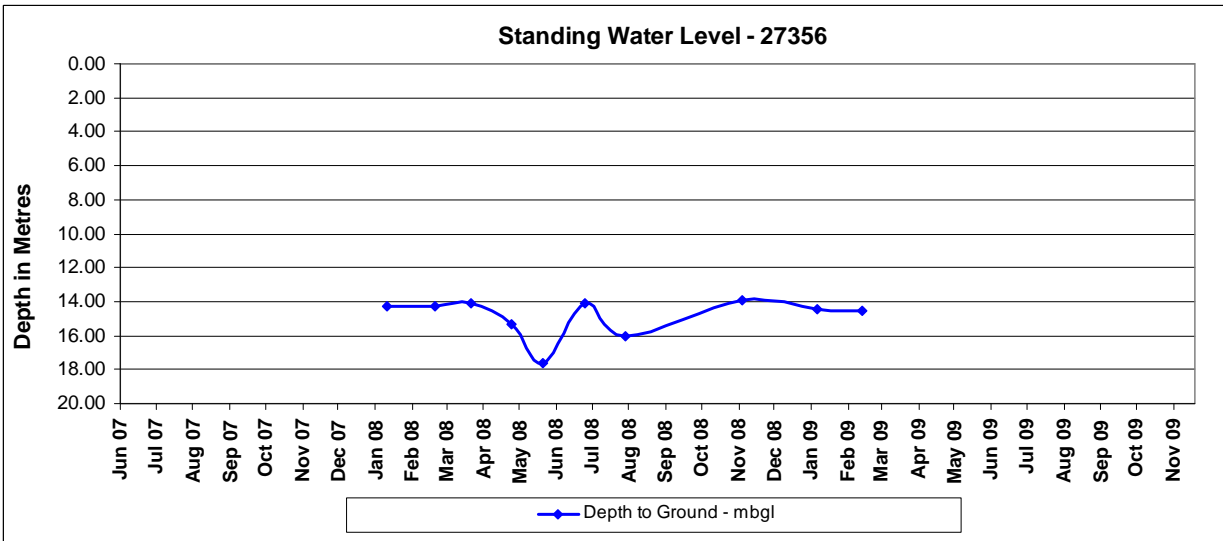
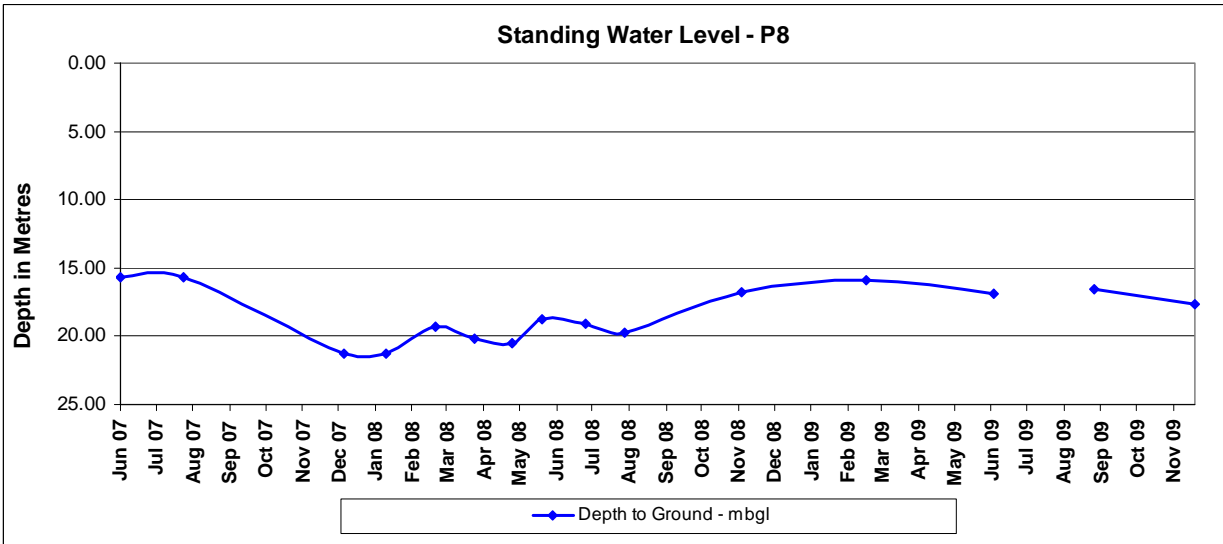
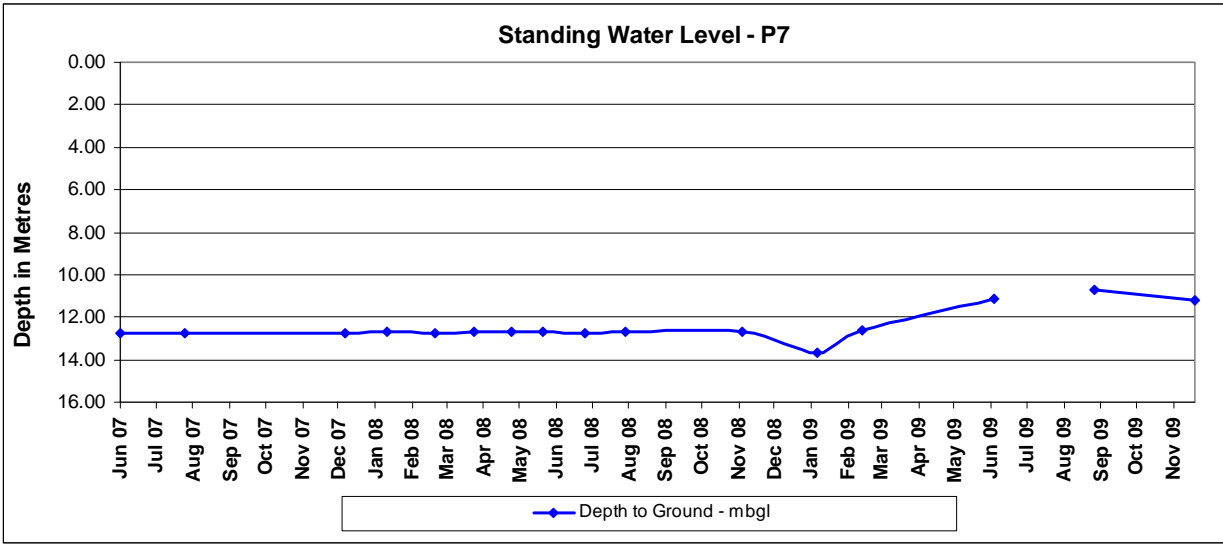
Groundwater Monitoring

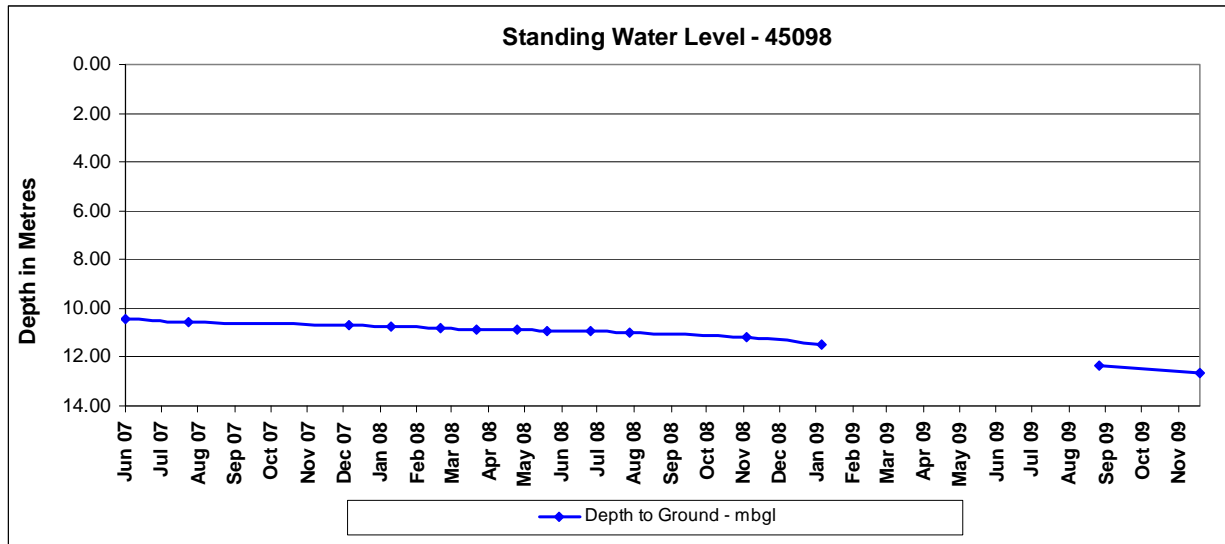
Groundwater monitoring is undertaken from a range of monitoring piezometers and water bores both within and surrounding the mine site. Standing Water Level checks are undertaken on a quarterly basis, with full water quality sampling to be undertaken on a 6 monthly basis. Monitoring results to date for Standing Water Level are shown below (no change from last CCC

report). The next round of monitoring is expected to be conducted in the coming weeks. Results from this monitoring will be provided at the next CCC meeting.









As discussed in the previous CCC report, results to date indicate minor variability in groundwater levels with no significant trend applicable at this early stage of the mine life. The slight drop in SWL associated with some monitoring sites is likely attributable to dry conditions in late 2009 rather than operations at the mine as the mine workings have intersected very little groundwater. Groundwater seepage into the pit is still minimal. Ongoing data collection will provide for longer term analysis of groundwater impact.

Surface Water

No wet weather discharge events have occurred since the last CCC meeting.

Complaints

No complaints have been received since the last CCC meeting.

The complaints line number is: **0427 106 384.**

Rehabilitation

Construction of the northern amenity bund has been finalised with the bund seeded to cover crop.