

# Sunnyside Coal Mine Community Consultative Committee Meeting #15

## Environmental Monitoring Report June – August 2012

### 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).

Quarterly noise monitoring was not conducted during the period of this report however is scheduled to be undertaken in the coming weeks. This next round of monitoring will be based on revised EPA requirements comprising monitoring over 3 consecutive days for longer periods of time to provide for more representative noise conditions during monitoring events. Results from monitoring will be provided at the next meeting.

The "Glendower" and "Ferndale" residents, as well as EPA and Department of Planning and Infrastructure, were notified of the exceedances reported at the last CCC meeting. The option of a private agreement at "Glendower" was raised again with the landholders invited to contact Whitehaven if they wished to discuss it further. The exceedance at "Ferndale" was the first in some time and an inversion was present at the time of monitoring. On this basis, Whitehaven has committed to continue monitoring with further investigation to be initiated if noise exceedances continue to occur.

### Air Quality Monitoring

#### **Deposited Dust**

Deposited dust levels for the site for the last 12 months are provided on the following page. Dust levels at all monitoring locations have been low since the last meeting. The annual averages for each monitor remain well below the annual average limit of  $4\text{g}/\text{m}^2/\text{month}$ .

### Sunnyside Mine – Deposited Dust

Month	SD1 Ferndale	SD3 Plainview	SD4 Lilydale	SD5 Ivanhoe	SD6 Illili	SD7 Innisvale	SD8 Woodlawn
September 2011	0.9	0.6	0.3	0.7	0.3	0.6	0.3
October 2011	0.6	0.7	0.4	1.7	0.8	0.5	0.7
November 2011	3.7	0.7	1.9	2.6	1.4	1.2	0.9
December 2011	0.7	1.4	1.0	1.5	1.2	3.3	1.3
January 2012	1.6	3.8	6.8	6.0	1.8	4.3	1.9
February 2012	0.8	1.6	10.2	13.6	2.8	1.2	3.7
March 2012	0.8	1.5	4.6	4.6	1.3	1.1	10.8
April 2012	0.8	3.3	0.4	1.7	1.1	1.1	0.8
May 2012	1.6	0.5	0.5	1.2	0.7	1.2	0.6
June 2012	2.2	1.0	0.2	0.8	0.8	0.7	0.4
July 2012	1.1	0.7	0.8	2.3	1.7	0.7	0.5
August 2012	0.3	1.5	0.2	0.4	0.3	0.2	0.2
<b>Annual Average</b>	<b>1.3</b>	<b>1.4</b>	<b>2.3</b>	<b>3.1</b>	<b>1.2</b>	<b>1.3</b>	<b>1.8</b>

#### **PM<sub>10</sub> Data**

Compliance with the 24hr criterion of 50µg/m<sup>3</sup> has been maintained during the reporting period.

PM<sub>10</sub> measurements taken for the “Illili” High Volume Air Sampler (HVAS) are returning a running annual average of 10.24µg/m<sup>3</sup>, which is well below the annual average limit of 30µg/m<sup>3</sup>.

PM<sub>10</sub> measurements taken for the “Lilydale” HVAS are returning an annual average of 8.02µg/m<sup>3</sup>, which is also well below the annual average limit of 30µg/m<sup>3</sup>.

#### **Blast Monitoring**

Since the first blast there have been 59 blasts (until the end of August). All blasts have been compliant with ground vibration and airblast overpressure criteria since the last CCC meeting.

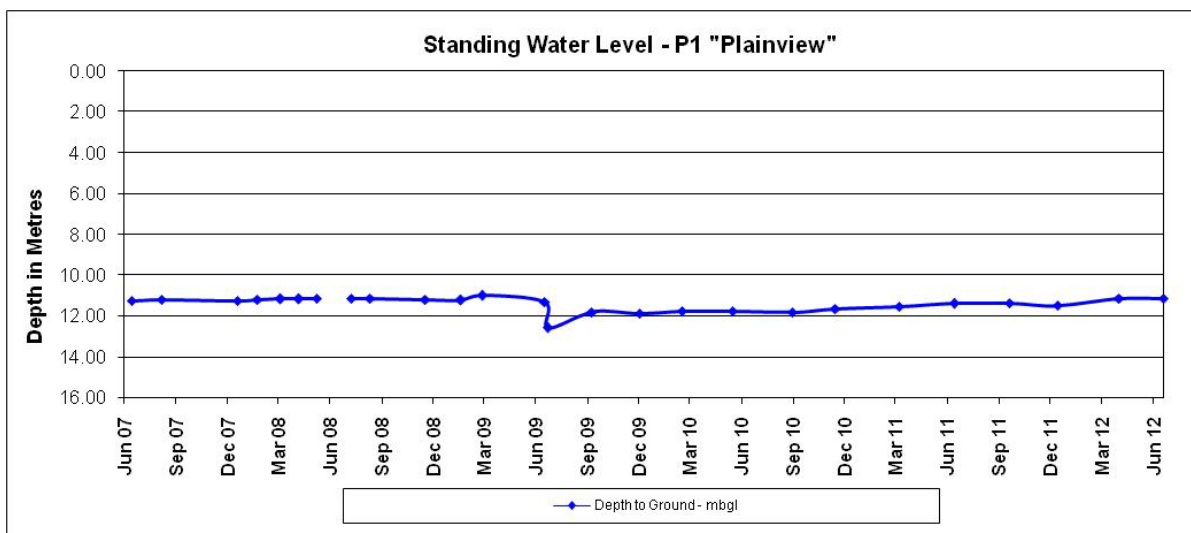
#### **Groundwater Monitoring**

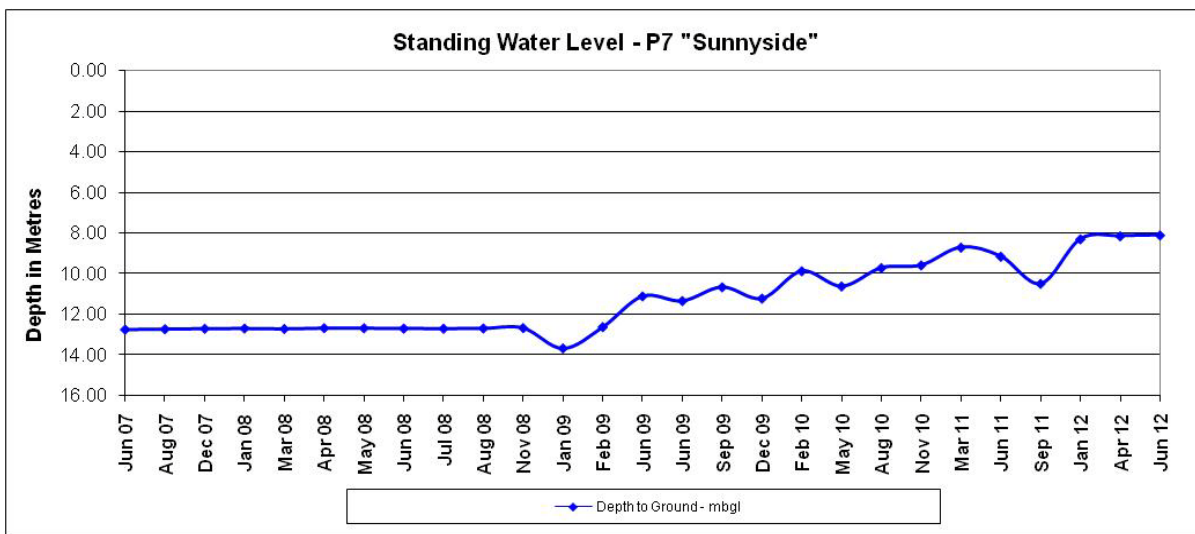
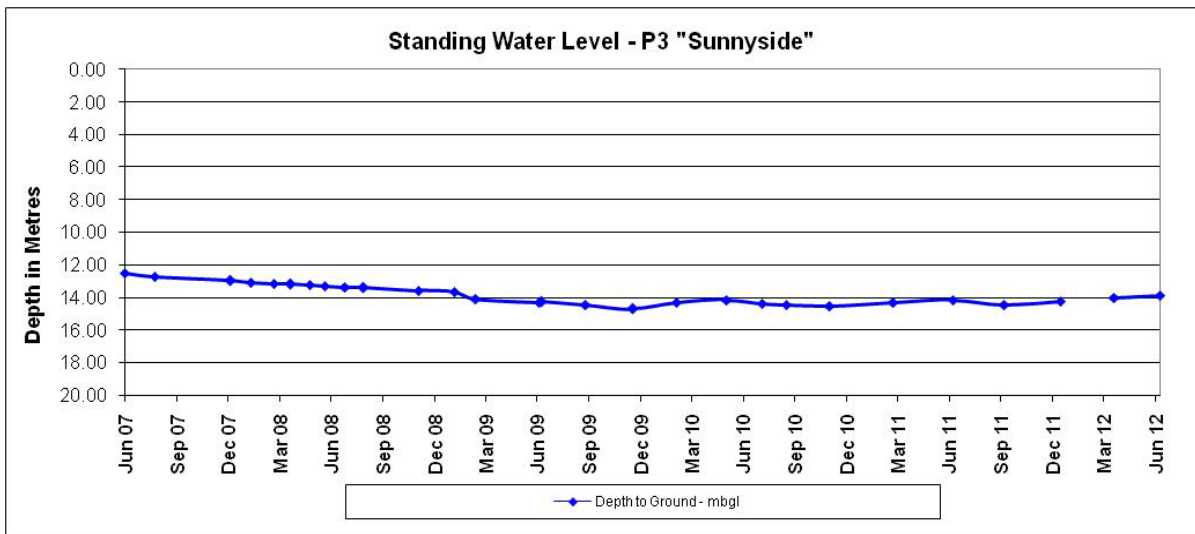
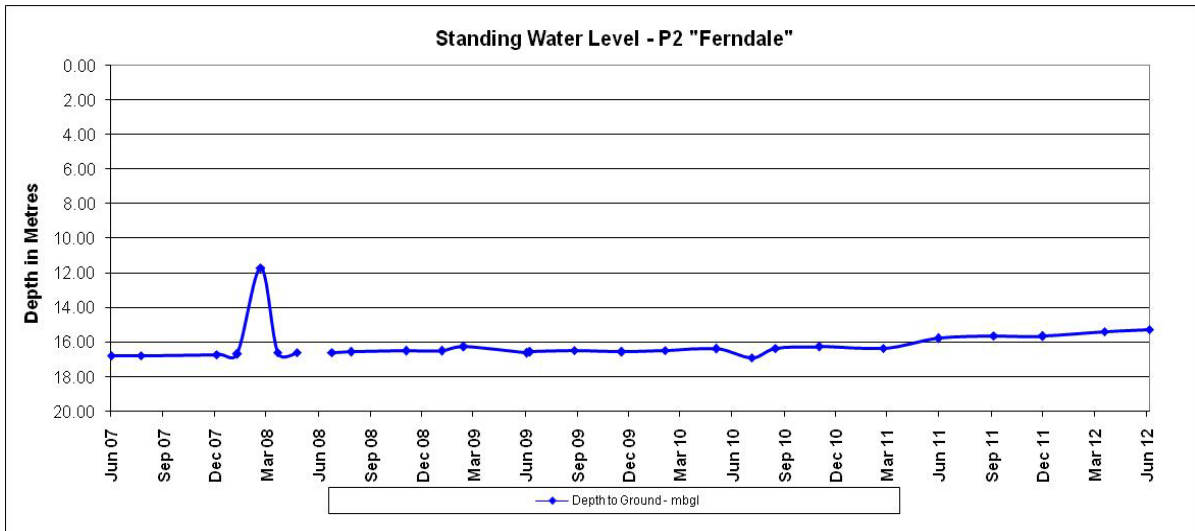
Groundwater monitoring is undertaken from a range of monitoring piezometers and water bores both within and surrounding the mine site. Standing Water Level (SWL) checks are undertaken on a quarterly basis, with full water quality sampling undertaken on a 6 monthly basis.

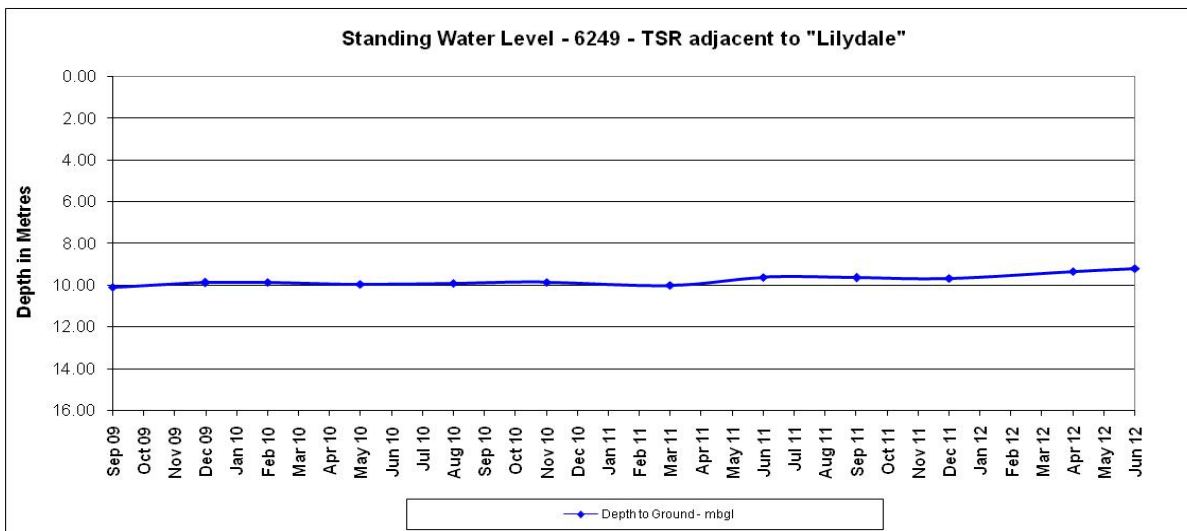
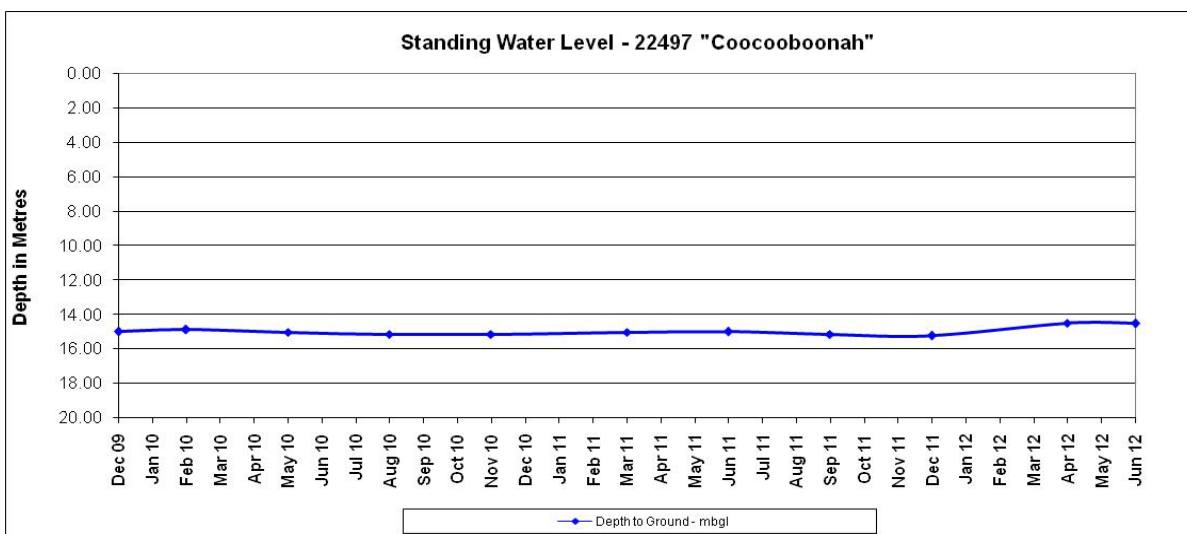
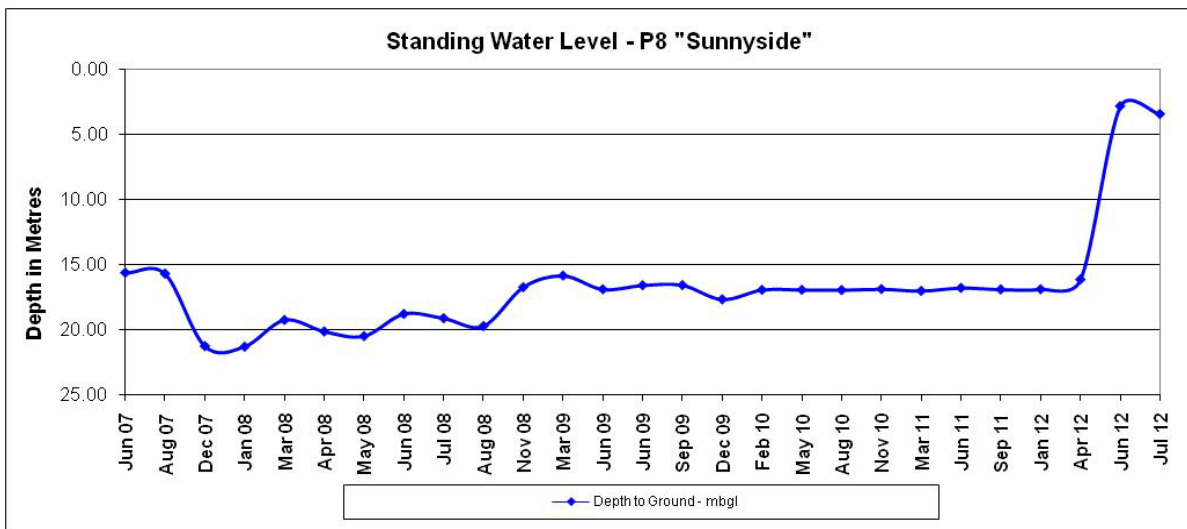
Monitoring was undertaken in June 2012. Results for SWL are shown below with no significant impact/trend indicated from mining operations, with the exception of P7 and P8.

As discussed at the last meeting, P7 has been affected by inflow of surface water resulting from a broken standpipe. The standpipe was repaired in late April 2012 and the piezometer should therefore return more consistent SWL readings over time.

The SWL in P8 has consistently been between 15m and 20m for the last four years however the June 2012 SWL was recorded as less than 3m below ground level. The piezometer was re-dipped in mid July 2012, to confirm the first reading was not an error, with a SWL of 3.5m recorded. An investigation was then initiated which determined that P8 may have been influenced by water seepage from the Void Water Dam located on the southern side of the active pit. The Void Water Dam was constructed in early 2009 and was designed and constructed to achieve a low permeability to avoid such seepage. The Void Water Dam pit water dam has generally remained empty until recently (due to minimal pit water make) and this prolonged period of exposure may have compromised the permeability of the dam. As a means of addressing the issue, a polymer used for sealing leaky dams has recently been applied to the dam in an attempt to seal off the area of the leak. Other measures, such as ripping and re-compaction of the dam floor will be investigated and implemented if the polymer isn't successful. The standing water level in P8 will be monitored to confirm it trends back to usual levels.







### **Surface Water**

Surface water sampling was carried out in early August 2012. Results from the sampling were generally good with low Total Suspended Solids (TSS) and normal levels for all other parameters (pH, EC, oil and grease etc). The void water sample showed an elevated EC level which is consistent with previous sample results.

No wet weather discharges have occurred since the last meeting.

### **Complaints**

No complaints have been received during the last three months.

### **Rehabilitation**

During the reporting period, rehabilitation works have included:

- Shaping of the plateau area of the emplacement;
- Installation of water management structures;
- Topsoiling;
- Fertilising with a Natramin and chicken manure mix as developed by Ag-Solutions; and
- Planting of 7,000 trees through Fields Environmental.

This completes the rehabilitation of areas currently available (not required for mining or mining access) at the Sunnyside site.