



SUNNYSIDE COAL MINE

COMMUNITY CONSULTATIVE COMMITTEE

MEETING #3

ENVIRONMENTAL MONITORING REPORT

June-August 2009

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. Noise monitoring activities have been extended to incorporate the "Glendower" property following a noise complaint in May 2009.

Attended Noise Levels – 16th June 2009 (afternoon)

Location	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources as dB(A) Leq (15 min)
Illili	4:01 pm	53	1.0 m/s SE	Birds & insects (53), SCM (32)
Ferndale	4:43 pm	49	1.0 m/s SE	Traffic (48), birds & insects (38), SCM (37) , wind (32)
Plain View	3:48 pm	43	1.0 m/s SE	Birds (43), wind (33), SCM inaudible
Lilydale	3:30 pm	45	1.5 m/s S	Birds (43), traffic (38), wind (36), SCM inaudible
Glendower	4:24pm	46	1.0 m/s SE	Birds (46), SCM (38)

Attended Noise Levels – 17th June 2009 (afternoon)

Location	Time	dB(A),Leq	Wind speed/ direction	Identified Noise Sources
Illili	7:26 am	46	<0.5 m/s SE	Birds & insects (45), SCM (39)
Ferndale	7:01 am	45	<0.5 m/s SE	Local traffic (41), birds (41), distant traffic (37), SCM (33)
Plain View	7:24 am	41	<0.5 m/s SE	Birds (41), SCM inaudible
Lilydale	7:44 am	40	<0.5 m/s SE	Traffic (38), birds (34), SCM inaudible
Glendower	7:00am	45	<0.5 m/s SE	Birds (44), SCM (38)

Exceedances on the 16th June 2009 were recorded at Ferndale (2 dB) and Glendower (3 dB). Monitoring during the morning of the 17th June 2009 recorded exceedances at Illili (4dB) and Glendower (3dB).

The mine noise during all exceedances was attributed to general mine hum, dozer tracks and engine revs.

The atmospheric conditions at the time of the monitoring surveys were clear and cool with light winds from the south to south east. These conditions are considered to be noise enhancing for Ferndale, Illili and Glendower.

Following the exceedances, advice was issued to the affected landholders providing an explanation of the results and actions taken in order to minimise potential for future exceedances. Written advice was provided to DoP and DECC as to the exceedances, landholder notification and actions taken to minimise potential for future exceedances.

Attended Noise Levels – 19th August 2009 (morning)

Location	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources as dB(A) Leq (15 min)
Illili	8:13 am	46	<1m/s NW	Birds (46), SCM (29)
Ferndale	7:54 am	49	<1m/s NW	Traffic (48), birds & insects (40), SCM (33)
Plain View	8:53 am	42	<1m/s NW	Birds (42), traffic (30), SCM (27)
Lilydale	8:34 am	39	<1m/s NW	Birds (39), SCM (27)
Glendower	7:35 am	46	1.0 m/s NW	Birds (45), SCM (37)

Attended Noise Levels – 19th August 2009 (afternoon)

Location	Time	dB(A),Leq	Wind speed/ direction	Identified Noise Sources
Illili	4:07 pm	29	< 0.5m/s NW	Birds & insects (29), SCM inaudible
Ferndale	4:40 pm	43	0.5m/s NW	Birds (43), SCM barely audible (est. <25)
Plain View	3:49 pm	45	1m/s NNW	Birds & dogs (45), SCM (30)
Lilydale	3:28 pm	34	1m/s NNW	Birds (33), SCM (27)
Glendower	4:22 pm	45	<0.5 m/s NNW	Birds (45), SCM inaudible

Noise monitoring in August 2009 indicated compliance with noise criteria at all locations except Glendower at 7:35am on the 19th August (2 dB exceedance). Again, mine noise was attributable to general mine hum and engine revs mainly from haul trucks.

Following the exceedance, advice issued to both the landholder and to the DECC and DoP. Cool, clear mornings are believed to be the main cause of the ongoing exceedance at Glendower. We have advised the agencies that monitoring during September should confirm if noise levels subside with the warmer mornings. Upon completion of the September monitoring agencies will be advised accordingly as to the outcome. If noise exceedance continues to be prevalent, alternative actions will be required.

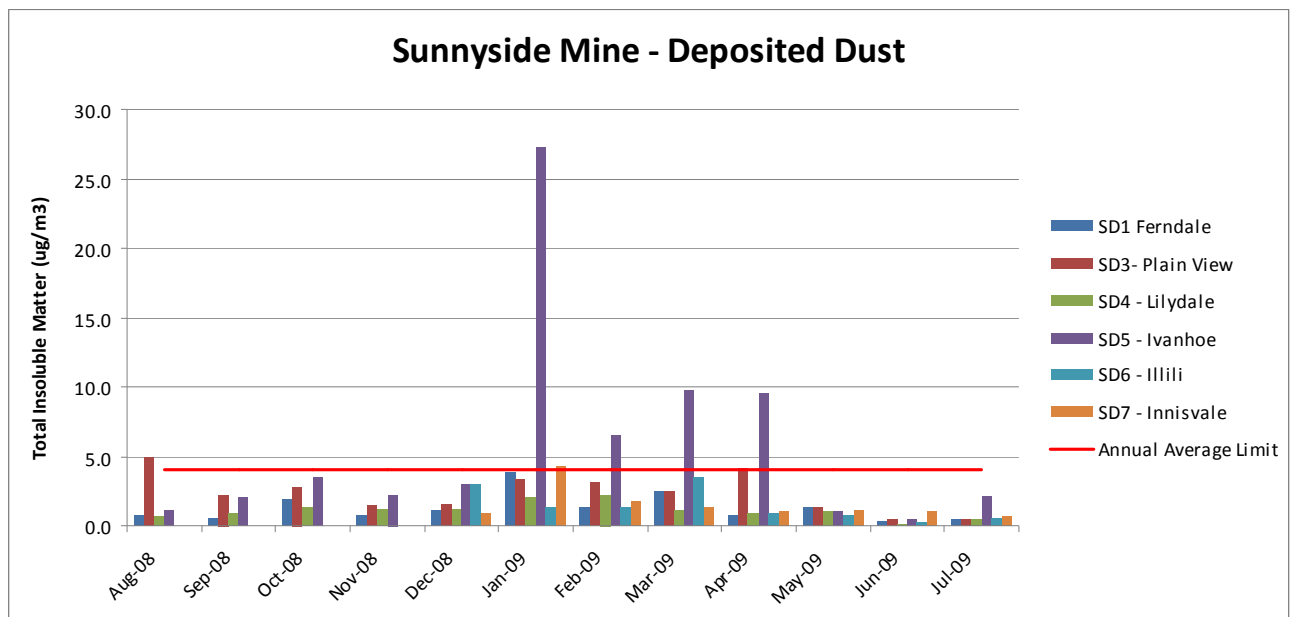
Air Quality Monitoring

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	SD2 Sunnyside	SD3 Plainview	SD4 Lilydale	SD5 Ivanhoe	SD6 Illili	SD7 Innisvale	Annual Average Limit
Aug-08	0.8	24.1	4.9	0.7	1.1			4.0
Sep-08	0.6	30.3	2.3	0.9	2.0			4.0
Oct-08	1.9	122.0	2.8	1.4	3.5			4.0
Nov-08	0.8	64.7	1.5	1.2	2.2			4.0
Dec-08	1.1	NLS	1.6	1.2	3.0	3.0	0.9	4.0
Jan-09	3.8	NLS	3.4	2.0	27.3	1.3	4.3	4.0
Feb-09	1.4	NLS	3.2	2.2	6.5	1.3	1.8	4.0
Mar-09	2.5	NLS	2.5	1.1	9.8	3.5	1.3	4.0
Apr-09	0.8	NLS	4.2	0.9	9.5	0.9	1.0	4.0
May-09	1.4	NLS	1.4	1.0	1.0	0.8	1.1	4.0
Jun-09	0.3	NLS	0.5	0.1	0.4	0.2	1.0	4.0
Jul-09	0.4	NLS	0.5	0.5	2.1	0.6	0.7	4.0
Annual Average	1.3	60.3	2.4	1.1	5.7	1.5	1.5	4.0



Prior to the last meeting, deposited dust data for the site was highly variable and influenced by other factors including agricultural activity and road dust. Results for the previous 3 months have shown an improvement in deposited dust levels at all sites. The annual average at all sites except Ivanhoe are below the annual average limit of $4\text{g/m}^2/\text{month}$. The "Ivanhoe" result has been heavily influenced by sample contamination, particularly a result of $27.3\text{g/m}^2/\text{month}$ in January which has skewed the annual average result.

PM10 Data

PM10 measurements taken to date for the Illili High Velocity Air Sampler are returning a running annual average of 16.00ug/m^3 which is well below the annual average limit of 30ug/m^3 . The highest reading from this sampler is 40ug/m^3 (12th May 2009), which is below the 24 hour maximum criteria of 50ug/m^3 .

PM10 measurements taken to date for the Lilydale High Velocity Air Sampler are returning a running annual average of 13.79ug/m^3 which is well below the annual average limit of 30ug/m^3 . The highest reading from this sampler remains at 28ug/m^3 as measured on 30th January 2009.

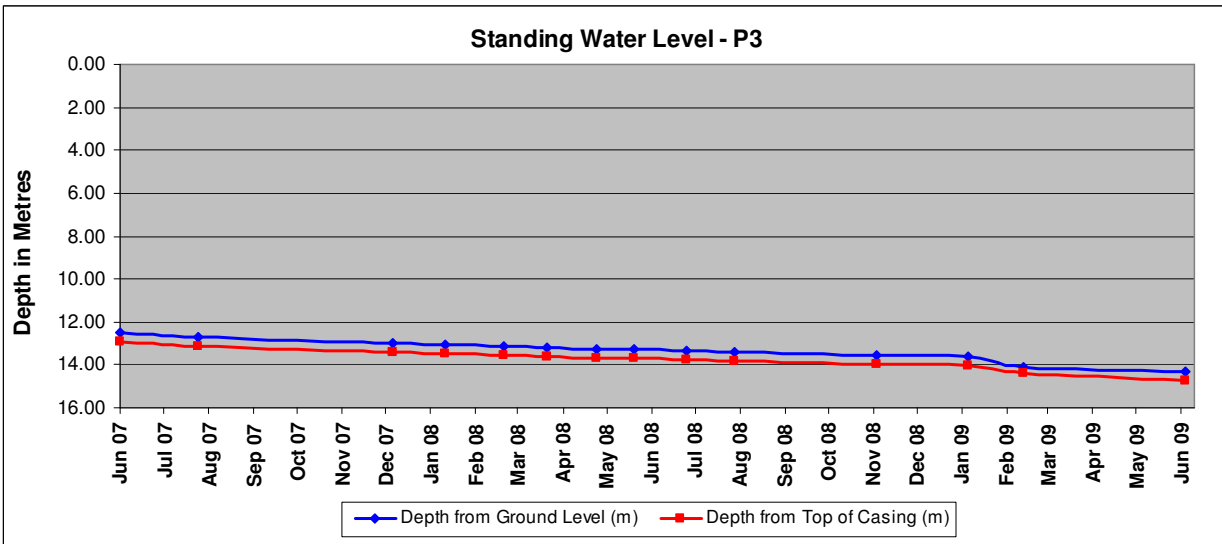
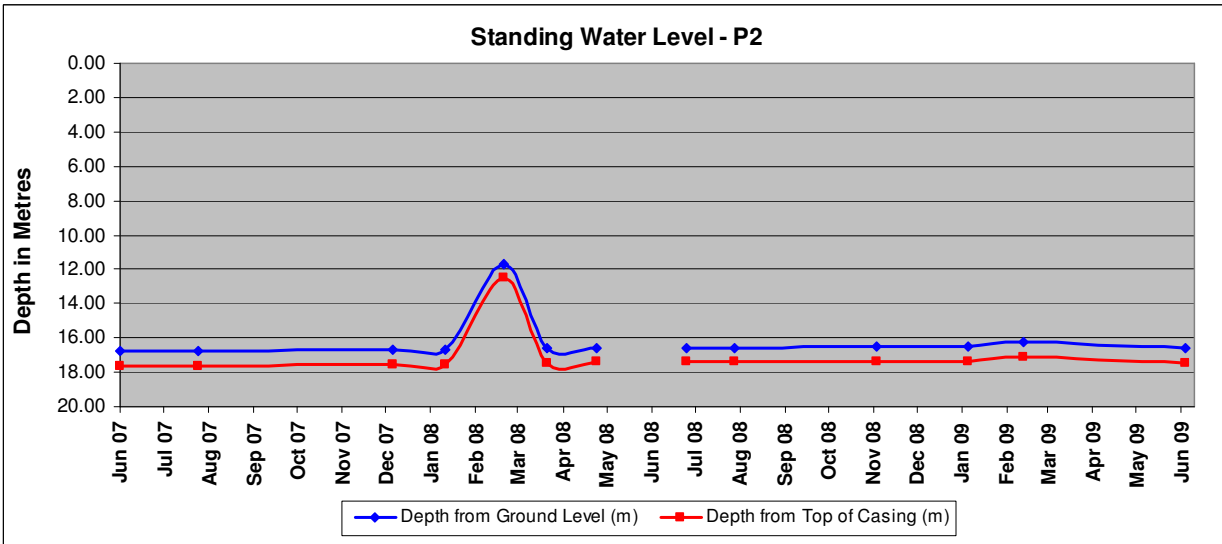
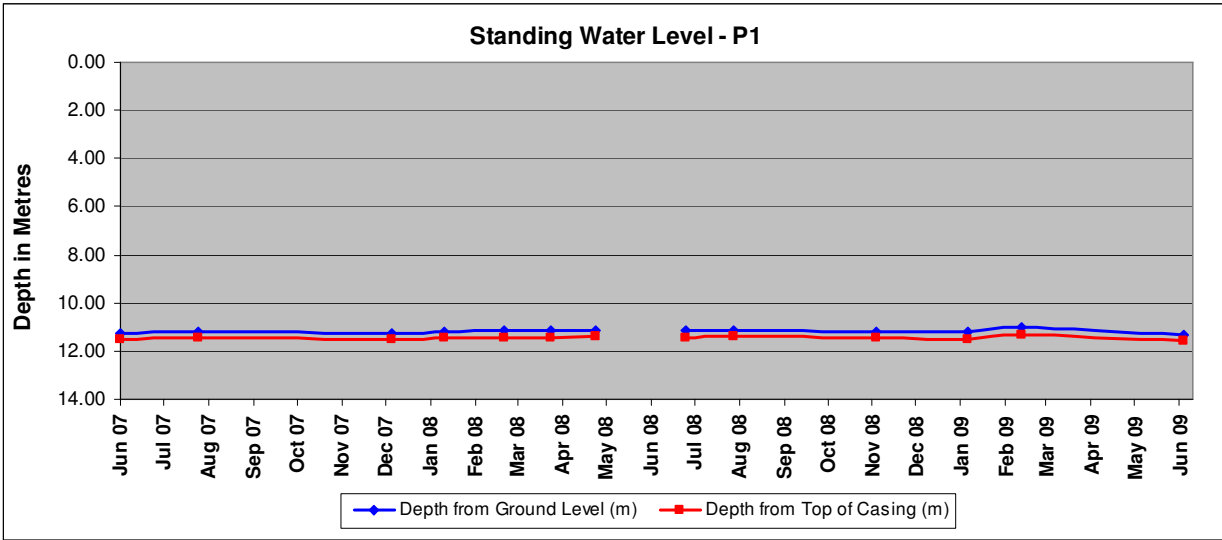
Blast Monitoring

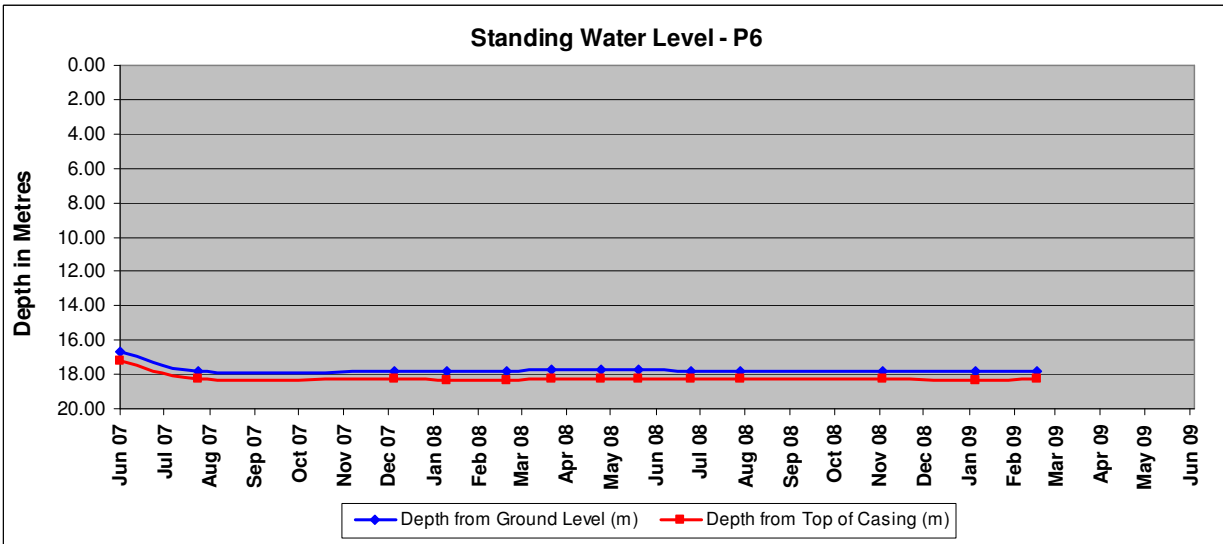
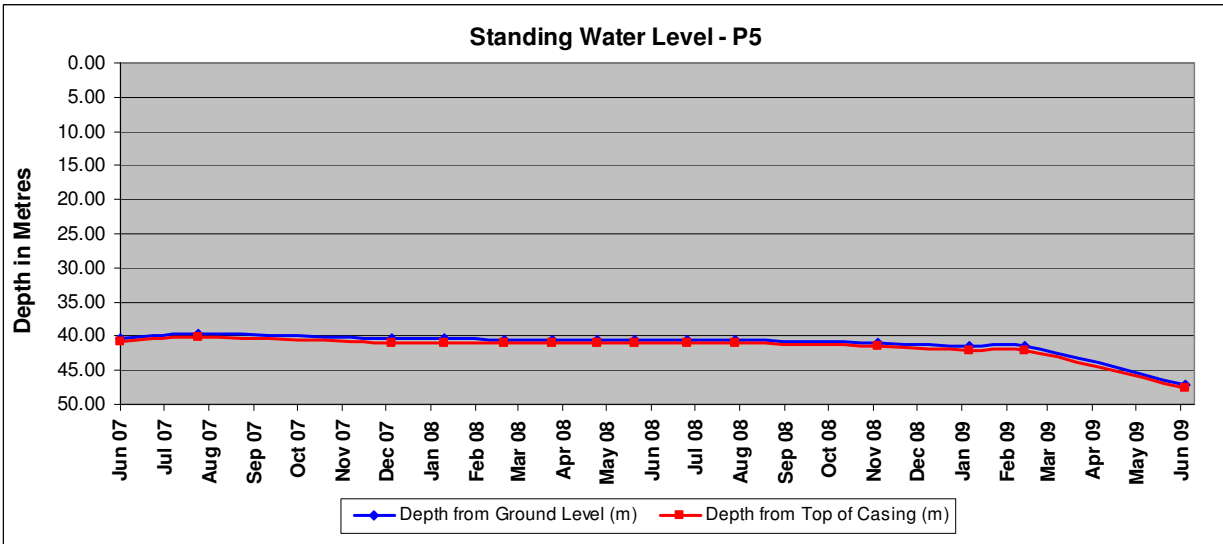
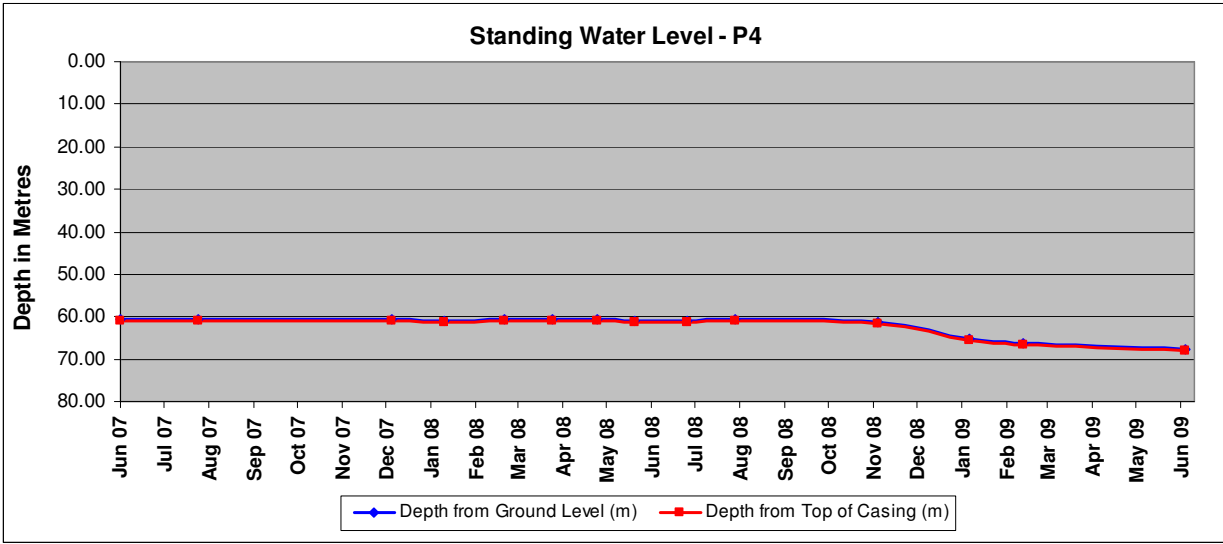
Since the first shot there have been 9 blasts. All blasts during this report period have been compliant within the limits of 115dB and 5mm/s.

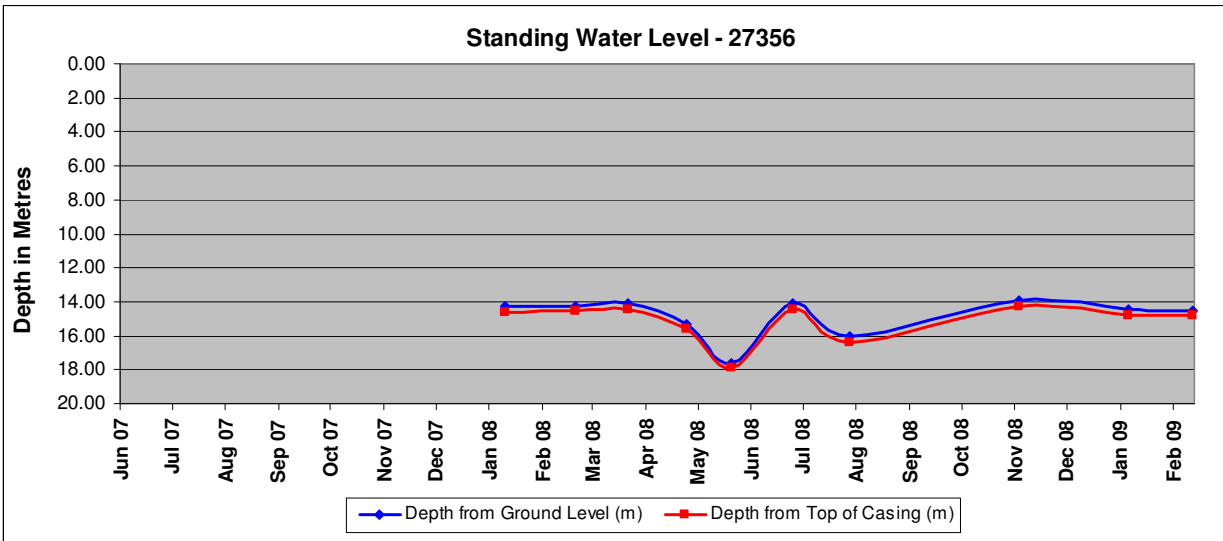
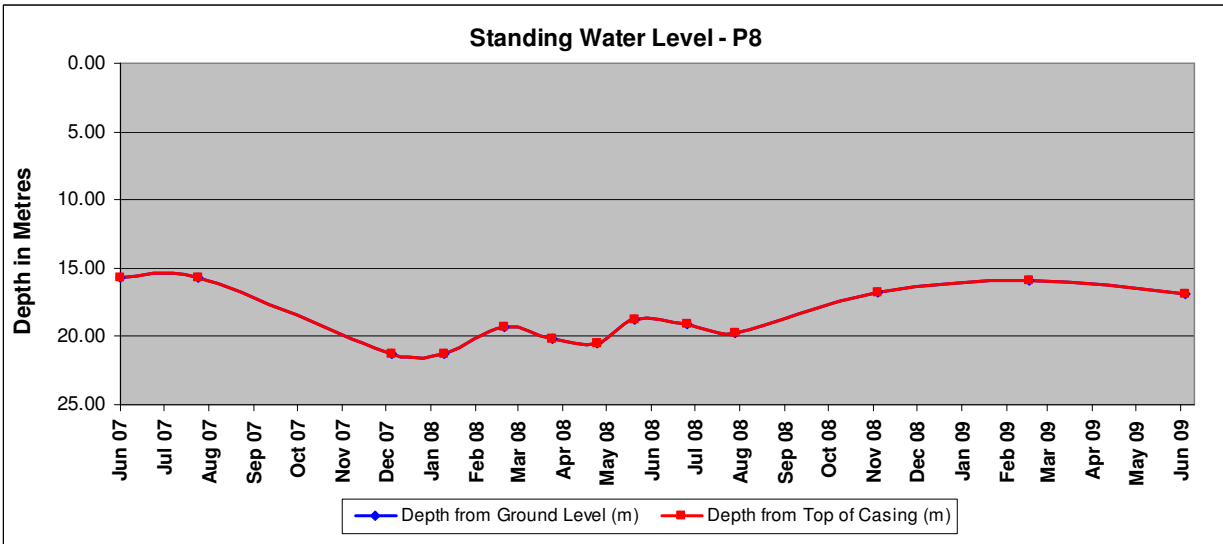
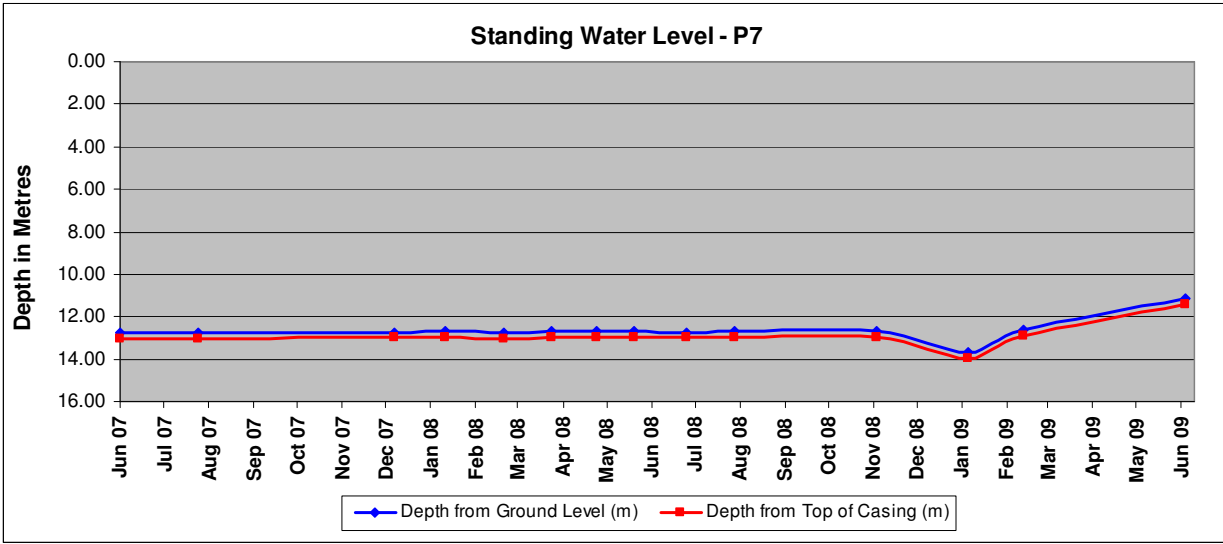
To date, the highest overpressure recorded is 112.3. dBL recorded at "Plain View" on the 28th November 2008. The highest ground vibration recorded is 1.24mm/s recorded at "Illili" on the 28th November 2008.

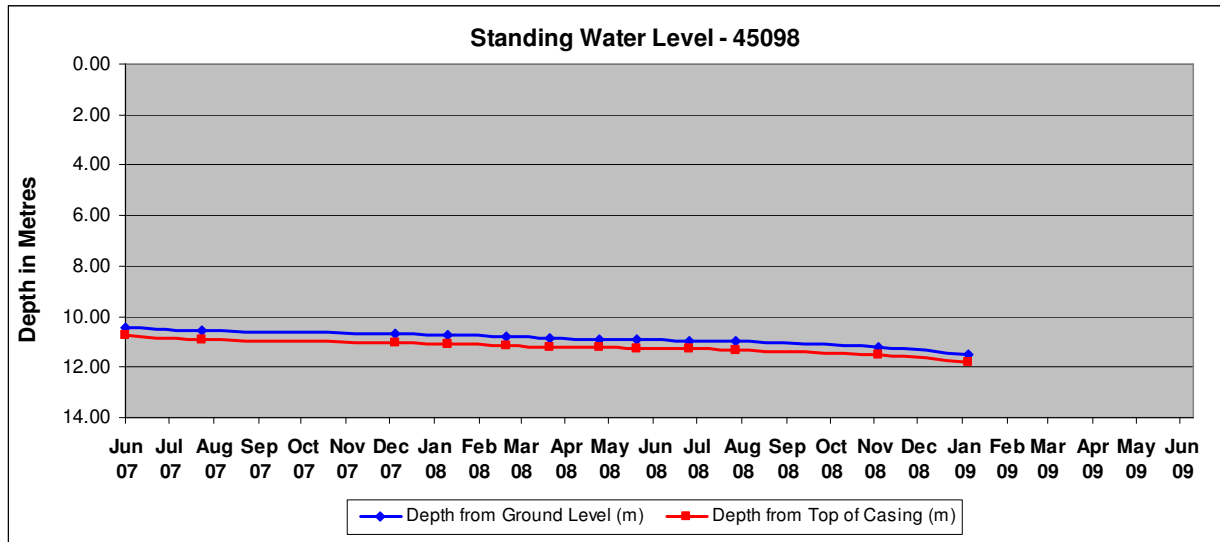
Groundwater Monitoring

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.









Results to date indicate minor variability in groundwater levels with no significant trend applicable at this early stage of the mine life. Significantly, the mine workings has intersected very little groundwater with no requirement to pump any water from the pit to the pit water dam at this stage. Ongoing data collection will provide for longer term analysis of groundwater impact.

The September 2009 monitoring results will be provided at the next CCC meeting.

Surface Water

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

Sunnyside Mine has recently been issued a revised Environment Protection Licence from the DECC which now includes licensed surface water discharge locations and concentration thresholds. As a consequence Sunnyside Mine is now required to sample any discharge waters from these locations to assess concentration thresholds are met.

Complaints

Since the previous meeting there has been one formal complaint lodged pertaining to the Sunnyside operation. The complaint was lodged by Gunnedah Shire Council, on behalf of the complainant, on the 17th August 2009 and related to the coal trucks pushing loose gravel onto the Oxley Highway at the Oxley Highway/Coocooboonah Lane intersection.

The road was cleaned by a street sweeper on the day of the complaint and arrangements were made for Council to conduct regular street sweeping as required. The intersection is also currently being upgraded.

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