



**Three Kings Quarry – Permit No 12977**

**Groundwater Take To Dewater Three Kings Quarry**

**Quarterly Report**

**September 2012**

## **QUARTERLY REPORT**

### **Three Kings Quarry – Permit No 12977**

The following report is made with regard to Condition 7 of Permit No 12977.

This report contains the groundwater levels within boreholes surrounding the take point.

A plan showing the location of boreholes in which groundwater levels were measured is attached.

This report contains records for the period of 1 June 2012 to 31 August 2012.

THREE KINGS GROUNDWATER LEVEL RECORD SHEET

Date	BH 1B	BH 2B	BH 5B	BH 6A	BH6B	BH 6C	BH 7	BH 10a								
19-Jun-12	11.56	34.66	1.23	34.02	44.08	34.18	33.47	45.32	38.88	39.91	43.75	35.04	28.6	40.01	29.85	50.91
27-Jun-12	11.21	35.01	0.90	34.35	43.94	34.32	33.54	45.25	38.69	40.10	43.39	35.40	28.27	40.34	29.86	50.90
15-Aug-12	10.94	35.28	0.64	34.61	43.66	34.60	32.77	46.02	38.47	40.32	43.11	35.68	27.54	41.07	29.5	51.26

Date	BH 10b	BH 11b	BH 12a	BH 12b	BH 13a	BH13c	BH 16	BH 17								
19-Jun-12	8.09	72.67	7.55	72.44	21.45	50.78	5.05	67.08	16.32	55.85	7.07	66.34	48.90	51.24	43.70	34.18
27-Jun-12	8.09	72.67	7.54	72.45	21.35	50.88	4.98	67.15	14.33	57.84	7.00	66.41	48.86	51.28	43.58	34.30
15-Aug-12	8.09	72.67	7.54	72.45	20.92	51.31	4.94	67.19	13.05	59.12	7.03	66.38	48.44	51.70	43.30	34.58

Date	BH 18A	BH 18B	BH 19A	BH 19B	BH 20	BH 20a	BH 21	BH 22								
19-Jun-12	48.91	35.59	38.03	46.47	46.01	34.04	41.34	38.71	1.46	55.20	5.94	50.80	37.21	35.10	34.05	41.19
17-Jul-12	48.81	35.69	38.06	46.44	45.70	34.35	41.23	38.82	1.41	55.25	5.63	51.11	36.97	35.34	34.05	41.19
15-Aug-12	48.63	35.87	37.88	46.62	45.43	34.62	40.99	39.06	1.18	55.48	4.73	52.01	36.76	35.55	34.05	41.19

Date	BH 22a	BH 23	BH 23a	BH 24	BH 24a	BH 25	BH 25a	BH25b1								
19-Jun-12	10.79	64.35	5.45	51.75	6.16	51.18	6.54	56.26	2.23	60.53	22.43	37.02	10.56	48.88	9.80	48.69
17-Jul-12	10.65	64.49	5.49	51.71	6.16	51.18	6.57	56.23	2.21	60.55	22.38	37.07	10.43	49.01	9.90	48.79
15-Aug-12	9.99	65.15	5.43	51.77	5.93	51.41	6.43	56.37	2.39	60.37	22.21	37.24	9.98	49.46	10.36	49.25

Date	BH25b2	BH 26	BH 26a	BH 27	BH 28a	BH 28b	BH 29	BH 30								
19-Jun-12	8.07	51.46	0.01	59.43	5.10	54.31	0.00	49.60	6.90	51.55	4.89	53.94	7.99	58.61	17.09	55.32
17-Jul-12	8.14	51.53	0.01	59.43	5.07	54.34	0.01	49.59	6.97	51.62	5.16	53.94	7.95	58.65	17.16	55.39
15-Aug-12	12.70	56.09	0.00	59.44	4.94	54.47	0.00	49.60	7.21	51.86	7.77	58.83	7.77	58.83	17.57	55.80

Date	BH31a	BH31b	BH 32	BH 33	BH 34	BH 35a	BH 35b	BH36a								
19-Jun-12	15.38	48.97	12.96	50.25	1.12	59.15	9.46	49.29	17.64	48.62	10.88	55.38	7.52	59.01	59.04	59.04
17-Jul-12	15.36	48.95			1.23	59.04	9.27	49.48	17.69	48.57	10.94	55.32	7.49	59.04	59.04	59.04
15-Aug-12	15.56	49.15			1.33	58.94	8.83	49.92	17.67	48.59	10.74	55.52	7.30	59.23	59.23	59.23

Date	BH 36b	BH 37a	BH 37b	BH 38a	BH 38b	BH 39a	BH 39b	BH 40a								
19-Jun-12	7.46	59.07	3.61	53.93	3.76	53.84	4.15	54.33	4.84	53.63	7.17	54.82	4.86	57.27	10.58	60.74
17-Jul-12	7.44	59.09	3.53	54.01	3.69	53.91	4.12	54.36	4.80	53.67	7.11	54.88	4.90	57.23	10.54	60.78
15-Aug-12	7.24	59.29	3.55	53.99	3.70	53.90	4.14	54.34	4.76	53.71	7.19	54.80	4.81	57.32	10.59	60.73

Date	BH 40b																
19-Jun-12	8.53	62.83															
17-Jul-12	8.43	62.93															
15-Aug-12	8.52	62.84															

Locations of boreholes are marked on the attached plan.

Waterlevels within standpipe piezometers are expressed as depth below surface levels (first column) and as elevations above sealevel (second column). All values expressed in meters.

Waterlevels within pneumatic piezometers are expressed as head of water above piezometer tip (first column) and as elevations above sealevel (second column).

BH32 destroyed by Roading Contractors in June 2011.

The pneumatic piezometers in BH28b and BH31b ceased working in July 2012. Waterlevels will continue to be monitored by piezometers installed in these bores (refer to BH28a and BH31a).



