



**Three Kings Quarry**  
**Air Quality Quarterly Report**  
**June 2010 – August 2010**

**In compliance with:** Permit 21875, conditions 26 & 27  
**Compiled By:** Andrea Cave, Environmental Coordinator  
**Date:** 9<sup>th</sup> September 2010

## **Introduction**

This report details the air quality monitoring results for Winstone Aggregates Three Kings Quarry for the period June – August 2010.

This report is being prepared in accordance with Conditions 26 and 27 of Permit 21875. The conditions state:

“A summary of all monitoring results, including references where applicable to wind and rainfall data, and any remedial actions taken shall be submitted to the Manager at the end of each quarter”.

“A summary of the information recorded shall be submitted to the Manager at the end of each quarter.”

Details of the monitoring undertaken as part of the air permit are described below and actual monitoring results are presented in tables within the report or in the Appendices.

## **Daily Log**

In accordance with Condition 26 (a) – (e) of the air permit a daily log of monitoring results is maintained on site. The log includes information about equipment malfunctions; visible dust emissions, water cart use and all relevant details relating to particulate monitoring.

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**June 2010**

**Three Kings Quarry Summary monitoring results for the period June 2010**

Date	Day	daily average WS m/sec	daily average WD ( degrees )	Daily Rain (mm)	Site TSP mg/m3 office	BAM FH62 mg/m-3 office	Site TSP mg/m3 North Boundary
1/06/2010	Tue	2.415	143.337	46.200	30	13.8	
2/06/2010	Wed	1.666	263.941	0.200		16.2	
3/06/2010	Thu	1.748	208.132	0.000	27.8	14.4	22.2
4/06/2010	Fri	1.117	160.347	0.000		10.9	
5/06/2010	Sat	1.902	121.688	0.400		18.7	
6/06/2010	Sun	4.703	96.274	17.600		20.7	
7/06/2010	Mon	3.516	233.243	12.600	23.3	15.7	
8/06/2010	Tue	2.675	208.688	4.800		9.4	
9/06/2010	Wed	2.052	206.958	0.000		17.3	
10/06/2010	Thu	3.299	180.122	0.000	33.7	16.4	20.1
11/06/2010	Fri	4.204	210.337	7.400		19.3	
12/06/2010	Sat	2.829	282.194	9.600		16.7	
13/06/2010	Sun	3.258	256.712	7.200	17.3	10.9	
14/06/2010	Mon	4.154	247.122	4.400		14.1	
15/06/2010	Tue	3.215	205.757	1.200		14.2	
16/06/2010	Wed	0.973	187.177	0.000	38.3	25.6	40.6
17/06/2010	Thu	1.205	147.014	0.000		21.2	
18/06/2010	Fri	1.723	118.931	0.000	28.1	11.1	
19/06/2010	Sat	2.290	133.181	0.000		17.5	
20/06/2010	Sun	2.480	230.389	18.200		11.3	
21/06/2010	Mon	3.203	253.580	1.000		21.1	
22/06/2010	Tue	1.972	252.566	0.000	44.9	23.6	38.8
23/06/2010	Wed	1.786	204.760	0.400		51.6	
24/06/2010	Thu	1.599	141.517	0.000		11.9	
25/06/2010	Fri	1.727	140.986	38.600		12.5	
26/06/2010	Sat	1.595	184.073	0.200	13.2	10.8	
27/06/2010	Sun	2.546	279.802	1.400		17.5	
28/06/2010	Mon	2.433	192.760	3.600		16.6	
29/06/2010	Tue	2.244	271.159	3.400	20.7	15.1	21.2
30/06/2010	Wed	2.594	244.167	4.800		11.7	
1/07/2010	Thu						

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**July 2010**

Date	Day	daily average WS m/sec	daily average WD ( degrees )	Daily Rain (mm)	Site TSP mg/m3 office	BAM FH62 mg/m-3 office	Site TSP mg/m3 North Boundary
1/07/2010	Thu				23.8	16.3	
2/07/2010	Fri					16.2	
3/07/2010	Sat					24.2	
4/07/2010	Sun				10.3	9.1	11.9
5/07/2010	Mon					3.4	
6/07/2010	Tue				15.2	5.8	
7/07/2010	Wed					12.8	
8/07/2010	Thu					15.8	
9/07/2010	Fri					16.9	
10/07/2010	Sat				18.9	11.1	20.5
11/07/2010	Sun					11.9	
12/07/2010	Mon					14.8	
13/07/2010	Tue					8.9	
14/07/2010	Wed				18.8	10.2	
15/07/2010	Thu					18.6	
16/07/2010	Fri					12.5	
17/07/2010	Sat				23.7	15.5	22.4
18/07/2010	Sun					14.1	
19/07/2010	Mon					17.6	
20/07/2010	Tue				25.5	16.0	
21/07/2010	Wed					7.9	
22/07/2010	Thu				33.5	19.2	14.6
23/07/2010	Fri					13.5	
24/07/2010	Sat					11.1	
25/07/2010	Sun				17.7	12.4	
26/07/2010	Mon					19.0	
27/07/2010	Tue					13.9	
28/07/2010	Wed				24.6	14.5	12.4
29/07/2010	Thu					14.3	
30/07/2010	Fri					16.1	
31/07/2010	Sat				11.1	8.4	

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**August 2010**

Date	Day	daily average WS m/sec	daily average WD ( degrees )	Daily Rain (mm)	Site TSP mg/m <sup>3</sup> office	BAM FH62 mg/m <sup>3</sup> office	Site TSP mg/m <sup>3</sup> North Boundary
1/08/2010	Sun	4.217	100.139	3.800		15.5	
2/08/2010	Mon	2.392	177.135	23.000		17.3	
3/08/2010	Tue	1.904	121.226	2.600	19.2	15.3	20.5
4/08/2010	Wed	4.113	129.028	24.000		15.5	
5/08/2010	Thu	2.092	244.990	1.800		12.4	
6/08/2010	Fri	1.738	204.396	0.000	31.5	16.3	
7/08/2010	Sat	2.750	151.288	14.600		9.2	
8/08/2010	Sun	2.121	271.743	2.000		14.6	
9/08/2010	Mon	3.368	254.132	5.400		10.9	
10/08/2010	Tue	1.471	177.819	0.200	18	10.2	
11/08/2010	Wed	1.173	208.538	0.000		26.6	-1
12/08/2010	Thu	2.885	120.802	0.000	34.5	No Data <sup>2</sup>	
13/08/2010	Fri	6.571	87.295	13.600		No Data	
14/08/2010	Sat	2.595	158.160	20.000		No Data	
15/08/2010	Sun	3.494	220.747	2.000	18.5	No Data	
16/08/2010	Mon	1.848	226.535	0.000		No Data	
17/08/2010	Tue	3.148	285.781	2.400		No Data	27.9
18/08/2010	Wed	2.768	278.826	6.200	32.4	No Data	
19/08/2010	Thu	3.668	253.438	4.800		17.7	
20/08/2010	Fri	1.873	227.021	17.000		17.5	
21/08/2010	Sat	2.840	269.201	1.000		13.7	
22/08/2010	Sun	2.464	251.910	0.800		14.0	
23/08/2010	Mon	2.439	266.819	7.200		11.7	
24/08/2010	Tue	2.470	229.448	3.800		10.4	
25/08/2010	Wed	1.932	118.323	11.600		9.5	
26/08/2010	Thu	1.865	245.809	0.800		22.8	
27/08/2010	Fri	1.136	177.017	8.200		13.5	
28/08/2010	Sat	2.279	251.750	3.200		14.5	
29/08/2010	Sun	2.350	232.246	17.000		14.6	
30/08/2010	Mon	3.539	235.438	5.000		9.6	
31/08/2010	Tue	3.022	220.056	0.600		10.5	

<sup>1</sup> Instrument did not run 11/8/10 due to electrical work

<sup>2</sup> Did not record - faulty dust recorder.

**Daily Log Summary for Three Kings Quarry Site for the period  
July - August 2010**

**(Condition 27, Air Permit 21875)**

- a. No visible dust emissions (that went over or were over the boundary) were noted in the Daily Air Log for this period.
- b. TSP monitoring was carried as per TSP monitoring procedures documented in the site Air Quality Management Plan.
- c. The water cart used 108m<sup>3</sup> during this period, made up of:

MONTH	LOADS	VOLUME (m <sup>3</sup> )
June	5	60
July	2	24
August	2	24

- d. The daily log sheet is dated and signed by the person entering the information.

**Complaints:**

There have been no complaints made directly to Three Kings Quarry during this period.