



Three Kings Quarry
Air Quality Quarterly Report
March – May 2008

In compliance with: Permit 21875, conditions 26 & 27

Compiled By: Sari Eru

Date: 9 June 08

Introduction

This report details the air quality monitoring results for Winstone Aggregates Three Kings Quarry for the period March - May 08

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.

Particulate Monitoring

March 08

Three Kings Quarry Summary monitoring results for the period 1st - 31 March 08

Date	Day	daily average WD (degrees)	daily average WS m/sec	Daily Rain (mm)	Site TSP mg/m3 office	BAM FH62 mg/m-3 office	Site TSP mg/m3 North Boundary
1/03/2008	Sat	159.0	4.809	26.200		13.1	
2/03/2008	Sun	287.1	1.926	4.400		9.4	
3/03/2008	Mon	136.2	1.770	0.200		15.3	
4/03/2008	Tue	139.0	2.838	11.200	15.5	4.8	17.3
5/03/2008	Wed	232.4	4.480	0.200		14.4	
6/03/2008	Thur	160.2	1.152	0.200	43.7	15.7	39
7/03/2008	Fri	145.0	1.099	0.000		12	
8/03/2008	Sat	148.7	1.592	0.200		12.4	
9/03/2008	Sun	187.0	2.115	0.000		9.5	
10/03/2008	Mon	166.2	2.227	0.000		19.2	
11/03/2008	Tue	226.1	1.798	1.000	57.6	25.2	67.1
12/03/2008	Wed	224.3	3.142	0.000		14.2	
13/03/2008	Thur	135.0	1.470	0.600	54.9	20.5	NR
14/03/2008	Fri	94.0	1.487	2.600		16.3	
15/03/2008	Sat	172.6	2.932	0.000	57	15.9	NR
16/03/2008	Sun	192.5	4.134	0.000		22.5	
17/03/2008	Mon	180.5	1.791	0.000		20.2	
18/03/2008	Tue	196.9	1.775	0.000	NR	26.3	NR
19/03/2008	Wed	131.4	1.416	0.000		19.1	
20/03/2008	Thur	187.9	2.381	0.000		20.1	
21/03/2008	Fri	170.3	1.738	0.200	36.4	12	NR
22/03/2008	Sat	178.4	1.749	0.000		13	
23/03/2008	Sun	155.5	1.768	0.200		15.5	
24/03/2008	Mon	81.3	2.212	0.000	44.7	11.6	83.9
25/03/2008	Tue	67.4	2.699	0.000		11	
26/03/2008	Wed	68.5	2.744	0.000	NR	10.9	41.6
27/03/2008	Thur	73.6	2.122	0.000		12.2	
28/03/2008	Fri	83.8	1.682	0.000		16.9	
29/03/2008	Sat	53.7	2.718	0.000	47.3	13	33.9
30/03/2008	Sun	145.2	2.228	0.000		12.1	
31/03/2008	Mon	103.7	0.002	0.200		14.4	

April 08

Three Kings Quarry Summary monitoring results for the period 1st - 30 April 08

Date	Day	daily average WD (degrees)	daily average WS m/sec	Daily Rain (mm)	BAM FH62 mg/m-3 office	Site TSP mg/m3 office	Site TSP mg/m3 North Boundary
1/04/2008	Tue	269.6	2.171	2.200	14.2	39.2	18.7
2/04/2008	Wed	188.1	2.819	0.200	18.8		
3/04/2008	Thur	90.2	1.233	6.200	17.4		
4/04/2008	Fri	111.8	1.860	0.000	15.6	38.6	47.8
5/04/2008	Sat	73.1	1.154	0.000	15.3		
6/04/2008	Sun	143.1	0.986	0.000	12.4		
7/04/2008	Mon	137.3	0.978	0.400	21.4	41.1	49.8
8/04/2008	Tue	163.2	2.003	0.000	10.9		
9/04/2008	Wed	154.8	1.312	0.000	12.7		
10/04/2008	Thur	128.1	0.966	0.000	17.6		
11/04/2008	Fri	175.1	1.091	0.000	18.1	54.1	35.4
12/04/2008	Sat	82.6	2.327	0.400	12.8		
13/04/2008	Sun	67.6	3.552	4.800	11.2		
14/04/2008	Mon	75.9	3.131	22.600	15.2	22.3	29.7
15/04/2008	Tue	63.7	4.092	33.200	20.3		
16/04/2008	Wed	85.3	1.509	1.800	11.7		
17/04/2008	Thur	226.8	1.966	4.600	7.1	14	15.1
18/04/2008	Fri	215.9	2.647	3.400	11.7		
19/04/2008	Sat	196.1	3.573	0.600	13.5		
20/04/2008	Sun	119.1	2.006	0.000	7.3		
21/04/2008	Mon	193.0	1.905	0.000	12.6		
22/04/2008	Tue	260.0	4.194	1.600	10.5		
23/04/2008	Wed	236.7	3.911	0.600	13.1		
24/04/2008	Thur	227.6	1.898	0.000	20.3	27.6	26.7
25/04/2008	Fri	161.7	0.944	0.200	10.2		
26/04/2008	Sat	68.4	1.916	0.200	11.9	44.2	34.3
27/04/2008	Sun	123.2	2.163	8.800	6.4		
28/04/2008	Mon	174.9	1.466	1.000	14.5		
29/04/2008	Tue	72.5	3.327	25.600	7.9	15.3	12.2
30/04/2008	Wed	288.9	2.094	0.200	19.1		

May 08

Three Kings Quarry Summary monitoring results for the period 1st - 31 May 08

Date	Day	daily average WD (degrees)	daily average WS m/sec	Daily Rain (mm)	Site TSP mg/m3 office	BAM FH62 mg/m-3 office	Site TSP mg/m3 North Boundary
1/05/2008	Thur	257.0	3.599	12.200		16.8	
2/05/2008	Fri	252.8	3.534	2.600	26.4	13.3	32
3/05/2008	Sat	237.9	3.482	1.400		14.9	
4/05/2008	Sun	98.7	1.584	67.600	13.8	12	
5/05/2008	Mon	300.5	2.136	10.400		10.8	
6/05/2008	Tue	194.5	2.433	0.000	18.3	7.9	
7/05/2008	Wed	160.4	0.861	0.000		15	
8/05/2008	Thur	89.9	1.322	0.000	32.3	14.5	22.6
9/05/2008	Fri	117.8	1.497	12.000		14.7	
10/05/2008	Sat	186.3	2.209	0.200		15.2	
11/05/2008	Sun	204.2	3.619	0.000	14.8	15.2	
12/05/2008	Mon	179.3	2.207	0.000		12.5	
13/05/2008	Tue	209.6	1.734	0.000		15.8	
14/05/2008	Wed	244.1	2.612	0.800	17.4	14.8	33
15/05/2008	Thur	214.0	0.995	0.200		29.2	
16/05/2008	Fri	132.1	0.509	0.400		18.6	
17/05/2008	Sat	103.6	0.585	0.400	27.4	22.4	
18/05/2008	Sun	85.6	0.968	0.200		13	
19/05/2008	Mon	70.0	1.894	0.600		5.9	
20/05/2008	Tue	66.1	3.234	1.600	10.6	5.7	23.7
21/05/2008	Wed	101.9	2.553	0.000		13.2	
22/05/2008	Thur	142.8	0.909	0.000		18.8	
23/05/2008	Fri	85.5	1.465	0.000	28.9	18.3	
24/05/2008	Sat	129.7	1.798	0.000		11	
25/05/2008	Sun	91.0	1.047	0.800		12	
26/05/2008	Mon	100.5	1.525	14.000		7.8	24.5
27/05/2008	Tue	138.9	1.560	0.000		10.4	
28/05/2008	Wed	187.5	1.382	0.000	26	13.1	
29/05/2008	Thur	192.1	0.887	0.200		21.1	
30/05/2008	Fri	262.7	1.490	1.400		17.9	
31/05/2008	Sat	256.7	0.009	2.600		15.5	

**Daily Log Summary for Three Kings Quarry Site for the period
March – May 08**

(Condition 27, Air Permit 21875)

- a. No significant visible dust emissions from the quarry (outside the boundary) were recorded during the above period.
- b. TSP monitoring was carried as per TSP monitoring procedures documented in the site Fill Management Plan. One exceedance occurred on the 24 March and was reported to council.
- c. The water cart used a total of approximately 2688m³ of water. This consists of:

March:	148 Loads using 1776 m ³
April:	50 Loads using 600 m ³
May:	26 Loads using 312 m ³
- d. The daily log sheet is dated and signed by the person entering the information.

Complaints:

There has been no complaints received for this period.