



Three Kings Quarry
Air Quality Quarterly Report
March – May 2011

In compliance with: Permit 21875, conditions 26 & 27

Compiled By: Andrea Cave, Environmental Coordinator

Introduction

This report details the air quality monitoring results for Winstone Aggregates Three Kings Quarry for the period March - May 2011.

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.

March 2011

Three Kings Quarry Summary monitoring results for the period Mar 2011

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
1/03/2011	Tue	2.903	148.576	0.000	41.5	12.3	19
2/03/2011	Wed	2.874	224.573	2.000		14.2	
3/03/2011	Thu	2.467	148.438	1.000	38.9	26	38.9
4/03/2011	Fri	2.768	160.517	44.800		11.1	
5/03/2011	Sat	2.336	243.069	20.000		5.6	
6/03/2011	Sun	4.363	230.590	10.200	29.7	samp<	21.3
7/03/2011	Mon	2.732	177.823	0.000		No data	
8/03/2011	Tue	2.270	182.840	0.000		samp<	
9/03/2011	Wed	1.356	164.194	6.600	22.5	13.2	23.6
10/03/2011	Thu	1.515	214.531	0.000		14.0	
11/03/2011	Fri	2.369	226.347	0.000		9.4	
12/03/2011	Sat	1.493	204.729	0.000		10.2	
13/03/2011	Sun	1.448	97.927	0.000	14.2	11.9	13
14/03/2011	Mon	1.858	128.486	0.000		12.8	
15/03/2011	Tue	1.458	172.608	0.000	24.1	13.1	13.9
16/03/2011	Wed	1.747	101.924	0.000		8.3	
17/03/2011	Thu	1.591	143.094	0.000		12.4	
18/03/2011	Fri	1.696	265.538	5.000	29.1	15.0	15.6
19/03/2011	Sat	2.159	203.771	1.200		9.4	
20/03/2011	Sun	1.295	126.639	0.000		12.0	
21/03/2011	Mon	2.391	119.743	12.200		7.2	
22/03/2011	Tue	3.483	203.816	22.000		5.9	
23/03/2011	Wed	2.921	133.368	0.000	30.4	10.6	28.4
24/03/2011	Thu	3.780	88.073	0.000		12.5	
25/03/2011	Fri	2.773	92.670	9.600		36.1	
26/03/2011	Sat	3.423	100.726	19.600	19.9	8.1	23.6
27/03/2011	Sun	2.161	256.990	2.200		10.5	
28/03/2011	Mon	4.598	207.378	0.200		26.4	
29/03/2011	Tue	2.494	181.014	0.000	52	26.1	44
30/03/2011	Wed	1.972	174.257	0.000		17.2	
31/03/2011	Thu	2.190	219.517	0.000		16.3	

April 2011

Three Kings Quarry Summary monitoring results for the period Apr 2011

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
1/04/2011	Fri	5.284	86.972	2.800	35.7	15.1	29.9
2/04/2011	Sat	3.630	86.545	10.600		24.3	
3/04/2011	Sun	2.180	114.597	9.400		17	
4/04/2011	Mon	1.792	145.906	0.000		15.0	
5/04/2011	Tue	1.243	192.497	0.000	26	11.5	34.4
6/04/2011	Wed	2.012	129.319	1.400		16.9	
7/04/2011	Thu	3.244	138.556	49.400	34.6	15.7	35.2
8/04/2011	Fri	2.789	209.347	0.200		24.4	
9/04/2011	Sat	1.283	220.896	0.000	45.7	25.7	31.3
10/04/2011	Sun	1.323	121.632	0.000		18.0	
11/04/2011	Mon	3.867	100.375	34.000		18.4	
12/04/2011	Tue	2.017	130.302	5.200	40	16.5	34.8
13/04/2011	Wed	2.392	186.990	0.000		19.7	
14/04/2011	Thu	2.139	263.295	1.200		18.4	
15/04/2011	Fri	3.024	229.056	3.800		19.1	
16/04/2011	Sat	4.430	250.604	0.600	22.1	8.0	13.1
17/04/2011	Sun	3.946	248.306	1.200		10.1	
18/04/2011	Mon	3.963	209.510	5.400		15.1	
19/04/2011	Tue	3.047	207.017	0.000	47.5	14.3	26.1
20/04/2011	Wed	1.895	234.347	0.200		14.3	
21/04/2011	Thu	1.922	230.889	0.400		23.2	
22/04/2011	Fri	1.440	232.976	0.000	19.8	11.3	- ¹
23/04/2011	Sat	1.252	211.934	0.000		12.4	
24/04/2011	Sun	1.512	136.993	0.000		9.1	
25/04/2011	Mon	4.841	90.396	2.800		9.9	
26/04/2011	Tue	4.541	158.733	52.600	10.9	4.6	3.6
27/04/2011	Wed	2.243	243.135	0.200		13.7	
28/04/2011	Thu	3.000	233.226	0.400	14.6	7.5	12.8
29/04/2011	Fri	1.784	209.072	0.400		11.8	
30/04/2011	Sat	1.850	251.885	0.000	30.9	15.0	31.2

May 2011

Three Kings Quarry Summary monitoring results for the period May 2011

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
1/05/2011	Sun	5.284	86.972	2.800		20.8	
2/05/2011	Mon	3.630	86.545	10.600		5.6	
3/05/2011	Tue	2.180	114.597	9.400	19.6	13.9	
4/05/2011	Wed	1.792	145.906	0.000		20.5	
5/05/2011	Thu	1.243	192.497	0.000		40.8	
6/05/2011	Fri	2.012	129.319	1.400		13.2	
7/05/2011	Sat	3.244	138.556	49.400	59.9	17.1	- ²
8/05/2011	Sun	2.789	209.347	0.200		18.1	
9/05/2011	Mon	1.283	220.896	0.000		17.8	
10/05/2011	Tue	1.323	121.632	0.000	14	12.9	
11/05/2011	Wed	3.867	100.375	34.000		17.6	
12/05/2011	Thu	2.017	130.302	5.200		16.6	
13/05/2011	Fri	2.392	186.990	0.000	47.9	21.7	16.5
14/05/2011	Sat	2.139	263.295	1.200		20.0	
15/05/2011	Sun	3.024	229.056	3.800		13.1	
16/05/2011	Mon	4.430	250.604	0.600	55	26.9	
17/05/2011	Tue	3.946	248.306	1.200		21.0	
18/05/2011	Wed	3.963	209.510	5.400	29.8	18.8	27.8
19/05/2011	Thu	3.047	207.017	0.000		19.0	
20/05/2011	Fri	1.895	234.347	0.200	61.3	24.8	
21/05/2011	Sat	1.922	230.889	0.400		15.0	
22/05/2011	Sun	1.440	232.976	0.000		14.5	
23/05/2011	Mon	1.252	211.934	0.000		14.7	
24/05/2011	Tue	1.512	136.993	0.000		9.3	
25/05/2011	Wed	4.841	90.396	2.800		17.8	
26/05/2011	Thu	4.541	158.733	52.600		12.9	
27/05/2011	Fri	2.243	243.135	0.200		14.6	
28/05/2011	Sat	3.000	233.226	0.400		10.9	
29/05/2011	Sun	1.784	209.072	0.400		12.4	
30/05/2011	Mon	1.850	251.885	0.000		15.4	
31/05/2011	Tue	1.833	257.278	6.000		12.2	

Daily Log Summary for Three Kings Quarry Site for the period March - May 2011

(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.

However, it was noted that there were visible dust emissions from Danske Mobler on the following days:

April 27 – 3.30pm Dust from Danske Mobler

May 23 – 1.24pm Dust Danske Mobler

- b. TSP monitoring was carried as per TSP monitoring procedures documented in the site Air Quality Management Plan.
- c. The water cart used 1092m³ during this period, made up of:

MONTH	LOADS	VOLUME (m ³)
March	65	780
April	24	288
May	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.