Appendix 2

Monitoring Data and Records

(Total No. of pages including blank pages = 82)

2013-2014 Annual Return for Extractive Materials

2014 Transportation Movements

2014 Blasting Summary

2014 Air Quality Monitoring

2014 Surface Water Monitoring

2014 Noise Monitoring Report

This page has intentionally been left blank

NSW GOVERNMENT Trade & Investment Resources & Energy

Form S 1

RETURN FOR EXTRACTIVE MATERIALS: YEAR ENDED 30 JUNE 2014

Quote Reference No. in all correspondence

Quarry Id: 1118 Rims ID:400066

Operators Name: METROMIX PTY LTD
Address: PO BOX 1295
PARRAMATTA
NSW 2124

Email: bills@metromix.com.au

Quarry Name: TERALBA QUARRY
Quarry Address: RHONDDA RD

Inquiries please telephone:
(02) 4931 6434
Completed or Nil Returns
Fax - (02) 4931 6788
Email –
mineral.royalty@trade.nsw.gov.au
Postal Address (see address below)

Please amend name, postal address and location of mine or quarry if incorrect or incomplete

2013-2014

The return should be completed and forwarded to the **STATISTICAL OFFICER, MINERAL RESOURCES BRANCH, RESOURCES & ENERGY DIVISION, TRADE & INVESTMENT NSW, PO BOX 344 HUNTER REGION MAIL CENTRE NSW 2310 on or before 28 November, 2014.** If completion of the return is unavoidably delayed, an application for extension of time should be requested **before** the due date. If no work was done during the year, a NIL return must be forwarded.

The return should relate to the **above quarrying establishment**, and should cover the operations of quarrying and treatment (such as crushing, screening, washing etc.) carried out at or near the quarry. A return is required even if the operations are solely of a developmental nature, and whether the area being worked is held under a mining title or otherwise.

Adrian Delany, Director Industry Coordination

Please complete the following information to assist in identifying the location of the Quarry

Typical Geology _____**CONGLOMERATE**_____

Nearest Town to Quarry **TERALBA**_

Local Council Name __**LAKE MACQUARIE**_

Deposited Plan and Lot Number/s of Quarry _**LOTS 1 AND 2 DP 224037**_

Email Address of Operator __**BillS@metromix.com.au**_

Name of Owner or Licensee ___**METROMIX PTY LIMITED**____

Postal Address of Licensee ___**PO BOX 1295, PARRAMATTA, NSW, 2124**__

Licence/Lease Number/s (if any)
From Mineral Resources NSW (Industry & Investment NSW) __**N/A**_

From Department of Lands or other Department _____ **N/A**_

If any output was obtained from land NOT held under licence from the above Departments, state the Name/s and Address/es of the Owners of the land _____

- To the best of my knowledge, the particulars which have been entered in this return are correct and no blank spaces have been left where figures should have been inserted.
- **SIGNATURE of PROPRIETOR or MANAGER** _____ DATE _3/11/2014.__
- **PERSON to be contacted if queries arise regarding this return** ___**WILLIAM SANDERSON**____
- **NAME** (Block letters) _ **WILLIAM SANDERSON** __ **Telephone** __**0418 479 087**___

SALES During 2013/2014

Production information may be published in aggregated form for statistical reporting. However, production data for individual operations is kept strictly confidential.

Product	Description	Quantity Tonnes
Virgin Materials		
• **Crushed Coarse Aggregates**		
Over 75mm		
Over 30mm to 75mm		
5mm to 30mm		
Under 5mm		
Natural Sand		
Manufactured Sand		
Prepared Road Base & Sub Base		
Other Unprocessed Materials		
Recycled Materials		
• **Crushed Coarse Aggregates**		
Over 75mm		
Over 30mm to 75mm		
5mm to 30mm		
Under 5mm		
Natural Sand		
Manufactured Sand		
Prepared Road Base & Sub Base		
Other Unprocessed Materials		
• **River Gravel**	CONGLOMERATE	
Over 30mm		25,475
5mm to 30mm		335,434
Under 5mm		136,735
• **Construction Sand**	Excluding Industrial	497,644
• **Industrial Sand**		
Foundry, Moulding		
Glass		
Other (Specify)		
• **Dimension Stone**	Building, Ornamental, Monumental	
Quarried in Blocks		
Quarried in Slabs		
• **Decorative Aggregate**	Including Terrazzo	
• **Loam**	Soil for Topdressing, Garden soil, Horticultural purposes)	
• **TOTAL SITE PRODUCTION**		
• **Gross Value ($) of all Sales**	13,219,000	
• **Type of Material**	CONGLOMERATE	
• **Number of Full-Time Equivalent (FTE) Employees**	Employees: 15	Contractors 3

Please Note: A return for clay based products can be obtained by contacting the inquiry number.

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY		Month:		Jan-14
		Daily Total	Westwards Daily	Eastwards Daily
Limits		326	241	85
Actuals				
1		-	-	-
2		5	1	4
3		3	1	2
4		-	-	-
5		-	-	-
6		45	22	23
7		43	35	8
8		87	54	33
9		100	57	43
10		85	47	38
11		42	30	12
12		-	-	-
13		88	46	42
14		72	46	26
15		83	40	43
16		63	40	23
17		57	34	23
18		16	14	2
19		-	-	-
20		64	38	26
21		78	47	31
22		71	33	38
23		77	52	25
24		92	43	49
25		29	11	18
26		-	-	-
27		-	-	-
28		58	31	27
29		75	38	37
30		62	44	18
31		87	59	28

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY		Month:		Jan-14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	66	66	6	0	0
Actuals					
1	-	-	-	-	-
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	2	2	2	-	-
9	1	1	1	-	-
10	2	2	2	-	-
11	-	-	-	-	-
12	-	-	-	-	-
13	1	1	1	-	-
14	4	4	4	-	-
15	4	4	4	-	-
16	5	5	5	-	-
17	3	3	3	-	-
18	3	3	3		
19	-	-	-	-	-
20	-	-	-	-	-
21	4	4	4	-	-
22	4	4	4	-	-
23	5	5	5	-	-
24	6	6	6	-	-
25	2	2	2	-	-
26	-	-	-	-	-
27	-	-	-	-	-
28	1	1	1	-	-
29	3	3	3	-	-
30	5	5	5	-	-
31	3	3	3	-	-

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY	Month:	Jan-14
	Westwards Max Hourly	Eastwards Max Hourly
Limits*	12	0
Actuals		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	1	-
7	2	-
8	1	-
9	4	-
10	4	-
11	-	-
12	-	-
13	1	-
14	2	-
15	1	-
16	1	-
17	2	-
18	1	-
19	-	-
20	2	-
21	3	-
22	2	-
23	1	-
24	1	-
25	-	-
26	-	-
27	-	-
28	1	-
29	-	-
30	2	-
31	2	-

* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY	Month:	Jan-14
	Westwards** Max Hourly	Eastwards** Max Hourly
Limits*	28	8
Actuals		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	2	1
7	5	-
8	5	2
9	5	2
10	4	3
11	7	2
12	-	-
13	6	4
14	2	5
15	5	3
16	3	2
17	2	2
18	-	-
19	-	-
20	5	2
21	4	4
22	4	1
23	3	2
24	7	3
25	4	2
26	-	-
27	-	-
28	9	3
29	2	1
30	5	1
31	8	1

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY		Month:		Jan-14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	305	220	20	85	8
Actuals					
1	-	-	-	-	-
2	5	1	1	4	1
3	3	1	1	2	1
4	-	-	-	-	-
5	-	-	-	-	-
6	41	19	6	22	6
7	36	28	7	8	2
8	77	46	10	31	6
9	88	47	8	41	7
10	72	37	6	35	7
11	33	23	6	10	3
12	-	-	-	-	-
13	76	38	8	38	8
14	59	38	7	21	6
15	70	30	6	40	8
16	52	31	6	21	6
17	48	27	5	21	4
18	12	10	4	2	1
19	-	-	-	-	-
20	55	31	7	24	5
21	63	36	9	27	8
22	60	23	6	37	8
23	66	43	6	23	8
24	75	29	8	46	7
25	21	5	2	16	4
26	-	-	-	-	-
27	-	-	-	-	-
28	44	20	4	24	5
29	69	33	6	36	6
30	49	32	7	17	5
31	73	46	9	27	6

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY		Month:		Feb-14
		Daily Total	Westwards Daily	Eastwards Daily
Limits		326	241	85
Actuals				
1		23	16	7
2		-	-	-
3		75	39	36
4		67	37	30
5		86	53	33
6		79	52	27
7		79	45	34
8		17	10	7
9		-	-	-
10		83	41	42
11		100	62	38
12		81	53	28
13		76	34	42
14		74	50	24
15		22	18	4
16		-	-	-
17		54	35	19
18		76	37	39
19		88	53	35
20		88	45	43
21		77	40	37
22		22	16	6
23		-	-	-
24		60	34	26
25		60	21	39
26		103	79	24
27		100	68	32
28		50	27	23

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY		Month:		Feb-14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	66	66	6	0	0
Actuals					
1	2	2	2	-	-
2	-	-	-	-	-
3	3	3	3	-	-
4	3	3	3	-	-
5	1	1	1	-	-
6	2	2	2	-	-
7	4	4	4	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	3	3	3	-	-
11	5	5	5	-	-
12	6	6	6	-	-
13	1	1	1	-	-
14	5	5	5	-	-
15	5	5	3	-	-
16	-	-	-	-	-
17	2	2	2	-	-
18	1	1	1	-	-
19	5	5	5	-	-
20	6	6	6	-	-
21	4	4	4	-	-
22	5	5	5	-	-
23	-	-	-	-	-
24	1	1	1	-	-
25	-	-	-	-	-
26	-	-	-	-	-
27	4	4	4	-	-
28	4	4	4	-	-

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY	Month:	Feb-14
	Westwards Max Hourly	Eastwards Max Hourly
Limits*	12	0
Actuals		
1	3	-
2	-	-
3	3	-
4	4	-
5	4	-
6	1	-
7	2	-
8	1	-
9	-	-
10	4	-
11	3	-
12	3	-
13	1	-
14	3	-
15	3	-
16	-	-
17	1	-
18	3	-
19	2	-
20	3	-
21	5	-
22	-	-
23	-	-
24	1	-
25	2	-
26	6	-
27	4	-
28	3	-

* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY	Month:	Feb-14
	Westwards** Max Hourly	Eastwards** Max Hourly
Limits*	28	8
Actuals		
1	2	1
2	-	-
3	6	3
4	2	1
5	3	4
6	4	4
7	3	2
8	3	2
9	-	-
10	7	4
11	4	1
12	5	-
13	8	1
14	8	1
15	4	-
16	-	-
17	7	2
18	5	2
19	2	3
20	5	1
21	3	2
22	1	-
23	-	-
24	5	1
25	4	3
26	5	2
27	3	2
28	2	6

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY		Month:		Feb-14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	305	220	20	85	8
Actuals					
1	15	9	3	6	2
2	-	-	-	-	-
3	60	27	5	33	5
4	57	28	6	29	6
5	74	45	7	29	8
6	68	45	7	23	5
7	68	36	7	32	8
8	11	6	3	5	2
9	-	-	-	-	-
10	65	27	6	38	8
11	87	50	8	37	6
12	67	39	7	28	7
13	65	24	6	41	7
14	57	34	6	23	5
15	10	6	2	4	1
16	-	-	-	-	-
17	42	25	4	17	4
18	65	28	5	37	7
19	76	44	8	32	8
20	73	31	10	42	7
21	63	28	6	35	6
22	16	10	6	6	2
23	-	-	-	-	-
24	52	27	5	25	7
25	51	15	3	36	8
26	90	68	12	22	4
27	87	57	9	30	7
28	35	18	5	17	3

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY		Month:		MARCH 14
		Daily Total	Westwards Daily	Eastwards Daily
Limits		326	241	85
Actuals				
1		9	5	4
2		-	-	-
3		36	30	6
4		54	25	29
5		52	26	26
6		68	51	17
7		77	53	24
8		18	11	7
9		-	-	-
10		87	66	21
11		75	49	26
12		83	55	28
13		75	52	23
14		81	47	34
15		16	13	3
16		-	-	-
17		92	62	30
18		83	62	21
19		112	71	41
20		153	83	70
21		100	63	37
22		20	16	4
23		-	-	-
24		101	74	27
25		114	71	43
26		117	88	29
27		64	50	14
28		34	15	19
29		9	7	2
30		-	-	-
31		55	25	30
		1785		

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY		Month:		Mar-14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	66	66	6	0	0
Actuals					
1	1	1	1	-	-
2	-	-	-	-	-
3	-	-	-	-	-
4	3	3	3	-	-
5	-	-	-	-	-
6	2	2	2	-	-
7	3	3	3	-	-
8	8	8	6	-	-
9	-	-	-	-	-
10	1	1	1	-	-
11	3	3	3	-	-
12	4	4	4	-	-
13	3	3	3	-	-
14	3	3	3	-	-
15	4	4	4	-	-
16	-	-	-	-	-
17	3	3	3	-	-
18	4	4	4	-	-
19	4	4	4	-	-
20	4	4	4	-	-
21	4	4	4	-	-
22	6	6	6	-	-
23	-	-	-	-	-
24	1	1	1	-	-
25	-	-	-	-	-
26	3	3	3	-	-
27	5	5	3	-	-
28	-	-	-	-	-
29	5	5	5	-	-
30	-	-	-	-	-
31	1	1	1	-	-

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY	Month:	March 14
	Westwards Max Hourly	Eastwards Max Hourly
Limits*	12	0
Actuals		
1	-	-
2	-	-
3	2	-
4	1	-
5	4	-
6	2	-
7	5	-
8	-	-
9	-	-
10	-	-
11	-	-
12	3	-
13	2	-
14	3	-
15	3	-
16	-	-
17	3	-
18	3	-
19	3	-
20	2	-
21	5	-
22	-	-
23	-	-
24	-	-
25	3	-
26	1	-
27	3	-
28	-	-
29	-	-
30	-	-
31	3	-

* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY		Month:		MARCH 14
		Westwards** Max Hourly		Eastwards** Max Hourly
Limits*		28		8
Actuals				
1		1		-
2		-		-
3		4		-
4		-		1
5		2		4
6		5		1
7		4		1
8		2		2
9		-		-
10		9		-
11		8		2
12		5		3
13		7		3
14		5		5
15		4		1
16		-		-
17		3		2
18		4		-
19		4		1
20		8		3
21		6		-
22		2		-
23		-		-
24		7		1
25		7		-
26		10		1
27		7		3
28		5		2
29		-		-
30		-		-
31		3		2

* Condition 2 (9) ** Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY		Month:		MAR 14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	305	220	20	85	8
Actuals					
1	7	3	2	4	3
2	-	-	-	-	-
3	30	24	4	6	2
4	49	21	4	28	5
5	42	20	4	22	3
6	58	42	11	16	4
7	64	41	8	23	4
8	6	1	1	5	2
9	-	-	-	-	-
10	77	56	9	21	4
11	62	38	8	24	6
12	68	43	8	25	6
13	60	40	6	20	5
14	65	36	8	29	5
15	4	2	1	2	1
16	-	-	-	-	-
17	81	53	10	28	6
18	72	51	8	21	4
19	100	60	11	40	8
20	136	69	14	67	9
21	85	48	10	37	7
22	12	8	3	4	2
23	-	-	-	-	-
24	92	66	12	26	7
25	104	61	12	43	8
26	102	74	11	28	8
27	46	35	10	11	3
28	27	10	3	17	5
29	4	2	1	2	1
30	-	-	-	-	-
31	46	18	4	28	5

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY		Month:	Apr-14
	Daily Total	Westwards Daily	Eastwards Daily
Limits	326	241	85
Actuals			
1	95	57	38
2	138	87	51
3	137	63	74
4	75	52	23
5	30	27	3
6	-	-	-
7	54	28	26
8	77	36	41
9	64	36	28
10	104	61	43
11	81	54	27
12	23	15	8
13	-	-	-
14	87	57	30
15	56	30	26
16	65	37	28
17	81	52	29
18	-	-	-
19	-	-	-
20	-	-	-
21	-	-	-
22	33	21	12
23	76	56	20
24	91	48	43
25	-	-	-
26	-	-	-
27	-	-	-
28	66	32	34
29	94	62	32
30	92	57	35
	1619		

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY		Month:		Apr-14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	66	66	6	0	0
Actuals					
1	3	3	2	-	-
2	4	4	4	-	-
3	2	2	2	-	-
4	5	5	5	-	-
5	2	2	2	-	-
6	-	-	-	-	-
7	2	2	2	-	-
8	4	4	4	-	-
9	4	4	4	-	-
10	6	6	6	-	-
11	3	3	3	-	-
12	2	2	2	-	-
13	-	-	-	-	-
14	5	5	5	-	-
15	4	4	4	-	-
16	5	5	5	-	-
17	5	5	5	-	-
18	-	-	-	-	-
19	-	-	-	-	-
20	-	-	-	-	-
21	-	-	-	-	-
22	2	2	2	-	-
23	6	6	6	-	-
24	5	5	3	-	-
25	-	-	-	-	-
26	-	-	-	-	-
27	-	-	-	-	-
28	3	3	3	-	-
29	3	3	3	-	-
30	4	4	4	-	-

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY	Month:	Apr-14
	Westwards	Eastwards
	Max Hourly	Max Hourly
Limits*	12	0
Actuals		
1	1	-
2	2	-
3	7	-
4	5	-
5	2	-
6	-	-
7	3	-
8	3	-
9	4	-
10	3	-
11	4	-
12	2	-
13	-	-
14	2	-
15	5	-
16	2	-
17	4	-
18	-	-
19	-	-
20	-	-
21	-	-
22	1	-
23	-	-
24	1	-
25	-	-
26	-	-
27	-	-
28	1	-
29	4	-
30	2	-

* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY	Month:	Apr-14
	Westwards** Max Hourly	Eastwards** Max Hourly
Limits*	28	8
Actuals		
1	6	2
2	4	4
3	6	7
4	7	3
5	5	-
6	-	-
7	7	3
8	5	3
9	2	1
10	6	3
11	5	4
12	3	-
13	-	-
14	8	1
15	3	1
16	6	2
17	3	2
18	-	-
19	-	-
20	-	-
21	-	-
22	5	1
23	9	-
24	7	2
25	-	-
26	-	-
27	-	-
28	8	4
29	1	2
30	6	4

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY		Month:		Apr-14
	Daily Total	Westwards		Eastwards
		Daily	Max Hourly	Daily	Max Hourly
Limits	305	220	20	85	8
Actuals					
1	83	47	11	36	7
2	124	77	14	47	8
3	115	48	10	67	8
4	55	35	8	20	5
5	21	18	5	3	2
6	-	-	-	-	-
7	39	16	5	23	4
8	62	24	6	38	8
9	53	26	5	27	5
10	86	46	8	40	7
11	65	42	7	23	4
12	16	8	3	8	2
13	-	-	-	-	-
14	71	42	8	29	7
15	43	18	3	25	5
16	50	24	4	26	5
17	67	40	8	27	6
18	-	-	-	-	-
19	-	-	-	-	-
20	-	-	-	-	-
21	-	-	-	-	-
22	24	13	3	11	2
23	61	41	11	20	4
24	76	35	8	41	8
25	-	-	-	-	-
26	-	-	-	-	-
27	-	-	-	-	-
28	50	20	4	30	5
29	84	54	10	30	5
30	76	45	8	31	5

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY		Month:		May-14
	Daily Total	Westwards Daily		Eastwards Daily
Limits	326	241		85
Actuals				
1	102	56		46
2	93	58		35
3	44	39		5
4	-	-		-
5	93	55		38
6	97	55		42
7	92	55		37
8	128	79		49
9	100	70		30
10	21	17		4
11	-	-		-
12	73	37		36
13	74	47		27
14	87	61		26
15	80	57		23
16	83	43		40
17	27	22		5
18	-	-		-
19	97	59		38
20	105	61		44
21	109	68		41
22	88	53		35
23	93	62		31
24	35	19		16
25	-	-		-
26	94	61		33
27	71	39		32
28	112	60		52
29	130	62		68
30	85	55		30
31	22	16		6
	2235			

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY		Month:		May-14
	Daily Total	Westwards		Eastwards
		Daily	Max Hourly	Daily	Max Hourly
Limits	66	66	6	0	0
Actuals					
1	-	-	-	-	-
2	5	5	5	-	-
3	5	5	5	-	-
4	-	-	-	-	-
5	1	1	1	-	-
6	3	3	3	-	-
7	5	5	5	-	-
8	7	7	6	-	-
9	6	6	6	-	-
10	7	7	5	-	-
11	-	-	-	-	-
12	-	-	-	-	-
13	2	2	2	-	-
14	5	5	5	-	-
15	7	7	5	-	-
16	-	-	-	-	-
17	7	7	6	-	-
18	-	-	-	-	-
19	-	-	-	-	-
20	4	4	4	-	-
21	5	5	5	-	-
22	5	5	3	-	-
23	4	4	4	-	-
24	4	4	2	-	-
25	-	-	-	-	-
26	4	4	4	-	-
27	4	4	4	-	-
28	4	4	4	-	-
29	6	6	6	-	-
30	6	6	6	-	-
31	4	4	4	-	-

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY	Month:	May-14
	Westwards Max Hourly	Eastwards Max Hourly
Limits*	12	0
Actuals		
1	3	-
2	3	-
3	3	-
4	-	-
5	3	-
6	2	-
7	2	-
8	3	-
9	3	-
10	-	-
11	-	-
12	-	-
13	4	-
14	2	-
15	1	-
16	8	-
17	1	-
18	-	-
19	5	-
20	3	-
21	2	-
22	3	-
23	2	-
24	1	-
25	-	-
26	-	-
27	2	-
28	1	-
29	1	-
30	1	-
31	2	-

* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY	Month:	May-14
	Westwards** Max Hourly	Eastwards** Max Hourly
Limits*	28	8
Actuals		
1	9	4
2	5	1
3	5	-
4	-	-
5	9	2
6	6	2
7	6	4
8	7	3
9	5	-
10	5	2
11	-	-
12	8	2
13	5	1
14	6	4
15	2	3
16	3	1
17	1	1
18	-	-
19	6	1
20	4	4
21	3	3
22	3	2
23	5	1
24	1	2
25	-	-
26	6	4
27	5	1
28	7	5
29	7	2
30	7	3
31	3	1

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY		Month:		May-14
	Daily Total	Westwards		Eastwards
		Daily	Max Hourly	Daily	Max Hourly
Limits	305	220	20	85	8
Actuals					
1	86	44	7	42	7
2	79	45	8	34	6
3	31	26	7	5	2
4	-	-	-	-	-
5	78	42	9	36	7
6	84	44	8	40	8
7	75	42	9	33	6
8	108	62	9	46	8
9	86	56	10	30	6
10	7	5	3	2	1
11	-	-	-	-	-
12	63	29	7	34	6
13	62	36	7	26	4
14	70	48	11	22	4
15	67	47	10	20	3
16	71	32	6	39	6
17	17	13	4	4	2
18	-	-	-	-	-
19	85	48	10	37	5
20	90	50	9	40	8
21	96	58	12	38	8
22	75	42	8	33	6
23	81	51	11	30	6
24	22	8	5	14	5
25	-	-	-	-	-
26	80	51	9	29	5
27	59	28	5	31	8
28	95	48	9	47	7
29	114	48	12	66	9
30	68	41	9	27	5
31	12	7	3	5	2

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY		Month:		Jun-14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	66	66	6	0	0
Actuals					
1	-	-	-	-	-
2	4	4	2	-	-
3	6	6	6	-	-
4	6	6	6	-	-
5	3	3	3	-	-
6	5	5	5	-	-
7	3	3	3	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	1	1	1	-	-
11	-	-	-	-	-
12	3	3	3	-	-
13	4	4	4	-	-
14	-	-	-	-	-
15	-	-	-	-	-
16	2	2	2	-	-
17	5	5	5	-	-
18	7	7	5	-	-
19	5	5	5	-	-
20	5	5	3	-	-
21	5	5	5	-	-
22	-	-	-	-	-
23	1	1	1	-	-
24	5	5	5	-	-
25	5	5	5	-	-
26	6	6	6	-	-
27	6	6	3	-	-
28	6	6	6	-	-
29	-	-	-	-	-
30	2	2	2		

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY	Month:	Jun-14
	Westwards Max Hourly	Eastwards Max Hourly
Limits*	12	0
Actuals		
1	-	-
2	1	-
3	2	-
4	1	-
5	2	-
6	2	-
7	-	-
8	-	-
9	-	-
10	1	-
11	3	-
12	1	-
13	1	-
14	2	-
15	-	-
16	1	-
17	2	-
18	-	-
19	3	-
20	2	-
21	2	-
22	-	-
23	3	-
24	2	-
25	2	-
26	2	-
27	2	-
28	-	-
29	-	-
30	1	-

* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY	Month:	Jun-14
	Westwards** Max Hourly	Eastwards** Max Hourly
Limits*	28	8
Actuals		
1	-	-
2	8	2
3	5	2
4	9	3
5	6	6
6	4	2
7	-	-
8	-	-
9	-	-
10	5	2
11	4	3
12	6	3
13	3	5
14	4	2
15	-	-
16	6	2
17	5	5
18	2	2
19	3	6
20	4	2
21	1	2
22	-	-
23	7	2
24	2	4
25	4	1
26	2	3
27	3	2
28	1	-
29	-	-
30	5	1

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY		Month:		Jun-14
	Daily Total	Westwards		Eastwards
		Daily	Max Hourly	Daily	Max Hourly
Limits	305	220	20	85	8
Actuals					
1	-	-	-	-	-
2	43	26	5	17	4
3	100	67	11	33	8
4	108	68	12	40	8
5	63	39	9	24	6
6	41	30	7	11	3
7	2	2	2	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	40	17	4	23	6
11	68	29	5	39	8
12	72	36	5	36	8
13	66	34	6	32	9
14	17	9	3	8	3
15	-	-	-	-	-
16	89	49	12	40	9
17	76	40	10	36	8
18	95	39	6	56	8
19	88	30	6	58	9
20	77	36	9	41	8
21	9	5	2	4	1
22	-	-	-	-	-
23	73	41	10	32	8
24	70	31	6	39	6
25	81	40	10	41	8
26	71	45	9	26	5
27	101	48	10	53	9
28	12	6	3	6	2
29	-	-	-	-	-
30	63	38	10	25	5

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY	Month:	Jun-14
	Daily Total	Westwards Daily	Eastwards Daily
Limits	326	241	85
Actuals			
1	-	-	-
2	58	39	19
3	115	80	35
4	127	84	43
5	80	50	30
6	54	41	13
7	5	5	-
8	-	-	-
9	-	-	-
10	49	24	25
11	78	36	42
12	85	46	39
13	79	42	37
14	25	15	10
15	-	-	-
16	100	58	42
17	93	52	41
18	106	48	58
19	105	41	64
20	90	47	43
21	19	13	6
22	-	-	-
23	86	52	34
24	83	40	43
25	93	51	42
26	84	55	29
27	114	59	55
28	19	13	6
29	-	-	-
30	72	46	26

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY	Month:	Jul-14
	Daily Total	Westwards Daily	Eastwards Daily
Limits	326	241	85
Actuals			
1	95	60	35
2	92	54	38
3	81	45	36
4	63	38	25
5	30	26	4
6	-	-	-
7	115	49	66
8	108	63	45
9	106	51	55
10	71	44	27
11	108	61	47
12	27	19	8
13	-	-	-
14	51	28	23
15	73	46	27
16	54	28	26
17	68	40	28
18	51	29	22
19	13	8	5
20	-	-	-
21	49	27	22
22	81	36	45
23	96	52	44
24	85	41	44
25	73	35	38
26	22	15	7
27	-	-	-
28	74	30	44
29	75	35	40
30	79	40	39
31	62	35	27

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY		Month:		Jul-14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	66	66	6	0	0
Actuals					
1	4	4	4	-	-
2	6	6	6	-	-
3	4	4	4	-	-
4	6	6	6	-	-
5	5	5	5	-	-
6	-	-	-	-	-
7	2	2	2	-	-
8	5	5	5	-	-
9	5	5	5	-	-
10	4	4	4	-	-
11	4	4	4	-	-
12	6	6	4	-	-
13	-	-	-	-	-
14	1	1	1	-	-
15	5	5	5	-	-
16	4	4	4	-	-
17	5	5	3	-	-
18	2	2	2	-	-
19	4	4	4	-	-
20	-	-	-	-	-
21	3	3	3	-	-
22	2	2	2	-	-
23	6	6	6	-	-
24	5	5	5	-	-
25	6	6	6	-	-
26	5	5	4	-	-
27	-	-	-	-	-
28	1	1	1	-	-
29	1	1	1	-	-
30	3	3	3	-	-
31	4	4	4	-	-

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY	Month:	Jul-14
	Westwards Max Hourly	Eastwards Max Hourly
Limits*	12	0
Actuals		
1	3	-
2	-	-
3	-	-
4	2	-
5	3	-
6	-	-
7	5	-
8	3	-
9	3	-
10	4	-
11	3	-
12	-	-
13	-	-
14	3	-
15	3	-
16	4	-
17	4	-
18	3	-
19	1	-
20	-	-
21	3	-
22	1	-
23	2	-
24	3	-
25	-	-
26	1	-
27	-	-
28	4	-
29	2	-
30	2	-
31	3	-

* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY	Month:	Jul-14
	Westwards** Max Hourly	Eastwards** Max Hourly
Limits*	28	8
Actuals		
1	7	2
2	7	3
3	8	3
4	3	4
5	1	2
6	-	-
7	3	5
8	5	3
9	6	7
10	3	1
11	4	3
12	1	2
13	-	-
14	6	2
15	5	3
16	5	3
17	4	5
18	4	3
19	-	-
20	-	-
21	4	3
22	2	2
23	4	2
24	1	2
25	6	3
26	2	-
27	-	-
28	4	1
29	6	2
30	3	3
31	1	1

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY		Month:		Jul-14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	305	220	20	85	8
Actuals					
1	79	46	9	33	5
2	76	41	7	35	8
3	66	33	6	33	6
4	48	27	5	21	4
5	19	17	4	2	1
6	-	-	-	-	-
7	100	39	9	61	8
8	92	50	12	42	8
9	85	37	12	48	8
10	59	33	8	26	4
11	94	50	8	44	8
12	18	12	5	6	2
13	-	-	-	-	-
14	39	18	6	21	4
15	57	33	7	24	5
16	38	15	3	23	4
17	50	27	8	23	6
18	39	20	7	19	6
19	8	3	2	5	2
20	-	-	-	-	-
21	36	17	4	19	3
22	74	31	7	43	8
23	82	40	8	42	8
24	74	32	7	42	8
25	58	23	7	35	6
26	14	7	3	7	5
27	-	-	-	-	-
28	65	21	6	43	8
29	64	26	7	38	8
30	68	32	6	36	7
31	53	27	5	26	5

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY	Month:	Aug-14
	Daily Total	Westwards Daily	Eastwards Daily
Limits	326	241	85
Actuals			
1	90	47	43
2	22	16	6
3	-	-	-
4	87	49	38
5	94	45	49
6	80	45	35
7	87	53	34
8	63	43	20
9	25	17	8
10	-	-	-
11	72	36	36
12	79	44	35
13	40	28	12
14	74	33	41
15	102	65	37
16	20	13	7
17	-	-	-
18	71	53	18
19	27	18	9
20	36	22	14
21	33	20	13
22	45	35	10
23	14	13	1
24	-	-	-
25	43	20	23
26	42	24	18
27	31	17	14
28	25	12	13
29	61	29	32
30	6	6	-
31	-	-	-

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY		Month:		Aug-14
	Daily Total	Westwards		Eastwards
		Daily	Max Hourly	Daily	Max Hourly
Limits	66	66	6	0	0
Actuals					
1	2	2	2	-	-
2	8	8	5	-	-
3	-	-	-	-	-
4	4	4	4	-	-
5	6	6	6	-	-
6	6	6	6	-	-
7	5	5	5	-	-
8	6	6	6	-	-
9	6	6	6	-	-
10	-	-	-	-	-
11	3	3	3	-	-
12	4	4	4	-	-
13	3	3	3	-	-
14	2	2	2	-	-
15	6	6	6	-	-
16	3	3	3	-	-
17	-	-	-	-	-
18	4	4	4	-	-
19	-	-	-	-	-
20	-	-	-	-	-
21	2	2	2	-	-
22	3	3	3	-	-
23	4	4	4	-	-
24	-	-	-	-	-
25	2	2	2	-	-
26	6	6	6	-	-
27	4	4	4	-	-
28	-	-	-	-	-
29	3	3	3	-	-
30	3	3	2	-	-
31	-	-	-	-	-

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY	Month:	Aug-14
	Westwards Max Hourly	Eastwards Max Hourly
Limits*	12	0
Actuals		
1	1	-
2	1	-
3	-	-
4	2	-
5	3	-
6	2	-
7	4	-
8	2	-
9	-	-
10	-	-
11	2	-
12	3	-
13	1	-
14	4	-
15	1	-
16	3	-
17	-	-
18	3	-
19	1	-
20	3	-
21	3	-
22	2	-
23	2	-
24	-	-
25	3	-
26	4	-
27	1	-
28	1	-
29	1	-
30	1	-
31	-	-

* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY	Month:	Aug-14
	Westwards** Max Hourly	Eastwards** Max Hourly
Limits*	28	8
Actuals		
1	7	3
2	-	1
3	-	-
4	7	3
5	5	5
6	3	4
7	2	1
8	5	2
9	4	3
10	-	-
11	6	3
12	7	3
13	4	4
14	2	1
15	5	5
16	-	2
17	-	-
18	3	4
19	2	2
20	2	1
21	4	1
22	5	1
23	1	-
24	-	-
25	3	2
26	-	3
27	1	1
28	1	1
29	5	3
30	-	-
31	-	-

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY		Month:		Aug-14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	305	220	20	85	8
Actuals					
1	77	37	7	40	8
2	12	7	3	5	2
3	-	-	-	-	-
4	71	36	7	35	5
5	75	31	5	44	8
6	65	34	8	31	6
7	75	42	8	33	7
8	48	30	5	18	4
9	12	7	3	5	2
10	-	-	-	-	-
11	58	25	5	33	5
12	62	30	5	32	5
13	28	20	5	8	3
14	65	25	4	40	8
15	85	53	9	32	6
16	12	7	3	5	3
17	-	-	-	-	-
18	57	43	11	14	4
19	22	15	5	7	2
20	30	17	5	13	4
21	23	11	3	12	3
22	34	25	5	9	2
23	7	6	2	1	1
24	-	-	-	-	-
25	33	12	3	21	4
26	29	14	4	15	5
27	24	11	3	13	4
28	22	10	2	12	2
29	49	20	7	29	8
30	2	2	2	-	-
31	-	-	-	-	-

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY	Month:	Sep-14

	Daily Total	Westwards Daily	Eastwards Daily
Limits	326	241	85
Actuals			
1	86	57	29
2	75	30	45
3	61	33	28
4	130	60	70
5	150	88	62
6	19	12	7
7	-	-	-
8	92	60	32
9	106	59	47
10	39	18	21
11	88	46	42
12	109	75	34
13	24	12	12
14	-	-	-
15	74	35	39
16	125	83	42
17	96	71	25
18	169	99	70
19	170	101	69
20	39	15	24
21	-	-	-
22	88	36	52
23	126	85	41
24	111	75	36
25	79	45	34
26	113	63	50
27	46	25	21
28	-	-	-
29	90	56	34
30	91	52	39
31			

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY		Month:		Sep-14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	66	66	6	0	0
Actuals					
1	1	1	1	-	-
2	4	4	4	-	-
3	2	2	2	-	-
4	7	7	4	-	-
5	7	7	5	-	-
6	7	7	4	-	-
7	-	-	-	-	-
8	2	2	2	-	-
9	2	2	2	-	-
10	4	4	4	-	-
11	4	4	4	-	-
12	6	6	5	-	-
13	6	6	5	-	-
14	-	-	-	-	-
15	-	-	-	-	-
16	5	5	5	-	-
17	4	4	4	-	-
18	2	2	2	-	-
19	5	5	5	-	-
20	6	6	6	-	-
21	-	-	-	-	-
22	5	5	5	-	-
23	4	4	4	-	-
24	6	6	6	-	-
25	5	5	5	-	-
26	5	5	3	-	-
27	5	5	3	-	-
28	-	-	-	-	-
29	1	1	1	-	-
30	4	4	4	-	-
31				-	-

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY	Month:	Sep-14
	Westwards Max Hourly	Eastwards Max Hourly
Limits*	12	0
Actuals		
1	2	-
2	3	-
3	2	-
4	2	-
5	-	-
6	1	-
7	-	-
8	2	-
9	2	-
10	1	-
11	2	-
12	1	-
13	1	-
14	-	-
15	4	-
16	2	-
17	2	-
18	4	-
19	2	-
20	-	-
21	-	-
22	2	-
23	3	-
24	2	-
25	2	-
26	3	-
27	1	-
28	-	-
29	2	-
30	1	-
31		-

* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY	Month:	Sep-14
	Westwards** Max Hourly	Eastwards** Max Hourly
Limits*	28	8
Actuals		
1	9	2
2	3	3
3	1	3
4	3	2
5	6	4
6	-	-
7	-	-
8	5	3
9	9	1
10	2	4
11	1	5
12	9	2
13	1	2
14	-	-
15	6	3
16	13	5
17	8	2
18	8	6
19	6	4
20	1	4
21	-	-
22	4	5
23	7	5
24	6	7
25	4	5
26	7	5
27	7	2
28	-	-
29	6	3
30	8	4
31		

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY		Month:		Sep-14
	Daily Total	Westwards		Eastwards
		Daily	Max Hourly	Daily	Max Hourly
Limits	305	220	20	85	8
Actuals					
1	72	45	8	27	5
2	62	20	4	42	8
3	53	28	9	25	5
4	116	48	7	68	8
5	133	75	15	58	8
6	11	4	3	7	3
7	-	-	-	-	-
8	80	51	9	29	6
9	92	46	9	46	8
10	28	11	3	17	3
11	76	39	7	37	7
12	91	59	12	32	7
13	14	4	1	10	3
14	-	-	-	-	-
15	61	25	8	36	7
16	100	63	13	37	6
17	80	57	9	23	6
18	149	85	17	64	8
19	153	88	20	65	8
20	28	8	3	20	7
21	-	-	-	-	-
22	72	25	4	47	8
23	107	71	13	36	7
24	90	61	10	29	5
25	63	34	7	29	5
26	93	48	8	45	8
27	31	12	4	19	7
28	-	-	-	-	-
29	78	47	8	31	5
30	74	39	8	35	6
31					

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY		Month:		Oct-14
		Daily Total	Westwards Daily	Eastwards Daily
Limits		326	241	85
Actuals				
1		72	43	29
2		95	54	41
3		103	68	35
4		6	6	-
5		-	-	-
6		-	-	-
7		62	34	28
8		83	47	36
9		59	25	34
10		64	31	33
11		28	17	11
12		-	-	-
13		99	61	38
14		57	32	25
15		43	29	14
16		91	50	41
17		96	68	28
18		29	24	5
19		-	-	-
20		103	75	28
21		70	31	39
22		78	52	26
23		111	45	66
24		92	45	47
25		27	18	9
26		-	-	-
27		68	46	22
28		79	51	28
29		91	63	28
30		156	81	75
31		143	77	66

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY		Month:		Oct-14
	Daily Total	Westwards		Eastwards
		Daily	Max Hourly	Daily	Max Hourly
Limits	66	66	6	0	0
Actuals					
1	5	5	5	-	-
2	5	5	4	-	-
3	6	6	5	-	-
4	6	6	6	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	4	4	4	-	-
9	4	4	4	-	-
10	5	5	5	-	-
11	4	4	2	-	-
12	-	-	-	-	-
13	-	-	-	-	-
14	5	5	5	-	-
15	6	6	6	-	-
16	5	5	5	-	-
17	3	3	3	-	-
18	4	4	4	-	-
19	-	-	-	-	-
20	-	-	-	-	-
21	4	4	4	-	-
22	3	3	3	-	-
23	2	2	2	-	-
24	7	7	7	-	-
25	7	7	5	-	-
26	-	-	-	-	-
27	2	2	2	-	-
28	4	4	4	-	-
29	6	6	6	-	-
30	6	6	6	-	-
31	6	6	6	-	-

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY	Month:	Oct-14
	Westwards Max Hourly	Eastwards Max Hourly
Limits*	12	0
Actuals		
1	2	-
2	1	-
3	1	-
4	-	-
5	-	-
6	-	-
7	1	-
8	-	-
9	3	-
10	3	-
11	3	-
12	-	-
13	3	-
14	1	-
15	-	-
16	2	-
17	4	-
18	-	-
19	-	-
20	2	-
21	4	-
22	3	-
23	3	-
24	1	-
25	1	-
26	-	-
27	3	-
28	5	-
29	4	-
30	3	-
31	3	-

* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY	Month:	Oct-14
	Westwards** Max Hourly	Eastwards** Max Hourly
Limits*	28	8
Actuals		
1	4	2
2	5	1
3	9	2
4	-	-
5	-	-
6	-	-
7	6	3
8	5	4
9	1	2
10	3	5
11	4	1
12	-	-
13	4	4
14	3	3
15	2	2
16	4	-
17	7	1
18	4	2
19	-	-
20	10	2
21	3	2
22	4	4
23	8	3
24	5	8
25	3	1
26	-	-
27	7	2
28	6	3
29	8	1
30	7	8
31	8	3

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY		Month:		Oct-14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	305	220	20	85	8
Actuals					
1	59	32	7	27	5
2	83	43	7	40	6
3	85	52	10	33	5
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	52	27	7	25	5
8	70	38	9	32	5
9	49	17	3	32	6
10	48	20	6	28	6
11	16	6	3	10	4
12	-	-	-	-	-
13	88	54	14	34	7
14	45	23	6	22	5
15	33	21	3	12	3
16	80	39	7	41	7
17	81	54	10	27	9
18	19	16	5	3	2
19	-	-	-	-	-
20	89	63	10	26	6
21	57	20	4	37	7
22	64	42	7	22	4
23	95	32	6	63	8
24	71	32	8	39	6
25	15	7	3	8	3
26	-	-	-	-	-
27	54	34	6	20	5
28	61	36	8	25	5
29	72	45	11	27	5
30	132	65	11	67	8
31	123	60	11	63	8

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY	Month:	November 14
	Daily Total	Westwards Daily	Eastwards Daily
Limits	326	241	85
Actuals			
1	36	23	13
2	-	-	-
3	82	57	25
4	92	51	41
5	97	68	29
6	72	53	19
7	77	59	18
8	44	34	10
9	-	-	-
10	148	111	37
11	152	91	61
12	146	80	66
13	129	93	36
14	138	82	56
15	25	21	4
16	-	-	-
17	153	90	63
18	115	83	32
19	118	85	33
20	147	86	61
21	116	57	59
22	29	19	10
23	-	-	-
24	100	61	39
25	102	77	25
26	149	89	60
27	135	106	29
28	116	88	28
29	26	22	4
30	-	-	-

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY		Month:		November 14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	66	66	6	0	0
Actuals					
1	6	6	3	-	-
2	-	-	-	-	-
3	1	1	1	-	-
4	4	4	4	-	-
5	7	7	6	-	-
6	4	4	4	-	-
7	5	5	5	-	-
8	6	6	4	-	-
9	-	-	-	-	-
10	-	-	-	-	-
11	3	3	3	-	-
12	4	4	4	-	-
13	3	3	3	-	-
14	2	2	2	-	-
15	6	6	6	-	-
16	-	-	-	-	-
17	4	4	4	-	-
18	3	3	3	-	-
19	3	3	3	-	-
20	4	4	4	-	-
21	-	-	-	-	-
22	4	4	2	-	-
23	-	-	-	-	-
24	4	4	4	-	-
25	5	5	5	-	-
26	4	4	4	-	-
27	4	4	4	-	-
28	6	6	6	-	-
29	6	6	4	-	-
30	-	-	-	-	-

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY	Month:	November 14
	Westwards Max Hourly	Eastwards Max Hourly
Limits*	12	0
Actuals		
1	1	-
2	-	-
3	4	-
4	4	-
5	-	-
6	2	-
7	2	-
8	2	-
9	-	-
10	1	-
11	4	-
12	2	-
13	4	-
14	4	-
15	1	-
16	-	-
17	-	-
18	5	-
19	2	-
20	3	-
21	8	-
22	4	-
23	-	-
24	5	-
25	3	-
26	2	-
27	2	-
28	2	-
29	2	-
30	-	-

* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY	Month:	November 14
	Westwards** Max Hourly	Eastwards** Max Hourly
Limits*	28	8
Actuals		
1	2	2
2	-	-
3	13	1
4	4	3
5	10	2
6	12	1
7	13	-
8	3	2
9	-	-
10	12	3
11	11	3
12	11	4
13	9	4
14	18	2
15	1	-
16	-	-
17	14	5
18	9	4
19	12	5
20	7	4
21	5	7
22	1	4
23	-	-
24	8	4
25	7	5
26	9	8
27	13	2
28	9	4
29	5	-
30	-	-

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY		Month:		November 14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	305	220	20	85	8
Actuals					
1	25	14	5	11	4
2	-	-	-	-	-
3	63	39	9	24	5
4	77	39	7	38	8
5	78	51	10	27	6
6	53	35	7	18	5
7	57	39	8	18	4
8	31	23	7	8	2
9	-	-	-	-	-
10	132	98	18	34	7
11	131	73	11	58	8
12	125	63	11	62	8
13	109	77	12	32	5
14	112	58	13	54	8
15	17	13	4	4	2
16	-	-	-	-	-
17	130	72	13	58	8
18	94	66	11	28	6
19	96	68	12	28	6
20	129	72	12	57	8
21	96	44	7	52	8
22	16	10	4	6	2
23	-	-	-	-	-
24	79	44	7	35	7
25	82	62	12	20	5
26	126	74	14	52	8
27	114	87	15	27	4
28	95	71	11	24	4
29	15	11	4	4	1
30	-	-	-	-	-

Table 2E: Total Number of Laden Trucks

TERALBA QUARRY		Month:		Dec-14
		Daily Total	Westwards Daily	Eastwards Daily
Limits		326	241	85
Actuals				
1		68	36	32
2		62	32	30
3		176	112	64
4		102	77	25
5		84	48	36
6		19	12	7
7		-	-	-
8		45	28	17
9		68	32	36
10		109	67	42
11		54	31	23
12		63	43	20
13		9	8	1
14		-	-	-
15		112	73	39
16		126	87	39
17		98	66	32
18		123	100	23
19		83	54	29
20		16	10	6
21		-	-	-
22		53	34	19
23		62	41	21
24		3	3	-
25		-	-	-
26		-	-	-
27		-	-	-
28		-	-	-
29		-	-	-
30		-	-	-
31		-	-	-
		1535		

Table 2A: Number of Laden Trucks - 6:00pm to 5:00am

TERALBA QUARRY		Month:		Dec-14	
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	66	66	6	0	0
Actuals					
1	-	-	-	-	-
2	1	1	1	-	-
3	6	6	6	-	-
4	7	7	6	-	-
5	7	7	5	-	-
6	6	6	4	-	-
7	-	-	-	-	-
8	1	1	1	-	-
9	4	4	4	-	-
10	3	3	3	-	-
11	5	5	5	-	-
12	4	4	4	-	-
13	2	2	2	-	-
14	-	-	-	-	-
15	2	2	2	-	-
16	4	4	4	-	-
17	4	4	4	-	-
18	5	5	5	-	-
19	5	5	5	-	-
20	7	7	4	-	-
21	-	-	-	-	-
22	2	2	2	-	-
23	4	4	4	-	-
24	3	3	3	-	-
25	-	-	-	-	-
26	-	-	-	-	-
27	-	-	-	-	-
28	-	-	-	-	-
29	-	-	-	-	-
30	-	-	-	-	-
31	-	-	-	-	-

Table 2B: Number of Laden Trucks - 5:00am to 6:00am

TERALBA QUARRY	Month:	Dec-14
	Westwards	Eastwards
	Max Hourly	Max Hourly
Limits*	12	0
Actuals		
1	1	-
2	2	-
3	1	-
4	2	-
5	-	-
6	3	-
7	-	-
8	4	-
9	3	-
10	3	-
11	2	-
12	3	-
13	3	-
14	-	-
15	3	-
16	3	-
17	3	-
18	2	-
19	3	-
20	-	-
21	-	-
22	1	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-

* Condition 2 (9)

Table 2C: Number of Laden Trucks - 6:00am to 7:00am

TERALBA QUARRY	Month:	Dec-14
	Westwards** Max Hourly	Eastwards** Max Hourly
Limits*	28	8
Actuals		
1	7	3
2	5	1
3	14	4
4	8	1
5	12	3
6	-	2
7	-	-
8	3	2
9	2	3
10	12	-
11	5	3
12	6	1
13	1	-
14	-	-
15	7	6
16	13	6
17	11	5
18	12	5
19	5	2
20	1	1
21	-	-
22	4	1
23	2	1
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

Table 2D: Number of Laden Trucks - 7:00am to 6pm

TERALBA QUARRY		Month:			Dec-14
	Daily Total	Westwards		Eastwards	
		Daily	Max Hourly	Daily	Max Hourly
Limits	305	220	20	85	8
Actuals					
1	57	28	5	29	7
2	53	24	6	29	5
3	151	91	15	60	8
4	84	60	14	24	5
5	62	29	8	33	7
6	8	3	2	5	2
7	-	-	-	-	-
8	35	20	6	15	5
9	56	23	7	33	7
10	91	49	9	42	8
11	39	19	4	20	5
12	49	30	6	19	7
13	3	2	1	1	1
14	-	-	-	-	-
15	94	61	11	33	6
16	100	67	13	33	7
17	75	48	9	27	4
18	99	81	13	18	5
19	68	41	9	27	7
20	7	2	2	5	4
21	-	-	-	-	-
22	45	27	5	18	5
23	55	35	7	20	4
24	-	-	-	-	-
25	-	-	-	-	-
26	-	-	-	-	-
27	-	-	-	-	-
28	-	-	-	-	-
29	-	-	-	-	-
30	-	-	-	-	-
31	-	-	-	-	-

Shot #	Day	Month	Time	Location	2014 Blast Monitoring Results						Comments
					Location 1		Location 2		Location 3		
					Overpressue dB(L)	Vibration mm/s	Overpressue dB(L)	Vibration mm/s	Overpressue dB(L)	Vibration mm/s	
#1	17	January	11.30	S2	NT	NT	NT	NT	NM	NM	
#2	31	January	12.15	S2	NT	NT	NT	NT	NM	NM	Holes A6, E13 & F12 were Blocked - 3 x Dummy primers used
#3	7th	February	11.59	Stage 1a	NT	NT	NT	NT	NM	NM	0
#4	20th	February	12.50	S2	NT	NT	NT	NT	NM	NM	Hole C4 Double Primed - 8 Dummy ties used for tie up
#5	28th	February	11.15	S2	NT	NT	NT	NT	NM	NM	0
#6	14th	March	12.40	Stage 1A	NT	NT	NT	NT	NM	NM	Good fragmentation - Shot was mostly overburden
#7	24th	March	15.35	Stage 1A	NT	NT	NT	NT	NM	NM	Shot was fired with UNI Tronics
#8	28th	March	13.39	Pit Floor	NT	NT	NT	NT	NM	NM	0
#9	7th	April	14.35	Ramp 2	NT	NT	NT	NT	NM	NM	32 Blocked holes due to heavy rain
#10	14th	April	14.16	S2	NT	NT	NT	NT	NM	NM	Average hole depth was 1.3m deeper than design
#11	24th	April	12.41	Ramp 1	NT	NT	NT	NT	NM	NM	0
#11a	24th	April	13.00	Ramp #1	NT	NT	NT	NT	NM	NM	0
#12	28th	April	11.12	Ramp #2	NT	NT	NT	NT	NM	NM	0
#13	12th	May	14.20	S2	NT	NT	0.69	102.8	NM	NM	3 holes not drilled or blocked
#14	20th	May	14.32 pm	Ramp #2	NT	NT	NT	NT	NM	NM	Hole E12 Double primed
#15	20th	May	14.32pm	Ramp #2	NT	NT	NT	NT	NM	NM	3 Holes blocked and were not drilled
#16	28th	May	13.09pm	Stage 1A	NT	NT	NT	NT	NM	NM	1 x roll of feed line - 700m
#17	3	June	1.00 pm	S2	NT	NT	NT	NT	NM	NM	
#18	12	June	1.16	S2	NT	NT	NT	NT	NM	NM	
#19	17	June	12.03 pm	S2	NT	NT	NT	NT	NM	NM	
#20	25	June	11.14	Stage 1A	NT	NT	NT	NT	NM	NM	
#21	14	July	1.50 pm	Stage 1A	NT	NT	NT	NT	NM	NM	
#22	7	July	12.03 pm	Southern Pit	NT	NT	NT	NT	NM	NM	
#23	21	July	10.45	Southern Pit	NT	NT	NT	NT	NM	NM	
#24	28	July	1.27 pm	Southern Pit	NT	NT	NT	NT	NM	NM	
#25	5	August	10.10 am	Southern Pit	119	0.31	112.8	0.31	NM	NM	Hole Burst
#26	11	August	3.40 pm	Southern Pit	103	0.74	NT	NT	NM	NM	
#27	3	September	1.30	Southern Pit	105.5	0.75	NT	NT	NM	NM	
#28	5	September	1.50	Southern Pit	NT	NT	NT	NT	NM	NM	
#29	17	September	12.30	Southern Pit	NT	NT	NT	NT	NM	NM	
#30	8	October	1.30	Southern Pit	NT	NT	NT	NT	NM	NM	
#31	22	October	11.52	Southern Pit	NT	NT	NT	NT	NM	NM	
#32	4	November	10.50	Southern Pit	NT	NT	NT	NT	NM	NM	
#33	20	November	2.25	Stage 1A	NT	NT	NT	NT	NM	NM	
#34	9	December	1.45	Stage 1A	NT	NT	NT	NT	NM	NM	
#35	17	December	1.45	Stage 1A	NT	NT	NT	NT	NM	NM	

NT **Not Triggered**

NM **Not Monitored**

METROMIX TERALBA QUARRY
DUST DEPOSIT GAUGE ALYSES - PROJECT #559

SAMPLING PERIOD	RHONDA RD			MYRTLE ST			HILLSIDE CR			RODGERS ST			MARGARET ST		
	Insoluble Solids	Ash Fraction	% Ash	Insoluble Solids	Ash Fraction	% Ash	Insoluble Solids	Ash Fraction	% Ash	Insoluble Solids	Ash Fraction	% Ash	Insoluble Solids	Ash Fraction	% Ash
EPA Annual Average Guideline	4.0 (Annual Av)			4.0 (Annual Av)			4.0 (Annual Av)			4.0 (Annual Av)			4.0 (Annual Av)		
31-Jul-09 to 31-Aug-09	1.9	1.4	74	1.1	0.9	82	0.9	0.6	67	NA	NA	NA	NA	NA	NA
31-Aug-09 to 01-Oct-09	1.8	1.4	78	3.2	2.7	84	1.4	1.4	100	NA	NA	NA	NA	NA	NA
01-Oct-09 to 02-Nov-09	2.2	1.7	77	1.6	1.2	75	2.6	1.6	62	NA	NA	NA	NA	NA	NA
02-Nov-09 to 29-Jan-10	1.7	1.0	59	1.5	0.9	60	1.1	0.6	55	NA	NA	NA	NA	NA	NA
29-Jan-10 to 02-Mar-10	1.8	1.3	72	0.9	0.6	67	1.2	0.4	33	NA	NA	NA	NA	NA	NA
02-Mar-10 to 01-Apr-10	0.8	0.6	75	0.8	0.5	63	1.6	0.7	44	NA	NA	NA	NA	NA	NA
01-Apr-10 to 10-May-10	0.6	0.5	83	0.1	0.1	100	1.0	0.6	60	NA	NA	NA	NA	NA	NA
10-May-10 to 02-Jun-10	0.9	0.8	89	0.7	0.4	57	1.3	0.8	62	NA	NA	NA	NA	NA	NA
02-Jun-10 to 02-Jul-10	0.5	0.4	80	0.7	0.5	71	0.5	0.3	60	NA	NA	NA	NA	NA	NA
02-Jul-10 to 03-Aug-10	0.9	0.5	56	0.4	0.2	50	0.6	0.2	33	NA	NA	NA	NA	NA	NA
01-Aug-10 to 06-Sep-10	1.3	1.0	77	0.6	0.6	100	0.4	0.2	50	NA	NA	NA	NA	NA	NA
07-Sep-10 to 07-Oct-10	1.3	1.0	77	0.6	0.6	100	0.4	0.2	50	NA	NA	NA	NA	NA	NA
08-Oct-10 to 19-Oct-10	0.7	0.6	86	0.4	0.4	100	0.4	0.2	50	NA	NA	NA	NA	NA	NA
05-Oct-10 to 05-Nov-10	1.8	1.0	56	0.7	0.5	71	1.5	0.2	13	NA	NA	NA	NA	NA	NA
06-Nov-10 to 06-Dec-10	1.0	0.5	50	0.6	0.3	50	1.5	0.3	20	NA	NA	NA	NA	NA	NA
07-Dec-10 to 11-Jan-11	1.5	0.8	53	1.1	0.5	45	1.2	0.3	25	NA	NA	NA	NA	NA	NA
11-Jan-11 to 04-Feb-11	0.3	0.3	100	0.4	0.4	100	0.6	0.3	50	NA	NA	NA	NA	NA	NA
04-Feb-11 to 06-Mar-11	2.2	1.4	64	2.1	1.0	48	1.7	1.0	59	NA	NA	NA	NA	NA	NA
06-Mar-11 to 04-Apr-11	0.8	0.5	63	1.3	0.4	31	1.3	0.8	62	NA	NA	NA	NA	NA	NA
04-Apr-11 to 29-Apr-11	0.5	0.5	100	0.6	0.2	30	0.5	0.3	60	1.1	0.9	82	1.1	0.7	64
29-Apr-11 to 01-Jun-11	1.0	0.7	70	NA	NA	NA	2.1	1.3	62	0.4	0.4	100	0.7	0.6	86
01-Jun-11 to 01-Jul-11	0.7	0.4	57	0.8	0.4	50	0.4	0.3	75	0.4	0.3	75	0.8	0.7	88
01-Jul-11 to 01-Aug-11	1.0	0.8	80	NA	NA	NA	0.6	0.4	67	0.4	0.4	100	1.0	0.9	90
01-Aug-11 to 31-Aug-11	0.5	0.4	80	NA	NA	NA	0.5	0.3	60	0.3	0.2	67	0.8	0.6	75
31-Aug-11 to 30-Sep-11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30-Sep-11 to 31-Oct-11	1.0	0.9	90	NA	NA	NA	2.4	0.4	17	1.6	1.1	69	0.0	0.5	71
31-Oct-11 to 02-Dec-11	1.6	0.8	50	NA	NA	NA	1.3	0.6	48	3.1	2.0	65	1.5	0.7	47
02-Dec-11 to 03-Jan-12	0.8	0.4	50	NA	NA	NA	0.7	0.3	43	0.7	0.5	71	1.9	1.0	53
03-Jan-12 to 03-Feb-12	0.7	0.4	57	NA	NA	NA	1.5	0.3	20	0.7	0.7	100	0.7	0.5	71
03-Feb-12 to 04-Apr-12	0.3	0.2	67	NA	NA	NA	1.0	0.2	20	0.3	0.2	67	0.4	0.3	75
03-Mar-12 to 04-Apr-12	0.6	0.3	50	NA	NA	NA	3.5	1.9	54	0.5	0.3	60	0.5	0.4	80
04-Apr-12 to 02-May-12	0.7	0.4	57	NA	NA	NA	1.4	0.4	29	0.7	0.4	57	0.6	0.4	67
02-May-12 to 01-Jun-12	0.5	0.5	100	NA	NA	NA	0.5	0.2	40	0.6	0.5	83	0.7	0.6	86
01-Jun-12 to 02-Jul-12	NA	NA	NA	0.3	0.2	67	0.7	0.3	43	1.0	1.0	100	0.4	0.4	100
02-Jul-12 to 02-Aug-12	0.8	0.6	75	0.5	0.4	80	2.6	0.9	35	0.7	0.7	100	0.8	0.7	88
02-Aug-12 to 03-Sep-12	1.1	0.7	64	0.9	0.5	56	0.9	0.5	56	1.2	0.7	58	1.8	1.3	72
03-Sep-12 to 04-Oct-12	1.6	1.0	63	1.0	0.5	50	1.2	0.3	25	1.6	1.0	63	1.8	1.1	61
04-Oct-12 to 05-Nov-12	0.8	0.6	75	0.8	0.6	75	1.5	0.4	27	0.5	0.4	80	1.3	0.9	69
05-Nov-12 to 10-Dec-12	1.2	0.8	67	1.9	0.9	47	1.4	0.5	36	3.9	2.1	54	3.0	1.0	33
10-Dec-12 to 04-Jan-13	0.7	0.7	100	0.6	0.3	50	2.6	0.5	19	1.3	0.7	54	1.7	0.5	29
04-Jan-13 to 04-Feb-13	1.2	0.8	67	0.7	0.5	71	0.7	0.2	29	1.4	1.0	71	2.6	1.2	46
04-Feb-13 to 04-Mar-13	0.5	0.4	80	0.8	0.4	50	1.3	0.3	23	1.2	0.8	67	0.9	0.5	56
04-Mar-13 to 02-Apr-13	0.6	0.5	83	0.5	0.3	60	1.1	0.4	36	0.8	0.7	88	0.9	0.8	89
02-Apr-13 to 03-May-13	0.6	0.3	50	0.2	0.2	100	1.1	0.4	36	0.3	0.3	100	0.5	0.4	80
03-May-13 to 03-Jun-13	1.0	0.8	80	0.9	0.8	89	1.2	0.4	33	0.8	0.8	100	1.0	0.8	80
03-Jun-13 to 01-Jul-13	1.0	1.0	100	0.7	0.5	71	0.9	0.5	56	0.6	0.5	83	0.7	0.4	57
01-Jul-13 to 02-Aug-13	0.6	0.4	67	0.7	0.6	86	0.6	0.3	50	1.9	1.2	63	0.6	0.4	67
02-Aug-13 to 30-Aug-13	0.8	0.6	75	1.0	0.5	50	0.2	0.1	50	0.5	0.3	60	0.8	0.6	75
30-Aug-13 to 02-Oct-13	1.7	1.1	65	1.2	0.9	75	2.9	1.5	52	0.6	0.4	67	1.5	1.1	73
02-Oct-13 to 30-Oct-13	2.2	1.5	68	1.5	1.0	67	1.0	0.5	50	1.3	1.0	77	2.4	1.5	63
01-Nov-13 to 02-Dec-13	1.1	0.5	45	1.6	0.8	50	2.2	0.7	32	0.9	0.8	89	1.7	0.9	53
02-Dec-13 to 03-Jan-14	2.4	1.4	58	1.6	0.9	56	2.3	0.8	35	3.5	2.0	57	2.7	1.3	48
03-Jan-14 to 03-Feb-14	0.6	0.3	50	0.7	0.4	57	0.9	0.4	44	1.0	0.4	40	0.4	0.3	75
03-Feb-14 to 03-Mar-14	1.6	1.0	63	1.0	0.5	50	1.8	1.1	61	2.4	1.6	67	0.9	0.6	67
03-Mar-14 to 01-Apr-14	0.5	0.2	40	0.6	0.5	83	0.7	0.3	43	0.7	0.4	57	0.9	0.9	100
01-Apr-14 to 01-May-14	0.3	0.2	67	0.5	0.2	40	0.6	0.2	33	0.3	0.1	0	0.5	0.2	40
01-May-14 to 02-Jun-14	0.8	0.5	63	1.0	0.6	60	3.4	2.2	65	6.7	5.7	85	1.3	0.7	54
02-Jun-14 to 02-Jul-14	0.6	0.3	50	0.8	0.3	38	0.7	0.3	43	1.0	0.7	70	0.5	0.2	40
02-Jul-14 to 01-Aug-14	0.7	0.6	86	0.8	0.5	63	0.6	0.2	33	1.0	0.5	50	1.0	0.7	70
01-Aug-14 to 01-Sep-14	0.5	0.3	60	0.6	0.5	83	1.3	1.1	85	0.4	0.4	100	0.7	0.5	71
01-Sep-14 to 01-Oct-14	0.8	0.4	50	0.7	0.5	71	2.0	1.5	75	0.7	0.5	71	0.5	0.3	60
01-Oct-14 to 03-Nov-14	0.4	0.3	75	1.2	0.8	67	1.3	0.8	62	1.0	0.7	70	0.9	0.5	56
03-Nov-14 to 01-Dec-14	1.3	0.7	54	1.4	0.8	57	1.9	0.8	42	4.2	1.4	32	1.7	1.0	59
01-Dec-14 to 02-Jan-15	1.2	0.4	33	1.2	0.6	50	1.2	0.5	42	2.8	2.1	75	1.2	0.6	50
AVERAGE 1	**0.7**	**0.4**	**57.7**	**0.9**	**0.5**	**61.2**	**1.4**	**0.8**	**52.2**	**1.9**	**1.2**	**61.1**	**0.9**	**0.6**	**60.0**
AVERAGE 2	**1.1**	**0.7**	**68.0**	**1.1**	**0.6**	**62.7**	**1.3**	**0.6**	**50.3**	**1.3**	**0.9**	**72.5**	**1.1**	**0.7**	**67.4**
STANDARD DEVIATION 1	**0.3**	**0.2**	**15.8**	**0.3**	**0.2**	**15.9**	**0.9**	**0.7**	**18.0**	**2.1**	**1.7**	**28.4**	**0.4**	**0.3**	**17.6**
STANDARD DEVIATION 2	**0.5**	**0.4**	**17.6**	**0.7**	**0.4**	**20.3**	**1.0**	**0.6**	**19.1**	**1.2**	**0.9**	**19.6**	**0.6**	**0.3**	**16.7**

Av1/SD1 = Average for 12 month period

Av2/SD2 = All samples from June 2004

= Bottle broken in transit

NA = Not Assessed

WATER MONITORING DISCHARGE - EPA POINT No. 4 (ADIT)

		January		February		March		April		May		Guidelines
Sample	**Unit**	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	
pH	**ph Unit**	7.7	7.7	7.48	7.48	7.32		7.34		7.54		**6.5 to 8.5 units**
Conductivity	**µS/cm**	1940	1940	2170	2170	2100		2010		1850		**125 - 2200[b]**
TSS	**mg/L**	6	6	<5	<5	6		<5		10		**<50**
Aluminium	**mg/L**	0.14	<0.01	0.04	<0.01	0.08	<0.01	0.07	<0.01	0.07	<0.01	**0.2**
Ammonia as N	**mg/L**	<0.01	<0.01	<0.01	<0.01	0.03		<0.01			0.02	**0.01**
Antimony	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**NA**
Arsenic	**mg/L**	0.003	<0.001	0.002	0.001	0.001	0.001	<0.001	<0.001	<0.001	0.002	**0.05**
Barium	**mg/L**	0.031	0.028	0.029	0.029	0.027	0.029	0.028	0.026	0.032	0.028	**1**
Beryllium	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**NA**
Boron	**mg/L**	0.18	0.17	0.22	0.18	0.19	0.23	0.2	0.18	0.17	0.15	**1**
Cadmium	**mg/L**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	**0.005**
Calcium	**mg/L**	47	46	48	46	45	45	46	46	44	41	**1000[c]**
Chromium	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.006	<0.001	<0.001	<0.001	**0.05**
Cobalt	**mg/L**	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	**1000**
Copper	**mg/L**	<0.001	0.001	0.001	<0.001	0.001	0.001	<0.001	<0.001	0.015	<0.001	**1**
Iron	**mg/L**	0.33	<0.05	0.32	<0.05	0.29	<0.05		<0.05	0.42	<0.05	**0.3**
Lead	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.05**
Lithium	**mg/L**	0.038	0.037	0.042	0.044	0.036	0.036	0.04	0.036	0.039	0.038	**0.075[d]**
Magnesium	**mg/L**	46	54	55	51	56	55	52	54	45	43	**NA**
Manganese	**mg/L**	0.223	0.217	0.234	0.237	0.194	0.203	0.161	0.159	0.269	0.244	**0.1**
Mercury	**mg/L**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	**0.001**
Molybdenum	**mg/L**	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.002	0.003	0.002	**0.15[c]**
Nickel	**mg/L**	0.005	0.005	0.004	0.005	0.005	0.005	0.005	0.005	0.005	0.005	**0.1**
Phosphorous as P	**mg/L**	0.02	0.02			<0.01		0.02		<0.01		**NA**
Potassium	**mg/L**	8	9	9	8	10	9	9	11	8	7	**NA**
Selenium	**mg/L**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.01**
Silicon as SiO2	**mg/L**	16.7	14.8	14.5	14.8	15	15.4	16	15	15.7	14.9	**NA**
Silver	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.05**
Sulfur as S	**mg/L**	75	85	80	80	84	75	85	72	66	62	**NA**
Strontium												
Tin	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**NA**
Titanium	**mg/L**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**NA**
Vanadium	**mg/L**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**NA**
Zinc	**mg/L**	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	0.006	0.009	0.005	**5**

Indicates results that varied between filtered and unfiltered samples

ND = Not Determined

NA = Not Applicable

[a] Based on ANZECC Guidelines for Fresh and Marine Water Quality - Recreational Water Quality (ANZECC 2000) except where indicated

[b] Based on ANZECC Guidelines slightly disturbed lowland river ecosystems in south-east Australia (ANZECC 2000)

[c] Based on ANZECC Guidelines for Fresh and Marine Water Quality -Livestock Water Quality (ANZECC 2000)

[d] Based on ANZECC Guidelines for Fresh and Marine Water Quality -Irrigation Water Quality (ANZECC 2000)

WATER MONITORING DISCHARGE - EPA POINT No. 4 (ADIT)

		June		July		Aug		Aug		Aug		Guidelines
Sample	**Unit**	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	
pH	**ph Unit**	7.79		7.41		7.56		7.54		7.59		**6.5 to 8.5 units**
Conductivity	**µS/cm**	1860		1910		2000		1890		1840		**125 - 2200[b]**
TSS	**mg/L**	6		<5		35		6		<5		**<50**
Oil & Grease						<5		<5		<5		
Aluminium	**mg/L**	0.07	<0.01	0.01	<0.01	0.27	<0.01	0.10	<0.01	0.03	<0.01	**0.2**
Ammonia as N	**mg/L**	<0.01		0.03		0.05		<0.01		<0.01		**0.01**
Antimony	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**NA**
Arsenic	**mg/L**	0.002	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	**0.05**
Barium	**mg/L**	0.028	0.026	0.034	0.031	0.029	0.025	0.025	0.025	0.028	0.028	**1**
Beryllium	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**NA**
Boron	**mg/L**	0.14	0.13	0.17	0.17	0.16	0.14	0.16	0.15	0.15	0.14	**1**
Cadmium	**mg/L**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	**0.005**
Calcium	**mg/L**	40	41	46	45	44	40	44	41		38	**1000[c]**
Chromium	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	**0.05**
Cobalt	**mg/L**	<0.001	<0.001	<0.001	0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	**1000**
Copper	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**1**
Iron	**mg/L**	0.26	<0.05	0.16	0.08	0.73	<0.05	0.27	<0.05	0.14	<0.05	**0.3**
Lead	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.05**
Lithium	**mg/L**	0.035	<0.012	0.036	0.039	0.034	0.031	0.034	0.033	0.039	0.036	**0.075[d]**
Magnesium	**mg/L**	46	45	47	48	50	49	51	48	45	42	**NA**
Manganese	**mg/L**	0.252	0.090	0.273	0.274	0.285	0.21	0.177	0.0164	0.214	0.207	**0.1**
Mercury	**mg/L**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	**0.001**
Molybdenum	**mg/L**	0.002	0.002	0.003	0.002	0.002	0.002	0.002	<0.001	0.003	0.002	**0.15[c]**
Nickel	**mg/L**	0.004	0.004	0.002	0.007	0.006	0.005	0.004	0.004	0.005	0.004	**0.1**
Phosphorous as P	**mg/L**	<0.01		<0.01		0.06		0.02		<0.01		**NA**
Potassium	**mg/L**	7	7	8	7	8	8	8	8		6	**NA**
Selenium	**mg/L**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.01**
Silicon as SiO2	**mg/L**	15	15.1	15.5	15.7	16.4	14.3	12.0	15.3	14.6	14.3	**NA**
Silver	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.05**
Sulfur as S	**mg/L**	68	65	65	68	69	70	68	69	61	54	**NA**
Strontium				0.679	0.0648	0.575	0.541	0.54	0.558			
Tin	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**NA**
Titanium	**mg/L**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**NA**
Vanadium	**mg/L**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**NA**
Zinc	**mg/L**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**5**

Indicates results that varied between filtered and unfiltered samples

ND = Not Determined

NA = Not Applicable

[a] Based on ANZECC Guidelines for Fresh and Marine Water Quality - Recreational Water Quality (ANZECC 2000) except where indicated

[b] Based on ANZECC Guidelines slightly disturbed lowland river ecosystems in south-east Australia (ANZECC 2000)

[c] Based on ANZECC Guidelines for Fresh and Marine Water Quality -Livestock Water Quality (ANZECC 2000)

[d] Based on ANZECC Guidelines for Fresh and Marine Water Quality -Irrigation Water Quality (ANZECC 2000)

WATER MONITORING DISCHARGE - EPA POINT No. 4 (ADIT)

		September		October		November		December		Guidelines
Sample	**Unit**	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	
pH	**ph Unit**	7.4		7.6		7.13		7.63		**6.5 to 8.5 units**
Conductivity	**µS/cm**	1640		1780		1820		1870		**125 - 2200[b]**
TSS	**mg/L**	8		<5		<5		6		**<50**
Oil & Grease		<5		<5		<5		<5		
Aluminium	**mg/L**	0.15	<0.01	0.02	<0.01	0.04	<0.01	0.14	0.02	**0.2**
Ammonia as N	**mg/L**		<0.01		<0.01	0.02				**0.01**
Antimony	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**NA**
Arsenic	**mg/L**	0.002	0.001	<0.001	0.001	0.002	0.002	0.001	<0.001	**0.05**
Barium	**mg/L**	0.027	0.027	0.030	0.029	0.028	0.027	0.030	0.029	**1**
Beryllium	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**NA**
Boron	**mg/L**	0.13	0.13	0.12	0.14	0.17	0.16	0.17	0.18	**1**
Cadmium	**mg/L**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	**0.005**
Calcium	**mg/L**	36	34			41				**1000[c]**
Chromium	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	**0.05**
Cobalt	**mg/L**	0.001	0.001	0.001	0.001	0.001	0.001	0.001	<0.001	**1000**
Copper	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**1**
Iron	**mg/L**	0.5	0.08	0.11	<0.05	0.29	0.08	0.29	<0.05	**0.3**
Lead	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.05**
Lithium	**mg/L**	0.038	0.036	0.038	0.036	0.037	0.036	0.036	0.040	**0.075[d]**
Magnesium	**mg/L**	39	36	45	44	46	40			**NA**
Manganese	**mg/L**	0.231	0.229	0.162	0.159	0.229	0.223	0.221	0.215	**0.1**
Mercury	**mg/L**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	**0.001**
Molybdenum	**mg/L**	0.003	0.002			0.003	0.003	0.003	0.003	**0.15[c]**
Nickel	**mg/L**	0.004	0.005			0.004	0.004	0.005	0.005	**0.1**
Phosphorous as P	**mg/L**	<0.01				0.05		<0.01		**NA**
Potassium	**mg/L**	6	6			8				**NA**
Selenium	**mg/L**	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01	**0.01**
Silicon as SiO2	**mg/L**	14.7	14			14.8	14.3			**NA**
Silver	**mg/L**	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	**0.05**
Sulfur as S	**mg/L**	56	53			68	67			**NA**
Tin	**mg/L**	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	**NA**
Titanium	**mg/L**	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01	**NA**
Vanadium	**mg/L**	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01	**NA**
Zinc	**mg/L**	<0.005	<0.005			<0.005	<0.005	<0.005	<0.005	**5**

Indicates results that varied between filtered and unfiltered samples

ND = Not Determined

NA = Not Applicable

[a] Based on ANZECC Guidelines for Fresh and Marine Water Quality - Recreational Water Quality (ANZECC 2000) except where indicated

[b] Based on ANZECC Guidelines slightly disturbed lowland river ecosystems in south-east Australia (ANZECC 2000)

[c] Based on ANZECC Guidelines for Fresh and Marine Water Quality -Livestock Water Quality (ANZECC 2000)

[d] Based on ANZECC Guidelines for Fresh and Marine Water Quality -Irrigation Water Quality (ANZECC 2000)

WATER MONITORING DISCHARGE - EPA POINT No. 5 (DAM B)

		January		February		March		April		May		Guidelines
Sample	**Unit**	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	
pH	**ph Unit**					7.5		7.9		7.5		**6.5 to 8.5 units**
Conductivity	**µS/cm**	NO DISCHARGE		NO DISCHARGE		1490		834		1150		**125 - 2200[b]**
TSS	**mg/L**					<5		19		10		**<50**
Aluminium	**mg/L**					<0.01	<0.01	0.86	0.01	0.48	<0.01	**0.2**
Ammonia as N	**mg/L**					<0.001	<0.001	<0.01		0.02		**0.01**
Antimony	**mg/L**							<0.001	<0.001	<0.001	<0.001	**NA**
Arsenic	**mg/L**					0.002	0.002	0.003	0.002	0.001	<0.001	**0.05**
Barium	**mg/L**					0.033	0.031	0.025	0.020	0.032	0.028	**1**
Beryllium	**mg/L**						<0.001	<0.001	<0.001	<0.001	<0.001	**NA**
Boron	**mg/L**					0.14	0.18	0.06	0.07	0.11	0.10	**1**
Cadmium	**mg/L**					0.0001	0.0001	<0.001	<0.001	<0.0001	<0.0001	**0.005**
Calcium	**mg/L**							24	21	31	26	**1000[c]**
Chromium	**mg/L**					<0.001	<0.001	0.004	<0.001	0.001	<0.001	**0.05**
Cobalt	**mg/L**					0.010	0.009	<0.001	<0.001	0.002	<0.001	**1000**
Copper	**mg/L**					0.001	0.001	0.002	0.001	0.002	<0.001	**1**
Iron	**mg/L**					0.29	0.06	0.92	<0.05	0.78	<0.05	**0.3**
Lead	**mg/L**					<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.05**
Lithium	**mg/L**					0.028	0.026	0.013	0.012	0.014	0.013	**0.075[d]**
Magnesium	**mg/L**					48	48	25	23	32	29	**NA**
Manganese	**mg/L**					1.80	1.67	0.051	0.024	0.255	0.231	**0.1**
Mercury	**mg/L**					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	**0.001**
Molybdenum	**mg/L**					0.003	0.002	0.006	0.005	0.002	0.002	**0.15[c]**
Nickel	**mg/L**							0.004	0.003	0.006	0.004	**0.1**
Phosphorous as P	**mg/L**							0.05		0.07		**NA**
Potassium	**mg/L**							6	7	6	6	**NA**
Selenium	**mg/L**							<0.01	<0.01	<0.01	<0.01	**0.01**
Silicon as SiO2	**mg/L**							11.4	7.4	18.5	15.2	**NA**
Silver	**mg/L**							<0.001	<0.001	<0.001	<0.001	**0.05**
Sulfur as S	**mg/L**							49	39	54	47	**NA**
Strontium	**mg/L**							<0.001	<0.001	<0.001	<0.001	
Tin	**mg/L**							<0.01	<0.01	0.01	<0.01	**NA**
Titanium	**mg/L**							<0.01	<0.01	<0.01	<0.01	**NA**
Vanadium	**mg/L**							0.006	<0.005	0.007	<0.005	**NA**
Zinc	**mg/L**							0.006	0.006	0.009	0.005	**5**

Indicates results that varied between filtered and unfiltered samples

ND = Not Determined

NA = Not Applicable

[a] Based on ANZECC Guidelines for Fresh and Marine Water Quality - Recreational Water Quality (ANZECC 2000) except where indicated

[b] Based on ANZECC Guidelines slightly disturbed lowland river ecosystems in south-east Australia (ANZECC 2000)

[c] Based on ANZECC Guidelines for Fresh and Marine Water Quality -Livestock Water Quality (ANZECC 2000)

[d] Based on ANZECC Guidelines for Fresh and Marine Water Quality -Irrigation Water Quality (ANZECC 2000)

WATER MONITORING DISCHARGE - EPA POINT No. 5 (DAM B)

		June		July		Aug		Sept		Oct		Guidelines
Sample	**Unit**	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	
pH	**ph Unit**	8.01		8.06		8.0		7.8		7.6		**6.5 to 8.5 units**
Conductivity	**µS/cm**	1120		1910		1530		1090		1280		**125 - 2200[b]**
TSS	**mg/L**	<5		<5		<5		<5		<5		**<50**
Oil & Grease						<5		<5		<5		
Aluminium	**mg/L**	0.19	<0.01	6.46	0.96	0.05	<0.01	0.22	0.01	0.07	<0.01	**0.2**
Ammonia as N	**mg/L**	<0.01		<0.01		0.03		<0.01		<0.01		**0.01**
Antimony	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	**NA**
Arsenic	**mg/L**	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	0.003	0.002	0.002	0.001	**0.05**
Barium	**mg/L**	0.030	0.028	0.066	0.017	0.029	0.026	0.028	0.025	0.025	0.025	**1**
Beryllium	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**NA**
Boron	**mg/L**	0.06	0.06	<0.05	<0.05	0.1	0.09	0.08	0.07	0.12	0.11	**1**
Cadmium	**mg/L**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	**0.005**
Calcium	**mg/L**	34	30	44	42	37	34	31	29	32	32	**1000[c]**
Chromium	**mg/L**	0.001	<0.001	0.007	<0.001	0.001	<0.001		<0.001	<0.001	<0.001	**0.05**
Cobalt	**mg/L**	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**1000**
Copper	**mg/L**	0.001	0.001	0.005	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	**1**
Iron	**mg/L**	0.26	<0.05	7.28	1.06	0.19	<0.05	0.34	<0.05	0.48	0.09	**0.3**
Lead	**mg/L**	<0.001	<0.001	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.05**
Lithium	**mg/L**	0.012	0.011	0.002	<0.001	0.016	0.016	0.016	0.013	0.013	0.015	**0.075[d]**
Magnesium	**mg/L**	35	32	51	49	41	42	33	32	37	39	**NA**
Manganese	**mg/L**	0.097	0.090	0.094	0.008	0.029	0.019	0.116	0.111	0.341	0.326	**0.1**
Mercury	**mg/L**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	**0.001**
Molybdenum	**mg/L**	0.002	0.002	<0.001	<0.001	0.004	0.002	0.004	0.003	0.002	0.002	**0.15[c]**
Nickel	**mg/L**	0.003	0.002	0.006	0.005	0.005	0.004	0.005	0.004	0.004	0.003	**0.1**
Phosphorous as P	**mg/L**	0.03		<0.01		0.05		<0.01		0.02		**NA**
Potassium	**mg/L**	6	6	11	11	6	7	5	5	7	7	**NA**
Selenium	**mg/L**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.01**
Silicon as SiO2	**mg/L**	11.4	15.2	14.0	13.0	10.2	9.8	12.8	12.5	14	14.3	**NA**
Silver	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.05**
Sulfur as S	**mg/L**	50	46	73	71	55	58	42	44	54	58	**NA**
Strontium	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Tin	**mg/L**	<0.01	<0.01	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**NA**
Titanium	**mg/L**	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**NA**
Vanadium	**mg/L**	<0.005	<0.005	0.028	0.013	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	**NA**
Zinc	**mg/L**											**5**

Indicates results that varied between filtered and unfiltered samples

ND = Not Determined

NA = Not Applicable

[a] Based on ANZECC Guidelines for Fresh and Marine Water Quality - Recreational Water Quality (ANZECC 2000) except where indicated

[b] Based on ANZECC Guidelines slightly disturbed lowland river ecosystems in south-east Australia (ANZECC 2000)

[c] Based on ANZECC Guidelines for Fresh and Marine Water Quality -Livestock Water Quality (ANZECC 2000)

[d] Based on ANZECC Guidelines for Fresh and Marine Water Quality -Irrigation Water Quality (ANZECC 2000)

WATER MONITORING DISCHARGE - EPA POINT No. 5 (DAM B)

		Nov		Dec		Guidelines
Sample	**Unit**	Total (Unfiltered)	Dissolved (Filtered)	Total (Unfiltered)	Dissolved (Filtered)	
pH	**ph Unit**	7.25		7.7		**6.5 to 8.5 units**
Conductivity	**µS/cm**	1090		991		**125 - 2200**[b]
TSS	**mg/L**	14		6		**<50**
Oil & Grease	**mg/L**	<5		<5		
Aluminium	**mg/L**	0.72	<0.01	0.36	<0.01	**0.2**
Ammonia as N	**mg/L**	0.01				**0.01**
Antimony	**mg/L**	<0.001	<0.001	<0.001	<0.001	**NA**
Arsenic	**mg/L**	0.003	0.002	0.004	0.003	**0.05**
Barium	**mg/L**	0.026	0.019	0.026	0.022	**1**
Beryllium	**mg/L**	<0.001	<0.001	<0.001	<0.001	**NA**
Boron	**mg/L**	0.08	0.07	0.10	0.10	**1**
Cadmium	**mg/L**	<0.0001	<0.0001	<0.0001	<0.0001	**0.005**
Calcium	**mg/L**	22				**1000**[c]
Chromium	**mg/L**	0.001	<0.001	0.001	<0.001	**0.05**
Cobalt	**mg/L**	<0.001	<0.001	<0.001	<0.001	**1000**
Copper	**mg/L**	0.002	<0.001	0.001	<0.001	**1**
Iron	**mg/L**	0.76	<0.05	0.63	0.09	**0.3**
Lead	**mg/L**	<0.001	<0.001	<0.001	<0.001	**0.05**
Lithium	**mg/L**	0.016	0.014	0.014	0.015	**0.075**[d]
Magnesium	**mg/L**	25	23			**NA**
Manganese	**mg/L**	0.064	0.027	0.228	0.171	**0.1**
Mercury	**mg/L**	<0.0001	<0.0001	<0.0001	<0.0001	**0.001**
Molybdenum	**mg/L**	0.004	0.004	0.002	0.001	**0.15**[c]
Nickel	**mg/L**	0.005	0.004	0.004	0.003	**0.1**
Phosphorous as P	**mg/L**	0.04		0.02		**NA**
Potassium	**mg/L**	6				**NA**
Selenium	**mg/L**	<0.01	<0.01	<0.01	<0.01	**0.01**
Silicon as SiO2	**mg/L**	10.2	7.1			**NA**
Silver	**mg/L**	<0.001	<0.001	<0.001	<0.001	**0.05**
Sulfur as S	**mg/L**	45	48			**NA**
Tin	**mg/L**	<0.001	<0.001	<0.001	<0.001	**NA**
Titanium	**mg/L**	<0.01	<0.01	<0.01	<0.01	**NA**
Vanadium	**mg/L**	<0.01	<0.01	<0.01	<0.01	**NA**
Zinc	**mg/L**	<0.005	<0.005	<0.005	<0.005	**5**

Indicates results that varied between filtered and unfiltered samples

ND = Not Determined

NA = Not Applicable

[a] Based on ANZECC Guidelines for Fresh and Marine Water Quality - Recreational Water Quality (ANZECC 2000) except where indicated

[b] Based on ANZECC Guidelines slightly disturbed lowland river ecosystems in south-east Australia (ANZECC 2000)

[c] Based on ANZECC Guidelines for Fresh and Marine Water Quality -Livestock Water Quality (ANZECC 2000)

[d] Based on ANZECC Guidelines for Fresh and Marine Water Quality -Irrigation Water Quality (ANZECC 2000)

Date	Metromix Sample No.	pH	Suspended Solids (mg/L)	Comments
Jan-14				**No Water Discharge at EPA Point 6**
Feb-14				**No Water Discharge at EPA Point 6**
Mar-14				**No Water Discharge at EPA Point 6**
Apr-14				**No Water Discharge at EPA Point 6**
Apr-14				**No Water Discharge at EPA Point 6**
May 14				**No Water Discharge at EPA Point 6**
Jun-14				**No Water Discharge at EPA Point 6**
Jul-14				**No Water Discharge at EPA Point 6**
Aug-14				**No Water Discharge at EPA Point 6**
Sep-14				**No Water Discharge at EPA Point 6**

Date	Metromix Sample No.	pH	Suspended Solids (mg/L)	Comments
Jan-14				**No Water Discharge at EPA Point 7**
Feb-14				**No Water Discharge at EPA Point 7**
Mar-14				**No Water Discharge at EPA Point 7**
Apr-14				**No Water Discharge at EPA Point 8**
Apr-14				**No Water Discharge at EPA Point 7**
May 14				**No Water Discharge at EPA Point 7**
Jun-14				**No Water Discharge at EPA Point 7**
Jul-14				**No Water Discharge at EPA Point 7**
Aug-14				**No Water Discharge at EPA Point 7**
Sep-14				**No Water Discharge at EPA Point 7**

12 September 2014

Ref: 8413/5372_CovLtr

Metromix Pty Ltd
150 Rhondda Road
Teralba NSW 2284

RE: SEPTEMBER 2014 ATTENDED NOISE MONITORING RESULTS – TERALBA QUARRY

Please find attached our report for the recent noise monitoring survey undertaken for the Metromix Teralba Quarry.

Following discussions with Metromix the monitoring was undertaken at the relevant locations over 15 minutes duration in each of the day shoulder, day, evening and night time periods. The monitoring was done on a single day on 8th September, 2014. In Spectrum Acoustics experience such timing and duration is in keeping with what is considered a typical noise monitoring programme for a quarry of the type and size of Teralba quarry.

The majority of receivers in areas potentially impacted by noise from TQ are also in areas subjected to noise from a number of other major sources. There are major roads, a railway line and several large industries either adjacent to receivers or between them and the TQ operations. The acoustic environment of the receiver areas is significantly influenced by noise from these sources.

The EPL (no. 536) for the quarry defines compliance noise levels in dB(A) Leq (15 min) periods. Similarly, the monitoring also fulfils the requirements of the Project Approval for the quarry which states (in part) that the noise management plan; "*must include a noise monitoring programme that:*

- *is capable of regularly evaluating the performance of the project.*"

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,
SPECTRUM ACOUSTICS PTY LIMITED

Ross Hodge
Acoustical Consultant

Spectrum Acoustics Pty Limited
ABN: 40 106 435 554
1 Roath Street, Cardiff NSW 2285
Phone: (02) 4954 2276
Fax: (02) 4954 2257

SPECTRUM ACOUSTICS
NOISE AND VIBRATION CONSULTANTS

12 September 2014

Ref: 8413/5372

Metromix Pty Ltd
150 Rhondda Road
Teralba NSW 2284

RE: SEPTEMBER 2014 ATTENDED NOISE MONITORING RESULTS – TERALBA QUARRY

This letter report presents the results of attended noise monitoring conducted for the Metromix operated Teralba Quarry (TQ) on Monday 8th September, 2014. Noise monitoring was carried out in accordance with the conditions of the TQ Noise Management Plan (NMP) as shown in extract below (referenced from EPL 0536).

Although the project approval nominates noise criteria at nine locations, Metromix recognises that meaningful monitoring data will be collected from the closest locations to the active operational areas. For periods when operations are confined to areas south of Rhondda Road, noise monitoring will be undertaken at Locations EPL-A, B, C (see note below table), D, E and H. **Table 1** lists the address and coordinates of each noise monitoring location. The locations are shown on the figure in **Appendix I**.

Table 1
Noise Monitoring Locations (from PA 10-0183)

Location in EPL	Address	Easting	Northing
EPL-A	Awaba Street, Teralba	369080	3651470
EPL-B	Rhondda Road, Teralba	369250	6351915
EPL-C	Rhondda Road, Teralba [1]	369205	6352015
EPL-D	Rhondda Road, Teralba	369150	6352135
EPL-E	Victoria Avenue, Teralba [2]	369060	6352620
EPL-F	Victoria Avenue, Teralba [1]	369130	6352945
EPL-H	School Road, Wakefield	366210	6352520

1. Metromix has obtained permission for this monitoring location to be omitted.
2. Monitoring at these locations is only when quarrying activity is being undertaken north of Rhondda Rd.

It is noted that during the period when monitoring is undertaken at Location B, Metromix will ensure a spotter is present to record the number of trucks departing from the Quarry and not the Teralba Business Park.

Spectrum Acoustics Pty Limited 1 Roath Street, Cardiff NSW 2285 Phone: (02) 4954 2276
ABN: 40 106 435 554 Fax: (02) 4954 2257

Condition	Requirement
L4.1	The licensee must ensure that noise generated by the activities within the premises do not exceed the following criteria measured by dB(A) at any residence or privately owned land.

Location	Day Shoulder 6:00am - 7:00am	Day 7:00am - 6:00pm	Evening 6:00pm – 10:00pm	Night 10:00pm – 6:00am
	$L_{Aeq\ (15\ minute)}$	$L_{Aeq\ (15\ minute)}$	$L_{Aeq\ (15\ minute)}$	$L_{Aeq\ (15\ minute)}$ $L_{A1(1min)}$
A-	38	38	37	35 45
B-	42	46	36	35 45
C-	42	42	35	35 45
D,E,G,H,I	35	35	35	35 45
F	37	38	38	35 45

Note: The licensee may provide to the EPA written evidence of any agreement with a landholder which is subject to the above noise limits. The written evidence may be submitted with a licence variation to remove the landholder from the above table.

Condition	Requirement
L4.2	The licensee must comply with the operating hours set out in the following table:

Day	Receipt of Concrete or VENM* or ENM**	Loading and Dispatch of Quarry Trucks	Extraction and Processing
Monday - Friday	7:00am to 5:00pm	4:00am Monday to midnight Friday	7:00am to 7:00pm
Saturday	7:00am to 2:00pm	Midnight Friday to 6:00pm Saturday	7:00am to 2:00pm
Sundays and Public Holidays	None	None	none

Note: Maintenance activities may occur at any time provided they are inaudible at privately-owned residence.
*VENM = Virgin Excavated Natural Material
**ENM = Excavated Natural Material

L4.3	The noise limits set out in conditions L4.1 apply under all meteorological conditions except for anyone of the following: a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or b) Stability category F temperature inversion conditions and wind speeds greater the 2 metres/second at 10 metres above ground level; or c) Stability category G temperature inversion conditions.
L4.4	For the purpose of condition L4.3: a) the meteorological data to be used for determining meteorological conditions is the data recorded at the meteorological station identified in this licence as EPA Identification Point W1. b) Stability category temperature inversion conditions are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the *NSW industrial Noise Policy (EPA 2000)* Note: The weather station must be designed, commissioned and operated in a manner to obtain the necessary parameters required under the above condition.
L4.5	For the purpose of determining the noise generated at the premises the licensee must use a Class 1 or Class 2 noise monitoring device as defined by AS IEC61672.1 and AS IEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing.
L4.6	To determine compliance: 1. With the $L_{Aeq(15\ min)}$ noise limits in condition L4.1, the licensee must locate noise monitoring equipment; a) within 30 metres of a dwelling facade (but not closer than 3 metres) where any dwelling on the property is situated more than 30 metres from the property boundary that is closest to the premises; b) approximately on the boundary where any dwelling is situated 30 metres or less from the property boundary that is closest to the premises, or, where applicable, c) within approximately 50 metres if the boundary of a national park or nature reserve. 2. With the LA1(1 minute) noise limits in condition L4.1, the noise monitoring equipment must be located within 1 metre of a dwelling facade. 3. With the noise limits in condition L4.1, the noise monitoring equipment must be located; a) at the most affected point at a location where there is no dwelling at the location, or b) at the most affected point within an area at a location prescribed by conditions L4.6 1(a) or L4.6 1(b).

NOISE MEASUREMENTS

Attended noise monitoring was conducted with Brüel & Kjær Type 2250 and 2260 Precision Sound Analysers. These instruments have Type 1 characteristics as defined in AS1259-1982 "Sound Level Meters" and have current NATA calibration. Field calibration is carried out at the start and end of each monitoring period.

The noise monitoring was conducted in general accordance with the requirements of Section 9 of the NMP (Noise Monitoring Protocol and Evaluation of Compliance) as follows;

"*Metromix proposes to adopt a noise monitoring protocol that provides feedback on the effectiveness of the noise control measures and demonstrate compliance with the conditions within the Project Approval 10_0183 and Environment Protection Licence 0536.*

The approach to monitoring compliance is based substantially upon Metromix's experience to date which has identified the on-site activities have not been the source of noise complaints or any recorded non-compliance. Hence, it is considered the monitoring program needs to reflect this fact."

A-weighted noise levels were measured over 15 minute monitoring periods with data acquired at 1 second statistical intervals and the meter set to "fast" response. Each 1 second measurement is accompanied by a third-octave band spectrum from 20 - 20k Hz which is required for analysing INP 'modifying factors'. Time based field notes allow for determination of the relative contributions to the overall noise level of all significant noise sources.

The 15 minute Leq noise level for each monitoring period is shown in the tables below. Where the noise from TQ was audible Bruel & Kjaer "*Evaluator*" analysis software was used to quantify the contributions of the quarry and other significant noise sources to the overall level. Quarry noise from TQ is shown in the tables in bold type. Where noise from TQ is listed as faintly audible, this means the noise levels from the quarry were at least 10 dB below the ambient level during the measurement and not measurable.

Noise levels were recorded for each of the L10, Leq, Lmax, L1, L90 and Lmin percentiles. All noise levels shown in the tables of results are in dB(A) Leq (15 min). Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request.

Meteorological data used in this report was obtained from the quarry operated weather station at the site.

Noise Compliance Assessment

The results of the noise measurements are shown below in **Tables 2** to **5**. EPL 536 refers to the various time periods as follows:

a) Day-Shoulder is defined as the period between 6am to 7am Monday to Saturday.

b) Day is defined as:
   (i) the period from 7am to 6pm Monday to Saturday; and

(ii) the period from 8am to 6pm Sundays and Public Holidays.

c) Evening is defined as the period from 6pm to 10pm.

d) Night is defined as:
(i) the period from 10pm to 7am Monday to Saturday; and
(ii) the period from 10pm to 8am Sundays and Public Holidays.

Table 2
Teralba Quarry Noise Monitoring Results – 8 September 2014
Night

Location	Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed/ direction	Identified Noise Sources (Leq (15 min)
A	5:30 am	50	35	1.5 m/s 234°	Birds (50), traffic (47), industrial noise (28), train (27) **TQ inaudible**
B	5:05 am	53	35	1.0 m/s 144°	Traffic (53), train (35), frogs (29), **TQ inaudible**[1]
D	5:06 am	47	35	1.0 m/s 144°	Traffic (47), frogs (27), industrial noise (27), trair (25), **TQ inaudible**
H	5:35 am	50	35	1.5 m/s 231°	Birds (50), traffic (33), Farm noise (28), **TQ inaudible**

1. No quarry trucks passed, see text

Table 3
Teralba Quarry Noise Monitoring Results – 8 September 2014
Day Shoulder

Location	Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed/ direction	Identified Noise Sources (Leq (15 min)
A	6:25 am	50	38	2.8 m/s 293°	Traffic (47), birds (46), **TQ (33)**, industrial noise (30) train (29)
B	6:07 am	59	42	2.0 m/s 275°	Traffic (59), birds (41), train (30), **TQ inaudible**[1]
D	6:07 am	56	35	2.0 m/s 275°	Traffic (54), birds (52), train (29), **TQ (27)**
H	6:31 am	52	35	2.9 m/s 264°	Birds (51), traffic (45), **TQ inaudible**

1. See text

Table 4
Teralba Quarry Noise Monitoring Results – 8 September 2014
Day

Location	Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed/ direction	Identified Noise Sources (Leq (15 min)
A	7:30 am	51	38	2.0 m/s 292°	Traffic (51), **TQ (31)**, industrial noise (31), birds (30) train (28)
B	7:05 am	64	46	2.8 m/s 213°	Traffic (64), birds (41), trains (33), other industries (30), **TQ (30)**[2]
D	7:02 am	53	35	2.8 m/s 213°	Traffic (52), birds (46), **TQ (28)**, industrial noise (26) trains (26)
H	7:25 am	49	35	2.1 m/s 292°	Birds (49), **TQ (33)**, traffic (29)

2. Quarry trucks on private road

Table 5 Teralba Quarry Noise Monitoring Results – 8 September 2014 Evening					
Location	Time	Total noise dB(A) Leq	Criterion dB(A) Leq	Wind speed/ direction	Identified Noise Sources (Leq (15 min)
A	6:25 pm	54	37	4.7 m/s 41°	insects (52), traffic (47), train (45), **TQ inaudible**
B	6:05 pm	57	36	4.5 m/s 39°	Birds & insects (55), traffic (53), train (33), **TQ inaudible (30)**[1]
D	6:23 pm	46	35	4.7 m/s 41°	Traffic (44), frogs (42), train (30), **TQ inaudible**
H	6:02 pm	50	35	4.5 m/s 41°	Birds & frogs (49), traffic (42), **TQ (28)**

1. See text

The results shown in Tables 2 to 5 show that, under the operational and atmospheric conditions at the time of monitoring, noise emissions from TQ did not exceed the relevant criterion at any monitoring location during any part of the survey.

Measurement location B is near the corner of Rhondda Road and Railway Street. This monitoring location is included predominantly to measure quarry noise from emissions from trucks exiting the site along the private section of the access road (through the Teralba Business Park). From the monitoring location it was possible to determine which trucks were associated with the quarry and a dedicated spotter was not required.

The noise level shown in Table 4 for Location B is a calculation of the Leq from the measurement of the noise from two individual trucks travelling along the private road. The levels shown in the other tables for Location B indicate that there were no trucks associated with the quarry that passed the monitoring location during the 15 minute monitoring period.

Data from those times where TQ operations were audible were analysed using the *"Evaluator"* software. This analysis showed the noise did not contain any tonal, impulsive or low frequency components as per definitions of "modifying factor corrections" in the NSW Industrial Noise Policy.

In addition to the operational noise, the noise from TQ must not exceed **45 dB(A) L1 (1 min)** between the hours of 10 pm and 7 am. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the quarry. The compliance measurement locations are different for each of the operational and sleep disturbance noise. That is, the sleep disturbance criterion is typically applicable at 1m from the façade of a bedroom window.

To avoid undue disturbance to residents, the L1 (1 min) noise level from the operational measurements are used to show general compliance with the sleep disturbance criterion. That is, as the distance between the noise source and the operational noise monitoring location is significantly greater than the distance between the operational noise monitoring location and the sleep disturbance monitoring location (i.e. 1m from the facade of the house) there will be little variation in L1 (1 min) levels between the two monitoring locations. It must be noted, however, that the sleep disturbance criterion is to be measured near a bedroom window. As the internal layout of each residence is not known, to consider a worst case, a bedroom window is assumed to be facing the operational noise monitoring location.

As shown in Table 2, during the night time measurement circuit TQ was inaudible and, therefore, the L1 (1 min) noise did not exceed 45 dB(A) at any monitoring location.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

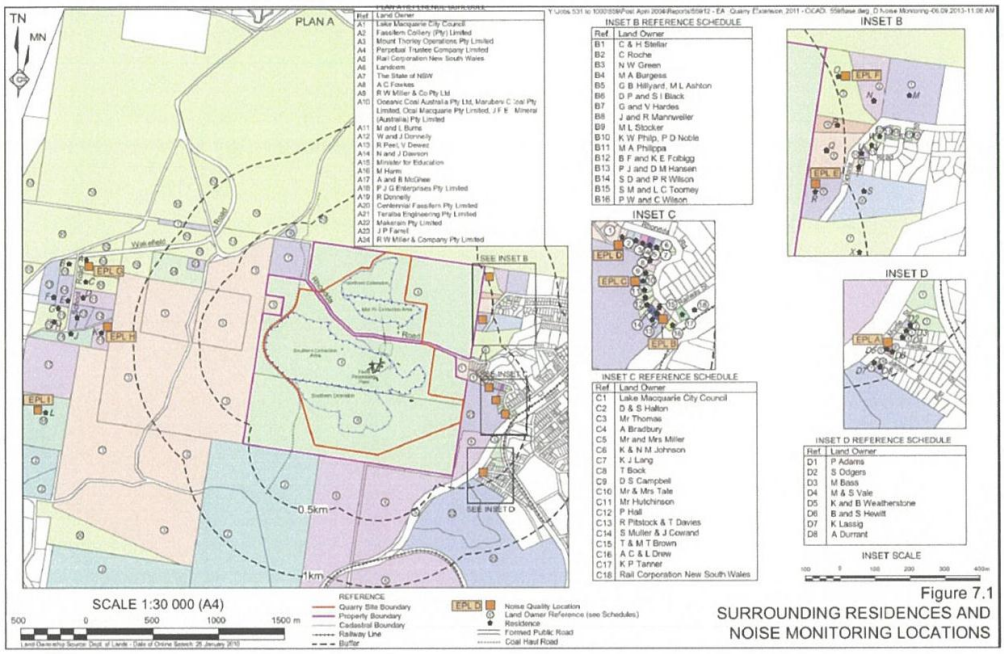
Yours faithfully,
SPECTRUM ACOUSTICS PTY LIMITED

Author:

Ross Hodge
Acoustical Consultant

Review:

Neil Pennington
Acoustical Consultant



Ref	Land Owner
A1	Lake Macquarie City Council
A2	Fassifern Colliery (Pty) Limited
A3	Mount Thorley Operations Pty Limited
A4	Perpetual Trustee Company Limited
A5	Rail Corporation New South Wales
A6	Landcom
A7	The State of NSW
A8	A C Fowkes
A9	R W Miller & Co Pty Ltd
A10	Oceanic Coal Australia Pty Ltd, Marubeni C oal Pty Limited, Ocal Macquarie Pty Limited, J F E Mineral (Australia) Pty Limited
A11	M and L Burns
A12	W and J Donnelly
A13	R Peel, V Dewez
A14	N and J Dawson
A15	Minister for Education
A16	M Harris
A17	A and B McGhee
A18	P J G Enterprises Pty Limited
A19	R Donnelly
A20	Centennial Fassifern Pty Limited
A21	Teralba Engineering Pty Limited
A22	Makeram Pty Limited
A23	J P Farrell
A24	R W Miller & Company Pty Limited

INSET B REFERENCE SCHEDULE

Ref	Land Owner
B1	C & H Stellar
B2	C Roche
B3	N W Green
B4	M A Burgess
B5	G B Hillyard, M L Ashton
B6	D P and S I Black
B7	G and V Handes
B8	J and R Mannweiler
B9	M L Stocker
B10	K W Philp, P D Noble
B11	M A Philippa
B12	B F and K E Folbigg
B13	P J and D M Hansen
B14	S D and P R Wilson
B15	S M and L C Toomey
B16	P W and C Wilson

INSET C REFERENCE SCHEDULE

Ref	Land Owner
C1	Lake Macquarie City Council
C2	D & S Halton
C3	Mr Thomas
C4	A Bradbury
C5	Mr and Mrs Miller
C6	K & N M Johnson
C7	K J Lang
C8	T Bock
C9	D S Campbell
C10	Mr & Mrs Tate
C11	Mr Hutchinson
C12	P Hall
C13	R Pitstock & T Davies
C14	S Muller & J Coward
C15	T & M T Brown
C16	A C & L Drew
C17	K P Tanner
C18	Rail Corporation New South Wales

INSET D REFERENCE SCHEDULE

Ref	Land Owner
D1	P Adams
D2	S Odgers
D3	M Bass
D4	M & S Vale
D5	K and B Weatherstone
D6	B and S Hewitt
D7	K Lassig
D8	A Durrant

Figure 7.1
SURROUNDING RESIDENCES AND NOISE MONITORING LOCATIONS

This page has intentionally been left blank