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Environmental Monitoring Report – Noise Monitoring Data

Talbragar Quarry

March 2024

Date Published: 2nd April 2024

The monitoring of pollutants provided in this report is undertaken as per the requirements of Environment Protection Licence 899 (EPL 899 – Boral Talbragar Quarry)

This report provides historical environmental monitoring data for Talbragar Quarry for the period January 2019 to Present day. If there is a gap in data presented in the report this is because there was no monitoring data to present for the relevant period.

Talbragar Quarry Information	
Premise Details	Boral – Talbragar Quarry
Address	Brocklehurst, Dubbo, NSW, 2830
Licensee	Boral Resources (Country) Pty Ltd
EPL No	899
EPL Location	https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=170462&SYSUID=1&LICID=899

Monitoring data in this report relates to the monitoring undertaken in the reporting period for the following environmental pollutants:

- Noise Monitoring

Noise Monitoring

Noise Monitoring is conducted as per condition M6 of EPL 899. The noise monitoring results for the reporting period are tabled below. All results are in compliance for the current reporting period.

Sample Period: January 2019 – present
 Licensee: Talbragar Quarry
 Licensee Address: Brocklehurst, Dubbo, NSW 2830
 EPL No: 899

Qualifications related to Noise

M6.1 To assess compliance with Condition L4.1, attended noise monitoring must be undertaken in accordance with Conditions L4.5:

- a) at monitoring points 12 and 14 as listed in Condition L4.1;
- b) occur quarterly;
- c) occur between the hours of 6am and 7am during either Road or Railway dispatch activities.

Noise Criteria

Location		Day (7am to 6pm)	Evening (6pm to 10pm)	
EPL Ref.	Receiver Location	dB LAeq(15min)	dB LAeq(15min)	dB LAmax
P3	R1	36	35	45
P4	R2	41	38	48
P5	R3	35	35	45
P6	R4	36	35	45
P7	R5	36	35	45
P8	R6	35	35	45
P9	R7	35	35	45
P10	R8	46	41	55
P11	R9	46	41	45
P12	R10	46	41	45
P14	R11	41	38	48

Note: The above noise limits do not apply at properties where the licensee has a written agreement with the landowner to exceed the noise limits.

Note 1: Noise criteria reproduced from the EPL.

Noise Monitoring Results - Quarter 1 Ending October 2019

Assessment Results - Location P5

The monitored noise level contributions and meteorological conditions for each assessment period at location P5 (R3) for the NMA are presented in Table 5.

Table 5 Operator-Attended Noise Survey Results – Location P5							
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA	
		L _{Amax}	L _{Aeq}	L _{A90}			
26/09/2019	14:54	62	41	33	WD: SW	Traffic 30-34	
	(Day)				WS: 1.5m/s	Birds 34-58	
					Rain: Nil	Aircraft 32-53	
						Dogs <32	
		Talbragar Quarry L _{Aeq} (15min) Contribution					<35
27/09/2019	06:00	67	45	40	WD: SW	Birds 39-51	
	(Morning				WS: 0.1m/s	Traffic 36-47	
	Shoulder)				Rain: Nil		
		Talbragar Quarry L _{Aeq} (15min) Contribution					<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays, Evening - the period from 6pm to 10pm, Night - the remaining periods.

Assessment Results - Location P6

The monitored noise level contributions and meteorological conditions for each assessment period at location P6 (R4) for the NMA are presented in Table 6.

Table 6 Operator-Attended Noise Survey Results – Location P6							
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA	
		L _{Amax}	L _{Aeq}	L _{A90}			
26/09/2019	15:17	75	54	31	WD: W	Traffic 31-68	
	(Day)				WS: 1m/s	Wind <32	
					Rain: Nil	Dogs <32	
		Talbragar Quarry L _{Aeq} (15min) Contribution					<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays, Evening - the period from 6pm to 10pm, Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P12

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
26/09/2019	14:07 (Day)	63	45	38	WD: W	Traffic 39-54
					WS: 2m/s	Birds 39-59
					Rain: Nil	Wind 39-58
						Livestock <37
		Talbragar Quarry L _{Aeq} (15min) Contribution				<35
27/09/2019	06:44 (Morning Shoulder)	73	48	42	WD: SW	Birds 41-48
					WS: 0.1m/s	Traffic 38-46
					Rain: Nil	
		Talbragar Quarry L _{Aeq} (15min) Contribution				<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P14 (R11) for the NMA are presented in Table 8.

Table 8 Operator-Attended Noise Survey Results – Location P14

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
26/09/2019	14:33 (Day)	76	52	42	WD: W	Birds 44-46
					WS: 1.5m/s	Traffic 44-73
					Rain: Nil	Local residential noise <44
						Dogs 41-44
		Talbragar Quarry L _{Aeq} (15min) Contribution				<35
27/09/2019	06:19 (Morning Shoulder)	74	52	43	WD: SW	Birds 42-55
					WS: 0.1m/s	Traffic 39-68
					Rain: Nil	Livestock 43-56
						Dogs <43
		Talbragar Quarry L _{Aeq} (15min) Contribution				<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 2 Ending January 2020

Assessment Results - Location P4

The monitored noise level contributions and meteorological conditions for each assessment period at location P4 (R2) for the NMA are presented in Table 5.

Table 5 Operator-Attended Noise Survey Results – Location P4						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
03/10/2019	16:16 (Day)	68	49	40	WD: W WS: 2.5m/s Rain: Nil	Dog Bark 38-48
						Wind 36-46
						Traffic 38-54
						Aircraft 4-68
						Birds 42-53
Local residential noise 43-67						
Talbragar Quarry L _{Aeq} (15min) Contribution						<35
04/10/2019	06:45 (Morning Shoulder)	62	49	43	WD: W WS: 0.5m/s Rain: Nil	Traffic 42-52
						Birds 42-61
						Aircraft 48-62
						Boral inaudible
						Talbragar Quarry L _{Aeq} (15min) Contribution

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P10

The monitored noise level contributions and meteorological conditions for each assessment period at location P10 (R8) for the NMA are presented in Table 6.

Table 6 Operator-Attended Noise Survey Results – Location P10						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
03/10/2019	15:38 (Day)	60	48	41	WD: WSW WS: 2.5m/s Rain: Nil	Wind 42-60
						Traffic 42-48
						Local residential noise <42
						Birds 42-50
						Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P12						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀		
03/10/2019	15:20 (Day)	59	49	46	WD: WSW WS: 2.5m/s Rain: Nil	Wind 40-56
						Traffic 41-48
						Local residential noise 40-58
						Birds <44
						Dog bark <44
						Boral inaudible
						Talbragar Quarry LA _{eq} (15min) Contribution
						<35
04/10/2019	06:06 (Morning Shoulder)	62	49	45	WD: W WS: 0.5m/s Rain: Nil	Birds 46-61
						Traffic 48-58
						Boral inaudible
						Talbragar Quarry LA _{eq} (15min) Contribution
						<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P14 (R11) for the NMA are presented in Table 8.

Table 8 Operator-Attended Noise Survey Results – Location P14						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀		
03/10/2019	15:58 (Day)	73	53	44	WD: W WS: 1.5m/s Rain: Nil	Traffic 46-73
						Birds 43-51
						Wind 42-45
						Dog bark 46-50
						Aircraft 45-69
						Boral processing plant <38
						Talbragar Quarry LA _{eq} (15min) Contribution
						38
04/10/2019	06:27 (Morning Shoulder)	62	49	43	WD: W WS: 0.5m/s Rain: Nil	Traffic 46-62
						Birds 48-53
						Boral inaudible
						Talbragar Quarry LA _{eq} (15min) Contribution
						<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 3 Ending April 2020

Assessment Results - Location P5

The monitored noise level contributions and meteorological conditions for each assessment period at location P5 (R3) for the NMA are presented in Table 5.

Table 5 Operator-Attended Noise Survey Results – Location P5

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
18/02/2020	09:46	66	45	35	WD: E WS: 1.5m/s Rain: Nil	Birds 32-36
	(Day)					Traffic 34-66
						Wind 34-38
						Insects <32
						Aircraft 36-48
						Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P6

The monitored noise level contributions and meteorological conditions for each assessment period at location P6 (R4) for the NMA are presented in Table 6.

Table 6 Operator-Attended Noise Survey Results – Location P6

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
18/02/2020	06:45	67	47	32	WD: E WS: 0.1m/s Rain: Nil	Traffic 36-67
	(Morning Shoulder)					Birds 32-45
						Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<35
18/02/2020	09:25	72	52	33	WD: ESE WS: 0.5m/s Rain: Nil	Traffic 36-58
	(Day)					Birds 36-44
						Local residential noise 36-72
						Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P12

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀		
18/02/2020	06:09 (Morning Shoulder)	72	43	34	WD: E WS: 0.1m/s Rain: Nil	Traffic 38-72
						Dog 35-40
						Birds 34-40
						Aircraft 39-55
Talbragar Quarry LA _{eq} (15min) Contribution						<35
18/02/2020	08:36 (Day)	76	50	43	WD: ESE WS: 0.1m/s Rain: Nil	Local residential noise 36-48
						Boral processing 36-42
						Birds 39-51
						Traffic 36-76
Talbragar Quarry LA _{eq} (15min) Contribution						42

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P14 (R11) for the NMA are presented in Table 8.

Table 8 Operator-Attended Noise Survey Results – Location P14

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀		
18/02/2020	06:28 (Morning Shoulder)	80	51	39	WD: E WS: 0.1m/s Rain: Nil	Traffic 39-80
						Idling traffic 36-38
						Rooster 37-44
						Birds 36-42
Talbragar Quarry LA _{eq} (15min) Contribution						<35
18/02/2020	09:05 (Day)	75	53	43	WD: ESE WS: 0.1m/s Rain: Nil	Boral loading (3 secs) <61
						Boral processing plant 36-42
						Traffic 36-74
						Birds 36-44
Talbragar Quarry LA _{eq} (15min) Contribution						40

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 4 Ending July 2020

Assessment Results - Location P4

The monitored noise level contributions and meteorological conditions for each assessment period at location P4 (R2) for the NMA are presented in Table 5.

Table 5 Operator-Attended Noise Survey Results – Location P4						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀		
19/05/2020	06:40 (Morning Shoulder)	74	54	41	WD: E WS: 1m/s Rain: Nil	Traffic 38-56 Birds 38-74 Dogs <40 Boral processing ~38
	Talbragar Quarry LA _{eq} (15min) Contribution					~38
19/05/2020	07:00 (Day)	89	56	42	WD: E WS: 0.5m/s Rain: Nil	Birds 38-89 Traffic 39-54 Boral processing <40 Boral tipping 39-52 (10 seconds)
	Talbragar Quarry LA _{eq} (15min) Contribution					39

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P10

The monitored noise level contributions and meteorological conditions for each assessment period at location P10 (R8) for the NMA are presented in Table 6.

Table 6 Operator-Attended Noise Survey Results – Location P10						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀		
19/05/2020	07:57 (Day)	67	48	44	WD: E WS: 0.5m/s Rain: Nil	Birds 38-67 Traffic 36-52 Boral processing <36
	Talbragar Quarry LA _{eq} (15min) Contribution					<36

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P12

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
19/05/2020	06:02 (Morning Shoulder)	51	39	36	WD: E WS: 1.5m/s Rain: Nil	Wind 35-39 Traffic 34-51 Industrial hum <35 Boral processing 34-36
	Talbragar Quarry L _{Aeq} (15min) Contribution					35
19/05/2020	07:39 (Day)	80	54	44	WD: E WS: 0.5m/s Rain: Nil	Aircraft 42-46 Birds 42-80 Traffic 38-52 Boral tipping 38-46 (5 seconds)
	Talbragar Quarry L _{Aeq} (15min) Contribution					<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P14 (R11) for the NMA are presented in Table 8.

Table 8 Operator-Attended Noise Survey Results – Location P14

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
19/05/2020	06:21 (Morning Shoulder)	73	50	38	WD: E WS: 0.5m/s Rain: Nil	Birds 38-56 Traffic 36-72 Rooster 38-44 Boral reverse alarms <36
	Talbragar Quarry L _{Aeq} (15min) Contribution					<36
19/05/2020	07:18 (Day)	66	54	47	WD: E WS: 0.5m/s Rain: Nil	Birds 38-54 Traffic 36-66 Boral processing 34-38 Boral reverse alarms 38-45 (5 seconds)
	Talbragar Quarry L _{Aeq} (15min) Contribution					36

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 1 Ending October 2020

Assessment Results - Location P5

The monitored noise level contributions and meteorological conditions for each assessment period at location P5 (R3) for the NMA are presented in Table 5.

Table 5 Operator-Attended Noise Survey Results – Location P5							
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA	
		L _{Amax}	L _{Aeq}	L _{A90}			
19/10/2020	16:29	60	40	33	WD: SW	Aircraft 33-60	
	(Day)				WS: 0.4m/s	Birds 36-48	
					Rain: Nil	Traffic 36-46	
						Boral Inaudible	
		Talbragar Quarry L _{Aeq} (15min) Contribution					<30
20/10/2020	06:44	62	42	32	WD: SE	Birds 32-62	
	(Morning				WS: 0.1m/s	Traffic 30-54	
	Shoulder)				Rain: Nil	Boral Inaudible	
		Talbragar Quarry L _{Aeq} (15min) Contribution					<30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P6

The monitored noise level contributions and meteorological conditions for each assessment period at location P6 (R4) for the NMA are presented in Table 6.

Table 6 Operator-Attended Noise Survey Results – Location P6							
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA	
		L _{Amax}	L _{Aeq}	L _{A90}			
19/10/2020	16:49	71	53	31	WD: SW	Insects <30	
	(Day)				WS: 0.1m/s	Birds 30-44	
					Rain: Nil	Traffic 30-71	
						Boral Inaudible	
		Talbragar Quarry L _{Aeq} (15min) Contribution					<30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P12						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
19/10/2020	15:52 (Day)	67	47	36	WD: SW WS: 0.3m/s Rain: Nil	Birds 36-66
						Insects 36-40
						Traffic 38-48
						Aircraft 36-65
Talbragar Quarry L _{Aeq} (15min) Contribution						<30
20/10/2020	06:07 (Morning Shoulder)	60	44	37	WD: SE WS: 0.1m/s Rain: Nil	Birds 42-58
						Traffic 40-52
						Boral Inaudible
						Talbragar Quarry L _{Aeq} (15min) Contribution

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P14 (R11) for the NMA are presented in Table 8.

Table 8 Operator-Attended Noise Survey Results – Location P14						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
19/10/2020	16:11 (Day)	73	49	40	WD: SW WS: 0.1m/s Rain: Nil	Local residential noise 41-46
						Boral processing 34-38
						Birds 45-53
						Traffic 38-73
Talbragar Quarry L _{Aeq} (15min) Contribution						35
20/10/2020	06:26 (Morning Shoulder)	66	49	38	WD: SE WS: 0.1m/s Rain: Nil	Birds 36-44
						Traffic 36-66
						Rooster 36-49
						Boral Inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 2 Ending January 2021

Assessment Results - Location P4

The monitored noise level contributions and meteorological conditions for each assessment period at location P4 (R2) for the NMA are presented in Table 5.

Table 5 Operator-Attended Noise Survey Results – Location P4

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
19/01/2021	07:00	62	48	44	WD: N	Traffic 42-56
	(Day)				WS: 0.1m/s	Birds 41-62
					Rain: Nil	Quarry tipping 36-45 (10 seconds)
Talbragar Quarry L _{Aeq} (15min) Contribution						<30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P10

The monitored noise level contributions and meteorological conditions for each assessment period at location P10 (R8) for the NMA are presented in Table 6.

Table 6 Operator-Attended Noise Survey Results – Location P10

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
19/01/2021	08:23	75	50	44	WD: N	Traffic 38-48
	(Day)				WS: 0.1m/s	Birds 38-75
					Rain: Nil	Quarry Screening Plant <38
Talbragar Quarry L _{Aeq} (15min) Contribution						<38
19/01/2021	06:04	72	53	46	WD: NE	Traffic 46-54
	(Morning Shoulder)				WS: 0.1m/s	Birds 48-72
					Rain: Nil	Livestock 43-56 Train 48-62 Quarry Inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P12						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
19/01/2021	08:03 (Day)	68	48	44	WD: N WS: 0.1m/s Rain: Nil	Traffic 42-50
						Birds 42-49
						Dogs <44
Local residential noise 42-50						Aircraft 48-68
Talbragar Quarry L _{Aeq} (15min) Contribution						<42
19/01/2021	06:22 (Morning Shoulder)	66	50	45	WD: NE WS: 0.1m/s Rain: Nil	Traffic 43-49
						Birds 47-66
						Quarry Inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at

Table 8 Operator-Attended Noise Survey Results – Location P14						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
19/01/2021	08:41 (Day)	76	52	42	WD: N WS: 0.1m/s Rain: Nil	Insects 44-46
						Traffic 44-76
						Birds 46-52
Aircraft 44-50						Quarry Screening Plant 36-44
Talbragar Quarry L _{Aeq} (15min) Contribution						40
19/01/2021	06:43 (Morning Shoulder)	71	50	44	WD: N WS: 0.1m/s Rain: Nil	Birds 46-58
						Traffic 46-71
						Quarry Screening Plant <36
Quarry Mobile Plant 36-48 (30 seconds)						35
Talbragar Quarry L _{Aeq} (15min) Contribution						35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 3 Ending April 2021

Assessment Results - Location P5

The monitored noise level contributions and meteorological conditions for each assessment period at location P5 (R3) for the NMA are presented in Table 5.

Table 5 Operator-Attended Noise Survey Results – Location P5						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀		
12/04/2021	16:35 (Day)	60	43	38	WD: SW WS: 0.4m/s Rain: Nil	Boral Water Cart (10 seconds) 39-41
						Boral Front End Loader (30 seconds) 39-43
						Birds 35-60
						Traffic 39-48
Talbragar Quarry LA _{eq} (15min) Contribution						30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P6

The monitored noise level contributions and meteorological conditions for each assessment period at location P6 (R4) for the NMA are presented in Table 6.

Table 6 Operator-Attended Noise Survey Results – Location P6						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀		
12/04/2021	16:55 (Day)	70	51	39	WD: SW WS: 0.3m/s Rain: Nil	Traffic 39-70
						Birds 39-44
						Insects <39
						Agriculture 39-42
Local residential noise 38-65						
Aircraft 38-57						
Quarry Inaudible						
Talbragar Quarry LA _{eq} (15min) Contribution						<30
13/04/2021	06:39 (Morning Shoulder)	73	53	41	WD: SE WS: 0.1m/s Rain: Nil	Traffic 40-73
						Birds 40-61
						Local residential noise 40-64
						Quarry Inaudible
Talbragar Quarry LA _{eq} (15min) Contribution						<30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P12

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀		
12/04/2021	15:59	68	50	41	WD: SW	Birds 38-49
	(Day)				WS: 0.4m/s	Traffic 38-44
					Rain: Nil	Aircraft 39-68
						Quarry Inaudible
		Talbragar Quarry LA _{eq} (15min) Contribution				<30
13/04/2021	06:01	70	49	43	WD: SE	Traffic 39-66
	(Morning				WS: 0.1m/s	Birds 41-70
	Shoulder)				Rain: Nil	Dogs <44
						Quarry Inaudible
		Talbragar Quarry LA _{eq} (15min) Contribution				<30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R11) for the NMA are presented in Table 8

Table 8 Operator-Attended Noise Survey Results – Location P14

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀		
12/04/2021	16:16	73	50	40	WD: SW	Birds 44-48
	(Day)				WS: 0.3m/s	Traffic 41-73
					Rain: Nil	Boral Hammering
						(5 seconds) 39-43
						Dogs 39-42
						Livestock 37-39
		Talbragar Quarry LA _{eq} (15min) Contribution				<30
13/04/2021	06:19	70	52	46	WD: SE	Birds 39-70
	(Morning				WS: 0.1m/s	Traffic 39-58
	Shoulder)				Rain: Nil	Quarry Inaudible
		Talbragar Quarry LA _{eq} (15min) Contribution				<30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 4 Ending July 2021

Assessment Results - Location P4

The monitored noise level contributions and meteorological conditions for each assessment period at location P4 (R3) for the NMA are presented in Table 5.

Table 5 Operator-Attended Noise Survey Results – Location P4						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
06/07/2021	07:10 (Day)	74	54	47	WD: SE WS: 0.1m/s Rain: Nil	Birds 45-66
						Local residential noise 45-54
						Traffic 45-74
						Boral Train Idle 37-39
Talbragar Quarry L _{Aeq} (15min) Contribution						
<37						
06/07/2021	06:05 (Morning Shoulder)	61	45	41	WD: SE WS: 0.1m/s Rain: Nil	Boral Train Idle 37-39
						Birds 39-61
						Traffic 39-46
						Talbragar Quarry L _{Aeq} (15min) Contribution
<37						

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P10

The monitored noise level contributions and meteorological conditions for each assessment period at location P10 (R4) for the NMA are presented in Table 6.

Table 6 Operator-Attended Noise Survey Results – Location P10						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
06/07/2021	08:16 (Day)	85	65	56	WD: SE WS: 0.1m/s Rain: Nil	Traffic 56-85
						Industrial hum 56-63
						Aircraft 55-64
						Boral Tipping (1 minute) 55-64
Talbragar Quarry L _{Aeq} (15min) Contribution						
41						

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P12						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀		
06/07/2021	08:40 (Day)	65	48	42	WD: SE	Traffic 48-65
					WS: 0.1m/s	Birds 48-54
					Rain: Nil	Boral Inaudible
Talbragar Quarry LA _{eq} (15min) Contribution						<35
06/07/2021	06:43 (Morning Shoulder)	64	49	44	WD: SE	Traffic 41-58
					WS: 0.1m/s	Birds 41-64
					Rain: Nil	Boral Inaudible
Talbragar Quarry LA _{eq} (15min) Contribution						<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R11) for the NMA are presented in Table 8

Table 8 Operator-Attended Noise Survey Results – Location P14						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀		
06/07/2021	07:50 (Day)	61	49	45	WD: SE	Birds 45-61
					WS: 0.1m/s	Traffic 45-48
					Rain: Nil	Dog bark 45-51
Talbragar Quarry LA _{eq} (15min) Contribution						Boral Tipping (5 seconds) 45-50
Talbragar Quarry LA _{eq} (15min) Contribution						35
06/07/2021	06:23 (Morning Shoulder)	73	51	43	WD: SE	Roosters 39-58
					WS: 0.1m/s	Traffic 39-62
					Rain: Nil	Birds 39-42
Talbragar Quarry LA _{eq} (15min) Contribution						Operator vehicle 73
Talbragar Quarry LA _{eq} (15min) Contribution						Boral Train Idle <39
Talbragar Quarry LA _{eq} (15min) Contribution						<37

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 1 Ending October 2021

4.1 Assessment Results - Location P5

The monitored noise level contributions and meteorological conditions for each assessment period at location P5 (R3) for the NMA are presented in **Table 5**.

Table 5 Operator-Attended Noise Survey Results – Location P5						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
12/10/2021	11:34 (Day)	71	54	47	WD: E	Wind in trees 42-64
	WS: 2.5m/s				Birds 42-71	
					Rain: Nil	Traffic 42-58
						Boral Inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<35
12/10/2021	06:38 ¹ (Morning Shoulder)	72	47	38	WD: SE	Wind in trees 34-44
	WS: 1.4m/s				Traffic 34-42	
					Rain: Nil	Birds 34-48
						Operator 45-72
						Boral Inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.
Note 1: Five minutes of the 15 minute assessment period were excluded due to adverse meteorological conditions.

4.2 Assessment Results - Location P6

The monitored noise level contributions and meteorological conditions for each assessment period at location P6 (R4) for the NMA are presented in **Table 6**.

Table 6 Operator-Attended Noise Survey Results – Location P6						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
12/10/2021	11:57 (Day)	78	63	56	WD: E	Traffic 52-68
	WS: 2.8m/s				Wind in trees 54-78	
					Rain: Nil	Boral Inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P12

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
12/10/2021	10:21	67	52	50	WD: E WS: 0.8m/s Rain: Nil	Traffic 48-63
	(Day)					Birds 48-67 Wind in trees 48-63 Boral Loading 48-54 (2 minutes)
Talbragar Quarry L _{Aeq} (15min) Contribution						41
12/10/2021	06:00	60	45	37	WD: SE WS: 0.1m/s Rain: Nil	Traffic 34-54
	(Morning Shoulder)					Birds 34-60 Dog bark 44-49 Train horn 52-56 Boral Inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R11) for the NMA are presented in Table 8

Table 8 Operator-Attended Noise Survey Results – Location P14

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
12/10/2021	11:16	72	58	55	WD: E WS: 2m/s Rain: Nil	Birds 52-72
	(Day)					Wind in trees 52-65 Traffic 52-68 Boral processing <41
Talbragar Quarry L _{Aeq} (15min) Contribution						<41
12/10/2021	06:17	74	54	44	WD: SE WS: 0.6m/s Rain: Nil	Traffic 43-68
	(Morning Shoulder)					Birds 43-56 Train passby 43-74 Boral Impacts 40-44 (4 minutes)
Talbragar Quarry L _{Aeq} (15min) Contribution						34

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 2 Ending January 2022

Assessment Results - Location P4

The monitored noise level contributions and meteorological conditions for each assessment period at location P4 (R2) for the NMA are presented in Table 5.

Table 5 Operator-Attended Noise Survey Results – Location P4

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
18/10/2022	07:18	75	51	42	WD: S	Birds 39-54
	(Day)				WS: 0.4m/s	Traffic 39-75
					Rain: Nil	Insects 39-41
						Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P10

The monitored noise level contributions and meteorological conditions for each assessment period at location P10 (R8) for the NMA are presented in Table 6.

Table 6 Operator-Attended Noise Survey Results – Location P10

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
18/10/2022	07:37	72	52	42	WD: S	Birds 40-49
	(Day)				WS: 0.2m/s	Traffic 40-64
					Rain: Nil	Insects <40
						Aircraft 40-72
						Boral reverse alarms <40 (2 minutes)
Talbragar Quarry L _{Aeq} (15min) Contribution						33
18/10/2022	06:38	59	43	38	WD: S	Traffic 39-59
	(Morning Shoulder)				WS: 0.3m/s	Insects 36-38
					Rain: Nil	Birds 42-56
						Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P12						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
18/10/2022	08:37	91	71	43	WD: S WS: 1.4m/s Rain: Nil	Council slashing 49-91
	(Day)					Dogs 43-46
						Traffic 43-50
						Boral inaudible
		Talbragar Quarry L _{Aeq} (15min) Contribution				<35
18/10/2022	06:19	75	49	42	WD: S WS: 0.4m/s Rain: Nil	Insects <39
	(Morning					Birds 39-75
	Shoulder)					Traffic 39-56
						Boral inaudible
		Talbragar Quarry L _{Aeq} (15min) Contribution				<30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P14 (R11) for the NMA are presented in Table 8.

Table 8 Operator-Attended Noise Survey Results – Location P14						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
18/10/2022	07:00	76	51	40	WD: S WS: 0.4m/s Rain: Nil	Insects <37
	(Day)					Traffic 40-76
						Birds 37-46
						Boral reverse alarms <37
						(3 minutes)
		Talbragar Quarry L _{Aeq} (15min) Contribution				30
18/10/2022	06:00	64	46	39	WD: S WS: 0.6m/s Rain: Nil	Insects 36-40
	(Morning					Birds 36-56
	Shoulder)					Traffic 36-64
						Rooster 36-49
						Dogs 40-51
						Boral inaudible
		Talbragar Quarry L _{Aeq} (15min) Contribution				<30

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 3 Ending April 2022

Assessment Results - Location P5

The monitored noise level contributions and meteorological conditions for each assessment period at location P5 (R3) for the NMA are presented in **Table 5**.

Table 5 Operator-Attended Noise Survey Results – Location P5						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
05/04/2022	07:10 (Day)	65	46	43	WD: SE WS: 0.1m/s Rain: Nil	Traffic 41-51
						Birds 44-65
						Livestock <41
						Train 43-46
						Boral FEL barely perceptible
Talbragar Quarry L _{Aeq} (15min) Contribution						<33

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P6

The monitored noise level contributions and meteorological conditions for each assessment period at location P6 (R4) for the NMA are presented in **Table 6**.

Table 6 Operator-Attended Noise Survey Results – Location P6						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
05/04/2022	07:31 (Day)	98	68	43	WD: SE WS: 0.1m/s Rain: Nil	Traffic 40-64
						Birds 40-54
						Train 49-98
						Boral inaudible
						Talbragar Quarry L _{Aeq} (15min) Contribution
05/04/2022	06:45 (Morning Shoulder)	73	51	43	WD: SE WS: 0.3m/s Rain: Nil	Birds 39-59
						Traffic 42-73
						Local residential noise 39-54
						Boral inaudible
						Talbragar Quarry L _{Aeq} (15min) Contribution

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P12						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
05/04/2022	08:10	74	49	40	WD: SE WS: 0.1m/s Rain: Nil	Traffic 37-52
	(Day)					Birds 37-74 Industrial noise <42 Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<35
05/04/2022	06:28	69	51	46	WD: SE WS: 0.1m/s Rain: Nil	Birds 47-56
	(Morning Shoulder)					Traffic 47-53 Aircraft 50-69 Dog bark <47 Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<36

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P14 (R11) for the NMA are presented in Table 8.

Table 8 Operator-Attended Noise Survey Results – Location P14						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
05/04/2022	07:50	72	53	47	WD: SE WS: 0.1m/s Rain: Nil	Traffic 40-72
	(Day)					Birds 40-54 Boral processing 38-40
Talbragar Quarry L _{Aeq} (15min) Contribution						39
05/04/2022	06:08	69	52	43	WD: SE WS: 0.1m/s Rain: Nil	Birds 45-64
	(Morning Shoulder)					Traffic 42-69 Rooster 44-58 Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<33

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 4 Ending July 2022

Assessment Results - Location P4

The monitored noise level contributions and meteorological conditions for each assessment period at location P4 (R2) for the NMA are presented in **Table 5**.

Table 5 Operator-Attended Noise Survey Results – Location P4

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
07/06/2022	07:03 (Day)	69	50	44	WD: NW	Traffic 41-58
					WS: 0.1m/s	Birds 41-69
					Rain: Nil	Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<34
07/06/2022	06:45 (Morning Shoulder)	67	50	44	WD: NW	Birds 38-67
					WS: 0.1m/s	Traffic 48-54
					Rain: Nil	Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<34

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P10

The monitored noise level contributions and meteorological conditions for each assessment period at location P10 (R8) for the NMA are presented in **Table 6**.

Table 6 Operator-Attended Noise Survey Results – Location P10

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
07/06/2022	08:00 (Day)	72	55	44	WD: NW	Traffic 36-58
					WS: 0.1m/s	Birds 38-63
					Rain: Nil	Aircraft 36-72
Talbragar Quarry L _{Aeq} (15min) Contribution						<34

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P12						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
07/06/2022	07:42 (Day)	72	50	43	WD: NW	Birds 36-72
					WS: 0.1m/s	Traffic 36-58
					Rain: Nil	Boral inaudible
					Talbragar Quarry L _{Aeq} (15min) Contribution	
07/06/2022	06:27 (Morning Shoulder)	74	54	42	WD: NW	Traffic 40-64
					WS: 0.1m/s	Birds 38-48
					Rain: Nil	Aircraft 36-74
					Talbragar Quarry L _{Aeq} (15min) Contribution	

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P14 (R11) for the NMA are presented in Table 8.

Table 8 Operator-Attended Noise Survey Results – Location P14						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
07/06/2022	07:21 (Day)	79	57	47	WD: NW	Birds 46-54
					WS: 0.1m/s	Traffic 42-79
					Rain: Nil	Rooster 46-54
					Talbragar Quarry L _{Aeq} (15min) Contribution	
07/06/2022	06:07 (Morning Shoulder)	66	50	41	WD: NW	Traffic 37-66
					WS: 0.1m/s	Rooster 38-44
					Rain: Nil	Birds 37-46
					Talbragar Quarry L _{Aeq} (15min) Contribution	

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 1 Ending October 2022

Assessment Results - Location P5

The monitored noise level contributions and meteorological conditions for each assessment period at location P5 (R3) for the NMA are presented in **Table 5**.

Table 5 Operator-Attended Noise Survey Results – Location P5						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
12/09/2022	17:08 (Day)	54	43	40	WD: SW	Birds 37-54
					WS: 0.3m/s	Traffic 37-46
					Rain: Nil	Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution						<30
13/09/2022	06:43 (Morning Shoulder)	70	47	42	WD: NE	Traffic 42-56
					WS: 0.1m/s	Birds 43-70
					Rain: Nil	Boral reverse alarms <43 (5 seconds)
Talbragar Quarry L _{Aeq} (15min) Contribution						<20

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P6

The monitored noise level contributions and meteorological conditions for each assessment period at location P6 (R4) for the NMA are presented in **Table 6**.

Table 6 Operator-Attended Noise Survey Results – Location P6						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
12/09/2022	17:30 (Day)	66	50	37	WD: SW	Birds 34-51
					WS: 0.2m/s	Traffic 33-66
					Rain: Nil	Livestock 36-46
Talbragar Quarry L _{Aeq} (15min) Contribution						<27

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P12						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀		
12/09/2022	16:45 (Day)	62	49	46	WD: SW	Traffic 43-62
					WS: 0.3m/s	Birds 46-58
					Rain: Nil	Aircraft 44-54
Talbragar Quarry LA _{eq} (15min) Contribution						Boral inaudible
						<36
13/09/2022	06:21 (Morning Shoulder)	68	51	47	WD: NE	Birds 40-68
					WS: 0.1m/s	Traffic 44-58
					Rain: Nil	Aircraft 46-54
Talbragar Quarry LA _{eq} (15min) Contribution						Industrial noise <46
						Boral inaudible
						<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P14 (R11) for the NMA are presented in Table 8.

Table 8 Operator-Attended Noise Survey Results – Location P14						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀		
12/09/2022	16:27 (Day)	79	54	46	WD: SW	Birds 48-62
					WS: 0.2m/s	Traffic 44-79
					Rain: Nil	Dog bark 46-54
Talbragar Quarry LA _{eq} (15min) Contribution						Aircraft 42-56
						Boral processing <41
						<41
13/09/2022	06:01 (Morning Shoulder)	67	48	43	WD: NE	Birds 40-67
					WS: 0.2m/s	Traffic 42-50
					Rain: Nil	Rooster 40-58
Talbragar Quarry LA _{eq} (15min) Contribution						Boral inaudible
						<33

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 2 Ending January 2023

Assessment Results - Location P4

The monitored noise level contributions and meteorological conditions for each assessment period at location P4 (R2) for the NMA are presented in **Table 5**.

Table 5 Operator-Attended Noise Survey Results – Location P4

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
15/12/2022	12:10 (Day)	65	47	40	WD: W WS: 1m/s Rain: Nil	Traffic 38-54
						Birds 38-56
Talbragar Quarry L _{Aeq} (15min) Contribution						<20

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P10

The monitored noise level contributions and meteorological conditions for each assessment period at location P10 (R8) for the NMA are presented in **Table 6**.

Table 6 Operator-Attended Noise Survey Results – Location P10

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
15/12/2022	11:34 (Day)	63	44	40	WD: W WS: 1.8m/s Rain: Nil	Traffic 39-48
						Insects 39-44
Talbragar Quarry L _{Aeq} (15min) Contribution						<30
16/12/2022	06:20 (Morning Shoulder)	78	55	42	WD: S WS: 0.1m/s Rain: Nil	Birds 39-59
						Traffic 39-78
Talbragar Quarry L _{Aeq} (15min) Contribution						<32

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in **Table 7**.

Table 7 Operator-Attended Noise Survey Results – Location P12						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
15/12/2022	11:16 (Day)	67	46	38	WD: W WS: 1.2m/s Rain: Nil	Birds 38-48
						Traffic 36-44
						Wind in vegetation 36-40
						Insects 36-55
						Dog bark 40-52
						Aircraft 46-67
Talbragar Quarry L _{Aeq} (15min) Contribution						<28
16/12/2022	06:37 (Morning Shoulder)	68	47	42	WD: S WS: 0.1m/s Rain: Nil	Birds 40-68
						Traffic 39-48
						Dog bark 39-44
						Boral inaudible
						Talbragar Quarry L _{Aeq} (15min) Contribution

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P14 (R11) for the NMA are presented in **Table 8**.

Table 8 Operator-Attended Noise Survey Results – Location P14						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}		
15/12/2022	11:53 (Day)	71	52	41	WD: W WS: 1m/s Rain: Nil	Traffic 39-71
						Insects <39
						Birds 39-52
						Wind in vegetation 39-46
						Boral processing 38-40 (5 minutes)
Talbragar Quarry L _{Aeq} (15min) Contribution						35
16/12/2022	06:01 (Morning Shoulder)	77	55	45	WD: S WS: 0.1m/s Rain: Nil	Birds 44-58
						Traffic 42-77
						Dog bark 48-60
						Boral reverse alarms 44-48 (2 minutes)
						Boral processing 34-40
Talbragar Quarry L _{Aeq} (15min) Contribution						37

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 3 Ending April 2023

Assessment Results - Location P5

The monitored noise level contributions and meteorological conditions for each assessment period at location P5 (R3) for the NMA are presented in Table 6.

Table 6 Operator-Attended Noise Survey Results – Location P5

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}			
					BoM 065070	Operator	
23/02/2023	12:20 (Day)	61	47	41	WD: E	WD: NE	Wind in vegetation 37-61
					WS: 7.5m/s	WS: 2.6m/s	Insects <37
					Rain: Nil	Rain: Nil	Birds 38-44
Talbragar Quarry L _{Aeq} (15min) Contribution							35
24/02/2023	06:41 (Morning Shoulder)	66	46	34	WD: SE	WD: N	Dog bark 59-66
					WS: 4.6m/s	WS: 0.2m/s	Insects <30
					Rain: Nil	Rain: Nil	Traffic 32-39
Talbragar Quarry L _{Aeq} (15min) Contribution							<25

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P6

The monitored noise level contributions and meteorological conditions for each assessment period at location P6 (R4) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P6

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}			
					BoM 065070	Operator	
23/02/2023	12:41 (Day)	71	54	48	WD: ENE	WD: NE	Wind in vegetation 39-54
					WS: 6.5m/s	WS: 2.3m/s	Birds <39
					Rain: Nil	Rain: Nil	Traffic 42-71
Talbragar Quarry L _{Aeq} (15min) Contribution							<36

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 8.

Table 8 Operator-Attended Noise Survey Results – Location P12

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀	BoM 065070		
					Operator		
23/02/2023	11:32 (Day)	61	51	49	WD: E	WD: NE	Wind in vegetation 46-61
					WS: 8.1m/s	WS: 2.2m/s	Insects <46
					Rain: Nil	Rain: Nil	Birds <46
							Traffic 46-52
Talbragar Quarry LA _{eq} (15min) Contribution							Boral inaudible
							<39
24/02/2023	06:20 (Morning Shoulder)	67	48	39	WD: SE	WD: N	Other industrial noise 38-46
					WS: 3.5m/s	WS: 0.1m/s	Insects 38-41
					Rain: Nil	Rain: Nil	Birds 51-57
							Traffic <44
							Aircraft 41-67
Talbragar Quarry LA _{eq} (15min) Contribution							Dog bark 42-49
							Boral inaudible
							<29

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P14 (R11) for the NMA are presented in Table 9.

Table 9 Operator-Attended Noise Survey Results – Location P14

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀	BoM 065070		
					Operator		
23/02/2023	12:00 (Day)	73	54	48	WD: ESE	WD: NE	Wind in vegetation 45-54
					WS: 8.1m/s	WS: 2m/s	Traffic 45-73
					Rain: Nil	Rain: Nil	Insects 45-49
							Birds 46-52
Talbragar Quarry LA _{eq} (15min) Contribution							Boral processing 43-50 (5 minutes)
							40
24/02/2023	06:00 (Morning Shoulder)	66	46	41	WD: SE	WD: N	Traffic 39-66
					WS: 4.6m/s	WS: 0.1m/s	Insects 39-42
					Rain: Nil	Rain: Nil	Birds 46-51
							Other industrial noise 40-50
							Rooster 40-46
Talbragar Quarry LA _{eq} (15min) Contribution							Boral inaudible
							<31

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 4 Ending July 2023

Assessment Results - Location P4

The monitored noise level contributions and meteorological conditions for each assessment period at location P4 (R2) for the NMA are presented in Table 6.

Table 6 Operator-Attended Noise Survey Results – Location P4

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA	
		L _{Amax}	L _{Aeq}	L _{A90}	BoM 065070			
					Operator			
07/06/2023	12:28 (Day)	66	47	42	WD: NNW	WD: N	Birds 43-53	
					WS: 7.6m/s	WS: 2.0m/s	Dog bark 43-52	
					Rain: Nil	Rain: Nil	Traffic 44-66	
							Livestock 41-46	
							Local residential noise 45-48	
							Boral processing 39-43 (10 seconds)	
		Talbragar Quarry L _{Aeq} (15min) Contribution						22
08/06/2023	06:07 (Morning Shoulder)	53	37	30	WD: E	WD: NE	Traffic 33-53	
					WS: 2.4m/s	WS: 0.5m/s	Birds 33-39	
					Rain: Nil	Rain: Nil	Livestock <35	
							Insects 35-42	
							Boral inaudible	
		Talbragar Quarry L _{Aeq} (15min) Contribution						<20

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P10

The monitored noise level contributions and meteorological conditions for each assessment period at location P10 (R8) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P10

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA	
		L _{Amax}	L _{Aeq}	L _{A90}	BoM 065070			
					Operator			
07/06/2023	12:50 (Day)	65	47	39	WD: NNW	WD: N	Traffic 40-48	
					WS: 5.1m/s	WS: 1.2m/s	Birds 46-54	
					Rain: Nil	Rain: Nil	Aircraft 40-65	
							Boral processing 38-42 (constant)	
							Boral reverse alarms 37-42 (5 minutes)	
		Talbragar Quarry L _{Aeq} (15min) Contribution						40

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 8.

Table 8 Operator-Attended Noise Survey Results – Location P12

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}	BoM 065070		
					Operator		
07/06/2023	12:53 (Day)	68	50	44	WD: NNW	WD: N	Wind in trees 49-52
					WS: 5.1m/s	WS: 2.0m/s	Traffic 44-47
					Rain: Nil	Rain: Nil	Aircraft 48-68
							Birds 42-54
Talbragar Quarry L _{Aeq} (15min) Contribution							Boral processing 41-46 (5 minutes)
							38
08/06/2023	06:28 (Morning Shoulder)	75	49	37	WD: ENE	WD: NE	Traffic 40-75
					WS: 1.9m/s	WS: 0.5m/s	Birds 39-53
					Rain: Nil	Rain: Nil	Dog bark 35-38
							Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution							<27

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P14 (R11) for the NMA are presented in Table 9.

Table 9 Operator-Attended Noise Survey Results – Location P14

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}	BoM 065070		
					Operator		
07/06/2023	12:12 (Day)	75	53	44	WD: NNW	WD: N	Wind in trees 43-52
					WS: 8.9m/s	WS: 2.0m/s	Traffic 43-75
					Rain: Nil	Rain: Nil	Birds 44-56
							Boral truck movements <41
Talbragar Quarry L _{Aeq} (15min) Contribution							Boral reverse alarms <41
							Boral tipping 47-56 (3 seconds)
							<41
08/06/2023	06:00 (Morning Shoulder)	72	46	30	WD: ENE	WD: W	Traffic 42-72
					WS: 2.9m/s	WS: 0.2m/s	Livestock 30-32
					Rain: Nil	Rain: Nil	Rooster 28-36
							Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution							<20

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 1 Ending October 2023

Assessment Results - Location P5 (Reference Location)

The monitored noise level contributions and meteorological conditions for each assessment period at location P5 (R3) for the NMA are presented in Table 6.

Table 6 Operator-Attended Noise Survey Results – Location P5

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA					
		L _{Amax}	L _{Aeq}	L _{A90}	BoM 065070							
					Operator							
21/09/2023	11:16 (Day)	61	46	41	WD: S	WD: SW	Wind in vegetation 42-48					
					WS: 4.6m/s	WS: 4.5m/s	Aircraft 43-61					
					Rain: Nil	Rain: Nil	Traffic 40-50					
							Birds 41-51					
							Boral haul trucks 38-43 (3 minutes)					
							Impact (2 seconds) 50					
							Reverse alarm 43 (20 seconds)					
					Talbragar Quarry L _{Aeq} (15min) Contribution						35	
					22/09/2023	06:42 (Morning Shoulder)	59	43	35	WD: SSE	WD: SE	Traffic 31-46
										WS: 4.6m/s	WS: 0.5m/s	Birds 33-59
Rain: Nil	Rain: Nil	Boral trucks 36-49 (2 minutes)										
		Reverse alarm 37 (15 seconds)										
Talbragar Quarry L _{Aeq} (15min) Contribution										34		

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P6 (Reference Location)

The monitored noise level contributions and meteorological conditions for each assessment period at location P6 (R4) for the NMA are presented in Table 7.

Table 7 Operator-Attended Noise Survey Results – Location P6

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA				
		L _{Amax}	L _{Aeq}	L _{A90}	BoM 065070						
					Operator						
21/09/2023	10:52 (Day)	83	58	38	WD: S	WD: SW	Wind in vegetation 32-38				
					WS: 5.9m/s	WS: 4.0m/s	Birds 36-71				
					Rain: Nil	Rain: Nil	Traffic 40-83				
							Aircraft 33-60				
							Boral inaudible				
					Talbragar Quarry L _{Aeq} (15min) Contribution						<28

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in Table 8.

Table 8 Operator-Attended Noise Survey Results – Location P12

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}	BoM 065070		
					Operator		
21/09/2023	11:56 (Day)	57	43	39	WD: SSW	WD: SW	Wind in vegetation 38-40
					WS: 5.9m/s	WS: 3.5m/s	Birds 40-51
					Rain: Nil	Rain: Nil	Traffic 38-57
							Boral haul trucks 39-45 (8 minutes)
							Reverse alarm 43 (15 seconds)
Talbragar Quarry L _{Aeq} (15min) Contribution							40
22/09/2023	06:00 (Morning Shoulder)	64	45	38	WD: SSE	WD: SE	Other industrial noise 43-45
					WS: 5.1m/s	WS: 0.3m/s	Birds 35-64
					Rain: Nil	Rain: Nil	Traffic 36-57
							Dog bark <38
							Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution							<28

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

The monitored noise level contributions and meteorological conditions for each assessment period at location P14 (R11) for the NMA are presented in Table 9.

Table 9 Operator-Attended Noise Survey Results – Location P14

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA
		L _{Amax}	L _{Aeq}	L _{A90}	BoM 065070		
					Operator		
21/09/2023	16:40 (Day)	68	48	43	WD: SSW	WD: SE	Traffic 41-59
					WS: 4.6m/s	WS: 3.5m/s	Dogs barking 46-48
					Rain: Nil	Rain: Nil	Birds 42-54
							Boral processing 38-41 (1 minute)
							Reverse alarm 40-50 (30 seconds)
							Boral tipper 68 (1 seconds)
Talbragar Quarry L _{Aeq} (15min) Contribution							39
22/09/2023	06:22 (Morning Shoulder)	74	54	41	WD: SSE	WD: SE	Traffic 42-74
					WS: 5.1m/s	WS: 0.5m/s	Birds 41-62
					Rain: Nil	Rain: Nil	Aircraft 45-65
							Boral inaudible
Talbragar Quarry L _{Aeq} (15min) Contribution							<31

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Noise Monitoring Results - Quarter 2 Ending February 2024

Assessment Results - Location P4 (Reference Location)

The monitored noise level contributions and meteorological conditions for each assessment period at location P4 (R2) for the NMA are presented in **Table 6**.

Table 6 Operator-Attended Noise Survey Results - Location P4

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA				
		LA _{max}	LA _{eq}	LA ₉₀	BoM 065070						
					Operator						
08/02/2024 (Day)	17:43	65	46	39	WD: E	WD: E	Wind in vegetation 39-48				
					WS: 7.0m/s	WS: 2.5m/s	Traffic 40-50				
					Rain: Nil	Rain: Nil	Birds 40-58				
							Aircraft 42-65				
							Livestock 42-54				
							Boral processing 40-42 (4 minutes)				
					Talbragar Quarry LA _{eq} (15min) Contribution						38
										Insects 37-41	
										Birds 42-52	
					09/02/2024 (Morning Shoulder)	06:37	67	47	41	WD: ESE	WD: SE
WS: 4.6m/s	WS: 0.5 m/s	Dogs barking 45-67									
Rain: Nil	Rain: Nil	Aircraft 43-63									
		Boral general noise 36-40 (5 minutes)									
Talbragar Quarry LA _{eq} (15min) Contribution										38	

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P10 (Reference Location)

The monitored noise level contributions and meteorological conditions for each assessment period at location P10 (R8) for the NMA are presented in **Table 7**.

Table 7 Operator-Attended Noise Survey Results - Location P10

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA				
		LA _{max}	LA _{eq}	LA ₉₀	BoM 065070						
					Operator						
08/02/2024 (Day)	11:54	60	45	42	WD: E	WD: E	Traffic 43-60				
					WS: 6.5m/s	WS: 1.8m/s	Wind in vegetation 42-45				
					Rain: Nil	Rain: Nil	Birds 44-52				
							Offsite impact 45-48				
							Dogs barking 40-42				
							Boral reverse alarm 44-47 (<30 seconds)				
							Boral processing 38-47 (13 minutes)				
					Talbragar Quarry LA _{eq} (15min) Contribution						42

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P12

The monitored noise level contributions and meteorological conditions for each assessment period at location P12 (R10) for the NMA are presented in **Table 8**.

Table 8 Operator-Attended Noise Survey Results - Location P12

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀	BoM 065070		
					Operator		
08/02/2024	12:12 (Day)	67	48	44	WD: E	WD: E	Wind in vegetation 42-47
					WS: 5.9m/s	WS: 1.5m/s	Birds 44-53
					Rain: Nil	Rain: Nil	Traffic 43-51
							Insects 41-44
							Industrial noise 44-48
							Aircraft 45-67
							Boral processing 41-45 (14 minutes)
							Talbragar Quarry LA _{eq} (15min) Contribution
							43
							Birds 42-60
09/02/2024	06:18 (Morning Shoulder)	60	41	38	WD: ESE	WD: E	Industrial noise 39-42
					WS: 5.1 m/s	WS: 0.5m/s	Traffic 38-40
					Rain: Nil	Rain: Nil	Dogs barking 38-39
							Insects 36-38
							Boral general noise <35
							Talbragar Quarry LA _{eq} (15min) Contribution
							<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Assessment Results - Location P14

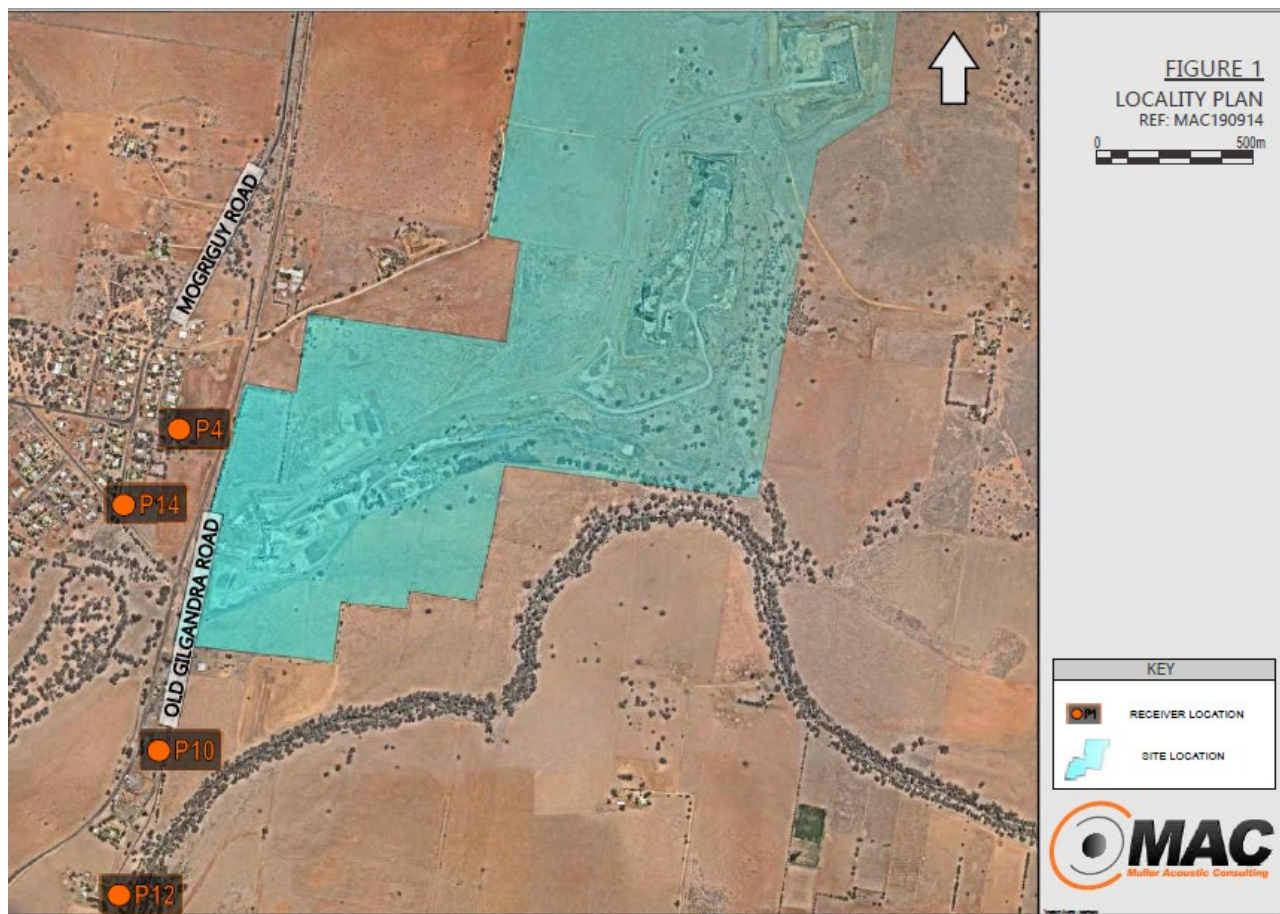
The monitored noise level contributions and meteorological conditions for each assessment period at location P14 (R11) for the NMA are presented in **Table 9**.

Table 9 Operator-Attended Noise Survey Results - Location P14

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology		Description and SPL, dBA
		LA _{max}	LA _{eq}	LA ₉₀	BoM 065070		
					Operator		
08/02/2024	17:18 (Day)	68	53	42	WD: ESE	WD: E	Wind in vegetation 39-45
					WS: 7.6m/s	WS: 3.5m/s	Birds 44-53
					Rain: Nil	Rain: Nil	Traffic 43-68
							Aircraft 41-50
							Livestock 46-55
							Insects 39-68
							Boral processing 35-42 (<4 minutes)
							Talbragar Quarry LA _{eq} (15min) Contribution
							38
							Birds 36-52
09/02/2024	06:00 (Morning Shoulder)	69	50	38	WD: ESE	WD: SE	Traffic 37-69
					WS: 4.1m/s	WS: 0.5m/s	Insects 35-38
					Rain: Nil	Rain: Nil	Dogs barking 39-44
							Industrial noise 37-40
							Boral inaudible
							Talbragar Quarry LA _{eq} (15min) Contribution
							<28

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Talbragar Quarry Noise Monitoring Locations



Noise Monitoring Results - Corrections Log						
Details of corrections made to published data due to incorrect or misleading data ^{3.7.7}						
Date of data (sample date)	Old published data	Correct updated data	Reason for Update/Correction	Update Person	Date corrected data published	Comments