



Maxwell Underground Coal Mine Project

Environmental Monitoring Data as required by EPL 1323

and

Noise Monitoring Data for Development Consents for SSD
9526 and DA 106-04-00

February 2025

1 INTRODUCTION

The Maxwell Underground Coal Mine Project is owned by Maxwell Ventures (Management) Pty Limited. This report has been compiled to present environmental monitoring data for the Maxwell Underground Coal Mine Project Environment Protection Licence 1323. This report complies with Section 66(6) of the *Protection of the Environment Operations Act 1997*.

This report also provides the noise monitoring requirements of Development Consent 9526 for the Maxwell Underground Coal Mine Project and Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur.

A summary of the Licence details is provided in **Table 1**.

Table 1. A summary of licence and report details

Environment Protection Licence Number	1323
Licensee Details	Maxwell Ventures (Management) Pty Limited Private Mail Bag 9 Muswellbrook NSW 2333
Premises	Maxwell Underground Coal Mine Project Thomas Mitchell Drive Muswellbrook NSW 2333
Link to the EPA Register	http://app.epa.nsw.gov.au/prpoeoapp/
Reporting Month	February 2025
Date of Publication	31 March 2025
Version	1
Correction Log	-

2 MONITORING RESULTS

Air quality monitoring results are provided in **Table 2**.

Blast monitoring results are provided in **Table 3**.

Noise monitoring results are provided in **Table 4** to Error! Reference source not found..

A map of the monitoring locations is provided in **Appendix 1**.

Table 2. Air quality monitoring results for the reporting period

EPA identification no.	Sampling point	Sampling period start date	Sampling period finished date	Unit of measure	Averaging period	Monitoring frequency	Minimum value	Mean value	Median value	Maximum value
8	ES-01	01/02/2025	28/02/2025	micrograms per cubic metre	5 minutes	Continuous	0	18	13	174
9	ES-02	01/02/2025	28/02/2025	micrograms per cubic metre	1 minute	Continuous	0	16	12	15,414
10	ES-03	01/02/2025	28/02/2025	micrograms per cubic metre	1 minute	Continuous	0	12	10	8,946
11	ES-04	01/02/2025	28/02/2025	micrograms per cubic metre	5 minutes	Continuous	0	32	30	96

Palas AQ-Guard Smart devices were installed at site ES-02 on 27/1/23 and 30/1/23 at ES-03. Sites ES-01 and ES-04 have a Met One E-Sampler device. Refer to previous monthly reports for further details of the history of any significant downtime for each device. The very high maximums for ES-02 and ES-03 both occurred on 20/2/25 and were due to the scheduled annual calibration of those devices.

Table 3. Blast monitoring results for the reporting period

EPA identification no.	Sampling point	Time and Date of blast	Date data obtained	Monitored variable	Unit of measure	Averaging period	Measured value*	100 percentile limit for all blasts during each reporting period	95 percentile limit for all blasts during reporting period	Exceedance (yes/no)	Observations
13	Monitoring location BM1 (Antiene)	No blast during the reporting period	-	Airblast overpressure	dB (Lin Peak)	Instantaneous	-	120	115	-	-
14	Monitoring location BM2 (Plashett)						-			-	
15	Monitoring location BM3 (Bowfield)						-			-	
13	Monitoring location BM1 (Antiene)			Ground vibration peak particle velocity	mm/second	Instantaneous	-	10	5	-	-
14	Monitoring location BM2 (Plashett)						-			-	
15	Monitoring location BM3 (Bowfield)						-			-	

* The measured value presented is the maximum measured value 15 minutes prior to and 15 minutes after the blast. Whilst the blast monitor measures continuously, measured levels were either very low or did not exceed background levels, and hence no specific measurements can be attributed to the blast. The reporting period for the EPL is 1 May to 30 April each year.

Table 4. Noise monitoring results (dB(A)) for 1 February 2025 compared to the noise criteria in EPL1323 and Development Consent SSD 9526

1 February 2025 – Noise Monitoring Results															
EPA identification no.	Sampling point	Day (L _A eq (15 minute))			Evening (L _A eq (15 minute))			Night (L _A eq (15 minute))			Night (L _{A1} (1 minute))			Exceedance (yes/no)	Observations
		Criteria	Noise Level, Total	Noise Level, MU ¹	Criteria	Noise Level, Total	Noise Level, MU ¹	Criteria	Noise Level, Total	Noise Level, MU ¹	Criteria	Noise Level, Total	Noise Level, MU ¹		
16	NM1	45	57	NA	41	55	NA	41	52	NA	52	78	NA	No	Project inaudible
17	NM2	44	38	NA	40	49	NA	40	32	NA	52	56	NA	No	Project inaudible
18	NM3	40	52	NA	35	54	NA	35	27	NA	52	46	NA	No	Project inaudible
-	NM4	40	57	NA	35	54	NA	35	26	NA	52	53	NA	No	Project inaudible
Additional Information															
Date of Final Report	5 March 2025														
Weather Conditions	Wind speed 2.1 – 10.7 m/s. No rain during monitoring.														
Notes	Measured noise sources included traffic, birds, insects, and a train. The Maxwell Underground Coal Mine Project was inaudible at all locations and times. 1. NA - MU was inaudible or not quantifiable (i.e <20dB(A))														

Table 5. Noise monitoring results (dB(A)) for 2 February 2025 compared to the noise criteria in EPL1323 and Development Consent SSD 9526

2 February 2025 – Noise Monitoring Results															
EPA identification no.	Sampling point	Day (L _A eq (15 minute))			Evening (L _A eq (15 minute))			Night (L _A eq (15 minute))			Night (L _{A1} (1 minute))			Exceedance (yes/no)	Observations
		Criteria	Noise Level, Total	Noise Level, MU ¹	Criteria	Noise Level, Total	Noise Level, MU ¹	Criteria	Noise Level, Total	Noise Level, MU ¹	Criteria	Noise Level, Total	Noise Level, MU ¹		
16	NM1	45	55	NA	41	53	NA	41	28	NA	52	47	NA	No	Project inaudible
17	NM2	44	50	NA	40	52	NA	40	43	NA	52	59	NA	No	Project inaudible
18	NM3	40	57	NA	35	53	NA	35	39	NA	52	48	NA	No	Project inaudible
-	NM4	40	57	NA	35	56	NA	35	35	NA	52	52	NA	No	Project inaudible
Additional Information															
Date of Final Report	5 March 2025														
Weather Conditions	Wind speed 2.5 – 7.4 m/s. No rain during monitoring.														
Notes	Measured noise sources included traffic, birds, and insects. The Maxwell Underground Coal Mine Project was inaudible at all locations and times. 1. NA - MU was inaudible or not quantifiable (i.e <20dB(A))														

Table 6. Noise monitoring results (dB(A)) for 3 February 2025 compared to the noise criteria in EPL1323 and Development Consent SSD 9526

3 February 2025 – Noise Monitoring Results															
EPA identification no.	Sampling point	Day (L _A eq (15 minute))			Evening (L _A eq (15 minute))			Night (L _A eq (15 minute))			Night (L _{A1} (1 minute))			Exceedance (yes/no)	Observations
		Criteria	Noise Level, Total	Noise Level, MU ¹	Criteria	Noise Level, Total	Noise Level, MU ¹	Criteria	Noise Level, Total	Noise Level, MU ¹	Criteria	Noise Level, Total	Noise Level, MU ¹		
16	NM1	45	60	NA	41	60	NA	41	32	NA	52	55	NA	No	Project inaudible
17	NM2	44	48	NA	40	46	NA	40	33	NA	52	55	NA	No	Project inaudible
18	NM3	40	61	NA	35	63	NA	35	34	NA	52	54	NA	No	Project inaudible
-	NM4	40	61	NA	35	61	NA	35	37	NA	52	68	NA	No	Project inaudible
Additional Information															
Date of Final Report	5 March 2025														
Weather Conditions	Wind speed 2.4 – 9.0 m/s. No rain during monitoring.														
Notes	Measured noise sources included traffic, insects, sheep, bats, and aeroplanes. The Maxwell Underground Coal Mine Project was inaudible at all locations and times. 1. NA - MU was inaudible or not quantifiable (i.e <20dB(A))														

Table 7. Noise monitoring results (dB(A)) for 1 February 2025 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

1 February 2025 – Noise Monitoring Results (Rail Loop & Spur)								
EPA identification no.	Sampling point	Day (L _A eq (15 minute))		Evening (L _A eq (15 minute))		Night (L _A eq (15 minute))		Exceedance (yes/no)
		Criteria	Noise Level ^{1,2}	Criteria	Noise Level ^{1,2}	Criteria	Noise Level ^{1,2}	
16	NM1	40	NA	40	22	40	NA	No
17	NM2	40	NA	40	NA	40	NA	No
NOTES:								
1. Maxwell Rail Loop and Antiene Rail Spur noise contribution only 2. NA - Maxwell Rail Loop and Antiene Rail spur was inaudible or not quantifiable (i.e <20dB(A))								

Table 8. Noise monitoring results (dB(A)) for 2 February 2025 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

2 February 2025 – Noise Monitoring Results (Rail Loop & Spur)								
EPA identification no.	Sampling point	Day (L _{A eq} (15 minute))		Evening (L _{A eq} (15 minute))		Night (L _{A eq} (15 minute))		Exceedance (yes/no)
		Criteria	Noise Level ^{1,2}	Criteria	Noise Level ^{1,2}	Criteria	Noise Level ^{1,2}	
16	NM1	40	NA	40	NA	40	NA	No
17	NM2	40	NA	40	NA	40	NA	No
NOTES:								
1. Noise level = Maxwell Rail Loop and Antiene Rail Spur noise contribution only 2. NA - Maxwell Rail Loop and Antiene Rail spur was inaudible or not quantifiable (i.e <20dB(A))								

Table 9. Noise monitoring results (dB(A)) for 3 February 2025 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

3 February 2025 – Noise Monitoring Results (Rail Loop & Spur)								
EPA identification no.	Sampling point	Day (L _A eq (15 minute))		Evening (L _A eq (15 minute))		Night (L _A eq (15 minute))		Exceedance (yes/no)
		Criteria	Noise Level ^{1,2}	Criteria	Noise Level ^{1,2}	Criteria	Noise Level ^{1,2}	
16	NM1	40	NA	40	NA	40	NA	No
17	NM2	40	NA	40	NA	40	NA	No
NOTES:								
1. Noise level = Maxwell Rail Loop and Antiene Rail Spur noise contribution only 2. NA - Maxwell Rail Loop and Antiene Rail spur was inaudible or not quantifiable (i.e <20dB(A))								

APPENDIX 1 – MAP OF MONITORING LOCATIONS

