



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

August 2024

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	August 2024
Date of Publication	18 September 2024
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 **Table 9**.

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

Table 2. Air quality monitoring results for August 2024

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	01/08/2024	31/08/2024	micrograms per cubic metre	5 minutes	Continuous	0	54	511	5342
9	ES-02	01/08/2024	31/08/2024	micrograms per cubic metre	1 minute	Continuous	0	11	10	156
10	ES-03	01/08/2024	31/08/2024	micrograms per cubic metre	1 minute	Continuous	0	11	9	200
11	ES-04	01/08/2024	31/08/2024	micrograms per cubic metre	5 minutes	Continuous	0	12	11	155

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 continue to have the Met One E-Sampler device. Refer to previous monthly reports for further details of the history of any downtime for each device. The device at ES-02 stopped transmitting data at 11:50pm 05/08/2024, suspected to be as a result of an extended cloudy period resulting in reduced solar input to the batteries. The device was restarted again on 6/08/24 however data flatlined at near-zero. The device was swapped out for a hire E-sampler on 23/08/2024. Data for the E-Sampler at ES-04 was temporarily offline between 3.01AM and 11:30am on 16/08/24 which coincided with the cloudy period.

Table 3. Blast monitoring results for August 2024

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 06 August 2024 compared to the noise criteria in EPL1323 and Development Consent SSD 9526

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 dB(A)	Noise Level	Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level		
16	NM1	45	62	41	63	41	62	52	81	No	Project inaudible
17	NM2	44	41	40	34	40	42	52	46	No	Project inaudible
18	NM3	40	58	35	58	35	40	52	62	No	Project inaudible
-	NM4	40	62	35	67	35	61	52	83	No	Project inaudible
Additional Information											
Date of Final Report	5 September 2024										
Weather Conditions	Wind speed 0.6 – 4.0 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, and insects. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

Table 5. Noise monitoring results (dB(A)) for 07 August 2024 compared to the noise criteria in EPL1323 and Development Consent SSD 9526

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	Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level		
16	NM1	45	61	41	65	41	64	52	80	No	Project inaudible
17	NM2	44	36	40	43	40	44	52	51	No	Project inaudible
18	NM3	40	56	35	55	35	54	52	76	No	Project inaudible
-	NM4	40	64	35	62	35	57	52	82	No	Project inaudible
Additional Information											
Date of Final Report	5 September 2024										
Weather Conditions	Wind speed 0.7 – 2.8 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, and insects. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

Table 6. Noise monitoring results (dB(A)) for 08 August 2024 compared to the noise criteria in EPL1323 and Development Consent SSD 9526

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	Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level		
16	NM1	45	63	41	64	41	46	52	81	No	Project inaudible
17	NM2	44	32	40	44	40	42	52	50	No	Project inaudible
18	NM3	40	65	35	58	35	51	52	69	No	Project inaudible
-	NM4	40	59	35	65	35	63	52	88	No	Project inaudible
Additional Information											
Date of Final Report	5 September 2024										
Weather Conditions	Wind speed 0.7 – 2.8 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, insects, a train, and a nearby coal mine. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

Table 7. Noise monitoring results (dB(A)) for 06 August 2024 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

6 th August 2024 – 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. 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 07 August 2024 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

07 August 2024 – 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	N4	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 08 August 2024 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

08 August 2024 – 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	35	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

