



Maxwell Underground Coal Mine
Project
Environmental Monitoring Data
July 2023

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*.

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	July 2023
Date of Publication	29 August 2023
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**.

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

Table 2. Air quality monitoring results for July 2023

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	01/07/2023	31/07/2023	micrograms per cubic metre	5 minutes	Continuous	0	34	8	8060
9	ES-02	01/07/2023	31/07/2023	micrograms per cubic metre	5 minutes	Continuous	0	12	10	161
10	ES-03	01/07/2023	31/07/2023	micrograms per cubic metre	5 minutes	Continuous	0	10	8	99
11	ES-04	01/07/2023	31/07/2023	micrograms per cubic metre	5 minutes	Continuous	0	12	11	82

A Palas AQ-Guard Smart device was 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. The solar power system at the Palas AQ-Guard at ES-02 failed on 8/6/23, and following acquisition of replacement parts, was returned to service on 29/6/23. The device at ES-02 again experienced power failure from 3–5/7/23 and 8–10/7/23 due to extended cloudy/rain periods combined with a temporary non-IP rated solar regulator that had become wet and insufficient battery capacity. Replacement IP regulator installed 12/7 plus lithium batteries 27/7 to give significant additional power storage capacity. The AQ-Guard at site ES-03 failed in April, and on 26/4/23 was replaced with the old E-Sampler from site ES-02; on 6/7/23 a replacement AQ-Guard Smart was reinstalled.

Table 3. Blast monitoring results for July 2023

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 for 19 July 2023

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	66	41	62	41	61	52	85	No	Project inaudible
17	NM2	44	37	40	32	40	39	52	70	No	Project inaudible
18	NM3	40	57	35	56	35	52	52	72	No	Project inaudible
-	NM4	40	67	35	61	35	53	52	77	No	Project inaudible
Additional Information											
Date of Final Report	10 August 2023										
Weather Conditions	Wind speed 0.9 – 4.9 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, trains, and aeroplanes. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

Table 5. Noise monitoring results for 20 July 2023

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	67	41	65	41	56	52	83	No	Project inaudible
17	NM2	44	44	40	35	40	31	52	54	No	Project inaudible
18	NM3	40	57	35	57	35	47	52	70	No	Project inaudible
-	NM4	40	67	35	67	35	62	52	86	No	Project inaudible
Additional Information											
Date of Final Report	10 August 2023										
Weather Conditions	Wind speed 2.6 – 5.3 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, Hunter River, and trains. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

Table 6. Noise monitoring results for 21 July 2023

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	68	41	66	41	64	52	85	No	Project inaudible
17	NM2	44	39	40	34	40	33	52	51	No	Project inaudible
18	NM3	40	60	35	60	35	54	52	71	No	Project inaudible
-	NM4	40	67	35	67	35	52	52	74	No	Project inaudible
Additional Information											
Date of Final Report	10 August 2023										
Weather Conditions	Wind speed 1.0 – 7.0 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, and the Hunter River. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

APPENDIX 1 – MAP OF MONITORING LOCATIONS

