



Maxwell Underground Coal Mine Project

Environmental Monitoring Data

April 2022

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	April 2022
Date of Publication	30 May 2022
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**.

Maps of monitoring locations are provided in **Appendix 1**.

Table 2. Air quality monitoring results for April 2022

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	01/04/2022	30/04/2022	micrograms per cubic metre	5 minutes	Continuous	0	19	9	1718
9	ES-02	01/04/2022	30/04/2022	micrograms per cubic metre	5 minutes	Continuous	0	7	7	82
10	ES-03	01/04/2022	30/04/2022	micrograms per cubic metre	5 minutes	Continuous	0	146	7	4037
11	ES-04	01/04/2022	30/04/2022	micrograms per cubic metre	5 minutes	Continuous	0	12	12	62

As stated in previous reports, a large range of values from the E-Sampler at site ES-03 have been recorded and are deemed spurious. To enable further diagnosis, a replacement device was temporarily installed at ES-03 on 3 February 2022. Due to a failure of the solar panel controller, the replacement did not record data from 28/03/2022 to 5/04/2022, when the controller was replaced and the original E-Sampler was re-installed. Equipment performance was deemed acceptable until 17/4/22 0:55hrs when PM10 values ranged from >1500µg/m3 to 4000µ/m3 and did so intermittently for short periods throughout the remainder of the month. The scheduled calibration on 28/4/22 noted a 'Solenoid error' on the operating screen; all other checks passed (leak check, temperature, pressure, flow, battery etc). Due to the ongoing issues with the E-Samplers and a lack of alternative hire equipment, Malabar conducted a review of alternatives, obtained a quotation for a replacement and in May 2022 prepared an application to the EPA to vary the EPL to permit an alternative to the E-Sampler.

Table 3. Blast monitoring results for April 2022

EPA identification no.	Sampling point	Time and Date of blast	Date final report obtained	Unit of measure	Averaging period	Measured value	100 percentile limit	95 percentile limit	Exceedance (yes/no)	Observations
13	Monitoring location BM1	No blasting occurred during April 2022								
14	Monitoring location BM2									
15	Monitoring location BM3									

Table 4. Noise monitoring results for 20 April 2022

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	65	41	64	41	52	52	77	No	Project inaudible
17	NM2	44	44	40	41	40	40	52	61	No	Project inaudible
18	NM3	40	57	35	54	35	51	52	75	No	Project inaudible
-	NM4	40	71	35	68	35	60	52	89	No	Project inaudible
Additional Information											
Date of Final Report	16 May 2022										
Weather Conditions	Wind speed 1.3–4.7 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, insects, frogs. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

Table 5. Noise monitoring results for 21 April 2022

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	59	41	50	52	79	No	Project inaudible
17	NM2	44	52	40	44	40	38	52	59	No	Project inaudible
18	NM3	40	59	35	57	35	48	52	72	No	Project inaudible
-	NM4	40	69	35	69	35	63	52	88	No	Project inaudible
Additional Information											
Date of Final Report	16 May 2022										
Weather Conditions	Wind speed 1.7–5.4 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, insects, frogs. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

Table 6. Noise monitoring results for 22 April 2022

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	63	41	61	52	85	No	Project inaudible
17	NM2	44	43	40	40	40	40	52	66	No	Project inaudible
18	NM3	40	59	35	56	35	52	52	72	No	Project inaudible
-	NM4	40	73	35	69	35	59	52	82	No	Project inaudible
Additional Information											
Date of Final Report	16 May 2022										
Weather Conditions	Wind speed 1.0–4.6 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, insects, and frogs. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

APPENDIX 1 – MAPS OF MONITORING LOCATIONS



0 1000 2000 m

Maxwell UG Project
Air Quality Monitoring Locations

Drawn by: DM
Date: [11/05/2021]
CRS: GDA94/MGA zone 56
Aerial Image: Google Satellite 2020





	<p>0 1000 2000 m</p> 	<p>Legend</p> <p>Development Application Area</p> <p>Indicative Surface Development Area</p> <p>Extent of Conventional Subsidence</p>	<p>Monitoring Locations:</p> <p>Attended Noise Monitoring</p> <p>Real-time Noise Monitor</p> <p>Blast Monitor</p> <p>Weather Station</p>	<p>Maxwell UG Project</p> <p>Noise and Blast Monitoring Locations</p>
				<p>Drawn by: DM</p> <p>Date: 7/2/22</p> <p>CRS: GDA94/MGA zone 56</p> <p>Aerial image: Google Satellite 2020</p>