



Maxwell Underground Coal Mine  
Project  
Environmental Monitoring Data  
January 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**

<b>Environment Protection Licence Number</b>	1323
<b>Licensee Details</b>	Maxwell Ventures (Management) Pty Limited Private Mail Bag 9 Muswellbrook NSW 2333
<b>Premises</b>	Maxwell Underground Coal Mine Project Thomas Mitchell Drive Muswellbrook NSW 2333
<b>Link to the EPA Register</b>	<a href="http://app.epa.nsw.gov.au/prpoeoapp/">http://app.epa.nsw.gov.au/prpoeoapp/</a>
<b>Reporting Month</b>	January 2023
<b>Date of Publication</b>	24 March 2023
<b>Version</b>	1
<b>Correction Log</b>	-

## 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 January 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	01/01/2023	31/01/2023	micrograms per cubic metre	5 minutes	Continuous	0	15	12	371
9	ES-02	01/01/2023	31/01/2023	micrograms per cubic metre	5 minutes	Continuous	0	12	11	60
10	ES-03	01/01/2023	31/01/2023	micrograms per cubic metre	5 minutes	Continuous	0	3587	3700	4003
11	ES-04	01/01/2023	31/01/2023	micrograms per cubic metre	5 minutes	Continuous	0	13	12	590

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. Monthly scheduled calibrations note a 'Solenoid error' on the operating screen; all other checks passed (leak check, temperature, pressure, flow, battery etc). The same scheduled calibrations for ES-02 recorded a 'Detector error' however there is less effect on the data. 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 June 2022 submitted an application to the EPA to vary the EPL to permit an alternative to the E-Sampler. Malabar has continued to closely monitor the situation with this equipment and received an EPL amendment to enable the replacement of the faulty equipment with an alternative device. In September 2022 Malabar issued a purchase order to a supplier for the provision of two new PALAS AQ Smart devices; following receipt of funds, the supplier advised that Goods were ordered on 17 October 2022; the lead time was estimated as being 6–8 weeks plus delivery time from Germany. The units were received in January and as of the date of issue of this report are being commissioned; it is anticipated they will be deployed at locations ES-02 and ES-03 in February 2023.

**Table 3. Blast monitoring results for January 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 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 24 January 2023**

EPA identification no.	Sampling point	Day (L <sub>A</sub> eq (15 minute))		Evening (L <sub>A</sub> eq (15 minute))		Night (L <sub>A</sub> eq (15 minute))		Night (L <sub>A1</sub> (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	54	52	77	No	Project inaudible
17	NM2	44	44	40	48	40	35	52	55	No	Project inaudible
18	NM3	40	53	35	55	35	41	52	52	No	Project inaudible
-	NM4	40	67	35	64	35	62	52	87	No	Project inaudible
<b>Additional Information</b>											
Date of Final Report	20 February 2023										
Weather Conditions	Wind speed 0.6 – 5.6 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, train, birds, frogs, and insects. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

**Table 5. Noise monitoring results for 25 January 2023**

EPA identification no.	Sampling point	Day (L <sub>A</sub> eq (15 minute))		Evening (L <sub>A</sub> eq (15 minute))		Night (L <sub>A</sub> eq (15 minute))		Night (L <sub>A1</sub> (1 minute))		Exceedance (yes/no)	Observations
		Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level		
16	NM1	45	69	41	63	41	59	52	82	No	Project inaudible
17	NM2	44	48	40	45	40	35	52	60	No	Project inaudible
18	NM3	40	57	35	56	35	52	52	72	No	Project inaudible
-	NM4	40	69	35	68	35	63	52	88	No	Project inaudible
<b>Additional Information</b>											
Date of Final Report	20 February 2023										
Weather Conditions	Wind speed 1.4 – 9.0 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 6. Noise monitoring results for 26 January 2023**

EPA identification no.	Sampling point	Day (L <sub>A</sub> eq (15 minute))		Evening (L <sub>A</sub> eq (15 minute))		Night (L <sub>A</sub> eq (15 minute))		Night (L <sub>A1</sub> (1 minute))		Exceedance (yes/no)	Observations
		Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level		
16	NM1	45	61	41	62	41	60	52	80	No	Project inaudible
17	NM2	44	49	40	52	40	39	52	67	No	Project inaudible
18	NM3	40	54	35	51	35	48	52	68	No	Project inaudible
-	NM4	40	69	35	59	35	59	52	81	No	Project inaudible
Additional Information											
Date of Final Report	20 February 2023										
Weather Conditions	Wind speed 2.1 – 9.0 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, insects, wind, and frogs. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										



# APPENDIX 1 – MAP OF MONITORING LOCATIONS

