MALABAR

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

November 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	November 2024
Date of Publication	13 January 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 Error! Reference source not found..

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

Table 2. Air quality monitoring results for November 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	01/11/2024	30/11/2024	micrograms per cubic metre	5 minutes	Continuous	0	21	13	766
9	ES-02	01/11/2024	30/11/2024	micrograms per cubic metre	1 minute	Continuous	0	12	10	533
10	ES-03	01/11/2024	30/11/2024	micrograms per cubic metre	1 minute	Continuous	0	12	10	1160
11	ES-04	01/11/2024	30/11/2024	micrograms per cubic metre	5 minutes	Continuous	0	18	16	235

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 downtime for each device.

Table 3. Blast monitoring results for November 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 14 November 2024 compared to the noise criteria in EPL1323 and Development Consent SSD 9526

14th November 2024 – 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	62	NA	41	63	NA	41	50	NA	52	73	NA	No	Project inaudible
17	NM2	44	42	NA	40	51	NA	40	40	NA	52	53	NA	No	Project inaudible
18	NM3	40	63	NA	35	62	NA	35	53	NA	52	71	NA	No	Project inaudible
-	NM4	40	64	NA	35	57	NA	35	45	NA	52	66	NA	No	Project inaudible

Additional Information	
Date of Final Report	4 December 2024
Weather Conditions	Wind speed 2.2 – 8.8 m/s. No rain during monitoring.
Notes	Measured noise sources included traffic, birds, insects, and trains. 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 15 November 2024 compared to the noise criteria in EPL1323 and Development Consent SSD 9526

15th November 2024 – 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	46	NA	41	55	NA	41	56	NA	52	81	NA	No	Project inaudible
17	NM2	44	33	NA	40	33	NA	40	45	NA	52	58	NA	No	Project inaudible
18	NM3	40	43	NA	35	37	NA	35	49	NA	52	71	NA	No	Project inaudible
-	NM4	40	40	NA	35	43	NA	35	39	NA	52	53	NA	No	Project inaudible
Additional Information															
Date of Final Report	4 December 2024														
Weather Conditions	Wind speed 3.2 – 7.6 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 6. Noise monitoring results (dB(A)) for 16 November 2024 compared to the noise criteria in EPL1323 and Development Consent SSD 9526

16th November 2024 – 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	53	NA	41	69	NA	41	56	NA	52	83	NA	No	Project inaudible
17	NM2	44	42	NA	40	38	NA	40	38	NA	52	64	NA	No	Project inaudible
18	NM3	40	57	NA	35	52	NA	35	33	NA	52	52	NA	No	Project inaudible
-	NM4	40	56	NA	35	58	NA	35	41	NA	52	76	NA	No	Project inaudible
Additional Information															
Date of Final Report	4 December 2024														
Weather Conditions	Wind speed 2.7 – 7.9 m/s. No rain during monitoring.														
Notes	Measured noise sources included traffic, birds, insects, wind, and a dog. 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 14 November 2024 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

14th November 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	23	40	25	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 15 November 2024 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

15th November 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	21	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 16 November 2024 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

16th November 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. 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