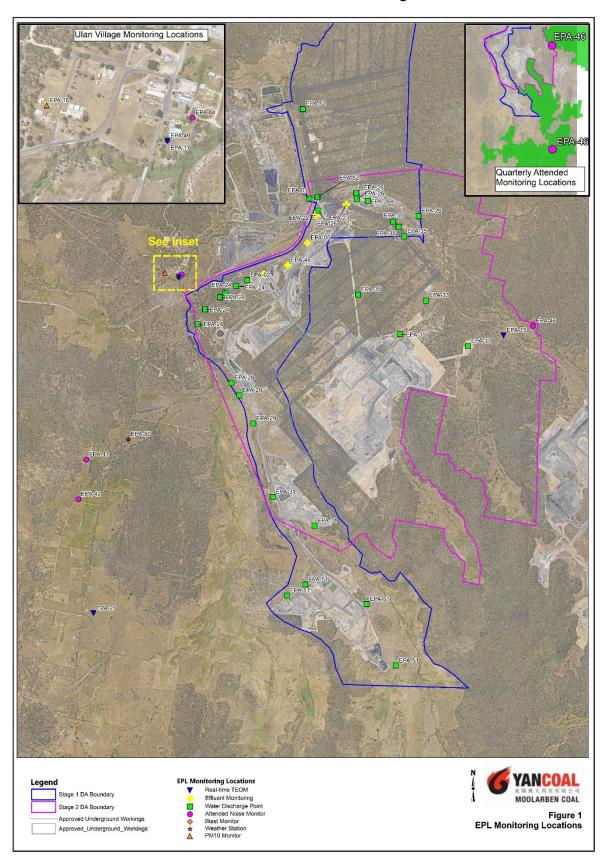




# Monthly Environmental Monitoring Report

For the Month Ending 30 September 2025

Name of Operation	Moolarben Coal Complex
Name of License Holder	Moolarben Coal Operations Pty Ltd
Premises	Moolarben Coal Mine
	12 Ulan-Wollar Rd, Ulan NSW 2850
Environmental Protection Licence Number	12932
EPL Link	https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=270376&SYSUID=1&LICID=12932
Reporting Period	01 September 2025 to 30 September 2025
Date last sampled data obtained	23 October 2025
Publication Date	24 October 2025
Version	1
Author	N.Potgieter
Approver	I.Flood



**EPL 12932 MCO Environmental Monitoring Network** 

# **Concentration Monitoring Summary**

# **Air Quality Monitoring**

EPL	Location	Pollutant	Unit of	EPL Monitoring	No. of Samples	12 Mo	nth Rolling A	verage	Annual	Exceedance
ID			Measure	Frequency	collected and analysed annually	Min Value	Mean Value	Max Value	concentration limit	(Yes/No)
16	PM01	PM10	μg/m³	Every 6 days	45	11.2	11.4	11.5	25	No
N/A	PM02	PM10	μg/m³	N/A	45	12.1	12.3	12.6	25	No
15	теом 6	PM10	μg/m³	Continuous	98.9%	17.3	17.6	17.8	N/A	N/A
17	TEOM 1	PM10	μg/m³	Continuous	98.9%	15.7	15.8	15.9	25	No
27	TEOM 7	PM10	μg/m³	Continuous	94.1%	8.3	8.3	8.5	25	No
27	TEOM 7	PM2.5	μg/m³	Continuous	94.1%	3.9	3.9	4.1	8	No
N/A	TEOM 4	PM10	μg/m³	N/A	98.4%	13.0	13.1	13.2	25	No

EPL ID	Location	Pollutant	Unit of	EPL Monitoring	No. of Samples		Monthly Data	1	24 hr concentration	Exceedance
			Measure	Frequency	collected and analysed for the month	Min Value Mean Value	Max	Value	limit	(Yes/No)
16	PM01	PM10	μg/m³	Every 6 days	5	2.9	4.8	9.5	50	No
N/A	PM02	PM10	μg/m³	N/A	5	4.0	7.3	12.6	50	No
15	ТЕОМ 6	PM10	μg/m³	Continuous (24 Hr Average)	96.7%	5.3	24.5	64.6	N/A	N/A
17	TEOM 1	PM10	μg/m³	Continuous (24 Hr Average)	100%	5.3	15.3	29.2	50	No
27	TEOM 7	PM10	μg/m³	Continuous (24 Hr Average)	96.7%	2.9	8.8	18.5	50	No
27	TEOM 7	PM2.5	μg/m³	Continuous (24 Hr Average)	96.7%	1.5	4.4	10.6	25	No
N/A	TEOM 4	PM10	μg/m³	N/A (24 Hr Average)	96.7%	4.2	12.0	22.0	50	No

# **Surface Water Quality Monitoring**

EPL ID	Location	Pollutant	Unit of	No. of Samples collected and	Date Sampled	Results
			Measure	analysed		
		Conductivity	μS/cm	1	09/09/2025	696
N/A	SW01	рН	рН	1	09/09/2025	8.3
		Total Suspended Solids	mg/L	1	09/09/2025	<5
		Conductivity	μS/cm	1	09/09/2025	674
N/A	SW02	рН	рН	1	09/09/2025	8.3
		Total Suspended Solids	mg/L	1	09/09/2025	<5
		Conductivity	μS/cm	0	09/09/2025	*
N/A	SW04	рН	рН	0	09/09/2025	*
		Total Suspended Solids	mg/L	0	09/09/2025	*
		Conductivity	μS/cm	1	09/09/2025	955
N/A	SW05	рН	рН	1	09/09/2025	7.2
		Total Suspended Solids	mg/L	1	09/09/2025	27
		Conductivity	μS/cm	0	09/09/2025	*
N/A	SW07	рН	рН	0	09/09/2025	*
		Total Suspended Solids	mg/L	0	09/09/2025	*
		Conductivity	μS/cm	1	09/09/2025	2883
N/A	SW08	рН	рН	1	09/09/2025	6.7
		Total Suspended Solids	mg/L	1	09/09/2025	<5
		Conductivity	μS/cm	1	09/09/2025	3020
N/A	SW09	рН	рН	1	09/09/2025	6.6
		Total Suspended Solids	mg/L	1	09/09/2025	30
		Conductivity	μS/cm	1	09/09/2025	631
N/A	SW12	рН	рН	1	09/09/2025	7.0
		Total Suspended Solids	mg/L	1	09/09/2025	14
		Conductivity	μS/cm	0	09/09/2025	*
N/A	SW15	рН	рН	0	09/09/2025	*
		Total Suspended Solids	mg/L	0	09/09/2025	*
		Conductivity	μS/cm	0	09/09/2025	*
N/A	SW16	рН	рН	0	09/09/2025	*
		Total Suspended Solids	mg/L	0	09/09/2025	*

#### MONTHLY ENVIRONMENTAL MONITORING REPORT

For the Month Ending 30 September 2025

EPL ID	Location	Pollutant	Unit of	No. of Samples collected and	Date Sampled	Results
			Measure	analysed		
		Conductivity	μS/cm	0	09/09/2025	*
N/A	SW17	рН	рН	0	09/09/2025	*
		Total Suspended Solids	mg/L	0	09/09/2025	*
		Conductivity	μS/cm	0	09/09/2025	*
N/A	SW18	рН	рН	0	09/09/2025	*
		Total Suspended Solids	mg/L	0	09/09/2025	*
		Conductivity	μS/cm	1	09/09/2025	687
N/A	SW22	рН	рН	1	09/09/2025	8.4
		Total Suspended Solids	mg/L	1	09/09/2025	<5
		Conductivity	μS/cm	0	09/09/2025	*
N/A	SW23	рН	рН	0	09/09/2025	*
		Total Suspended Solids	mg/L	0	09/09/2025	*
		Conductivity	μS/cm	0	09/09/2025	*
N/A	SW24	рН	рН	0	09/09/2025	*
		Total Suspended Solids	mg/L	0	09/09/2025	*

<sup>\*</sup> No flow

# Blasting

			Unit of		No. of Blasts during		Results			Exceedance	
	Location	Pollutant	Measure	Frequency	the reporting period	Min Value	Mean Value	Max Value	Limits dBL	(Yes/No)	
49	BM1 Ulan	Blast Overpressure	dBL	Every Blast	17	81.1	94.0	104.5	115 (95% of total Blasts over 12 months) 120 (100% of Blasts)	No	
	School	Ground Vibration	mm/s	Every Blast		0.06	0.14	0.33	5mm/s (95% of Blasts) 10mm/s (100% of Blasts)	No	
N/A	N/A BM5 Ridge	Blast Overpressure	dBL	Every Blast	17	80.3	95.3	108.2	115 (95% of total Blasts over 12 months) 120 (100% of Blasts)	No	
	Rd	Ground Vibration	mm/s	17	0.02	0.13	0.46	5mm/s (95% of Blasts) 10mm/s (100% of Blasts)	No		
N/A	BM8 N/A Moolarben Rd	Blast Overpressure	dBL	Every Blast	17	82.6	94.4	107.6	115 (95% of total Blasts over 12 months) 120 (100% of Blasts)	No	
		Ground Vibration	mm/s	Every Blast		0.01	0.08	0.30	5mm/s (95% of Blasts) 10mm/s (100% of Blasts)	No	

#### Noise

EPL ID	Location	Site ID	Monitoring Type	Frequency	Measured Level <sup>3,5,6</sup> LAeq dB (15min)	Measured Level <sup>4,5,6</sup> LA1,1dB (1min)	Noise Criteria <sup>1</sup>	Monitoring Completed during the period	Exceedance (Yes/No) <sup>1</sup>
44	Ulan Public School	NA1	Compliance - Attended	Monthly	IA	-	Daytime (07:00 – 18:00) LAeq, 15minute: 35 dB	Yes	N/A²
N/A	Cope Road (Receiver 258)	NA11	Management - Attended	Quarterly	-	-	-	-	-
N/A	Lagoons Road	NA2	Validation - Attended	Annually	-	-	-	-	-
42	Winchester Crescent	NA12	Compliance/Validation - Attended	Monthly	IA	IA	Night time (22:00 – 07:00) LAeq,15minute: 35 dB LA1,1minute: 45 dB	Yes	No
N/A	Upper Ridge Road (Receiver 176)	NA3	Validation - Attended	Annually	-	-	-	-	-
41	Lower Ridge Road	NA6	Compliance -Attended	Monthly	IA	IA	Night time (22:00 – 07:00) LAeq,15minute: 37 dB LA1, 1minute: 45 dB	Yes	No
N/A	Moolarben Road (Receiver 28)	NA10	Validation - Attended	Annually	-	-	-	-	-
46	Goulburn River National Park	GRNP	Compliance -Attended	Annually	-	-	-	-	No
46	Munghorn Gap Nature Reserve	MGNR	Compliance -Attended	Annually	-	-	-	-	No

- 1. Noise limits are adjusted by +5 dB during 'very noise-enhancing meteorological conditions' in accordance with the NPfl.
- 2. Ulan School was in recess and not in use, therefore noise limits were not applicable in accordance with the consents.
- 3. Site-only L<sub>Aeq,15minute</sub>, includes modifying factor penalties, if applicable
- 4. Site-only L<sub>A1,1minute</sub> based on measured site-only L<sub>Amax</sub>
- 5. Where site-only noise levels are very low or are masked by other sources and are at least 5 dB lower than relevant limits, then a maximum estimate may be provided such as "<20 dB".
- 6. IA is Inaudible. When site only noise is noted as IA, there was no noise from the source of interest audible at the monitoring location.

# **Effluent Discharge Points**

EPL ID	Pollutant	Unit of Measure	No. of samples	No. of Samples	Date Sampled	Result
			required by Licence	collected and analysed		
	BOD	mg/L	Quarterly		*	
	Nitrogen (total)	mg/L	Quarterly		*	
5	Oil and Grease	mg/L	Quarterly		*	
3	рН	рН	Quarterly		*	
	Phosphorus (total)	mg/L	Quarterly		*	
	Total Suspended Solids	mg/L	Quarterly		*	
	BOD	mg/L	Quarterly		*	
	Nitrogen (total)	mg/L	Quarterly		*	
22	Oil and Grease	mg/L	Quarterly		*	
22	рН	рН	Quarterly		*	
	Phosphorus (total)	mg/L	Quarterly		*	
	Total Suspended Solids	mg/L	Quarterly		*	
	BOD	mg/L	Quarterly		*	
	Nitrogen (total)	mg/L	Quarterly		*	
23	Oil and Grease	mg/L	Quarterly		*	
23	рН	рН	Quarterly		*	
	Phosphorus (total)	mg/L	Quarterly		*	
	Total Suspended Solids	mg/L	Quarterly		*	
	BOD	mg/L	Quarterly		*	
	Nitrogen (total)	mg/L	Quarterly		*	
48	Oil and Grease	mg/L	Quarterly		*	
40	рН	рН	Quarterly		*	
	Phosphorus (total)	mg/L	Quarterly		*	
	Total Suspended Solids	mg/L	Quarterly		*	

<sup>\*</sup>Not sampled in September, next sample in November 2025.

# **Discharge Points**

EPL ID	Pollutant	Unit of Measure	No. of samples required by Licence	No. of Samples collected and analysed	Min Value	Mean Value	Max Value	100 <sup>th</sup> percentile concentration limit	Exceedance (Yes/No)
	Conductivity	μS/cm	Continuous during discharge	Continuous during discharge	128.0	183.1	253.0	619	No
	Oil and Grease	mg/L	Weekly during discharge	5	<5	<5	<5	10	No
1	рН	рН	Continuous during discharge	Continuous during discharge	7.1	7.4	7.8	6.5-8.5	No
1	Total Suspended Solids	mg/L	Weekly during discharge	5	<1	<1	<1	50	No
	Turbidity	NTU	Continuous during discharge	Continuous during discharge	0.0	0.0	0.0	25	No
	Discharge Volume	Megalitres per day	Continuous during discharge	Continuous during discharge	3.7	7.4	9.6	20 1	No
	Conductivity	μS/cm	Continuous during discharge					619	NA
	Oil and Grease	mg/L	Daily during discharge	No licensed discharges during the period –				10	NA
2	рН	рН	Continuous during discharge					6.5-8.5	NA
2	Total Suspended Solids	mg/L	Daily during discharge	No licensed di	iscriarges ut	50	NA		
	Turbidity	NTU	Continuous during discharge					25	NA
	Discharge Volume	Megalitres per day	Continuous during discharge					NA	NA
24	рН	рН	Daily during discharge					6.5-8.5	NA
	Total Suspended Solids	mg/L	Daily during discharge	No licensed di	ischarges du	iring the pe	riod	50	NA
	Turbidity	NTU	Daily during discharge					25	NA
26	рН	рН	Daily during discharge					6.5-8.5	NA
	Total Suspended Solids	mg/L	Daily during discharge	No licensed di	ischarges dι	iring the pe	riod	50	NA
	Turbidity	NTU	Daily during discharge					25	NA
28	Conductivity	μS/cm	Continuous during discharge					619	NA
	Oil and Grease	mg/L	Daily during discharge	1				10	NA
	рН	рН	Continuous during discharge	No licensed di	ischarges du	iring the pe	riod	6.5-8.5	NA
	Total Suspended Solids	mg/L	Daily during discharge				50	NA	
	Turbidity	NTU	Continuous during discharge	1				25	NA

EPL ID	Pollutant	Unit of Measure	No. of samples required by Licence	No. of Samples collected and	Min Value	Mean Value	Max Value	100 <sup>th</sup> percentile concentration	Exceedance (Yes/No)
				analysed				limit	
	Discharge Volume	Kilolitres per day	Continuous during discharge					NA	NA
29	рН	рН	Daily during discharge					6.5-8.5	NA
	Total Suspended Solids	mg/L	Daily during discharge	No licensed d	ischarges d	riod	50	NA	
	Turbidity	NTU	Daily during discharge	ng discharge					NA
31	pH pH Daily during discharge						6.5-8.5	NA	
	Total Suspended Solids	mg/L	Daily during discharge	No licensed discharges during the period				50	NA
	Turbidity	NTU	Daily during discharge					25	NA
35	рН	рН	Daily during discharge					6.5-8.5	NA
	Total Suspended Solids	mg/L	Daily during discharge	No licensed d	ischarges d	uring the pe	riod	50	NA
	Turbidity	NTU	Daily during discharge					25	NA
51	рН	рН	Daily during discharge				6.5-8.5	NA	
	Total Suspended Solids	mg/L	Daily during discharge	No licensed discharges during the period				50	NA
	Turbidity	NTU	Daily during discharge				25	NA	

<sup>1</sup> Only applies when mining operations at the premises include that undertaken in the areas "UG4".