



## MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 20221

**EPA Website Link:** [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

**Licensee:** Maules Creek Coal Mine Pty Ltd

**Licensee Address:** Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** January 2022

**Obtained Date:** 15 February 2022

**Publication Date:** 21 February 2022

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

**Table 1 – Wet Weather Discharge - Surface Water Monitoring**

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	No discharge at these locations this month.						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
7 (SD7)	TSS	mg/L	Special Frequency Discharge only							
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
9 (SD9)	TSS	mg/L	Special Frequency Discharge only							
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
36 (SD12)	TSS	mg/L	Special Frequency Discharge only							
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								

**Table 2 – Surface Water Monitoring – Mine Void**

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	14/01/2022	YES			10
	Conductivity	µs/cm							1100
	Oil & Grease	mg/L							<5
	pH	pH							8.15

### Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	Next sample March 2022				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							

**Table 4 – Noise Monitoring (Attended – Measured)**

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit LA1 (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	10/01/22	22:30	2.7	<20	35	<20	45	0.0	No
NM2	10/01/22	23:30	3.9	<20	39	<20	45	0.0	No
NM3	10/01/22	23:40	4.0	IA	35	IA	45	0.0	No
NM4	10/01/22	23:00	2.8	<20	35	20	45	0.0	No
NM5	10/01/22	22:00	2.1	IA	35	IA	45	0.0	No
NM6	10/01/22	23:56	3.8	IA	35	IA	45	0.0	No

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

*Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.*

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

**Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)**

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.



**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	12	92.5	105.1	120	No
	Vibration	mm/s		12	0.25	1.75	10	No

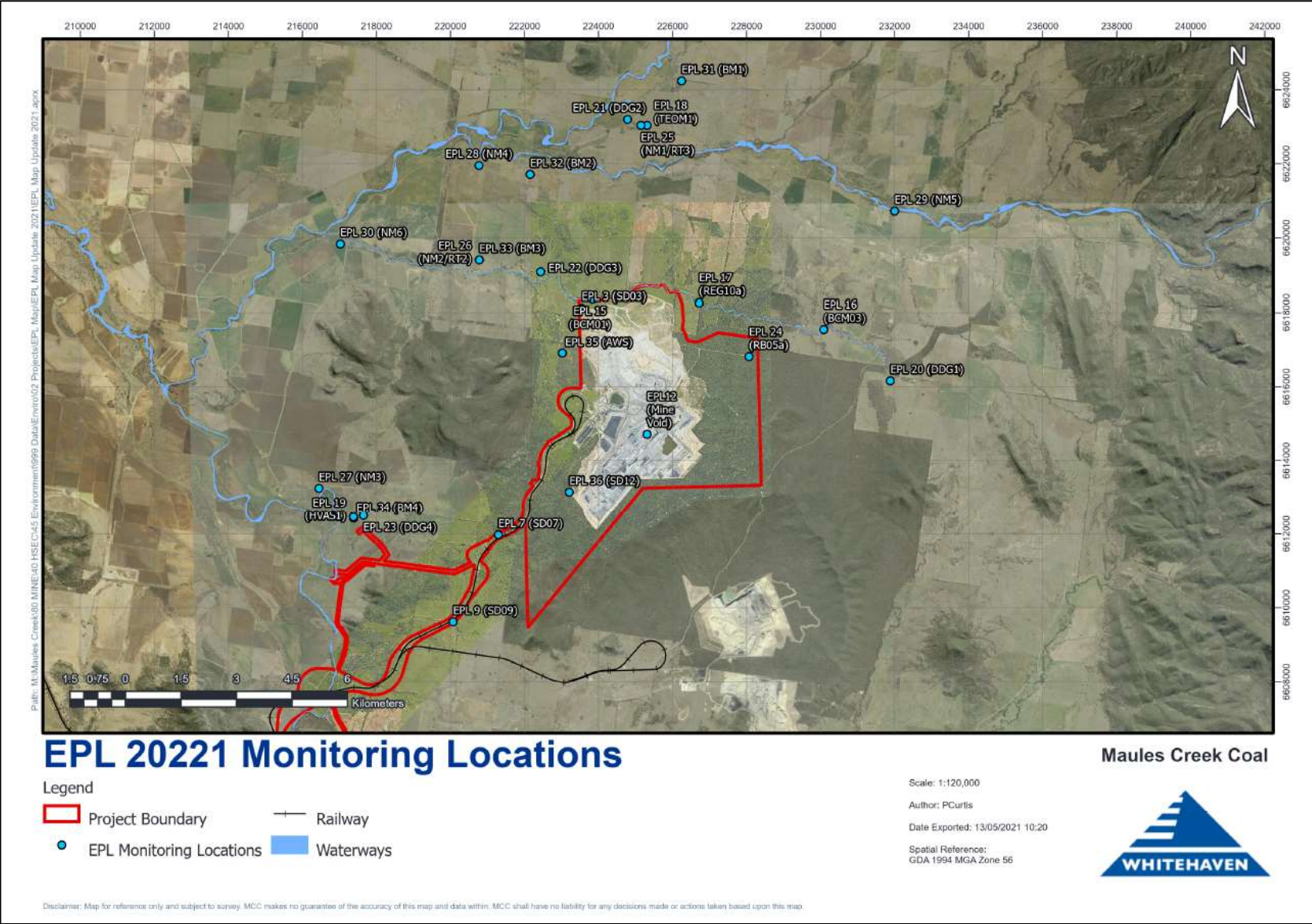
*Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).*

**Table 7 – Dust Monitoring (Limits Apply)**

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	6.2	30	No
19 (HVAS)	6 days	µg/m <sup>3</sup>	PM <sub>10</sub>	9.3	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m <sup>2</sup> month	1.5	4	No
21 (DDG2/MC2)	Monthly	g/m <sup>2</sup> month	2.0	4	No
22 (DDG3/MC3)	Monthly	g/m <sup>2</sup> month	1.6	4	No
23 (DDG4/MC4)	Monthly	g/m <sup>2</sup> month	1.4	4	No

Figure 1 – EPL 20221 Monitoring Locations





## MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 20221

**EPA Website Link:** [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

**Licensee:** Maules Creek Coal Mine Pty Ltd

**Licensee Address:** Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** February 2022

**Obtained Date:** 17 March 2022

**Publication Date:** 21 March 2022

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

### Table 1 - Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	No discharge at these locations this month.						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
7 (SD7)	TSS	mg/L	Special Frequency Discharge only							
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
9 (SD9)	TSS	mg/L	Special Frequency Discharge only	1	25/02/2022	7/03/2022	NA	NA	NA	129
	Conductivity	µs/cm								1220
	Oil & Grease	mg/L								<5
	pH	pH								8.02
36 (SD12)	TSS	mg/L	Special Frequency Discharge only	No discharge at these locations this month.						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								

### Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	0	Reporting due during March 2022 reporting period.				
	Conductivity	µs/cm							
	Oil & Grease	mg/L							
	pH	pH							

### Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	Next sample March 2022				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							

**Table 4 – Noise Monitoring (Attended – Measured)**

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit LA1 (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	8/02/2022	22:45	0.3	<25	35	<25	45	0.0	No
NM2	8/02/2022	23:15	0.5	<25	39	<25	45	0.0	No
NM3	9/02/2022	00:05	0.6	IA	35	IA	45	0.0	No
NM4	8/02/2022	23:45	0.1	<20	35	<20	45	0.0	No
NM5	8/02/2022	22:00	0.5	25	35	28	45	0.0	No
NM6	8/02/2022	00:09	0.8	<20	35	<20	45	0.0	No

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

*Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.*

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

**Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)**

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	10	96.6	113.2	120	No
	Vibration	mm/s		10	0.19	0.58	10	No

*Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).*

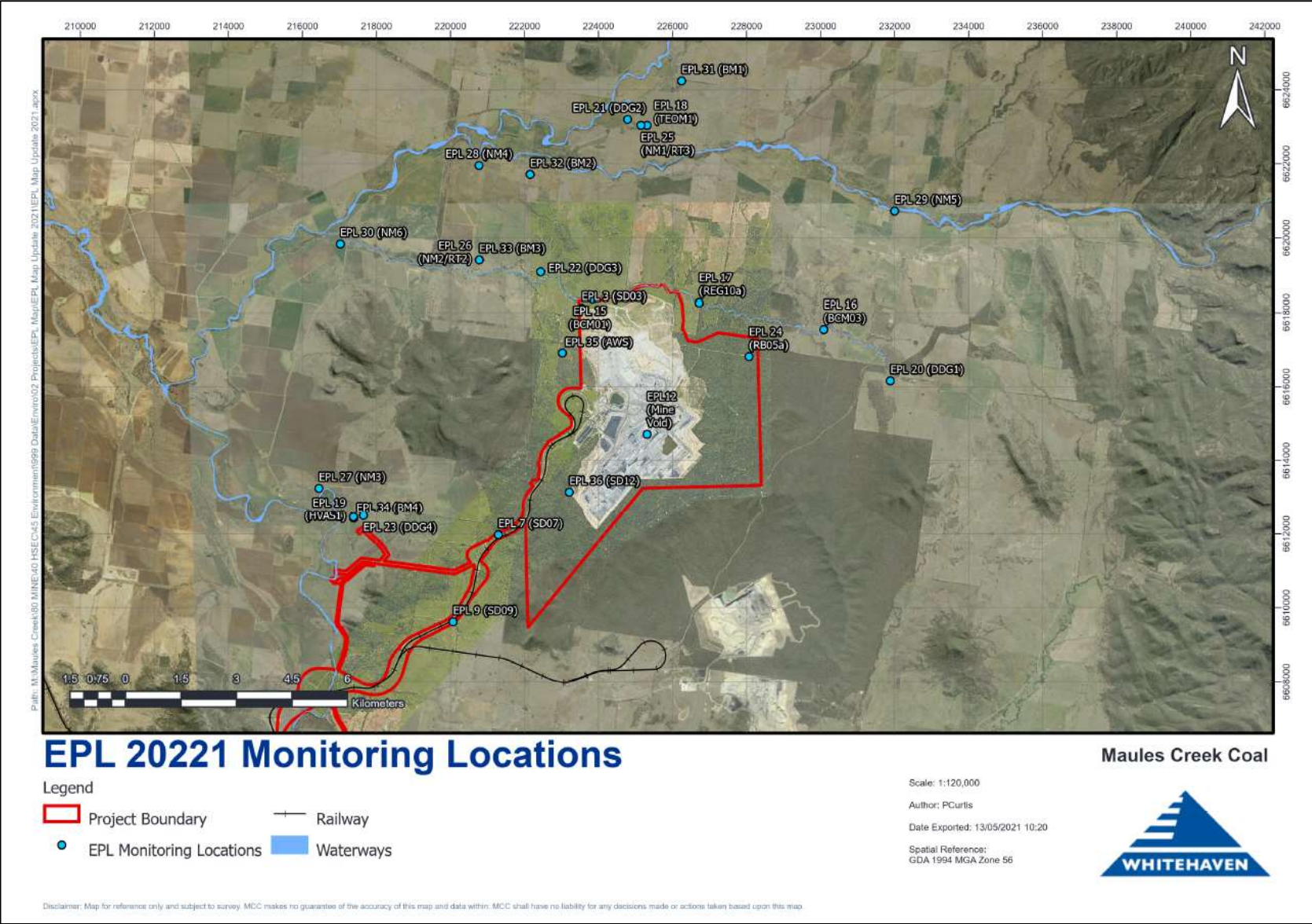
**Table 7 – Dust Monitoring (Limits Apply)**

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	6.0	30	No
19 (HVAS)	6 days	µg/m <sup>3</sup>	PM <sub>10</sub>	9.5	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m <sup>2</sup> month	1.5	4	No
21 (DDG2/MC2)	Monthly	g/m <sup>2</sup> month	1.7	4	No
22 (DDG3/MC3)	Monthly	g/m <sup>2</sup> month	1.5	4	No
23 (DDG4/MC4)	Monthly	g/m <sup>2</sup> month	1.3	4	No



Figure 1 – EPL 20221 Monitoring Locations







## MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 20221

**EPA Website Link:** [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

**Licensee:** Maules Creek Coal Mine Pty Ltd

**Licensee Address:** Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** March 2022

**Obtained Date:** 14<sup>th</sup> April 2022

**Publication Date:** 21st April 2022

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

# Monthly Monitoring Summary

### Table 1 - Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	No discharge at these locations this month						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
36 (SD12)	TSS	mg/L	Special Frequency Discharge only							
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								

### Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	15/03/2022	Yes			25
	Conductivity	µs/cm							1110
	Oil & Grease	mg/L							<5
	pH	pH							8.26

### Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	Dry – Next sample in June 2022				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Dry – Next sample in June 2022				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Dry – Next sample in June 2022				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	1	18/03/22	Yes			7.51
	Conductivity	µs/cm							1810
	TDS	mg/L							1070

**Table 4 – Noise Monitoring (Attended – Measured)**

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit L <sub>Aeq</sub> 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit L <sub>A1</sub> (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	7/03/2022	22:30	0.3	20	35	25	45	0.0	No
NM2	7/03/2022	23:30	0.6	25	39	40	45	0.0	No
NM3	7/03/2022	23:33	0.7	IA	35	IA	45	0.0	No
NM4	7/03/2022	23:00	0.6	<20	35	<20	45	0.0	No
NM5	7/03/2022	22:00	1.0	IA	35	IA	45	0.0	No
NM6	7/03/2022	23:56	0.3	<20	35	<20	45	0.0	No

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

*Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.*

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

**Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)**

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	8	94.3	110.6	120	No
	Vibration	mm/s		8	0.15	0.35	10	No

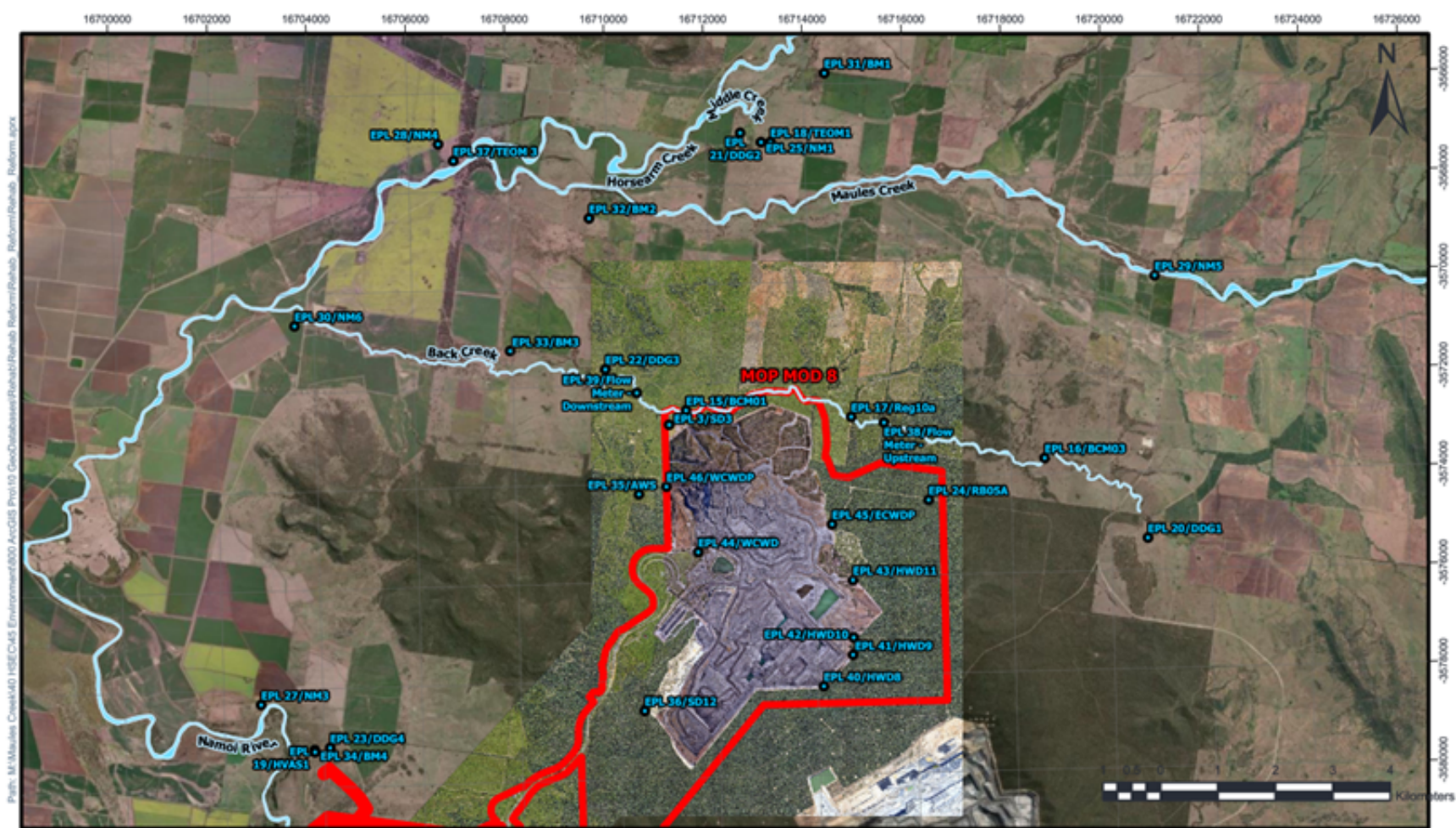
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

**Table 7 – Dust Monitoring (Limits Apply)**

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	5.9	30	No
37 (TEOM3)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	10.9	30	No
19 (HVAS)	5 days	µg/m <sup>3</sup>	PM <sub>10</sub>	9.4	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m <sup>2</sup> month	1.5	4	No
21 (DDG2/MC2)	Monthly	g/m <sup>2</sup> month	1.6	4	No
22 (DDG3/MC3)	Monthly	g/m <sup>2</sup> month	1.5	4	No
23 (DDG4/MC4)	Monthly	g/m <sup>2</sup> month	1.2	4	No

Figure 1 - EPL 20221 Monitoring Locations



EPL20221 Monitoring Locations - 2/08/2022

- Legend
- EPL Monitoring locations
  - 05 Project Boundary\_Boundaries
  - ▭ MCCM Project Boundary (Mod 8)

Scale: 1:88,442  
Author: shenanewman  
Date Exported: 16/09/2022 11:51 AM  
Spatial Reference  
Name: GDA2020 MGA Zone 56



Disclaimer: Map for reference only and subject to survey. MCC makes no guarantee of the accuracy of this map and data within. MCC shall have no liability for any decisions made or actions taken based upon this map.



## MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 20221

**EPA Website Link:** [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

**Licensee:** Maules Creek Coal Mine Pty Ltd

**Licensee Address:** Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** April 2022

**Obtained Date:** 13<sup>th</sup> May 2022

**Publication Date:** 16<sup>th</sup> May 2022

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

### Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	No discharge at these locations this month						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
36 (SD12)	TSS	mg/L	Special Frequency Discharge only							
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								

### Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	Next Sample May 2022					
	Conductivity	µs/cm							
	Oil & Grease	mg/L							
	pH	pH							



### Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value															
15 (BCM01)	pH	pH	Quarterly	0	Next sample in June 2022																			
	Conductivity	µs/cm																						
	TDS	mg/L																						
16 (BCM03)	pH	pH	Quarterly	0						Next sample in June 2022														
	Conductivity	µs/cm																						
	TDS	mg/L																						
17 (REG10A)	pH	pH	Quarterly	0											Next sample in June 2022									
	Conductivity	µs/cm																						
	TDS	mg/L																						
24 (RB05A)	pH	pH	Quarterly	0																Next sample in June 2022				
	Conductivity	µs/cm																						
	TDS	mg/L																						

**Table 4 – Noise Monitoring (Attended – Measured)**

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit L <sub>Aeq</sub> 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit L <sub>A1</sub> (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	12/04/2022	23:30	0.4	IA	35	IA	45	0.0	No
NM2	12/04/2022	23:00	0.1	28	39	31	45	0.0	No
NM3	12/04/2022	23:32	0.3	IA	35	IA	45	0.0	No
NM4	12/04/2022	22:30	0.8	26	35	32	45	0.0	No
NM5	13/04/2022	00:00	0.6	IA	35	IA	45	0.0	No
NM6	12/04/2022	23:00	0.5	25	35	28	45	0.0	No

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

*Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.*

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

**Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)**

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	6	93.25	107.9	120	No
	Vibration	mm/s		6	0.13	0.29	10	No

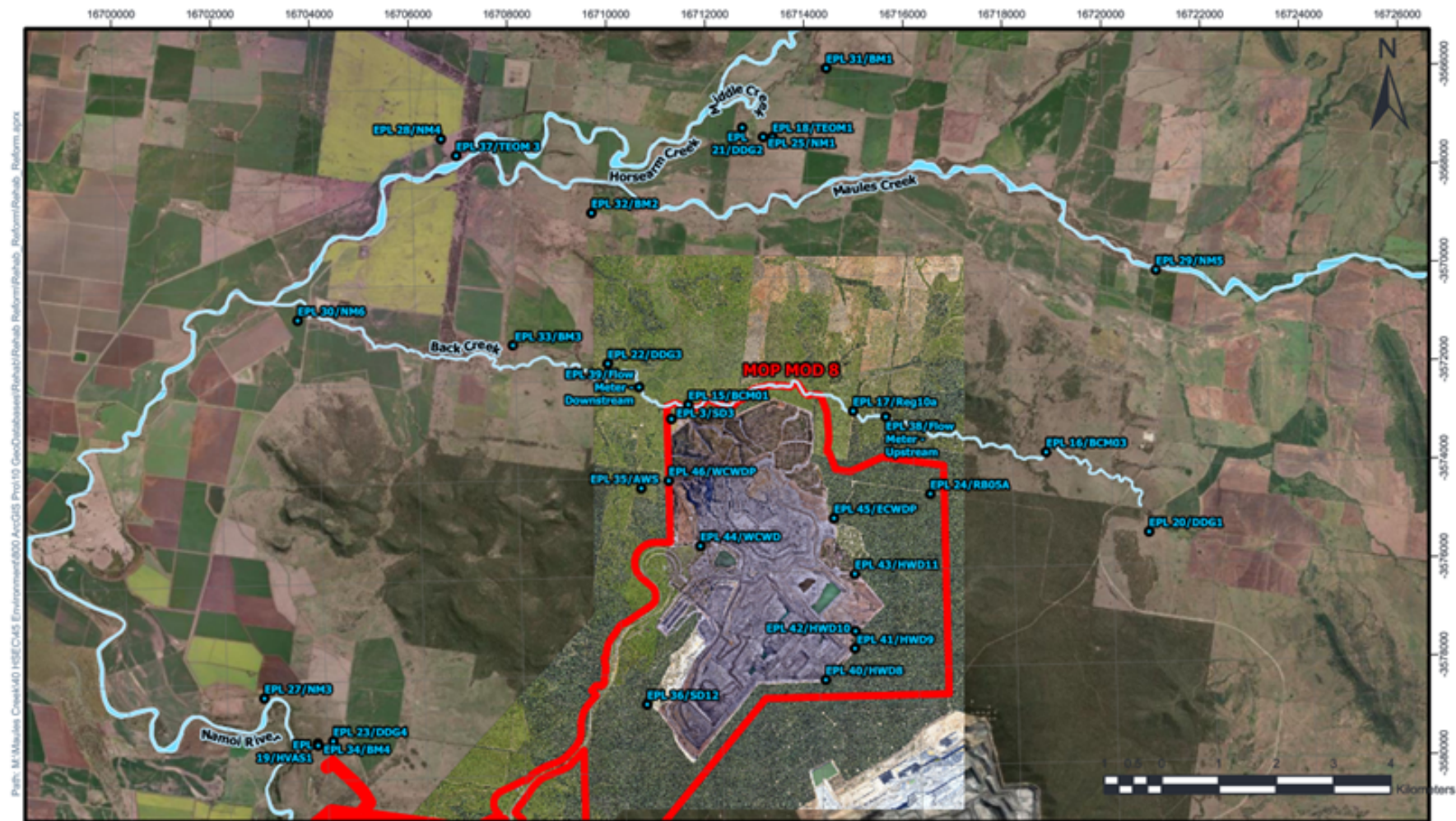
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

**Table 7 – Dust Monitoring (Limits Apply)**

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	5.6	30	No
37 (TEOM3)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	10.7	30	No
19 (HVAS)	5 days	µg/m <sup>3</sup>	PM <sub>10</sub>	8.8	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m <sup>2</sup> month	1.6	4	No
21 (DDG2/MC2)	Monthly	g/m <sup>2</sup> month	1.5	4	No
22 (DDG3/MC3)	Monthly	g/m <sup>2</sup> month	1.6	4	No
23 (DDG4/MC4)	Monthly	g/m <sup>2</sup> month	1.3	4	No

Figure 1 - EPL 20221 Monitoring Locations



EPL20221 Monitoring Locations - 2/08/2022

- Legend
- EPL Monitoring locations
  - 05 Project Boundary\_Boundaries
  - MCCM Project Boundary (Mod 8)

Maules Creek Coal

Scale: 1:88,442  
Author: shennewman  
Date Exported: 16/09/2022 11:51 AM  
Spatial Reference  
Name: GDA2020 MGA Zone 56



Disclaimer: Map for reference only and subject to survey. MCC makes no guarantee of the accuracy of this map and data within. MCC shall have no liability for any decisions made or actions taken based upon this map.



## MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 20221

**EPA Website Link:** [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

**Licensee:** Maules Creek Coal Mine Pty Ltd

**Licensee Address:** Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** May 2022

**Obtained Date:** 16<sup>th</sup> June 2022

**Publication Date:** 20<sup>th</sup> June 2022

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 30<sup>th</sup> March 2022 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

### Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	No discharge at these locations this month						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
36 (SD12)	TSS	mg/L	Special Frequency Discharge only							
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								

### Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	12/05/2022	16/06/2022	NA	NA	<5
	Conductivity	µs/cm							1190
	Oil & Grease	mg/L							<5
	pH	pH							8.22

### Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value															
15 (BCM01)	pH	pH	Quarterly	0	Next sample in June 2022																			
	Conductivity	µs/cm																						
	TDS	mg/L																						
16 (BCM03)	pH	pH	Quarterly	0						Next sample in June 2022														
	Conductivity	µs/cm																						
	TDS	mg/L																						
17 (REG10A)	pH	pH	Quarterly	0											Next sample in June 2022									
	Conductivity	µs/cm																						
	TDS	mg/L																						
24 (RB05A)	pH	pH	Quarterly	0																Next sample in June 2022				
	Conductivity	µs/cm																						
	TDS	mg/L																						

**Table 4 – Noise Monitoring (Attended – Measured)**

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit L <sub>Aeq</sub> 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit L <sub>A1</sub> (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	05/05/2022	22:30	1.6	<25	35	28	45	0.0	No
NM2	05/05/2022	23:30	1.4	25	39	30	45	0.0	No
NM3	05/05/2022	23:45	1.3	IA	35	IA	45	0.0	No
NM4	05/05/2022	23:00	1.1	<25	35	<25	45	0.0	No
NM5	05/05/2022	22:00	1.9	IA	35	IA	45	0.0	No
NM6	05/05/2022	23:56	1.6	IA	35	IA	45	0.0	No

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

*Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.*

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

**Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)**

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.



**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	9	92.1	102.2	120	No
	Vibration	mm/s		9	0.15	0.9	10	No

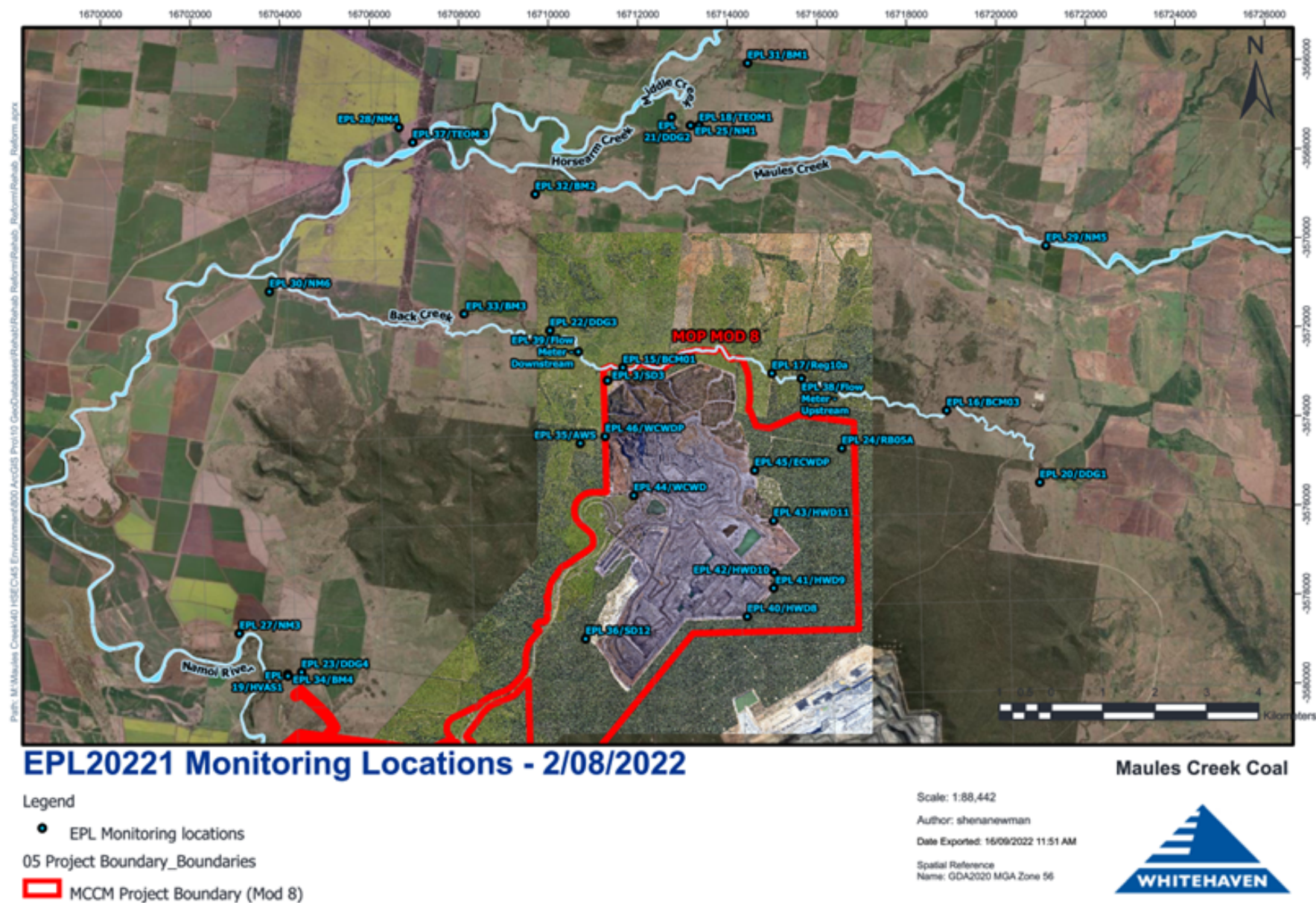
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

**Table 7 – Dust Monitoring (Limits Apply)**

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	5.5	30	No
37 (TEOM3)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	10.4	30	No
19 (HVAS)	5 days	µg/m <sup>3</sup>	PM <sub>10</sub>	8.8	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m <sup>2</sup> month	1.2	4	No
21 (DDG2/MC2)	Monthly	g/m <sup>2</sup> month	1.3	4	No
22 (DDG3/MC3)	Monthly	g/m <sup>2</sup> month	1.6	4	No
23 (DDG4/MC4)	Monthly	g/m <sup>2</sup> month	1.2	4	No

Figure 1 - EPL 20221 Monitoring Locations





## MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 20221

**EPA Website Link:** [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

**Licensee:** Maules Creek Coal Mine Pty Ltd

**Licensee Address:** Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** June 2022

**Obtained Date:** 18<sup>th</sup> July 2022

**Publication Date:** 19<sup>th</sup> July 2022

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 30<sup>th</sup> March 2022 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

### Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	No discharge at these locations this month						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
36 (SD12)	TSS	mg/L	Special Frequency Discharge only							
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								

### Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	Next Sample in July 2022					
	Conductivity	µs/cm							
	Oil & Grease	mg/L							
	pH	pH							

### Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	Dry				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Dry				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Dry				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	1	20/06/2022	YES			7.54
	Conductivity	µs/cm							1820
	TDS	mg/L							1070

**Table 4 – Noise Monitoring (Attended – Measured)**

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit L <sub>Aeq</sub> 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit L <sub>A1</sub> (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	08/06/2022	22:30	0.5	<25	35	28	45	0.0	No
NM2	08/06/2022	23:30	0.9	<25	39	<25	45	0.0	No
NM3	08/06/2022	23:37	1	IA	35	IA	45	0.0	No
NM4	08/06/2022	23:00	0.3	<25	35	<25	45	0.0	No
NM5	08/06/2022	22:00	0.3	22	35	25	45	0.0	No
NM6	08/06/2022	23:57	1.3	IA	35	IA	45	0.0	No

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

*Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.*

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

**Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)**

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	10	90.23	104	120	No
	Vibration	mm/s		10	0.14	0.62	10	No

Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

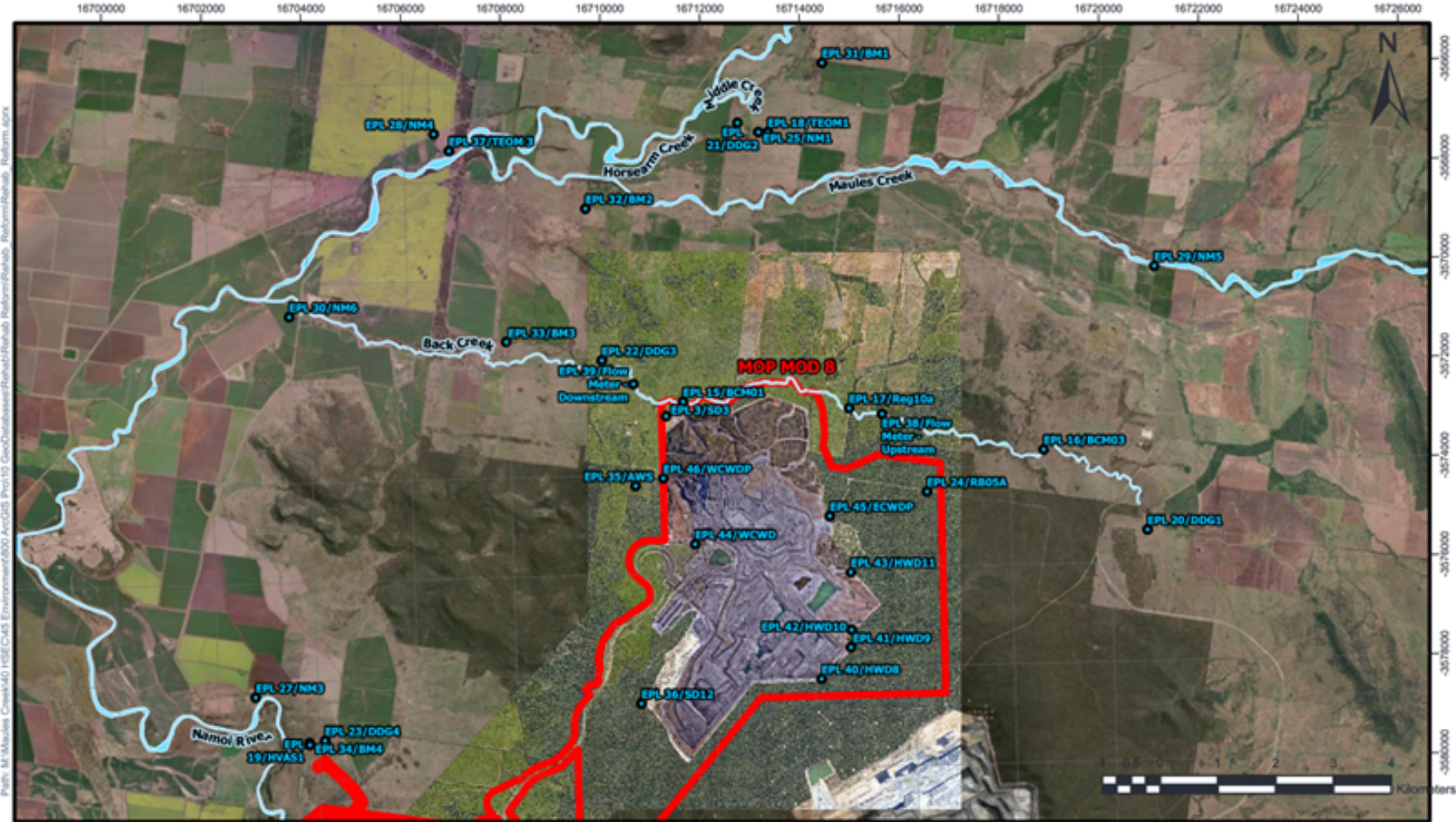
**Table 7 – Dust Monitoring (Limits Apply)**

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	5.6	30	No
37 (TEOM3)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	10.4	30	No
19 (HVAS)	5 days	µg/m <sup>3</sup>	PM <sub>10</sub>	8.7	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m <sup>2</sup> month	1.2	4	No
21 (DDG2/MC2)	Monthly	g/m <sup>2</sup> month	1.4	4	No
22 (DDG3/MC3)	Monthly	g/m <sup>2</sup> month	1.7	4	No
23 (DDG4/MC4)	Monthly	g/m <sup>2</sup> month	1.3	4	No



Figure 1 - EPL 20221 Monitoring Locations



EPL20221 Monitoring Locations - 2/08/2022

Maules Creek Coal

Legend

- EPL Monitoring locations
- 05 Project Boundary\_Boundaries
- MCCM Project Boundary (Mod 8)

Scale: 1:88,442  
Author: shenanewman  
Date Exported: 16/09/2022 11:51 AM  
Spatial Reference  
Name: GDA2020 MGA Zone 56



Disclaimer: Map for reference only and subject to survey. MCCM makes no guarantee of the accuracy of this map and data within. MCCM shall have no liability for any decisions made or actions taken based upon this map.





## MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 20221

**EPA Website Link:** [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

**Licensee:** Maules Creek Coal Mine Pty Ltd

**Licensee Address:** Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** July 2022

**Obtained Date:** 15<sup>th</sup> August 2022

**Publication Date:** 20<sup>th</sup> August 2022

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2<sup>nd</sup> August 2022 by the NSW Environment Protection Authority (EPA).



## Ground Water Monitoring

### Table 1 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	Next sample in September 2022					
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							







ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
41 (HWD9)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 and again within 12hours of discharge,							
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
42 (HWD10)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 and again within 12hours of discharge,							
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
43 (HWD11)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 and again within 12hours of discharge,							
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
44 (WCWD)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 and again within 12hours of discharge,							
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								



ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
45 (ECWDP)	Oil & Grease	mg/L	discharge or dewatering occurs after 38.4mL over a 5-day period.							
	pH	pH								
	TSS	mg/L								
46 (WCWDP)	Oil & Grease	mg/L	discharge or dewatering occurs after 38.4mL over a 5-day period.							
	pH	pH								
	TSS	mg/L								

## Noise Monitoring

Table 6 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit LA1 (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	14/07/2022	22:30	0.3	25	35	27	45	0.0	No
NM2	14/07/2022	23:30	0.4	30	39	35	45	0.0	No
NM3	14/07/2022	23:30	0.4	<25	35	27	45	0.0	No
NM4	14/07/2022	23:00	0.5	<20	35	35	45	0.0	No
NM5	14/07/2022	22:00	1.2	IA	35	IA	45	0.0	No
NM6	14/07/2022	23:55	0.3	<25	35	<25	45	0.0	No

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

*Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.*

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

## Table 7 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.

## Blast Monitoring

Table 8 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	13	94.1	111.1	120	No
	Vibration	mm/s		13	0.14	0.64	10	No

*Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).*



## Air Quality Monitoring

Table 9 – PM<sub>10</sub> (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	5.6	30	No
37 (TEOM3)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	10.6	30	No
19 (HVAS)	5 days	µg/m <sup>3</sup>	PM <sub>10</sub>	8.5	30	No

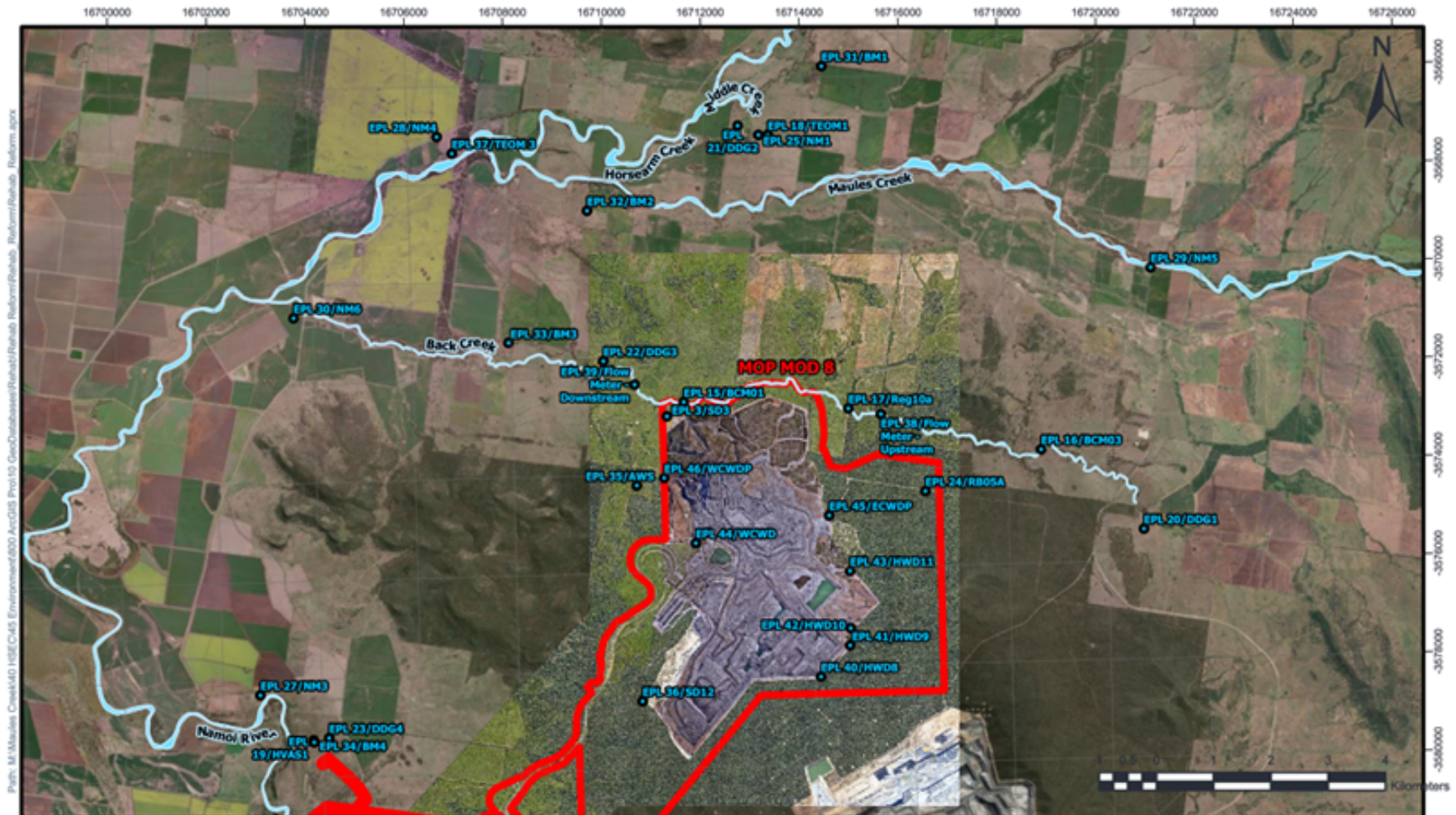
Table 10 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m <sup>2</sup> month	1.2	4	No
21 (DDG2/MC2)	Monthly	g/m <sup>2</sup> month	1.1	4	No
22 (DDG3/MC3)	Monthly	g/m <sup>2</sup> month	1.8	4	No
23 (DDG4/MC4)	Monthly	g/m <sup>2</sup> month	1.2	4	No



# WHITEHAVEN COAL

Figure 1 – EPL 20221 Monitoring Locations



## EPL20221 Monitoring Locations - 2/08/2022

### Legend

- EPL Monitoring locations
- 05 Project Boundary\_Boundaries
- MCCM Project Boundary (Mod 8)

Scale: 1:88,442

Author: shenanewman

Date Exported: 16/09/2022 11:51 AM

Spatial Reference  
Name: GDA2020 MGA Zone 56

Maules Creek Coal





## MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 20221

**EPA Website Link:** [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

**Licensee:** Maules Creek Coal Mine Pty Ltd

**Licensee Address:** Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** August 2022

**Obtained Date:** 15<sup>th</sup> September 2022

**Publication Date:** 22<sup>th</sup> September 2022

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2<sup>nd</sup> August 2022 by the NSW Environment Protection Authority (EPA).



## Ground Water Monitoring

### Table 1 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	Next sample in September 2022					
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							



### Table 4 – Clean Water Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
38 (Flow Meter Upstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	1	16/08/2022	YES				215
	Nitrate	mg/L								3.73
	Nitrogen (total)	mg/L								6
	Oil & Grease	mg/L								<5
	pH	pH								7.55
	Phosphorous	mg/L								0.19
	Reactive Phosphorous	mg/L								0.02
	TSS	mg/L								13
39 (Flow Meter downstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	1	16/08/2022	YES				213
	Nitrate	mg/L								2.98
	Nitrogen (total)	mg/L								5.1
	Oil & Grease	mg/L								<5
	pH	pH								7.67
	Phosphorous	mg/L								0.20
	Reactive Phosphorous	mg/L								0.03
	TSS	mg/L								12
40 (HWD8)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 and again within 12hours of discharge,	No discharge occurred from this monitoring location during August 2022						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
41 (HWD9)	TSS	mg/L	Special Frequency 2 – prior to discharging	No discharge occurred from this monitoring location during August 2022						
	Conductivity	µs/cm								



	Oil & Grease	mg/L	from EPL 45 and/or 46 and again within 12hours of discharge,							
	pH	pH								
42 (HWD10)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 and again within 12hours of discharge,	No discharge occurred from this monitoring location during August 2022						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
43 (HWD11)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 and again within 12hours of discharge,	No discharge occurred from this monitoring location during August 2022						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
44 (WCWD)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 and again within 12hours of discharge.	1	15/08/2022	YES				24
	Conductivity	µs/cm								600
	Oil & Grease	mg/L								<5
	pH	pH								8.07
45 (ECWDP)	Oil & Grease	mg/L	discharge or dewatering occurs after	No discharge occurred from this monitoring location during August 2022						
	pH	pH								





	TSS	mg/L	38.4mL over a 5-day period.							
46 (WCWDP)	Oil & Grease	mg/L	discharge or dewatering occurs after 38.4mL over a 5-day period.	1	16/08/2022					<5
	pH	pH								8.01
	TSS	mg/L								40



## Noise Monitoring

Table 6 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit LA1 (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	22/08/2022	22:30	1.1	IA	35	IA	45	0.0	No
NM2	22/08/2022	23:30	0.6	IA	39	IA	45	0.0	No
NM3	22/08/2022	23:32	0.7	IA	35	IA	45	0.0	No
NM4	22/08/2022	23:00	0.6	IA	35	IA	45	0.0	No
NM5	22/08/2022	22:00	0.6	IA	35	IA	45	0.0	No
NM6	22/08/2022	23:56	0.3	IA	35	IA	45	0.0	No

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

*Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.*

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

## Table 7 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



## Blast Monitoring

Table 8 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	9	89.5	105.1	120	No
	Vibration	mm/s		9	0.17	0.63	10	No

*Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).*

## Air Quality Monitoring

Table 9 – PM<sub>10</sub> (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	5.5	30	No
37 (TEOM3)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	11.1	30	No
19 (HVAS)	5 days	µg/m <sup>3</sup>	PM <sub>10</sub>	8.1	30	No

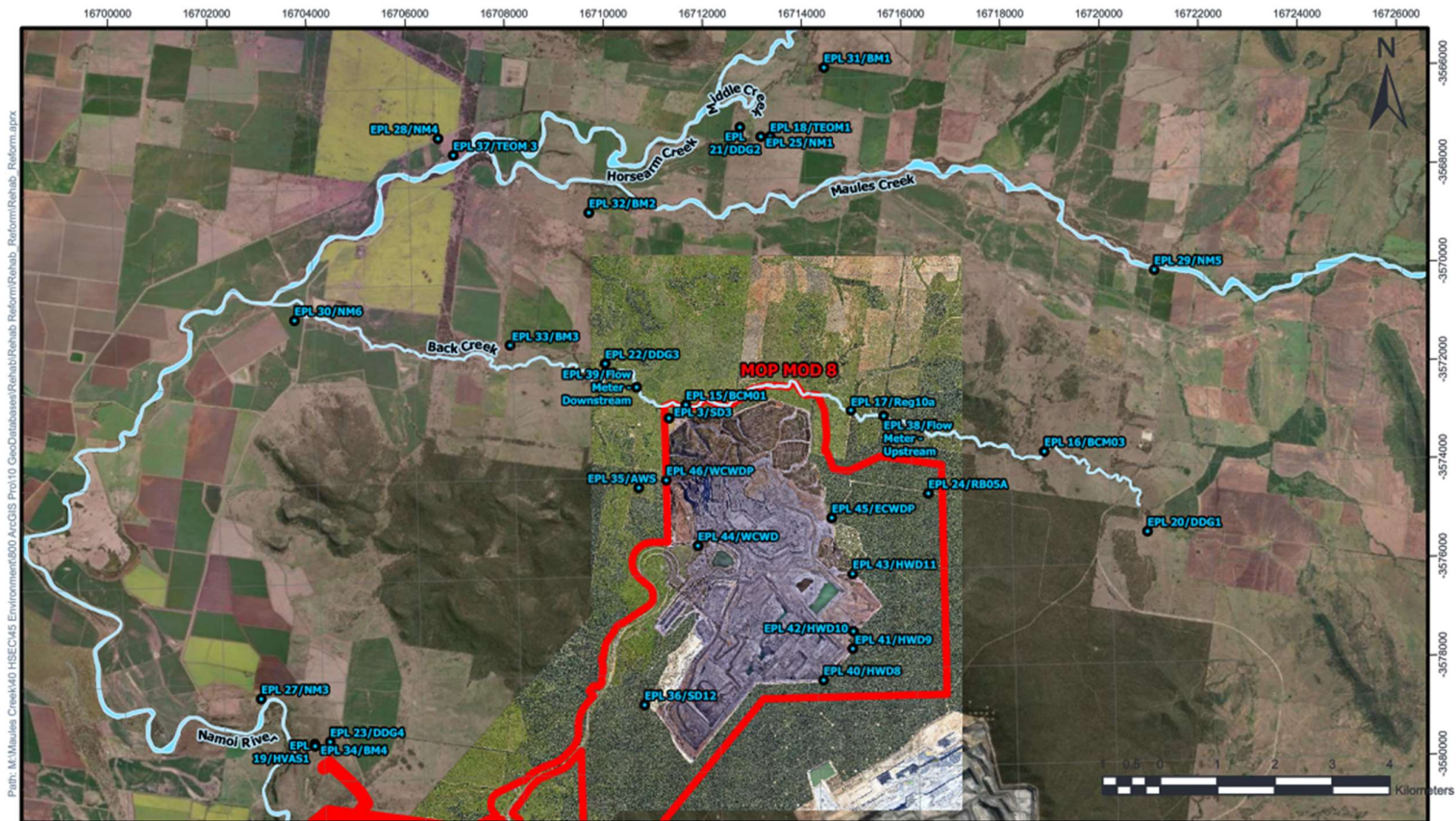
Table 10 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m <sup>2</sup> month	1.4	4	No
21 (DDG2/MC2)	Monthly	g/m <sup>2</sup> month	1.0	4	No
22 (DDG3/MC3)	Monthly	g/m <sup>2</sup> month	1.9	4	No
23 (DDG4/MC4)	Monthly	g/m <sup>2</sup> month	1.0	4	No



# WHITEHAVEN COAL

Figure 1 – EPL 20221 Monitoring Locations



## EPL20221 Monitoring Locations - 2/08/2022

Maules Creek Coal

### Legend

- EPL Monitoring locations
- 05 Project Boundary\_Boundaries
- MCCM Project Boundary (Mod 8)

Scale: 1:88,442

Author: shenanewman

Date Exported: 16/09/2022 11:51 AM

Spatial Reference  
Name: GDA2020 MGA Zone 56



Disclaimer: Map for reference only and subject to survey. MCC makes no guarantee of the accuracy of this map and data within. MCC shall have no liability for any decisions made or actions taken based upon this map.



## MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 20221

**EPA Website Link:** [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

**Licensee:** Maules Creek Coal Mine Pty Ltd

**Licensee Address:** Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** October 2022

**Obtained Date:** 15<sup>th</sup> November 2022

**Publication Date:** 20<sup>th</sup> November 2022

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2<sup>nd</sup> August 2022 by the NSW Environment Protection Authority (EPA).



## Ground Water Monitoring

### Table 1 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	Next sample in December 2022					
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							











			consecutive period					
41 (HWD9)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from this monitoring location during September 2022				
	Conductivity	µs/cm						
	Oil & Grease	mg/L						
	pH	pH						
42 (HWD10)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	1	10/10/2022	YES	NA	66
	Conductivity	µs/cm						124
	Oil & Grease	mg/L						<5
	pH	pH						6.82
	TSS	mg/L		1	21/10/2022	YES	NA	130
	Conductivity	µs/cm						120
	Oil & Grease	mg/L						<5
	pH	pH						7.22
43 (HWD11)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or	1	10/10/2022	Yes	NA	34
	Conductivity	µs/cm						166
	Oil & Grease	mg/L						<5



	pH	pH	within 12 hours of discharge caused by 38.4mm in a 5 Day consecutive period	1	18/10/2022	YES	NA	6.85
	TSS	mg/L						14
	Conductivity	µs/cm						169
	Oil & Grease	mg/L						<5
	pH	pH						6.72
	TSS	mg/L		1	21/10/2022	YES	NA	64
	Conductivity	µs/cm						141
	Oil & Grease	mg/L						<5
	pH	pH						7.26
44 (WCWD)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12 hours of discharge caused by 38.4mm in a 5 Day consecutive period	1	10/10/2022	YES	NA	32
	Conductivity	µs/cm						637
	Oil & Grease	mg/L						<5
	pH	pH						7.83
	TSS	mg/L		1	21/10/2022	YES	NA	88
	Conductivity	µs/cm						963
	Oil & Grease	mg/L						<5
	pH	pH						7.70
45	Oil & Grease	mg/L		1	10/10/2022		NA	<5



(ECWDP)	pH	pH	not more than 12 hours after discharge commences					6.86
	TSS	mg/L						21
	Oil & Grease	mg/L		1	18/10/2022		NA	<5
	pH	pH						7.12
	TSS	mg/L						5
	Oil & Grease	mg/L		1	21/10/2022		NA	<5
	pH	pH						6.55
	TSS	mg/L						112
46 (WCWDP)	Oil & Grease	mg/L	not more than 12 hours after discharge commences	1	10/10/2022	YES	NA	<5
	pH	pH						7.77
	TSS	mg/L						26
	Oil & Grease	mg/L		1	21/10/2022	YES	NA	<5
	pH	mg/L						7.91
	TSS	pH						183

## Noise Monitoring

Table 6 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit LA1 (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	4/10/2022	23:00	0.9	29	35	34	45	0.0	No
NM2	4/10/2022	23:45	0.3	32	39	35	45	0.0	No
NM3	5/10/2022	00:04	0.3	IA	35	IA	45	0.0	No
NM4	5/10/2022	00:15	0.4	25	35	26	45	0.0	No
NM5	4/10/2022	22:18	0.5	<20	35	<20	45	0.0	No
NM6	5/10/2022	00:46	0.5	<25	35	27	45	0.0	No

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

*Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.*

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

## Table 7 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



## Blast Monitoring

Table 8 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	8	93.3	106.6	120	No
	Vibration	mm/s		8	0.17	0.81	10	No

*Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).*





## Air Quality Monitoring

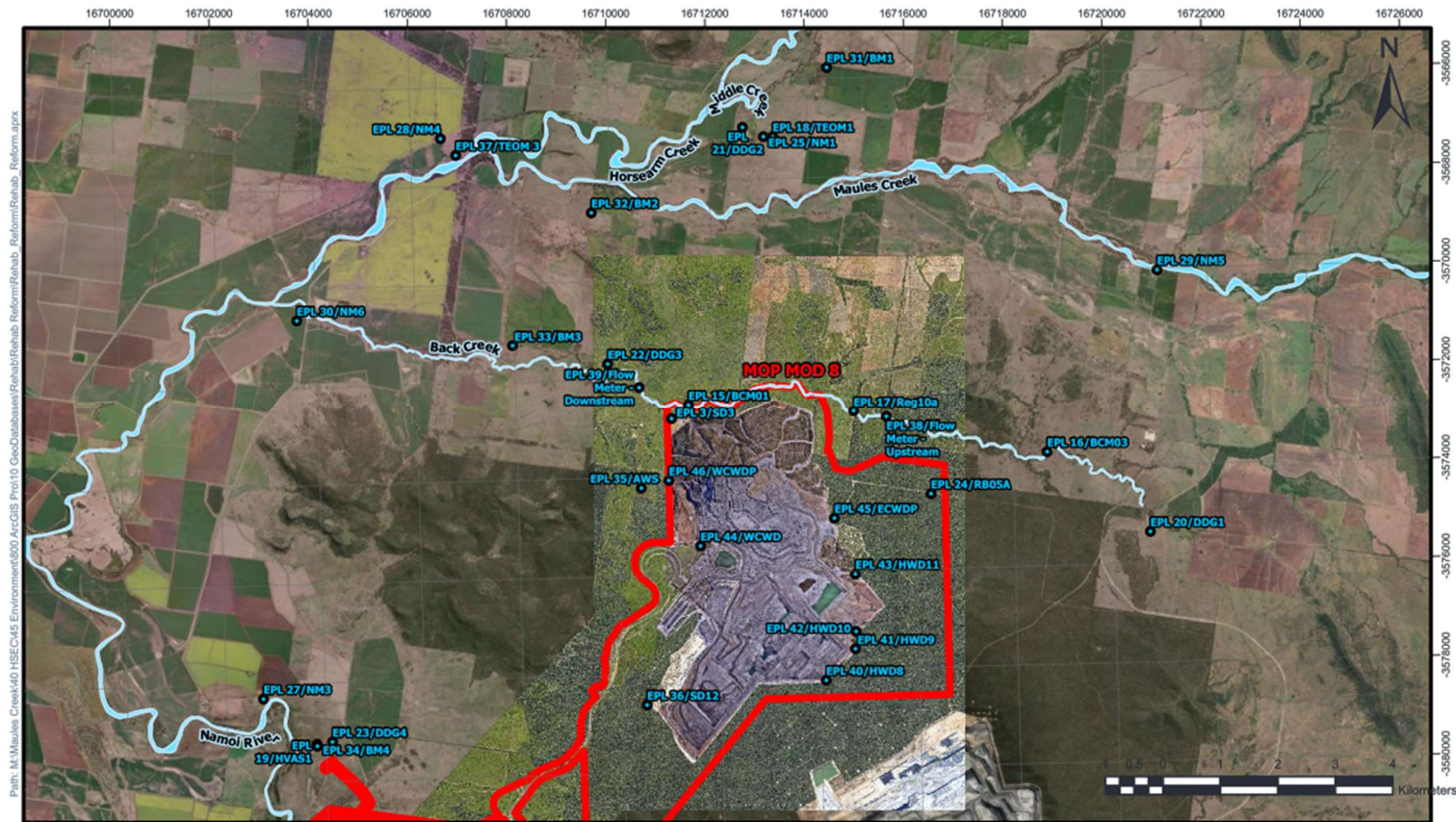
Table 9 – PM<sub>10</sub> (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	5.1	30	No
37 (TEOM3)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	14.2	30	No
19 (HVAS)	5 days	µg/m <sup>3</sup>	PM <sub>10</sub>	7.9	30	No

Table 10 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m <sup>2</sup> month	0.8	4	No
21 (DDG2/MC2)	Monthly	g/m <sup>2</sup> month	0.9	4	No
22 (DDG3/MC3)	Monthly	g/m <sup>2</sup> month	2.1	4	No
23 (DDG4/MC4)	Monthly	g/m <sup>2</sup> month	1.1	4	No

Figure 1 – EPL 20221 Monitoring Locations



## EPL20221 Monitoring Locations - 2/08/2022

### Legend

- EPL Monitoring locations
- 05 Project Boundary\_Boundaries
- MCCM Project Boundary (Mod 8)

Maules Creek Coal

Scale: 1:88,442  
 Author: shenanewman  
 Date Exported: 16/09/2022 11:51 AM  
 Spatial Reference  
 Name: GDA2020 MGA Zone 56



Disclaimer: Map for reference only and subject to survey. MCC makes no guarantee of the accuracy of this map and data within. MCC shall have no liability for any decisions made or actions taken based upon this map.



## MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 20221

**EPA Website Link:** [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

**Licensee:** Maules Creek Coal Mine Pty Ltd

**Licensee Address:** Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** September 2022

**Obtained Date:** 15<sup>th</sup> October 2022

**Publication Date:** 25<sup>th</sup> October 2022

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2<sup>nd</sup> August 2022 by the NSW Environment Protection Authority (EPA).









(Flow Meter downstream)	Nitrogen (total)	mg/L	within 12 hours of discharge from any discharge location.					1.9
	Oil & Grease	mg/L						<5
	pH	pH						7.43
	Phosphorous	mg/L						0.3
	Reactive Phosphorous	mg/L						0.08
	TSS	mg/L						104
	Conductivity	µs/cm		1	19/09/2022	YES	NA	190
	Nitrate	mg/L						0.32
	Nitrogen (total)	mg/L						0.7
	Oil & Grease	mg/L						<10
	pH	pH						7.54
	Phosphorous	mg/L						0.2
	Reactive Phosphorous	mg/L		0.051				
	TSS	mg/L		89				
	Conductivity	µs/cm		1	28/09/2022	YES	NA	211
	Nitrate	mg/L						0.23
	Nitrogen (total)	mg/L						1.3
	Oil & Grease	mg/L						<5
	pH	pH						7.41
	Phosphorous	mg/L						0.11
Reactive Phosphorous	mg/L	0.08						
TSS	mg/L	11						
40 (HWD8)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 and again within 12hours of discharge,	No discharge occurred from this monitoring location during September 2022				
	Conductivity	µs/cm						
	Oil & Grease	mg/L						
	pH	pH						



41 (HWD9)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 and again within 12hours of discharge,	No discharge occurred from this monitoring location during September 2022				
	Conductivity	µs/cm						
	Oil & Grease	mg/L						
	pH	pH						
42 (HWD10)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	1	16/09/2022	YES	NA	140
	Conductivity	µs/cm						124
	Oil & Grease	mg/L						<5
	pH	pH						7.04
	TSS	mg/L		1	19/09/2022	YES	NA	22
	Conductivity	µs/cm						150
	Oil & Grease	mg/L						<10
	pH	pH						6.74
	TSS	mg/L		1	28/09/2022	YES	NA	27
	Conductivity	µs/cm						116
	Oil & Grease	mg/L						<5
	pH	pH						6.89
43 (HWD11)	TSS	mg/L	Special Frequency 2	1	16/09/2022	YES	NA	102





	Conductivity	µs/cm	– prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period				NA	282
	Oil & Grease	mg/L						<5
	pH	pH						7.12
	TSS	mg/L		1	19/09/2022	YES	NA	21
	Conductivity	µs/cm						180
	Oil & Grease	mg/L						<10
	pH	pH						6.82
	TSS	mg/L						8
	Conductivity	µs/cm		1	28/09/2022	YES	NA	156
	Oil & Grease	mg/L						<5
	pH	pH						7.05
44 (WCWD)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	1	16/09/2022	YES	NA	374
	Conductivity	µs/cm						308
	Oil & Grease	mg/L						<5
	pH	pH						7.67
45	Oil & Grease	mg/L		1	16/09/2022		NA	<5



(ECWDP)	pH	pH	discharge or dewatering occurs after 38.4mL over a 5-day period.					7.07
	TSS	mg/L						71
	Oil & Grease	mg/L			19/09/2022		NA	<10
	pH	pH						6.97
	TSS	mg/L						45
	Oil & Grease	mg/L		1			NA	<5
	pH	pH						6.91
	TSS	mg/L						11
46 (WCWDP)	Oil & Grease	mg/L	discharge or dewatering occurs after 38.4mL over a 5-day period.	1	16/09/2022		NA	<5
	pH	pH						7.71
	TSS	mg/L						322

## Noise Monitoring

Table 6 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit LA1 (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	13/09/2022	22:30	0.5	IA	35	IA	45	0.0	No
NM2	13/09/2022	23:30	0.3	25	39	28	45	0.0	No
NM3	13/09/2022	23:27	0.5	26	35	30	45	0.0	No
NM4	13/09/2022	23:00	0.3	IA	35	IA	45	0.0	No
NM5	13/09/2022	22:00	0.8	IA	35	IA	45	0.0	No
NM6	13/09/2022	23:56	0.4	IA	35	IA	45	0.0	No

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

*Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.*

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

## Table 7 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



## Blast Monitoring

Table 8 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	7	91.9	106.8	120	No
	Vibration	mm/s		7	0.15	0.38	10	No

*Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).*

## Air Quality Monitoring

Table 9 – PM<sub>10</sub> (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	5.4	30	No
37 (TEOM3)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	11.8	30	No
19 (HVAS)	5 days	µg/m <sup>3</sup>	PM <sub>10</sub>	8.0	30	No

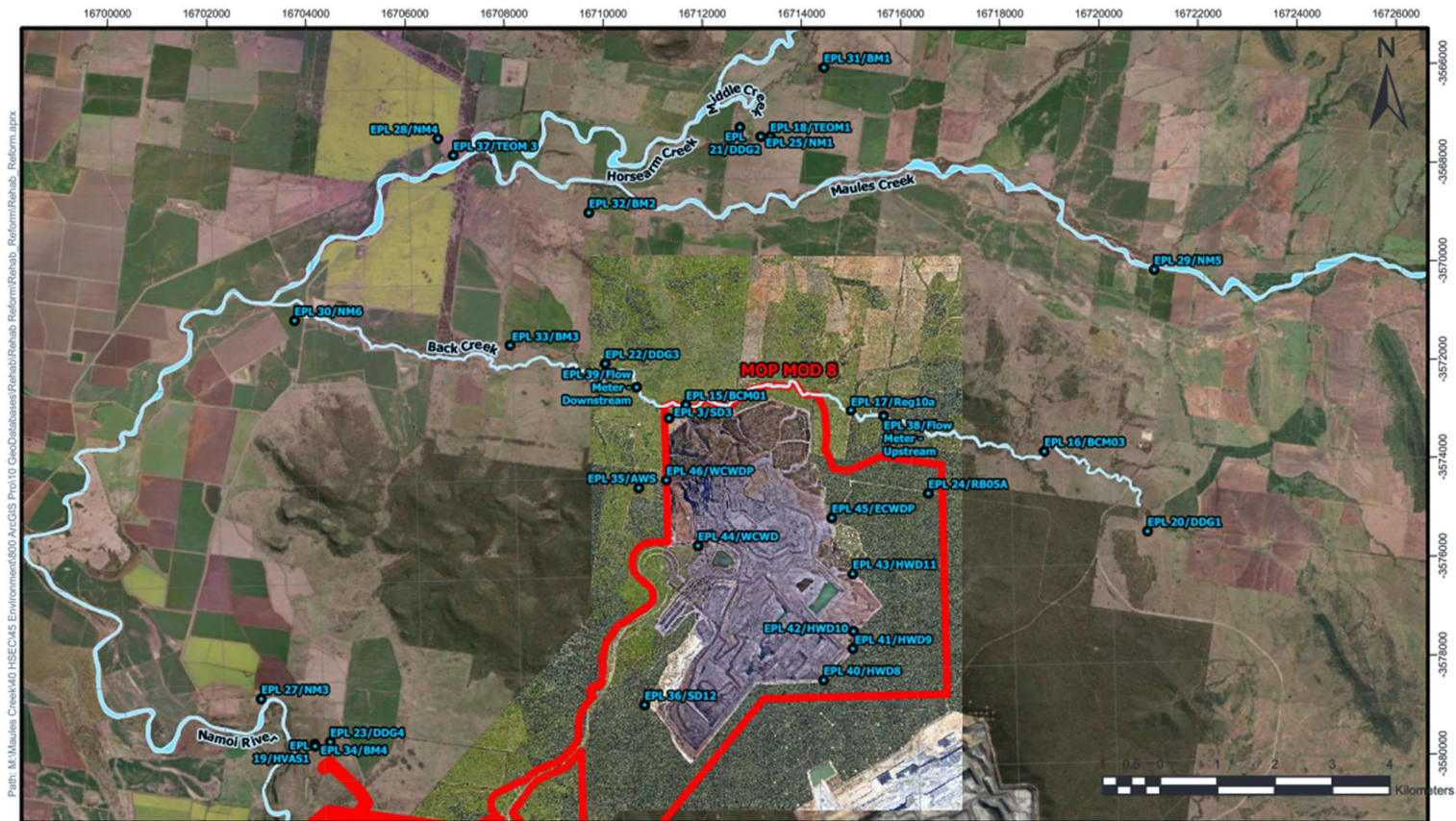
Table 10 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m <sup>2</sup> month	2.3	4	No
21 (DDG2/MC2)	Monthly	g/m <sup>2</sup> month	0.9	4	No
22 (DDG3/MC3)	Monthly	g/m <sup>2</sup> month	2.0	4	No
23 (DDG4/MC4)	Monthly	g/m <sup>2</sup> month	1.1	4	No



# WHITEHAVEN COAL

Figure 1 – EPL 20221 Monitoring Locations



## EPL20221 Monitoring Locations - 2/08/2022

Maules Creek Coal

### Legend

- EPL Monitoring locations
- 05 Project Boundary\_Boundaries
- MCCM Project Boundary (Mod 8)

Scale: 1:88,442

Author: shenanewman

Date Exported: 16/09/2022 11:51 AM

Spatial Reference  
Name: GDA2020 MGA Zone 56



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## MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 20221

**EPA Website Link:** [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

**Licensee:** Maules Creek Coal Mine Pty Ltd

**Licensee Address:** Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** October 2022

**Obtained Date:** 15<sup>th</sup> December 2022

**Publication Date:** 16<sup>th</sup> December 2022

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2<sup>nd</sup> August 2022 by the NSW Environment Protection Authority (EPA).



## Ground Water Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	Next sample in December 2022					
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	Next sample in December 2022					
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							



## Surface Water Monitoring

### Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	21/11/2022	15/12/2022	NA	NA	44
	Conductivity	µs/cm							961
	Oil & Grease	mg/L							<5
	pH	pH							8.60

### Table 3 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
3 (SD3)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36.	No discharge at these locations this month						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
36 (SD12)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
	Conductivity	µs/cm								

### Table 4 – Clean Water Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
38 (Flow Meter Upstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	1	1/11/2022	YES	NA			130
	Nitrate	mg/L								0.079
	Nitrogen (total)	mg/L								0.9
	Oil & Grease	mg/L								<5
	pH	pH								7.23
	Phosphorous	mg/L								0.2
	Reactive Phosphorous	mg/L								0.072
	TSS	mg/L								14
	Conductivity	µs/cm		1	14/11/2022	YES	NA			150
	Nitrate	mg/L								0.04
	Nitrogen (total)	mg/L								0.9
	Oil & Grease	mg/L								<5
	pH	pH								7.26
	Phosphorous	mg/L								0.1
	Reactive Phosphorous	mg/L								0.067
	TSS	mg/L								89
39 (Flow Meter downstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	1	1/11/2022	YES	NA			140
	Nitrate	mg/L								0.077
	Nitrogen (total)	mg/L								1
	Oil & Grease	mg/L								<5
	pH	pH								7.32
	Phosphorous	mg/L								0.2
	Reactive Phosphorous	mg/L								0.071
	TSS	mg/L								10
	Conductivity	µs/cm		1	14/11/2022	YES	NA			130
	Nitrate	mg/L								0.077
	Nitrogen (total)	mg/L								1.0



	Oil & Grease	mg/L						<5
	pH	pH						7.28
	Phosphorous	mg/L						0.02
	Reactive Phosphorous	mg/L						0.092
	TSS	mg/L						89
40 (HWD8)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from this monitoring location during November 2022				
	Conductivity	µs/cm						
	Oil & Grease	mg/L						
	pH	pH						
41 (HWD9)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	1	1/11/2022	YES	NA	142
	Conductivity	µs/cm						170
	Oil & Grease	mg/L						<5
	pH	pH						7.06
	TSS	mg/L		1	14/11/2022	YES	NA	169
	Conductivity	µs/cm						180
	Oil & Grease	mg/L						<5
	pH	pH						7.09
42 (HWD10)	TSS	mg/L	Special Frequency 2	1	14/11/2022	YES	NA	62



	Conductivity	µs/cm	– prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period					100
	Oil & Grease	mg/L						<5
	pH	pH						6.90
43 (HWD11)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	1	1/11/2022	Yes	NA	118
	Conductivity	µs/cm						113
	Oil & Grease	mg/L						<5
	pH	pH						6.95
	TSS	mg/L		1	14/11/2022	YES	NA	109
	Conductivity	µs/cm						160
	Oil & Grease	mg/L						<5
	pH	pH						6.92
44 (WCWD)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a	1	1/11/2022	YES	NA	132
	Conductivity	µs/cm						660
	Oil & Grease	mg/L						<5
	pH	pH						8.32
	TSS	mg/L		1	14/11/2022	YES	NA	80



	Conductivity	µs/cm	5 Day consecutive period					180
	Oil & Grease	mg/L						<5
	pH	pH						8.11
45 (ECWDP)	Oil & Grease	mg/L	not more than 12 hours after discharge commences	1	1/11/2022	YES	NA	<5
	pH	pH						7.17
	TSS	mg/L						157
	Oil & Grease	mg/L		1	14/11/2022		NA	<5
	pH	pH						7.30
	TSS	mg/L						51
46 (WCWDP)	Oil & Grease	mg/L	not more than 12 hours after discharge commences	1	1/11/2022	YES	NA	<5
	pH	pH						8.09
	TSS	mg/L						144
	Oil & Grease	mg/L		1	14/11/2022	YES	NA	<5
	pH	mg/L						7.29
	TSS	pH						80



## Noise Monitoring

Table 6 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit L <sub>Aeq</sub> 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit L <sub>A1</sub> (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	10/11/2022	22:30	0.9	27	35	30	45	0.0	No
NM2	10/11/2022	23:30	0.8	<20	39	25	45	0.0	No
NM3	10/11/2022	23:51	0.5	<25	35	<25	45	0.0	No
NM4	10/11/2022	23:00	0.3	<20	35	<20	45	0.0	No
NM5	10/11/2022	22:00	0.5	IA	35	IA	45	0.0	No
NM6	10/11/2022	23:56	0.6	IA	35	IA	45	0.0	No

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

*Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.*

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

## Table 7 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



## Blast Monitoring

Table 8 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	7	91.8	102.7	120	No
	Vibration	mm/s		7	0.11	0.25	10	No

*Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).*



## Air Quality Monitoring

Table 9 – PM<sub>10</sub> (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	5.1	30	No
37 (TEOM3)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	12.1	30	No
19 (HVAS)	5 days	µg/m <sup>3</sup>	PM <sub>10</sub>	8.0	30	No

Table 10 – Depositional Dust (Limits Apply)

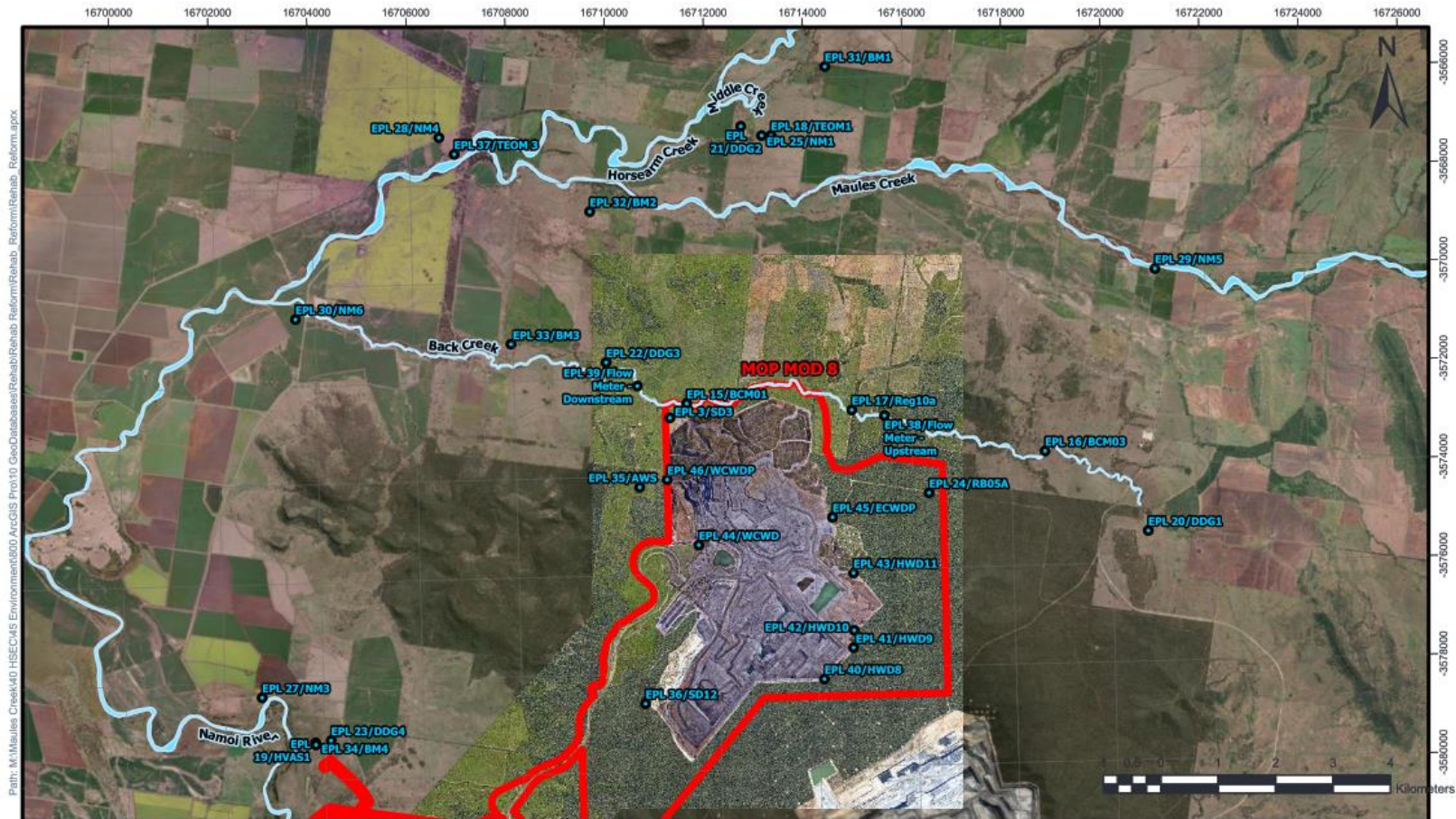
ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m <sup>2</sup> month	0.8	4	No
21 (DDG2/MC2)	Monthly	g/m <sup>2</sup> month	0.9	4	No
22 (DDG3/MC3)	Monthly	g/m <sup>2</sup> month	2.1	4	No
23 (DDG4/MC4)	Monthly	g/m <sup>2</sup> month	1.2	4	No





# WHITEHAVEN COAL

Figure 1 – EPL 20221 Monitoring Locations



## EPL20221 Monitoring Locations - 2/08/2022

### Legend

- EPL Monitoring locations
- 05 Project Boundary\_Boundaries
- MCCM Project Boundary (Mod 8)

Maules Creek Coal

Scale: 1:88,442

Author: shenanewman

Date Exported: 16/08/2022 11:51 AM

Spatial Reference  
Name: GDA2020 MGA Zone 56



Disclaimer: Map for reference only and subject to survey. MCC makes no guarantee of the accuracy of this map and data within. MCC shall have no liability for any decisions made or actions taken based upon this map.



## MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 20221

**EPA Website Link:** [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

**Licensee:** Maules Creek Coal Mine Pty Ltd

**Licensee Address:** Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** December 2022

**Obtained Date:** 15<sup>th</sup> January 2023

**Publication Date:** 20<sup>th</sup> January 2023

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2<sup>nd</sup> August 2022 by the NSW Environment Protection Authority (EPA).



## Monthly Monitoring Summary

## Ground Water Monitoring

### Table 1 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	5/12/2022	Dry			
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	6/12/2022	Dry			
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	5/12/2022	Dry			
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	1	2/12/2022	YES	N/A	N/A	7.46
	Conductivity	µs/cm							1800
	TDS	mg/L							1060



## Surface Water Monitoring

### Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	9/12/2022	15/01/2022	NA	NA	<5
	Conductivity	µs/cm							1000
	Oil & Grease	mg/L							<5
	pH	pH							8.48

### Table 3 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
3 (SD3)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36.	No discharge at these locations this month						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
36 (SD12)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
	Conductivity	µs/cm								



ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value							
38 (Flow Meter Upstream)	Conductivity	μs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.														
	Nitrate	mg/L															
	Nitrogen (total)	mg/L															
	Oil & Grease	mg/L															
	pH	pH															
	Phosphorous	mg/L															
	Reactive Phosphorous	mg/L															
	TSS	mg/L															
	Conductivity	μs/cm															
	Nitrate	mg/L															
	Nitrogen (total)	mg/L															
	Oil & Grease	mg/L															
	pH	pH															
	Phosphorous	mg/L															
	Reactive Phosphorous	mg/L															
TSS	mg/L																
39 (Flow Meter downstream)	Conductivity	μs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.														
	Nitrate	mg/L															
	Nitrogen (total)	mg/L															
	Oil & Grease	mg/L															
	pH	pH															
	Phosphorous	mg/L															
	Reactive Phosphorous	mg/L															
	TSS	mg/L															
	Conductivity	μs/cm															
	Nitrate	mg/L															
	Nitrogen (total)	mg/L															
	Oil & Grease	mg/L															
	pH	pH															
	Phosphorous	mg/L															
	Reactive Phosphorous	mg/L															

No discharge occurred from this monitoring location during December 2022



	TSS	mg/L	
40 (HWD8)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period
	Conductivity	µs/cm	
	Oil & Grease	mg/L	
	pH	pH	
41 (HWD9)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period
	Conductivity	µs/cm	
	Oil & Grease	mg/L	
	pH	pH	
	TSS	mg/L	
	Conductivity	µs/cm	
	Oil & Grease	mg/L	
	pH	pH	
42 (HWD10)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or
	Conductivity	µs/cm	
	Oil & Grease	mg/L	



	pH	pH	within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	
43 (HWD11)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	
	Conductivity	µs/cm		
	Oil & Grease	mg/L		
	pH	pH		
	TSS	mg/L		
	Conductivity	µs/cm		
	Oil & Grease	mg/L		
	pH	pH		
44 (WCWD)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day	
	Conductivity	µs/cm		
	Oil & Grease	mg/L		
	pH	pH		
	TSS	mg/L		
	Conductivity	µs/cm		





	Oil & Grease	mg/L	consecutive period	
	pH	pH		
45 (ECWDP)	Oil & Grease	mg/L	not more than 12 hours after discharge commences	
	pH	pH		
	TSS	mg/L		
	Oil & Grease	mg/L		
	pH	pH		
	TSS	mg/L		
46 (WCWDP)	Oil & Grease	mg/L	not more than 12 hours after discharge commences	
	pH	pH		
	TSS	mg/L		
	Oil & Grease	mg/L		
	pH	mg/L		
	TSS	pH		



## Noise Monitoring

Table 6 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit L <sub>Aeq</sub> 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit L <sub>A1</sub> (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	20/12/2022	22:30	3.3	<20	35	27	45	0.0	NA
NM2	20/12/2022	23:30	2.8	29	39	32	45	0.0	No
NM3	20/12/2022	23:51	3.0	IA	35	IA	45	0.0	No
NM4	20/12/2022	23:00	3.5	26	35	30	45	0.0	NA
NM5	20/12/2022	22:00	4.2	IA	35	IA	45	0.0	NA
NM6	21/12/2022	0:00	3.4	<20	35	23	45	0.0	NA

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

*Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.*

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

Table 7 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



## Blast Monitoring

Table 8 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	10	93.1	105.3	120	No
	Vibration	mm/s		10	0.11	0.33	10	No

*Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).*

## Air Quality Monitoring

Table 9 – PM<sub>10</sub> (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	5.1	30	No
37 (TEOM3)	Continuous	µg/m <sup>3</sup> month	PM <sub>10</sub>	12.5	30	No
19 (HVAS)	5 days	µg/m <sup>3</sup>	PM <sub>10</sub>	8.0	30	No

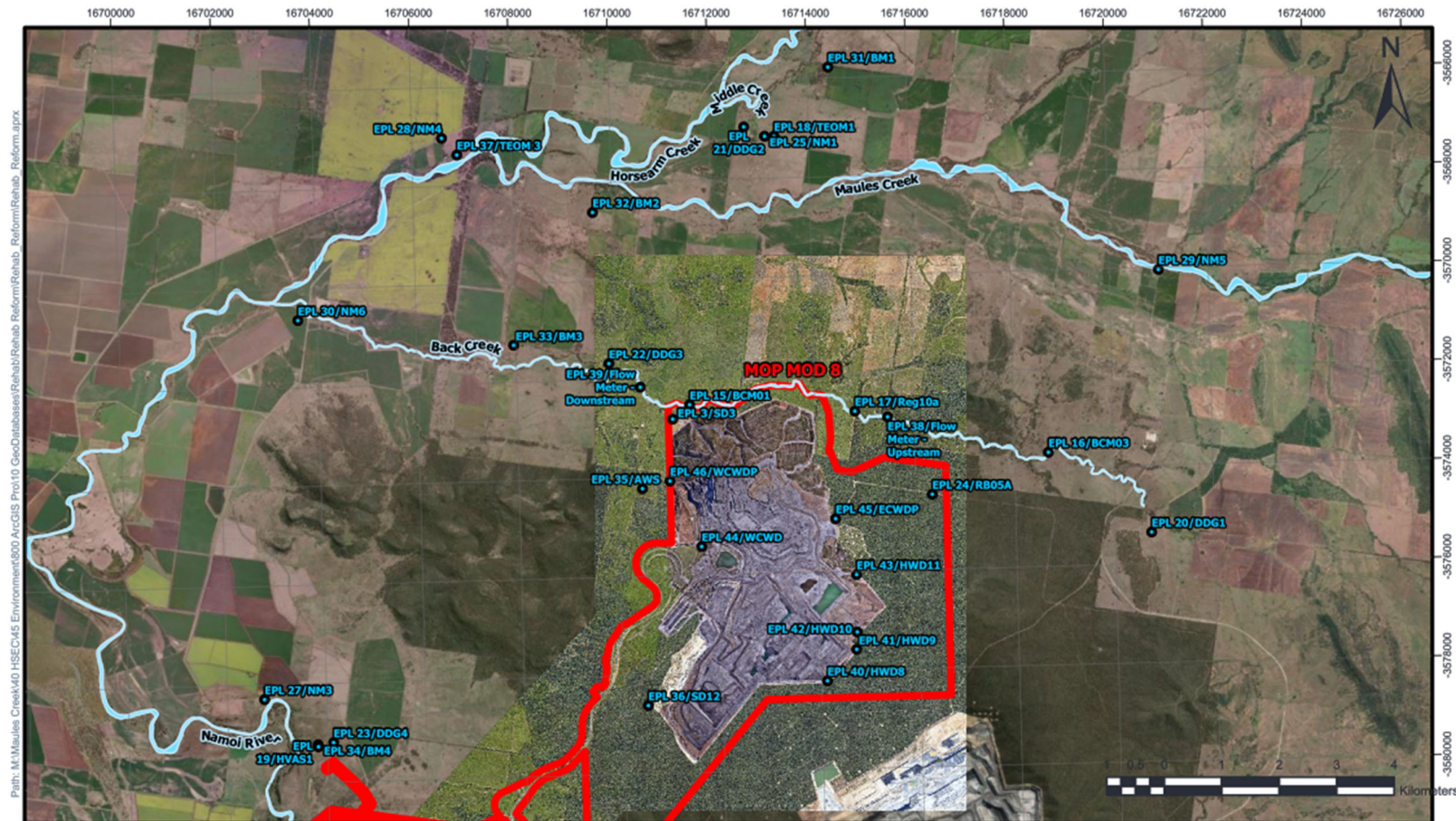
Table 10 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m <sup>2</sup> month	0.9	4	No
21 (DDG2/MC2)	Monthly	g/m <sup>2</sup> month	0.5	4	No
22 (DDG3/MC3)	Monthly	g/m <sup>2</sup> month	2.1	4	No
23 (DDG4/MC4)	Monthly	g/m <sup>2</sup> month	1.2	4	No



# WHITEHAVEN COAL

Figure 1 – EPL 20221 Monitoring Locations



## EPL20221 Monitoring Locations - 2/08/2022

### Legend

- EPL Monitoring locations
- 05 Project Boundary\_Boundaries
- MCCM Project Boundary (Mod 8)

Maules Creek Coal

Scale: 1:88,442

Author: shenanewman

Date Exported: 16/09/2022 11:51 AM

Spatial Reference  
Name: GDA2020 MGA Zone 56



Disclaimer: Map for reference only and subject to survey. MCC makes no guarantee of the accuracy of this map and data within. MCC shall have no liability for any decisions made or actions taken based upon this map.

## Corrections Log

EPL Report	Original Publishing Date	Date of Republishing	Corrections
EPL 20221 March 2022	21/04/2022	09/07/2024	Inclusion of Data for EPL Monitoring Point 37 (TEOM3)
EPL 20221 April 2022	16/05/2022	09/07/2024	Inclusion of Data for EPL Monitoring Point 37 (TEOM3)
EPL 20221 May 2022	20/06/2022	09/07/2024	Inclusion of Data for EPL Monitoring Point 37 (TEOM3)
EPL 20221 June 2022	19/07/2022	09/07/2024	Inclusion of Data for EPL Monitoring Point 37 (TEOM3)