

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Site Information

EPL No.: 12290

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31280&SYSUID=1&LICID=12290>

Licensee: Werris Creek Coal Pty Limited

Premises: Werris Creek Coal, 1435 Werris Creek Road, WERRIS CREEK NSW 2341

EPL Monitoring Points: See figure at end of document

Sampling Period: JANUARY 2023

Obtained Date: 13/03/2023 (Amended)

Publication Date: 14/03/2023 (Amended)

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
28	PM10	µg/m ³	Every 6 days	5	29/01/2023	14/02/2023	4.4	6.9	7.0	10.1
	Solid Particles	g/m ² /month	Continuous	1	19/01/2023	13/02/2023	1.2	1.2	1.2	1.2
29	PM10	µg/m ³	Every 6 days	5	29/01/2023	14/02/2023	9.5	10.8	10.2	13
	Solid Particles	g/m ² /month	Continuous	1	19/01/2023	13/02/2023	1.9	1.9	1.9	1.9
30	PM10	µg/m ³	Continuous	Continuous	31/01/2023	01/02/2023	5.7	11.1	11.5	16.9
	Solid Particles	g/m ² /month	Continuous	1	19/01/2023	13/02/2023	0.9	0.9	0.9	0.9
10	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-



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14	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
32	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
23	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
24	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-

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	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
25	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
26	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
33	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

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	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
34	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

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	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
35	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

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	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

¹NS – No sample. EPL ID 28 sample site vandalised and sample bottle shot and smashed.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
10	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
12	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	



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EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
14	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
32	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	9	No	
33^	Electrical Conductivity	µS/cm	Special Frequency 4	2	6/1 & 16/1/2023	01/02/2023	1904	1915	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	1	11/23/2022	01/12/2022	<5	<5	10	No	
	pH	pH	Special Frequency 4	2	6/1 & 16/1/2023	01/02/2023	8.11	8.25	9	No	
34	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
35	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ EPL ID Point 33 is the point of discharge for discharge sampling

*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.

The discharge sample was inconsistent with pre-discharge sampling of the dam and has been discussed with the EPA. This will be documented in the Annual Return.

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.



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- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.
- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.

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Table 3 – Monitoring (Quarterly & 6 monthly – no limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
27	Total Suspended Solids	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
17	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-	

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EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
19	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
20	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
21	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-

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	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
22	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-

TLTS – too low to sample

*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Measurement Period	Start Time	Measured levels – dB(A)		Limit(s)	Weather (Inversion °C/100m & / Wind m/s / Wind Direction °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
R24	17 January 2023	60 minutes	2:06pm	N/A	46	Day 37	1.6 / 140	Insects (45), traffic (38), birds (34), WCC (<20)	No	08/02/2023
R12	17 January 2023	60 minutes	3:09pm	N/A	42	Day 38	1.1 / 182	Birds (40), insects (37), traffic (31), WCC (<20)	No	08/02/2023
R96	17 January 2023	60 minutes	4:19pm	N/A	43	Day 38	1.0 / 235	Insects (43), birds (33), WCC (<20)	No	08/02/2023
R98	17 January 2023	60 minutes	5:26pm	N/A	42	Day 35	0.8 / 168	Birds (41), insects (30), WCC (<20)	No	08/02/2023
R57	17 January 2023	60 minutes	4:02pm	N/A	51	Day 35	2.1 / 191	Trains (51), birds (38), traffic (35), insects (30), WCC (<20)	No	08/02/2023
R24	17 January 2023	60 minutes	7:56pm	<20	51	Night 37	Lapse / 3.9 / 287	Traffic (51), insects (37), WCC (<20)	No	08/02/2023
R12	17 January 2023	60 minutes	11:58pm	<20	49	Night 38	Lapse / 1.8 / 053	Insects (49), frogs (26), traffic (24), WCC (<20)	No	08/02/2023
R96	17 January 2023	60 minutes	10:46pm	<20	37	Night 37	Lapse / 2.7 / 094	Insects (36), frogs (27), dog (26), WCC (<20)	No	08/02/2023
R98	17 January 2023	60 minutes	9:39pm	<20	49	Night 35	Lapse / 2.8 / 116	Insects (49), frogs (28), birds (25), WCC (<20)	No	08/02/2023
R57	17 January 2023	60 minutes	7:44pm	25	47	Night 35	Lapse / 4.8 / 168	Train (46), birds (39), insects (31), WCC (22)	No	08/02/2023

NM = Not Measurable. This denotes noise from the mine was audible at low levels however cannot be quantified.

IA = Inaudible.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 5 – Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date Obtained
R11	Blast Noise	dB (Lin Peak)	Every Blast	4	97.4	100.8	120.0	No	01/02/2023
	Blast Vibration	mm/s	Every Blast	4	0.10	0.13	10.0	No	01/02/2023
R98	Blast Noise	dB (Lin Peak)	Every Blast	4	99.2	106.9	120.0	No	01/02/2023
	Blast Vibration	mm/s	Every Blast	4	0.85	1.04	10.0	No	01/02/2023
R62	Blast Noise	dB (Lin Peak)	Every Blast	4	101.2	110.0	120.0	No	01/02/2023
	Blast Vibration	mm/s	Every Blast	4	0.52	0.73	10.0	No	01/02/2023
R92	Blast Noise	dB (Lin Peak)	Every Blast	4	98.5	107.1	120.0	No	01/02/2023
	Blast Vibration	mm/s	Every Blast	4	0.32	0.37	10.0	No	01/02/2023



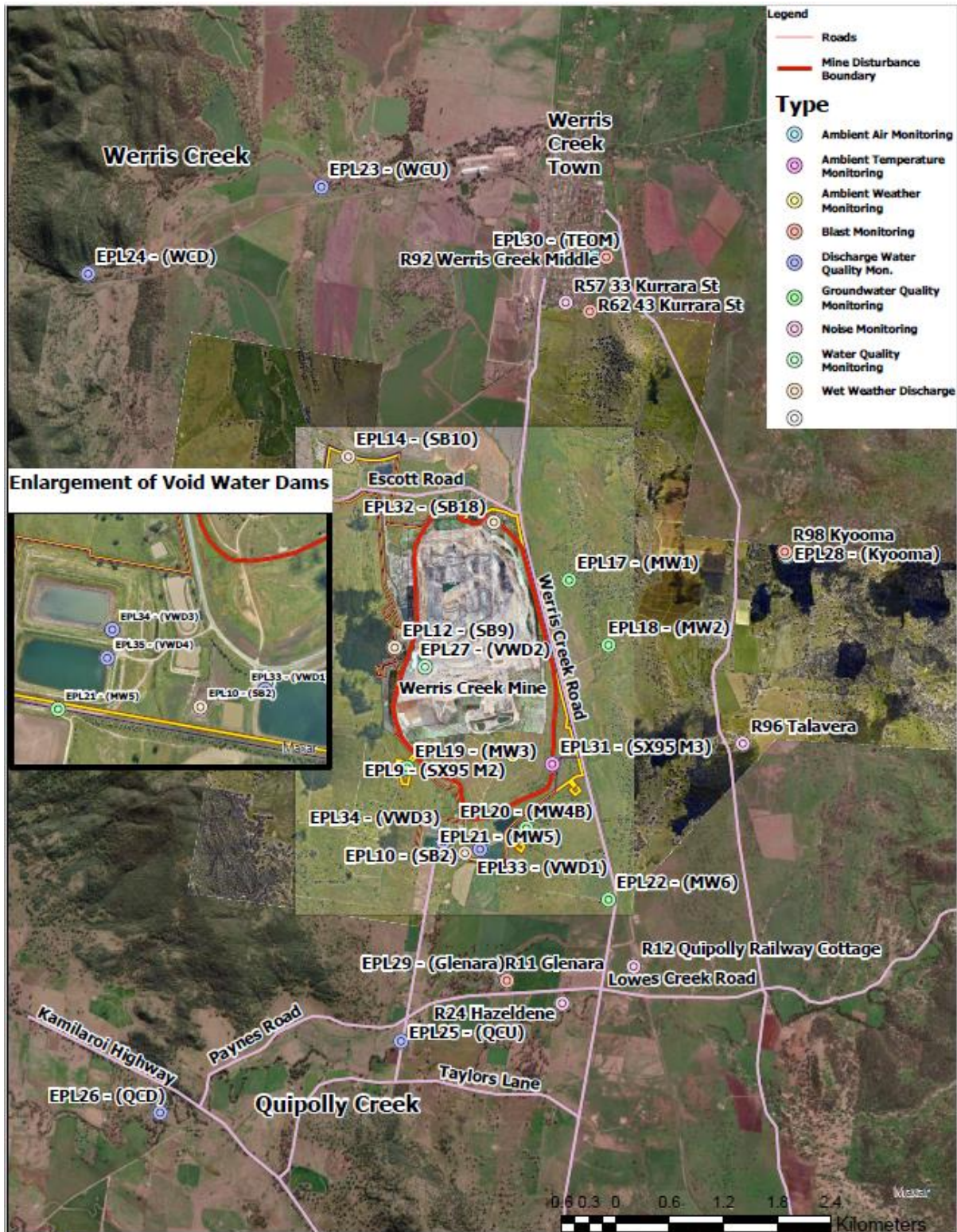
WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Correction Log

Month of EPL report	Date of Original Publishing	Date of Correction	Date of Republishing	Correction Notes
January 2023	15/02/2023	13/03/2023	14/03/2023	PM10 continuous (EPL30) Average Data has changed due to the annual Zero filter test conducted from 31 st of January 2023 to 1 st of February 2023. This invalidates the recordings on the 31 st of January slightly changing the Mean and Minimum data for continuous PM10



WERRIS CREEK COAL EPL – MONTHLY SUMMARY



Datum: MGA Zone 56
Date: 09-Nov-2021

Author: K.Sammons
Size/Scale:

Werris Creek EPL12290 Licensed Monitoring Points



WERRIS CREEK COAL EPL – MONTHLY SUMMARY
Site Information
EPL No.: 12290

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31280&SYSUID=1&LICID=12290>
Licensee: Werris Creek Coal Pty Limited

Premises: Werris Creek Coal, 1435 Werris Creek Road, WERRIS CREEK NSW 2341

EPL Monitoring Points: See figure at end of document

Sampling Period: FEBRUARY 2023

Obtained Date: 23/03/2023

Publication Date: 27/03/2023

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
28	PM10	µg/m ³	Every 6 days	5	28/02/2023	15/03/2023	3.5	6.3	7.3	7.9
	Solid Particles	g/m ² /month	Continuous	1	20/2/2023	23/03/2023	0.8	0.8	0.8	0.8
29	PM10	µg/m ³	Every 6 days	5	28/02/2023	15/03/2023	5.6	10	8.7	18.4
	Solid Particles	g/m ² /month	Continuous	1	20/2/2023	23/03/2023	0.2	0.2	0.2	0.2
30	PM10	µg/m ³	Continuous	Continuous	28/02/2023	01/03/2023	6.3	12.2	11.9	22.0
	Solid Particles	g/m ² /month	Continuous	1	20/2/2023	23/03/2023	0.7	0.7	0.7	0.7
10	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
32	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
23	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
24	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
25	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
26	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
33	Aluminium (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	0.26	0.26	0.26	0.26
	Arsenic (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	<0.001	<0.001	<0.001	<0.001
	Barium (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	0.16	0.16	0.16	0.16

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Beryllium (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	<0.001	<0.001	<0.001	<0.001
	BOD	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	<2	<2	<2	<2
	Cadmium (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	<0.001	<0.001	<0.001	<0.001
	Cobalt (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	<0.001	<0.001	<0.001	<0.001
	Copper (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	0.002	0.002	0.002	0.002
	Iron (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	0.12	0.12	0.12	0.12
	Lead (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	<0.001	<0.001	<0.001	<0.001
	Magnesium	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	53	53	53	53
	Manganese (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	0.113	0.113	0.113	0.113
	Nickel (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	0.004	0.004	0.004	0.004
	Potassium	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	18	18	18	18
	Selenium (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	<0.01	<0.01	<0.01	<0.01
	Sodium	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	196	196	196	196
	Total dissolved solids	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	1360	1360	1360	1360
	Vanadium (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	<0.01	<0.01	<0.01	<0.01
Zinc (dissolved)	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	0.3	0.3	0.3	0.3	
34	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
35	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

¹NS – No sample.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
10	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
12	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
14	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
32	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	9	No	
33^	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	<5	<5	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
34	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
35	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ EPL ID Point 33 is the point of discharge for discharge sampling

*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.

#The discharge sample was inconsistent with pre-discharge sampling of the dam and has been discussed with the EPA. This will be documented in the Annual Return.

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY
Table 3 – Monitoring (Quarterly & 6 monthly – no limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Conductivity	µS/cm	Every 3 Months	1	23/02/2023	06/03/2023	1890	1890	1890	1890
	Nitrate	mg/L	Every 3 Months	1	23/02/2023	06/03/2023	<0.01	<0.01	<0.01	<0.01
	Nitrogen (Total)	mg/L	Every 3 Months	1	23/02/2023	06/03/2023	0.3	0.3	0.3	0.3
	Oil and Grease	mg/L	Every 3 Months	1	23/02/2023	06/03/2023	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	23/02/2023	06/03/2023	7.8	7.8	7.8	7.8
	Phosphorus (Total)	mg/L	Every 3 Months	1	23/02/2023	06/03/2023	0.03	0.03	0.03	0.03
	Reactive Phosphorus	mg/L	Every 3 Months	1	23/02/2023	06/03/2023	<0.01	<0.01	<0.01	<0.01
	Total Suspended Solids	mg/L	Every 3 Months	1	23/02/2023	06/03/2023	58	58	58	58
27	Conductivity	µS/cm	Every 3 Months	1	23/02/2023	06/03/2023	1800	1800	1800	1800
	Nitrate	mg/L	Every 3 Months	1	23/02/2023	06/03/2023	<0.01	<0.01	<0.01	<0.01
	Nitrogen (Total)	mg/L	Every 3 Months	1	23/02/2023	06/03/2023	0.2	0.2	0.2	0.2
	Oil and Grease	mg/L	Every 3 Months	1	23/02/2023	06/03/2023	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	23/02/2023	06/03/2023	7.97	7.97	7.97	7.97
	Phosphorus (Total)	mg/L	Every 3 Months	1	23/02/2023	06/03/2023	<0.01	<0.01	<0.01	<0.01
	Reactive Phosphorus	mg/L	Every 3 Months	1	23/02/2023	06/03/2023	<0.01	<0.01	<0.01	<0.01
	Total Suspended Solids	mg/L	Every 3 Months	1	23/02/2023	06/03/2023	6	6	6	6
17	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
19	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
20	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
21	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
22	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-

TLTS – too low to sample

*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Measurement Period	Start Time	Measured levels – dB(A)		Limit(s)	Weather (Inversion °C/100m & / Wind m/s / Wind Direction °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
R24	23 February 2023	60 minutes	10:24am	N/A	53	Day 37	4.2 / 102	Traffic (53), birds (32), WCC (25)	No	13/03/2023
R12	23 February 2023	60 minutes	11:30am	N/A	41	Day 38	2.9 / 104	Traffic (38), birds (35), insects (35), WCC (<20)	No	13/03/2023
R96	23 February 2023	60 minutes	12:38pm	N/A	37	Day 38	2.4 / 118	Birds (36), insects (28), traffic (26), WCC (<20)	No	13/03/2023
R98	23 February 2023	60 minutes	2:53pm	N/A	40	Day 35	3.1 / 173	Birds (37), insects (36), WCC (<20)	No	13/03/2023
R57	23 February 2023	60 minutes	4:46pm	N/A	52	Day 35	3.7 / 125	Trains (51), traffic (46), birds (33), insects (28), WCC (<20)	No	13/03/2023
R24	23 February 2023	60 minutes	7:58pm	34	51	Night 37	Lapse / 5.1 / 099	Traffic (48), train (46), birds (43), insects (36), WCC (30)	No	13/03/2023
R12	23 February 2023	60 minutes	9:06pm	<20	39	Night 38	Lapse / 3.3 / 114	Insects (38), traffic (32), WCC (<20)	No	13/03/2023
R96	23 February 2023	60 minutes	10:13pm	<20	46	Night 37	Lapse / 2.3 / 127	Insects (46), frogs (28), traffic (26), WCC (<20)	No	13/03/2023
R98	23 February 2023	60 minutes	11:23pm	<20	46	Night 35	Lapse / 2.2 / 154	Insects (46), frogs (32), WCC (<20)	No	13/03/2023
R57	23 February 2023	60 minutes	7:21pm	<20	48	Night 35	Lapse / 4.1 / 123	Traffic (46), insects (43), birds (37), WCC (<20)	No	13/03/2023

NM = Not Measurable. This denotes noise from the mine was audible at low levels however cannot be quantified.

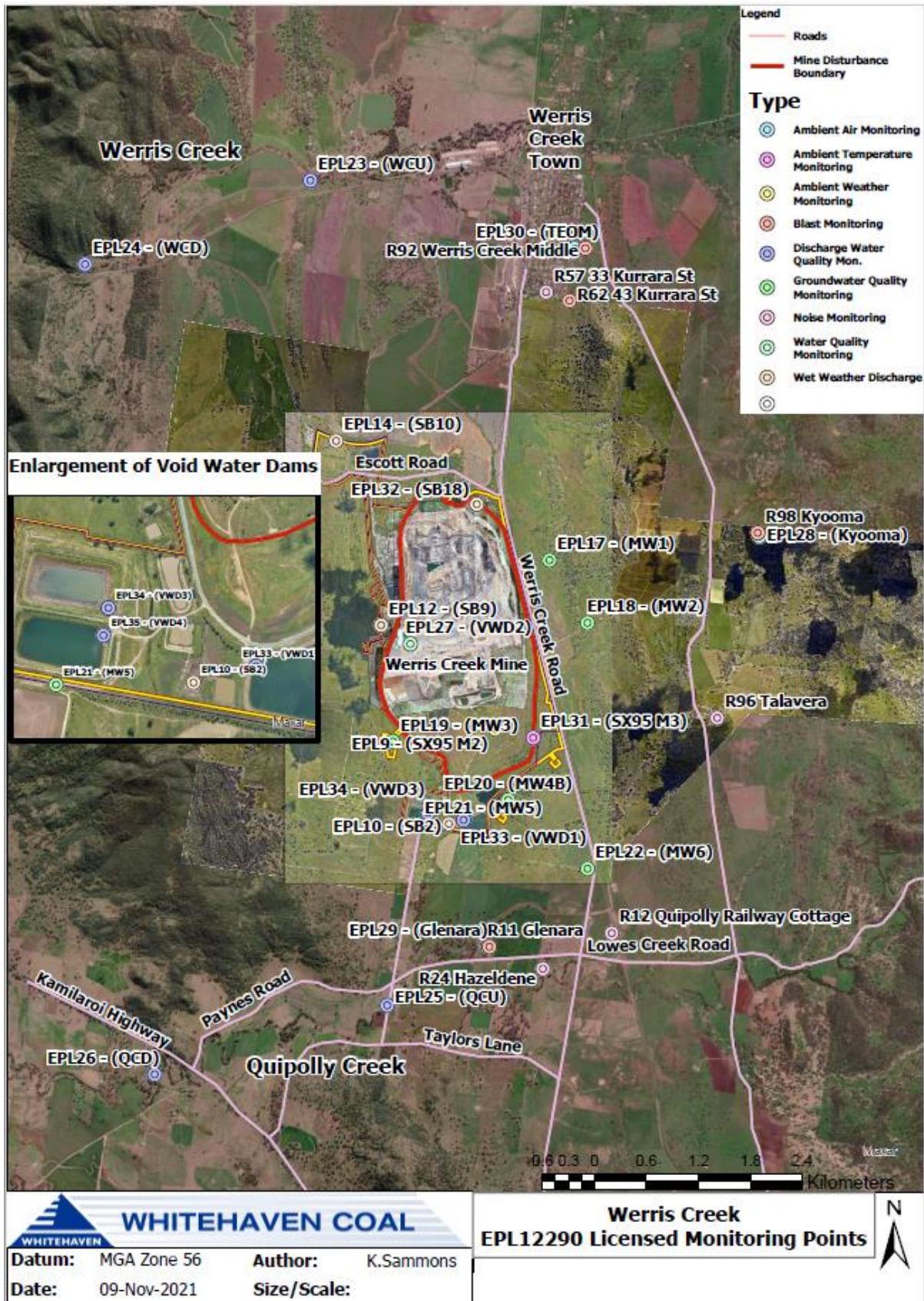
IA = Inaudible.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 5 – Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date Obtained
R11	Blast Noise	dB (Lin Peak)	Every Blast	5	99.0	106.3	120.0	No	01/03/2023
	Blast Vibration	mm/s	Every Blast	5	0.12	0.19	10.0	No	01/03/2023
R98	Blast Noise	dB (Lin Peak)	Every Blast	5	100.3	109.7	120.0	No	01/03/2023
	Blast Vibration	mm/s	Every Blast	5	0.94	1.57	10.0	No	01/03/2023
R62	Blast Noise	dB (Lin Peak)	Every Blast	5	100.2	106.8	120.0	No	01/03/2023
	Blast Vibration	mm/s	Every Blast	5	0.74	1.49	10.0	No	01/03/2023
R92	Blast Noise	dB (Lin Peak)	Every Blast	5	98.0	107.3	120.0	No	01/03/2023
	Blast Vibration	mm/s	Every Blast	5	0.39	0.97	10.0	No	01/03/2023

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WERRIS CREEK COAL EPL – MONTHLY SUMMARY
Site Information
EPL No.: 12290

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31280&SYSUID=1&LICID=12290>
Licensee: Werris Creek Coal Pty Limited

Premises: Werris Creek Coal, 1435 Werris Creek Road, WERRIS CREEK NSW 2341

EPL Monitoring Points: See figure at end of document

Sampling Period: MARCH 2023

Obtained Date: 20/04/2023

Publication Date: 20/04/2023

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
28	PM10	µg/m ³	Every 6 days	5	30/03/2023	18/04/2023	5.2	9.0	8.2	14.8
	Solid Particles	g/m ² /month	Continuous	1	20/03/2023	30/03/2023	0.1	0.1	0.1	0.1
29	PM10	µg/m ³	Every 6 days	5	30/03/2023	18/04/2023	6.1	10.2	7.8	16.5
	Solid Particles	g/m ² /month	Continuous	1	20/03/2023	30/03/2023	0.7	0.7	0.7	0.7
30	PM10	µg/m ³	Continuous	Continuous	31/03/2023	01/04/2023	4.4	13.4	13	21.2
	Solid Particles	g/m ² /month	Continuous	1	20/03/2023	30/03/2023	0.3	0.3	0.3	0.3
10	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
32	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
23	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
24	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
25	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
26	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
33	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
34	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
35	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

¹NS – No sample.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
10	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
12	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
14	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
32	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	9	No	
33^	Electrical Conductivity	µS/cm	Special Frequency 4	1	03/03/2023	31/03/2023	1985	1985	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	1	23/02/2023	06/03/2023	<5	<5	10	No	
	pH	pH	Special Frequency 4	1	03/03/2023	31/03/2023	8.2	8.2	9	No	
34	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
35	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ EPL ID Point 33 is the point of discharge for discharge sampling

*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.
- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 3 – Monitoring (Quarterly & 6 monthly – no limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
27	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
17	Conductivity	µS/cm	Every 6 Months	0	07/03/2023	07/03/2023	Dry	Dry	Dry	Dry
	Nitrate	mg/L	Every 6 Months	0	07/03/2023	07/03/2023	Dry	Dry	Dry	Dry
	Nitrogen (Total)	mg/L	Every 6 Months	0	07/03/2023	07/03/2023	Dry	Dry	Dry	Dry
	pH	pH	Every 6 Months	0	07/03/2023	07/03/2023	Dry	Dry	Dry	Dry
	Phosphorus (Total)	mg/L	Every 6 Months	0	07/03/2023	07/03/2023	Dry	Dry	Dry	Dry
	Reactive Phosphorus	mg/L	Every 6 Months	0	07/03/2023	07/03/2023	Dry	Dry	Dry	Dry

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Standing Water Level	Metres	Every 6 Months	0	07/03/2023	07/03/2023	Dry	Dry	Dry	Dry
18	Conductivity	µS/cm	Every 6 Months	1	07/03/2023	31/03/2023	887	887	887	887
	Nitrate	mg/L	Every 6 Months	1	07/03/2023	31/03/2023	0.32	0.32	0.32	0.32
	Nitrogen (Total)	mg/L	Every 6 Months	1	07/03/2023	31/03/2023	0.5	0.5	0.5	0.5
	pH	pH	Every 6 Months	1	07/03/2023	31/03/2023	8.04	8.04	8.04	8.04
	Phosphorus (Total)	mg/L	Every 6 Months	1	07/03/2023	31/03/2023	0.09	0.09	0.09	0.09
	Reactive Phosphorus	mg/L	Every 6 Months	1	07/03/2023	31/03/2023	0.06	0.06	0.06	0.06
	Standing Water Level	Metres	Every 6 Months	1	07/03/2023	31/03/2023	33.96	33.96	33.96	33.96
19	Conductivity	µS/cm	Every 6 Months	1	06/03/2023	31/03/2023	2400	2400	2400	2400
	Nitrate	mg/L	Every 6 Months	1	06/03/2023	31/03/2023	11.6	11.6	11.6	11.6
	Nitrogen (Total)	mg/L	Every 6 Months	1	06/03/2023	31/03/2023	13.6	13.6	13.6	13.6
	pH	pH	Every 6 Months	1	06/03/2023	31/03/2023	7.8	7.8	7.8	7.8
	Phosphorus (Total)	mg/L	Every 6 Months	1	06/03/2023	31/03/2023	0.06	0.06	0.06	0.06
	Reactive Phosphorus	mg/L	Every 6 Months	1	06/03/2023	31/03/2023	0.04	0.04	0.04	0.04
	Standing Water Level	Metres	Every 6 Months	1	06/03/2023	31/03/2023	14.93	14.93	14.93	14.93
20	Conductivity	µS/cm	Every 6 Months	1	06/03/2023	31/03/2023	1000	1000	1000	1000
	Nitrate	mg/L	Every 6 Months	1	06/03/2023	31/03/2023	1.51	1.51	1.51	1.51
	Nitrogen (Total)	mg/L	Every 6 Months	1	06/03/2023	31/03/2023	1.8	1.8	1.8	1.8
	pH	pH	Every 6 Months	1	06/03/2023	31/03/2023	7.94	7.94	7.94	7.94
	Phosphorus (Total)	mg/L	Every 6 Months	1	06/03/2023	31/03/2023	0.17	0.17	0.17	0.17
	Reactive Phosphorus	mg/L	Every 6 Months	1	06/03/2023	31/03/2023	0.16	0.16	0.16	0.16
	Standing Water Level	Metres	Every 6 Months	1	06/03/2023	31/03/2023	13.2	13.2	13.2	13.2
21	Conductivity	µS/cm	Every 6 Months	1	06/03/2023	31/03/2023	1910	1910	1910	1910
	Nitrate	mg/L	Every 6 Months	1	06/03/2023	31/03/2023	2.2	2.2	2.2	2.2
	Nitrogen (Total)	mg/L	Every 6 Months	1	06/03/2023	31/03/2023	2.7	2.7	2.7	2.7
	pH	pH	Every 6 Months	1	06/03/2023	31/03/2023	8	8	8	8
	Phosphorus (Total)	mg/L	Every 6 Months	1	06/03/2023	31/03/2023	0.23	0.23	0.23	0.23

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Reactive Phosphorus	mg/L	Every 6 Months	1	06/03/2023	31/03/2023	0.2	0.2	0.2	0.2
	Standing Water Level	Metres	Every 6 Months	1	06/03/2023	31/03/2023	7.6	7.6	7.6	7.6
22	Conductivity	µS/cm	Every 6 Months	1	02/03/2023	31/03/2023	1720	1720	1720	1720
	Nitrate	mg/L	Every 6 Months	1	02/03/2023	31/03/2023	4.07	4.07	4.07	4.07
	Nitrogen (Total)	mg/L	Every 6 Months	1	02/03/2023	31/03/2023	4.6	4.6	4.6	4.6
	pH	pH	Every 6 Months	1	02/03/2023	31/03/2023	7.85	7.85	7.85	7.85
	Phosphorus (Total)	mg/L	Every 6 Months	1	02/03/2023	31/03/2023	0.11	0.11	0.11	0.11
	Reactive Phosphorus	mg/L	Every 6 Months	1	02/03/2023	31/03/2023	0.06	0.06	0.06	0.06
	Standing Water Level	Metres	Every 6 Months	1	02/03/2023	31/03/2023	13.59	13.59	13.59	13.59

TLTS – too low to sample

*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Measurement Period	Start Time	Measured levels – dB(A)		Limit(s)	Weather (Inversion °C/100m & / Wind m/s / Wind Direction °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
R24	27 March 2023	60 minutes	3:06pm	N/A	51	Day 37	2.0 / 026	Traffic (51), insects (36), WCC (<20)	No	14/04/2023
R12	27 March 2023	60 minutes	2:02pm	N/A	40	Day 38	2.2 / 052	Traffic (37), birds (36), insects (29), WCC (<20)	No	14/04/2023
R96	27 March 2023	60 minutes	4:15pm	N/A	42	Day 38	2.1 / 248	Insects (42), birds (31), WCC (<20)	No	14/04/2023
R98	27 March 2023	60 minutes	4:39pm	N/A	40	Day 35	3.1 / 134	Birds (38), frogs (34), dog (28), insects (25), WCC (<20)	No	14/04/2023
R57	27 March 2023	60 minutes	12:52pm	N/A	45	Day 35	3.6 / 011	Insects (44), birds (34), traffic (30), WCC (<20)	No	14/04/2023
R24	27 March 2023	60 minutes	8:01pm	<20	50	Night 37	Lapse / 2.9 / 008	Insects (50), traffic (38), frogs (27), WCC (<20)	No	14/04/2023
R12	28 March 2023	60 minutes	12:02am	<20	38	Night 38	Lapse / 1.2 / 351	Insects (36), traffic (32), frogs (25), WCC (<20)	No	14/04/2023
R96	27 March 2023	60 minutes	10:50pm	<20	44	Night 37	Lapse / 1.0 / 194	Insects (44), frogs (27), WCC (<20)	No	14/04/2023
R98	27 March 2023	60 minutes	9:43pm	<20	43	Night 35	Lapse / 0.1 / 024	Insects (43), frogs (31), cows (24), WCC (<20)	No	14/04/2023
R57	27 March 2023	60 minutes	7:49pm	<20	47	Night 35	Lapse / 2.8 / 012	Insects (45), traffic (41), frogs (35), WCC (<20)	No	14/04/2023

NM = Not Measurable. This denotes noise from the mine was audible at low levels however cannot be quantified.

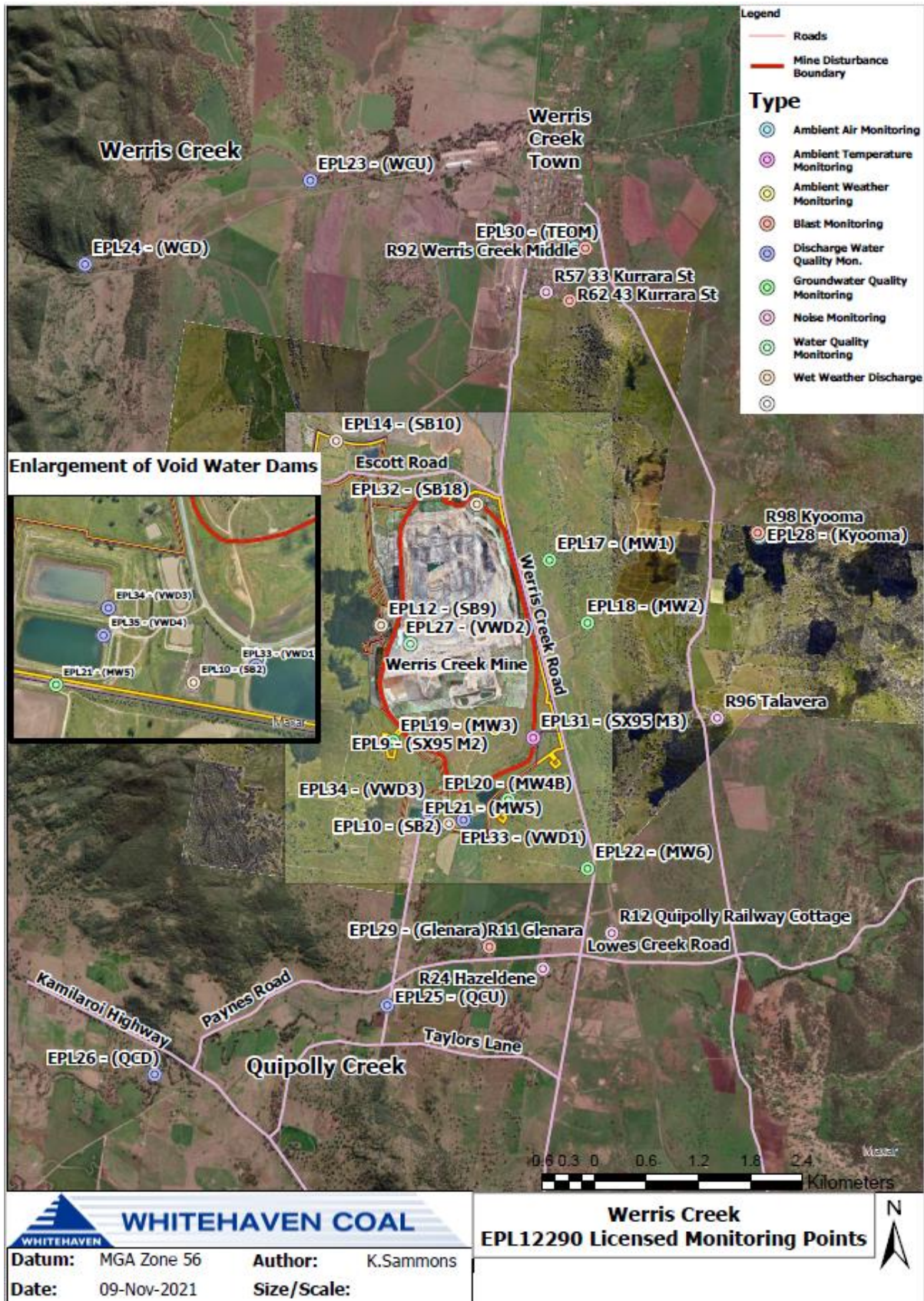
IA = Inaudible.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 5 – Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date Obtained
R11	Blast Noise	dB (Lin Peak)	Every Blast	6	101.0	108.8	120.0	No	01/04/2023
	Blast Vibration	mm/s	Every Blast	6	0.08	0.10	10.0	No	01/04/2023
R98	Blast Noise	dB (Lin Peak)	Every Blast	6	99.5	111.4	120.0	No	01/04/2023
	Blast Vibration	mm/s	Every Blast	6	0.68	1.12	10.0	No	01/04/2023
R62	Blast Noise	dB (Lin Peak)	Every Blast	6	99.9	106.7	120.0	No	01/04/2023
	Blast Vibration	mm/s	Every Blast	6	0.50	1.09	10.0	No	01/04/2023
R92	Blast Noise	dB (Lin Peak)	Every Blast	6	99.4	110.3	120.0	No	01/04/2023
	Blast Vibration	mm/s	Every Blast	6	0.29	0.47	10.0	No	01/04/2023

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Site Information

EPL No.: 12290

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31280&SYSUID=1&LICID=12290>

Licensee: Werris Creek Coal Pty Limited

Premises: Werris Creek Coal, 1435 Werris Creek Road, WERRIS CREEK NSW 2341

EPL Monitoring Points: See figure at end of document

Sampling Period: APRIL 2023

Obtained Date: 16/05/2023

Publication Date: 16/05/2023

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
28	PM10	µg/m ³	Every 6 days	5	29/04/2023	12/05/2023	2.3	4.0	4.3	4.9
	Solid Particles	g/m ² /month	Continuous	1	19/04/2023	03/05/2023	0.5	0.5	0.5	0.5
29	PM10	µg/m ³	Every 6 days	5	29/04/2023	12/05/2023	7.8	10.2	10.1	12.8
	Solid Particles	g/m ² /month	Continuous	1	19/04/2023	03/03/2023	0.5	0.5	0.5	0.5
30	PM10	µg/m ³	Continuous	Continuous	30/04/2023	01/05/2023	0.6	3.5	2.6	10.1
	Solid Particles	g/m ² /month	Continuous	1	19/04/2023	03/05/2023	0.2	0.2	0.2	0.2
10	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
14	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
32	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
23	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total) Reactive Phosphorus	mg/L mg/L	Special Frequency 2 Special Frequency 2	0* 0*	- -	- -	- -	- -	- -	- -
24	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
25	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
26	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
33	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
34	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
35	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

¹NS – No sample.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
10	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
12	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
14	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
32	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	9	No	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
33 [^]	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
34	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
35	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

[^] EPL ID Point 33 is the point of discharge for discharge sampling

*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.

#The discharge sample was inconsistent with pre-discharge sampling of the dam and has been discussed with the EPA. This will be documented in the Annual Return.

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.
- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 3 – Monitoring (Quarterly & 6 monthly – no limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
27	Total Suspended Solids	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
17	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
19	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
20	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
21	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
22	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-

TLTS – too low to sample

*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Measurement Period	Start Time	Measured levels – dB(A)		Limit(s)	Weather (Inversion °C/100m & / Wind m/s / Wind Direction °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
R24	18 April 2023	60 minutes	12:03pm	N/A	49	Day 37	1.0 / 180	Traffic (49), birds (38), WCC (<20)	No	09/05/2023
R12	18 April 2023	60 minutes	4:38pm	N/A	43	Day 38	3.4 / 143	Birds (41), insects (37), traffic (32), frogs (31), WCC (<20)	No	09/05/2023
R96	18 April 2023	60 minutes	3:32pm	N/A	49	Day 38	3.6 / 176	Traffic (49), insects (33), birds (31), frogs (29), WCC (<20)	No	09/05/2023
R98	18 April 2023	60 minutes	4:00pm	N/A	46	Day 35	0.4 / 228	Birds (46), insects (34), WCC (<20)	No	09/05/2023
R57	18 April 2023	60 minutes	2:00pm	N/A	49	Day 35	3.4 / 242	Traffic (49), insects (33), residential (30), frogs (28), WCC (<20)	No	09/05/2023
R24	18 April 2023	60 minutes	7:58pm	<20	51	Night 37	+5.0 / 1.8 / 148	Traffic (48), train (48), insects (32), frogs (27), WCC (<20)	No	09/05/2023
R12	18 April 2023	60 minutes	11:51pm	<20	57	Night 38	+4.0 / 1.2 / 215	Trains (55), traffic (53), frogs (25), insects (23), WCC (<20)	No	09/05/2023
R96	18 April 2023	60 minutes	10:42pm	<20	39	Night 37	+3.3 / 1.3 / 157	Dogs (38), insects (32), frogs (22), WCC (<20)	No	09/05/2023
R98	18 April 2023	60 minutes	9:33pm	<20	36	Night 35	+3.8 / 1.7 / 203	Dogs (34), insects (32), frogs (21), WCC (<20)	No	09/05/2023
R57	18 April 2023	60 minutes	7:44pm	<20	41	Night 35	Lapse / 2.0 / 180	Traffic (40), insects (34), frogs (27), Crawfords ³ (23), WCC (<20)	No	09/05/2023

NM = Not Measurable. This denotes noise from the mine was audible at low levels however cannot be quantified.

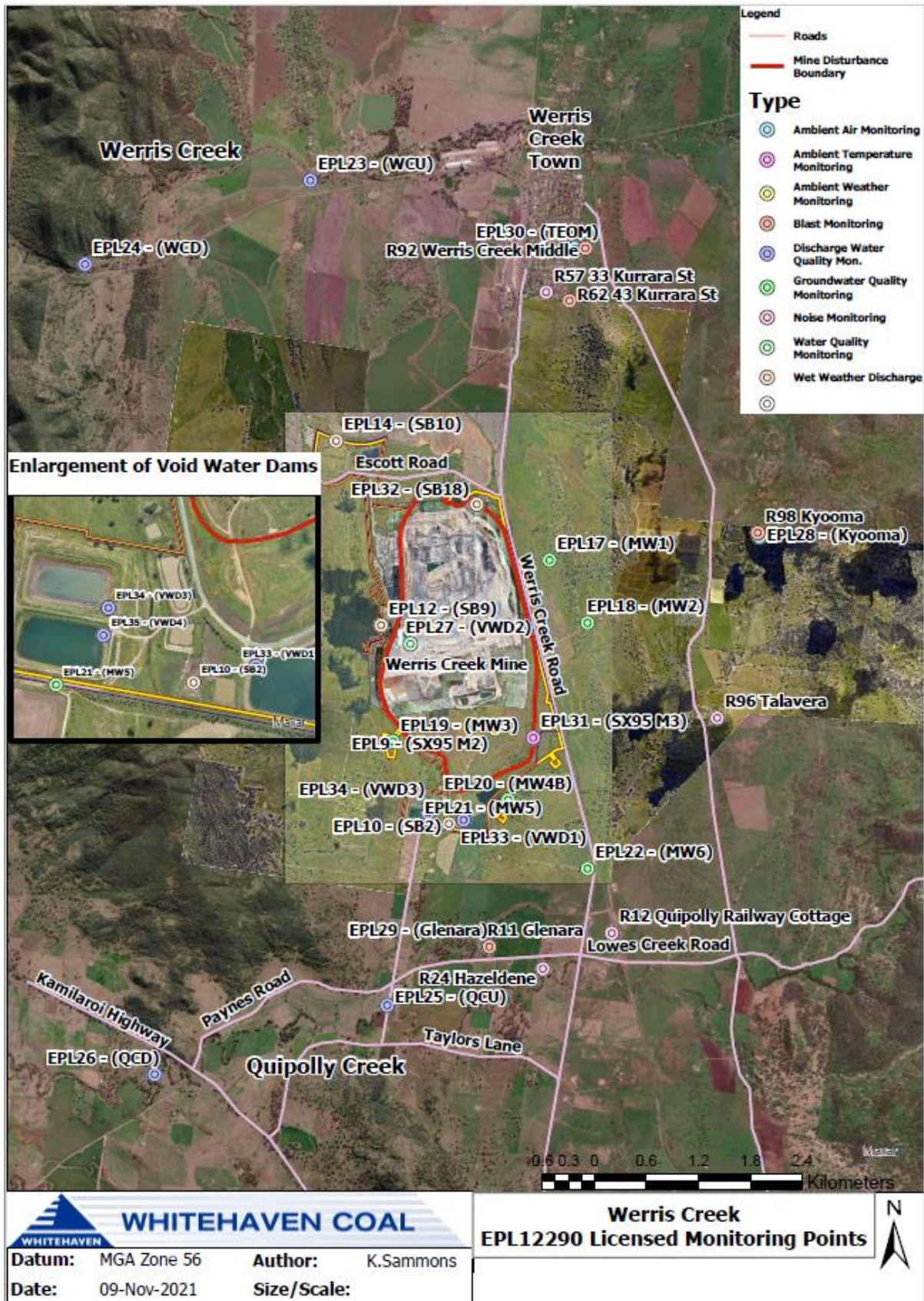
IA = Inaudible.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY
Table 5 – Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date Obtained
R11	Blast Noise	dB (Lin Peak)	Every Blast	4	102.6	111.6	120.0	No	01/05/2023
	Blast Vibration	mm/s	Every Blast	4	0.10	0.12	10.0	No	01/05/2023
R98	Blast Noise	dB (Lin Peak)	Every Blast	4	102.3	106.3	120.0	No	01/05/2023
	Blast Vibration	mm/s	Every Blast	4	0.72	1.41	10.0	No	01/05/2023
R62	Blast Noise	dB (Lin Peak)	Every Blast	4	101.4	106.4	120.0	No	01/05/2023
	Blast Vibration	mm/s	Every Blast	4	0.41	0.72	10.0	No	01/05/2023
R92	Blast Noise	dB (Lin Peak)	Every Blast	4	101.4	106.0	120.0	No	01/05/2023
	Blast Vibration	mm/s	Every Blast	4	0.19	0.31	10.0	No	01/05/2023



WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WERRIS CREEK COAL EPL – MONTHLY SUMMARY
Site Information
EPL No.: 12290

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31280&SYSUID=1&LICID=12290>
Licensee: Werris Creek Coal Pty Limited

Premises: Werris Creek Coal, 1435 Werris Creek Road, WERRIS CREEK NSW 2341

EPL Monitoring Points: See figure at end of document

Sampling Period: MAY 2023

Obtained Date: 14/06/2023

Publication Date: 15/06/2023

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
28	PM10	µg/m ³	Every 6 days	5	29/05/2023	14/06/2023	2.5	6.2	5.2	9.9
	Solid Particles	g/m ² /month	Continuous	1	19/05/2023	01/06/2023	0.3	0.3	0.3	0.3
29	PM10	µg/m ³	Every 6 days	5	29/05/2023	14/06/2023	10.2	23.5	20.3	39.9
	Solid Particles	g/m ² /month	Continuous	1	19/05/2023	01/06/2023	0.7	0.7	0.7	0.7
30	PM10	µg/m ³	Continuous	Continuous	31/05/2021	05/06/2023	4.1	11.6	10.8	27.2
	Solid Particles	g/m ² /month	Continuous	1	19/05/2023	01/06/2023	1.6	1.6	1.6	1.6
10	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
12	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
14	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
32	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
23	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-	
24	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
25	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
26	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
33	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Aluminium (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	<0.01	<0.01	<0.01	<0.01
	Arsenic (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	<0.001	<0.001	<0.001	<0.001
	Barium (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	0.084	0.084	0.084	0.084

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Beryllium (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	<0.001	<0.001	<0.001	<0.001
	BOD	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	2	2	2	2
	Cadmium (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	<0.001	<0.001	<0.001	<0.001
	Cobalt (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	<0.001	<0.001	<0.001	<0.001
	Copper (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	<0.001	<0.001	<0.001	<0.001
	Iron (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	<0.05	<0.05	<0.05	<0.05
	Lead (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	<0.001	<0.001	<0.001	<0.001
	Magnesium	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	48	48	48	48
	Manganese (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	0.006	0.006	0.006	0.006
	Nickel (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	0.004	0.004	0.004	0.004
	Potassium	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	16	16	16	16
	Selenium (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	<0.01	<0.01	<0.01	<0.01
	Sodium	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	188	188	188	188
	Total dissolved solids	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	1370	1370	1370	1370
Vanadium (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	<0.01	<0.01	<0.01	<0.01	
Zinc (dissolved)	mg/L	Special Frequency 3	1	11/05/2023	19/05/2023	<0.005	<0.005	<0.005	<0.005	
34	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
35	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

¹NS – No sample.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
10	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
12	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
14	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
32	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	9	No	
33 [^]	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
34	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
35	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

[^] EPL ID Point 33 is the point of discharge for discharge sampling

*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.

#The discharge sample was inconsistent with pre-discharge sampling of the dam and has been discussed with the EPA. This will be documented in the Annual Return.

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.
- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 3 – Monitoring (Quarterly & 6 monthly – no limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Conductivity	µS/cm	Every 3 Months	1	11/05/2023	19/05/2023	2020	2020	2020	2020
	Nitrate	mg/L	Every 3 Months	1	11/05/2023	19/05/2023	<0.01	<0.01	<0.01	<0.01
	Nitrogen (Total)	mg/L	Every 3 Months	1	11/05/2023	19/05/2023	0.5	0.5	0.5	0.5
	Oil and Grease	mg/L	Every 3 Months	1	11/05/2023	19/05/2023	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	11/05/2023	19/05/2023	7.77	7.77	7.77	7.77
	Phosphorus (Total)	mg/L	Every 3 Months	1	11/05/2023	19/05/2023	0.03	0.03	0.03	0.03
	Reactive Phosphorus	mg/L	Every 3 Months	1	11/05/2023	19/05/2023	0.01	0.01	0.01	0.01
	Total Suspended Solids	mg/L	Every 3 Months	1	11/05/2023	19/05/2023	28	28	28	28
27	Conductivity	µS/cm	Every 3 Months	1	11/05/2023	19/05/2023	1920	1920	1920	1920
	Nitrate	mg/L	Every 3 Months	1	11/05/2023	19/05/2023	<0.01	<0.01	<0.01	<0.01
	Nitrogen (Total)	mg/L	Every 3 Months	1	11/05/2023	19/05/2023	0.1	0.1	0.1	0.1
	Oil and Grease	mg/L	Every 3 Months	1	11/05/2023	19/05/2023	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	11/05/2023	19/05/2023	7.68	7.68	7.68	7.68
	Phosphorus (Total)	mg/L	Every 3 Months	1	11/05/2023	19/05/2023	0.02	0.02	0.02	0.02
	Reactive Phosphorus	mg/L	Every 3 Months	1	11/05/2023	19/05/2023	<0.01	<0.01	<0.01	<0.01
	Total Suspended Solids	mg/L	Every 3 Months	1	11/05/2023	19/05/2023	6	6	6	6
17	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
19	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
20	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
21	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
22	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-

TLTS – too low to sample

*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Measurement Period	Start Time	Measured levels – dB(A)		Limit(s)	Weather (Inversion °C/100m & / Wind m/s / Wind Direction °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
R24	18 May 2023	60 minutes	12:04pm	N/A	50	Day 37	1.8 / 219	Traffic (50), birds (25), WCC (<20)	No	09/06/2023
R12	18 May 2023	60 minutes	3:54pm	N/A	61	Day 38	1.5 / 208	Train (61), birds (38), traffic (35), WCC (<20)	No	09/06/2023
R96	18 May 2023	60 minutes	3:20pm	N/A	42	Day 38	2.3 / 214	Birds (39), insects (37), traffic (24), WCC (<20)	No	09/06/2023
R98	18 May 2023	60 minutes	4:34pm	N/A	38	Day 35	2.0 / 202	Birds (37), frogs (32), WCC (<20)	No	09/06/2023
R57	18 May 2023	60 minutes	1:57pm	N/A	47	Day 35	1.6 / 154	Traffic (47), birds (33), WCC (<20)	No	09/06/2023
R24	18 May 2023	60 minutes	7:58pm	<20	58	Night 37	+4.5 / 1.8 / 016	Train (57), traffic (52), birds (24), WCC (<20)	No	09/06/2023
R12	18 May 2023	60 minutes	11:46pm	<20	58	Night 38	+4.1 / 0.1 / 180	Train (58), traffic (48), frogs (20), WCC (<20)	No	09/06/2023
R96	18 May 2023	60 minutes	10:37pm	<20	33	Night 37	+4.4 / 0.8 / 178	Traffic (33), frogs (20), WCC (<20)	No	09/06/2023
R98	18 May 2023	60 minutes	9:30pm	<20	44	Night 35	+4.9 / 0.9 / 196	Dog (44), frogs (21), WCC (<20)	No	09/06/2023
R57	18 May 2023	60 minutes	7:42pm	<20	47	Night 35	+2.5 / 1.3 / 182	Traffic (47), Crawfords (35), frogs (22), WCC (<20)	No	09/06/2023

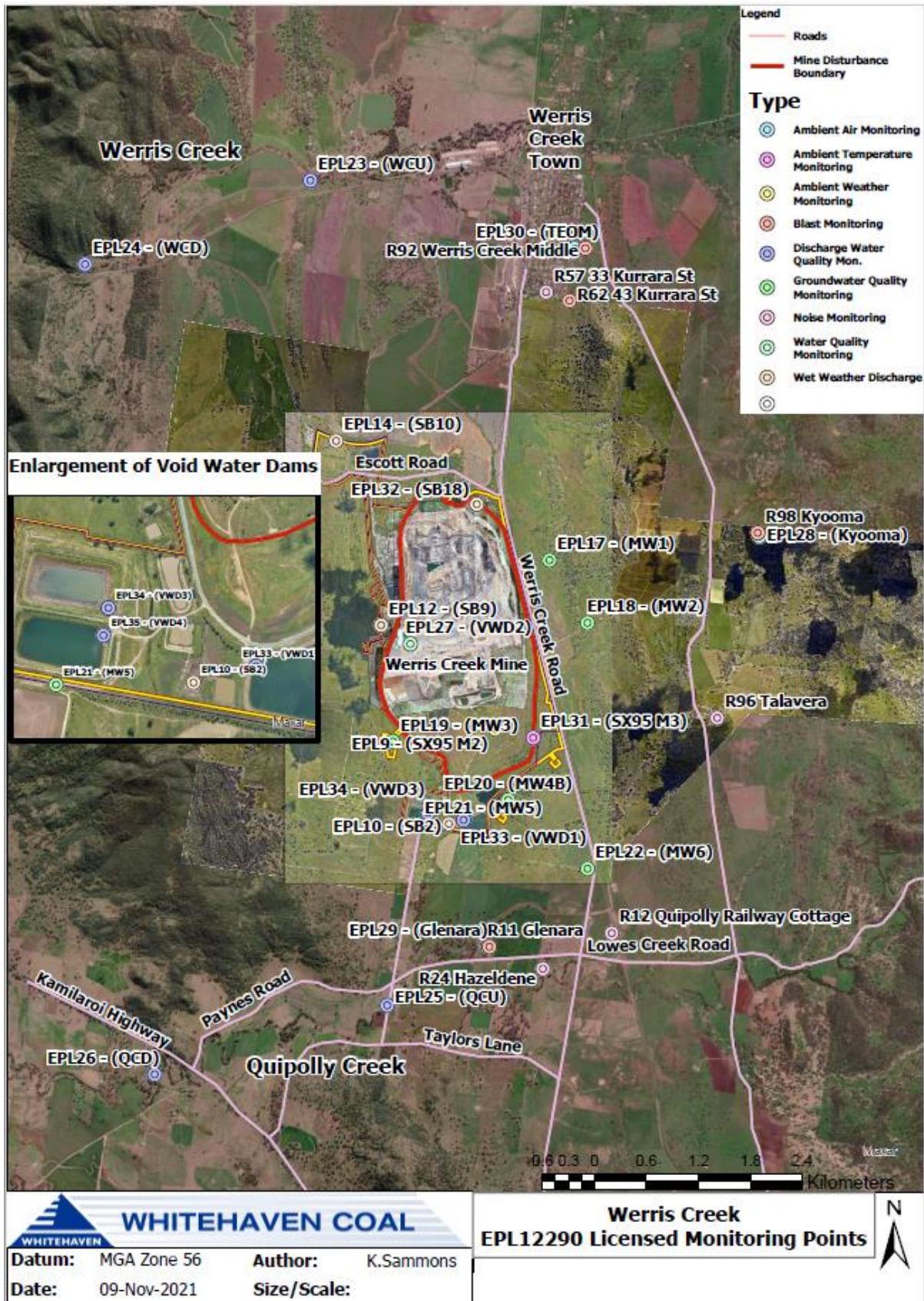
NM = Not Measurable. This denotes noise from the mine was audible at low levels however cannot be quantified.

IA = Inaudible.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY
Table 5 – Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date Obtained
R11	Blast Noise	dB (Lin Peak)	Every Blast	6	99.4	105.0	120.0	No	31/05/2023
	Blast Vibration	mm/s	Every Blast	6	0.13	0.26	10.0	No	31/05/2023
R98	Blast Noise	dB (Lin Peak)	Every Blast	6	100.5	103.8	120.0	No	31/05/2023
	Blast Vibration	mm/s	Every Blast	6	0.79	1.70	10.0	No	31/05/2023
R62	Blast Noise	dB (Lin Peak)	Every Blast	6	101.5	109.7	120.0	No	31/05/2023
	Blast Vibration	mm/s	Every Blast	6	0.48	0.68	10.0	No	31/05/2023
R92	Blast Noise	dB (Lin Peak)	Every Blast	6	98.4	106.3	120.0	No	31/05/2023
	Blast Vibration	mm/s	Every Blast	6	0.29	0.51	10.0	No	31/05/2023

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Site Information

EPL No.: 12290

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31280&SYSUID=1&LICID=12290>

Licensee: Werris Creek Coal Pty Limited

Premises: Werris Creek Coal, 1435 Werris Creek Road, WERRIS CREEK NSW 2341

EPL Monitoring Points: See figure at end of document

Sampling Period: JUNE 2023

Obtained Date: 17/06/2023

Publication Date: 17/06/2023

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
28	PM10	µg/m ³	Every 6 days	5	28/06/2023	13/07/2023	2.0	3.3	2.3	5.3
	Solid Particles	g/m ² /month	Continuous	1	20/06/2023	13/07/2023	<0.1	<0.1	<0.1	<0.1
29	PM10	µg/m ³	Every 6 days	5	28/06/2023	13/07/2023	3.6	7.7	4.8	12.8
	Solid Particles	g/m ² /month	Continuous	1	20/06/2023	13/07/2023	2.6	2.6	2.6	2.6
30	PM10	µg/m ³	Continuous	Continuous	30/06/2023	01/07/2023	3.5	9.4	8.8	18.4
	Solid Particles	g/m ² /month	Continuous	1	20/06/2023	13/07/2023	0.2	0.2	0.2	0.2
10	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
14	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
32	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
23	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total) Reactive Phosphorus	mg/L mg/L	Special Frequency 2 Special Frequency 2	0* 0*	- -	- -	- -	- -	- -	- -
24	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
25	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
26	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
33	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
34	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
35	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

¹NS – No sample.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
10	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
12	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
14	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
32	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	9	No	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
33 [^]	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
34	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
35	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

[^] EPL ID Point 33 is the point of discharge for discharge sampling

*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.

#The discharge sample was inconsistent with pre-discharge sampling of the dam and has been discussed with the EPA. This will be documented in the Annual Return.

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.
- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 3 – Monitoring (Quarterly & 6 monthly – no limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
27	Total Suspended Solids	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
17	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
19	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
20	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
21	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
22	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-

TLTS – too low to sample

*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Measurement Period	Start Time	Measured levels – dB(A)		Limit(s)	Weather (Inversion °C/100m & / Wind m/s / Wind Direction °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
R24	15 June 2023	60 minutes	11:29am	N/A	51	Day 37	0.5 / 258	Traffic (51), birds (28), WCC (<20)	No	05/07/2023
R12	15 June 2023	60 minutes	4:17pm	N/A	56	Day 38	1.5 / 242	Trains (56), traffic (44), birds (31), WCC (<20)	No	05/07/2023
R96	15 June 2023	60 minutes	3:06pm	N/A	43	Day 38	0.9 / 243	Birds (42), traffic (35), WCC (<20)	No	05/07/2023
R98	15 June 2023	60 minutes	3:29pm	N/A	52	Day 35	2.2 / 315	Birds (52), traffic (23), WCC (<20)	No	05/07/2023
R57	15 June 2023	60 minutes	1:36pm	N/A	52	Day 35	1.8 / 215	Traffic (49), trains (47), birds (44), WCC (<20)	No	05/07/2023
R24	15 June 2023	60 minutes	7:56pm	<20	49	Night 37	+5.8 / 0.6 / 284	Traffic (49), frogs (23), WCC (<20)	No	05/07/2023
R12	15 June 2023	60 minutes	11:40pm	<20	43	Night 38	+5.8 / 1.3 / 041	Traffic (43), frogs (21), WCC (<20)	No	05/07/2023
R96	15 June 2023	60 minutes	10:32pm	<20	34	Night 37	+5.4 / 0.0 / 010	Traffic (34), frogs (20), WCC (<20)	No	05/07/2023
R98	15 June 2023	60 minutes	9:26pm	<20	48	Night 35	+4.8 / 0.2 / 158	Dogs (48), frogs (22), WCC (<20)	No	05/07/2023
R57	15 June 2023	60 minutes	7:39pm	34	51	Night 35	+4.1 / 1.1 / 179	Trains (51), traffic (37), Crawfords (34), WCC (30)	No	05/07/2023

NM = Not Measurable. This denotes noise from the mine was audible at low levels however cannot be quantified.

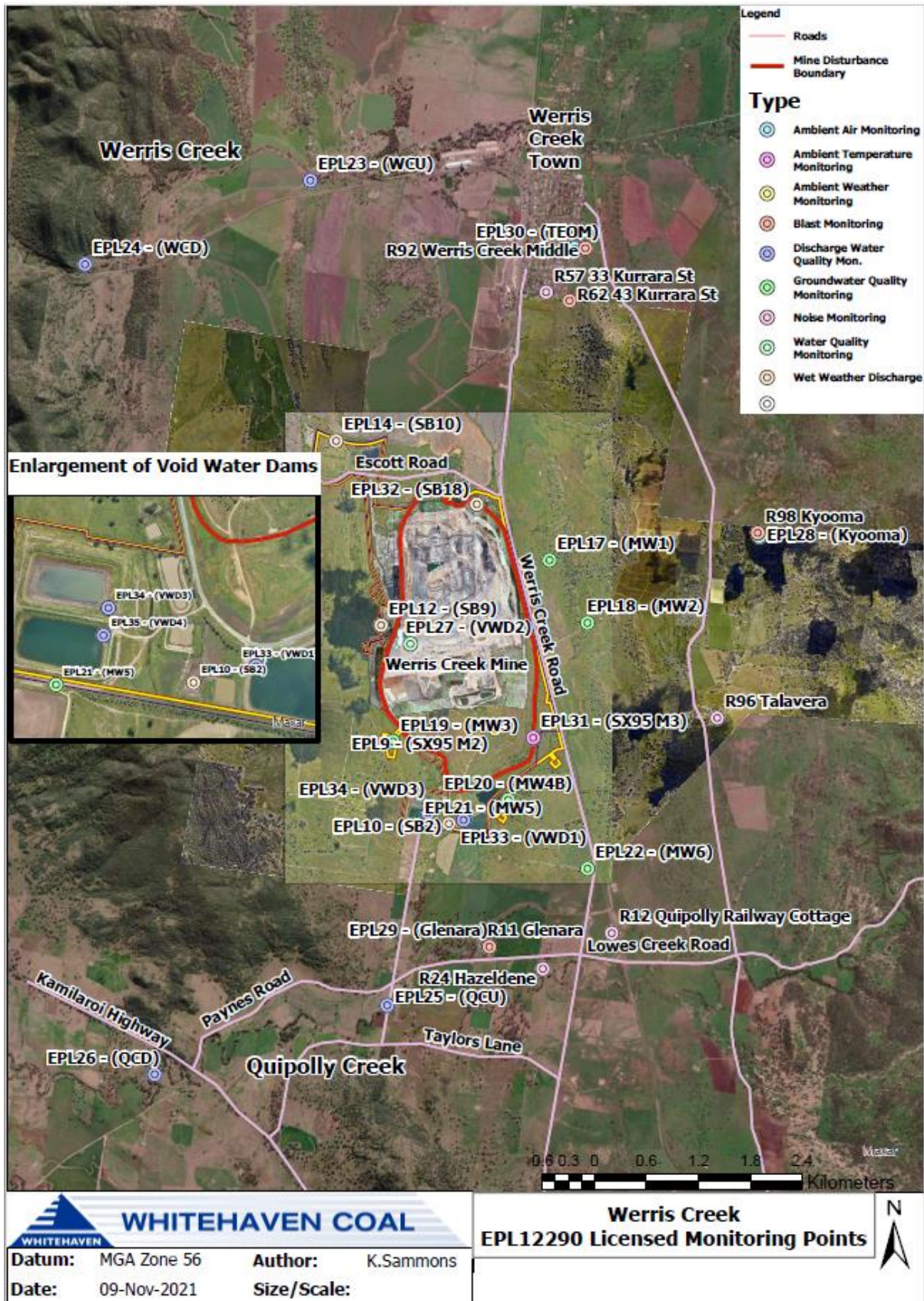
IA = Inaudible.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY
Table 5 – Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date Obtained
R11	Blast Noise	dB (Lin Peak)	Every Blast	6	98.0	105.6	120.0	No	01/07/2023
	Blast Vibration	mm/s	Every Blast	6	0.11	0.16	10.0	No	01/07/2023
R98	Blast Noise	dB (Lin Peak)	Every Blast	6	101.0	109.9	120.0	No	01/07/2023
	Blast Vibration	mm/s	Every Blast	6	0.86	1.38	10.0	No	01/07/2023
R62	Blast Noise	dB (Lin Peak)	Every Blast	6	100.4	109.1	120.0	No	01/07/2023
	Blast Vibration	mm/s	Every Blast	6	0.36	0.63	10.0	No	01/07/2023
R92	Blast Noise	dB (Lin Peak)	Every Blast	6	100.4	115.5	120.0	No	01/07/2023
	Blast Vibration	mm/s	Every Blast	6	0.23	0.33	10.0	No	01/07/2023



WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Site Information

EPL No.: 12290

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31280&SYSUID=1&LICID=12290>

Licensee: Werris Creek Coal Pty Limited

Premises: Werris Creek Coal, 1435 Werris Creek Road, WERRIS CREEK NSW 2341

EPL Monitoring Points: See figure at end of document

Sampling Period: JULY 2023

Obtained Date: 15/08/2023

Publication Date: 15/08/2023

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
28	PM10	µg/m ³	Every 6 days	5	28/07/2023	14/08/2023	0	3.2	2.7	5.3
	Solid Particles	g/m ² /month	Continuous	1	19/07/2023	3/07/2023	0.2	0.2	0.2	0.2
29	PM10	µg/m ³	Every 6 days	5	28/07/2023	14/08/2023	0.4	6.6	6.9	15.0
	Solid Particles	g/m ² /month	Continuous	1	19/07/2023	3/07/2023	0.4	0.4	0.4	0.4
30	PM10	µg/m ³	Continuous	Continuous	31/07/2023	01/08/2023	-1.8	7.9	9.0	14.8
	Solid Particles	g/m ² /month	Continuous	1	19/07/2023	3/07/2023	0.3	0.3	0.3	0.3
10	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
14	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
32	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
23	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
24	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
25	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
26	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
33	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
34	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
35	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

¹NS – No sample.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
10	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
12	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
14	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
32	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	9	No	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
33 [^]	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
34	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
35	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

[^] EPL ID Point 33 is the point of discharge for discharge sampling

*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.

#The discharge sample was inconsistent with pre-discharge sampling of the dam and has been discussed with the EPA. This will be documented in the Annual Return.

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.
- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 3 – Monitoring (Quarterly & 6 monthly – no limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
27	Total Suspended Solids	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
17	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
19	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
20	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
21	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
22	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-

TLTS – too low to sample

*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Measurement Period	Start Time	Measured levels – dB(A)		Limit(s)	Weather (Inversion °C/100m & / Wind m/s / Wind Direction °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
R24	25 July 2023	60 minutes	10:23am	N/A	52	Day 37	1.1 / 289	Traffic (52), birds (33), WCC (<20)	No	10/08/2023
R12	25 July 2023	60 minutes	5:35pm	N/A	46	Day 38	0.0 / 048	Traffic (46), birds (29), WCC (<20)	No	10/08/2023
R96	25 July 2023	60 minutes	4:29pm	N/A	29	Day 38	0.0 / 254	Birds (28), traffic (21), WCC (<20)	No	10/08/2023
R98	25 July 2023	60 minutes	3:21pm	N/A	34	Day 35	1.6 / 275	Birds (34), traffic (23), WCC (<20)	No	10/08/2023
R57	25 July 2023	60 minutes	1:25pm	N/A	47	Day 35	2.0 / 296	Traffic (47), birds (27), Crawfords ¹ (24), WCC (<20)	No	10/08/2023
R24	25 July 2023	60 minutes	8:00pm	25	47	Night 37	+7.1 / 0.3 / 202	Traffic (47), frogs (22), WCC (22)	No	10/08/2023
R12	25 July 2023	60 minutes	11:45pm	27	40	Night 38	+7.5 / 1.4 / 198	Traffic (40), WCC (23)	No	10/08/2023
R96	25 July 2023	60 minutes	10:40pm	<20	28	Night 37	+6.5 / 1.2 / 200	Frogs (28), WCC (<20)	No	10/08/2023
R98	25 July 2023	60 minutes	9:33pm	<20	27	Night 35	+6.6 / 1.7 / 193	Frogs (27), WCC (<20)	No	10/08/2023
R57	25 July 2023	60 minutes	7:40pm	<20	39	Night 35	+4.0 / 1.0 / 168	Traffic (39), Crawfords ³ (28), WCC (<20)	No	10/08/2023

NM = Not Measurable. This denotes noise from the mine was audible at low levels however cannot be quantified.

IA = Inaudible.

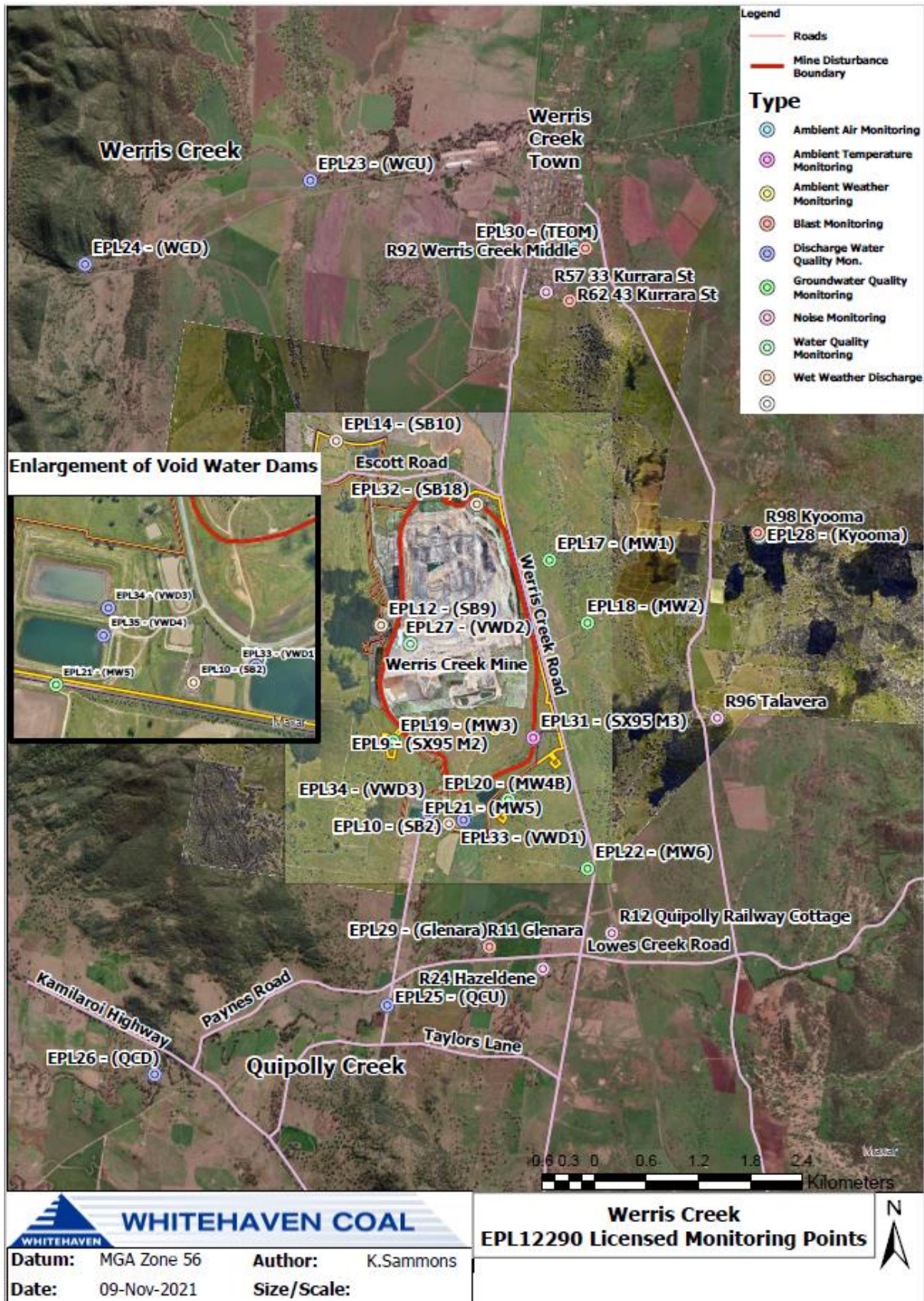
¹ Crawfords Freightlines Werris Creek

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 5 – Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date Obtained
R11	Blast Noise	dB (Lin Peak)	Every Blast	3	95.9	96.8	120.0	No	01/08/2023
	Blast Vibration	mm/s	Every Blast	3	0.11	0.14	10.0	No	01/08/2023
R98	Blast Noise	dB (Lin Peak)	Every Blast	3	98.6	101.2	120.0	No	01/08/2023
	Blast Vibration	mm/s	Every Blast	3	0.83	0.97	10.0	No	01/08/2023
R62	Blast Noise	dB (Lin Peak)	Every Blast	3	98.5	100.7	120.0	No	01/08/2023
	Blast Vibration	mm/s	Every Blast	3	0.41	0.44	10.0	No	01/08/2023
R92	Blast Noise	dB (Lin Peak)	Every Blast	3	98.2	99.9	120.0	No	01/08/2023
	Blast Vibration	mm/s	Every Blast	3	0.22	0.25	10.0	No	01/08/2023

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Site Information

EPL No.: 12290

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31280&SYSUID=1&LICID=12290>

Licensee: Werris Creek Coal Pty Limited

Premises: Werris Creek Coal, 1435 Werris Creek Road, WERRIS CREEK NSW 2341

EPL Monitoring Points: See figure at end of document

Sampling Period: AUGUST 2023

Obtained Date: 18/09/2023

Publication Date: 18/09/2023

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
28	PM10	µg/m ³	Every 6 days	5	27/08/2023	07/09/2023	0.3	3.6	1.8	7.8
	Solid Particles	g/m ² /month	Continuous	1	15/08/2023	31/08/2023	0.2	0.2	0.2	0.2
29	PM10	µg/m ³	Every 6 days	5	28/07/2023	14/08/2023	4.2	9.5	10.6	15.0
	Solid Particles	g/m ² /month	Continuous	1	15/08/2023	31/08/2023	0.4	0.4	0.4	0.4
30	PM10	µg/m ³	Continuous	Continuous	31/08/2023	01/09/2023	4.2	9.5	10.6	15.0
	Solid Particles	g/m ² /month	Continuous	1	15/08/2023	31/08/2023	0.4	0.4	0.4	0.4
10	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
32	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
23	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
24	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
25	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
26	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
33	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Aluminium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.04	0.04	0.04	0.04
	Arsenic (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	Barium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.079	0.079	0.079	0.079

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Beryllium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	BOD	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<2	<2	<2	<2
	Cadmium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	Cobalt (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	Copper (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.003	0.003	0.003	0.003
	Iron (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.05	<0.05	<0.05	<0.05
	Lead (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	Magnesium	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	46	46	46	46
	Manganese (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.015	0.015	0.015	0.015
	Nickel (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.002	0.002	0.002	0.002
	Potassium	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	17	17	17	17
	Selenium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.01	<0.01	<0.01	<0.01
	Sodium	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	168	168	168	168
	Total dissolved solids	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	1470	1470	1470	1470
	Vanadium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.01	<0.01	<0.01	<0.01
Zinc (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.028	0.028	0.028	0.028	
34	Aluminium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.01	0.01	0.01	0.01
	Arsenic (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	Barium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.087	0.087	0.087	0.087
	Beryllium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	BOD	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<2	<2	<2	<2
	Cadmium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	Cobalt (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Copper (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.001	0.001	0.001	0.001
	Iron (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.05	<0.05	<0.05	<0.05
	Lead (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	Magnesium	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	38	38	38	38
	Manganese (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.005	0.005	0.005	0.005
	Nickel (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	Potassium	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	16	16	16	16
	Selenium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.01	<0.01	<0.01	<0.01
	Sodium	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	188	188	188	188
	Total dissolved solids	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	1140	1140	1140	1140
	Vanadium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.01	<0.01	<0.01	<0.01
Zinc (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.005	0.005	0.005	0.005	
35	Aluminium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.03	0.03	0.03	0.03
	Arsenic (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	Barium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.081	0.081	0.081	0.081
	Beryllium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	BOD	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<2	<2	<2	<2
	Cadmium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.0002	0.0002	0.0002	0.0002
	Chromium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	Cobalt (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	Copper (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.001	0.001	0.001	0.001
	Iron (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.05	<0.05	<0.05	<0.05
	Lead (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
Magnesium	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	44	44	44	44	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Manganese (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.014	0.014	0.014	0.014
	Nickel (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.001	<0.001	<0.001	<0.001
	Potassium	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	17	17	17	17
	Selenium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.01	<0.01	<0.01	<0.01
	Sodium	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	194	194	194	194
	Total dissolved solids	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	1340	1340	1340	1340
	Vanadium (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	<0.01	<0.01	<0.01	<0.01
	Zinc (dissolved)	mg/L	Special Frequency 3	1	08/08/2023	18/08/2023	0.007	0.007	0.007	0.007

¹NS – No sample.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
10	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
12	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
14	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
32	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	9	No	
33	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
34	Electrical Conductivity	µS/cm	Special Frequency 4	3	09/08, 17/08 & 25/08/2023	25/08/2023	1678	1692	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	1	08/08/2023	18/0/2023	<5	<5	10	No	
	pH	pH	Special Frequency 4	3	09/08, 17/08 & 25/08/2023	25/08/2023	7.59	8.21	9	No	
35	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.

#The discharge sample was inconsistent with pre-discharge sampling of the dam and has been discussed with the EPA. This will be documented in the Annual Return.



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.
- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 3 – Monitoring (Quarterly & 6 monthly – no limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Conductivity	µS/cm	Every 3 Months	1	08/08/2023	18/08/2023	2060	2060	2060	2060
	Nitrate	mg/L	Every 3 Months	1	08/08/2023	18/08/2023	2.28	2.28	2.28	2.28
	Nitrogen (Total)	mg/L	Every 3 Months	1	08/08/2023	18/08/2023	2.9	2.9	2.9	2.9
	Oil and Grease	mg/L	Every 3 Months	1	08/08/2023	18/08/2023	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	08/08/2023	18/08/2023	7.86	7.86	7.86	7.86
	Phosphorus (Total)	mg/L	Every 3 Months	1	08/08/2023	18/08/2023	0.07	0.07	0.07	0.07
	Reactive Phosphorus	mg/L	Every 3 Months	1	08/08/2023	18/08/2023	<0.01	<0.01	<0.01	<0.01
Total Suspended Solids	mg/L	Every 3 Months	1	08/08/2023	18/08/2023	<5	<5	<5	<5	
27	Conductivity	µS/cm	Every 3 Months	1	08/08/2023	18/08/2023	2030	2030	2030	2030
	Nitrate	mg/L	Every 3 Months	1	08/08/2023	18/08/2023	0.01	0.01	0.01	0.01
	Nitrogen (Total)	mg/L	Every 3 Months	1	08/08/2023	18/08/2023	0.3	0.3	0.3	0.3
	Oil and Grease	mg/L	Every 3 Months	1	08/08/2023	18/08/2023	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	08/08/2023	18/08/2023	7.58	7.58	7.58	7.58
	Phosphorus (Total)	mg/L	Every 3 Months	1	08/08/2023	18/08/2023	0.12	0.12	0.12	0.12
	Reactive Phosphorus	mg/L	Every 3 Months	1	08/08/2023	18/08/2023	<0.01	<0.01	<0.01	<0.01
Total Suspended Solids	mg/L	Every 3 Months	1	08/08/2023	18/08/2023	11	11	11	11	
17	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
19	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
20	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
21	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
22	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-

TLTS – too low to sample

*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Measurement Period	Start Time	Measured levels – dB(A)		Limit(s)	Weather (Inversion °C/100m & / Wind m/s / Wind Direction °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
R24	29 August 2023	60 minutes	10:15am	N/A	48	Day 37	1.8 / 348	Traffic (48), birds (35), train (32), WCC (<20)	No	15/09/2023
R12	29 August 2023	60 minutes	11:23am	N/A	38	Day 38	2.1 / 029	Traffic (38), aeroplane (26), WCC (<20)	No	15/09/2023
R96	29 August 2023	60 minutes	9:30am	N/A	37	Day 38	3.0 / 002	Birds (37), WCC (<20)	No	15/09/2023
R98	29 August 2023	60 minutes	10:42am	N/A	35	Day 35	1.5 / 016	Birds (34), insects (25), WCC (<20)	No	15/09/2023
R57	29 August 2023	60 minutes	12:33pm	N/A	47	Day 35	2.6 / 352	Traffic (45), birds (42), WCC (<20)	No	15/09/2023
R24	28 August 2023	60 minutes	8:48pm	<20	42	Night 37	+1.9 / 0.5 / 080	Trains (41), traffic (36), WCC (<20)	No	15/09/2023
R12	28 August 2023	60 minutes	7:00pm	<20	36	Night 38	+0.4 / 2.1 / 162	Traffic (36), insects (23), WCC (<20)	No	15/09/2023
R96	28 August 2023	60 minutes	8:17pm	<20	32	Night 37	+1.8 / 0.4 / 255	Frogs (30), insects (28), WCC (<20)	No	15/09/2023
R98	28 August 2023	60 minutes	9:24pm	<20	29	Night 35	+0.1 / 3.2 / 019	Frogs (29), WCC (<20)	No	15/09/2023
R57	28 August 2023	60 minutes	11:13pm	<20	38	Night 35	+2.6 / 0.7 / 307	Traffic (37), Crawford's ¹ (28), frogs (22), WCC (<20)	No	15/09/2023

NM = Not Measurable. This denotes noise from the mine was audible at low levels however cannot be quantified.

IA = Inaudible.

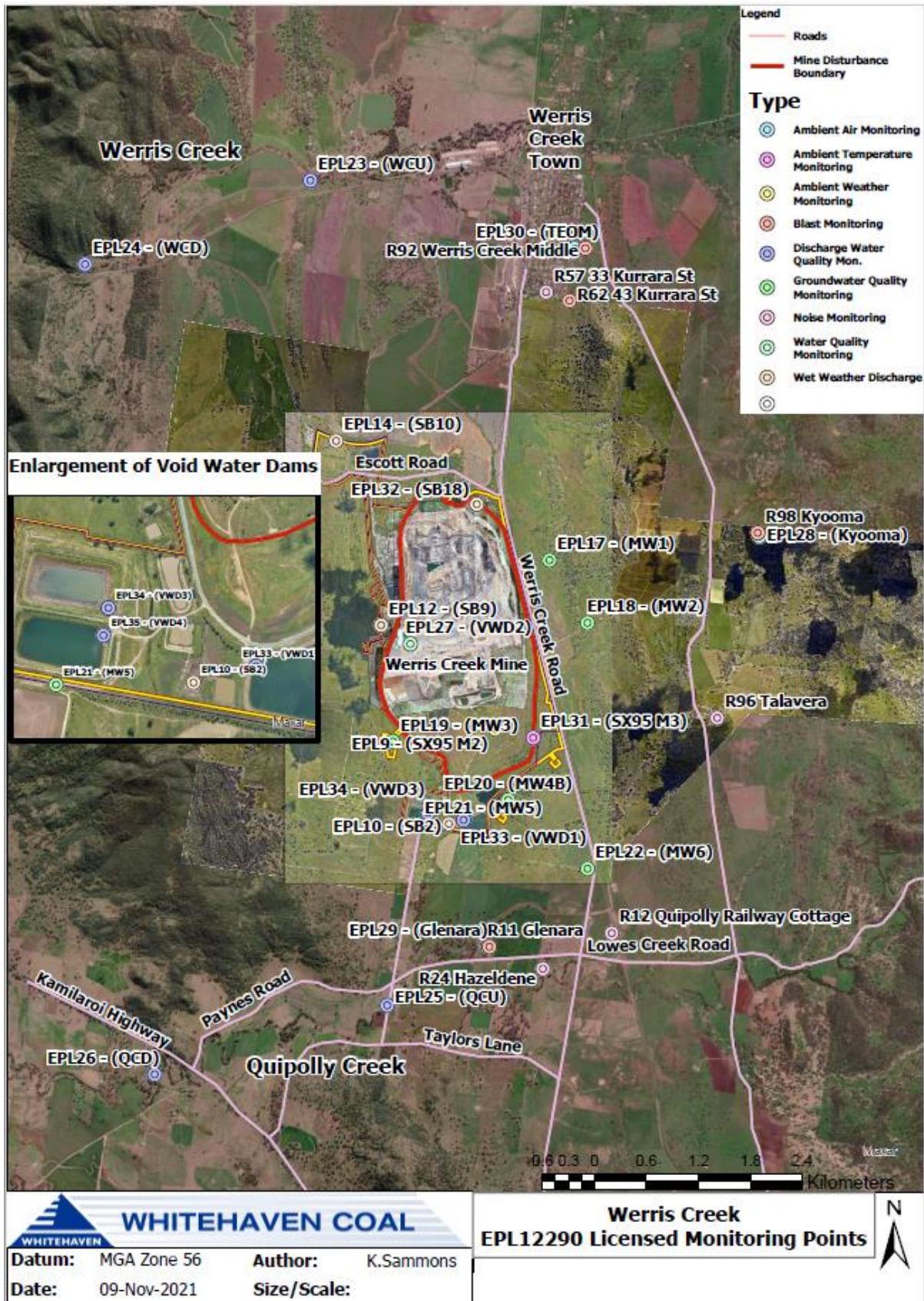
¹ Crawford's Freightlines Werris Creek

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 5 – Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date Obtained
R11	Blast Noise	dB (Lin Peak)	Every Blast	5	94.4	102.5	120.0	No	01/09/2023
	Blast Vibration	mm/s	Every Blast	5	0.07	0.10	10.0	No	01/09/2023
R98	Blast Noise	dB (Lin Peak)	Every Blast	5	96.8	100.9	120.0	No	01/09/2023
	Blast Vibration	mm/s	Every Blast	5	0.59	0.90	10.0	No	01/09/2023
R62	Blast Noise	dB (Lin Peak)	Every Blast	5	96.9	98.3	120.0	No	01/09/2023
	Blast Vibration	mm/s	Every Blast	5	0.38	0.57	10.0	No	01/09/2023
R92	Blast Noise	dB (Lin Peak)	Every Blast	5	95.6	97.2	120.0	No	01/09/2023
	Blast Vibration	mm/s	Every Blast	5	0.17	0.25	10.0	No	01/09/2023

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WERRIS CREEK COAL EPL – MONTHLY SUMMARY
Site Information
EPL No.: 12290

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31280&SYSUID=1&LICID=12290>
Licensee: Werris Creek Coal Pty Limited

Premises: Werris Creek Coal, 1435 Werris Creek Road, WERRIS CREEK NSW 2341

EPL Monitoring Points: See figure at end of document

Sampling Period: SEPTEMBER 2023

Obtained Date: 16/10/2023

Publication Date: 19/10/2023

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
28	PM10	µg/m ³	Every 6 days	5	26/09/2023	12/10/2023	4.7	8.6	8.6	12.1
	Solid Particles	g/m ² /month	Continuous	1	18/09/2023	28/09/2023	0.2	0.2	0.2	0.2
29	PM10	µg/m ³	Every 6 days	5	26/09/2023	12/10/2023	5.3	14.2	14	24.6
	Solid Particles	g/m ² /month	Continuous	1	18/09/2023	28/09/2023	0.3	0.3	0.3	0.3
30	PM10	µg/m ³	Continuous	Continuous	30/09/2023	01/10/2023	2.5	9.6	10.2	16.5
	Solid Particles	g/m ² /month	Continuous	1	18/09/2023	28/09/2023	0.8	0.8	0.8	0.8
10	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
32	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
23	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
24	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
25	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
26	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
33	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
34	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

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EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
35	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

¹NS – No sample.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
10	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
12	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
14	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
32	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	9	No	
33	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
34	Electrical Conductivity	µS/cm	Special Frequency 4	2	04/09 & 14/09/2023	01/10/2023	1821	1842	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	1	08/08/2023	18/09/2023	<5	<5	10	No	
	pH	pH	Special Frequency 4	2	04/09 & 14/09/2023	01/10/2023	8.1	8.2	9	No	
35	Electrical Conductivity	µS/cm	Special Frequency 4	1	27/09/2023	1/10/2023	1780	1780	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	1	08/08/2023	18/09/2023	<5	<5	10	No	
	pH	pH	Special Frequency 4	1	27/09/2023	1/10/2023	7.9	7.9	9	No	

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.

The discharge sample was inconsistent with pre-discharge sampling of the dam and has been discussed with the EPA. This will be documented in the Annual Return.

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 3 – Monitoring (Quarterly & 6 monthly – no limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
27	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
17	Conductivity	µS/cm	Every 6 Months	1	11/09/2023	29/09/2023	1110	1110	1110	1110
	Nitrate	mg/L	Every 6 Months	1	11/09/2023	29/09/2023	5.99	5.99	5.99	5.99
	Nitrogen (Total)	mg/L	Every 6 Months	1	11/09/2023	29/09/2023	6.9	6.9	6.9	6.9
	pH	pH	Every 6 Months	1	11/09/2023	29/09/2023	7.39	7.39	7.39	7.39
	Phosphorus (Total)	mg/L	Every 6 Months	1	11/09/2023	29/09/2023	0.35	0.35	0.35	0.35
	Reactive Phosphorus	mg/L	Every 6 Months	1	11/09/2023	29/09/2023	0.35	0.35	0.35	0.35

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Standing Water Level	Metres	Every 6 Months	1	11/09/2023	29/09/2023	55.66	55.66	55.66	55.66
18	Conductivity	µS/cm	Every 6 Months	1	07/09/2023	15/09/2023	1040	1040	1040	1040
	Nitrate	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	9.84	9.84	9.84	9.84
	Nitrogen (Total)	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	10.5	10.5	10.5	10.5
	pH	pH	Every 6 Months	1	07/09/2023	15/09/2023	7.71	7.71	7.71	7.71
	Phosphorus (Total)	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	0.08	0.08	0.08	0.08
	Reactive Phosphorus	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	0.06	0.06	0.06	0.06
	Standing Water Level	Metres	Every 6 Months	1	07/09/2023	15/09/2023	27.51	27.51	27.51	27.51
19	Conductivity	µS/cm	Every 6 Months	1	07/09/2023	15/09/2023	2360	2360	2360	2360
	Nitrate	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	11.2	11.2	11.2	11.2
	Nitrogen (Total)	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	12.1	12.1	12.1	12.1
	pH	pH	Every 6 Months	1	07/09/2023	15/09/2023	7.99	7.99	7.99	7.99
	Phosphorus (Total)	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	0.07	0.07	0.07	0.07
	Reactive Phosphorus	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	0.1	0.1	0.1	0.1
	Standing Water Level	Metres	Every 6 Months	1	07/09/2023	15/09/2023	15.13	15.13	15.13	15.13
20	Conductivity	µS/cm	Every 6 Months	1	07/09/2023	15/09/2023	973	973	973	973
	Nitrate	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	1.02	1.02	1.02	1.02
	Nitrogen (Total)	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	1.2	1.2	1.2	1.2
	pH	pH	Every 6 Months	1	07/09/2023	15/09/2023	7.93	7.93	7.93	7.93
	Phosphorus (Total)	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	0.19	0.19	0.19	0.19
	Reactive Phosphorus	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	0.19	0.19	0.19	0.19
	Standing Water Level	Metres	Every 6 Months	1	07/09/2023	15/09/2023	12.9	12.9	12.9	12.9
21	Conductivity	µS/cm	Every 6 Months	1	07/09/2023	15/09/2023	2120	2120	2120	2120
	Nitrate	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	2.3	2.3	2.3	2.3
	Nitrogen (Total)	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	2.7	2.7	2.7	2.7
	pH	pH	Every 6 Months	1	07/09/2023	15/09/2023	8	8	8	8
	Phosphorus (Total)	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	0.26	0.26	0.26	0.26

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Reactive Phosphorus	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	0.26	0.26	0.26	0.26
	Standing Water Level	Metres	Every 6 Months	1	07/09/2023	15/09/2023	8.23	8.23	8.23	8.23
22	Conductivity	µS/cm	Every 6 Months	1	07/09/2023	15/09/2023	1690	1690	1690	1690
	Nitrate	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	3.63	3.63	3.63	3.63
	Nitrogen (Total)	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	4.1	4.1	4.1	4.1
	pH	pH	Every 6 Months	1	07/09/2023	15/09/2023	7.67	7.67	7.67	7.67
	Phosphorus (Total)	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	0.09	0.09	0.09	0.09
	Reactive Phosphorus	mg/L	Every 6 Months	1	07/09/2023	15/09/2023	0.09	0.09	0.09	0.09
	Standing Water Level	Metres	Every 6 Months	1	07/09/2023	15/09/2023	13.19	13.19	13.19	13.19

TLTS – too low to sample

*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Measurement Period	Start Time	Measured levels – dB(A)		Limit(s)	Weather (Inversion °C/100m & / Wind m/s / Wind Direction °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
R24	27 September 2023	60 minutes	11:29am	N/A	47	Day 37	5.3 / 289	Traffic (47), birds (33), WCC (26)	No	10/10/2023
R12	27 September 2023	60 minutes	5:25pm	N/A	58	Day 38	3.9 / 217	Traffic (58), birds (27), insects (21), WCC (<20)	No	10/10/2023
R96	27 September 2023	60 minutes	4:17pm	N/A	41	Day 38	5.9 / 236	Traffic (39), birds (35), WCC (32)	No	10/10/2023
R98	27 September 2023	60 minutes	3:09pm	N/A	37	Day 35	6.6 / 243	Birds (37), WCC (<20)	No	10/10/2023
R57	27 September 2023	60 minutes	1:20pm	N/A	47	Day 35	4.8 / 260	Traffic (39), Crawfords ² (37), birds (35), WCC (<20)	No	10/10/2023
R24	26 & 27 September 2023	60 minutes	7:56pm	<20	43	Night 37	Lapse / 5.1 / 195	Train (43), traffic (30), frogs (20), WCC (<20)	No	10/10/2023
R12	26 & 27 September 2023	60 minutes	11:52pm	<20	40	Night 38	+4.1 / 1.1 / 275	Birds (38), frogs (33), traffic (32), WCC (<20)	No	10/10/2023
R96	26 & 27 September 2023	60 minutes	10:39pm	<20	37	Night 37	Lapse / 1.6 / 120	Traffic (37), frogs (24), insects (21), WCC (<20)	No	10/10/2023
R98	26 & 27 September 2023	60 minutes	9:31pm	<20	49	Night 35	+3.8 / 2.4 / 160	Dogs (49), frogs (31), WCC (<20)	No	10/10/2023
R57	26 & 27 September 2023	60 minutes	7:41pm	<20	38	Night 35	+4.4 / 3.4 / 021	Traffic (37), frogs (29), WCC (<20)	No	10/10/2023

NM = Not Measurable. This denotes noise from the mine was audible at low levels however cannot be quantified.

IA = Inaudible.

¹ Crawfords Freightlines Werris Creek

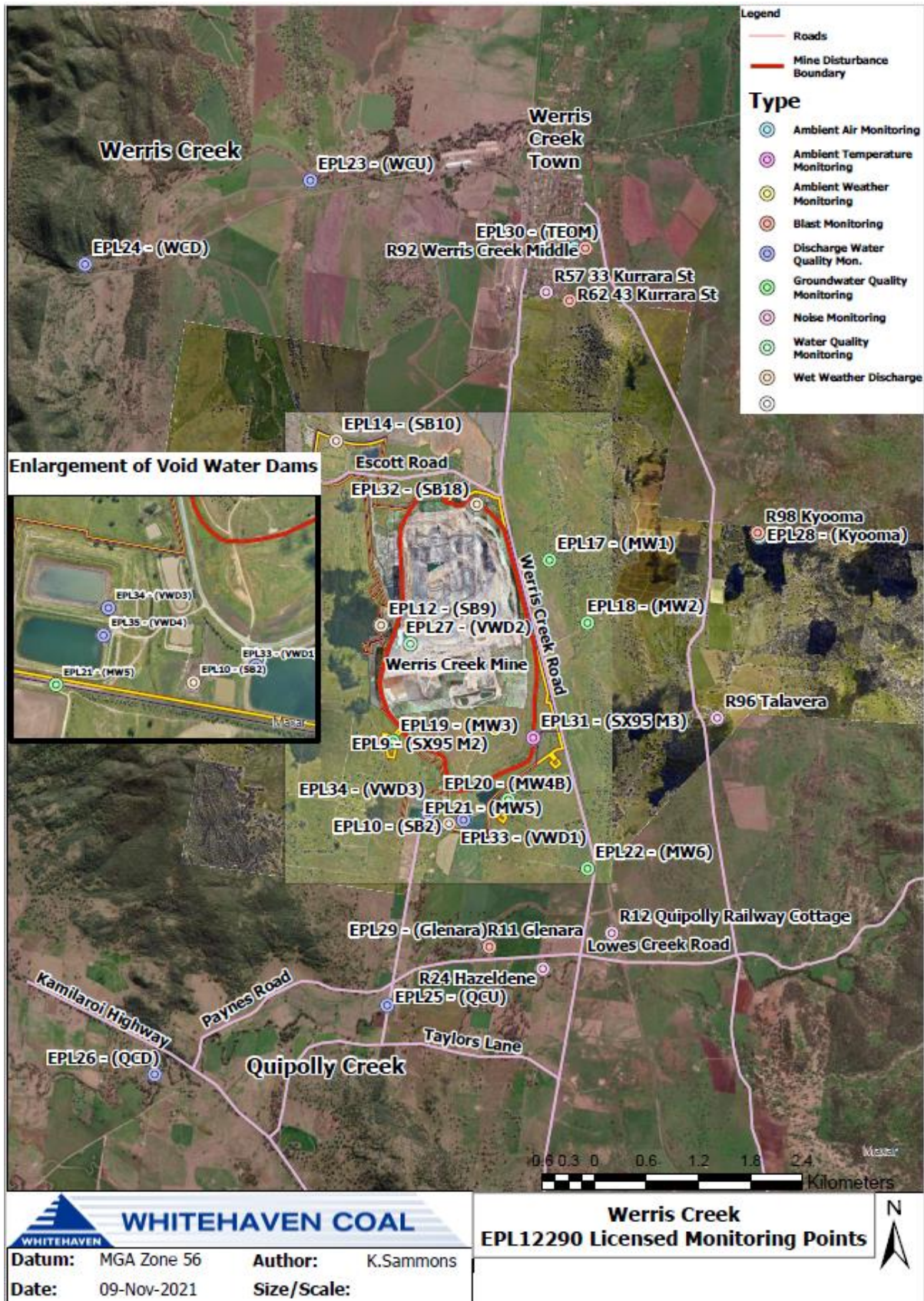
WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 5 – Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date Obtained
R11	Blast Noise	dB (Lin Peak)	Every Blast	1	94.8	94.8	120.0	No	01/10/2023
	Blast Vibration	mm/s	Every Blast	1	0.07	0.07	10.0	No	01/10/2023
R98	Blast Noise	dB (Lin Peak)	Every Blast	1	95.6	95.6	120.0	No	01/10/2023
	Blast Vibration	mm/s	Every Blast	1	0.87	0.87	10.0	No	01/10/2023
R62	Blast Noise	dB (Lin Peak)	Every Blast	1	95.3	95.3	120.0	No	01/10/2023
	Blast Vibration	mm/s	Every Blast	1	0.35	0.35	10.0	No	01/10/2023
R92	Blast Noise	dB (Lin Peak)	Every Blast	1	93.4	93.4	120.0	No	01/10/2023
	Blast Vibration	mm/s	Every Blast	1	0.26	0.26	10.0	No	01/10/2023



WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Site Information

EPL No.: 12290

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31280&SYSUID=1&LICID=12290>

Licensee: Werris Creek Coal Pty Limited

Premises: Werris Creek Coal, 1435 Werris Creek Road, WERRIS CREEK NSW 2341

EPL Monitoring Points: See figure at end of document

Sampling Period: OCTOBER 2023

Obtained Date: 14/11/2023

Publication Date: 21/11/2023

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
28	PM10	µg/m ³	Every 6 days	5	26/10/2023	14/11/2023	2.7	11.7	13.8	21.9
	Solid Particles	g/m ² /month	Continuous	1	19/10/2023	31/10/2023	0.2	0.2	0.2	0.2
29	PM10	µg/m ³	Every 6 days	5	26/10/2023	14/11/2023	3.6	12.2	9.0	21.8
	Solid Particles	g/m ² /month	Continuous	1	19/10/2023	31/10/2023	0.9	0.9	0.9	0.9
30	PM10	µg/m ³	Continuous	Continuous	31/10/2023	07/11/2023	3.6	12.8	11.1	28.0
	Solid Particles	g/m ² /month	Continuous	1	19/10/2023	31/10/2023	2.1	2.1	2.1	2.1
10	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
32	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
23	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
24	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
25	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
26	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
33	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
34	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
35	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

¹NS – No sample.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
10	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
12	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
14	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
32	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	9	No	
33	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
34	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
35	Electrical Conductivity	µS/cm	Special Frequency 4	2	23/10 & 30/10/2023	1/11/2023	1825	1839	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	1	08/08/2023	18/09/2023	<5	<5	10	No	
	pH	pH	Special Frequency 4	2	23/10 & 30/10/2023	1/11/2023	7.3	8.3	9	No	

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.

The discharge sample was inconsistent with pre-discharge sampling of the dam and has been discussed with the EPA. This will be documented in the Annual Return.

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 3 – Monitoring (Quarterly & 6 monthly – no limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
27	Total Suspended Solids	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
17	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
19	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
20	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
21	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
22	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-

TLTS – too low to sample

*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Measurement Period	Start Time	Measured levels – dB(A)		Limit(s)	Weather (Inversion °C/100m & / Wind m/s / Wind Direction °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
R24	17 October 2023	60 minutes	11:58am	N/A	54	Day 37	2.6 / 206	Traffic (54), birds (32), insects (21), WCC (<20)	No	06/11/2023
R12	17 October 2023	60 minutes	4:59pm	N/A	44	Day 38	4.9 / 188	Traffic (44), insects (21), WCC (<20)	No	06/11/2023
R96	17 October 2023	60 minutes	3:53pm	N/A	39	Day 38	4.2 / 193	Birds (39), insects (26), WCC (24)	No	06/11/2023
R98	17 October 2023	60 minutes	4:22pm	N/A	53	Day 35	7.5 / 066	Birds (53), WCC (<20)	No	06/11/2023
R57	17 October 2023	60 minutes	1:59pm	N/A	47	Day 35	2.9 / 187	Traffic (46), birds (39), insects (35), WCC (<20)	No	06/11/2023
R24	17 October 2023	60 minutes	7:58pm	<20	58	Night 37	Lapse / 4.0 / 169	Traffic (58), insects (24), WCC (<20)	No	06/11/2023
R12	17 October 2023	60 minutes	11:46pm	<20	37	Night 38	Lapse / 4.1 / 172	Traffic (37), birds (24), WCC (<20)	No	06/11/2023
R96	17 October 2023	60 minutes	10:39pm	<20	43	Night 37	Lapse / 4.5 / 171	Birds (43), WCC (<20)	No	06/11/2023
R98	17 October 2023	60 minutes	9:28pm	<20	41	Night 35	Lapse / 5.5 / 171	Dogs (41), WCC (<20)	No	06/11/2023
R57	17 October 2023	60 minutes	7:42pm	<20	50	Night 35	Lapse / 5.4 / 159	Traffic (50), Crawfords ³ (34), frogs (31), WCC (<20)	No	06/11/2023

NM = Not Measurable. This denotes noise from the mine was audible at low levels however cannot be quantified.

IA = Inaudible.

¹ Crawfords Freightlines Werris Creek

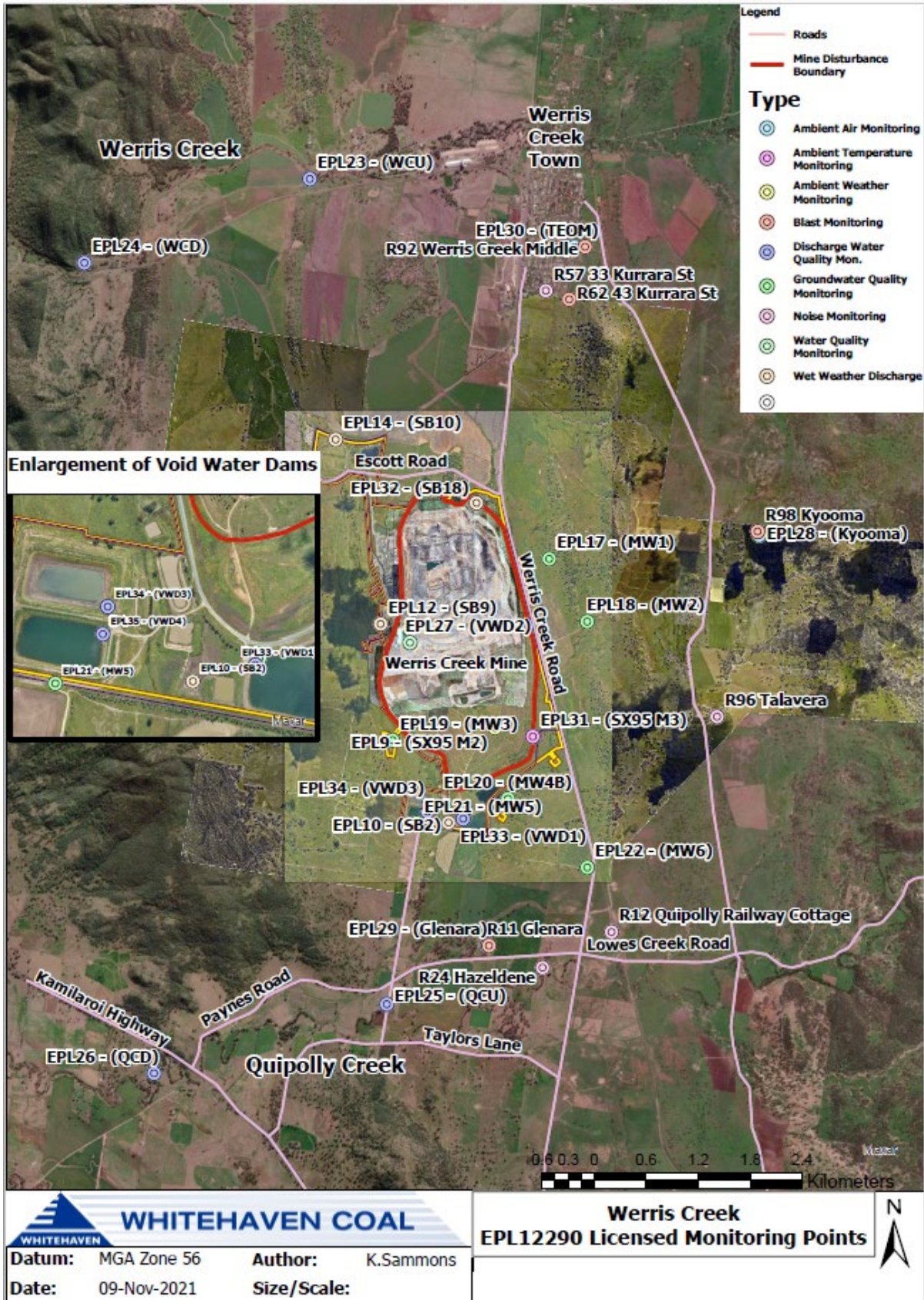
WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 5 – Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date Obtained
R11	Blast Noise	dB (Lin Peak)	Every Blast	3	106.2	113.5	120.0	No	01/11/2023
	Blast Vibration	mm/s	Every Blast	3	0.04	0.05	10.0	No	01/11/2023
R98	Blast Noise	dB (Lin Peak)	Every Blast	3	104.0	112.6	120.0	No	01/11/2023
	Blast Vibration	mm/s	Every Blast	3	0.49	0.82	10.0	No	01/11/2023
R62	Blast Noise	dB (Lin Peak)	Every Blast	3	99.4	103.6	120.0	No	01/11/2023
	Blast Vibration	mm/s	Every Blast	3	0.19	0.31	10.0	No	01/11/2023
R92	Blast Noise	dB (Lin Peak)	Every Blast	3	97.2	101.8	120.0	No	01/11/2023
	Blast Vibration	mm/s	Every Blast	3	0.10	0.15	10.0	No	01/11/2023



WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Site Information

EPL No.: 12290

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31280&SYSUID=1&LICID=12290>

Licensee: Werris Creek Coal Pty Limited

Premises: Werris Creek Coal, 1435 Werris Creek Road, WERRIS CREEK NSW 2341

EPL Monitoring Points: See figure at end of document

Sampling Period: NOVEMBER 2023

Obtained Date: 18/12/2023

Publication Date: 19/12/2023

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
28	PM10	µg/m ³	Every 6 days	5	25/11/2023	18/12/2023	1.4	8.0	8.8	15.3
	Solid Particles	g/m ² /month	Continuous	1	20/11/2023	1/12/2023	0.4	0.4	0.4	0.4
29	PM10	µg/m ³	Every 6 days	5	25/11/2023	18/12/2023	2.0	12.0	12.1	22.7
	Solid Particles	g/m ² /month	Continuous	1	20/11/2023	1/12/2023	0.6	0.6	0.6	0.6
30	PM10	µg/m ³	Continuous	Continuous	30/11/2023	04/12/2023	4.2	8.6	7.1	31.4
	Solid Particles	g/m ² /month	Continuous	1	20/11/2023	1/12/2023	0.5	0.5	0.5	0.5
10	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
32	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
23	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
24	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
25	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
26	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
33	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Aluminium (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	0.1	0.1	0.1	0.1
	Arsenic (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	<0.001	<0.001	<0.001	<0.001
	Barium (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	0.062	0.062	0.062	0.062



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Beryllium (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	<0.001	<0.001	<0.001	<0.001
	BOD	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	<2	<2	<2	<2
	Cadmium (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	<0.001	<0.001	<0.001	<0.001
	Cobalt (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	<0.001	<0.001	<0.001	<0.001
	Copper (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	<0.001	<0.001	<0.001	<0.001
	Iron (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	<0.05	<0.05	<0.05	<0.05
	Lead (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	<0.001	<0.001	<0.001	<0.001
	Magnesium	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	49	49	49	49
	Manganese (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	0.029	0.029	0.029	0.029
	Nickel (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	0.001	0.001	0.001	0.001
	Potassium	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	18	18	18	18
	Selenium (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	<0.01	<0.01	<0.01	<0.01
	Sodium	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	188	188	188	188
	Total dissolved solids	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	1510	1510	1510	1510
	Vanadium (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	<0.01	<0.01	<0.01	<0.01
Zinc (dissolved)	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	<0.005	<0.005	<0.005	<0.005	
34	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
35	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

¹NS – No sample.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
10	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
12	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
14	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
32	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	9	No	
33	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
34	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
35	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.

The discharge sample was inconsistent with pre-discharge sampling of the dam and has been discussed with the EPA. This will be documented in the Annual Return.

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY
Table 3 – Monitoring (Quarterly & 6 monthly – no limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Conductivity	µS/cm	Every 3 Months	1	21/11/2023	30/11/2023	1960	1960	1960	1960
	Nitrate	mg/L	Every 3 Months	1	21/11/2023	30/11/2023	0.04	0.04	0.04	0.04
	Nitrogen (Total)	mg/L	Every 3 Months	1	21/11/2023	30/11/2023	0.2	0.2	0.2	0.2
	Oil and Grease	mg/L	Every 3 Months	1	21/11/2023	30/11/2023	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	21/11/2023	30/11/2023	7.91	7.91	7.91	7.91
	Phosphorus (Total)	mg/L	Every 3 Months	1	21/11/2023	30/11/2023	0.02	0.02	0.02	0.02
	Reactive Phosphorus	mg/L	Every 3 Months	1	21/11/2023	30/11/2023	<0.01	<0.01	<0.01	<0.01
Total Suspended Solids	mg/L	Every 3 Months	1	21/11/2023	30/11/2023	<5	<5	<5	<5	
27	Conductivity	µS/cm	Every 3 Months	0	decommissioned	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0	decommissioned	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0	decommissioned	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0	decommissioned	-	-	-	-	-
	pH	pH	Every 3 Months	0	decommissioned	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0	decommissioned	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0	decommissioned	-	-	-	-	-
Total Suspended Solids	mg/L	Every 3 Months	0	decommissioned	-	-	-	-	-	
17	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
19	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
20	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
21	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
22	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-

TLTS – too low to sample

*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Measurement Period	Start Time	Measured levels – dB(A)		Limit(s)	Weather (Inversion °C/100m & / Wind m/s / Wind Direction °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
R24	7 November 2023	60 minutes	11:41am	N/A	52	Day 37	2.8 / 318	Traffic (50), birds (47), WCC (<20)	No	04/12/2023
R12	7 November 2023	60 minutes	5:02pm	N/A	49	Day 38	1.7 / 222	Traffic (49), birds (33), insects (24), WCC (<20)	No	04/12/2023
R96	7 November 2023	60 minutes	3:58pm	N/A	44	Day 38	0.9 / 068	Traffic (44), birds (27), insects (22), WCC (<20)	No	04/12/2023
R98	7 November 2023	60 minutes	2:51pm	N/A	36	Day 35	1.6 / 221	Birds (34), traffic (29), WCC (24) , insects (23)	No	04/12/2023
R57	7 November 2023	60 minutes	1:39pm	N/A	46	Day 35	0.9 / 016	Traffic (46), birds (30), insects (22), WCC (<20)	No	04/12/2023
R24	7 November 2023	60 minutes	7:51pm	<20	45	Night 37	Lapse / 3.5 / 112	Traffic (44), insects (36), WCC (<20)	No	04/12/2023
R12	7 November 2023	60 minutes	11:50pm	<20	61	Night 38	+3.8 / 0.0 / 246	Trains (61), insects (23), WCC (<20)	No	04/12/2023
R96	7 November 2023	60 minutes	10:41pm	<20	34	Night 37	+2.8 / 1.3 / 152	Frogs (33), insects (26), aeroplanes (23), WCC (<20)	No	04/12/2023
R98	7 November 2023	60 minutes	9:30pm	<20	42	Night 35	Lapse / 2.3 / 155	Insects (42), residential (30), WCC (<20)	No	04/12/2023
R57	7 November 2023	60 minutes	7:44pm	25	43	Night 35	Lapse / 3.3 / 152	Traffic (43), insects (30), frogs (27), WCC (22)	No	04/12/2023

NM = Not Measurable. This denotes noise from the mine was audible at low levels however cannot be quantified.

IA = Inaudible.

¹ Crawford's Freightlines Werris Creek

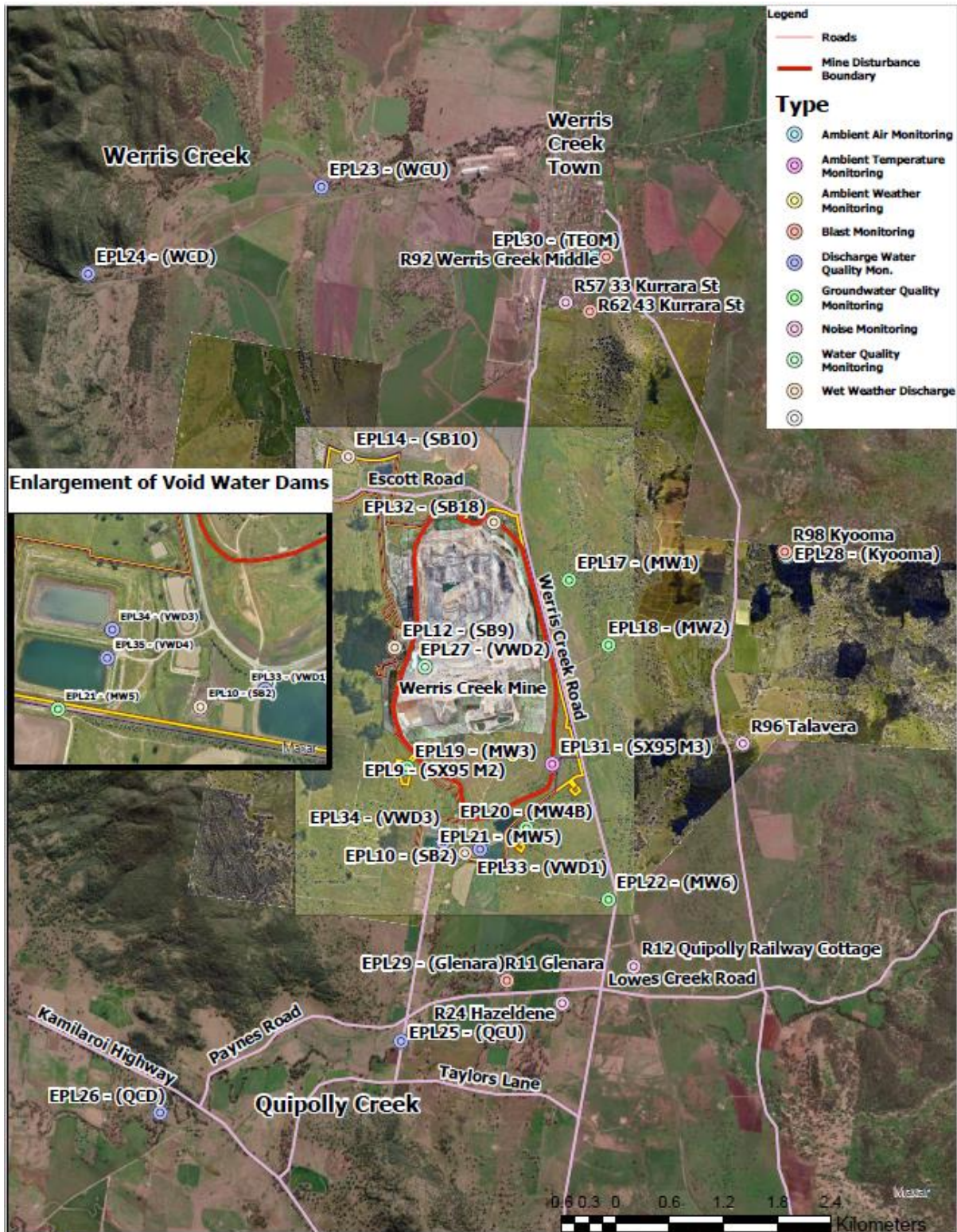
WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 5 – Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date Obtained
R11	Blast Noise	dB (Lin Peak)	Every Blast	1	96.5	96.5	120.0	No	01/12/2023
	Blast Vibration	mm/s	Every Blast	1	0.12	0.12	10.0	No	01/12/2023
R98	Blast Noise	dB (Lin Peak)	Every Blast	1	97.3	97.3	120.0	No	01/12/2023
	Blast Vibration	mm/s	Every Blast	1	0.88	0.88	10.0	No	01/12/2023
R62	Blast Noise	dB (Lin Peak)	Every Blast	1	100.8	100.8	120.0	No	01/12/2023
	Blast Vibration	mm/s	Every Blast	1	0.45	0.45	10.0	No	01/12/2023
R92	Blast Noise	dB (Lin Peak)	Every Blast	1	71.5	71.5	120.0	No	01/12/2023
	Blast Vibration	mm/s	Every Blast	1	0.25	0.25	10.0	No	01/12/2023



WERRIS CREEK COAL EPL – MONTHLY SUMMARY



Datum: MGA Zone 56 **Author:** K.Sammons
Date: 09-Nov-2021 **Size/Scale:**

Werris Creek EPL12290 Licensed Monitoring Points



WERRIS CREEK COAL EPL – MONTHLY SUMMARY
Site Information
EPL No.: 12290

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31280&SYSUID=1&LICID=12290>
Licensee: Werris Creek Coal Pty Limited

Premises: Werris Creek Coal, 1435 Werris Creek Road, WERRIS CREEK NSW 2341

EPL Monitoring Points: See figure at end of document

Sampling Period: DECEMBER 2023

Obtained Date: 23/01/2024

Publication Date: 24/01/2024

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
28	PM10	µg/m ³	Every 6 days	6	31/12/2023	23/01/2024	4.1	14.7	11.9	34.5
	Solid Particles	g/m ² /month	Continuous	1	19/12/2023	4/01/2024	1.5	1.5	1.5	1.5
29	PM10	µg/m ³	Every 6 days	6	31/12/2023	23/01/2024	4.1	18.9	14.4	52.1
	Solid Particles	g/m ² /month	Continuous	1	19/12/2023	4/01/2024	0.4	0.4	0.4	0.4
30	PM10	µg/m ³	Continuous	Continuous	31/12/2023	04/01/2024	3.6	14.9	12.3	52.7
	Solid Particles	g/m ² /month	Continuous	1	19/12/2023	4/01/2024	0.5	0.5	0.5	0.5
10	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
32	Conductivity	µS/cm	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 1	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
23	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
24	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
25	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
26	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	pH	pH	Special Frequency 2	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
33	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
34	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
35	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Beryllium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	BOD	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Copper (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Lead (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Magnesium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Manganese (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Nickel (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Sodium	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Total dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-

¹NS – No sample.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
10	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
12	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
14	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	50~	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	6.5-8.5	No	
32	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	9	No	
33	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
34	Electrical Conductivity	µS/cm	Special Frequency 4	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No	
35	Electrical Conductivity	µS/cm	Special Frequency 4	3	13/12, 19/12 & 29/12/2023	1/1/2024	1880	1886	2000	No	
	Oil and Grease	mg/L	Special Frequency 3	1	21/11/2023	30/11/2023	<5	<5	10	No	
	pH	pH	Special Frequency 4	3	13/12, 19/12 & 29/12/2023	1/1/2024	7.75	8.27	9	No	

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.

#The discharge sample was inconsistent with pre-discharge sampling of the dam and has been discussed with the EPA. This will be documented in the Annual Return.



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.
- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 3 – Monitoring (Quarterly & 6 monthly – no limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
Total Suspended Solids	mg/L	Every 3 Months	0*	-	-	-	-	-	-	
27	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
Total Suspended Solids	mg/L	Every 3 Months	0*	-	-	-	-	-	-	
17	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
19	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
20	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
21	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
22	Conductivity	µS/cm	Every 6 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	pH	pH	Every 6 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-

TLTS – too low to sample

*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Measurement Period	Start Time	Measured levels – dB(A)		Limit(s)	Weather (Inversion °C/100m & / Wind m/s / Wind Direction °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
R24	18 December 2023	60 minutes	11:48am	N/A	54	Day 37	5.5 / 358	Traffic (53), birds (45), WCC (<20)	No	09/01/2024
R12	18 December 2023	60 minutes	3:33pm	N/A	43	Day 38	4.6 / 010	Traffic (40), birds (39), insects (33), WCC (<20)	No	09/01/2024
R96	18 December 2023	60 minutes	2:24pm	N/A	35	Day 38	4.0 / 345	Insects (34), birds (25), WCC (<20)	No	09/01/2024
R98	18 December 2023	60 minutes	1:10pm	N/A	33	Day 35	5.0 / 344	Birds (32), insects (23), WCC (<20)	No	09/01/2024
R57	18 December 2023	60 minutes	12:54pm	N/A	46	Day 35	5.4 / 311	Traffic (46), birds (27), insects (24), WCC (<20)	No	09/01/2024
R24	18 December 2023	60 minutes	7:57pm	<20	48	Night 37	Lapse / 4.2 / 039	Traffic (48), insects (34), WCC (<20)	No	09/01/2024
R12	18 December 2023	60 minutes	11:53pm	<20	56	Night 38	Lapse / 5.9 / 023	Trains (56), insects (29), WCC (<20)	No	09/01/2024
R96	18 December 2023	60 minutes	10:42pm	<20	32	Night 37	Lapse / 8.6 / 036	Frogs (30), insects (28), WCC (<20)	No	09/01/2024
R98	18 December 2023	60 minutes	9:30pm	<20	39	Night 35	+2.4 / 3.8 / 022	Insects (39), WCC (<20)	No	09/01/2024
R57	18 December 2023	60 minutes	7:45pm	<20	42	Night 35	Lapse / 3.3 / 042	Traffic (42), insects (31), frogs (22), WCC (22)	No	09/01/2024

NM = Not Measurable. This denotes noise from the mine was audible at low levels however cannot be quantified.

IA = Inaudible.

¹ Crawford's Freightlines Werris Creek

WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Table 5 – Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date Obtained
R11	Blast Noise	dB (Lin Peak)	Every Blast	1	94.5	94.5	120.0	No	01/01/2024
	Blast Vibration	mm/s	Every Blast	1	0.03	0.03	10.0	No	01/01/2024
R98	Blast Noise	dB (Lin Peak)	Every Blast	1	95.9	95.9	120.0	No	01/01/2024
	Blast Vibration	mm/s	Every Blast	1	0.47	0.47	10.0	No	01/01/2024
R62	Blast Noise	dB (Lin Peak)	Every Blast	1	94.0	94.0	120.0	No	01/01/2024
	Blast Vibration	mm/s	Every Blast	1	0.12	0.12	10.0	No	01/01/2024
R92	Blast Noise	dB (Lin Peak)	Every Blast	1	91.5	91.5	120.0	No	01/01/2024
	Blast Vibration	mm/s	Every Blast	1	0.12	0.12	10.0	No	01/01/2024



WERRIS CREEK COAL EPL – MONTHLY SUMMARY

