

**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 2022

**Obtained Date:** 13/10/22

**Publication Date:** 26/10/22

**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 <sup>3</sup>	Every 6 days	5	25/09/2022	06/10/2022	2.1	3.8	3.0	6.7
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	19/09/2022	13/10/2022	1.7	1.7	1.7	1.7
29	PM10	µg/m <sup>3</sup>	Every 6 days	5	25/09/2022	06/10/2022	4.2	10.0	8.9	17.2
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	19/09/2022	13/10/2022	0.9	0.9	0.9	0.9
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	30/09/2022	01/10/2022	2.6	8.3	7.9	14.8
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	19/09/2022	13/10/2022	0.7	0.7	0.7	0.7
10	Conductivity	µS/cm	Special Frequency 1	4	15,16,22 & 28/09/2022	10/10/2022	192	433	350	840

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	Nitrate	mg/L	Special Frequency 1	4	15,16,22 & 28/09/2022	10/10/2022	0.01	0.04	0.02	0.10
	Nitrogen (Total)	mg/L	Special Frequency 1	4	15,16,22 & 28/09/2022	10/10/2022	0.6	0.9	0.6	1.7
	Phosphorus (Total)	mg/L	Special Frequency 1	4	15,16,22 & 28/09/2022	10/10/2022	0.10	0.50	0.40	1.09
	Reactive Phosphorus	mg/L	Special Frequency 1	4	15,16,22 & 28/09/2022	10/10/2022	0.14	0.34	0.38	0.47
12	Conductivity	µS/cm	Special Frequency 1	3	20, 28 & 30/09/2022	07/10/2022	290	307	310	320
	Nitrate	mg/L	Special Frequency 1	3	20, 28 & 30/09/2022	07/10/2022	0.12	1.07	1.10	2.00
	Nitrogen (Total)	mg/L	Special Frequency 1	3	20, 28 & 30/09/2022	07/10/2022	0.3	1.2	1.5	1.8
	Phosphorus (Total)	mg/L	Special Frequency 1	3	20, 28 & 30/09/2022	07/10/2022	0.06	0.07	0.06	0.10
	Reactive Phosphorus	mg/L	Special Frequency 1	3	20, 28 & 30/09/2022	07/10/2022	0.02	0.04	0.04	0.06
14	Conductivity	µS/cm	Special Frequency 1	5	15, 16, 21,22 & 28/09/2022	10/10/2022	110	157	140	270
	Nitrate	mg/L	Special Frequency 1	5	15, 16, 21,22 & 28/09/2022	10/10/2022	0.31	0.84	0.81	1.68



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	Nitrogen (Total)	mg/L	Special Frequency 1	5	15, 16, 21,22 & 28/09/2022	10/10/2022	0.7	1.7	1.5	3.7
	Phosphorus (Total)	mg/L	Special Frequency 1	5	15, 16, 21,22 & 28/09/2022	10/10/2022	0.50	0.56	0.50	0.70
	Reactive Phosphorus	mg/L	Special Frequency 1	5	15, 16, 21,22 & 28/09/2022	10/10/2022	0.41	0.47	0.49	0.52
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*	-	-	-	-	-	-



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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
	<b>Total Suspended Solids</b>	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
<b>23</b>	<b>Conductivity</b>	µS/cm	Special Frequency 2	5	15, 16, 21, 22 & 28/09/2022	10/10/2022	157	383	380	650
	<b>Nitrate</b>	mg/L	Special Frequency 2	5	15, 16, 21, 22 & 28/09/2022	10/10/2022	0.13	0.69	0.64	1.50
	<b>Nitrogen (Total)</b>	mg/L	Special Frequency 2	5	15, 16, 21, 22 & 28/09/2022	10/10/2022	1.00	1.42	1.40	1.90
	<b>Oil and Grease</b>	mg/L	Special Frequency 2	5	15, 16, 21, 22 & 28/09/2022	10/10/2022	<5	<5	<5	<5
	<b>pH</b>	pH	Special Frequency 2	5	15, 16, 21, 22 & 28/09/2022	10/10/2022	7.63	7.95	7.97	8.20
	<b>Phosphorus (Total)</b>	mg/L	Special Frequency 2	5	15, 16, 21, 22 & 28/09/2022	10/10/2022	0.10	0.32	0.20	0.68
	<b>Reactive Phosphorus</b>	mg/L	Special Frequency 2	5	15, 16, 21, 22 & 28/09/2022	10/10/2022	0.11	0.23	0.23	0.39



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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
	Total Suspended Solids	mg/L	Special Frequency 2	5	15, 16, 21, 22 & 28/09/2022	10/10/2022	18	95	59	237
24	Conductivity	µS/cm	Special Frequency 2	5	15, 16, 21,22 & 28/09/2022	10/10/2022	159	482	650	760
	Nitrate	mg/L	Special Frequency 2	5	15, 16, 21,22 & 28/09/2022	10/10/2022	0.64	1.29	1.40	1.90
	Nitrogen (Total)	mg/L	Special Frequency 2	5	15, 16, 21,22 & 28/09/2022	10/10/2022	1.10	2.20	1.80	4.30
	Oil and Grease	mg/L	Special Frequency 2	5	15, 16, 21,22 & 28/09/2022	10/10/2022	<5	<5	<5	<5
	pH	pH	Special Frequency 2	5	15, 16, 21,22 & 28/09/2022	10/10/2022	7.55	7.98	8.16	8.20
	Phosphorus (Total)	mg/L	Special Frequency 2	5	15, 16, 21,22 & 28/09/2022	10/10/2022	0.20	0.51	0.20	1.26
	Reactive Phosphorus	mg/L	Special Frequency 2	5	15, 16, 21,22 & 28/09/2022	10/10/2022	0.15	0.36	0.24	0.76
	Total Suspended Solids	mg/L	Special Frequency 2	5	15, 16, 21,22 & 28/09/2022	10/10/2022	29	312	70	858

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25	Conductivity	µS/cm	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	10/10/2022	110	270	300	340
	Nitrate	mg/L	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	10/10/2022	0.15	0.43	0.28	1.40
	Nitrogen (Total)	mg/L	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	10/10/2022	0.60	1.35	1.10	2.60
	Oil and Grease	mg/L	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	10/10/2022	<5	<5	<5	<5
	pH	pH	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	10/10/2022	7.06	7.70	7.82	7.90
	Phosphorus (Total)	mg/L	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	10/10/2022	0.09	0.31	0.15	0.70
	Reactive Phosphorus	mg/L	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	10/10/2022	0.08	0.21	0.16	0.49
	Total Suspended Solids	mg/L	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	10/10/2022	10	47	22	135

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26	Conductivity	µS/cm	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	07/10/2022	240	306	300	440
	Nitrate	mg/L	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	07/10/2022	0.29	0.67	0.41	2.40
	Nitrogen (Total)	mg/L	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	07/10/2022	0.70	1.43	1.10	2.80
	Oil and Grease	mg/L	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	07/10/2022	<5	<5	<5	<5
	pH	pH	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	07/10/2022	7.48	7.67	7.72	7.90
	Phosphorus (Total)	mg/L	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	07/10/2022	0.10	0.30	0.18	0.70
	Reactive Phosphorus	mg/L	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	07/10/2022	0.10	0.22	0.17	0.54
	Total Suspended Solids	mg/L	Special Frequency 2	6	15,16,20,22, 28 & 30/09/2022	07/10/2022	22	60	28	157
33	Aluminium (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
	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*	-	-	-	-	-	



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	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*	-	-	-	-	-	



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	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*	-	-	-	-	-	



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

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

**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	4	15,16,22 & 28/09/2022	10/10/2022	21	633	50~	Yes <sup>#</sup>	Sample from the 16 <sup>th</sup> and 22 <sup>nd</sup> taken after approx. 58.6 and 51.4mm of rain respectively, therefore limit for TSS does not apply. The 15 <sup>th</sup> and 28 <sup>th</sup> were controlled releases.
	Oil and Grease	mg/L	Special Frequency 1	4	15,16,22 & 28/09/2022	10/10/2022	<5	<5	10	No	
	pH	pH	Special Frequency 1	4	15,16,22 & 28/09/2022	10/10/2022	7.38	7.71	6.5-8.5	No	
12	Total Suspended Solids	mg/L	Special Frequency 1	3	20, 28 & 30/09/2022	07/10/2022	20	117	50~	Yes <sup>#</sup>	The samples taken on the 20 <sup>th</sup> , 28 <sup>th</sup> and 30 <sup>th</sup> were controlled releases.
	Oil and Grease	mg/L	Special Frequency 1	3	20, 28 & 30/09/2022	07/10/2022	<5	<5	10	No	
	pH	pH	Special Frequency 1	3	20, 28 & 30/09/2022	07/10/2022	7.35	7.49	6.5-8.5	No	

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14	Total Suspended Solids	mg/L	Special Frequency 1	5	15, 16, 21,22 & 28/09/2022	10/10/2022	9	100	50~	No	Sample from the 16 <sup>th</sup> and 22 <sup>nd</sup> taken after approx. 58.6 and 51.4mm of rain respectively , therefore limit for TSS does not apply. The 15 <sup>th</sup> , 21 <sup>st</sup> and 28 <sup>th</sup> were controlled releases.
	Oil and Grease	mg/L	Special Frequency 1	5	15, 16, 21,22 & 28/09/2022	10/10/2022	<5	<5	10	No	
	pH	pH	Special Frequency 1	5	15, 16, 21,22 & 28/09/2022	10/10/2022	7.11	7.37	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	

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	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*	-	-	-	-	-	-
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	13/09/2022	21/09/2022	Dry	Dry	Dry	Dry
	Nitrate	mg/L	Every 6 Months	0	13/09/2022	21/09/2022	Dry	Dry	Dry	Dry
	Nitrogen (Total)	mg/L	Every 6 Months	0	13/09/2022	21/09/2022	Dry	Dry	Dry	Dry
	pH	pH	Every 6 Months	0	13/09/2022	21/09/2022	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
	Phosphorus (Total)	mg/L	Every 6 Months	0	13/09/2022	21/09/2022	Dry	Dry	Dry	Dry
	Reactive Phosphorus	mg/L	Every 6 Months	0	13/09/2022	21/09/2022	Dry	Dry	Dry	Dry
	Standing Water Level	Metres	Every 6 Months	0	13/09/2022	21/09/2022	Dry	Dry	Dry	Dry
18	Conductivity	µS/cm	Every 6 Months	1	13/09/2022	21/09/2022	872	872	872	872
	Nitrate	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	0.33	0.33	0.33	0.33
	Nitrogen (Total)	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	0.4	0.4	0.4	0.4
	pH	pH	Every 6 Months	1	13/09/2022	21/09/2022	7.86	7.86	7.86	7.86
	Phosphorus (Total)	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	0.03	0.03	0.03	0.03
	Reactive Phosphorus	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	0.05	0.05	0.05	0.05
19	Standing Water Level	Metres	Every 6 Months	1	13/09/2022	21/09/2022	33.7	33.7	33.7	33.7
	Conductivity	µS/cm	Every 6 Months	1	13/09/2022	21/09/2022	3220	3220	3220	3220
	Nitrate	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	9.54	9.54	9.54	9.54
	Nitrogen (Total)	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	10	10	10	10
	pH	pH	Every 6 Months	1	13/09/2022	21/09/2022	7.78	7.78	7.78	7.78
	Phosphorus (Total)	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	0.05	0.05	0.05	0.05
	Reactive Phosphorus	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	0.04	0.04	0.04	0.04
20	Standing Water Level	Metres	Every 6 Months	1	13/09/2022	21/09/2022	16.68	16.68	16.68	16.68
	Conductivity	µS/cm	Every 6 Months	1	13/09/2022	21/09/2022	1050	1050	1050	1050
	Nitrate	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	2.74	2.74	2.74	2.74
	Nitrogen (Total)	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	3.2	3.2	3.2	3.2
	pH	pH	Every 6 Months	1	13/09/2022	21/09/2022	8.09	8.09	8.09	8.09

**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	1	13/09/2022	21/09/2022	0.15	0.15	0.15	0.15
	Reactive Phosphorus	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	0.16	0.16	0.16	0.16
	Standing Water Level	Metres	Every 6 Months	1	13/09/2022	21/09/2022	15.57	15.57	15.57	15.57
21	Conductivity	µS/cm	Every 6 Months	1	13/09/2022	21/09/2022	2120	2120	2120	2120
	Nitrate	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	1.41	1.41	1.41	1.41
	Nitrogen (Total)	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	1.5	1.5	1.5	1.5
	pH	pH	Every 6 Months	1	13/09/2022	21/09/2022	8.07	8.07	8.07	8.07
	Phosphorus (Total)	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	0.11	0.11	0.11	0.11
	Reactive Phosphorus	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	0.12	0.12	0.12	0.12
	Standing Water Level	Metres	Every 6 Months	1	13/09/2022	21/09/2022	8.88	8.88	8.88	8.88
22	Conductivity	µS/cm	Every 6 Months	1	13/09/2022	21/09/2022	1700	1700	1700	1700
	Nitrate	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	4.11	4.11	4.11	4.11
	Nitrogen (Total)	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	4.9	4.9	4.9	4.9
	pH	pH	Every 6 Months	1	13/09/2022	21/09/2022	8.08	8.08	8.08	8.08
	Phosphorus (Total)	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	0.09	0.09	0.09	0.09
	Reactive Phosphorus	mg/L	Every 6 Months	1	13/09/2022	21/09/2022	0.07	0.07	0.07	0.07
	Standing Water Level	Metres	Every 6 Months	1	13/09/2022	21/09/2022	15.61	15.61	15.61	15.61

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					
<b>R24</b>	19 September 2022	60 minutes	11:05am	N/A	45	Day 37	1.8 / 142	Traffic (45), birds (32), <b>WCC (&lt;20)</b>	No	17/10/2022
<b>R12</b>	19 September 2022	60 minutes	12:17pm	N/A	46	Day 38	2.2 / 329	Traffic (46), insects (32), birds (28), <b>WCC (&lt;20)</b>	No	17/10/2022
<b>R96</b>	19 September 2022	60 minutes	1:35pm	N/A	51	Day 38	1.7 / 225	Frogs (50), traffic (42), birds (38), insects (36), <b>WCC (&lt;20)</b>	No	17/10/2022
<b>R98</b>	19 September 2022	60 minutes	2:48pm	N/A	43	Day 35	1.6 / 054	Birds (43), traffic (26), <b>WCC (21)</b>	No	17/10/2022
<b>R57</b>	19 September 2022	60 minutes	3:32pm	N/A	50	Day 35	4.2 / 289	Traffic (50), birds (36), Crawfords <sup>2</sup> (34), insects (28), <b>WCC (&lt;20)</b>	No	17/10/2022

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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	19 September 2022	60 minutes	8:03pm	<20	54	Night 37	+0.4 / 1.1 / 171	Train (54), traffic (39), frogs (26), insects (25), <b>WCC (&lt;20)</b>	No	17/10/2022
R12	20 September 2022	60 minutes	12:15am	<20	63	Night 38	+2.6 / 0.2 / 293	Trains (63), traffic (40), frogs (25), insects (22), <b>WCC (&lt;20)</b>	No	17/10/2022
R96	19 September 2022	60 minutes	10:53pm	28	45	Night 37	+3.4 / 0.5 / 084	Frogs (44), dogs (38), <b>WCC (25)</b> , insects (23)	No	17/10/2022
R98	19 September 2022	60 minutes	9:45pm	<20	36	Night 35	+3.9 / 0.8 / 347	Frogs (36), insects (23), aeroplane (22), <b>WCC (&lt;20)</b>	No	17/10/2022
R57	19 September 2022	60 minutes	7:42pm	28	43	Night 35	+0.8 / 1.6 / 194	Train (43), traffic (32), <b>WCC (25)</b> , frogs (23)	No	17/10/2022

**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	7	98.9	105.7	120.0	No	01/10/2022
	Blast Vibration	mm/s	Every Blast	7	0.12	0.17	10.0	No	01/10/2022
R98	Blast Noise	dB (Lin Peak)	Every Blast	7	102.0	110.6	120.0	No	01/10/2022
	Blast Vibration	mm/s	Every Blast	7	0.69	1.40	10.0	No	01/10/2022
R62	Blast Noise	dB (Lin Peak)	Every Blast	7	101.5	107.5	120.0	No	01/10/2022
	Blast Vibration	mm/s	Every Blast	7	0.38	0.45	10.0	No	01/10/2022
R92	Blast Noise	dB (Lin Peak)	Every Blast	7	98.3	102.6	120.0	No	01/10/2022
	Blast Vibration	mm/s	Every Blast	7	0.27	0.33	10.0	No	01/10/2022



## WERRIS CREEK COAL EPL – MONTHLY SUMMARY

