

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 2018 Obtained Date: 4 May 2018 Publication Date: 21 May 2018

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/m³	Every 6 days	5	19/4/2018	2/5/2018	5.8	12.2	9.6	21.5
28	Solid Particles	g/m²/month	Continuous	1	20/4/2018	1/5/2018	0.5	0.5	0.5	0.5
29	PM10	μg/m³	Every 6 days	5	19/4/2018	2/5/2018	8.8	23.8	19.9	36.0
29	Solid Particles	g/m²/month	Continuous	1	20/4/2018	1/5/2018	1.6	1.6	1.6	1.6
30	PM10	μg/m³	Continuous	Continuous	30/4/2018	1/5/2018	7.5	15.2	12.2	71.5
30	Solid Particles	g/m²/month	Continuous	1	20/4/2018	1/5/2018	0.5	0.5	0.5	0.5
	Conductivity	μS/cm	Special Frequency 1	0	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0	1	-	-	1	-	-
10	Nitrogen (Total)	mg/L	Special Frequency 1	0	ı	-	-	1	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0	ı	-	-	1	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0	ı	-	-	1	-	-
	Conductivity	μS/cm	Special Frequency 1	0	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0	-	-	-	-	-	-
12	Nitrogen (Total)	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	0	-	-	-	-	-	-
1.4	Conductivity	μS/cm	Special Frequency 1	0	-	-	-	-	-	
14	Nitrate	mg/L	Special Frequency 1	0	-	-	-	-	-	-

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

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	0	-	-	-	-	-	-
	Conductivity	μS/cm	Special Frequency 2	0	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 2	0	-	-	-	1	-	-
	Oil and Grease	mg/L	Special Frequency 2	0	-	-	-	1	-	-
25	рН	рН	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	-	-	-	-	-	-
	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	-	-	-	1	-	-
26	рН	рН	Special Frequency 2	0	-	-	-	1	-	-
	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	-	-	-	1	-	-
	Aluminium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	1	-	-
	Arsenic (dissolved)	mg/L	Special Frequency 3	0	-	-	-	1	-	-
	Barium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	1	-	-
33*	Beryllium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
33.	BOD	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Cadmium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	1	-	-
	Chromium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	1	-	-
	Cobalt (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-

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
	Cooper (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	-	-	-	-	-	1
	Manganese (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	1
	Nickel (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Potassium	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	1
	Sodium	mg/L	Special Frequency 3	0	-	-	-	-	-	1
	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
34	Cobalt (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Cooper (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	_	-	-	-	-	-

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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	Cooper (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Iron (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
35	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	1	-	-	-	-	-
	Selenium (dissolved)	mg/L	Special Frequency 3	0	1	-	-	-	-	-
	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	-	-	-	-	-	-

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

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)
	Total Suspended Solids	mg/L	Special Frequency 1	0	-	-	-	-	50*	No
10	Oil and Grease	mg/L	Special Frequency 1	0	-	-	-	-	10	No
	рН	рН	Special Frequency 1	0	-	-	-	-	6.5-8.5	No
	Total Suspended Solids	mg/L	Special Frequency 1	0	-	-	-	-	50*	No
12	Oil and Grease	mg/L	Special Frequency 1	0	-	-	-	-	10	No
	рН	рН	Special Frequency 1	0	-	-	-	-	6.5-8.5	No
	Total Suspended Solids	mg/L	Special Frequency 1	0	-	-	-	-	50*	No
14	Oil and Grease	mg/L	Special Frequency 1	0	-	-	ı	-	10	No
	рН	рН	Special Frequency 1	0	-	-	ı	-	6.5-8.5	No
	Total Suspended Solids	mg/L	Special Frequency 1	0	-	-	ı	-	50*	No
32	Oil and Grease	mg/L	Special Frequency 1	0	-	-	-	-	10	No
	рН	рН	Special Frequency 1	0	-	-	-	-	6.5-8.5	No
	Electrical Conductivity	mg/L	Special Frequency 4	2	04/04/2018 09/04/2018	04/04/2018 09/04/2018	1255	1509	2000	No
33	Oil and Grease	mg/L	Special Frequency 3	0	-	-	-	-	10	No
	рН	рН	Special Frequency 4	2	04/04/2018 09/04/2018	04/04/2018 09/04/2018	8.22	8.31	6.5-8.5	No
	Electrical Conductivity	mg/L	Special Frequency 4	0	-	-	-	-	2000	No
34	Oil and Grease	mg/L	Special Frequency 3	0	-	-	-	-	10	No
	рН	рН	Special Frequency 4	0	-	-	-	-	6.5-8.5	No
	Electrical Conductivity	mg/L	Special Frequency 4	0	-	-	-	-	2000	No
35	Oil and Grease	mg/L	Special Frequency 3	0	-	-	-	-	10	No
	рН	рН	Special Frequency 4	0	-	-	-	-	6.5-8.5	No

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

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
	Conductivity	μS/cm	Every 3 Months	0	-	-	1	-	-	1
	Nitrate	mg/L	Every 3 Months	0	-	-	1	-	-	1
	Nitrogen (Total)	mg/L	Every 3 Months	0	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0	-	-	-	-	-	-
16	рН	рН	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	-	-	-	-	-	-
	Conductivity	μS/cm	Every 3 Months	0	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0	-	-	1	-	-	1
	Nitrogen (Total)	mg/L	Every 3 Months	0	-	-	1	-	-	1
	Oil and Grease	mg/L	Every 3 Months	0	-	-	-	-	-	-
27	рН	рН	Every 3 Months	0	-	-	ı	-	-	ı
	Phosphorus (Total)	mg/L	Every 3 Months	0	-	-	1	-	-	1
	Reactive Phosphorus	mg/L	Every 3 Months	0	-	-	1	-	-	1
	Total Suspended Solids	mg/L	Every 3 Months	0	-	-	ı	-	-	ı
	Conductivity	μS/cm	Every 6 Months	0	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	-	-	1	-	-	ı
	Nitrogen (Total)	mg/L	Every 6 Months	0	-	-	-	-	-	1
17	рН	рН	Every 6 Months	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	-	-	-	-	-	1
	Reactive Phosphorus	mg/L	Every 6 Months	0	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	-	-	-	-	-	-

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
	Conductivity	μS/cm	Every 6 Months	0	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	-	-	-	-	-	-
18	рН	рН	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	-	-	-	-	-	-
	Conductivity	μS/cm	Every 6 Months	0	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	-	-	-	-	-	-
19	pH	рН	Every 6 Months	0	-	-	1	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	-	-	1	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	-	-	1	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	-	-	ı	-	-	-
	Conductivity	μS/cm	Every 6 Months	0	-	-	1	-	-	-
	Nitrate	mg/L	Every 6 Months	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	-	-	-	-	-	-
20	pН	рН	Every 6 Months	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	-	-	ı	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	-	-	1	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	-	-	-	-	-	-
	Conductivity	μS/cm	Every 6 Months	0	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	-	-	-	-	-	-
21	pН	рН	Every 6 Months	0	-	-	ı	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	-	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	-	-	-	-	-	-

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

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Measureme nt Period	Start Time		ed levels – B(A)	Limit(s)	Weather (inversion			Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute	-	oC/100m, wind m/s & °)		Non- compliance /breach	
R24	26 and 27/4/2018	60 minutes	16:15	N/A	IA	Day 37	NA, 4.8m/s, 178 degrees.	WCC inaudible (<20), Traffic (37), birds (25).	No	4/5/2018
R12	26 and 27/4/2018	60 minutes	7:10	N/A	IA	Day 38	NA, 4.8m/s, 178 degrees	WCC inaudible (<20), Birds & insects (42), traffic (40).	No	4/5/2018
R96	26 and 27/4/2018	60 minutes	7:25	N/A	IA	Day 38	NA, 2.5m/s, 166 degrees	WCC inaudible (<20) ,Traffic (35), birds (33).	No	4/5/2018
R98	26 and 27/4/2018	60 minutes	7:05	N/A	IA	Day 36	NA, 2.7m/s, 179 degrees	WCC inaudible (<20), Birds (36).	No	4/5/2018
R57	26 and 27/4/2018	60 minutes	16:05	N/A	IA	Day 35	NA, 4.9m/s, 173 degrees	WCC inaudible (<20) ,Traffic (42), birds & insects (32)	No	4/5/2018
R24	26 and 27/4/2018	60 minutes	21:45	<20	IA	Night 37	6.6°/100m, 3.1m/s, 164 degrees.	WCC inaudible (<20),Traffic (43),	No	4/5/2018
R12	26 and 27/4/2018	60 minutes	22:52	<20	IA	Night 38	2.3º/100m, 3.0m/s, 163 degrees.	WCC inaudible (<20), Traffic (39).	No	4/5/2018
R96	26 and 27/4/2018	60 minutes	19:00	<20	IA	Night 38	6.6°/100m, 2.4m/s, 213 degrees.	WCC inaudible (<20) ,Traffic (28), frogs (21).	No	4/5/2018
R98	26 and 27/4/2018	60 minutes	20:05	24	20	Night 38	7.0°/100m, 2.6m/s, 208 degrees.	WCC (20), Insects (20), traffic (15).	No	4/5/2018
R57	26 and 27/4/2018	60 minutes	20:50	21	IA	Night 35	6.8º/100m, 2.7m/s, 195 degrees.	WCC barely audible (<20) ,Traffic (37), trains (37).	No	4/5/2018

Table 5 – Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of	Eroguopey	No. of Blasts	Average	Max	100%ile	(Potential) Non-	Date
Location	Parameter	Measure	Frequency	for the Month	Value	Value	Limit	compliance /breach	Obtained
R11	Blast Noise	dB (Lin Peak)	Every Blast	9	101.52	110.40		No	1/05/2018
KII	Blast Vibration	mm/s	Every Blast	9	0.09	0.18		No	1/05/2018
R98	Blast Noise	dB (Lin Peak)	Every Blast	9	99.61	105.80		No	1/05/2018
K96	Blast Vibration	mm/s	Every Blast	9	0.58	1.50		No	1/05/2018
R62	Blast Noise	dB (Lin Peak)	Every Blast	9	98.31	103.50		No	1/05/2018
NOZ	Blast Vibration	mm/s	Every Blast	9	0.24	0.42		No	1/05/2018
R92	Blast Noise	dB (Lin Peak)	Every Blast	9	98.73	102.50		No	1/05/2018
K92	Blast Vibration	mm/s	Every Blast	9	0.16	0.30		No	1/05/2018

