

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

EPA Website Link: <http://www.environment.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 2014

Publication Date: 14th February 2014

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
1	PM10	µg/m ³	Every 6 days	5	30/01/14	05/02/14	15.0	21.4	20.2	27.8
	Solid Particles	g/m ² /month	Continuous	1	23/01/14	04/02/14	0.7	0.7	0.7	0.7
28	PM10	µg/m ³	Every 6 days	5	30/01/14	05/02/14	2.0	12.8	15.9	22.1
	Solid Particles	g/m ² /month	Continuous	1	23/01/14	04/02/14	<0.1	<0.1	<0.1	<0.1
29	PM10	µg/m ³	Every 6 days	5	30/01/14	05/02/14	12.5	24.0	25.1	37.1
	Solid Particles	g/m ² /month	Continuous	1	23/01/14	04/02/14	0.7	0.7	0.7	0.7
30	PM10	µg/m ³	Every 6 days	Continuous	31/01/14	01/02/14	7.1	17.7	16.5	37.9
	Solid Particles	g/m ² /month	Continuous	1	23/01/14	04/02/14	3.9	3.9	3.9	3.9
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	-	-	-	-	-	-
14	Conductivity	µS/cm	Special Frequency 1	0	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Nitrogen (Total)	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
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-

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 2	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-

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)
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

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

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	-	-	-	-	-	-

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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
	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	-	-	-	-	-	-
	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	-	-	-	-	-	-

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
	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	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	-	-	-	-	-	-
22	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	-	-	-	-	-	-
	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	-	-	-	-	-	-

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
R96	28 th January 2014	1:06 pm	60 minutes	n/a	33	Day 38	n/a,3.7,122	Birds & insects (33), WCC inaudible	No
	28 th January 2014	7:10 pm	60 minutes	n/a	34	Night 37	Lapse,5.1,43	Birds & insects (34), WCC faintly audible	No
R12	28 th January 2014	4:40 pm	60 minutes	n/a	37	Day 38	n/a,3.7,56	Birds & insects (36), traffic (30),	No

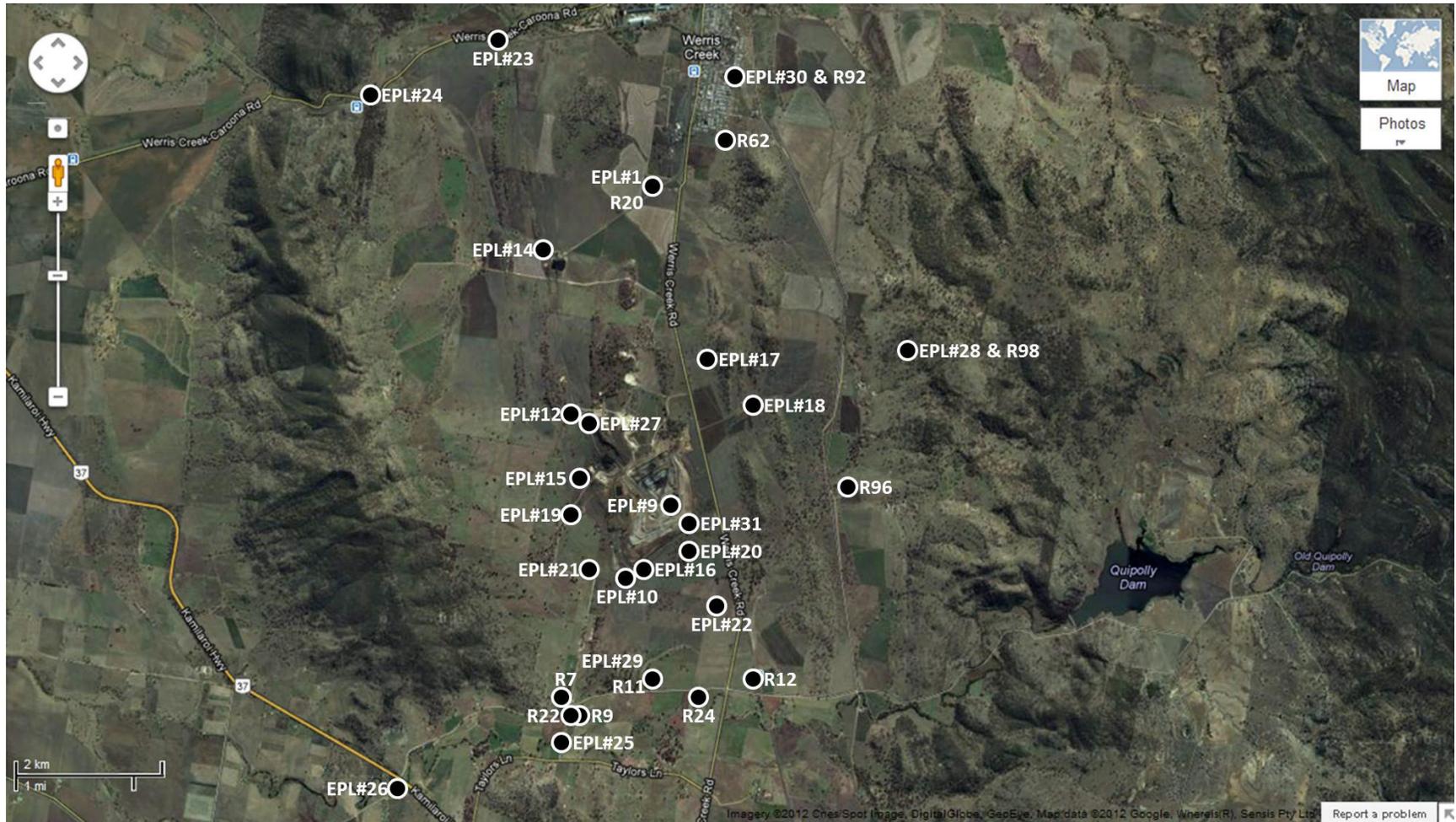
WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
								WCC inaudible	
	28 th January 2014	10:51 pm	60 minutes	n/a	36	Night 38	Lapse,3.7,43	Traffic (35), insects (28), WCC inaudible	No
R7	28 th January 2014	2:35 pm	60 minutes	n/a	43	Day 37	n/a,4.1,106	Birds & insects (41), domestic noise (39), WCC inaudible	No
	28 th January 2014	9:24 pm	60 minutes	40	37	Night 37	Lapse,7.0,46	Insects (36), WCC (29), traffic (23)	No
R9	28 th January 2014	1:10 pm	60 minutes	n/a	45	Day 37	n/a,3.7,122	Birds & insects (45), WCC (22)	No
	28 th January 2014	8:00 pm	60 minutes	30	34	Night 37	Lapse,5.7,44	Birds & insects (30), traffic (30), WCC (26)	No
R24	28 th January 2014	3:58 pm	60 minutes	n/a	37	Day 37	n/a,3.8,45	Traffic (36), birds & insects (32), WCC inaudible	No
	28 th January 2014	10:50 pm	60 minutes	25	38	Night 37	Lapse,3.7,43	Traffic (35), insects (34), WCC (<20)	No
R22	28 th January 2014	1:10 pm	60 minutes	n/a	45	Day 36	n/a,3.7,122	Birds & insects (45), WCC (22)	No
	28 th January 2014	8:00 pm	60 minutes	30	34	Night 36	Lapse,5.7,44	Birds & insects (30), traffic (30), WCC (26)	No

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
R11	Blast Noise	dB (Lin Peak)	Every Blast	4	99.8	109.4	120.0	No
	Blast Vibration	mm/s	Every Blast	4	0.14	0.26	10.00	No
R98	Blast Noise	dB (Lin Peak)	Every Blast	4	97.1	106.9	120.0	No
	Blast Vibration	mm/s	Every Blast	4	0.96	2.42	10.00	No
R62	Blast Noise	dB (Lin Peak)	Every Blast	4	98.2	104.8	120.0	No
	Blast Vibration	mm/s	Every Blast	4	0.34	0.63	10.00	No
R92	Blast Noise	dB (Lin Peak)	Every Blast	4	99.3	103.7	120.0	No
	Blast Vibration	mm/s	Every Blast	4	0.23	0.45	10.00	No

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WCC EPL12290 Monitoring Location Plan

WERRIS CREEK COAL EPL – MONTHLY SUMMARY
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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 2014

Publication Date: 14th March 2014

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
1	PM10	µg/m ³	Every 6 days	5	28/02/14	05/03/14	7.6	15.8	18.3	21.3
	Solid Particles	g/m ² /month	Continuous	1	20/02/14	03/03/14	1.4	1.4	1.4	1.4
28	PM10	µg/m ³	Every 6 days	5	28/02/14	05/03/14	7.9	12.8	13.7	17.0
	Solid Particles	g/m ² /month	Continuous	1	20/02/14	03/03/14	0.6	0.6	0.6	0.6
29	PM10	µg/m ³	Every 6 days	5	28/02/14	05/03/14	7.0	18.8	20.2	28.7
	Solid Particles	g/m ² /month	Continuous	1	20/02/14	03/03/14	1.9	1.9	1.9	1.9
30	PM10	µg/m ³	Every 6 days	Continuous	28/02/14	01/03/14	9.9	19.1	17.7	37.5
	Solid Particles	g/m ² /month	Continuous	1	20/02/14	03/03/14	1.8	1.8	1.8	1.8
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	-	-	-	-	-	-
14	Conductivity	µS/cm	Special Frequency 1	0	-	-	-	-	-	-
	Nitrate	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Nitrogen (Total)	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
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-

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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
	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	-	-	-	-	-	-

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)
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

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

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	26/02/14	05/03/14	1050	1050	1050	1050
	Nitrate	mg/L	Every 3 Months	1	26/02/14	05/03/14	0.55	0.55	0.55	0.55
	Nitrogen (Total)	mg/L	Every 3 Months	1	26/02/14	05/03/14	0.8	0.8	0.8	0.8
	Oil and Grease	mg/L	Every 3 Months	1	26/02/14	05/03/14	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	26/02/14	05/03/14	8.29	8.29	8.29	8.29
	Phosphorus (Total)	mg/L	Every 3 Months	1	26/02/14	05/03/14	<0.01	<0.01	<0.01	<0.01
	Reactive Phosphorus	mg/L	Every 3 Months	1	26/02/14	05/03/14	<0.01	<0.01	<0.01	<0.01

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
	Total Suspended Solids	mg/L	Every 3 Months	1	26/02/14	05/03/14	14	14	14	14
27	Conductivity	µS/cm	Every 3 Months	1	26/02/14	05/03/14	980	980	980	980
	Nitrate	mg/L	Every 3 Months	1	26/02/14	05/03/14	0.39	0.39	0.39	0.39
	Nitrogen (Total)	mg/L	Every 3 Months	1	26/02/14	05/03/14	0.6	0.6	0.6	0.6
	Oil and Grease	mg/L	Every 3 Months	1	26/02/14	05/03/14	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	26/02/14	05/03/14	8.21	8.21	8.21	8.21
	Phosphorus (Total)	mg/L	Every 3 Months	1	26/02/14	05/03/14	0.01	0.01	0.01	0.01
	Reactive Phosphorus	mg/L	Every 3 Months	1	26/02/14	05/03/14	<0.01	<0.01	<0.01	<0.01
	Total Suspended Solids	mg/L	Every 3 Months	1	26/02/14	05/03/14	14	14	14	14
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	-	-	-	-	-	-
	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	-	-	-	-	-	-

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
	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	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	-	-	-	-	-	-
22	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	-	-	-	-	-	-
	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	-	-	-	-	-	-

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
R96	12 th Feb 2014	2:12 pm	60 minutes	n/a	38	Day 38	n/a, 2.1,147	Birds (34), traffic (32), planes (31), wind (29), WCC occasionally audible	No
	12 th Feb 2014	8:22 pm	60 minutes	n/a	45	Night 37	Lapse,5.5,143	Insects & birds (45), cows (30), WCC inaudible	No
R12	12 th Feb 2014	1:03 pm	60 minutes	n/a	42	Day 38	n/a, 3.3,246	Traffic (40), birds (35), trains (32),	No

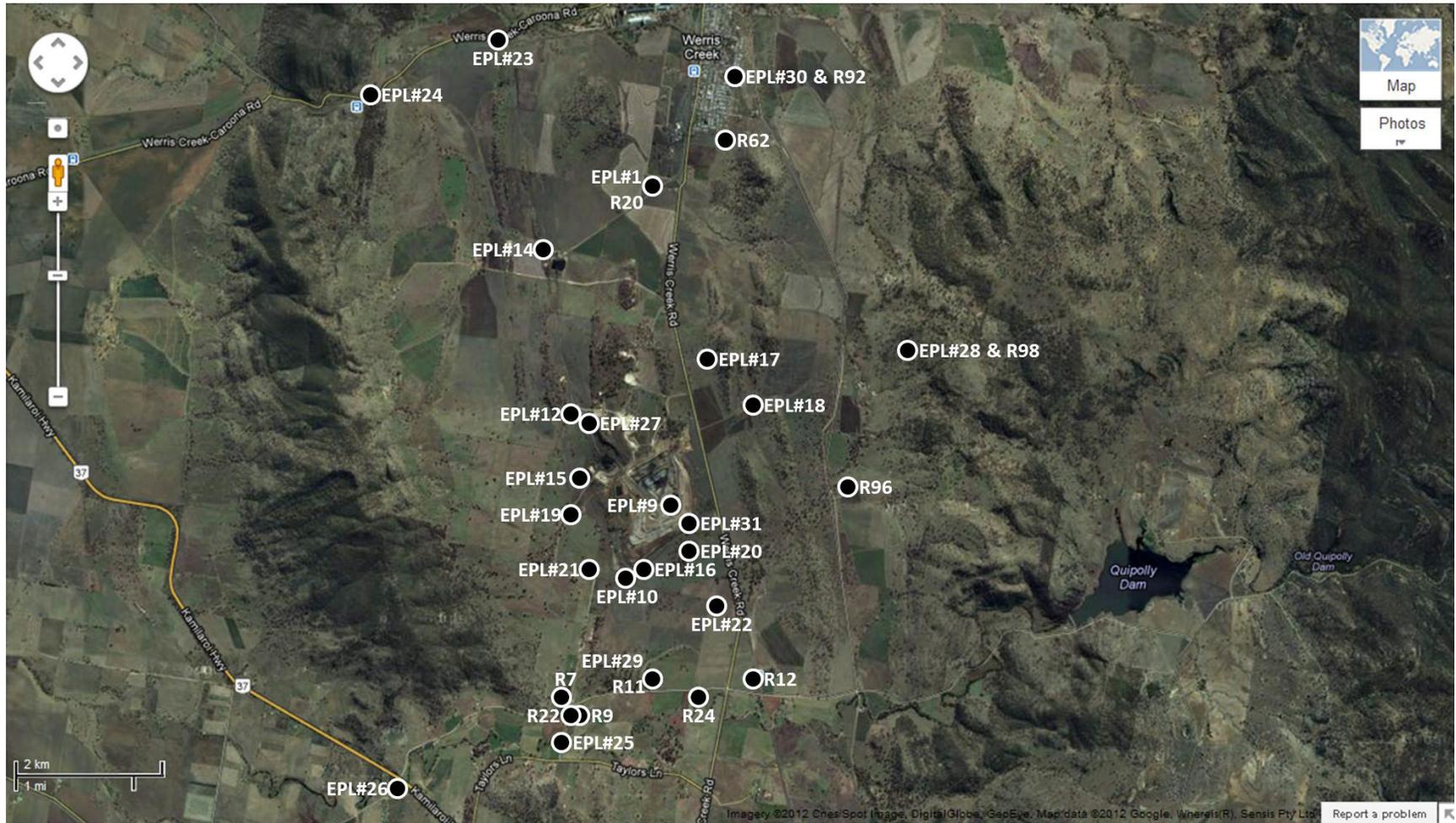
WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
								WCC inaudible	
	12 th Feb 2014	7:11 pm	60 minutes	n/a	35	Night 38	Lapse,5.4,137	Traffic (32), birds (30), trains (25), WCC inaudible	No
R7	12 th Feb2014	2:27 pm	60 minutes	n/a	32	Day 37	n/a, 3.9,145	Air conditioner (29), wind (27), birds (23), WCC inaudible	No
	12 th Feb 2014	9:30 pm	60 minutes	n/a	35	Night 37	Lapse,3.6,150	Insects (31), traffic (31). air conditioner (27), WCC inaudible	No
R9	12 th Feb 2014	1:04 pm	60 minutes	n/a	40	Day 37	n/a, 3.3,246	Birds (39), traffic (30), wind (30), WCC inaudible	No
	12 th Feb2014	8:05 pm	60 minutes	n/a	39	Night 37	Lapse,4.9,141	Birds (37), wind (32), domestic (27), traffic (27), WCC inaudible	No
R24	12 th Feb 2014	4:55 pm	60 minutes	n/a	33	Day 37	n/a, 2.4,211	Traffic (29), wind (29), birds (25), WCC inaudible	No
	12 th Feb 2014	10:50 pm	60 minutes	n/a	36	Night 37	Lapse,2.4,192	Traffic (33), insects (33), WCC inaudible	No
R22	12 th Feb 2014	1:04 pm	60 minutes	n/a	40	Day 36	n/a, 3.3,246	Birds (39), traffic (30), wind (30), WCC inaudible	No
	12 th Feb 2014	8:05 pm	60 minutes	n/a	39	Night 36	Lapse,4.9,141	Birds (37), wind (32), domestic (27), traffic (27), WCC inaudible	No

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
R11	Blast Noise	dB (Lin Peak)	Every Blast	8	97.2	107.8	120.0	No
	Blast Vibration	mm/s	Every Blast	8	0.12	0.23	10.00	No
R98	Blast Noise	dB (Lin Peak)	Every Blast	8	100.1	108.8	120.0	No
	Blast Vibration	mm/s	Every Blast	8	0.64	1.07	10.00	No
R62	Blast Noise	dB (Lin Peak)	Every Blast	8	97.8	104.1	120.0	No
	Blast Vibration	mm/s	Every Blast	8	0.26	0.54	10.00	No
R92	Blast Noise	dB (Lin Peak)	Every Blast	8	99.7	104.2	120.0	No
	Blast Vibration	mm/s	Every Blast	8	0.16	0.26	10.00	No

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WCC EPL12290 Monitoring Location Plan

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

EPA Website Link: <http://www.environment.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 2014

Publication Date: 14th April 2014

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
1	PM10	µg/m ³	Every 6 days	6	03/04/14	09/04/14	2.7	8.6	7.7	18.8
	Solid Particles	g/m ² /month	Continuous	1	24/03/14	03/04/14	1.0	1.0	1.0	1.0
28	PM10	µg/m ³	Every 6 days	6	03/04/14	09/04/14	3.5	7.5	5.9	15.8
	Solid Particles	g/m ² /month	Continuous	1	24/03/14	03/04/14	0.5	0.5	0.5	0.5
29	PM10	µg/m ³	Every 6 days	6	03/04/14	09/04/14	4.0	16.5	13.0	40.0
	Solid Particles	g/m ² /month	Continuous	1	24/03/14	03/04/14	0.1	0.1	0.1	0.1
30	PM10	µg/m ³	Every 6 days	Continuous	31/03/14	01/04/14	7.2	13.5	13.0	27.3
	Solid Particles	g/m ² /month	Continuous	1	24/03/14	03/04/14	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	-	-	-	-	-	-
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	-	-	-	-	-	-



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 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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-

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	-	-	-	-	-	-

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)
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

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

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	-	-	-	-	-	-

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
	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	1	27/03/14	03/04/14	1250	1250	1250	1250
	Nitrate	mg/L	Every 6 Months	1	27/03/14	03/04/14	6.82	6.82	6.82	6.82
	Nitrogen (Total)	mg/L	Every 6 Months	1	27/03/14	03/04/14	7.3	7.3	7.3	7.3
	pH	pH	Every 6 Months	1	27/03/14	03/04/14	7.46	7.46	7.46	7.46
	Phosphorus (Total)	mg/L	Every 6 Months	1	27/03/14	03/04/14	0.03	0.03	0.03	0.03
	Reactive Phosphorus	mg/L	Every 6 Months	1	27/03/14	03/04/14	0.14	0.14	0.14	0.14
	Standing Water Level	Metres	Every 6 Months	1	27/03/14	03/04/14	56.42	56.42	56.42	56.42
18	Conductivity	µS/cm	Every 6 Months	1	27/03/14	03/04/14	991	991	991	991
	Nitrate	mg/L	Every 6 Months	1	27/03/14	03/04/14	3.05	3.05	3.05	3.05
	Nitrogen (Total)	mg/L	Every 6 Months	1	27/03/14	03/04/14	3.4	3.4	3.4	3.4
	pH	pH	Every 6 Months	1	27/03/14	03/04/14	7.81	7.81	7.81	7.81
	Phosphorus (Total)	mg/L	Every 6 Months	1	27/03/14	03/04/14	0.05	0.05	0.05	0.05
	Reactive Phosphorus	mg/L	Every 6 Months	1	27/03/14	03/04/14	0.07	0.07	0.07	0.07
	Standing Water Level	Metres	Every 6 Months	1	27/03/14	03/04/14	27.87	27.87	27.87	27.87
19	Conductivity	µS/cm	Every 6 Months	1	01/04/14	08/04/14	3680	3680	3680	3680
	Nitrate	mg/L	Every 6 Months	1	01/04/14	08/04/14	23.0	23.0	23.0	23.0
	Nitrogen (Total)	mg/L	Every 6 Months	1	01/04/14	08/04/14	25.0	25.0	25.0	25.0
	pH	pH	Every 6 Months	1	01/04/14	08/04/14	7.34	7.34	7.34	7.34
	Phosphorus (Total)	mg/L	Every 6 Months	1	01/04/14	08/04/14	0.01	0.01	0.01	0.01
	Reactive Phosphorus	mg/L	Every 6 Months	1	01/04/14	08/04/14	<0.01	<0.01	<0.01	<0.01
	Standing Water Level	Metres	Every 6 Months	1	01/04/14	08/04/14	16.45	16.45	16.45	16.45
20	Conductivity	µS/cm	Every 6 Months	1	01/04/14	08/04/14	1010	1010	1010	1010
	Nitrate	mg/L	Every 6 Months	1	01/04/14	08/04/14	1.99	1.99	1.99	1.99
	Nitrogen (Total)	mg/L	Every 6 Months	1	01/04/14	08/04/14	2.1	2.1	2.1	2.1
	pH	pH	Every 6 Months	1	01/04/14	08/04/14	7.99	7.99	7.99	7.99

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	01/04/14	08/04/14	0.03	0.03	0.03	0.03
	Reactive Phosphorus	mg/L	Every 6 Months	1	01/04/14	08/04/14	0.03	0.03	0.03	0.03
	Standing Water Level	Metres	Every 6 Months	1	01/04/14	08/04/14	12.14	12.14	12.14	12.14
21	Conductivity	µS/cm	Every 6 Months	1	01/04/14	08/04/14	2600	2600	2600	2600
	Nitrate	mg/L	Every 6 Months	1	01/04/14	08/04/14	5.8	5.8	5.8	5.8
	Nitrogen (Total)	mg/L	Every 6 Months	1	01/04/14	08/04/14	6.3	6.3	6.3	6.3
	pH	pH	Every 6 Months	1	01/04/14	08/04/14	7.93	7.93	7.93	7.93
	Phosphorus (Total)	mg/L	Every 6 Months	1	01/04/14	08/04/14	0.77	0.77	0.77	0.77
	Reactive Phosphorus	mg/L	Every 6 Months	1	01/04/14	08/04/14	0.78	0.78	0.78	0.78
	Standing Water Level	Metres	Every 6 Months	1	01/04/14	08/04/14	9.88	9.88	9.88	9.88
22	Conductivity	µS/cm	Every 6 Months	1	27/03/14	03/04/14	1860	1860	1860	1860
	Nitrate	mg/L	Every 6 Months	1	27/03/14	03/04/14	4.40	4.40	4.40	4.40
	Nitrogen (Total)	mg/L	Every 6 Months	1	27/03/14	03/04/14	5.0	5.0	5.0	5.0
	pH	pH	Every 6 Months	1	27/03/14	03/04/14	7.72	7.72	7.72	7.72
	Phosphorus (Total)	mg/L	Every 6 Months	1	27/03/14	03/04/14	0.22	0.22	0.22	0.22
	Reactive Phosphorus	mg/L	Every 6 Months	1	27/03/14	03/04/14	0.07	0.07	0.07	0.07
	Standing Water Level	Metres	Every 6 Months	1	27/03/14	03/04/14	13.10	13.10	13.10	13.10

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
R96	6 th March 2014	3:42 pm	60 minutes	n/a	41	Day 38	n/a, 6.5,174	Wind (39), birds (36), WCC inaudible	No
	6 th March 2014	9:34 pm	60 minutes	n/a	45	Night 37	+1.7,1.4,154	Insects (45), traffic (25), WCC inaudible	No
R12	6 th March 2014	4:47 pm	60 minutes	n/a	40	Day 38	n/a, 6.9,162	Wind (37), birds (35), traffic (33), WCC inaudible	No
	6 th March 2014	10:39 pm	60 minutes	30	34	Night 38	+2.4,2.0,146	Traffic (32), insects (29), WCC (22)	No
R7	6 th March 2014	2:17 pm	60 minutes	n/a	39	Day 37	n/a, 4.3,192	Domestic noise (35), birds &	No

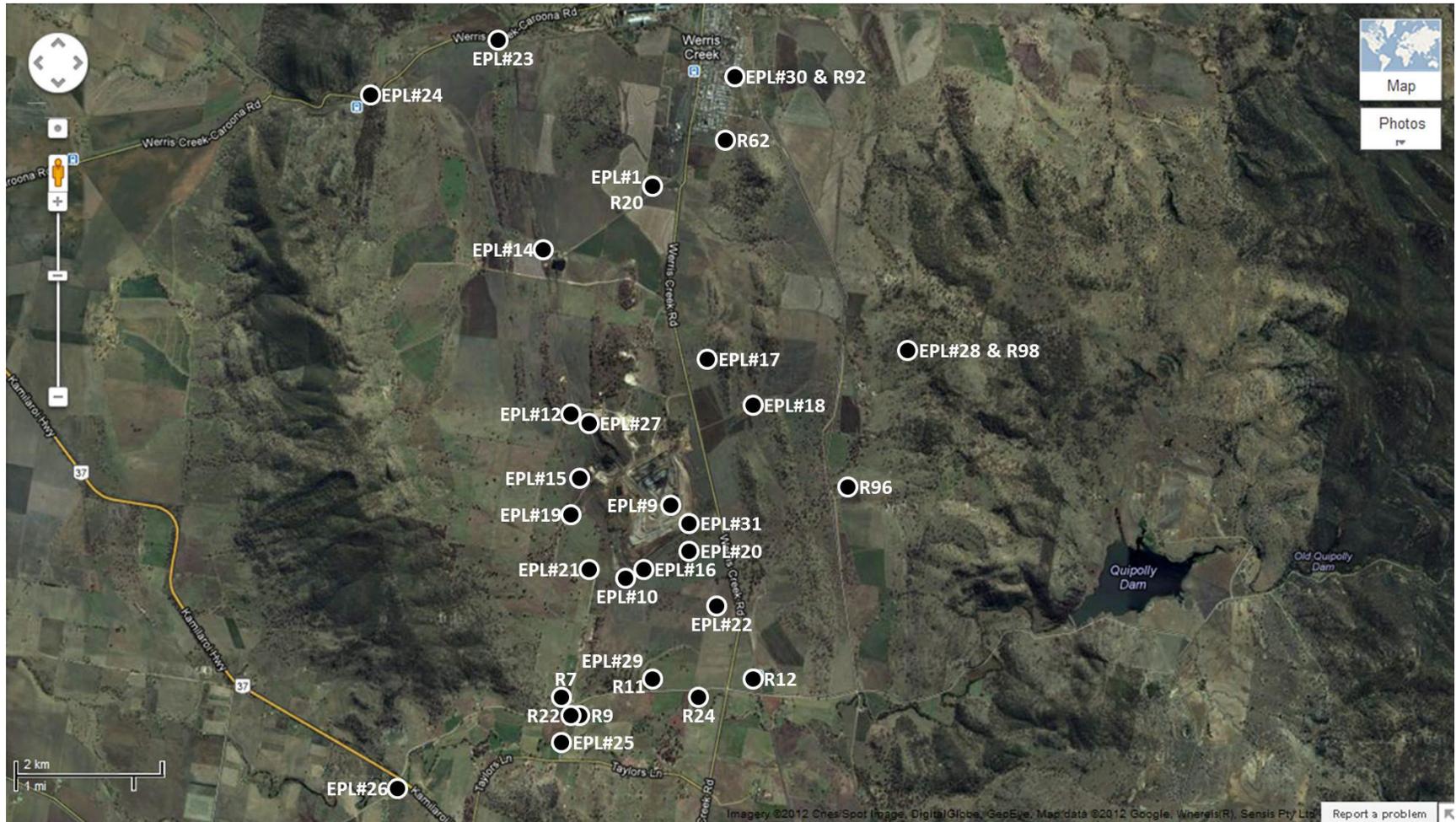
WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
								insects (34), traffic (32), WCC inaudible	
	6 th March 2014	9:18 pm	60 minutes	30	41	Night 37	+1.1,1.6,145	Insects (41), WCC (26)	No
R9	6 th March 2014	12:50 pm	60 minutes	n/a	38	Day 37	n/a, 3.3,189	Birds & insects (36), traffic (33), WCC inaudible	No
	6 th March 2014	7:55 pm	60 minutes	n/a	34	Night 37	Lapse,2.4,128	Traffic (33), birds & insects (28), WCC faintly audible	No
R24	6 th March 2014	3:40 pm	60 minutes	n/a	37	Day 37	n/a, 6.5,174	Traffic (34), birds & insects (34), WCC inaudible	No
	6 th March 2014	10:43 pm	60 minutes	22	44	Night 37	+2.4,2.0,146	Traffic (32), insects (29), WCC (22)	No
R22	6 th March 2014	12:50 pm	60 minutes	n/a	38	Day 36	n/a, 3.3,189	Birds & insects (36), traffic (33), WCC inaudible	No
	6 th March 2014	7:55 pm	60 minutes	n/a	34	Night 36	Lapse,2.4,128	Traffic (33), birds & insects (28), WCC faintly audible	No

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
R11	Blast Noise	dB (Lin Peak)	Every Blast	6	99.0	104.6	120.0	No
	Blast Vibration	mm/s	Every Blast	6	0.08	0.19	10.00	No
R98	Blast Noise	dB (Lin Peak)	Every Blast	6	99.0	107.3	120.0	No
	Blast Vibration	mm/s	Every Blast	6	0.46	0.98	10.00	No
R62	Blast Noise	dB (Lin Peak)	Every Blast	6	98.6	108.9	120.0	No
	Blast Vibration	mm/s	Every Blast	6	0.24	0.51	10.00	No
R92	Blast Noise	dB (Lin Peak)	Every Blast	6	98.8	107.8	120.0	No
	Blast Vibration	mm/s	Every Blast	6	0.17	0.38	10.00	No

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WCC EPL12290 Monitoring Location Plan

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

EPA Website Link: <http://www.environment.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 2014

Publication Date: 13th May 2014

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	02/05/14	09/05/14	2.5	7.2	6.2	11.5
	Solid Particles	g/m ² /month	Continuous	1	24/04/14	09/05/14	0.2	0.2	0.2	0.2
29	PM10	µg/m ³	Every 6 days	5	02/05/14	09/05/14	7.0	18.2	17.8	30.5
	Solid Particles	g/m ² /month	Continuous	1	24/04/14	09/05/14	0.3	0.3	0.3	0.3
30	PM10	µg/m ³	Every 6 days	Continuous	30/04/14	01/05/14	7.3	15.1	16.1	23.5
	Solid Particles	g/m ² /month	Continuous	1	24/04/14	09/05/14	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
23	Conductivity	µS/cm	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
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-

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)
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

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

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	-	-	-	-	-	-
Reactive Phosphorus	mg/L	Every 3 Months	0	-	-	-	-	-	-	
Total Suspended Solids	mg/L	Every 3 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
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	-	-	-	-	-	-
	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	-	-	-	-	-	-

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
	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	-	-	-	-	-	-

Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
R96	23 rd April 2014	3:09 pm	60 minutes	n/a	38	Day 38	n/a, 5.0,290	Wind in trees (37), birds (29), traffic (25), WCC inaudible	No
	23 rd April 2014	9:37 pm	60 minutes	35	33	Night 37	+7.9,1.2,286	WCC (31), traffic (27), insects (20)	No
R12	23 rd April 2014	4:19 pm	60 minutes	n/a	45	Day 38	n/a, 2.7,278	Traffic (45), birds (29), WCC inaudible	No
	23 rd April 2014	10:47 pm	60 minutes	36	40	Night 38	+8.6,1.6316	Traffic (39), WCC (31)	No
R7	23 rd April 2014	2:09 pm	60 minutes	n/a	40	Day 37	n/a, 5.5,281	Wind in trees (38), birds (33), traffic (29), WCC (24)	No
	23 rd April 2014	9:34 pm	60 minutes	38	36	Night 37	+7.9,1.5,318	WCC (33), traffic (32), insects (19)	No
R9	23 rd April 2014	12:43 pm	60 minutes	n/a	41	Day 37	n/a, 5.2,286	Birds (40), wind in trees (33), traffic (28), WCC (26)	No
	23 rd April 2014	8:10 pm	60 minutes	39	48	Night 37	+8.8,0.4,90	Traffic (48), WCC (35), insects (32)	No

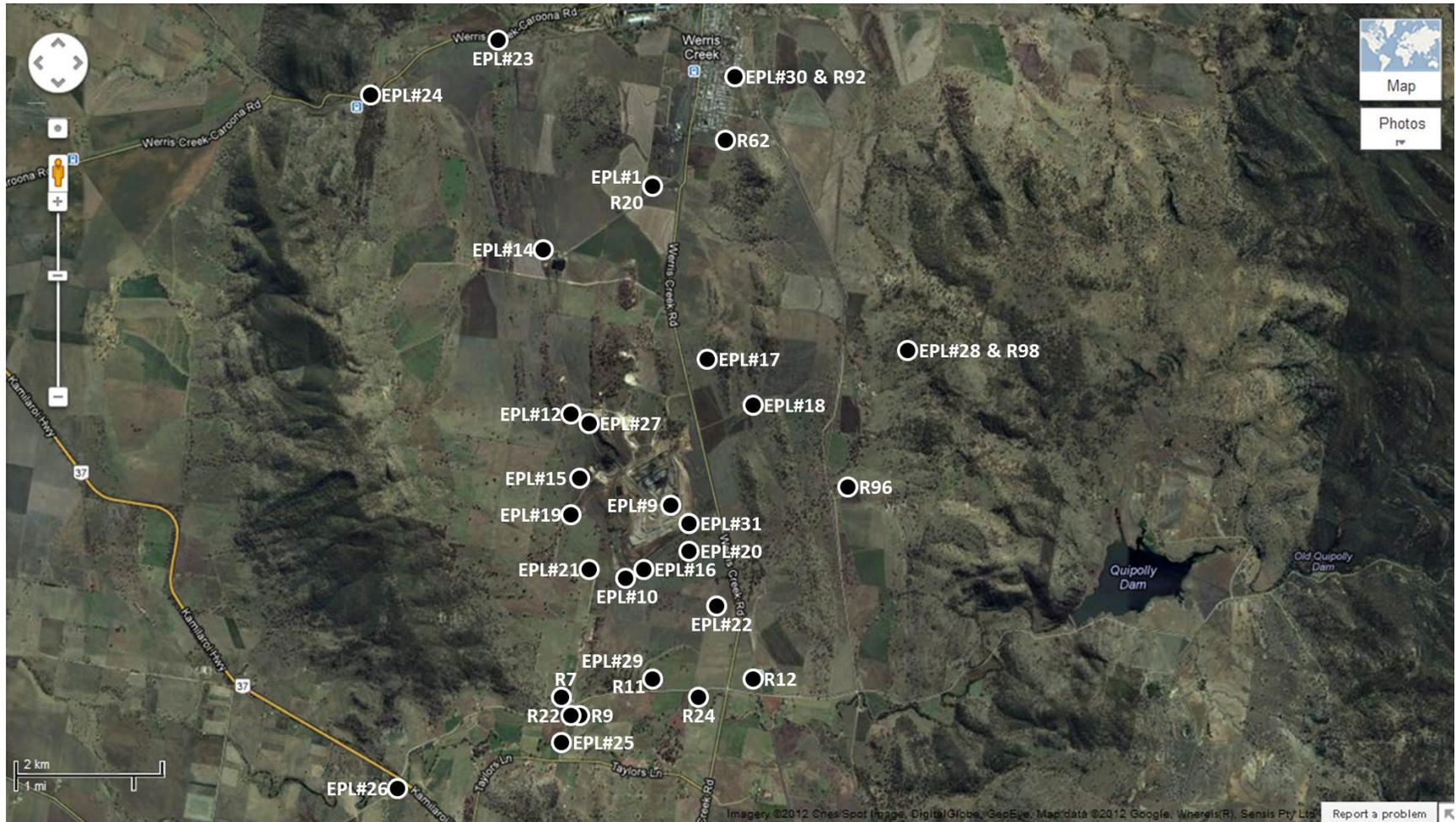
WERRIS CREEK COAL EPL – MONTHLY SUMMARY

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
R24	23 rd April 2014	3:33 pm	60 minutes	n/a	49	Day 37	n/a, 4.7,286	Traffic (48), birds (41), WCC (22)	No
	23 rd April 2014	10:58 pm	60 minutes	44	38	Night 37	+8.6,1.6,313	Traffic (36), WCC (33), insects (19)	No
R22	23 rd April 2014	12:43 pm	60 minutes	n/a	41	Day 36	n/a, 5.2,286	Birds (40), wind in trees (33), traffic (28), WCC (26)	No
	23 rd April 2014	8:10 pm	60 minutes	39	48	Night 36	+8.8,0.4,90	Traffic (48), WCC (35), insects (32)	No

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
R11	Blast Noise	dB (Lin Peak)	Every Blast	5	101.8	104.7	120.0	No
	Blast Vibration	mm/s	Every Blast	5	0.17	0.25	10.00	No
R98	Blast Noise	dB (Lin Peak)	Every Blast	5	102.0	108.8	120.0	No
	Blast Vibration	mm/s	Every Blast	5	1.18	1.71	10.00	No
R62	Blast Noise	dB (Lin Peak)	Every Blast	5	101.4	109.3	120.0	No
	Blast Vibration	mm/s	Every Blast	5	0.46	0.83	10.00	No
R92	Blast Noise	dB (Lin Peak)	Every Blast	5	97.1	111.9	120.0	No
	Blast Vibration	mm/s	Every Blast	5	0.34	0.48	10.00	No

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WCC EPL12290 Monitoring Location Plan

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

EPA Website Link: <http://www.environment.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 2014

Publication Date: 19th June 2014

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	4	27/05/14	02/06/14	2.1	8.8	8.0	16.9
	Solid Particles	g/m ² /month	Continuous	1	21/05/14	02/06/14	0.1	0.1	0.1	0.1
29	PM10	µg/m ³	Every 6 days	4	27/05/14	02/06/14	1.3	15.1	16.9	25.1
	Solid Particles	g/m ² /month	Continuous	1	21/05/14	02/06/14	0.4	0.4	0.4	0.4
30	PM10	µg/m ³	Every 6 days	Continuous	31/05/14	01/06/14	8.4	16.9	16.5	34.7
	Solid Particles	g/m ² /month	Continuous	1	21/05/14	02/06/14	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
23	Conductivity	µS/cm	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
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	Reactive Phosphorus	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	-	-	-	-	-	-
Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-	

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)
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

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

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	23/05/14	29/05/14	1070	1070	1070	1070
	Nitrate	mg/L	Every 3 Months	1	23/05/14	29/05/14	0.48	0.48	0.48	0.48
	Nitrogen (Total)	mg/L	Every 3 Months	1	23/05/14	29/05/14	0.8	0.8	0.8	0.8
	Oil and Grease	mg/L	Every 3 Months	1	23/05/14	29/05/14	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	23/05/14	29/05/14	8.50	8.50	8.50	8.50
	Phosphorus (Total)	mg/L	Every 3 Months	1	23/05/14	29/05/14	<0.01	<0.01	<0.01	<0.01
	Reactive Phosphorus	mg/L	Every 3 Months	1	23/05/14	29/05/14	<0.01	<0.01	<0.01	<0.01
27	Total Suspended Solids	mg/L	Every 3 Months	1	23/05/14	29/05/14	<5	<5	<5	<5
	Conductivity	µS/cm	Every 3 Months	1	23/05/14	29/05/14	979	979	979	979
	Nitrate	mg/L	Every 3 Months	1	23/05/14	29/05/14	0.89	0.89	0.89	0.89
	Nitrogen (Total)	mg/L	Every 3 Months	1	23/05/14	29/05/14	1.3	1.3	1.3	1.3
	Oil and Grease	mg/L	Every 3 Months	1	23/05/14	29/05/14	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	23/05/14	29/05/14	8.37	8.37	8.37	8.37
	Phosphorus (Total)	mg/L	Every 3 Months	1	23/05/14	29/05/14	<0.01	<0.01	<0.01	<0.01
Reactive Phosphorus	mg/L	Every 3 Months	1	23/05/14	29/05/14	<0.01	<0.01	<0.01	<0.01	
Total Suspended Solids	mg/L	Every 3 Months	1	23/05/14	29/05/14	7	7	7	7	

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
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	-	-	-	-	-	-
	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	-	-	-	-	-	-

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
	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	-	-	-	-	-	-

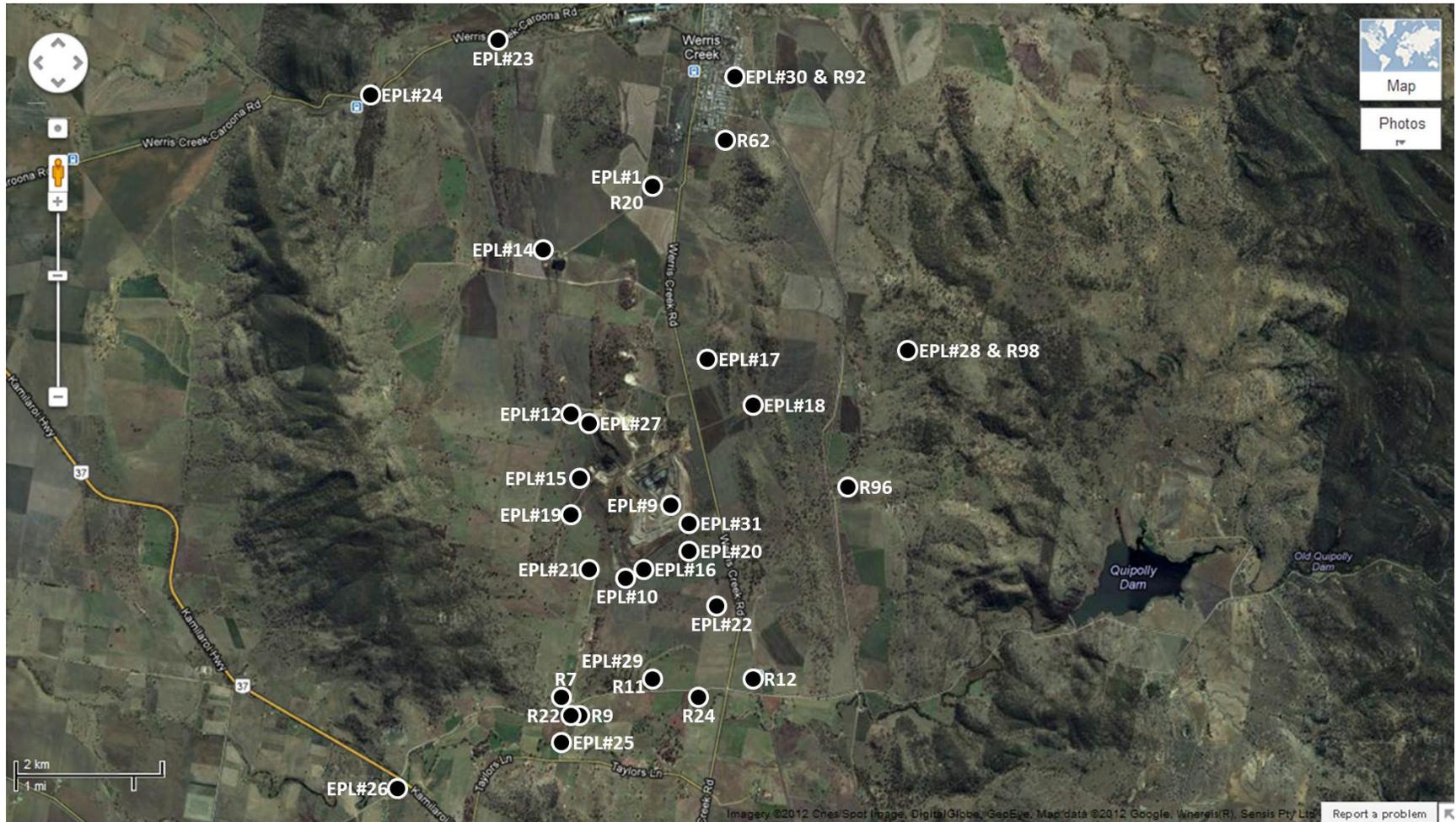
Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
R96	21 st May 2014	4:32 pm	60 minutes	n/a	42	Day 38	n/a, 3.5,160	Birds (41), traffic (34), WCC inaudible	No
	21 st May 2014	10:20 pm	60 minutes	23	26	Night 37	+9.5,0.5,124	Traffic (24), WCC (20)	No
R12	21 st May 2014	11:43 am	60 minutes	n/a	36	Day 38	n/a, 1.0,207	Traffic (36), birds (26), WCC inaudible	No
	21 st May 2014	8:04 pm	60 minutes	n/a	37	Night 38	+9.0,1.9,148	Traffic (37), WCC inaudible	No
R24	21 st May 2014	10:01 am	60 minutes	n/a	34	Day 37	n/a, 1.7,199	Traffic (32), birds (30), WCC inaudible	No
	21 st May 2014	10:10 pm	60 minutes	32	35	Night 37	+9.4,0.8,106	Traffic (34), WCC (26)	No

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
R11	Blast Noise	dB (Lin Peak)	Every Blast	9	98.8	110.5	120.0	No
	Blast Vibration	mm/s	Every Blast	9	0.21	0.29	10.00	No
R98	Blast Noise	dB (Lin Peak)	Every Blast	9	96.6	109.4	120.0	No
	Blast Vibration	mm/s	Every Blast	9	1.27	2.42	10.00	No
R62	Blast Noise	dB (Lin Peak)	Every Blast	9	94.0	98.9	120.0	No
	Blast Vibration	mm/s	Every Blast	9	0.43	0.85	10.00	No
R92	Blast Noise	dB (Lin Peak)	Every Blast	9	91.6	97.4	120.0	No
	Blast Vibration	mm/s	Every Blast	9	0.33	0.56	10.00	No

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WCC EPL12290 Monitoring Location Plan

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

EPA Website Link: <http://www.environment.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 2014

Publication Date: 15th July 2014

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	27/06/14	02/07/14	2.5	7.3	6.6	14.2
	Solid Particles	g/m ² /month	Continuous	1	20/06/14	01/07/14	0.2	0.2	0.2	0.2
29	PM10	µg/m ³	Every 6 days	5	27/06/14	02/07/14	2.3	4.9	4.0	11.0
	Solid Particles	g/m ² /month	Continuous	1	20/06/14	01/07/14	0.4	0.4	0.4	0.4
30	PM10	µg/m ³	Every 6 days	Continuous	30/06/14	01/07/14	5.3	13.1	13.5	19.1
	Solid Particles	g/m ² /month	Continuous	1	20/06/14	01/07/14	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	-	-	-	-	-	-
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	-	-	-	-	-	-
23	Conductivity	µS/cm	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
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-

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)
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

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

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	-	-	-	-	-	-

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
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	-	-	-	-	-	-
	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	-	-	-	-	-	-

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
	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	-	-	-	-	-	-

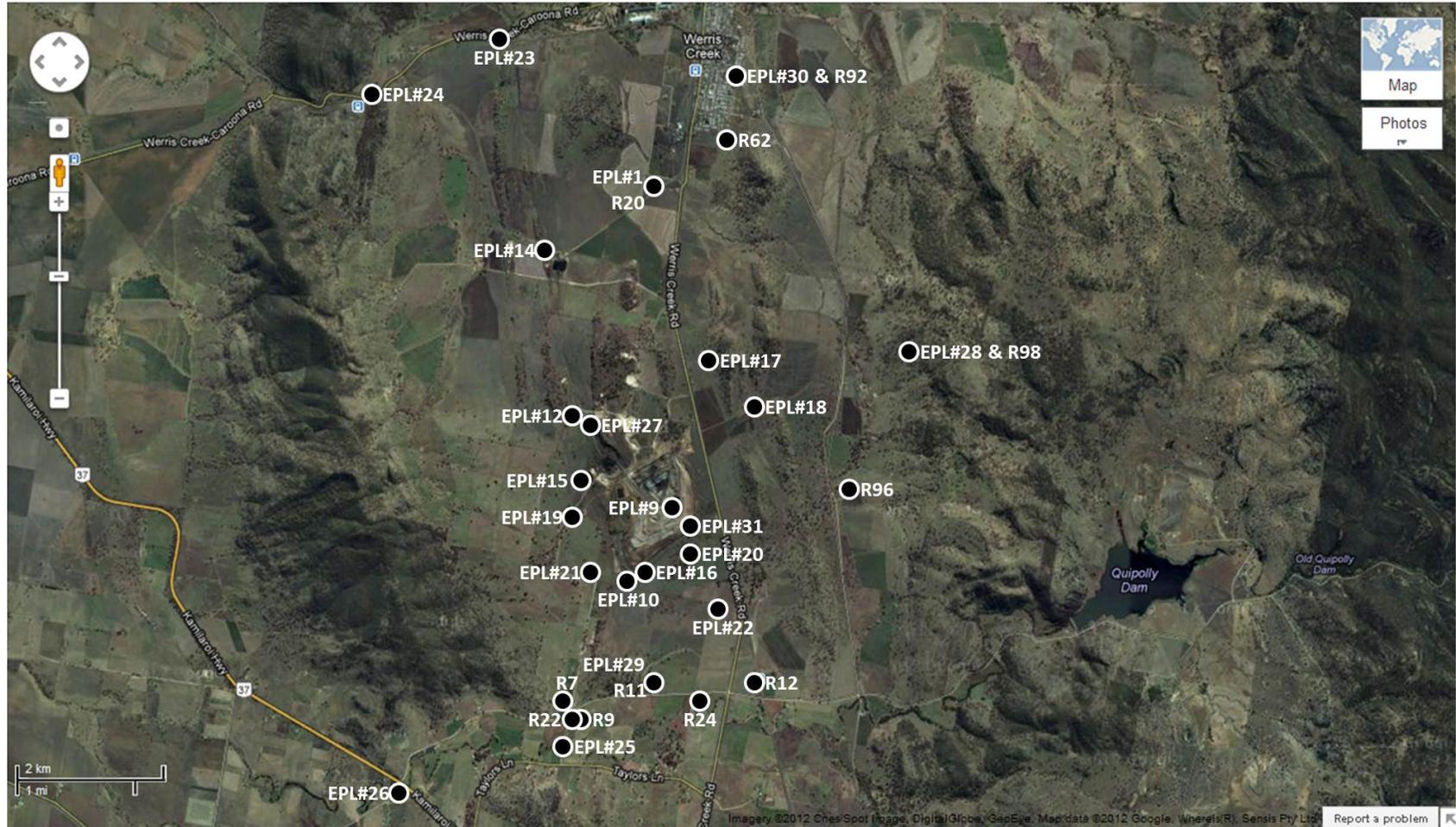
Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
R96	17 th June 2014	4:18 pm	60 minutes	n/a	41	Day 38	n/a, 0.6,167	Birds (41), traffic (30), WCC inaudible	No
	17 th June 2014	9:17 pm	60 minutes	30	32	Night 37	+9.6,1.0,334	Traffic (31), WCC (26)	No
R12	17 th June 2014	4:26 pm	60 minutes	n/a	40	Day 38	n/a, 0.4,164	Birds (38), traffic (36), WCC inaudible	No
	17 th June 2014	9:31 pm	60 minutes	28	37	Night 38	+9.8,0.9,336	Traffic (37), WCC (25)	No
R24	17 th June 2014	2:50 pm	60 minutes	n/a	38	Day 37	n/a, 2.7,169	Birds (37), traffic (31), WCC inaudible	No
	17 th June 2014	7:46 pm	60 minutes	34	47	Night 37	+8.4,0.9,330	Traffic (47), WCC (30)	No

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
R11	Blast Noise	dB (Lin Peak)	Every Blast	9	100.4	107.0	120.0	No
	Blast Vibration	mm/s	Every Blast	9	0.15	0.26	10.00	No
R98	Blast Noise	dB (Lin Peak)	Every Blast	9	100.1	108.2	120.0	No
	Blast Vibration	mm/s	Every Blast	9	0.86	1.83	10.00	No
R62	Blast Noise	dB (Lin Peak)	Every Blast	9	94.7	103.4	120.0	No
	Blast Vibration	mm/s	Every Blast	9	0.33	0.46	10.00	No
R92	Blast Noise	dB (Lin Peak)	Every Blast	9	95.1	102.5	120.0	No
	Blast Vibration	mm/s	Every Blast	9	0.22	0.37	10.00	No

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WCC EPL12290 Monitoring Location Plan

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

EPA Website Link: <http://www.environment.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 2014

Publication Date: 15th August 2014

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	25/07/14	29/07/14	5.2	8.3	8.3	10.2
	Solid Particles	g/m ² /month	Continuous	1	23/07/14	04/08/14	0.1	0.1	0.1	0.1
29	PM10	µg/m ³	Every 6 days	5	25/07/14	29/07/14	12.0	26.3	22.1	43.3
	Solid Particles	g/m ² /month	Continuous	1	23/07/14	04/08/14	0.8	0.8	0.8	0.8
30	PM10	µg/m ³	Every 6 days	Continuous	31/07/14	01/08/14	3.8	11.6	11.9	21.0
	Solid Particles	g/m ² /month	Continuous	1	23/07/14	04/08/14	0.1	0.1	0.1	0.1
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	-	-	-	-	-	-
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	-	-	-	-	-	-
23	Conductivity	µS/cm	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
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-

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)
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

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

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	-	-	-	-	-	-
Reactive Phosphorus	mg/L	Every 3 Months	0	-	-	-	-	-	-	
Total Suspended Solids	mg/L	Every 3 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
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	-	-	-	-	-	-
	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	-	-	-	-	-	-

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
	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	-	-	-	-	-	-

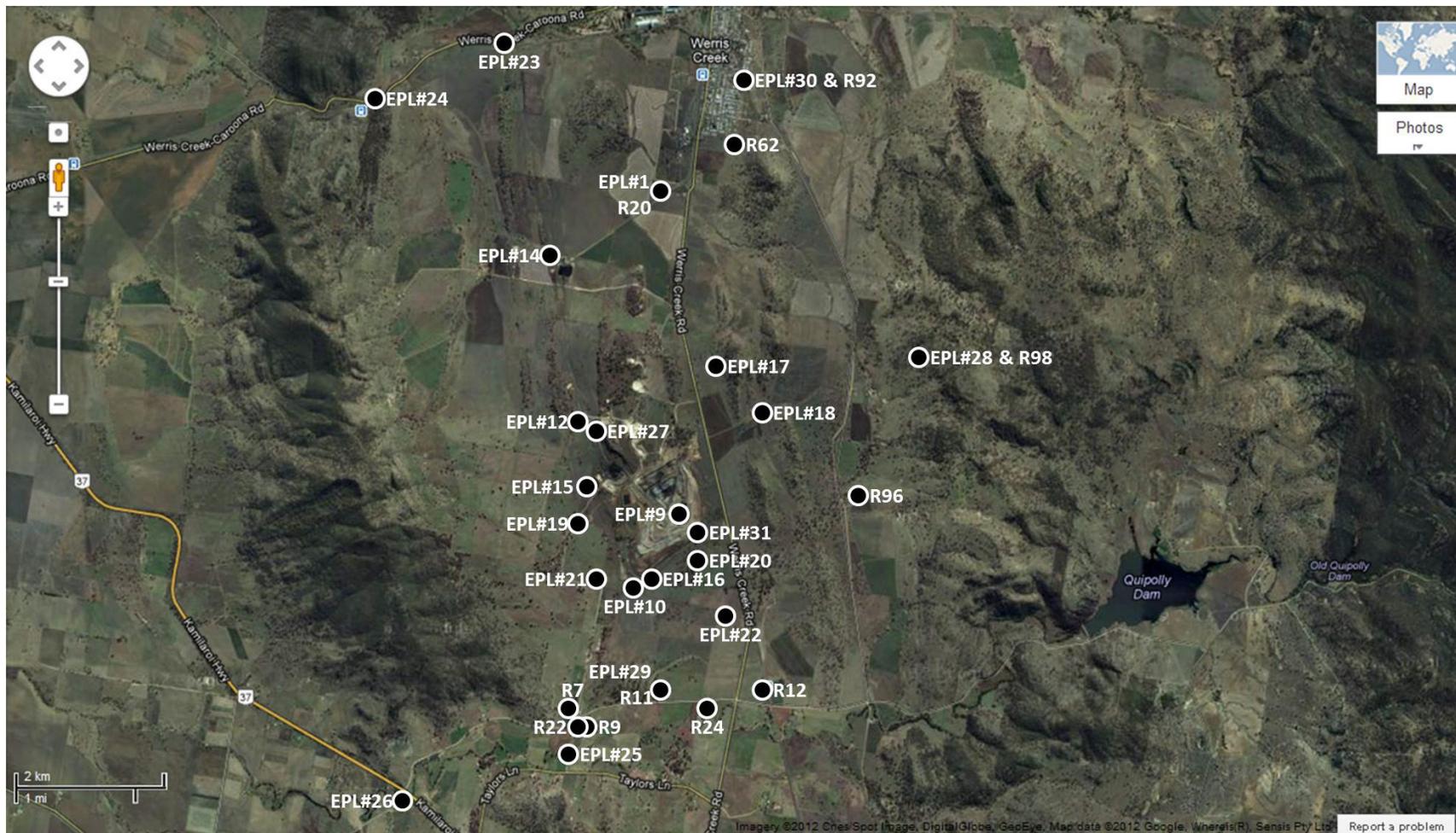
Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
R24	8 th July 2014	2:12 pm	60 minutes	n/a	36	Day 37	n/a, 1.3,317	Birds (35), traffic (29), WCC (23)	No
	8 th July 2014	7:33 pm	60 minutes	34	51	Night 37	+10.2,0.5,311	Traffic (51), WCC (27)	No
R12	8 th July 2014	3:49 pm	60 minutes	n/a	44	Day 38	n/a, 2.4,308	Traffic (44), birds (28), WCC inaudible	No
	8 th July 2014	9:12 pm	60 minutes	28	45	Night 38	+10.4,1.4,328	Traffic (45), WCC (33)	No
R96	8 th July 2014	3:34 pm	60 minutes	n/a	31	Day 38	n/a, 2.1,319	Birds (29), domestic (25), traffic (24), WCC inaudible	No
	8 th July 2014	9:07 pm	60 minutes	30	33	Night 37	+10.5,1.4,324	Traffic (31), WCC (28)	No

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
R11	Blast Noise	dB (Lin Peak)	Every Blast	11	101.5	108.3	120.0	No
	Blast Vibration	mm/s	Every Blast	11	0.13	0.27	10.00	No
R98	Blast Noise	dB (Lin Peak)	Every Blast	11	100.2	110.8	120.0	No
	Blast Vibration	mm/s	Every Blast	11	0.59	1.26	10.00	No
R62	Blast Noise	dB (Lin Peak)	Every Blast	11	95.9	108.7	120.0	No
	Blast Vibration	mm/s	Every Blast	11	0.29	0.68	10.00	No
R92	Blast Noise	dB (Lin Peak)	Every Blast	11	96.4	105.1	120.0	No
	Blast Vibration	mm/s	Every Blast	11	0.23	0.49	10.00	No

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WCC EPL12290 Monitoring Location Plan

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

EPA Website Link: <http://www.environment.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 2014

Publication Date: 15th September 2014

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	26/08/14	28/08/14	0.6	6.0	6.4	11.3
	Solid Particles	g/m ² /month	Continuous	1	25/08/14	01/09/14	<0.1	<0.1	<0.1	<0.1
29	PM10	µg/m ³	Every 6 days	5	26/08/14	28/08/14	2.2	13.2	10.2	32.7
	Solid Particles	g/m ² /month	Continuous	1	25/08/14	01/09/14	0.5	0.5	0.5	0.5
30	PM10	µg/m ³	Every 6 days	Continuous	31/08/14	01/09/14	1.9	10.2	7.7	28.3
	Solid Particles	g/m ² /month	Continuous	1	25/08/14	01/09/14	0.6	0.6	0.6	0.6
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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
23	Conductivity	µS/cm	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
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-

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)
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

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

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	08/08/14	15/08/14	1060	1060	1060	1060
	Nitrate	mg/L	Every 3 Months	1	08/08/14	15/08/14	2.75	2.75	2.75	2.75
	Nitrogen (Total)	mg/L	Every 3 Months	1	08/08/14	15/08/14	3.5	3.5	3.5	3.5
	Oil and Grease	mg/L	Every 3 Months	1	08/08/14	15/08/14	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	08/08/14	15/08/14	8.38	8.38	8.38	8.38
	Phosphorus (Total)	mg/L	Every 3 Months	1	08/08/14	15/08/14	<0.01	<0.01	<0.01	<0.01
	Reactive Phosphorus	mg/L	Every 3 Months	1	08/08/14	15/08/14	<0.01	<0.01	<0.01	<0.01
27	Total Suspended Solids	mg/L	Every 3 Months	1	08/08/14	15/08/14	10	10	10	10
	Conductivity	µS/cm	Every 3 Months	1	08/08/14	15/08/14	962	962	962	962
	Nitrate	mg/L	Every 3 Months	1	08/08/14	15/08/14	7.67	7.67	7.67	7.67
	Nitrogen (Total)	mg/L	Every 3 Months	1	08/08/14	15/08/14	10.8	10.8	10.8	10.8
	Oil and Grease	mg/L	Every 3 Months	1	08/08/14	15/08/14	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	08/08/14	15/08/14	8.14	8.14	8.14	8.14
	Phosphorus (Total)	mg/L	Every 3 Months	1	08/08/14	15/08/14	<0.10	<0.10	<0.10	<0.10
Reactive Phosphorus	mg/L	Every 3 Months	1	08/08/14	15/08/14	<0.01	<0.01	<0.01	<0.01	
Total Suspended Solids	mg/L	Every 3 Months	1	08/08/14	15/08/14	141	141	141	141	

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
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	-	-	-	-	-	-
	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	-	-	-	-	-	-

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
	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	-	-	-	-	-	-

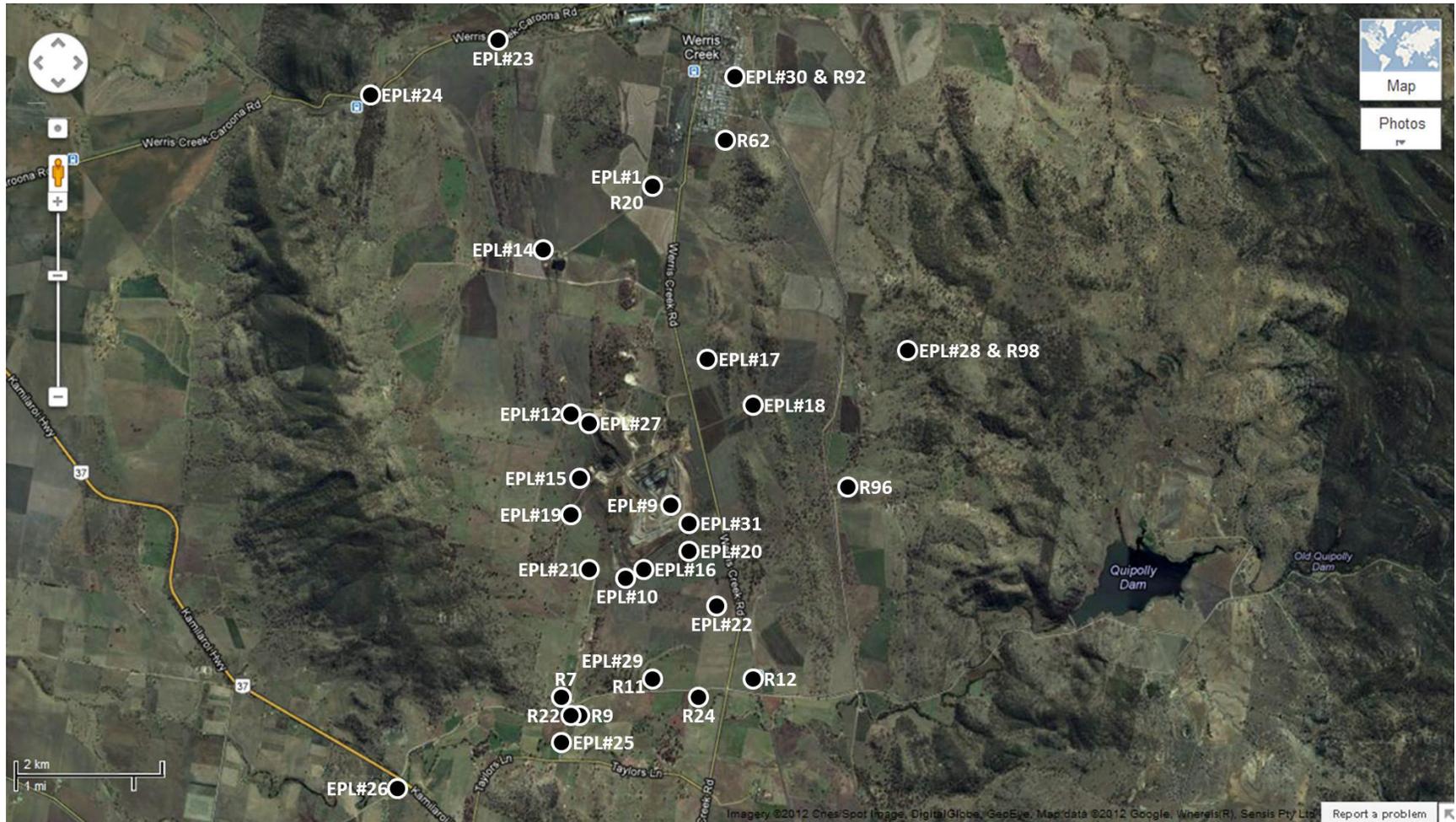
Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
R24	7 th August 2014	2:23 pm	60 minutes	n/a	34	Day 37	n/a, 1.3,297	Traffic (33), birds (27), WCC inaudible	No
	7 th August 2014	8:22 pm	60 minutes	29	44	Night 37	+9.8,1.4,181	Traffic (44), WCC (25)	No
R12	7 th August 2014	4:06 pm	60 minutes	n/a	40	Day 38	n/a, 1.6,235	Traffic (40), birds (29), WCC inaudible	No
	7 th August 2014	9:59 pm	60 minutes	n/a	38	Night 38	+10.3,2.3,172	Traffic (38), WCC inaudible	No
R96	7 th August 2014	3:58 pm	60 minutes	n/a	37	Day 38	n/a, 1.6,235	Birds (36), traffic (29), WCC inaudible	No
	7 th August 2014	9:58 pm	60 minutes	29	28	Night 37	+10.3,2.3,172	Traffic (26), WCC (24)	No

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
R11	Blast Noise	dB (Lin Peak)	Every Blast	15	96.8	110.1	120.0	No
	Blast Vibration	mm/s	Every Blast	15	0.15	0.45	10.00	No
R98	Blast Noise	dB (Lin Peak)	Every Blast	15	98.1	111.8	120.0	No
	Blast Vibration	mm/s	Every Blast	15	0.51	1.69	10.00	No
R62	Blast Noise	dB (Lin Peak)	Every Blast	15	94.9	104.7	120.0	No
	Blast Vibration	mm/s	Every Blast	15	0.31	1.02	10.00	No
R92	Blast Noise	dB (Lin Peak)	Every Blast	15	95.2	109.3	120.0	No
	Blast Vibration	mm/s	Every Blast	15	0.21	0.48	10.00	No

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WCC EPL12290 Monitoring Location Plan

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

EPA Website Link: <http://www.environment.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 2014

Publication Date: 16th October 2014

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	03/10/14	14/10/14	3.9	5.6	5.0	9.6
	Solid Particles	g/m ² /month	Continuous	1	22/09/14	29/09/14	0.1	0.1	0.1	0.1
29	PM10	µg/m ³	Every 6 days	6	03/10/14	14/10/14	5.4	17.0	14.7	39.7
	Solid Particles	g/m ² /month	Continuous	1	22/09/14	29/09/14	0.6	0.6	0.6	0.6
30	PM10	µg/m ³	Every 6 days	Continuous	30/09/14	01/10/14	0.0	9.2	10.5	17.3
	Solid Particles	g/m ² /month	Continuous	1	22/09/14	29/09/14	0.1	0.1	0.1	0.1
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	-	-	-	-	-	-
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	-	-	-	-	-	-
23	Conductivity	µS/cm	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
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-

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)
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

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

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	-	-	-	-	-	-
Reactive Phosphorus	mg/L	Every 3 Months	0	-	-	-	-	-	-	
Total Suspended Solids	mg/L	Every 3 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
17	Conductivity	µS/cm	Every 6 Months	1	23/09/14	29/09/14	1260	1260	1260	1260
	Nitrate	mg/L	Every 6 Months	1	23/09/14	29/09/14	6.04	6.04	6.04	6.04
	Nitrogen (Total)	mg/L	Every 6 Months	1	23/09/14	29/09/14	6.7	6.7	6.7	6.7
	pH	pH	Every 6 Months	1	23/09/14	29/09/14	7.45	7.45	7.45	7.45
	Phosphorus (Total)	mg/L	Every 6 Months	1	23/09/14	29/09/14	0.36	0.36	0.36	0.36
	Reactive Phosphorus	mg/L	Every 6 Months	1	23/09/14	29/09/14	0.05	0.05	0.05	0.05
	Standing Water Level	Metres	Every 6 Months	1	23/09/14	29/09/14	58.5	58.5	58.5	58.5
18	Conductivity	µS/cm	Every 6 Months	1	23/09/14	29/09/14	873	873	873	873
	Nitrate	mg/L	Every 6 Months	1	23/09/14	29/09/14	2.99	2.99	2.99	2.99
	Nitrogen (Total)	mg/L	Every 6 Months	1	23/09/14	29/09/14	3.4	3.4	3.4	3.4
	pH	pH	Every 6 Months	1	23/09/14	29/09/14	7.85	7.85	7.85	7.85
	Phosphorus (Total)	mg/L	Every 6 Months	1	23/09/14	29/09/14	0.12	0.12	0.12	0.12
	Reactive Phosphorus	mg/L	Every 6 Months	1	23/09/14	29/09/14	0.06	0.06	0.06	0.06
	Standing Water Level	Metres	Every 6 Months	1	23/09/14	29/09/14	29.6	29.6	29.6	29.6
19	Conductivity	µS/cm	Every 6 Months	1	23/09/14	29/09/14	535	535	535	535
	Nitrate	mg/L	Every 6 Months	1	23/09/14	29/09/14	5.20	5.20	5.20	5.20
	Nitrogen (Total)	mg/L	Every 6 Months	1	23/09/14	29/09/14	6.0	6.0	6.0	6.0
	pH	pH	Every 6 Months	1	23/09/14	29/09/14	7.71	7.71	7.71	7.71
	Phosphorus (Total)	mg/L	Every 6 Months	1	23/09/14	29/09/14	0.30	0.30	0.30	0.30
	Reactive Phosphorus	mg/L	Every 6 Months	1	23/09/14	29/09/14	0.30	0.30	0.30	0.30
	Standing Water Level	Metres	Every 6 Months	1	23/09/14	29/09/14	17.3	17.3	17.3	17.3
20	Conductivity	µS/cm	Every 6 Months	1	23/09/14	29/09/14	1040	1040	1040	1040
	Nitrate	mg/L	Every 6 Months	1	23/09/14	29/09/14	1.82	1.82	1.82	1.82
	Nitrogen (Total)	mg/L	Every 6 Months	1	23/09/14	29/09/14	2.1	2.1	2.1	2.1
	pH	pH	Every 6 Months	1	23/09/14	29/09/14	8.03	8.03	8.03	8.03
	Phosphorus (Total)	mg/L	Every 6 Months	1	23/09/14	29/09/14	0.04	0.04	0.04	0.04
	Reactive Phosphorus	mg/L	Every 6 Months	1	23/09/14	29/09/14	0.03	0.03	0.03	0.03
	Standing Water Level	Metres	Every 6 Months	1	23/09/14	29/09/14	13.5	13.5	13.5	13.5
21	Conductivity	µS/cm	Every 6 Months	1	23/09/14	29/09/14	2570	2570	2570	2570
	Nitrate	mg/L	Every 6 Months	1	23/09/14	29/09/14	1.82	1.82	1.82	1.82
	Nitrogen (Total)	mg/L	Every 6 Months	1	23/09/14	29/09/14	2.2	2.2	2.2	2.2

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
	pH	pH	Every 6 Months	1	23/09/14	29/09/14	7.57	7.57	7.57	7.57
	Phosphorus (Total)	mg/L	Every 6 Months	1	23/09/14	29/09/14	0.03	0.03	0.03	0.03
	Reactive Phosphorus	mg/L	Every 6 Months	1	23/09/14	29/09/14	0.01	0.01	0.01	0.01
	Standing Water Level	Metres	Every 6 Months	1	23/09/14	29/09/14	10.7	10.7	10.7	10.7
22	Conductivity	µS/cm	Every 6 Months	1	23/09/14	29/09/14	1890	1890	1890	1890
	Nitrate	mg/L	Every 6 Months	1	23/09/14	29/09/14	4.74	4.74	4.74	4.74
	Nitrogen (Total)	mg/L	Every 6 Months	1	23/09/14	29/09/14	6.3	6.3	6.3	6.3
	pH	pH	Every 6 Months	1	23/09/14	29/09/14	7.66	7.66	7.66	7.66
	Phosphorus (Total)	mg/L	Every 6 Months	1	23/09/14	29/09/14	1.89	1.89	1.89	1.89
	Reactive Phosphorus	mg/L	Every 6 Months	1	23/09/14	29/09/14	0.02	0.02	0.02	0.02
	Standing Water Level	Metres	Every 6 Months	1	23/09/14	29/09/14	13.6	13.6	13.6	13.6

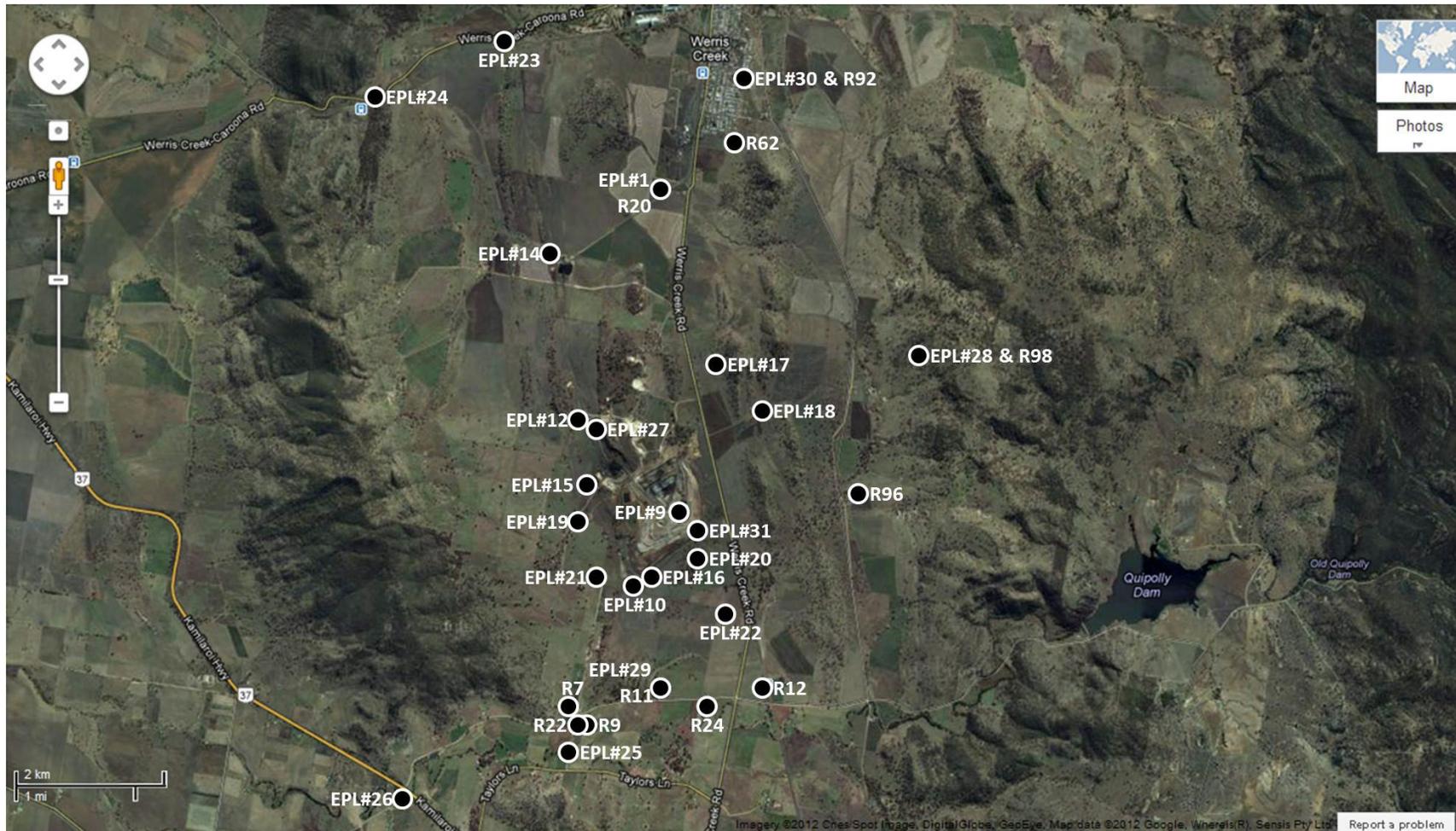
Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
R24	29 th September 2014	3:12 pm	60 minutes	n/a	48	Day 37	n/a, 1.8,290	Birds (47), traffic (42), WCC (27)	No
	29 th September 2014	8:45 pm	60 minutes	40	43	Night 37	+10.1,0.9,335	Traffic (42), WCC (34), frogs & insects (27)	No
R12	29 th September 2014	4:47 pm	60 minutes	n/a	42	Day 38	n/a, 1.6,301	Traffic (42), birds (28), WCC inaudible	No
	29 th September 2014	10:18 pm	60 minutes	36	40	Night 38	+10.1,1.6,330	Traffic (39), WCC (33), frogs & insects (24)	No
R96	29 th September 2014	4:07 pm	60 minutes	n/a	38	Day 38	n/a, 1.8,289	Birds & insects (38), traffic (25), WCC faintly audible	No
	29 th September 2014	9:57 pm	60 minutes	42	39	Night 37	+10.5,1.8,328	WCC (38), traffic (29), birds & insects (26)	Yes

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
R11	Blast Noise	dB (Lin Peak)	Every Blast	15	100.4	105.7	120.0	No
	Blast Vibration	mm/s	Every Blast	15	0.13	0.22	10.00	No
R98	Blast Noise	dB (Lin Peak)	Every Blast	15	102.5	118.3	120.0	No
	Blast Vibration	mm/s	Every Blast	15	0.58	0.96	10.00	No
R62	Blast Noise	dB (Lin Peak)	Every Blast	15	98.7	107.7	120.0	No
	Blast Vibration	mm/s	Every Blast	15	0.34	0.53	10.00	No
R92	Blast Noise	dB (Lin Peak)	Every Blast	15	98.7	113.5	120.0	No
	Blast Vibration	mm/s	Every Blast	15	0.24	0.45	10.00	No

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WCC EPL12290 Monitoring Location Plan

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

EPA Website Link: <http://www.environment.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 2014

Publication Date: 14th November 2014

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	4	03/11/14	07/11/14	8.5	13.6	11.8	22.4
	Solid Particles	g/m ² /month	Continuous	1	23/10/14	29/10/14	27.3	27.3	27.3	27.3
29	PM10	µg/m ³	Every 6 days	4	03/11/14	07/11/14	14.6	22.5	22.9	29.6
	Solid Particles	g/m ² /month	Continuous	1	23/10/14	29/10/14	1.3	1.3	1.3	1.3
30	PM10	µg/m ³	Every 6 days	Continuous	31/10/14	01/11/14	6.8	16.6	16.1	33.0
	Solid Particles	g/m ² /month	Continuous	1	23/10/14	29/10/14	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	-	-	-	-	-	-
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	-	-	-	-	-	-
23	Conductivity	µS/cm	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
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-

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)
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

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

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	-	-	-	-	-	-
Reactive Phosphorus	mg/L	Every 3 Months	0	-	-	-	-	-	-	
Total Suspended Solids	mg/L	Every 3 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
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	-	-	-	-	-	-
	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	-	-	-	-	-	-

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
	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	-	-	-	-	-	-

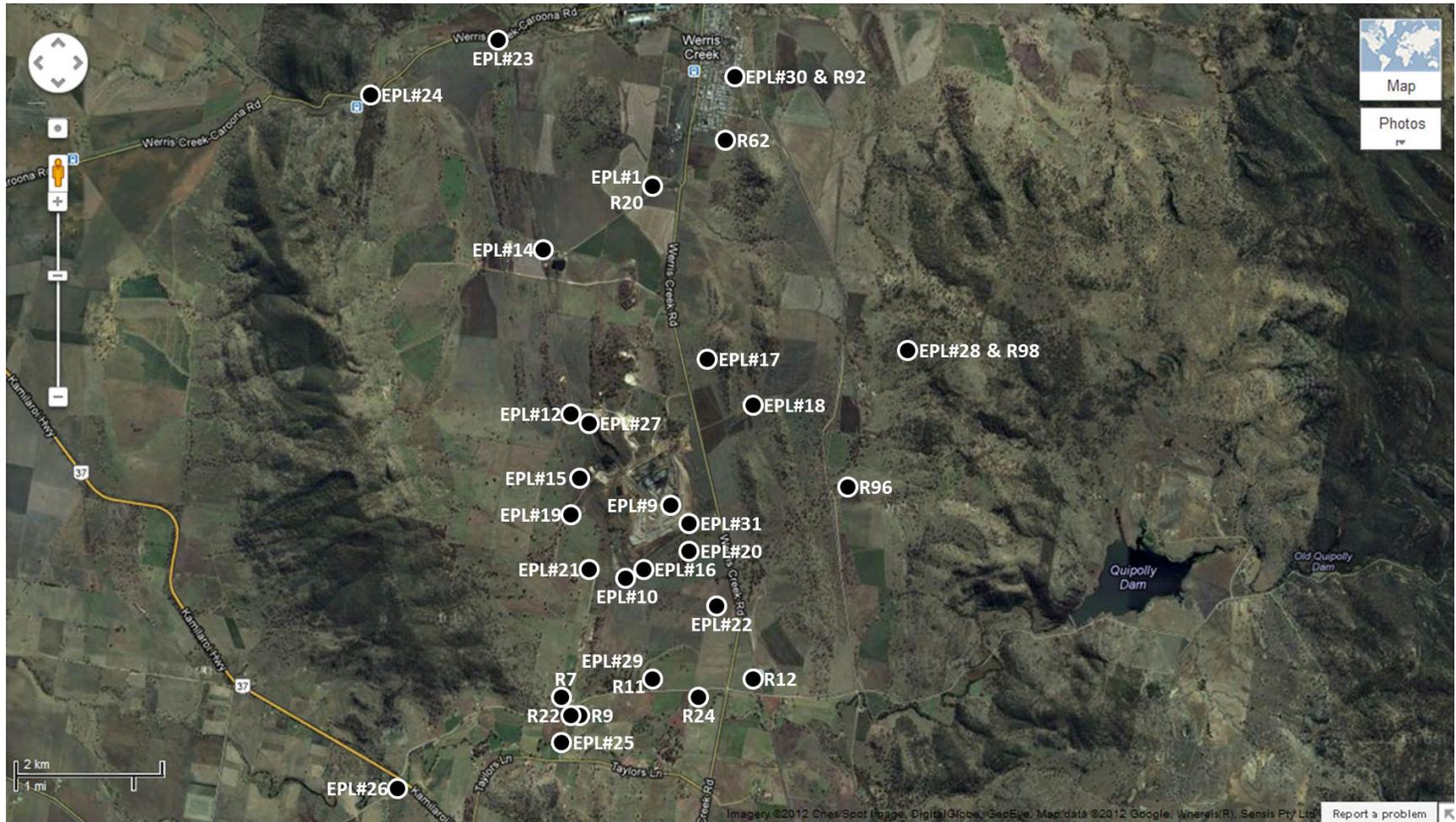
Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
R24	16 th October 2014	11:16 am	60 minutes	n/a	43	Day 37	n/a,3.8,290	Birds (43), traffic (30), wind (25), WCC (24)	No
R12	16 th October 2014	12:57 pm	60 minutes	n/a	38	Day 38	n/a,4.8,282	Traffic (37), birds (31), WCC inaudible	No
R96	16 th October 2014	1:30 pm	60 minutes	n/a	40	Day 38	n/a,4.1,270	Wind (38), birds (35), WCC (26)	No
R24	16 th October 2014	8:15 pm	60 minutes	n/a	35	Night 37	+4.8,3.3,188	Traffic (35), insects (20), WCC inaudible	No
R12	16 th October 2014	9:52 pm	60 minutes	n/a	47	Night 38	+9.5,2.3,152	Traffic (47), WCC inaudible	No
R96	16 th October 2014	7:14 pm	60 minutes	33	48	Night 37	+1.6,4.4,245	Birds (48), traffic (33), WCC (29)	No

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
R11	Blast Noise	dB (Lin Peak)	Every Blast	20	94.9	106.4	120.0	No
	Blast Vibration	mm/s	Every Blast	20	0.15	0.34	10.00	No
R98	Blast Noise	dB (Lin Peak)	Every Blast	20	97.3	118.3	120.0	No
	Blast Vibration	mm/s	Every Blast	20	0.67	2.15	10.00	No
R62	Blast Noise	dB (Lin Peak)	Every Blast	20	94.5	110.8	120.0	No
	Blast Vibration	mm/s	Every Blast	20	0.35	0.63	10.00	No
R92	Blast Noise	dB (Lin Peak)	Every Blast	20	96.2	113.5	120.0	No
	Blast Vibration	mm/s	Every Blast	20	0.22	0.45	10.00	No

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WCC EPL12290 Monitoring Location Plan

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

EPA Website Link: <http://www.environment.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 2014

Publication Date: 16th December 2014

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	26/11/14	01/12/14	9.8	16.9	16.8	23.3
	Solid Particles	g/m ² /month	Continuous	1	26/11/14	03/12/14	0.9	0.9	0.9	0.9
29	PM10	µg/m ³	Every 6 days	6	26/11/14	01/12/14	12.6	32.7	30.9	62.4
	Solid Particles	g/m ² /month	Continuous	1	26/11/14	03/12/14	2.2	2.2	2.2	2.2
30	PM10	µg/m ³	Every 6 days	Continuous	30/11/14	01/12/14	3.3	20.0	18.8	55.5
	Solid Particles	g/m ² /month	Continuous	1	26/11/14	03/12/14	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	-	-	-	-	-	-
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	-	-	-	-	-	-
23	Conductivity	µS/cm	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
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-

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)
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

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

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	11/11/14	19/11/14	1100	1100	1100	1100
	Nitrate	mg/L	Every 3 Months	1	11/11/14	19/11/14	2.29	2.29	2.29	2.29
	Nitrogen (Total)	mg/L	Every 3 Months	1	11/11/14	19/11/14	2.8	2.8	2.8	2.8
	Oil and Grease	mg/L	Every 3 Months	1	11/11/14	19/11/14	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	11/11/14	19/11/14	8.35	8.35	8.35	8.35
	Phosphorus (Total)	mg/L	Every 3 Months	1	11/11/14	19/11/14	<0.01	<0.01	<0.01	<0.01
	Reactive Phosphorus	mg/L	Every 3 Months	1	11/11/14	19/11/14	<0.01	<0.01	<0.01	<0.01
27	Total Suspended Solids	mg/L	Every 3 Months	1	11/11/14	19/11/14	6	6	6	6
	Conductivity	µS/cm	Every 3 Months	1	11/11/14	19/11/14	1070	1070	1070	1070
	Nitrate	mg/L	Every 3 Months	1	11/11/14	19/11/14	4.86	4.86	4.86	4.86
	Nitrogen (Total)	mg/L	Every 3 Months	1	11/11/14	19/11/14	5.6	5.6	5.6	5.6
	Oil and Grease	mg/L	Every 3 Months	1	11/11/14	19/11/14	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	11/11/14	19/11/14	8.4.1	8.4.1	8.4.1	8.4.1
	Phosphorus (Total)	mg/L	Every 3 Months	1	11/11/14	19/11/14	<0.01	<0.01	<0.01	<0.01
	Reactive Phosphorus	mg/L	Every 3 Months	1	11/11/14	19/11/14	<0.01	<0.01	<0.01	<0.01
Total Suspended Solids	mg/L	Every 3 Months	1	11/11/14	19/11/14	38	38	38	38	



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
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	-	-	-	-	-	-
	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	-	-	-	-	-	-

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
	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	-	-	-	-	-	-

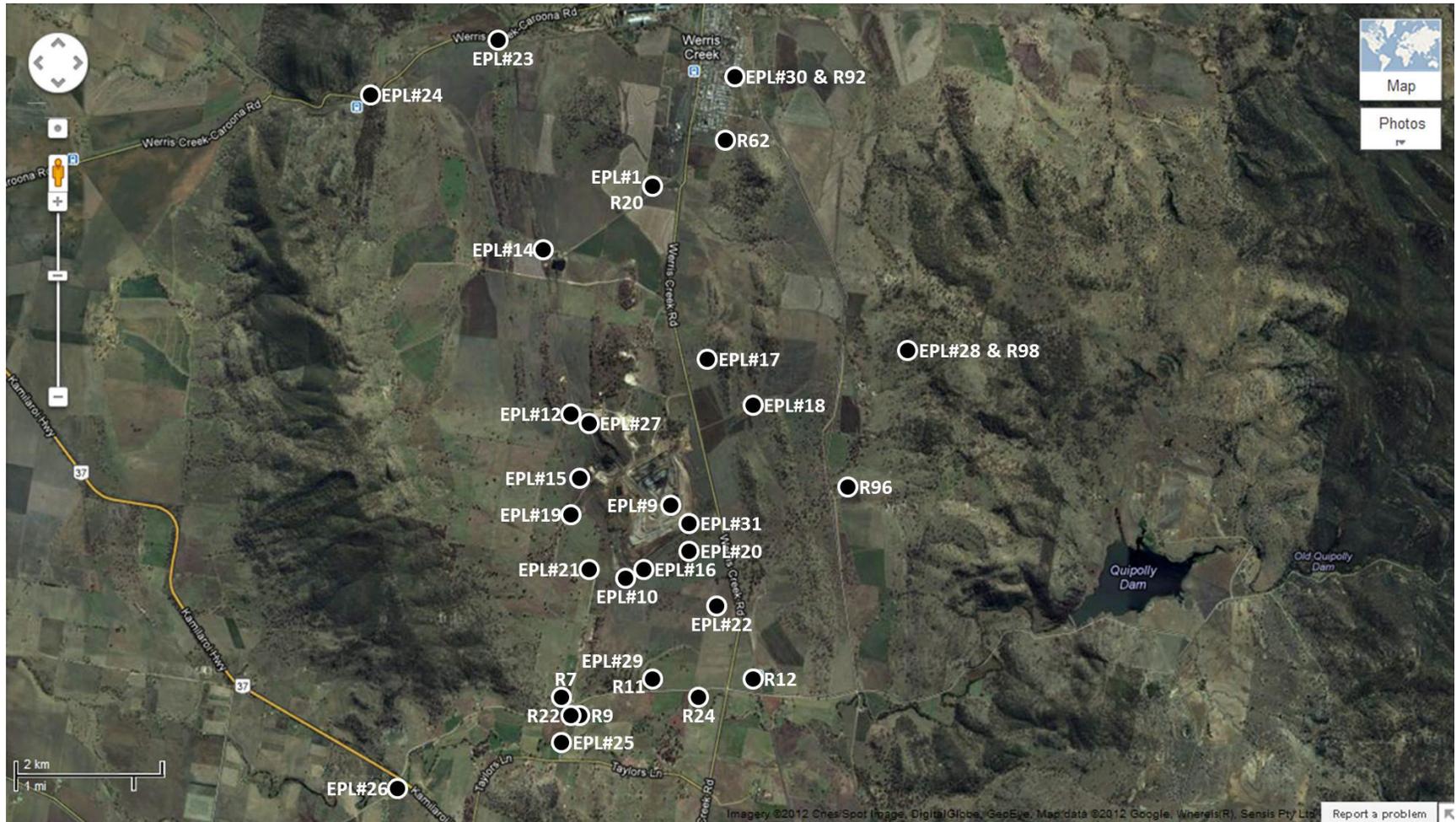
Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
R24	26 th November 2014	2:13 pm	60 minutes	n/a	47	Day 37	n/a 5.2,289	Birds (45), wind (43), WCC (28), traffic (28)	No
R12	26 th November 2014	3:47 pm	60 minutes	n/a	45	Day 38	n/a 4.8,289	Traffic (43), wind (39), birds (35), WCC inaudible	No
R96	26 th November 2014	4:00 pm	60 minutes	n/a	50	Day 38	n/a 4.8,282	Birds (49), wind (42), traffic (25), WCC inaudible	No
R24	26 th November 2014	8:23 pm	60 minutes	27	39	Night 37	Lapse,3.0,323	Traffic (39), insects (25), WCC (25)	No
R12	26 th November 2014	9:57 pm	60 minutes	27	44	Night 38	Lapse,2.7,332	Traffic (44), frogs & insects (28), WCC (25)	No
R96	26 th November 2014	10:04 pm	60 minutes	36	34	Night 37	Lapse,1.8,241	WCC (32), frogs & insects (27), traffic (27)	No

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
R11	Blast Noise	dB (Lin Peak)	Every Blast	15	100.9	113.2	120.0	No
	Blast Vibration	mm/s	Every Blast	15	0.13	0.26	10.00	No
R98	Blast Noise	dB (Lin Peak)	Every Blast	15	100.6	107.6	120.0	No
	Blast Vibration	mm/s	Every Blast	15	0.60	1.05	10.00	No
R62	Blast Noise	dB (Lin Peak)	Every Blast	15	99.9	108.7	120.0	No
	Blast Vibration	mm/s	Every Blast	15	0.26	0.45	10.00	No
R92	Blast Noise	dB (Lin Peak)	Every Blast	15	98.8	113.4	120.0	No
	Blast Vibration	mm/s	Every Blast	15	0.15	0.28	10.00	No

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WCC EPL12290 Monitoring Location Plan

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

EPA Website Link: <http://www.environment.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 2014

Publication Date: 13th January 2015

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	30/12/14	31/12/14	3.6	10.7	9.2	22.0
	Solid Particles	g/m ² /month	Continuous	1	24/12/14	06/01/15	0.9	0.9	0.9	0.9
29	PM10	µg/m ³	Every 6 days	5	30/12/14	31/12/14	6.1	15.1	13.2	30.4
	Solid Particles	g/m ² /month	Continuous	1	24/12/14	06/01/15	1.5	1.5	1.5	1.5
30	PM10	µg/m ³	Every 6 days	Continuous	31/12/14	01/01/15	1.0	11.8	11.2	31.8
	Solid Particles	g/m ² /month	Continuous	1	24/12/14	06/01/15	1.7	1.7	1.7	1.7
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	-	-	-	-	-	-
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	-	-	-	-	-	-
23	Conductivity	µS/cm	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
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	Total Suspended Solids	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	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-

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)
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

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

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	-	-	-	-	-	-
Reactive Phosphorus	mg/L	Every 3 Months	0	-	-	-	-	-	-	
Total Suspended Solids	mg/L	Every 3 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
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	-	-	-	-	-	-
	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	-	-	-	-	-	-

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
	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	-	-	-	-	-	-

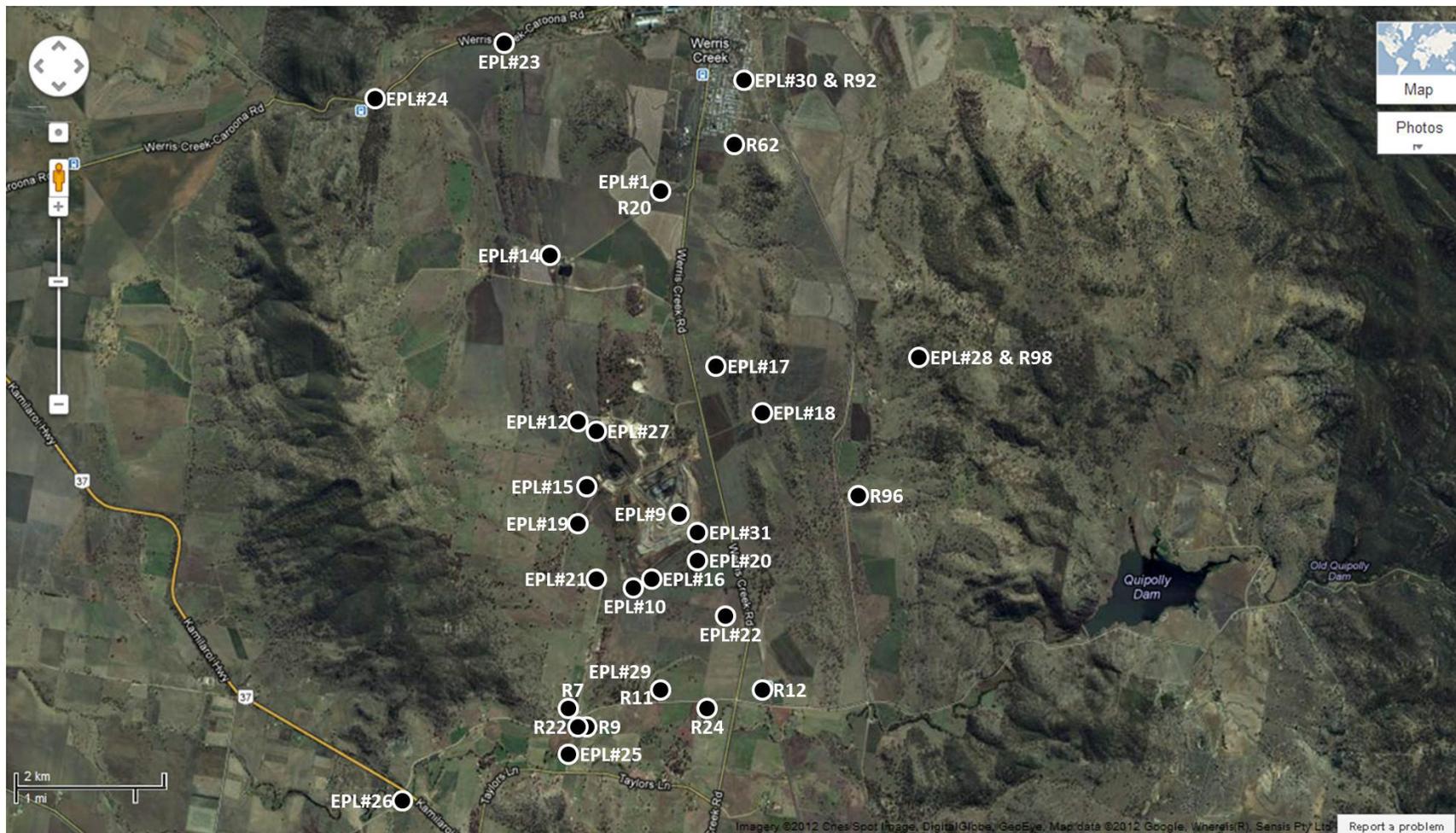
Table 4 – Monitoring (Noise – Limits Apply)

Location	Date	Start Time	Measurement Period	Measured levels – dB(A)		Limit(s)	Weather (inversion oC/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach
				LA1, 1 Minute	LAeq, 15 Minute				
R24	4 th December 2014	1:49 pm	60 minutes	n/a	42	Day 37	n/a 3.6,349	Traffic (40), birds (38), WCC (24)	No
R12	4 th December 2014	12:44 pm	60 minutes	n/a	45	Day 38	n/a 4.6,24	Traffic (42), wind (39), birds (38), WCC (23)	No
R96	4 th December 2014	2:55 pm	60 minutes	n/a	50	Day 38	n/a 3.6,19	Birds (50), wind (28), WCC faintly audible	No
R24	8 th December 2014	8:20 pm	60 minutes	44	37	Night 37	+4.3,0.9,328	Birds & insects (42), traffic (40), WCC inaudible	No
R12	8 th December 2014	7:15 pm	60 minutes	44	38	Night 38	+2.0,1.5,250	Traffic (43), birds & insects (37), WCC inaudible	No
R96	8 th December 2014	7:39 pm	60 minutes	45	37	Night 37	+3.6,1.1,288	Birds & insects (45), WCC (29), traffic (28)	No

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
R11	Blast Noise	dB (Lin Peak)	Every Blast	8	102.3	106.7	120.0	No
	Blast Vibration	mm/s	Every Blast	8	0.16	0.24	10.00	No
R98	Blast Noise	dB (Lin Peak)	Every Blast	8	102.5	106.6	120.0	No
	Blast Vibration	mm/s	Every Blast	8	0.71	1.23	10.00	No
R62	Blast Noise	dB (Lin Peak)	Every Blast	8	100.8	110.1	120.0	No
	Blast Vibration	mm/s	Every Blast	8	0.35	0.53	10.00	No
R92	Blast Noise	dB (Lin Peak)	Every Blast	8	102.2	113.6	120.0	No
	Blast Vibration	mm/s	Every Blast	8	0.26	0.42	10.00	No

WERRIS CREEK COAL EPL – MONTHLY SUMMARY



WCC EPL12290 Monitoring Location Plan