

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://www.environment.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31921&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

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

**Sampling Period:** January 2013

**Publication Date:** 21<sup>st</sup> February 2013 (re-published 29<sup>th</sup> July 2014)

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/1/2013	24/1/2013	2.5	2.5	2.5	2.5
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/1/2013	24/1/2013	1.1	1.1	1.1	1.1
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/1/2013	24/1/2013	1.8	1.8	1.8	1.8
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	5	3,9,15,21,27/1/2013	13/2/2013	4.1	12.7	8.2	32.5
11	Conductivity	µS/cm	Special Frequency 1*	1	31/1/2013	6/2/2013	336	336	336	336
	Total organic carbon	mg/L		1	31/1/2013	6/2/2013	11	11	11	11
12	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	TSS	mg/L	Special Frequency 2**	2	29, 31/1/2013	7, 6/2/2013	15	18.5	18.5	22
	Conductivity	µS/cm		2	29, 31/1/2013	7, 6/2/2013	104	202.5	202.5	301
	Oil & Grease	mg/L		2	29, 31/1/2013	7, 6/2/2013	<5	<5	<5	<5
	pH	pH		2	29, 31/1/2013	7, 6/2/2013	7.13	7.13	7.13	7.13
	Total organic carbon	mg/L		2	29, 31/1/2013	7, 6/2/2013	32	47.5	47.5	63
15	TSS	mg/L	Special Frequency 2**	2	29, 31/1/2013	7, 6/2/2013	<5	12	12	24
	Conductivity	µS/cm		2	29, 31/1/2013	7, 6/2/2013	186	190	190	194
	Oil & Grease	mg/L		2	29, 31/1/2013	7, 6/2/2013	<5	<5	<5	<5
	pH	pH		2	29, 31/1/2013	7, 6/2/2013	7.53	7.58	7.58	7.63
	Total organic carbon	mg/L		2	29, 31/1/2013	7, 6/2/2013	17	17	17	17

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

**Table 2 - Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	1	31/1/2013	6/2/2013	404	404	50	No	Exceeded 90%ile rainfall
	Oil & Grease	mg/L		1	31/1/2013	6/2/2013	<5	<5	10	No	
	pH	pH		1	31/1/2013	6/2/2013	7.29	7.29	6.5-8.5	No	
12	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		0	-	-	-	-	-	-	No discharge
	pH	pH		0	-	-	-	-	-	-	No discharge

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Aluminum	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L		0	-	-	-	-	-	-
	Bicarbonate	mg/L		0	-	-	-	-	-	-
	Chloride	mg/L		0	-	-	-	-	-	-
	Iron	mg/L		0	-	-	-	-	-	-
	Manganese	mg/L		0	-	-	-	-	-	-
	Sodium	mg/L		0	-	-	-	-	-	-
16	Conductivity	µS/cm	Quarterly	0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TOC	mg/L		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-

## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/ direction	Compliant (Y/N)	Comments
N1								35 dB(A) Leq (15 min) Day, Evening, Night  45 dB(A) LA (1min) Night			No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
N2								35 dB(A) Leq (15 min) Day, Evening, Night			No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/ direction	Compliant (Y/N)	Comments
								45 dB(A) LA (1min) Night			No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month

**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	7	98	102	120	No
	Blast Vibration	mm/s	Every Blast	7	0.13	0.18	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	7	101.5	113.7	120	No
	Blast Vibration	mm/s	Every Blast	7	0.23	0.30	10	No

DNT – Indicates the blast did not trigger a result at the monitor.



**WHITEHAVEN COAL**

## **ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY**



**Figure 1 – EPL 12870 Monitoring Locations**



## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://www.environment.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31921&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

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

**Sampling Period:** February 2013

**Publication Date:** 13<sup>th</sup> March 2013 (re-published 29<sup>th</sup> July 2014)

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	18/2/2013	26/2/2013	0.7	0.7	0.7	0.7
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	18/2/2013	26/2/2013	0.5	0.5	0.5	0.5
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	18/2/2013	26/2/2013	0.7	0.7	0.7	0.7
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	5	2,8,14,20,26/2/2013	7/3/2013	<0.1	7.6	<0.1	11.2
11	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-

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EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-
15	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

**Table 2 - Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		0	-	-	-	-	-	-	No discharge
	pH	pH		0	-	-	-	-	-	-	No discharge
12	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		0	-	-	-	-	-	-	No discharge
	pH	pH		0	-	-	-	-	-	-	No discharge



## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Aluminum	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L		0	-	-	-	-	-	-
	Bicarbonate	mg/L		0	-	-	-	-	-	-
	Chloride	mg/L		0	-	-	-	-	-	-
	Iron	mg/L		0	-	-	-	-	-	-
	Manganese	mg/L		0	-	-	-	-	-	-
	Sodium	mg/L		0	-	-	-	-	-	-
16	Conductivity	µS/cm	Quarterly	1	26/2/2013	6/3/2013	1680	1680	1680	1680
	Oil & Grease	mg/L		1	26/2/2013	6/3/2013	<5	<5	<5	<5
	pH	pH		1	26/2/2013	6/3/2013	8.98	8.98	8.98	8.98
	TOC	mg/L		1	26/2/2013	6/3/2013	2	2	2	2
	TSS	mg/L		1	26/2/2013	6/3/2013	12	12	12	12

## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY

Table 4 – Monitoring (Noise – Limits Apply)

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) L <sub>eq</sub> 15min Day	Measured Levels – dB(A) L <sub>eq</sub> 15min Evening	Measured Levels – dB(A) L <sub>eq</sub> 15min Night	Measured Levels – dB(A) L <sub>A</sub> 1min Night	Limits	Wind speed/direction	Compliant (Y/N)	Comments
N1								35 dB(A) Leq (15 min) Day, Evening, Night  45 dB(A) L <sub>A</sub> (1min) Night			No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
N2								35 dB(A) Leq (15 min) Day, Evening, Night			No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/direction	Compliant (Y/N)	Comments
								45 dB(A) LA (1min) Night			No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month
											No monitoring for month

**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	5	DNT	DNT	120	No
	Blast Vibration	mm/s	Every Blast	5	DNT	DNT	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	5	111.2	111.2	120	No
	Blast Vibration	mm/s	Every Blast	5	0.08	0.08	10	No

DNT – Indicates the blast did not trigger a result at the monitor.



**WHITEHAVEN COAL**

## **ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY**



**Figure 1 – EPL 12870 Monitoring Locations**



## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://www.environment.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=31921&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

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

**Sampling Period:** March 2013

**Publication Date:** 22<sup>nd</sup> April 2013 (re-published 29<sup>th</sup> July 2014)

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	18/3/2013	26/3/2013	1.6	1.6	1.6	1.6
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	18/3/2013	26/3/2013	0.3	0.3	0.3	0.3
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	18/3/2013	26/3/2013	0.2	0.2	0.2	0.2
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	5	4,10,16,22,28/3/2013	10/4/2013	<0.1	18	19.7	20.3
11	Conductivity	µS/cm	Special Frequency 1*	1	2/3/2013	11/3/2013	380	380	380	380
	Total organic carbon	mg/L		1	2/3/2013	11/3/2013	5	5	5	5
12	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-

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EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	TSS	mg/L	Special Frequency 2**	1	2/3/2013	11/3/2013	40	40	40	40
	Conductivity	µS/cm		1	2/3/2013	11/3/2013	105	105	105	105
	Oil & Grease	mg/L		1	2/3/2013	11/3/2013	<5	<5	<5	<5
	pH	pH		1	2/3/2013	11/3/2013	7.25	7.25	7.25	7.25
	Total organic carbon	mg/L		1	2/3/2013	11/3/2013	12	12	12	12
15	TSS	mg/L	Special Frequency 2**	1	2/3/2013	11/3/2013	22	22	22	22
	Conductivity	µS/cm		1	2/3/2013	11/3/2013	198	198	198	198
	Oil & Grease	mg/L		1	2/3/2013	11/3/2013	<5	<5	<5	<5
	pH	pH		1	2/3/2013	11/3/2013	7.56	7.56	7.56	7.56
	Total organic carbon	mg/L		1	2/3/2013	11/3/2013	15	15	15	15

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

**Table 2 - Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	1	2/3/2013	11/3/2013	374	374	50	No	75.4 mm of rainfall received in 5 days
	Oil & Grease	mg/L		1	2/3/2013	11/3/2013	<5	<5	10	No	
	pH	pH		1	2/3/2013	11/3/2013	8.09	8.09	6.5 - 8.5	No	
12	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		0	-	-	-	-	-	-	No discharge
	pH	pH		0	-	-	-	-	-	-	No discharge



## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Aluminum	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L		0	-	-	-	-	-	-
	Bicarbonate	mg/L		0	-	-	-	-	-	-
	Chloride	mg/L		0	-	-	-	-	-	-
	Iron	mg/L		0	-	-	-	-	-	-
	Manganese	mg/L		0	-	-	-	-	-	-
	Sodium	mg/L		0	-	-	-	-	-	-
16	Conductivity	µS/cm	Quarterly	0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TOC	mg/L		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/ direction	Compliant (Y/N)	Comments
N1	18/03/2013	4:20pm	90min Day	<20				35 dB(A) Leq (15 min) Day, Evening, Night  45 dB(A) LA (1min) Night	1.7m/s S	Y	
		9:12pm	30min Evening		Inaudible				3.3m/s S	Y	
		11:40pm	60min Night			23			4.2m/s E	Y	
		11:40pm	60min Night				31		4.2m/s E	Y	
	19/03/2013	9:20am	90min Day	Inaudible					3.9m/s ESE	Y	
		9:09pm	30min Evening		18				4.6 m/s ESE	Y	
		1:10am	60min Night			Inaudible			4.7 m/s E	Y	
		1:10am	60min Night				Inaudible		4.7 m/s E	Y	
	20/03/2013	10:00 am	90min Day	Inaudible					2.5 m/s E	Y	
		8:15pm	30min Evening		Inaudible				1.6 m/s E	Y	
		10:01pm	60min Night			Inaudible			3.7 m/s ENE	Y	
		10:01pm	60min Night				Inaudible		3.7 m/s ENE	Y	
N2	18/03/2013	1:05pm	90min Day	30				35 dB(A) Leq (15 min) Day, Evening, Night	1.3 m/s SE	Y	
		8:10pm	30min Evening		Inaudible				3.8 m/s SSW	Y	
		10:24pm	60min Night			20			3.1 m/s E	Y	
		10:24pm	60min Night				31		3.1 m/s E	Y	
	19/03/2013	7:45am	90min Day	33					3.3 m/s ESE	Y	
		7:56pm	30min Evening		Inaudible				1.3 m/s S	Y	

## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) <small>L<sub>eq</sub> 15min Day</small>	Measured Levels – dB(A) <small>L<sub>eq</sub> 15min Evening</small>	Measured Levels – dB(A) <small>L<sub>eq</sub> 15min Night</small>	Measured Levels – dB(A) <small>L<sub>A</sub> 1min Night</small>	Limits	Wind speed/ direction	Compliant (Y/N)	Comments
	20/03/2013	10:01pm	60min Night			Inaudible		45 dB(A) L <sub>A</sub> (1min) Night	4.9 m/s E	Y	
		10:01pm	60min Night				Inaudible		4.9 m/s E	Y	
		1:12pm	90min Day	25					1.5 m/s E	Y	
		9:05pm	30min Evening		20				3.6 m/s E	Y	
		11:05pm	60min Night			Inaudible			2.2 m/s ENE	Y	
		11:05pm	60min Night				Inaudible		2.2 m/s ENE	Y	

**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	4	96.4	96.9	120	No
	Blast Vibration	mm/s	Every Blast	4	0.23	0.24	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	4	111.7	118.9	120	No
	Blast Vibration	mm/s	Every Blast	4	0.22	0.37	10	No

DNT – Indicates the blast did not trigger a result at the monitor.



**WHITEHAVEN COAL**

## **ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY**



**Figure 1 – EPL 12870 Monitoring Locations**



## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://www.environment.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=32393&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

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

**Sampling Period:** April 2013

**Publication Date:** 13<sup>th</sup> May 2013 (re-published 29<sup>th</sup> July 2014)

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/4/2013	26/4/2013	0.5	0.5	0.5	0.5
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/4/2013	26/4/2013	0.8	0.8	0.8	0.8
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/4/2013	26/4/2013	0.7	0.7	0.7	0.7
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	5	3,9,15,21,27/4/2013	7/5/2013	6.1	11.7	11.2	19.5
11	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-
15	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

**Table 2 - Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		0	-	-	-	-	-	-	No discharge
	pH	pH		0	-	-	-	-	-	-	No discharge
12	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		0	-	-	-	-	-	-	No discharge
	pH	pH		0	-	-	-	-	-	-	No discharge



## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Aluminum	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L		0	-	-	-	-	-	-
	Bicarbonate	mg/L		0	-	-	-	-	-	-
	Chloride	mg/L		0	-	-	-	-	-	-
	Iron	mg/L		0	-	-	-	-	-	-
	Manganese	mg/L		0	-	-	-	-	-	-
	Sodium	mg/L		0	-	-	-	-	-	-
16	Conductivity	ms/cm	Quarterly	0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TOC	mg/L		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) L <sub>eq</sub> 15min Day	Measured Levels – dB(A) L <sub>eq</sub> 15min Evening	Measured Levels – dB(A) L <sub>eq</sub> 15min Night	Measured Levels – dB(A) L <sub>A</sub> 1min Night	Limits	Wind speed/ direction	Compliant (Y/N)	Comments
N1			90min Day					35 dB(A) Leq (15 min) Day, Evening, Night  45 dB(A) L <sub>A</sub> (1min) Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
N2			90min Day					35 dB(A) Leq (15 min) Day, Evening, Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month

### ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/direction	Compliant (Y/N)	Comments
			60min Night					45 dB(A) LA (1min) Night			No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month

**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	4	94.06	94.06	120	No
	Blast Vibration	mm/s	Every Blast	4	0.2	0.2	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	4	102.6	107.3	120	No
	Blast Vibration	mm/s	Every Blast	4	0.21	0.25	10	No

DNT – Indicates the blast did not trigger a result at the monitor.



**WHITEHAVEN COAL**

**ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY**



**Figure 1 – EPL 12870 Monitoring Locations**



## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://www.environment.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=32393&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

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

**Sampling Period:** May 2013

**Publication Date:** 21<sup>st</sup> June 2013 (re-published 29<sup>th</sup> July 2014)

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/5/2013	24/5/2013	1.3	1.3	1.3	1.3
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/5/2013	24/5/2013	0.8	0.8	0.8	0.8
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/5/2013	24/5/2013	0.6	0.6	0.6	0.6
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	5	3,9,15,21,27/5/2013	11/6/2013	5.6	12.3	15.1	18.3
11	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	Total organic carbon	mg/L		0	-	-	-	-	-	-
15	TSS	mg/L	Special Frequency 2**	1	14/5/2013	22/5/2013	29	29	29	29
	Conductivity	µS/cm		1	14/5/2013	22/5/2013	233	233	233	233
	Oil & Grease	mg/L		1	14/5/2013	22/5/2013	<5	<5	<5	<5
	pH	pH		1	14/5/2013	22/5/2013	7.86	7.86	7.86	7.86
	Total organic carbon	mg/L		1	14/5/2013	22/5/2013	21	21	21	21

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

**Table 2 - Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		0	-	-	-	-	-	-	No discharge
	pH	pH		0	-	-	-	-	-	-	No discharge
12	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		0	-	-	-	-	-	-	No discharge
	pH	pH		0	-	-	-	-	-	-	No discharge





## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Aluminum	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L		0	-	-	-	-	-	-
	Bicarbonate	mg/L		0	-	-	-	-	-	-
	Chloride	mg/L		0	-	-	-	-	-	-
	Iron	mg/L		0	-	-	-	-	-	-
	Manganese	mg/L		0	-	-	-	-	-	-
	Sodium	mg/L		0	-	-	-	-	-	-
16	Conductivity	µS/cm	Quarterly	1	2/5/2013	8/5/2013	5350	5350	5350	5350
	Oil & Grease	mg/L		1	2/5/2013	8/5/2013	<5	<5	<5	<5
	pH	pH		1	2/5/2013	8/5/2013	8.54	8.54	8.54	8.54
	TOC	mg/L		1	2/5/2013	8/5/2013	1	1	1	1
	TSS	mg/L		1	2/5/2013	8/5/2013	6	6	6	6

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/ direction	Compliant (Y/N)	Comments
N1			90min Day					35 dB(A) Leq (15 min) Day, Evening, Night  45 dB(A) LA (1min) Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
N2			90min Day					35 dB(A) Leq (15 min) Day, Evening, Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month

## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) L <sub>eq</sub> 15min Day	Measured Levels – dB(A) L <sub>eq</sub> 15min Evening	Measured Levels – dB(A) L <sub>eq</sub> 15min Night	Measured Levels – dB(A) L <sub>A</sub> 1min Night	Limits	Wind speed/direction	Compliant (Y/N)	Comments
			90min Day					45 dB(A) L <sub>A</sub> (1min) Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month

**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	3	DNT	DNT	120	No
	Blast Vibration	mm/s	Every Blast	3	DNT	DNT	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	3	98.9	98.9	120	No
	Blast Vibration	mm/s	Every Blast	3	0.45	0.45	10	No

DNT – Indicates the blast did not trigger a result at the monitor.



**WHITEHAVEN COAL**

## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY





## **ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY**

**Figure 1 – EPL 12870 Monitoring Locations**



## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://www.environment.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=32393&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

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

**Sampling Period:** June 2013

**Publication Date:** 19<sup>th</sup> July 2013 (re-published 29<sup>th</sup> July 2014)

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/6/2013	25/6/2013	0.4	0.4	0.4	0.4
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/6/2013	25/6/2013	0.4	0.4	0.4	0.4
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/6/2013	25/6/2013	0.5	0.5	0.5	0.5
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	5	2,14,20,26/6/2013	9/7/2013	1.0	2.0	1.4	5.4
11	Conductivity	µS/cm	Special Frequency 1*	1	28/6/2013	9/7/2013	406	406	406	406
	Total organic carbon	mg/L		1	28/6/2013	9/7/2013	5	5	5	5
12	Conductivity	µS/cm	Special Frequency 1*	1	28/6/2013	9/7/2013	316	316	316	316
	Total organic carbon	mg/L		1	28/6/2013	9/7/2013	3	3	3	3
13	TSS	mg/L	Special Frequency 2**	1	28/6/2013	9/7/2013	28	28	28	28
	Conductivity	µS/cm		1	28/6/2013	9/7/2013	63	63	63	63
	Oil & Grease	mg/L		1	28/6/2013	9/7/2013	<5	<5	<5	<5
	pH	pH		1	28/6/2013	9/7/2013	7.09	7.09	7.09	7.09
	Total organic carbon	mg/L		1	28/6/2013	9/7/2013	12	12	12	12



## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	TSS	mg/L	Special Frequency 2**	1	28/6/2013	9/7/2013	70	70	70	70
	Conductivity	µS/cm		1	28/6/2013	9/7/2013	79	79	79	79
	Oil & Grease	mg/L		1	28/6/2013	9/7/2013	<5	<5	<5	<5
	pH	pH		1	28/6/2013	9/7/2013	7.18	7.18	7.18	7.18
	Total organic carbon	mg/L		1	28/6/2013	9/7/2013	10	10	10	10
15	TSS	mg/L	Special Frequency 2**	1	28/6/2013	9/7/2013	87	87	87	87
	Conductivity	µS/cm		1	28/6/2013	9/7/2013	122	122	122	122
	Oil & Grease	mg/L		1	28/6/2013	9/7/2013	<5	<5	<5	<5
	pH	pH		1	28/6/2013	9/7/2013	7.49	7.49	7.49	7.49
	Total organic carbon	mg/L		1	28/6/2013	9/7/2013	10	10	10	10

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

**Table 2 - Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	1	28/6/2013	9/7/2013	164	164	50	No	Over 38.4mm of rainfall in 5 days
	Oil & Grease	mg/L		1	28/6/2013	9/7/2013	<5	<5	10	No	
	pH	pH		1	28/6/2013	9/7/2013	8.07	8.07	6.5-8.5	No	
12	TSS	mg/L	Special Frequency 1*	1	28/6/2013	9/7/2013	751	751	50	No	Over 38.4mm of rainfall in 5 days
	Oil & Grease	mg/L		1	28/6/2013	9/7/2013	<5	<5	10	No	
	pH	pH		1	28/6/2013	9/7/2013	8.25	8.25	6.5-8.5	No	



## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Aluminum	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L		0	-	-	-	-	-	-
	Bicarbonate	mg/L		0	-	-	-	-	-	-
	Chloride	mg/L		0	-	-	-	-	-	-
	Iron	mg/L		0	-	-	-	-	-	-
	Manganese	mg/L		0	-	-	-	-	-	-
	Sodium	mg/L		0	-	-	-	-	-	-
16	Conductivity	µS/cm	Quarterly	0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TOC	mg/L		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/ direction	Compliant (Y/N)	Comments
N1	24/6/2013	3:20pm	90min Day	<20				35 dB(A) Leq (15 min) Day, Evening, Night  45 dB(A) LA (1min) Night	3.4 / 280	Y	
		9:20pm	30min Evening		34				1.9 / 53	Y	
		11:20pm	60min Night			<20			1.5 / 0	Y	
		11:20pm	60min Night				<35		1.5 / 0	Y	
	25/6/2013	2:05pm	90min Day	22					Calm	Y	
		9:27pm	30min Evening		22				0.7 / 88	Y	
		11:25pm	60min Night			<15			Calm	Y	
		11:25pm	60min Night				<20		Calm	Y	
	26/6/2013 (day) 1/7/2013 (evening) 2/7/2013 (night)	3:17pm	90min Day	Inaudible					3.3 / 176	Y	
		7:45pm	30min Evening		<25				5.9 / 188	Y	
		1:40am	60min Night			25			1.3 / 128	Y	
		1:40am	60min Night				30		1.3 / 128	Y	
N2	24/6/2013	1:40pm	90min Day	<20				35 dB(A) Leq (15 min) Day, Evening, Night	2.3 / 292	Y	
		8:40pm	30min Evening		31				1.3 / 42	Y	
		10:10pm	60min Night			28			2.2 / 27	Y	
		10:10pm	60min Night				33		2.2 / 27	Y	

## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/direction	Compliant (Y/N)	Comments
	25/6/2013	12:20pm	90min Day	<20				45 dB(A) LA (1min) Night	2.1 / 271	Y	
		8:35pm	30min Evening		32				Calm	Y	
		10:10pm	60min Night			33			1.1 / 78	Y	
		10:10pm	60min Night				37		1.1 / 78	Y	
	26/6/2013 (day) 1/7/2013 (evening) 2/7/2013 (night)	1:22pm	90min Day	Inaudible					2.1 / 195	Y	
		7:06pm	30min Evening		Inaudible				6.4 / 184	Y	
		12:05am	60min Night			31			1.6 / 143	Y	
		12:05am	60min Night				35		1.6 / 143	Y	

**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	3	95.1	95.1	120	No
	Blast Vibration	mm/s	Every Blast	3	0.16	0.16	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	3	DNT	DNT	120	No
	Blast Vibration	mm/s	Every Blast	3	DNT	DNT	10	No

DNT – Indicates the blast did not trigger a result at the monitor.



**WHITEHAVEN COAL**

## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY





## **ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY**

**Figure 1 – EPL 12870 Monitoring Locations**





## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://www.environment.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=32393&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

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

**Sampling Period:** July 2013

**Publication Date:** 9<sup>th</sup> August 2013 (re-published 29<sup>th</sup> July 2014)

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/7/2013	24/7/2013	0.3	0.3	0.3	0.3
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/7/2013	24/7/2013	0.2	0.2	0.2	0.2
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/7/2013	24/7/2013	0.2	0.2	0.2	0.2
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	5	Various	9/8/2013	0.6	4.0	4.2	6.0
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

**Table 2 - Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	



## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Aluminum	mg/L	Yearly	-	-	-	-	-	-	-
	Arsenic	mg/L		-	-	-	-	-	-	-
	Bicarbonate	mg/L		-	-	-	-	-	-	-
	Chloride	mg/L		-	-	-	-	-	-	-
	Iron	mg/L		-	-	-	-	-	-	-
	Manganese	mg/L		-	-	-	-	-	-	-
	Sodium	mg/L		-	-	-	-	-	-	-
16	Conductivity	µS/cm	Quarterly	-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	TOC	mg/L		-	-	-	-	-	-	-
	TSS	mg/L		-	-	-	-	-	-	-

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/ direction	Compliant (Y/N)	Comments
N1			90min Day					35 dB(A) Leq (15 min) Day, Evening, Night  45 dB(A) LA (1min) Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day					35 dB(A) Leq (15 min) Day, Evening, Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/direction	Compliant (Y/N)	Comments
			90min Day					45 dB(A) LA (1min) Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month

**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	2	95.1	104.5	120	No
	Blast Vibration	mm/s	Every Blast	2	0.32	0.39	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	2	90.1	90.1	120	No
	Blast Vibration	mm/s	Every Blast	2	0.24	0.24	10	No

DNT – Indicates the blast did not trigger a result at the monitor.



**WHITEHAVEN COAL**

## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY







## **ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY**

**Figure 1 – EPL 12870 Monitoring Locations**



## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://www.environment.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=32393&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

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

**Sampling Period:** August 2013

**Publication Date:** 17<sup>th</sup> September 2013 (re-published 29<sup>th</sup> July 2014)

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	15/8/2013	22/8/2013	0.4	0.4	0.4	0.4
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	15/8/2013	22/8/2013	0.1	0.1	0.1	0.1
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	15/8/2013	22/8/2013	0.2	0.2	0.2	0.2
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	6	Various	11/9/2013	5.6	10.3	8.05	21.0
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

**Table 2 - Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	



## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Aluminum	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L		0	-	-	-	-	-	-
	Bicarbonate	mg/L		0	-	-	-	-	-	-
	Chloride	mg/L		0	-	-	-	-	-	-
	Iron	mg/L		0	-	-	-	-	-	-
	Manganese	mg/L		0	-	-	-	-	-	-
	Sodium	mg/L		0	-	-	-	-	-	-
16	Conductivity	µS/cm	Quarterly	1	7/8/2013	13/8/2013	1180	1180	1180	1180
	Oil & Grease	mg/L		1	7/8/2013	Sample damaged in transit	Sample damaged in transit	Sample damaged in transit	Sample damaged in transit	Sample damaged in transit
	pH	pH		1	7/8/2013	13/8/2013	8.78	8.78	8.78	8.78
	TOC	mg/L		1	7/8/2013	13/8/2013	4	4	4	4
	TSS	mg/L		1	7/8/2013	13/8/2013	23	23	23	23

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/ direction	Compliant (Y/N)	Comments
N1			90min Day					35 dB(A) Leq (15 min) Day, Evening, Night  45 dB(A) LA (1min) Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
N2			90min Day					35 dB(A) Leq (15 min) Day, Evening, Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month

### ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

		90min Day					45 dB(A) L <sub>A</sub> (1min) Night			No monitoring for month
		30min Evening								No monitoring for month
		60min Night								No monitoring for month
		60min Night								No monitoring for month
		90min Day								No monitoring for month
		30min Evening								No monitoring for month
		60min Night								No monitoring for month
		60min Night								No monitoring for month

**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	7	94.1	94.1	120	No
	Blast Vibration	mm/s	Every Blast	7	0.21	0.21	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	7	103.3	109.8	120	No
	Blast Vibration	mm/s	Every Blast	7	0.29	0.33	10	No

DNT – Indicates the blast did not trigger a result at the monitor.





**WHITEHAVEN COAL**

## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY





## **ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY**

**Figure 1 – EPL 12870 Monitoring Locations**

## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33011&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

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

**Sampling Period:** September 2013

**Publication Date:** 11<sup>th</sup> October 2013 (re-published 29<sup>th</sup> July 2014)

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/9/2013	24/9/2013	0.7	0.7	0.7	0.7
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/9/2013	24/9/2013	0.8	0.8	0.8	0.8
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/9/2013	24/9/2013	0.4	0.4	0.4	0.4
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	4	Various	4/10/2013	10.2	23.05	23.15	35.7
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

**Table 2 - Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	

## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Aluminum	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L		0	-	-	-	-	-	-
	Bicarbonate	mg/L		0	-	-	-	-	-	-
	Chloride	mg/L		0	-	-	-	-	-	-
	Iron	mg/L		0	-	-	-	-	-	-
	Manganese	mg/L		0	-	-	-	-	-	-
	Sodium	mg/L		0	-	-	-	-	-	-
16	Conductivity	µS/cm	Quarterly	1	-	-	-	-	-	-
	Oil & Grease	mg/L		1	-	-	-	-	-	-
	pH	pH		1	-	-	-	-	-	-
	TOC	mg/L		1	-	-	-	-	-	-
	TSS	mg/L		1	-	-	-	-	-	-

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) L <sub>eq</sub> 15min Day	Measured Levels – dB(A) L <sub>eq</sub> 15min Evening	Measured Levels – dB(A) L <sub>eq</sub> 15min Night	Measured Levels – dB(A) L <sub>A</sub> 1min Night	Limits	Wind speed/ direction	Compliant (Y/N)	Comments
N1	24/9/2013 25/9/2013	8:48 am	90min Day	Inaudible				35 dB(A) Leq (15 min) Day, Evening, Night  45 dB(A) L <sub>A</sub> (1min) Night	3.1/69	Y	
		8:44 pm	30min Evening		Inaudible				1.8/15	Y	
		11:16 pm	60min Night			29			1.6/65	Y	
		11:16 pm	60min Night				37		1.6/65	Y	
	25/9/2013 26/9/2013	8:50 am	90min Day	Inaudible					2.5/305	Y	
		9:20 pm	30min Evening		22				2.6/174	Y	
		10:14 pm	60min Night			22			2.1/21	Y	
		10:14 pm	60min Night				25		2.1/21	Y	
	26/9/2013 27/9/2013	8:49 am	90min Day	Inaudible					2.3/183	Y	
		6:43 pm	30min Evening		Inaudible				0.9/23	Y	
		10:14 pm	60min Night			Inaudible			1.9/43	Y	
		10:14 pm	60min Night				Inaudible		1.9/43	Y	
N2	24/9/2013 25/9/2013	7:14 am	90min Day	34				35 dB(A) Leq (15 min) Day, Evening, Night	1.0/164	Y	
		9:29 pm	30min Evening		28				2.4/34	Y	
		10:05 pm	60min Night			Inaudible			1.5/91	Y	
		10:05 pm	60min Night				Inaudible		1.5/91	Y	
	25/9/2013 26/9/2013	7:10 am	90min Day	33					1.0/255	Y	
		8:48 pm	30min Evening		Inaudible				3.3/174	Y	



## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/direction	Compliant (Y/N)	Comments
		11:25 pm	60min Night			31		45 dB(A) LA (1min) Night	1.5/37	Y	
		11:25 pm	60min Night				36		1.5/37	Y	
	26/9/2013 27/9/2013	7:07 am	90min Day	Inaudible					0.8/280	Y	
		6:03 pm	30min Evening		Inaudible				0.7/161	Y	
		10:06 pm	60min Night			Inaudible			0.2/231	Y	
		10:06 pm	60min Night				Inaudible		0.2/231	Y	

**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	3	DNT	DNT	120	No
	Blast Vibration	mm/s	Every Blast	3	DNT	DNT	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	3	98.5	100.1	120	No
	Blast Vibration	mm/s	Every Blast	3	0.22	0.26	10	No

DNT – Indicates the blast did not trigger a result at the monitor.



**WHITEHAVEN COAL**

## **ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY**



**Figure 1 – EPL 12870 Monitoring Locations**



## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33011&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

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

**Sampling Period:** October 2013

**Publication Date:** 18<sup>th</sup> November 2013 (re-published 29<sup>th</sup> July 2014)

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	15/10/2013	23/10/2013	0.2	0.2	0.2	0.2
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	15/10/2013	23/10/2013	1.1	1.1	1.1	1.1
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	15/10/2013	23/10/2013	2.4	2.4	2.4	2.4
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	5	Various	12/11/2013	11.2	19.7	14.8	33.6
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

**Table 2 - Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	

## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Aluminum	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L		0	-	-	-	-	-	-
	Bicarbonate	mg/L		0	-	-	-	-	-	-
	Chloride	mg/L		0	-	-	-	-	-	-
	Iron	mg/L		0	-	-	-	-	-	-
	Manganese	mg/L		0	-	-	-	-	-	-
	Sodium	mg/L		0	-	-	-	-	-	-
16	Conductivity	µS/cm	Quarterly	0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TOC	mg/L		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

Table 4 – Monitoring (Noise – Limits Apply)

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) L <sub>eq</sub> 15min Day	Measured Levels – dB(A) L <sub>eq</sub> 15min Evening	Measured Levels – dB(A) L <sub>eq</sub> 15min Night	Measured Levels – dB(A) L <sub>A</sub> 1min Night	Limits	Wind speed/ direction	Compliant (Y/N)	Comments
N1			90min Day					35 dB(A) Leq (15 min) Day, Evening, Night  45 dB(A) L <sub>A</sub> (1min) Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
N2			90min Day					35 dB(A) Leq (15 min) Day, Evening, Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month



## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/direction	Compliant (Y/N)	Comments
			60min Night					45 dB(A) LA (1min) Night			No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month

**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	5	95.2	95.2	120	No
	Blast Vibration	mm/s	Every Blast	5	0.43	0.43	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	5	103.4	104.3	120	No
	Blast Vibration	mm/s	Every Blast	5	0.45	0.69	10	No

DNT – Indicates the blast did not trigger a result at the monitor.



**WHITEHAVEN COAL**

**ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY**



**Figure 1 – EPL 12870 Monitoring Locations**



## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33011&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

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

**Sampling Period:** November 2013

**Publication Date:** 19<sup>th</sup> December 2013 (re-published 29<sup>th</sup> July 2014)

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	14/11/2013	25/11/2013	1.4	1.4	1.4	1.4
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	14/11/2013	25/11/2013	1.1	1.1	1.1	1.1
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	14/11/2013	25/11/2013	0.8	0.8	0.8	0.8
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	2	5,11/11/2013	13/12/2013	16.4	18.9	17.6	21.5
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-

## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

**Table 2 - Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	



## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Aluminum	mg/L	Yearly	1	7/11/2013	14/11/2013	0.44	0.44	0.44	0.44
	Arsenic	mg/L		1	7/11/2013	14/11/2013	0.011	0.011	0.011	0.011
	Bicarbonate	mg/L		1	7/11/2013	14/11/2013	252	252	252	252
	Chloride	mg/L		1	7/11/2013	14/11/2013	318	318	318	318
	Iron	mg/L		1	7/11/2013	14/11/2013	0.22	0.22	0.22	0.22
	Manganese	mg/L		1	7/11/2013	14/11/2013	0.018	0.018	0.018	0.018
	Sodium	mg/L		1	7/11/2013	14/11/2013	439	439	439	439
16	Conductivity	µS/cm	Quarterly	1	7/11/2013	14/11/2013	2160	2160	2160	2160
	Oil & Grease	mg/L		1	7/11/2013	14/11/2013	<5	<5	<5	<5
	pH	pH		1	7/11/2013	14/11/2013	9.13	9.13	9.13	9.13
	TOC	mg/L		1	7/11/2013	14/11/2013	9	9	9	9
	TSS	mg/L		1	7/11/2013	14/11/2013	14	14	14	14

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/ direction	Compliant (Y/N)	Comments
N1			90min Day					35 dB(A) Leq (15 min) Day, Evening, Night  45 dB(A) LA (1min) Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
N2			90min Day					35 dB(A) Leq (15 min) Day, Evening, Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month



## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed/direction	Compliant (Y/N)	Comments
			90min Day					45 dB(A) LA (1min) Night			No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month
			90min Day								No monitoring for month
			30min Evening								No monitoring for month
			60min Night								No monitoring for month
			60min Night								No monitoring for month

**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	4	101.6	101.6	120	No
	Blast Vibration	mm/s	Every Blast	4	0.26	0.26	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	4	99.9	105	120	No
	Blast Vibration	mm/s	Every Blast	4	0.29	0.34	10	No

DNT – Indicates the blast did not trigger a result at the monitor.



**WHITEHAVEN COAL**

## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY





## **ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY**

**Figure 1 – EPL 12870 Monitoring Locations**

## ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33011&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

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

**Sampling Period:** December 2013

**Publication Date:** 16<sup>th</sup> January 2014 (re-published 29<sup>th</sup> July 2014)

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/12/2013	30/12/2013	-	-	-	3.0
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/12/2013	30/12/2013	-	-	-	2.8
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/12/2013	30/12/2013	-	-	-	1.0
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	5	Various	15/1/2014	5.8	14.2	11.3	26.4
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-

## ROCGLEN COAL MINE – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	Total organic carbon	mg/L		-	-	-	-	-	-	-

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

**Table 2 - Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Max Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	-	-	No discharge
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value
16	Aluminum	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L		0	-	-	-	-	-	-
	Bicarbonate	mg/L		0	-	-	-	-	-	-
	Chloride	mg/L		0	-	-	-	-	-	-
	Iron	mg/L		0	-	-	-	-	-	-
	Manganese	mg/L		0	-	-	-	-	-	-
	Sodium	mg/L		0	-	-	-	-	-	-
16	Conductivity	ms/cm	Quarterly	0	-	-	-	-	-	-
	Oil & Grease	µS/cm		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TOC	mg/L		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-



## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period	Measured Levels – dB(A) L <sub>eq</sub> 15min Day	Measured Levels – dB(A) L <sub>eq</sub> 15min Evening	Measured Levels – dB(A) L <sub>eq</sub> 15min Night	Measured Levels – dB(A) L <sub>A</sub> 1min Night	Limits	Wind speed/ direction	Compliant (Y/N)	Comments
N1	4/12/13	9:15am	90min	Inaudible				35 dB(A) Leq (15 min) Day, Evening, Night  45 dB(A) L <sub>A</sub> (1min) Night	1.4m/s, WNW	Y	
		9:20pm	30min		Inaudible				2.2m/s, NW	Y	
		11:17pm	60min			Inaudible			1.8m/s, N	Y	
		11:17pm	60min				Inaudible		1.8m/s, N	Y	
	5/12/13	10:20am	90min	<30					1.8m/s, N	Y	
		9:18pm	30min		24				0.7m/s, S	Y	
		11:13pm	60min			24			0.9m/s, NNE	Y	
		11:13pm	60min				30		0.9m/s, NNE	Y	
	6/12/13	8:57am	90min	<25					5.7m/s, SW	Y	
		9:17pm	30min		20				2.7m/s, SSE	Y	
		11:24pm	60min			<20			0.9m/s, NE	Y	
		11:24pm	60min				<25		0.9m/s, NE	Y	
N2	4/12/13	7:25am	90min	28				35 dB(A) Leq (15 min) Day, Evening, Night  45 dB(A) L <sub>A</sub> (1min) Night	0.8m/s, W	Y	
		8:40pm	30min		Inaudible				2.2m/s, NNW	Y	
		10:10pm	60min			31			1.8m/s, N	Y	
		10:10pm	60min				35		1.8m/s, N	Y	
	5/12/13	7:32am	90min	33					3.2m/s, NW	Y	
		8:33pm	30min		Inaudible				1.7m/s, S	Y	
		10:00pm	60min			Inaudible			0.5m/s, S	Y	
		10:00pm	60min				Inaudible		0.5m/s, S	Y	
	6/12/13	7:09am	90min	<25					2.2m/s, W	Y	
		8:34pm	30min		Inaudible				2.2m/s, SSE	Y	
		10:02pm	60min			<20			1.2m/s, E	Y	
		10:02pm	60min				<25		1.2m/s, E	Y	

## ROCGLN COAL MINE – MONTHLY MONITORING SUMMARY

**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	3	DNT	DNT	120	No
	Blast Vibration	mm/s	Every Blast	3	DNT	DNT	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	3	DNT	DNT	120	No
	Blast Vibration	mm/s	Every Blast	3	DNT	DNT	10	No

DNT – Indicates the blast did not trigger a result at the monitor.



**WHITEHAVEN COAL**

**ROCGLLEN COAL MINE – MONTHLY MONITORING SUMMARY**



**Figure 1 – EPL 12870 Monitoring Locations**