



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 3637

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637>

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: January 2018

Obtained Date: 15th February 2018

Publication Date: 19th February 2018

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m ² /month	Continuous	1	19/01/18	31/01/18	-	-	-	1.3
5	PM ₁₀	µg/m ³	Every 6 days	6	Various	13/02/18	12.7	25.0	21.6	40.8
11	PM ₁₀	µg/m ³	Every 6 days	0	-	-	-	-	-	-
12	PM ₁₀	µg/m ³	Every 6 days	6	Various	13/02/18	13.4	21.9	22.1	26.9
6	Conductivity	ms/cm	Each overflow event	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
7	Conductivity	ms/cm	Quarterly	1	7/02/18	15/02/18	-	-	-	2010
	Oil and Grease	mg/L		1	7/02/18	15/02/18	-	-	-	<5
	Total Organic Carbon	mg/L		1	7/02/18	15/02/18	-	-	-	4
	Total Suspended Solids	mg/L		1	7/02/18	15/02/18	-	-	-	14



WHITEHAVEN CHPP – MONTHLY MONITORING 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 or Only Value
	pH	pH		1	7/02/18	15/02/18	-	-	-	8.6

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
8	Ammonia	/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
pH	pH	-	-	-	-					
9	Ammonia	mg/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-



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EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pH	pH					-	-	-	-
10	Ammonia	mg/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
pH	pH	-	-	-	-					



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Start Time	Measurement Period	Measured levels – All sources – dB(A)		Limit(s)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
N1	-	-	15 mins		-	-	-	-	-
	-	-	15 mins		-	-	-	-	
	-	-	15 mins		-	-	-	-	
	-	-	1 min	-		-	-	-	

When site noise is noted as inaudible, no site noise was audible at the monitoring location. Not Measurable indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- *site noise levels were insignificant and unlikely, in many cases, to be even noticed; or*
- *site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.*

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Figure 1 – EPL 3637 Monitoring Locations





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Site Information

EPL No: 3637

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637>

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: February 2018

Obtained Date: 15th February

Publication Date: 19th March 2018

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m ² /month	Continuous	1	19/02/18	21/02/18	-	-	-	0.5
5	PM ₁₀	µg/m ³	Every 6 days	4	Various	9/03/18	8.7	17.9	17.9	26.9
11	PM ₁₀	µg/m ³	Every 6 days	0	-	-	-	-	-	-
12	PM ₁₀	µg/m ³	Every 6 days	4	Various	9/03/18	7.9	17.6	16.4	29.6
6	Conductivity	ms/cm	Each overflow event	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
7	Conductivity	ms/cm	Quarterly	1	7/02/18	15/02/18	-	-	-	2010
	Oil and Grease	mg/L		1	7/02/18	15/02/18	-	-	-	<5
	Total Organic Carbon	mg/L		1	7/02/18	15/02/18	-	-	-	4
	Total Suspended Solids	mg/L		1	7/02/18	15/02/18	-	-	-	14



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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 or Only Value
	pH	pH		1	7/02/18	15/02/18	-	-	-	8.6

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
8	Ammonia	/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
pH	pH	-	-	-	-					
9	Ammonia	mg/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-



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EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pH	pH					-	-	-	-
10	Ammonia	mg/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
pH	pH	-	-	-	-					



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly Noise – Limits Apply)

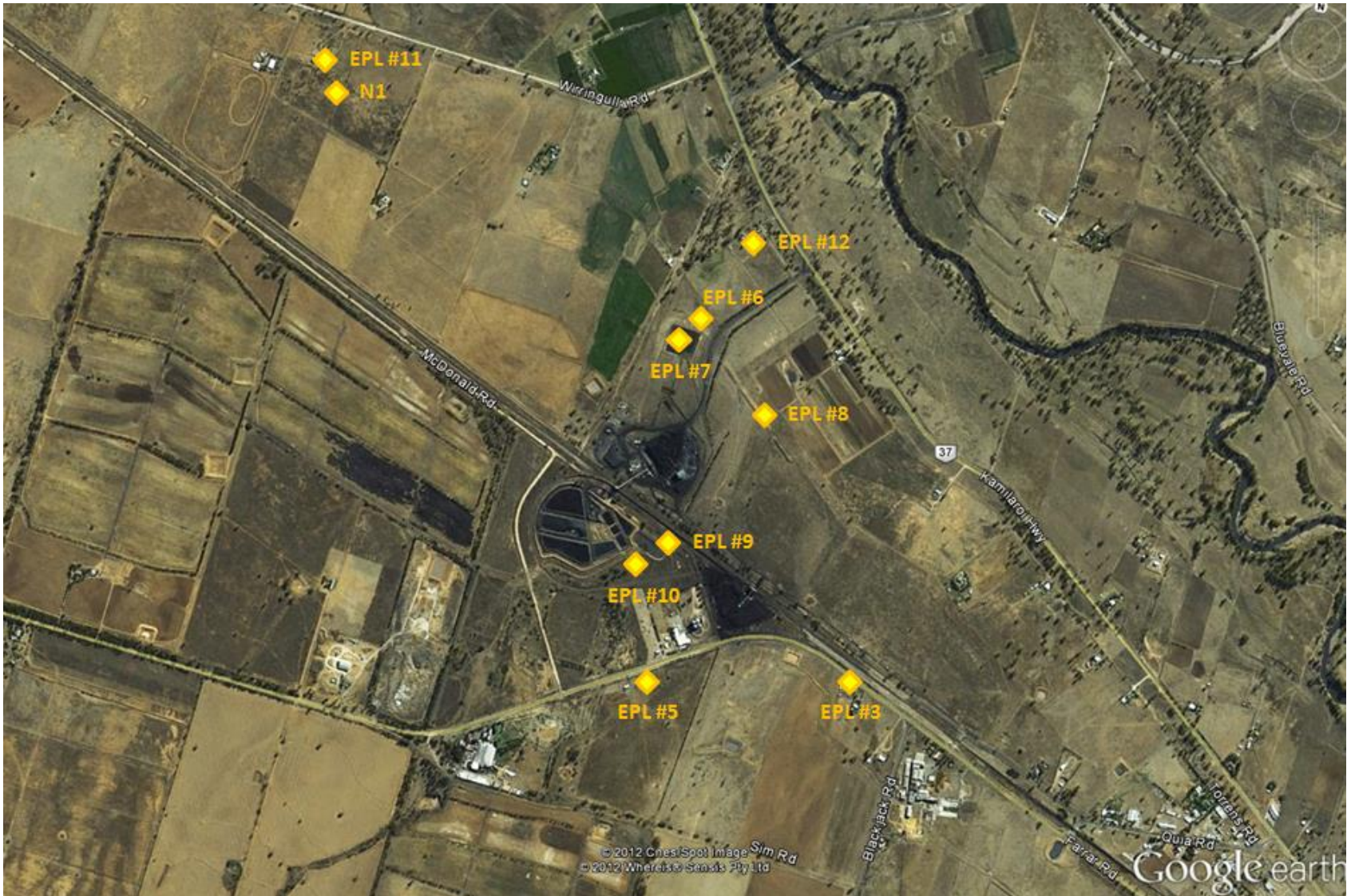
EPL ID	Date	Start Time	Measurement Period	Measured levels – All sources – dB(A)		Limit(s)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
N1	28/02/18	13:30	15 mins		<25	35	2.3		No
	28/02/18	21:42	15 mins		<25	35	0.0		
	28/02/18	22:00	15 mins		<25	35	0.6		
	28/02/18	22:00	1 min	25		45	0.6		

When site noise is noted as inaudible, no site noise was audible at the monitoring location. Not Measurable indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- *site noise levels were insignificant and unlikely, in many cases, to be even noticed; or*
- *site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.*

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Figure 1 – EPL 3637 Monitoring Locations





WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 3637

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637>

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: March 2018

Obtained Date: 18th April 2018

Publication Date: 23rd April 2018

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m ² /month	Continuous	1	21/03/18	4/04/18	-	-	-	1.7
5	PM ₁₀	µg/m ³	Every 6 days	5	Various	18/04/18	8.8	26.2	18.9	49.6
11	PM ₁₀	µg/m ³	Every 6 days	0	-	-	-	-	-	-
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	18/04/18	6.0	20.5	16.0	47.8
6	Conductivity	ms/cm	Each overflow event	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
7	Conductivity	ms/cm	Quarterly	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-



WHITEHAVEN COAL

WHITEHAVEN CHPP – MONTHLY MONITORING 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 or Only Value
	pH	pH		-	-	-	-	-	-	-

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
8	Ammonia	mg/L	Quarterly	1	13/03/18	19/03/18	-	-	-	0.03
	Bicarbonate	mg/L					-	-	-	1350
	Calcium	mg/L					-	-	-	33
	Chloride	mg/L					-	-	-	1250
	Conductivity	µs/cm					-	-	-	7430
	Lead	mg/L					-	-	-	0.003
	Magnesium	mg/L					-	-	-	116
	Nitrate	mg/L					-	-	-	1.37
	Potassium	mg/L					-	-	-	20
	Sodium	mg/L					-	-	-	1600
	Standing Water Level	m					-	-	-	8.36
	Sulphate	mg/L					-	-	-	652
pH	pH	-	-	-	8.8					
9	Ammonia	mg/L	Quarterly	1	13/03/18	19/03/18	-	-	-	0.14
	Bicarbonate	mg/L					-	-	-	907
	Calcium	mg/L					-	-	-	273
	Chloride	mg/L					-	-	-	1100



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Conductivity	µs/cm					-	-	-	6040
	Lead	mg/L					-	-	-	<0.001
	Magnesium	mg/L					-	-	-	260
	Nitrate	mg/L					-	-	-	0.72
	Potassium	mg/L					-	-	-	126
	Sodium	mg/L					-	-	-	772
	Standing Water Level	m					-	-	-	2.38
	Sulphate	mg/L					-	-	-	938
	pH	pH					-	-	-	7.10
10	Ammonia	mg/L	Quarterly	1	13/03/18	19/03/18	-	-	-	6.97
	Bicarbonate	mg/L					-	-	-	731
	Calcium	mg/L					-	-	-	174
	Chloride	mg/L					-	-	-	1330
	Conductivity	µs/cm					-	-	-	5870
	Lead	mg/L					-	-	-	0.004
	Magnesium	mg/L					-	-	-	228
	Nitrate	mg/L					-	-	-	1.27
	Potassium	mg/L					-	-	-	64
	Sodium	mg/L					-	-	-	744
	Standing Water Level	m					-	-	-	1.66
	Sulphate	mg/L					-	-	-	280
pH	pH	-	-	-	7.8					



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Start Time	Measurement Period	Measured levels – All sources – dB(A)		Limit(s)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
N1	-	-	-		-	-	-	-	-
	-	-	-		-	-	-	-	
	-	-	-		-	-	-	-	
	-	-	-	-		-	-	-	

When site noise is noted as inaudible, no site noise was audible at the monitoring location. Not Measurable indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or*
- site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.*

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Figure 1 – EPL 3637 Monitoring Locations





WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 3637

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637>

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: April 2018

Obtained Date: 9th May 2018

Publication Date: 15th May 2018

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m ² /month	Continuous	1	19/04/18	2/05/18	-	-	-	1.3
5	PM ₁₀	µg/m ³	Every 6 days	5	Various	9/05/18	15.9	29.4	24.7	58.9
11	PM ₁₀	µg/m ³	Every 6 days	0	-	-	-	-	-	-
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	9/05/18	11.8	18.3	14.2	34.2
6	Conductivity	ms/cm	Each overflow event	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
7	Conductivity	ms/cm	Quarterly	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-



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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 or Only Value
	pH	pH		-	-	-	-	-	-	-

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
8	Ammonia	mg/L	Quarterly	0	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
pH	pH	-	-	-	-					
9	Ammonia	mg/L	Quarterly	0	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-



WHITEHAVEN COAL

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pH	pH					-	-	-	-
10	Ammonia	mg/L	Quarterly	0	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
pH	pH	-	-	-	-					



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly Noise – Limits Apply)

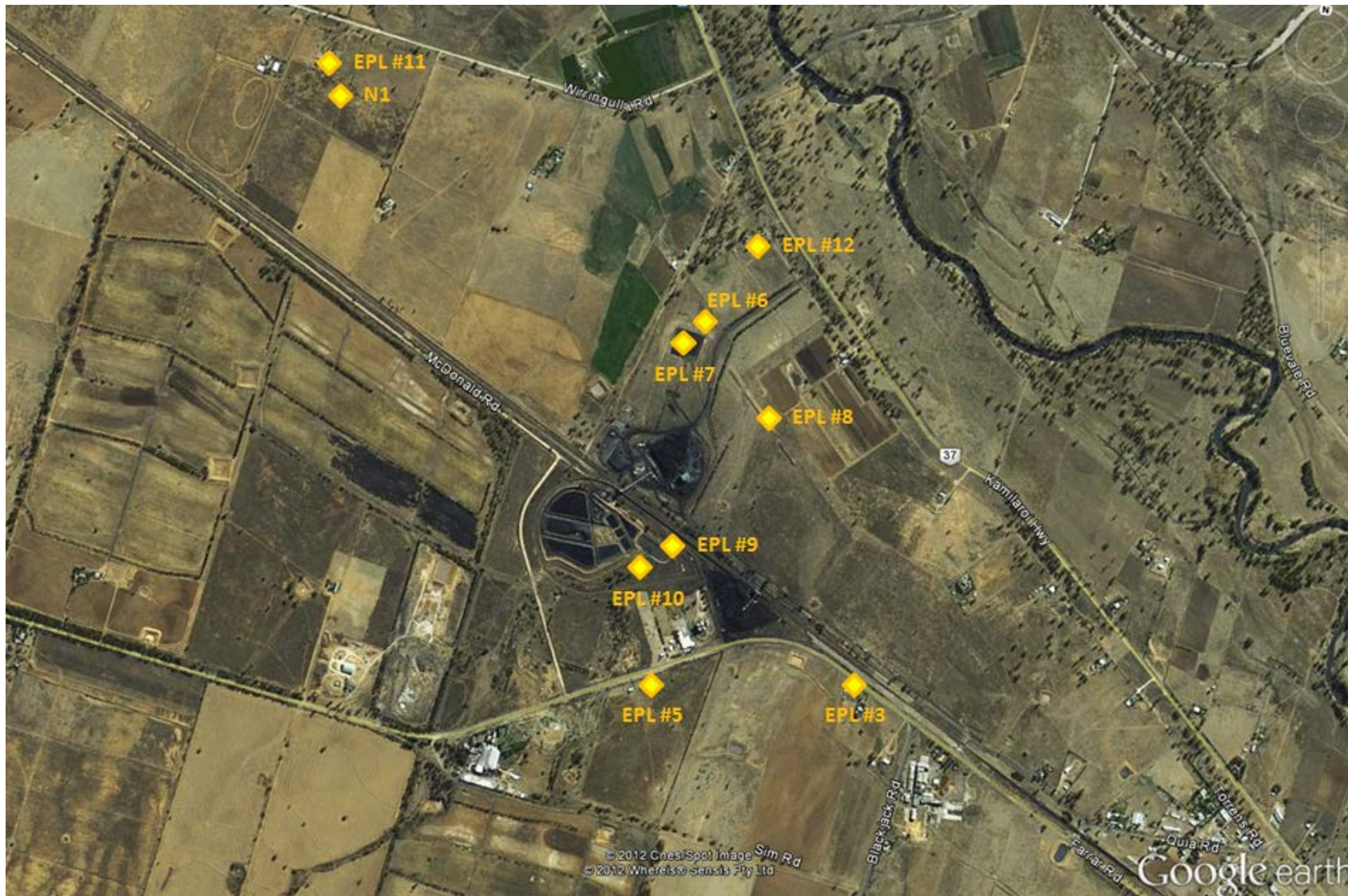
EPL ID	Date	Start Time	Measurement Period	Measured levels – All sources – dB(A)		Limit(s)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
N1	-	-	-		-	-	-	-	-
	-	-	-		-	-	-	-	
	-	-	-		-	-	-	-	
	-	-	-	-		-	-	-	

When site noise is noted as inaudible, no site noise was audible at the monitoring location. Not Measurable indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- *site noise levels were insignificant and unlikely, in many cases, to be even noticed; or*
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Figure 1 – EPL 3637 Monitoring Locations





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Site Information

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Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: May 2018

Obtained Date: 6th June 2018

Publication Date: 13th June 2018

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m ² /month	Continuous	1	18/05/18	29/05/18	-	-	-	0.3
5	PM ₁₀	µg/m ³	Every 6 days	5	Various	6/06/18	8.4	46.4	47	106
11	PM ₁₀	µg/m ³	Every 6 days	0	-	-	-	-	-	-
12	PM ₁₀	µg/m ³	Every 6 days	6	Various	6/06/18	9.3	18.2	19.5	27.9
6	Conductivity	ms/cm	Each overflow event	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
7	Conductivity	ms/cm	Quarterly	1	7/05/18	-	-	-	-	1320
	Oil and Grease	mg/L		1	7/05/18	-	-	-	-	<5
	Total Organic Carbon	mg/L		1	7/05/18	-	-	-	-	4
	Total Suspended Solids	mg/L		1	7/05/18	-	-	-	-	17



WHITEHAVEN CHPP – MONTHLY MONITORING 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 or Only Value
	pH	pH		1	7/05/18	-	-	-	-	8.6

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
8	Ammonia	mg/L	Quarterly	1	31/05/18	6/06/18	-	-	-	0.03
	Bicarbonate	mg/L					-	-	-	1260
	Calcium	mg/L					-	-	-	36
	Chloride	mg/L					-	-	-	1270
	Conductivity	µs/cm					-	-	-	7090
	Lead	mg/L					-	-	-	0.002
	Magnesium	mg/L					-	-	-	113
	Nitrate	mg/L					-	-	-	1.34
	Potassium	mg/L					-	-	-	22
	Sodium	mg/L					-	-	-	1540
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	635
pH	pH	-	-	-	8.8					
9	Ammonia	mg/L	Quarterly	1	31/05/18	6/06/18	-	-	-	0.02
	Bicarbonate	mg/L					-	-	-	850
	Calcium	mg/L					-	-	-	244
	Chloride	mg/L					-	-	-	1130



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Conductivity	µs/cm					-	-	-	5700
	Lead	mg/L					-	-	-	0.001
	Magnesium	mg/L					-	-	-	232
	Nitrate	mg/L					-	-	-	0.39
	Potassium	mg/L					-	-	-	121
	Sodium	mg/L					-	-	-	704
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	763
	pH	pH					-	-	-	7.1
10	Ammonia	mg/L	Quarterly	1	31/05/18	6/06/18	-	-	-	0.08
	Bicarbonate	mg/L					-	-	-	654
	Calcium	mg/L					-	-	-	178
	Chloride	mg/L					-	-	-	1350
	Conductivity	µs/cm					-	-	-	5560
	Lead	mg/L					-	-	-	0.003
	Magnesium	mg/L					-	-	-	216
	Nitrate	mg/L					-	-	-	5.22
	Potassium	mg/L					-	-	-	64
	Sodium	mg/L					-	-	-	715
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	267
pH	pH	-	-	-	7.9					



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Start Time	Measurement Period	Measured levels – All sources – dB(A)		Limit(s)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
N1	-	-	-		-	-	-	-	-
	-	-	-		-	-	-	-	
	-	-	-		-	-	-	-	
	-	-	-	-		-	-	-	

When site noise is noted as inaudible, no site noise was audible at the monitoring location. Not Measurable indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- *site noise levels were insignificant and unlikely, in many cases, to be even noticed; or*
- *site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.*

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Figure 1 – EPL 3637 Monitoring Locations





WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 3637

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637>

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: June 2018

Obtained Date: 16th July 2018

Publication Date: 19th July 2018

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m ² /month	Continuous	1	19/06/18	26/06/18	-	-	-	1.5
5	PM ₁₀	µg/m ³	Every 6 days	5	Various	15/07/18	2.3	13.4	6.8	39.6
11	PM ₁₀	µg/m ³	Every 6 days	0	-	-	-	-	-	-
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	15/07/18	2.9	10.5	7.0	21.8
6	Conductivity	ms/cm	Each overflow event	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
7	Conductivity	ms/cm	Quarterly	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-



WHITEHAVEN CHPP – MONTHLY MONITORING 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 or Only Value
	pH	pH				-	-	-	-	

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
8	Ammonia	mg/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
pH	pH	-	-	-	-					
9	Ammonia	mg/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pH	pH					-	-	-	-
10	Ammonia	mg/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
pH	pH	-	-	-	-					



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Start Time	Measurement Period	Measured levels – CHPP – dB(A)		Limit(s)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
				LA1, 1 minute	L _{Aeq} , 15 minute				
N1	19/06/18	7:31	15 mins		<25	35dBA	1.5	CHPP audible faintly at times, but not measurable	No
	19/06/18	19:50	15 mins		28	35dBA	2.8	Dozer 'clang' noise identifiable 32 -44	
	19/06/18	22:05	15 mins		<25	35dBA	2.5	Dozer 'whirl' noise identifiable - 31	
	19/06/18	22:05	1 mins	<25		45dBA	2.5	Dozer 'whirl' noise identifiable - 31	

When site noise is noted as inaudible, no site noise was audible at the monitoring location. Not Measurable indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
- site noise levels were masked by another relatively loud noise source, but were estimated to be less than L_{Aeq} 30 dB, which is insignificant in terms of any applicable criterion.

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Figure 1 – EPL 3637 Monitoring Locations





WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 3637

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637>

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: July 2018

Obtained Date: 16th August 2018

Publication Date: 17th August 2018

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m ² /month	Continuous	1	19/07/18	34/07/18	-	-	-	1.0
11	PM ₁₀	µg/m ³	Every 6 days	5	Various	16/08/18	12.6	29.12	24.2	49.8
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	16/08/18	14.5	26.2	20.6	39.5
6	Conductivity	ms/cm	Each overflow event	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
7	Conductivity	ms/cm	Quarterly	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
8	Ammonia	mg/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
pH	pH	-	-	-	-					
9	Ammonia	mg/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-



WHITEHAVEN COAL

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pH	pH					-	-	-	-
10	Ammonia	mg/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pH	pH					-	-	-	-

Table 3 – Monitoring (Quarterly Noise – Limits Apply)



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

EPL ID	Date	Start Time	Measurement Period	Measured levels – CHPP – dB(A)		Limit(s)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
				LA1, 1 minute	L _{Aeq} , 15 minute				
N1	-	-	15 mins		-	35dBA	-	-	-
	-	-	15 mins		-	35dBA	-	-	
	-	-	15 mins		-	35dBA	-	-	
	-	-	1 mins	-		45dBA	-	-	

When site noise is noted as inaudible, no site noise was audible at the monitoring location. Not Measurable indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- *site noise levels were insignificant and unlikely, in many cases, to be even noticed; or*
- *site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.*

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Figure 1 – EPL 3637 Monitoring Locations





WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 3637

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637>

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: August 2018

Obtained Date: 6th September 2018

Publication Date: 12th September 2018

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m ² /month	Continuous	1	19/08/18	30/08/18	-	-	-	1.3
11	PM ₁₀	µg/m ³	Every 6 days	3	Various	6/09/18	12.5	22.2	23.2	31.1
12	PM ₁₀	µg/m ³	Every 6 days	3	Various	6/09/18	8.7	28	26.5	48.8
6	Conductivity	ms/cm	Each overflow event	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
7	Conductivity	ms/cm	Quarterly	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
8	Ammonia	mg/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
pH	pH	-	-	-	-					
9	Ammonia	mg/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-



WHITEHAVEN COAL

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pH	pH					-	-	-	-
10	Ammonia	mg/L	Quarterly	-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pH	pH					-	-	-	-

Table 3 – Monitoring (Quarterly Noise – Limits Apply)



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

EPL ID	Date	Start Time	Measurement Period	Measured levels – CHPP – dB(A)		Limit(s)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
				L _{A1} , 1 minute	L _{Aeq} , 15 minute				
N1	-	-	15 mins		-	35dBA	-	-	-
	-	-	15 mins		-	35dBA	-	-	
	-	-	15 mins		-	35dBA	-	-	
	-	-	1 mins	-		45dBA	-	-	

When site noise is noted as inaudible, no site noise was audible at the monitoring location. Not Measurable indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- *site noise levels were insignificant and unlikely, in many cases, to be even noticed; or*
- *site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.*

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Figure 1 – EPL 3637 Monitoring Locations





WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 3637

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637>

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: September 2018

Obtained Date: 10th October 2018

Publication Date: 10th October 2018

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m ² /month	Continuous	1	18/09/18	27/09/18	-	-	-	2.1
11	PM ₁₀	µg/m ³	Every 6 days	4	Various	5/10/18	4.1	17.8	18.7	29.7
12	PM ₁₀	µg/m ³	Every 6 days	4	Various	5/10/18	3.8	17.87	15.95	35.8
6	Conductivity	ms/cm	Each overflow event	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
7	Conductivity	ms/cm	Quarterly	1	08/08/18	05/10/18	-	-	-	2240
	Oil and Grease	mg/L		1	08/08/18	05/10/18	-	-	-	<5
	Total Organic Carbon	mg/L		1	08/08/18	05/10/18	-	-	-	3
	Total Suspended Solids	mg/L		1	08/08/18	05/10/18	-	-	-	<5



WHITEHAVEN CHPP – MONTHLY MONITORING 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 or Only Value
	pH	pH			08/08/18	05/10/18	-	-	-	8.19

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
8	Ammonia	mg/L	Quarterly	1	5/09/2018	05/10/2018	-	-	-	0.08
	Bicarbonate	mg/L					-	-	-	1150
	Calcium	mg/L					-	-	-	33
	Chloride	mg/L					-	-	-	1440
	Conductivity	µs/cm					-	-	-	7220
	Lead	mg/L					-	-	-	0.008
	Magnesium	mg/L					-	-	-	112
	Nitrate	mg/L					-	-	-	1.39
	Potassium	mg/L					-	-	-	21
	Sodium	mg/L					-	-	-	1570
	Standing Water Level	m					-	-	-	7.58
	Sulphate	mg/L					-	-	-	608
pH	pH	-	-	-	8.61					
9	Ammonia	mg/L	Quarterly	1	5/09/2018	05/10/2018	-	-	-	0.08
	Bicarbonate	mg/L					-	-	-	1150
	Calcium	mg/L					-	-	-	33
	Chloride	mg/L					-	-	-	1440



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Conductivity	µs/cm					-	-	-	0.03
	Lead	mg/L					-	-	-	821
	Magnesium	mg/L					-	-	-	264
	Nitrate	mg/L					-	-	-	1230
	Potassium	mg/L					-	-	-	5760
	Sodium	mg/L					-	-	-	0.001
	Standing Water Level	m					-	-	-	227
	Sulphate	mg/L					-	-	-	0.2
	pH	pH					-	-	-	115
10	Ammonia	mg/L	Quarterly	1	5/09/2018	05/10/2018	-	-	-	12.2
	Bicarbonate	mg/L					-	-	-	582
	Calcium	mg/L					-	-	-	159
	Chloride	mg/L					-	-	-	1530
	Conductivity	µs/cm					-	-	-	5640
	Lead	mg/L					-	-	-	0.002
	Magnesium	mg/L					-	-	-	204
	Nitrate	mg/L					-	-	-	12.2
	Potassium	mg/L					-	-	-	56
	Sodium	mg/L					-	-	-	671
	Standing Water Level	m					-	-	-	1.69
	Sulphate	mg/L					-	-	-	276
pH	pH	-	-	-	7.6					



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Start Time	Measurement Period	Measured levels – CHPP – dB(A)		Limit(s)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
				L _{A1} , 1 minute	L _{Aeq} , 15 minute				
N1	5/09/18	12:00	15 mins		I/A	35dBA	3 m/s NE	Road Traffic 37-40 Birds 31-68 Dogs barking 52-54	None
	5/09/18	19:41	15 mins		30	35dBA	3 m/s NE	Dozer 'clang' noise identifiable 33 -40 Dozer engine whirl 31 Other Noise Events: Road Traffic 40-45	
	5/09/18	22:24	15 mins		29	35dBA	1.5 m/s SE	Dozer engine whirl – 28-32	
	5/09/18	22:24	1 mins	40		45dBA	1.5 m/s SE	-	

When site noise is noted as inaudible, no site noise was audible at the monitoring location. Not Measurable indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- *site noise levels were insignificant and unlikely, in many cases, to be even noticed; or*
- *site noise levels were masked by another relatively loud noise source, but were estimated to be less than L_{Aeq} 30 dB, which is insignificant in terms of any applicable criterion.*

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Figure 1 – EPL 3637 Monitoring Locations





WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 3637

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637>

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: October 2018

Obtained Date: 8th November 2018

Publication Date: 9th November 2018

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m ² /month	Continuous	1	18/10/18	27/09/18	-	-	-	1.7
11	PM ₁₀	µg/m ³	Every 6 days	6	Various	7/10/18	10.4	26.15	28.9	21.8
12	PM ₁₀	µg/m ³	Every 6 days	6	Various	7/10/18	9.3	22.5	23.8	17.3
6	Conductivity	ms/cm	Each overflow event	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	
7	Conductivity	ms/cm	Quarterly	1			-	-	-	2550
	Oil and Grease	mg/L		1			-	-	-	<5
	Total Organic Carbon	mg/L		1			-	-	-	3
	Total Suspended Solids	mg/L		1			-	-	-	34



WHITEHAVEN COAL

WHITEHAVEN CHPP – MONTHLY MONITORING 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 or Only Value
	pH	pH		1			-	-	-	8.42

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
8	Ammonia	mg/L	Quarterly				-	-	-	
	Bicarbonate	mg/L					-	-	-	
	Calcium	mg/L					-	-	-	
	Chloride	mg/L					-	-	-	
	Conductivity	µs/cm					-	-	-	
	Lead	mg/L					-	-	-	
	Magnesium	mg/L					-	-	-	
	Nitrate	mg/L					-	-	-	
	Potassium	mg/L					-	-	-	
	Sodium	mg/L					-	-	-	
	Standing Water Level	m					-	-	-	
	Sulphate	mg/L					-	-	-	
pH	pH	-	-	-						
9	Ammonia	mg/L	Quarterly				-	-	-	
	Bicarbonate	mg/L					-	-	-	
	Calcium	mg/L					-	-	-	
	Chloride	mg/L					-	-	-	



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Conductivity	µs/cm					-	-	-	
	Lead	mg/L					-	-	-	
	Magnesium	mg/L					-	-	-	
	Nitrate	mg/L					-	-	-	
	Potassium	mg/L					-	-	-	
	Sodium	mg/L					-	-	-	
	Standing Water Level	m					-	-	-	
	Sulphate	mg/L					-	-	-	
	pH	pH					-	-	-	
10	Ammonia	mg/L	Quarterly				-	-	-	
	Bicarbonate	mg/L					-	-	-	
	Calcium	mg/L					-	-	-	
	Chloride	mg/L					-	-	-	
	Conductivity	µs/cm					-	-	-	
	Lead	mg/L					-	-	-	
	Magnesium	mg/L					-	-	-	
	Nitrate	mg/L					-	-	-	
	Potassium	mg/L					-	-	-	
	Sodium	mg/L					-	-	-	
	Standing Water Level	m					-	-	-	
	Sulphate	mg/L					-	-	-	
	pH	pH					-	-	-	



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly Noise – Limits Apply)

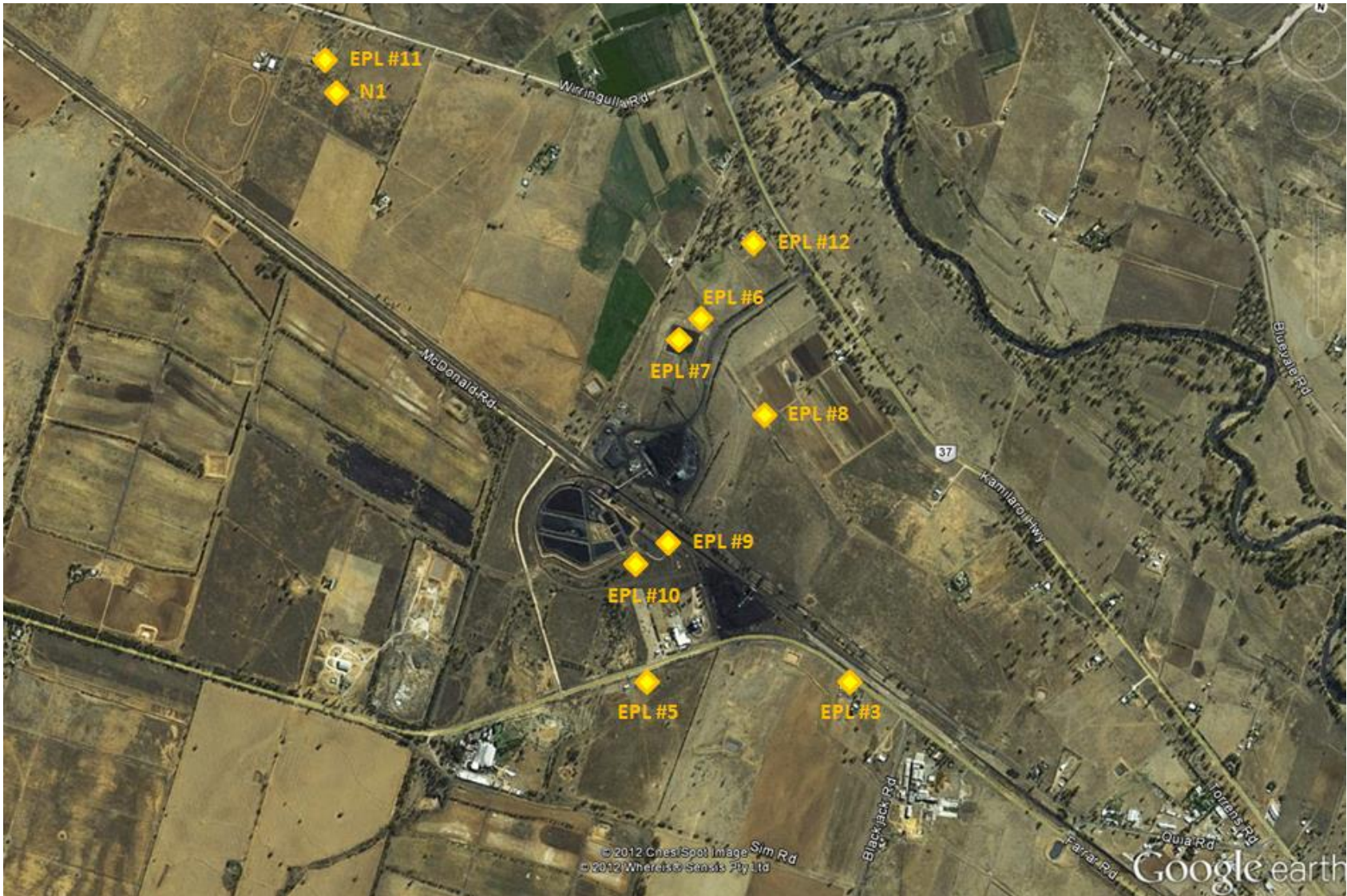
EPL ID	Date	Start Time	Measurement Period	Measured levels – CHPP – dB(A)		Limit(s)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
				L _{A1} , 1 minute	L _{Aeq} , 15 minute				
N1						35dBA			None
						35dBA			
						35dBA			
						45dBA			

When site noise is noted as inaudible, no site noise was audible at the monitoring location. Not Measurable indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- *site noise levels were insignificant and unlikely, in many cases, to be even noticed; or*
- *site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.*

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Figure 1 – EPL 3637 Monitoring Locations





WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 3637

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637>

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: December 2018

Obtained Date: 5th December 2018

Publication Date: 6th December 2018

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m ² /month	Continuous	1	16/10/18	05/12/18	-	-	-	2.5
11	PM ₁₀	µg/m ³	Every 6 days	4	Various	5/12/18	12	32.3	36.55	44.2
12	PM ₁₀	µg/m ³	Every 6 days	4	Various	5/12/18	11.4	22.97	23.15	34.2
6	Conductivity	ms/cm	Each overflow event	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
7	Conductivity	ms/cm	Quarterly	1	02/11/18	8/11/2018	-	-	-	2550
	Oil and Grease	mg/L		1	02/11/18	8/11/2018	-	-	-	<5
	Total Organic Carbon	mg/L		1	02/11/18	8/11/2018	-	-	-	3
	Total Suspended Solids	mg/L		1	02/11/18	8/11/2018	-	-	-	34
	pH	pH		1	02/11/18	8/11/2018	-	-	-	8.42



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
8	Ammonia	mg/L	Quarterly				-	-	-	
	Bicarbonate	mg/L					-	-	-	
	Calcium	mg/L					-	-	-	
	Chloride	mg/L					-	-	-	
	Conductivity	µs/cm					-	-	-	
	Lead	mg/L					-	-	-	
	Magnesium	mg/L					-	-	-	
	Nitrate	mg/L					-	-	-	
	Potassium	mg/L					-	-	-	
	Sodium	mg/L					-	-	-	
	Standing Water Level	m					-	-	-	
	Sulphate	mg/L					-	-	-	
pH	pH	-	-	-						
9	Ammonia	mg/L	Quarterly				-	-	-	
	Bicarbonate	mg/L					-	-	-	
	Calcium	mg/L					-	-	-	
	Chloride	mg/L					-	-	-	
	Conductivity	µs/cm					-	-	-	
	Lead	mg/L					-	-	-	
	Magnesium	mg/L					-	-	-	
	Nitrate	mg/L					-	-	-	



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Potassium	mg/L					-	-	-	
	Sodium	mg/L					-	-	-	
	Standing Water Level	m					-	-	-	
	Sulphate	mg/L					-	-	-	
	pH	pH					-	-	-	
10	Ammonia	mg/L	Quarterly				-	-	-	
	Bicarbonate	mg/L					-	-	-	
	Calcium	mg/L					-	-	-	
	Chloride	mg/L					-	-	-	
	Conductivity	µs/cm					-	-	-	
	Lead	mg/L					-	-	-	
	Magnesium	mg/L					-	-	-	
	Nitrate	mg/L					-	-	-	
	Potassium	mg/L					-	-	-	
	Sodium	mg/L					-	-	-	
	Standing Water Level	m					-	-	-	
	Sulphate	mg/L					-	-	-	
	pH	pH					-	-	-	

Table 3 – Monitoring (Quarterly Noise – Limits Apply)



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

EPL ID	Date	Start Time	Measurement Period	Measured levels – CHPP – dB(A)		Limit(s)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
				L _{A1} , 1 minute	L _{Aeq} , 15 minute				
N1						35dBA			None
						35dBA			
						35dBA			
						45dBA			

When site noise is noted as inaudible, no site noise was audible at the monitoring location. Not Measurable indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- *site noise levels were insignificant and unlikely, in many cases, to be even noticed; or*
- *site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.*

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Figure 1 – EPL 3637 Monitoring Locations





WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 3637

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637>

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: December 2018

Obtained Date: 11th January 2019

Publication Date: 14th January 2019

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 or Only Value
3	Solid Particles	g/m ² /month	Continuous	1	16/10/18	18/12/18	-	-	-	4.0
11	PM ₁₀	µg/m ³	Every 6 days	4	Various	5/12/18	23.3	66.34	29.7	219
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	11/01/19	14.8	51.82	18.1	183
6	Conductivity	ms/cm	Each overflow event	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
7	Conductivity	ms/cm	Quarterly	0						
	Oil and Grease	mg/L		0						
	Total Organic Carbon	mg/L		0						
	Total Suspended Solids	mg/L		0						
	pH	pH		0						



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
8	Ammonia	mg/L	Quarterly	1	03/12/18	11/12/18	-	-	-	0.05
	Bicarbonate	mg/L					-	-	-	1,160
	Calcium	mg/L					-	-	-	27
	Chloride	mg/L					-	-	-	1,190
	Conductivity	µs/cm					-	-	-	6,780
	Lead	mg/L					-	-	-	0.001
	Magnesium	mg/L					-	-	-	110
	Nitrate	mg/L					-	-	-	1.28
	Potassium	mg/L					-	-	-	24
	Sodium	mg/L					-	-	-	1,590
	Standing Water Level	m					-	-	-	7.59
	Sulphate	mg/L					-	-	-	732
pH	pH	-	-	-	8.61					
9	Ammonia	mg/L	Quarterly	1	03/12/18	11/12/18	-	-	-	0.05
	Bicarbonate	mg/L					-	-	-	872
	Calcium	mg/L					-	-	-	240
	Chloride	mg/L					-	-	-	1,030
	Conductivity	µs/cm					-	-	-	4,800
	Lead	mg/L					-	-	-	<0.001
	Magnesium	mg/L					-	-	-	238
	Nitrate	mg/L					-	-	-	0.31



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Potassium	mg/L					-	-	-	137
	Sodium	mg/L					-	-	-	737
	Standing Water Level	m					-	-	-	1.76
	Sulphate	mg/L					-	-	-	675
	pH	pH					-	-	-	7.71
10	Ammonia	mg/L	Quarterly	1	03/12/18	11/12/18	-	-	-	0.04
	Bicarbonate	mg/L					-	-	-	642
	Calcium	mg/L					-	-	-	168
	Chloride	mg/L					-	-	-	1,230
	Conductivity	µs/cm					-	-	-	4,190
	Lead	mg/L					-	-	-	<0.001
	Magnesium	mg/L					-	-	-	222
	Nitrate	mg/L					-	-	-	11.4
	Potassium	mg/L					-	-	-	65
	Sodium	mg/L					-	-	-	773
	Standing Water Level	m					-	-	-	1.67
	Sulphate	mg/L					-	-	-	286
	pH	pH					-	-	-	8.06

Table 3 – Monitoring (Quarterly Noise – Limits Apply)



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

EPL ID	Date	Start Time	Measurement Period	Measured levels – CHPP – dB(A)		Limit(s)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
				L _{A1} , 1 minute	L _{Aeq} , 15 minute				
N1	11/12/18	12:47	15 min		N/M	35dBA	5.1 m/s, ESE	Dozer operations barely audible, Birds 45-56; Traffic 45-50	None
	11/12/18	18:20	15 min		I/A	35dBA	8 m/s ESE	Wind 50-70; Birds 50-60, no audible site noise	
	11/12/18	22:24	15 min		34	35dBA	3.5 m/s ESE	Dozer Operation 33-37, Train horn 53, wind 40-45, traffic 45-50	
	11/12/18	22:24	1 min	45		45dBA	3.5 m/s ESE		

When site noise is noted as inaudible, no site noise was audible at the monitoring location. Not Measurable indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- *site noise levels were insignificant and unlikely, in many cases, to be even noticed; or*
- *site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.*



WHITEHAVEN COAL

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Figure 1 – EPL 3637 Monitoring Locations

