



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 2020

Obtained Date: 7th February 2020

Publication Date: 18th February 2020

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	17/01/20	28/01/20	-	-	-	1.8
11	PM ₁₀	µg/m ³	Every 6 days	5	Various	7/02/20	4.6	42.5	51.3	64.2
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	7/02/20	12.1	46.8	50.9	72.2
6	Conductivity	µs/cm	Each overflow event	-	-	-	-	-	-	-
	Oil and Grease	mg/L		-	-	-	-	-	-	-
	Total Organic Carbon	mg/L		-	-	-	-	-	-	-
	Total Suspended Solids	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
7	Conductivity	µs/cm	Quarterly	0	-	-	-	-	-	-
	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	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					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	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
	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	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								

When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location. Not Measurable (NM) 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: February 2020

Obtained Date: 9 March 2020

Publication Date: 20 March 2020

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	18/02/20	27/02/20	-	-	-	0.8
11	PM ₁₀	µg/m ³	Every 6 days	5	Various	9/03/20	2.6	24.5	29.2	47.8
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	9/03/20	5.0	16.9	13.4	38.9
6	Conductivity	µs/cm	Each overflow event	0	-	-	-	-	-	-
	Oil and Grease	mg/L		0	-	-	-	-	-	-
	Total Organic Carbon	mg/L		0	-	-	-	-	-	-
	Total Suspended Solids	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
7	Conductivity	µs/cm	Quarterly	1	3/02/20	10/03/20	-	-	-	1460
	Oil and Grease	mg/L			3/02/20	10/03/20	-	-	-	7
	Total Organic Carbon	mg/L			3/02/20	10/03/20	-	-	-	<1
	Total Suspended Solids	mg/L			3/02/20	10/03/20	-	-	-	15
	pH	pH			3/02/20	10/03/20	-	-	-	7.9



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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					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	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
	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					-	-	-	-



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Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	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								

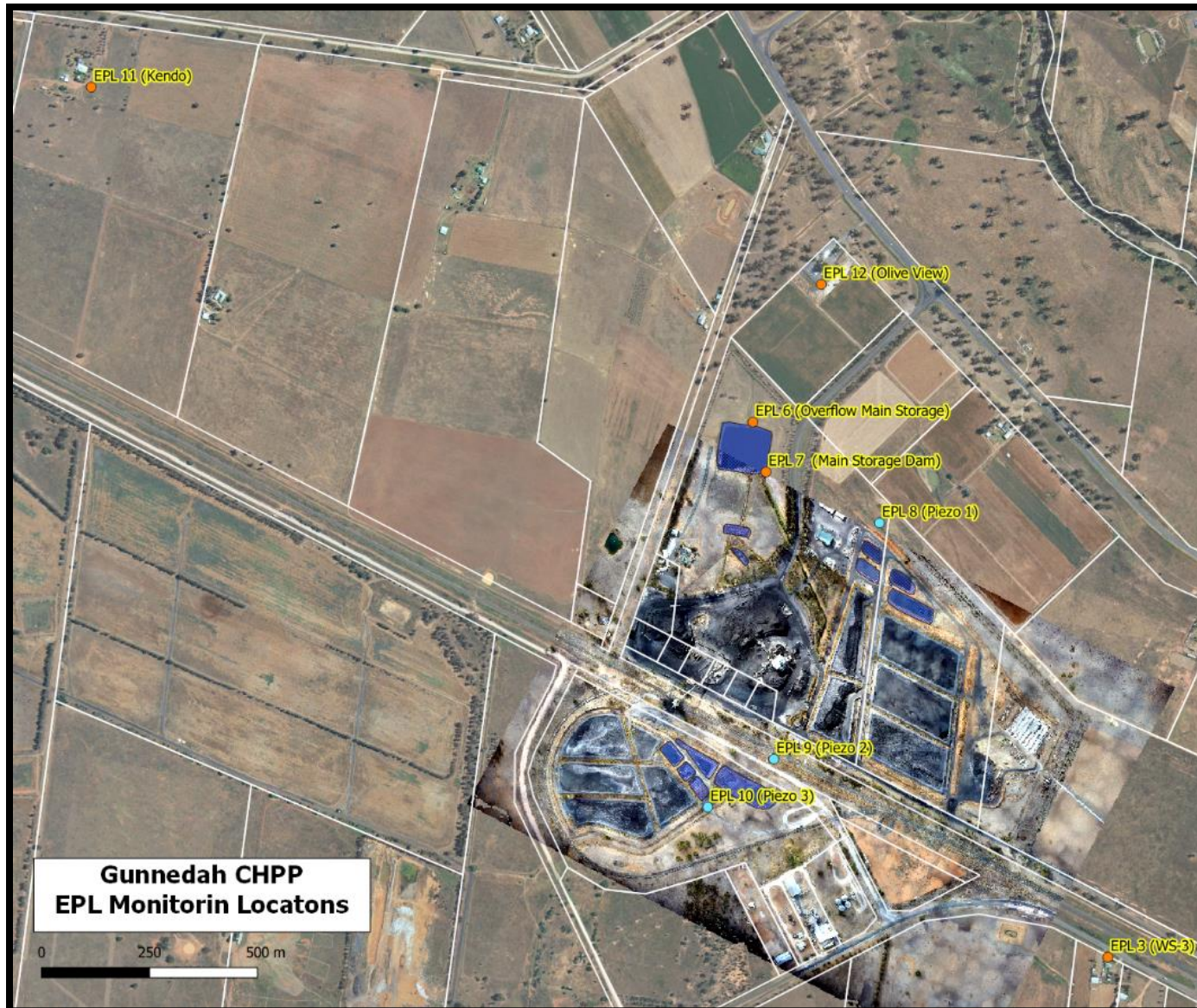
When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location. Not Measurable (NM) indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- 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 COAL

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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: March 2020

Obtained Date: 21 April 2020

Publication Date: 21 April 2020

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	19/03/20	26/03/20	-	-	-	1.1
11	PM ₁₀	µg/m ³	Every 6 days	5	Various	8/04/20	4.5	13.06	5.7	25.1
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	8/04/20	2.5	13.16	5.5	35.5
6	Conductivity	µs/cm	Each overflow event	0	-	-	-	-	-	-
	Oil and Grease	mg/L		0	-	-	-	-	-	-
	Total Organic Carbon	mg/L		0	-	-	-	-	-	-
	Total Suspended Solids	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
7	Conductivity	µs/cm	Quarterly	0	-	-	-	-	-	-
	Oil and Grease	mg/L			-	-	-	-	-	-
	Total Organic Carbon	mg/L			-	-	-	-	-	-
	Total Suspended Solids	mg/L			-	-	-	-	-	-
	pH	pH			-	-	-	-	-	-



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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	19/03/2020	26/03/2020	-	-	-	0.08
	Bicarbonate	mg/L					-	-	-	1350
	Calcium	mg/L					-	-	-	54
	Chloride	mg/L					-	-	-	3020
	Conductivity	µs/cm					-	-	-	10400
	Lead	mg/L					-	-	-	<0.001
	Magnesium	mg/L					-	-	-	184
	Nitrate	mg/L					-	-	-	0.15
	Potassium	mg/L					-	-	-	24
	Sodium	mg/L					-	-	-	2090
	Standing Water Level	m					-	-	-	8.75
	Sulphate	mg/L					-	-	-	1860
pH	pH	-	-	-	7.85					
9	Ammonia	mg/L	Quarterly	1	19/03/2020	26/03/2020	-	-	-	0.04
	Bicarbonate	mg/L					-	-	-	862
	Calcium	mg/L					-	-	-	220
	Chloride	mg/L					-	-	-	1260
	Conductivity	µs/cm					-	-	-	5870
	Lead	mg/L					-	-	-	<0.001
	Magnesium	mg/L					-	-	-	244
	Nitrate	mg/L					-	-	-	0.50



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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
	Potassium	mg/L					-	-	-	124
	Sodium	mg/L					-	-	-	735
	Standing Water Level	m					-	-	-	2.87
	Sulphate	mg/L					-	-	-	930
	pH	pH					-	-	-	7.69
10	Ammonia	mg/L	Quarterly	1	19/03/2020	26/03/2020	-	-	-	6.72
	Bicarbonate	mg/L					-	-	-	726
	Calcium	mg/L					-	-	-	173
	Chloride	mg/L					-	-	-	1520
	Conductivity	µs/cm					-	-	-	5860
	Lead	mg/L					-	-	-	<0.001
	Magnesium	mg/L					-	-	-	227
	Nitrate	mg/L					-	-	-	<0.05
	Potassium	mg/L					-	-	-	64
	Sodium	mg/L					-	-	-	741
	Standing Water Level	m					-	-	-	2.76
	Sulphate	mg/L					-	-	-	289
	pH	pH					-	-	-	7.88



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Table 3 – Monitoring (Quarterly Noise – Limits Apply) (Results received 21/4/2020)

EPL ID	Date	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	23/03/2020	15 mins	-	<25	35dBA	3 m/s E	Brief engine rev 38	No
	23/03/2020	15 mins	-	I/A	35dBA	5.4 m/s ESE	Inaudible	
	23/03/2020	15 mins	-	I/A	35dBA	4.2 m/s ESE	Inaudible	
	23/03/2020	1 min	I/A	-	45dBA	4.2 m/s ESE		

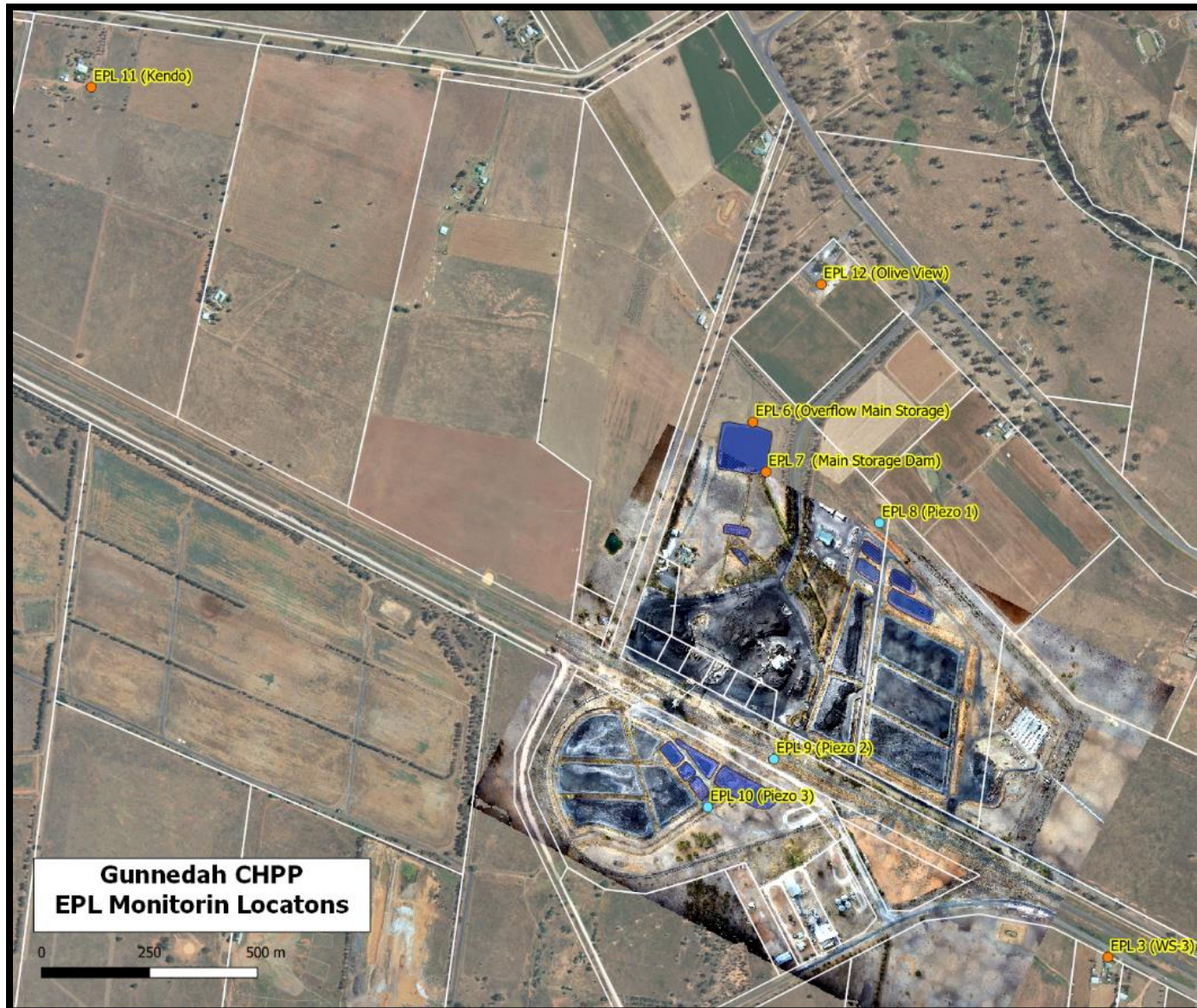
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- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
- site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any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



WHITEHAVEN COAL

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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: April 2020

Obtained Date: 29 May 2020

Publication Date: 2 June 2020

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	-	-	-	-	-	-
11	PM ₁₀	µg/m ³	Every 6 days	5	Various	29/05/20	4	13.52	14.6	26.1
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	29/05/20	3.6	9.34	9	15.8
6	Conductivity	µs/cm	Each overflow event	0	-	-	-	-	-	-
	Oil and Grease	mg/L		0	-	-	-	-	-	-
	Total Organic Carbon	mg/L		0	-	-	-	-	-	-
	Total Suspended Solids	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
7	Conductivity	µs/cm	Quarterly	0	-	-	-	-	-	-
	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	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					-	-	-	-
	Conductivity	µs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	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
	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) (Results received 21/4/2020)

EPL ID	Date	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								

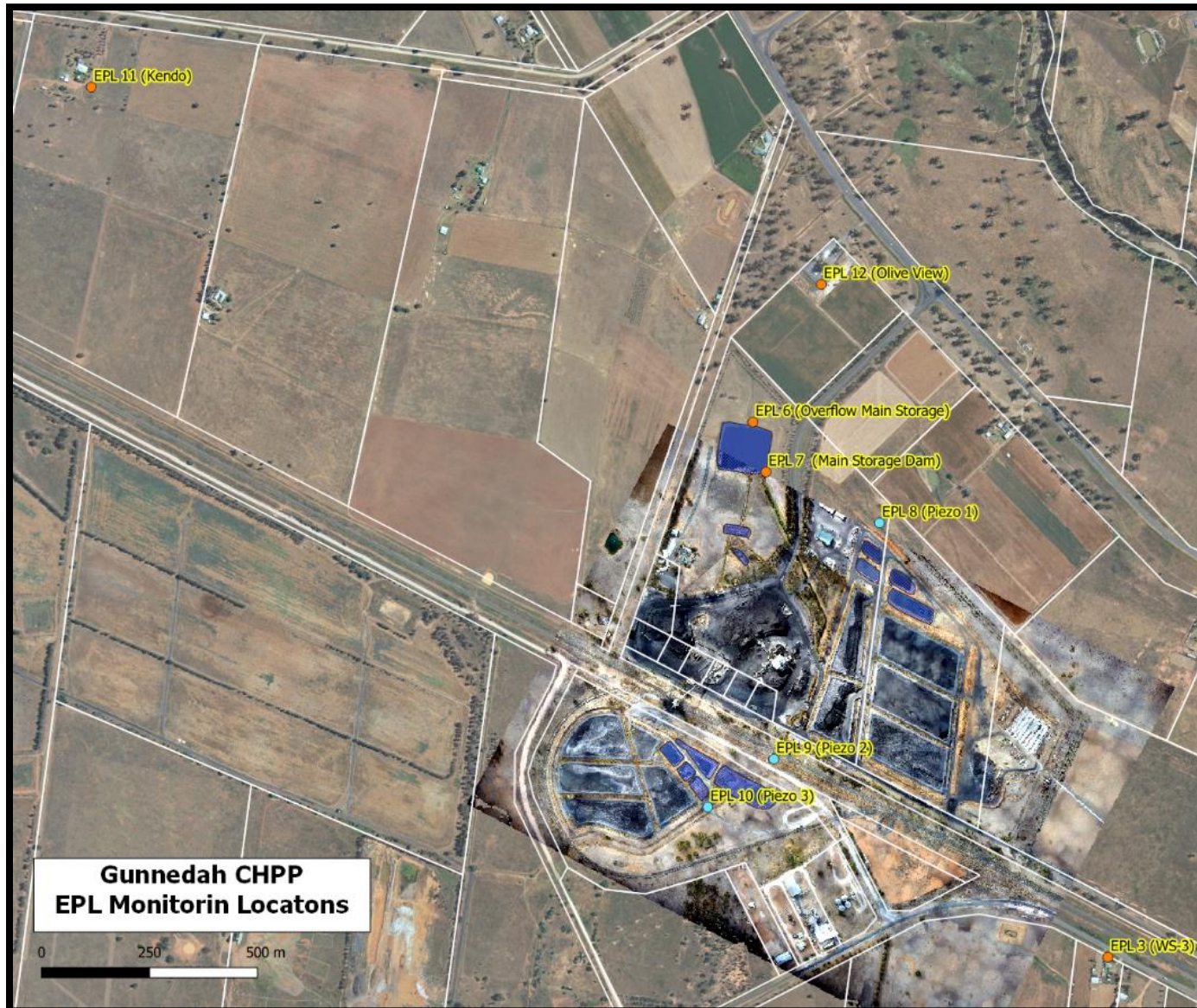
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- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
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EPL No: 3637

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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 2020

Obtained Date: 10 June 2020

Publication Date: 22 June 2020

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	19/05/20	25/05/20	-	-	-	1.4
11	PM ₁₀	µg/m ³	Every 6 days	5	Various	10/06/2020	1.2	8.36	5.8	22.7
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	10/06/2020	1.7	6.36	4.9	11.3
6	Conductivity	uS/cm	Each overflow event	0	-	-	-	-	-	-
	Oil and Grease	mg/L		0	-	-	-	-	-	-
	Total Organic Carbon	mg/L		0	-	-	-	-	-	-
	Total Suspended Solids	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
7	Conductivity	uS/cm	Quarterly	1	12/05/20	19/05/20	-	-	-	1750
	Oil and Grease	mg/L					-	-	-	<5
	Total Organic Carbon	mg/L					-	-	-	3
	Total Suspended Solids	mg/L					-	-	-	36
	pH	pH					-	-	-	8.01



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	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					-	-	-	-
	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	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) (Results received 21/4/2020)

EPL ID	Date	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								

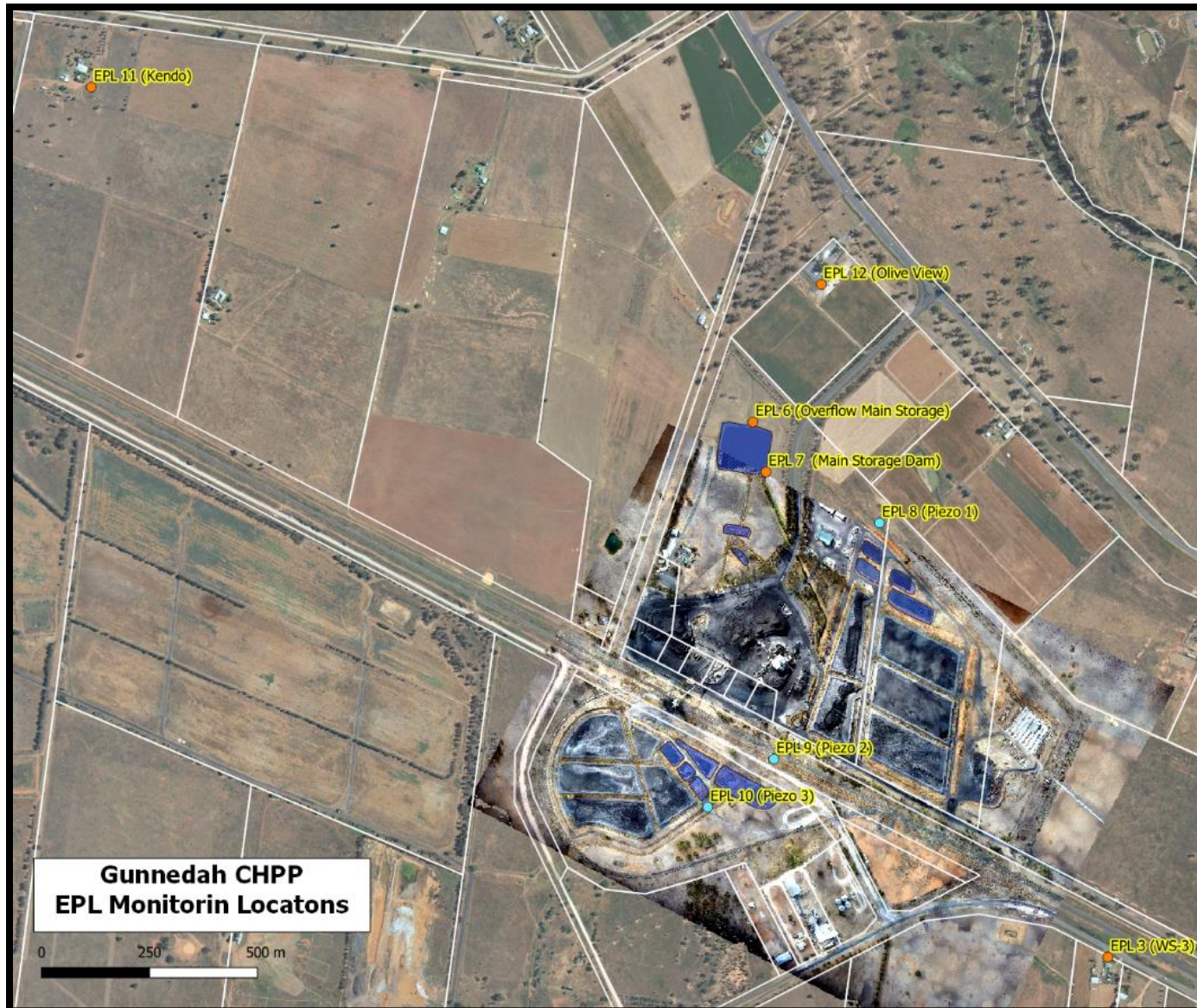
When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location. Not Measurable (NM) indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- 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 COAL

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY





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 2020

Obtained Date: 14th July 2020

Publication Date: 20th July 2020

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	18/06/20	1/07/20	-	-	-	0.2
11	PM ₁₀	µg/m ³	Every 6 days	5	Various	8/07/20	7.4	14.6	14.2	27.3
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	8/07/20	4.5	7.04	7.2	11.8
6	Conductivity	µs/cm	Each overflow event	0	-	-	-	-	-	-
	Oil and Grease	mg/L		0	-	-	-	-	-	-
	Total Organic Carbon	mg/L		0	-	-	-	-	-	-
	Total Suspended Solids	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
7	Conductivity	µs/cm	Quarterly	0	-	-	-	-	-	-
	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	1	3/06/20	12/06/20	-	-	-	0.16
	Bicarbonate	mg/L					-	-	-	1320
	Calcium	mg/L					-	-	-	52
	Chloride	mg/L					-	-	-	2170
	Conductivity	µs/cm					-	-	-	9850
	Lead	mg/L					-	-	-	<0.001
	Magnesium	mg/L					-	-	-	193
	Nitrate	mg/L					-	-	-	<0.01
	Potassium	mg/L					-	-	-	49
	Sodium	mg/L					-	-	-	2060
	Standing Water Level	m					-	-	-	8.69
	Sulphate	mg/L					-	-	-	1300
pH	pH	-	-	-	7.5					
9	Ammonia	mg/L	Quarterly	1	3/06/20	12/06/20	-	-	-	<0.01
	Bicarbonate	mg/L					-	-	-	698
	Calcium	mg/L					-	-	-	175
	Chloride	mg/L					-	-	-	1210
	Conductivity	µs/cm					-	-	-	5750
	Lead	mg/L					-	-	-	<0.001
	Magnesium	mg/L					-	-	-	252
	Nitrate	mg/L					-	-	-	0.66



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					-	-	-	140
	Sodium	mg/L					-	-	-	716
	Standing Water Level	m					-	-	-	2.53
	Sulphate	mg/L					-	-	-	810
	pH	pH					-	-	-	7.6
10	Ammonia	mg/L	Quarterly	1	3/06/20	12/06/20	-	-	-	2.87
	Bicarbonate	mg/L					-	-	-	672
	Calcium	mg/L					-	-	-	170
	Chloride	mg/L					-	-	-	1440
	Conductivity	µs/cm					-	-	-	5810
	Lead	mg/L					-	-	-	<0.001
	Magnesium	mg/L					-	-	-	232
	Nitrate	mg/L					-	-	-	1.18
	Potassium	mg/L					-	-	-	86
	Sodium	mg/L					-	-	-	708
	Standing Water Level	m					-	-	-	2.34
	Sulphate	mg/L					-	-	-	265
	pH	pH					-	-	-	7.7



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly Noise – Limits Apply) (Results received 21/4/2020)

EPL ID	Date	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	22/06/20	15 mins	-	I/A	35	4.5 m/s	-	No
	22/06/20	15 mins	-	I/A	35	0.9 m/s	-	
	22/06/20	15 mins	-	I/A	35	1.1 m/s	-	
	22/06/20	1 min	I/A	-	45	1.1 m/s	-	

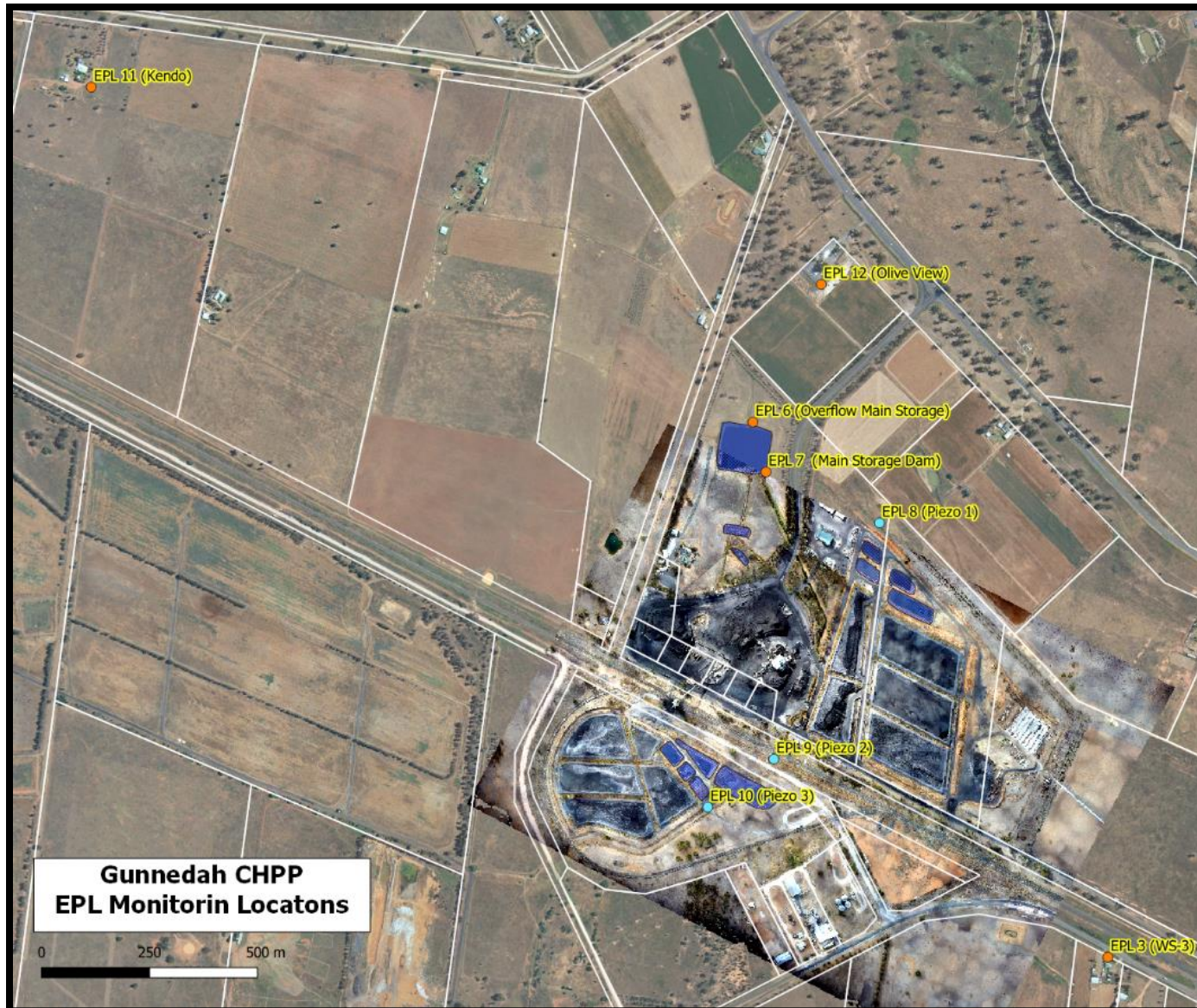
When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location. Not Measurable (NM) indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- 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





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 2020

Obtained Date: 18th August 2020

Publication Date: 24th August 2020

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	17/07/20	28/07/20	-	-	-	0.6
11	PM ₁₀	µg/m ³	Every 6 days	5	Various	18/08/20	0.3	9.3	8.8	25.5
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	18/08/20	0.4	6.3	6.4	11.4
6	Conductivity	µs/cm	Each overflow event	0	-	-	-	-	-	-
	Oil and Grease	mg/L		0	-	-	-	-	-	-
	Total Organic Carbon	mg/L		0	-	-	-	-	-	-
	Total Suspended Solids	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
7	Conductivity	µs/cm	Quarterly	0	-	-	-	-	-	-
	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	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					-	-	-	-
	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	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	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			35			
		15 mins			35			
		15 mins			35			
		1 min			45			

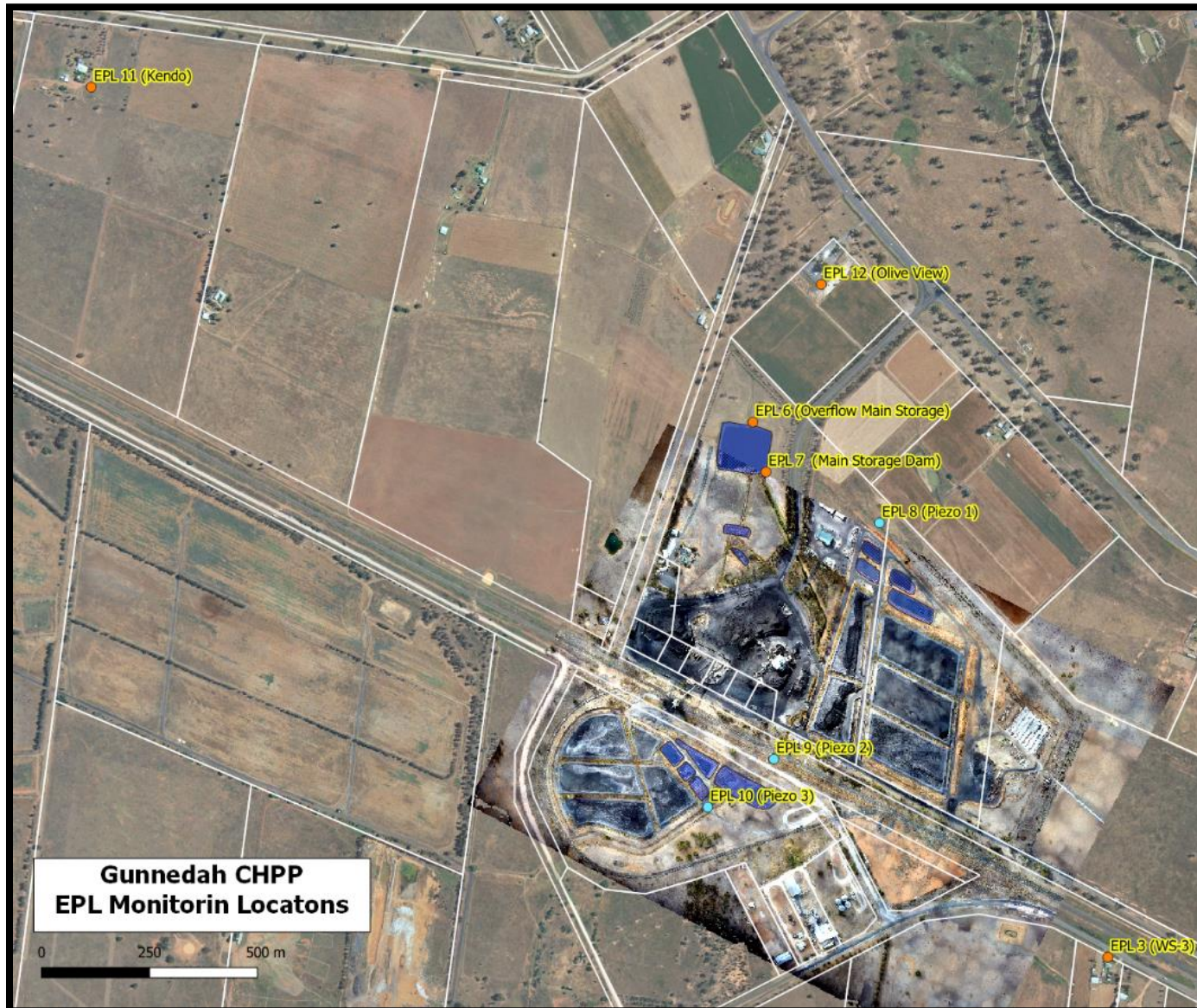
When site noise is noted as inaudible (IA), no site noise was audible at the monitoring location. Not Measurable (NM) indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- 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





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 2020

Obtained Date: 14th September 2020

Publication Date: 28th September 2020

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	18/08/20	25/08/20	-	-	-	1.0
11	PM ₁₀	µg/m ³	Every 6 days	5	Various	14/09/20	6.9	11.7	8.2	22.6
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	14/09/20	5.2	8.3	7.4	13.9
6	Conductivity	µs/cm	Each overflow event	0	-	-	-	-	-	-
	Oil and Grease	mg/L		0	-	-	-	-	-	-
	Total Organic Carbon	mg/L		0	-	-	-	-	-	-
	Total Suspended Solids	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
7	Conductivity	µs/cm	Quarterly	1	4/08/20	13/08/20	-	-	-	2240
	Oil and Grease	mg/L					-	-	-	<5
	Total Organic Carbon	mg/L					-	-	-	6
	Total Suspended Solids	mg/L					-	-	-	13
	pH	pH					-	-	-	8.6



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	24/08/20	31/08/20	-	-	-	-
	Bicarbonate	mg/L					-	-	-	1420
	Calcium	mg/L					-	-	-	46
	Chloride	mg/L					-	-	-	1750
	Conductivity	µs/cm					-	-	-	9950
	Lead	mg/L					-	-	-	0.001
	Magnesium	mg/L					-	-	-	174
	Nitrate	mg/L					-	-	-	0.08
	Potassium	mg/L					-	-	-	40
	Sodium	mg/L					-	-	-	1920
	Standing Water Level	m					-	-	-	8.6
	Sulphate	mg/L					-	-	-	1390
pH	pH	-	-	-	7.4					
9	Ammonia	mg/L	Quarterly	1	24/08/20	31/08/20	-	-	-	-
	Bicarbonate	mg/L					-	-	-	722
	Calcium	mg/L					-	-	-	154
	Chloride	mg/L					-	-	-	1150
	Conductivity	µs/cm					-	-	-	5720
	Lead	mg/L					-	-	-	0.001
	Magnesium	mg/L					-	-	-	228
	Nitrate	mg/L					-	-	-	0.61



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					-	-	-	123
	Sodium	mg/L					-	-	-	660
	Standing Water Level	m					-	-	-	2.31
	Sulphate	mg/L					-	-	-	727
	pH	pH					-	-	-	7.6
10	Ammonia	mg/L	Quarterly	1	24/08/20	31/08/20	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	173
	Chloride	mg/L					-	-	-	1520
	Conductivity	µs/cm					-	-	-	5690
	Lead	mg/L					-	-	-	0.001
	Magnesium	mg/L					-	-	-	227
	Nitrate	mg/L					-	-	-	0.05
	Potassium	mg/L					-	-	-	64
	Sodium	mg/L					-	-	-	741
	Standing Water Level	m					-	-	-	2.76
	Sulphate	mg/L					-	-	-	289
	pH	pH					-	-	-	7.7



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	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			35			
		15 mins			35			
		15 mins			35			
		1 min			45			

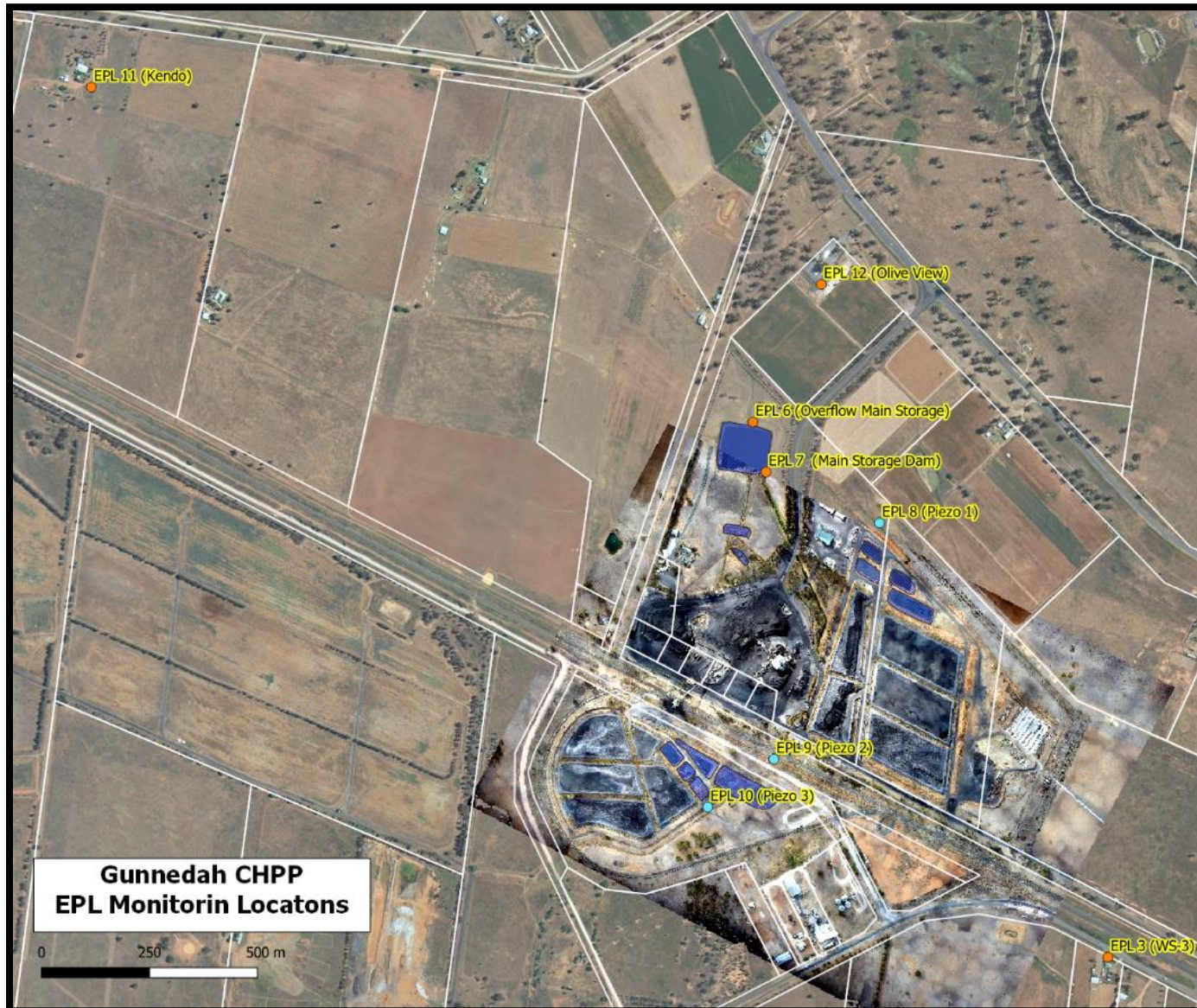
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- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
- site noise levels were masked by another relatively loud noise source, but were estimated to be less than L_{Aeq} 30 dB, which is insignificant in terms of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



WHITEHAVEN COAL

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY





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 2020

Obtained Date: 27th October 2020

Publication Date: 27 October 2010

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	17/9/20	27/10/20	-	-	-	0.7
11	PM ₁₀	µg/m ³	Every 6 days	5	Various	27/10/20	3.2	11.9	12.6	20.7
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	27/10/20	2.6	10.3	9.8	17.0
6	Conductivity	µs/cm	Each overflow event	0	-	-	-	-	-	-
	Oil and Grease	mg/L		0	-	-	-	-	-	-
	Total Organic Carbon	mg/L		0	-	-	-	-	-	-
	Total Suspended Solids	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
7	Conductivity	µs/cm	Quarterly	0	-	-	-	-	-	-
	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	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					-	-	-	-
	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	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	Measurement Period	Measured levels – CHPP – dB(A)		Limit(s)- dB(A)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
			L _{A1} , 1 minute	L _{Aeq} , 15 minute				
N1	7/09/20	15 mins day	-	NM	35	2.3m/s ESE	Engine revs barely audible	No
		15 mins evening	-	NM	35	2.7 m/s ESE	General activity barely audible	
		15 mins night	-	28	35	2.3 m/s ESE	General activity 25-30 dB(A)	
		1 min night	30	-	45	2.3 m/s ESE		

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an “A-weighting” filter. This is an electronic filter having a frequency response corresponding approximately to that of human hearing.

L_{Aeq}, 15 minute: The A-weighted equivalent noise level (basically the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound, in this instance over a period of 15 minutes.

L_{A1}, 1 minute: The noise level exceeded for 1% of the 15 minute interval.

I/A: When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location.

Not Measurable (NM): indicates that some site noise was audible, but indeterminate due to one of the following reasons:

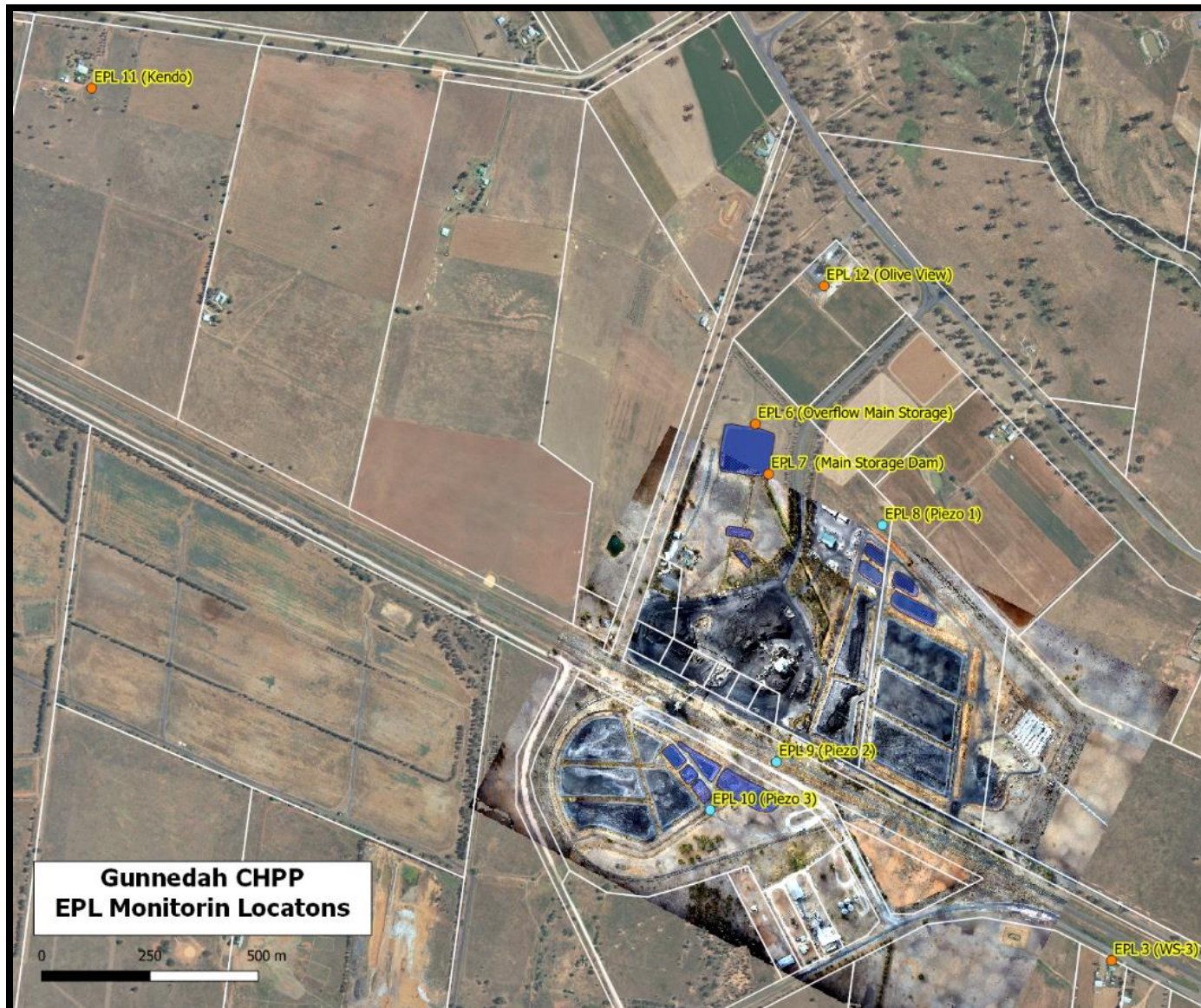
- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
- site noise levels were masked by another relatively loud noise source, but were estimated to be less than L_{Aeq} 30 dB, which is insignificant in terms of any applicable criterion.



WHITEHAVEN COAL

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 2020

Obtained Date: 11 November 2020

Publication Date: 19 November 2010

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	19/10/20	26/10/20	-	-	-	0.9
11	PM ₁₀	µg/m ³	Every 6 days	5	Various	11/11/20	13.2	22.5	17.4	42.2
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	11/11/20	8.6	14.6	12.9	23.9
6	Conductivity	µs/cm	Each overflow event	0	-	-	-	-	-	-
	Oil and Grease	mg/L		0	-	-	-	-	-	-
	Total Organic Carbon	mg/L		0	-	-	-	-	-	-
	Total Suspended Solids	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
7	Conductivity	µs/cm	Quarterly	0	-	-	-	-	-	-
	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	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					-	-	-	-
	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	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	Measurement Period	Measured levels – CHPP – dB(A)		Limit(s)- dB(A)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
			L _{A1} , 1 minute	L _{Aeq} , 15 minute				
N1	-	15 mins day	-	-	35	-	-	-
		15 mins evening	-	-	35	-	-	
		15 mins night	-	-	35	-	-	
		1 min night	--	-	45	-	-	

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an “A-weighting” filter. This is an electronic filter having a frequency response corresponding approximately to that of human hearing.

L_{Aeq}, 15 minute: The A-weighted equivalent noise level (basically the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound, in this instance over a period of 15 minutes.

L_{A1}, 1 minute: The noise level exceeded for 1% of the 15 minute interval.

I/A: When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location.

Not Measurable (NM): indicates that some site noise was audible, but indeterminate due to one of the following reasons:

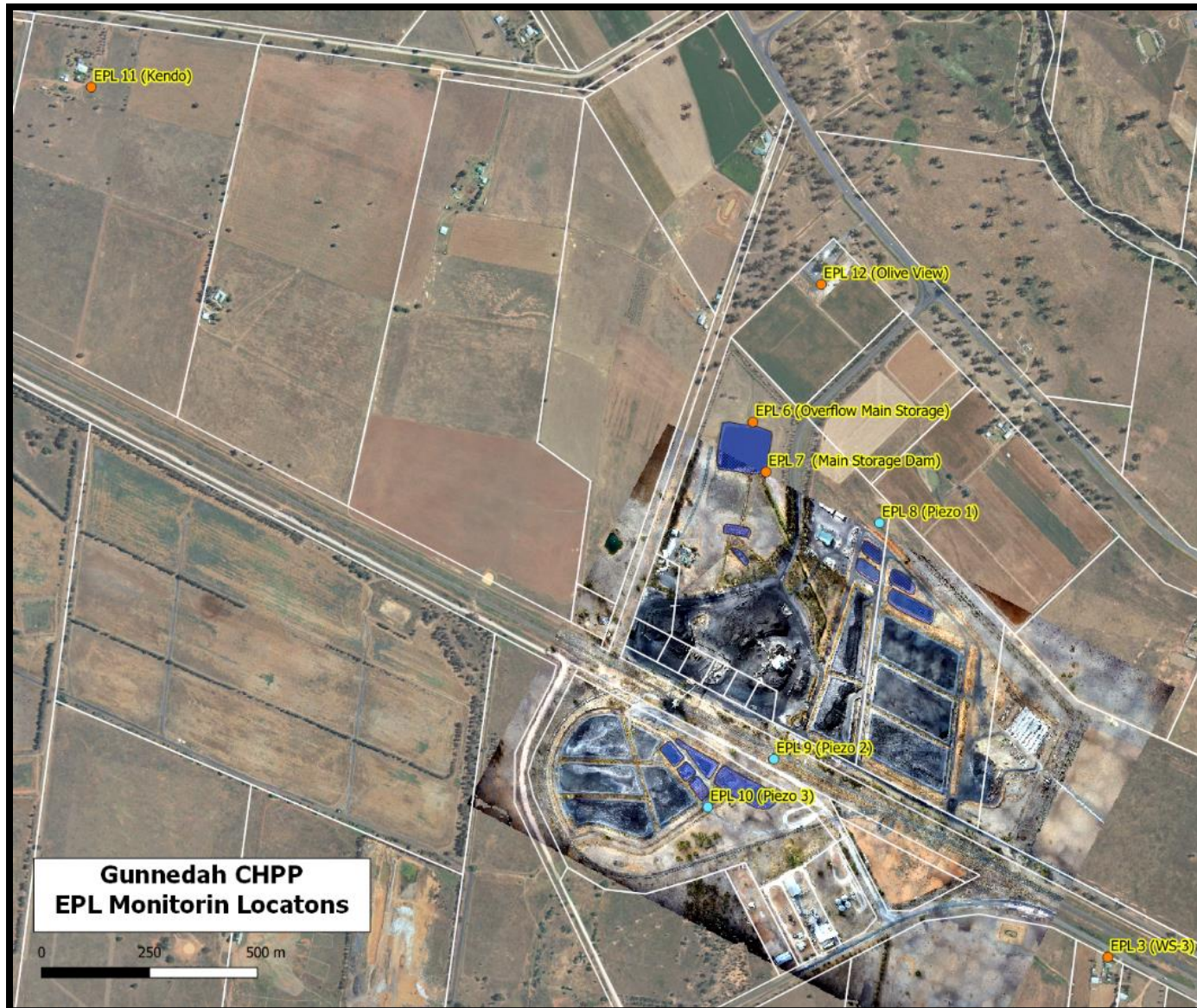
- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
- site noise levels were masked by another relatively loud noise source, but were estimated to be less than L_{Aeq} 30 dB, which is insignificant in terms of any applicable criterion.



WHITEHAVEN COAL

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: November 2020

Obtained Date: 11 December 2020

Publication Date: 15 December 2020

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	18/11/20	11/12/20	-	-	-	4.2
11	PM ₁₀	µg/m ³	Every 6 days	5	Various	11/12/20	19.3	29.6	20.4	55.7
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	11/12/20	13.3	20.3	18.6	32.8
6	Conductivity	µs/cm	Each overflow event	0	-	-	-	-	-	-
	Oil and Grease	mg/L		0	-	-	-	-	-	-
	Total Organic Carbon	mg/L		0	-	-	-	-	-	-
	Total Suspended Solids	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
7	Conductivity	µs/cm	Quarterly	1	3/11/20	12/11/20	-	-	-	1940
	Oil and Grease	mg/L					-	-	-	<5
	Total Organic Carbon	mg/L					-	-	-	5
	Total Suspended Solids	mg/L					-	-	-	32
	pH	pH					-	-	-	8.8



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	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					-	-	-	-
	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	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	Measurement Period	Measured levels – CHPP – dB(A)		Limit(s)- dB(A)	Wind speed (m/s)	Observations	(Potential) Non-compliance /breach
			L _{A1} , 1 minute	L _{Aeq} , 15 minute				
N1	2/11/20	15 mins day	-	N/M	35	5.1	Dozer operations barely audible, wind noise	No
		15 mins evening	-	N/M	35	4.6		
		15 mins night	-	N/M	35	4.6		
		1 min night	N/M	-	45	4.6		

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an “A-weighting” filter. This is an electronic filter having a frequency response corresponding approximately to that of human hearing.

L_{Aeq}, 15 minute: The A-weighted equivalent noise level (basically the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound, in this instance over a period of 15 minutes.

L_{A1}, 1 minute: The noise level exceeded for 1% of the 15 minute interval.

I/A: When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location.

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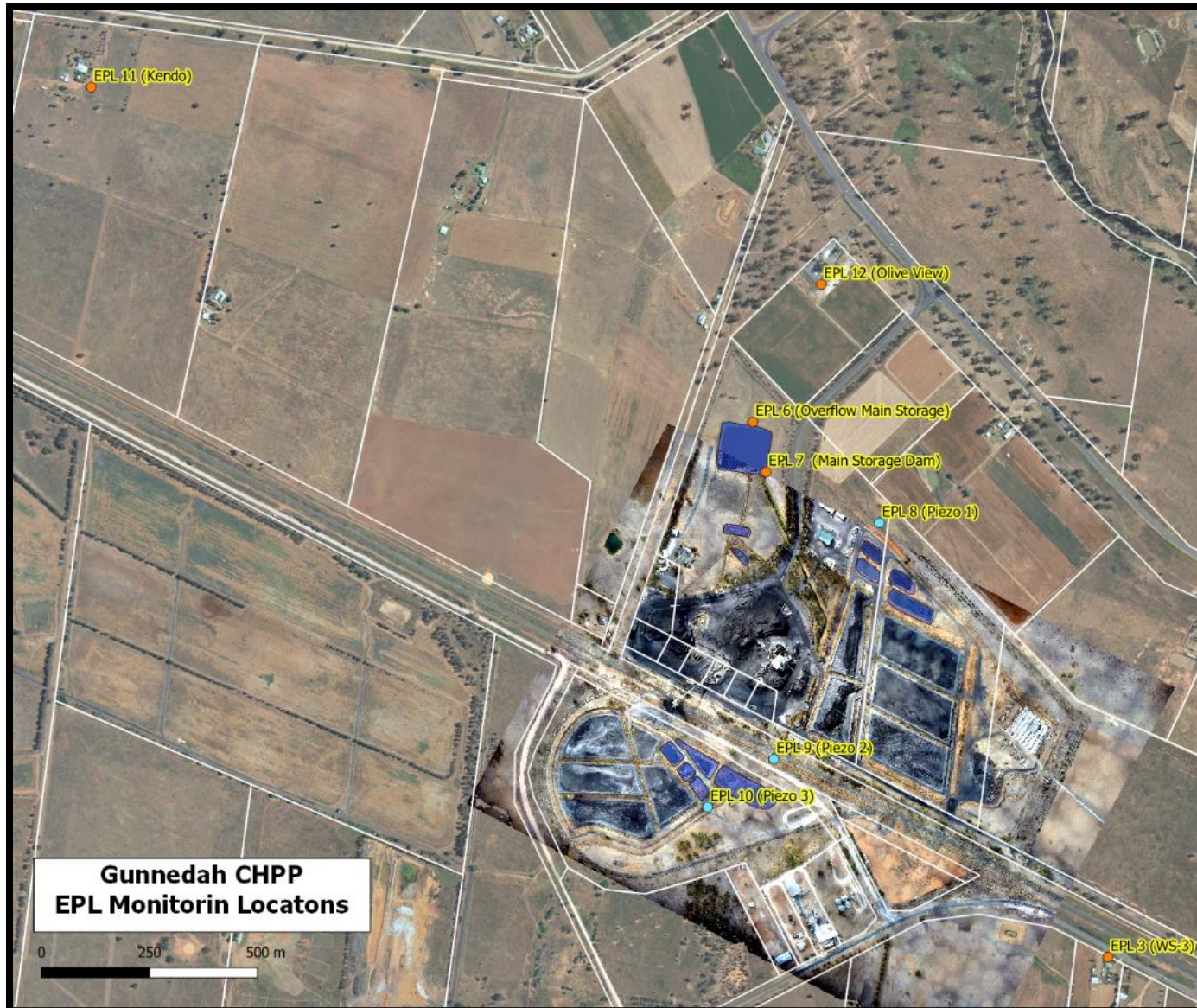
- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
- site noise levels were masked by another relatively loud noise source, but were estimated to be less than L_{Aeq} 30 dB, which is insignificant in terms of any applicable criterion.



WHITEHAVEN COAL

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 2020

Obtained Date: 12 January 2021

Publication Date: 25 January 2021

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	17/12/20	4/01/21	-	-	-	1.6
11	PM ₁₀	µg/m ³	Every 6 days	5	Various	12/01/21	4.2	12.52	7.6	32.2
12	PM ₁₀	µg/m ³	Every 6 days	5	Various	12/01/21	2.6	12	8.3	24.2
6	Conductivity	µs/cm	Each overflow event	0	-	-	-	-	-	-
	Oil and Grease	mg/L		0	-	-	-	-	-	-
	Total Organic Carbon	mg/L		0	-	-	-	-	-	-
	Total Suspended Solids	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
7	Conductivity	µs/cm	Quarterly	0	-	-	-	-	-	-
	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	1	3/12/2020	11/12/2020	-	-	-	0.02
	Bicarbonate	mg/L					-	-	-	1440
	Calcium	mg/L					-	-	-	62
	Chloride	mg/L					-	-	-	1890
	Conductivity	µs/cm					-	-	-	9930
	Lead	mg/L					-	-	-	0.139
	Magnesium	mg/L					-	-	-	188
	Nitrate	mg/L					-	-	-	0.11
	Potassium	mg/L					-	-	-	23
	Sodium	mg/L					-	-	-	2110
	Standing Water Level	m					-	-	-	8.77
	Sulphate	mg/L					-	-	-	1350
pH	pH	-	-	-	7.6					
9	Ammonia	mg/L	Quarterly	1	3/12/2020	11/12/2020	-	-	-	0.02
	Bicarbonate	mg/L					-	-	-	803
	Calcium	mg/L					-	-	-	186
	Chloride	mg/L					-	-	-	1180
	Conductivity	µs/cm					-	-	-	5650
	Lead	mg/L					-	-	-	<0.001
	Magnesium	mg/L					-	-	-	229
	Nitrate	mg/L					-	-	-	0.7



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					-	-	-	115
	Sodium	mg/L					-	-	-	692
	Standing Water Level	m					-	-	-	2.43
	Sulphate	mg/L					-	-	-	714
	pH	pH					-	-	-	7.4
10	Ammonia	mg/L	Quarterly	1	3/12/2020	11/12/2020	-	-	-	0.36
	Bicarbonate	mg/L					-	-	-	786
	Calcium	mg/L					-	-	-	195
	Chloride	mg/L					-	-	-	1400
	Conductivity	µs/cm					-	-	-	5830
	Lead	mg/L					-	-	-	0.001
	Magnesium	mg/L					-	-	-	218
	Nitrate	mg/L					-	-	-	4.42
	Potassium	mg/L					-	-	-	61
	Sodium	mg/L					-	-	-	715
	Standing Water Level	m					-	-	-	2.15
	Sulphate	mg/L					-	-	-	268
	pH	pH					-	-	-	7.6



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Table 3 – Monitoring (Quarterly Noise – Limits Apply)

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

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an “A-weighting” filter. This is an electronic filter having a frequency response corresponding approximately to that of human hearing.

L_{Aeq}, 15 minute: The A-weighted equivalent noise level (basically the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound, in this instance over a period of 15 minutes.

L_{A1}, 1 minute: The noise level exceeded for 1% of the 15 minute interval.

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- 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 COAL

WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Figure 1 – EPL 3637 Monitoring Locations

