VICKERY COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 21283
EPA Website Link:
Licensee: Vickery Coal Pty Ltd
Licensee Address: Vickery Coal Mine, Blue Vale Road, BOGGABRI NSW 2382
EPL Monitoring Points: See Figure 1 below
Sampling Period: January 2024
Obtained Date: 19/02/2024
Publication Date: 23/02/2024

Table 1: Surface Water – No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date of Max. Value Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comment/s
2	TSS	mg/L	Quarterly (Mar, Jun, Sep & Dec)	-	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
3	TSS	mg/L	Quarterly (Mar, Jun, Sep & Dec)	-	-	-	-	-	-	-	-
	Conductivity	µS/cm							-		
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
9	TSS	mg/L	Quarterly (Mar, Jun, Sep & Dec)	-	-	-	-	-	-	-	-
	Conductivity	µS/cm							-		
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
10	TSS	mg/L	Upon discharge	-	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	

Table 2: Surface Water - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date of Max. Value Obtained	Min Value	Max or Only Value	100%ile Limit	Exceed -ance (Yes/ No)	Comment/s
14	TSS	mg/L	Upon discharge	-	-	-	-	-	50	-	-
	Conductivity	µS/cm							NA		
	Oil & Grease	mg/L		-	-	-	-	-	10	-	
	pH	pH		-	-	-	-	-	8.5	-	
20	TSS	mg/L	Upon discharge	-	-	-	-	-	50	-	-
	Conductivity	µS/cm							NA		
	Oil & Grease	mg/L		-	-	-	-	-	10	-	
	pH	pH		-	-	-	-	-	8.5	-	
21	TSS	mg/L	Upon discharge	-	-	-	-	-	50	-	-
	Conductivity	µS/cm		-	-	-	-	-	NA	-	
	Oil & Grease	mg/L		-	-	-	-	-	10	-	
	pH	pH		-	-	-	-	-	8.5	-	

Table 3: Groundwater – No Limits apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date of Max. Value Obtained	Min Value	Mean Value	Median Value	Max or Only Value
15	Conductivity	µS/cm	Quarterly (Jan, April, Jul & Oct)	1	17/01/2024	21/02/2024	-	-	-	2840
	Lead	mg/L		1	17/01/2024	21/02/2024	-	-	-	<0.001
	pH	pH		1	17/01/2024	21/02/2024	-	-	-	7.43
	Standing Water Level	metres		1	17/01/2024	21/02/2024	-	-	-	6.53
16	Conductivity	µS/cm	Quarterly (Jan, April, Jul & Oct)	1	17/01/2024	21/02/2024	-	-	-	2330
	Lead	mg/L		1	17/01/2024	21/02/2024	-	-	-	<0.001
	pH	pH		1	17/01/2024	21/02/2024	-	-	-	7.73
	Standing Water Level	metres		1	17/01/2024	21/02/2024	-	-	-	7.79
17	Conductivity	µS/cm	Quarterly (Jan, April, Jul & Oct)	-	17/01/2024	-	-	-	-	Logger Data available
	Lead	mg/L		-	17/01/2024	-	-	-	-	
	pH	pH		-	17/01/2024	-	-	-	-	
	Standing Water Level	metres		-	17/01/2024	-	-	-	-	
18	Conductivity	µS/cm	Quarterly (Jan, April, Jul & Oct)	1	17/01/2024	21/02/2024	-	-	-	3390
	Lead	mg/L		1	17/01/2024	21/02/2024	-	-	-	<0.001
	pH	pH		1	17/01/2024	21/02/2024	-	-	-	7.97
	Standing Water Level	metres		1	17/01/2024	21/02/2024	-	-	-	7.64

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date of Max. Value Obtained	Min Value	Mean Value	Median Value	Max or Only Value
19	Conductivity	µS/cm	Quarterly (Jan, April, Jul & Oct)	1	17/01/2024	21/02/2024	-	-	-	4400
	Lead	mg/L		1	17/01/2024	21/02/2024	-	-	-	<0.001
	pH	pH		1	17/01/2024	21/02/2024	-	-	-	7.05
	Standing Water Level	metres		1	17/01/2024	21/02/2024	-	-	-	16.64

Table 4 – Monthly Attended Noise Monitoring

(Noise Limits Apply - 40dB LAeq(15min) -Day, 37dB LAeq(15min) Evening and Night; 52dB LA1(1min) -Night)

Table 4 VCM Operational Noise Monitoring Results Leq(15min) – 25th January 2024 (Day)								
Location	**Time**	**dB(A), Leq**	**VCM Contribution dB(A),Leq**	**Criterion dB(A),Leq**	**Wind speed (m/s),dir**	**Stability Class**	**Identified Noise Sources dB(A),Leq**	**Exceedance (Yes/No)[1]**
N-AT1 / 7	4:25pm	41	IA	40	2.9 / 244	B	Birds (41), insects (28), **VCM (IA)**	No
N-AT2 / 8	2:02pm	38	IA	40	2.2 / 186	B	Birds (37), traffic (29), insects (25), **VCM (IA)**	No

1. NA in last column means atmospheric conditions outside those specified in EPL, therefore criterion was not applicable.

Table 5 VCM Operational Noise Monitoring Results Leq(15min) – 25th January 2024 (Evening)								
Location	**Time**	**dB(A), Leq**	**VCM Contribution dB(A),Leq**	**Criterion dB(A),Leq**	**Wind speed (m/s),dir**	**Stability Class**	**Identified Noise Sources dB(A),Leq**	**Exceedance (Yes/No)[1]**
N-AT1 / 7	6:00pm	40	IA	35	3.5 / 261	D	Birds (40), insects (23), **VCM (IA)**	NA
N-AT2 / 8	9:30pm	48	IA	37	2.1 / 330	E	Insects (48), traffic (30), frogs (28), **VCM (IA)**	No

1. NA in last column means atmospheric conditions outside those specified in EPL, therefore criterion was not applicable.

Table 6 VCM Operational Noise Monitoring Results Leq(15min) – 25th January 2024 (Night)								
Location	**Time**	**dB(A), Leq**	**VCM Contribution dB(A),Leq**	**Criterion dB(A),Leq**	**Wind speed (m/s),dir**	**Stability Class**	**Identified Noise Sources dB(A),Leq**	**Exceedance (Yes/No)[1]**
N-AT1 / 7	11:33pm	46	25	35	2.8 / 040	E	Insects (46), **VCM (25)**, frogs (24	No
N-AT2 / 8	10:00pm	46	IA	37	2.7 / 222	E	Insects (46), traffic (28), frogs (21), **VCM (IA)**	No

1. NA in last column means atmospheric conditions outside those specified in EPL, therefore criterion was not applicable.

Table 7 VCM Operational Noise Monitoring Results LA_{max} – 25th January 2024								
Location	**Time**	**dB(A), LA_{max}**	**VCM Contribution dB(A), LA_{max}**	**Criterion dB(A), LA_{max}**	**Wind speed (m/s),dir**	**Stability Class**	**LA_{max} Noise Source**	**Exceedance (Yes/No)[1]**
N-AT1 / 7	11:33pm	61	29	52	2.8 / 040	E	Insects	No
N-AT2 / 8	10:00pm	58	IA	52	2.7 / 222	E	Insects	No

1. NA in last column means atmospheric conditions outside those specified in EPL, therefore criterion was not applicable.

Table 5 – Monthly Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date of Max. Value Obtained
B-01	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	1	99.0	99.0	**133**	**Nil**	25/01/2024
	Blast Vibration	**mm/s**	**Every Blast**	1	0.46	0.46	**10**	**Nil**	25/01/2024

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date of Max. Value Obtained
B-02	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	1	102.30	102.30	**N/A**	**Nil**	25/01/2024
	Blast Vibration	**mm/s**	**Every Blast**	1	0.83	0.83	**80**	**Nil**	25/01/2024

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date of Max. Value Obtained
B-03	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	1	93.40	93.40	**120**	**Nil**	25/01/2024
	Blast Vibration	**mm/s**	**Every Blast**	1	0.20	0.20	**10**	**Nil**	25/01/2024

Table 6- Monthly Monitoring (Dust PM10 – Limits apply)

Location	No. of samples required by licence	Lowest sample value	Mean of sample	Highest sample value
PM1 TEOM (µg/m³)	Continuous	3.4	10.2	21.9
PM2 TEOM (µg/m³)	Continuous	2.8	10.1	17.7

Table 7- Monthly Monitoring (Dust PM2.5 – Limits apply)

Location	No. of samples required by licence	Lowest sample value	Mean of sample	Highest sample value
PM1 TEOM (µg/m³)	Continuous	0.8	5.06	8.2
PM2 TEOM (µg/m³)	Continuous	1.1	4.5	8.1

Figure 1 – EPL 21283 Monitoring Locations