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: September 2023
Obtained Date: 16/10/2022
Publication Date: 18/10/2022

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	Upon discharge	-	-	-	-	-	-	-	Low water level – sampling not possible
	Conductivity	µS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
3	TSS	mg/L	Upon discharge	-	-	-	-	-	-	-	Low water level – sampling not possible
	Conductivity	µS/cm							-		
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
9	TSS	mg/L	Upon discharge	1	25/09/23	-	-	-	-	260	-
	Conductivity	µS/cm		1	25/09/23				-	472	
	Oil & Grease	mg/L		1	25/09/23	-	-	-	-	<5	
	pH	pH		1	25/09/23	-	-	-	-	8.2	
10	TSS	mg/L	Upon discharge	1	25/09/23	-	-	-	-	256	-
	Conductivity	µS/cm		1	25/09/23	-	-	-	-	468	
	Oil & Grease	mg/L		1	25/09/23	-	-	-	-	<5	
	pH	pH		1	25/09/23	-	-	-	-	7.9	

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	6 monthly – (Apr- Oct)	-	-	-	-	-	-	-
	Lead	mg/L		-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	
	Standing Water Level	metres		-	-	-	-	-	-	
16	Conductivity	µS/cm	6 monthly – (Apr- Oct)	-	-	-	-	-	-	-
	Lead	mg/L		-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	
	Standing Water Level	metres		-	-	-	-	-	-	
17	Conductivity	µS/cm	6 monthly – (Apr- Oct)	-	-	-	-	-	-	-
	Lead	mg/L		-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	
	Standing Water Level	metres		-	-	-	-	-	-	
18	Conductivity	µS/cm	6 monthly – (Apr- Oct)	-	-	-	-	-	-	-
	Lead	mg/L		-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	
	Standing Water Level	metres		-	-	-	-	-	-	

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	6 monthly – (Apr- Oct)	-	-	-	-	-	-	-
	Lead	mg/L		-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	
	Standing Water Level	metres		-	-	-	-	-	-	

Table 4 – Monthly Attended Noise Monitoring

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

VCM Operational Noise Monitoring Results Leq(15min) – 28th September 2023 (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	12:33pm	45	IA	40	3.3 / 197	B	Birds (44), traffic (37), insects (28), **VCM (IA)**	NA
N-AT2 / 8	2:44pm	39	IA	40	3.2 / 193	B	Birds (36), traffic (36), **VCM (IA)**	NA

1. NA in last column means atmospheric conditions outside those specified in EPL, therefore criterion was not applicable.
2. IA = Noise from Vickery was inaudible

VCM Operational Noise Monitoring Results Leq(15min) – 28th September 2023 (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	8:54pm	57	25	35	4.5 / 144	E	Frogs 57), insects (43), traffic (36), **VCM (25)**	NA
N-AT2 / 8	7:39pm	47	IA	37	5.5 / 158	D	Birds (47), traffic (37), insects (26), **VCM (IA)**	NA

1. NA in last column means atmospheric conditions outside those specified in EPL, therefore criterion was not applicable.
2. IA = Noise from Vickery was inaudible

VCM Operational Noise Monitoring Results Leq(15min) – 28th September 2023 (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	10:00pm	42	25	35	2.9 / 129	E	Traffic (39), frogs (39), insects (27), **VCM (25)**	No
N-AT2 / 8	11:53pm	37	IA	37	1.8 / 123	E	Frogs (37), traffic (26), insects (22), **VCM (IA)**	No

1. NA in last column means atmospheric conditions outside those specified in EPL, therefore criterion was not applicable.
2. IA = Noise from Vickery was inaudible

VCM Operational Noise Monitoring Results LA_{max} – 28th September 2023								
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	10:00pm	59	29	52	2.9 / 129	E	Insects	No
N-AT2 / 8	11:53pm	47	IA	52	1.8 / 123	E	Frog	No

Table 5 – Monthly Monitoring (Blasts – Limits Apply)

No Blast Monitoring data reported for September

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				120	Nil	
	Blast Vibration	mm/s	Every Blast				10	Nil	

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				120	Nil	
	Blast Vibration	mm/s	Every Blast				10	Nil	

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				120	Nil	
	Blast Vibration	mm/s	Every Blast				10	Nil	

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/m^3)	Continuous	0.38	12.61	67.07
PM2 TEOM (µg/m^3)	Continuous	0.02	14.21	83.79

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/m^3)	Continuous	0.02	5.18	19.9
PM2 TEOM (µg/m^3)	Continuous	0.01	6.02	23.16

Figure 1 – EPL 21283 Monitoring Locations