AuS-10 Rhyolite - Licence number 12323

Licence Discharge Point 1

The concentration limits stipulated by condition L2.1/L2.4 for EPA Identification Points 1,8, 9, 10 and 11 are deemed not to apply when the discharge from the stormwater control structures (sediment basins) occurs solely as a result of rainfall measured at the premises which exceeds:
a) a total of 44 millimetres of rainfall over any consecutive 5 day period.

Dam 1 - SB1 - EPL Point 1

Guidance range		Range - 6.5 - 8.5	<1500us/cm			Limit <30 mg/l	20	Limit - 10 mg/l		
Month	Number of Samples	pH	Electrical Conductivity	Turbidity	Total Dissolved Solids	Total Suspend Solids	Oxygen demand	Oil/Grease	Volume Discharged - KL - Estimated	Comment
3/07/2022	1	7.4	113	2600		1353		<5	2000	Discharge - 153mm recorded - Austen - 1st to 06th July 2022
4/07/2022	1	7.0	145	800		190		<5	2000	Discharge - 153mm recorded - Austen - 1st to 06th July 2022
5/07/2022	1	7.0	130	280		143		<5	2000	Discharge - 153mm recorded - Austen - 1st to 06th July 2022
6/07/2022	1	7.2	122	340		241		<5	2000	Discharge - 153mm recorded - Austen - 1st to 06th July 2022
7/07/2022	1	7.4	315	430		303		<5	1000	Discharge - 153mm recorded - Austen - 1st to 06th July 2022
8/07/2022	1	8.1	408	78		55		<5	2000	Discharge - 153mm recorded - Austen - 1st to 06th July 2022
9/07/2022	1	7.8	406	137		107		<5	2000	Discharge - 153mm recorded - Austen - 1st to 06th July 2022
9/10/2022	1	8.7	210	500		212		<5	2000	Discharge - 74mm recorded - Austen - 5th to 9th Oct 2022
10/10/2022	1	7.6	260	160		106		<5	1000	Discharge - 74mm recorded - Austen - 5th to 9th Oct 2022
11/10/2022	1	7.6	316	230		141		<5	1000	Discharge - 74mm recorded - Austen - 5th to 9th Oct 2022
14/11/2022	1	7.5	208	2800		1218		<5	3000	Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.22
15/11/2022	1	7.9	273	600		333		<5	1000	Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.23
16/11/2022	1	7.0	238	247		136		<5	1000	Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.24
17/11/2022	1	6.9	199	484		278		<5	1000	Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.25
Total		105.1	3343	9686	0	4816	0	0		
	Mean	7.51	238.79	691.86	#DIV/0!	344.00	#DIV/0!	#DIV/0!		
	Lowest	6.90	113.00	78.00	0.00	55.00	0.00	0.00		
	Highest	8.70	408.00	2800.00	0.00	1353.00	0.00	0.00		

EPL POINT 2 **Range - 6.5 - 8.5**

Upstream Location AQW-1

Month	Number of Samples	pH	Electrical Conductivity	Turbidity	Total Dissolved Solids	Total Suspend Solids	Oxygen demand	Oil/Grease	Volume Discharged - KL - Estimated	Comment
3/07/2022	1	6.8	108	460		309		<5		Discharge EPL 1 - 153mm recorded - Austen - 1st to 06th July 2022
4/07/2022	1	7.1	140	100		105		<5		Discharge EPL 1 - 153mm recorded - Austen - 1st to 06th July 2022
5/07/2022	1	6.3	132	100		164		<5		Discharge EPL 1 - 153mm recorded - Austen - 1st to 06th July 2022
6/07/2022	1	7.0	140	55		53		<5		Discharge EPL 1 - 153mm recorded - Austen - 1st to 06th July 2022
7/07/2022	1	6.7	146	38		40		<5		Discharge EPL 1 - 153mm recorded - Austen - 1st to 06th July 2022
8/07/2022	1	7.7	165	40		24		<5		Discharge EPL 1 - 153mm recorded - Austen - 1st to 06th July 2022
9/07/2022	1	7.9	197	29		19		<5		Discharge EPL 1 - 153mm recorded - Austen - 1st to 06th July 2022
25/07/2022	1	7.5	174	12	124	6	3	<5		Monthly Sample
24/08/2022	1	7.7	242	8.2	148	7	<2	<5		Monthly Sample
21/09/2022	1	8.0	181	6.1	109	7	<2	<5		Monthly Sample
9/10/2022	1	8.3	169	80		117		<5		Discharge EPL 1 - 74mm recorded - Austen - 5th to 9th Oct 2022
10/10/2022	1	7.7	180	29		24		<5		Discharge EPL 1 - 74mm recorded - Austen - 5th to 9th Oct 2022
11/10/2022	1	7.7	177	21		25		<5		Discharge EPL 1 - 74mm recorded - Austen - 5th to 9th Oct 2022
21/10/2022	1	6.7	175	15	116	25	7	<5		Monthly Sample
14/11/2022	1	7.6	130	270		192		<5		Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.22
15/11/2022	1	7.9	186	27		26		<5		Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.23
16/11/2022	1	7.1	179	25		24		<5		Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.24
17/11/2022	1	7.3	209	19		16		<5		Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.25
21/11/2022	1	8.0	156	20	144	12	<2	<5		Monthly Sample
19/12/2022	1	7.9	372	2.6	178	<5	<2	<5		Monthly Sample
18/01/2023	1	6.6	181	4	130	<5	<2	<5		Monthly Sample
17/02/2023	1	7.7	189	6.1	128	<5	<2	<5		Monthly Sample
20/03/2023	1	7.4	192	2.3	151	<5	<2	<5		Monthly Sample
19/04/2023	1	7.2	200	4.5	135	<5	N/A	<5		Monthly Sample
19/05/2023	1	7.2	258	1.2	144	<5	2	<5		Monthly Sample
16/06/2023	1	7.2	230	3.2	135	<5	<2	<5		Monthly Sample
Total		192.2	4808	1378.2	1642	1195	12	0		
Mean		7.39	184.92	53.01	136.83	62.89	4.00	#DIV/0!		
Lowest		6.30	108.00	1.20	109.00	6.00	2.00	0.00		
Highest		8.30	372.00	460.00	178.00	309.00	7.00	0.00		

EPL Point 3

COXS RIVER LOWER CROSSING 6/7/2011 - AQW3

Month	Number of Samples	pH	Electrical Conductivity	Turbidity	Total Dissolved Solids	Total Suspend Solids	Oxygen demand	Oil/Grease	Volume Discharged - KL - Estimated	Comment
3/07/2022	1	6.6	103	400		352		<5		Sampled at alternative AQW2 EPL 1 & 8 Discharge due to flooding river
4/07/2022	1	7.0	140	90		115		<5		Sampled at alternative AQW2 EPL 1 & 8 Discharge due to flooding river
5/07/2022	1	6.8	130	110		120		<5		Sampled at alternative AQW2 EPL 1, 8, 9 and 11 Discharge
6/07/2022	1	6.6	1358	55		54		<5		Sampled at alternative AQW2 EPL 1, 8, 9 and 11 Discharge
7/07/2022	1	6.6	144	41		36		<5		Sampled at EPL3. EPL 1, 8, 9 and 11 Discharge
8/07/2022	1	7.7	161	31		27		<5		Sampled at EPL3. EPL 1 only Discharge
9/07/2022	1	7.9	166	24		18		<5		Monthly Sample
25/07/2022	1	7.5	175	12	114	7	<2	<5		Monthly Sample
24/08/2022	1	7.7	162	10	106	5	<2	<5		Monthly Sample
21/09/2022	1	7.7	179	5.4	109	5	<2	<5		Monthly Sample
9/10/2022	1	7.9	167	65		114		<5		Sampled at alternative AQW2 due to safety concerns - EPL 1 Discharge
10/10/2022	1	7.5	172	26		26		<5		Sampled at alternative AQW2 due to safety concerns - EPL 1 Discharge
11/10/2022	1	7.5	173	17		17		<5		Sampled at alternative AQW2 due to safety concerns - EPL 1 Discharge
21/10/2022	1	7.0	172	16	168	16	6	<5		Monthly Sample
14/11/2022	1	7.6	126	280		364		<5		Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.25
15/11/2022	1	7.9	192	24		23		<5		Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.26
16/11/2022	1	7.1	176	25		22		<5		Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.27
17/11/2022	1	7.3	167	17		16		<5		Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.28
21/11/2022	1	7.6	143	12	112	6	<2	<5		Monthly Sample
19/12/2022	1	8.1	197	2.8	116	<5	<2	<5		Monthly Sample
18/01/2023	1	6.4	193	3.6	131	<5	<2	<5		Monthly Sample

17/02/2023	1	7.8	193	2.4	128	<5	<2	<5		Monthly Sample
20/03/2023	1	7.6	198	2.4	162	<5	<2	<5		Monthly Sample
19/04/2023	1	7.7	199	2.4	122	<5	<2	<5		Monthly Sample
19/05/2023	1	7.5	251	1.2	145	<5	2	<5		Monthly Sample
16/06/2023	1	7.6	199	2	138	5	<2	<5		Monthly Sample
Total		**53.1**	**1181**	**433.4**	**277**	**565**	**6**	**0**		
	Mean	**7.38**	**217.48**	**51.01**	**128.45**	**70.68**	**4.00**	**#DIV/0!**		**0.00**
	Lowest	**6.40**	**103.00**	**1.20**	**106.00**	**5.00**	**2.00**	**0.00**		**0.00**
	Highest	**8.10**	**1358.00**	**400.00**	**168.00**	**364.00**	**6.00**	**0.00**		

Dust Monitoring EPL Point 4

Period	Month	Number of	Sawmill	Insoluble Solids	Combustible Matter	Ash
23/06/2022 - 28/07/2022	Jul-2022	continuous	Sawmill	0.8	0.3	0.5
28/07/2022 - 24/08/2022	Aug-2022	continuous	Sawmill	0.5	0.3	0.2
24/08/2022 - 21/09/2022	Sep-2022	continuous	Sawmill	0.4	0.2	0.2
21/09/2022 - 21/10/2022	Oct-2022	continuous	Sawmill	0.9	0.8	0.1
21/10/2022 - 21/11/2022	Nov-2022	continuous	Sawmill	4.8	3.3	1.5
21/11/2022 - 19/12/2022	Dec-2022	continuous	Sawmill	1.0	0.6	0.4
19/12/2022 - 18/01/2023	Jan-2023	continuous	Sawmill	0.4	0.3	0.1
18/01/2023 - 17/02/2023	Feb-2023	continuous	Sawmill	0.8	0.6	0.2
17/02/2023 - 20/03/2023	Mar-2023	continuous	Sawmill	0.3	0.2	0.1
20/03/2023 - 19/04/2023	Apr-2023	continuous	Sawmill	0.4	<0.1	0.4
19/04/2023 - 18/05/2023	May-2023	continuous	Sawmill	0.4	0.3	0.1
18/05/2023 - 16/06/2023	Jun-2023	continuous	Sawmill	0.8	0.4	0.4
				11.51	**7.3**	**4.2**
			Mean	**0.96**	**0.66**	**0.35**
			Lowest	**0.3**	**0.2**	**0.1**
			Highest	**4.8**	**3.3**	**1.5**

Dust Monitoring EPL Point 5

Month	Month	Number of	Baners Lane	Insoluble Solids	Combustible Matter	Ash
23/06/2022 - 28/07/2022	Jul-2022	continuous	Baners Lane	0.5	0.4	0.1
28/07/2022 - 24/08/2022	Aug-2022	continuous	Baners Lane	0.7	0.5	0.2
24/08/2022 - 21/09/2022	Sep-2022	continuous	Baners Lane	0.6	0.5	0.1
21/09/2022 - 21/10/2022	Oct-2022	continuous	Baners Lane	0.9	0.8	0.1
21/10/2022 - 21/11/2022	Nov-2022	continuous	Baners Lane	0.7	0.5	0.2
21/11/2022 - 19/12/2022	Dec-2022	continuous	Baners Lane	0.7	0.4	0.3
19/12/2022 - 18/01/2023	Jan-2023	continuous	Baners Lane	0.3	0.2	0.1
18/01/2023 - 17/02/2023	Feb-2023	continuous	Baners Lane	0.2	0.2	<0.1
17/02/2023 - 20/03/2023	Mar-2023	continuous	Baners Lane	0.5	0.4	0.1
20/03/2023 - 19/04/2023	Apr-2023	continuous	Baners Lane	0.2	0.1	0.1
19/04/2023 - 18/05/2023	May-2023	continuous	Baners Lane	0.6	0.5	0.1
18/05/2023 - 16/06/2023	Jun-2023	continuous	Baners Lane	0.4	0.3	0.1
				6.3	**4.8**	**1.5**
			Mean	**0.53**	**0.40**	**0.14**
			Lowest	**0.2**	**0.1**	**0.1**
			Highest	**0.9**	**0.8**	**0.3**

Dust Monitoring EPL Point 6

Month	Month	Number of	Bald Hill	Insoluble Solids	Combustible Matter	Ash	
23/06/2022 - 28/07/2022	Jul-2022	continuous	Bald Hill	1.0	0.6	0.4	
28/07/2022 - 24/08/2022	Aug-2022	continuous	Bald Hill	0.6	0.4	0.2	
24/08/2022 - 21/09/2022	Sep-2022	continuous	Bald Hill	0.5	0.4	0.1	
21/09/2022 - 21/10/2022	Oct-2022	continuous	Bald Hill	1.0	0.8	0.2	
21/10/2022 - 21/11/2022	Nov-2022	continuous	Bald Hill	0.6	0.3	0.3	
21/11/2022 - 19/12/2022	Dec-2022	continuous	Bald Hill	0.8	0.5	0.3	
19/12/2022 - 18/01/2023	Jan-2023	continuous	Bald Hill	0.9	0.9	N.S	No Sample - Crucible broke at 850c
18/01/2023 - 17/02/2023	Feb-2023	continuous	Bald Hill	0.4	0.3	0.1	
17/02/2023 - 20/03/2023	Mar-2023	continuous	Bald Hill	0.5	0.4	0.1	
20/03/2023 - 19/04/2023	Apr-2023	continuous	Bald Hill	0.5	0.1	0.4	
19/04/2023 - 18/05/2023	May-2023	continuous	Bald Hill	0.5	0.4	0.1	
18/05/2023 - 16/06/2023	Jun-2023	continuous	Bald Hill	0.3	0.3	<0.1	
				7.6	**5.4**	**2.2**	**ND - Not Detected**
			Mean	**0.63**	**0.45**	**0.22**	
			Lowest	**0.3**	**0.1**	**0.1**	
			Highest	**1**	**0.9**	**0.4**	

EPL POINT 8

Dam 2 - SB2b **Range - 6.5 - 8.5**

Month	Number of Samples	pH	Electrical Conductivity	Turbidity	Total Dissolved Solids	Total Suspend Solids	Oxygen demand	Oil/Grease	Volume Discharged - KL - Estimated	Comment
									1000	Discharge EPL 8 - 153mm recorded - Austen - 1st to 06th July 2022
03/07/2022	1	7.4	124	>4000		2678		<5	1000	Discharge EPL 8 - 153mm recorded - Austen - 1st to 06th July 2022
04/07/2022	1	7.0	151	2600		994		<5	1000	Discharge EPL 8 - 153mm recorded - Austen - 1st to 06th July 2022
05/07/2022	1	6.5	137	1200		355		<5	2000	Discharge EPL 8 - 153mm recorded - Austen - 1st to 06th July 2023
06/07/2022	1	7.0	194	550		258		<5	1000	Discharge EPL 8 - 153mm recorded - Austen - 1st to 06th July 2024
07/07/2022	1	6.4	254	194		86		<5	1000	Discharge EPL 8 - 153mm recorded - Austen - 1st to 06th July 2025
31/08/2022	0									Nil Discharge
30/09/2022	0									Nil Discharge
31/10/2022	0									Nil Discharge
14/11/2022	1	7.5	189	>4000		2056		<5	2000	Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.28
15/11/2022	1	7.7	241	1300		524		<5	1000	Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.29
16/11/2022	1	7.1	436	600		293		<5	1000	Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.30
31/12/2022	0									Nil Discharge
31/01/2023	0									Nil Discharge
28/02/2023	0									Nil Discharge
31/03/2023	0									Nil Discharge
30/04/2023	0									Nil Discharge
31/05/2023	0									Nil Discharge
30/06/2023	0									Nil Discharge
		56.6	**1726**	**6444**	**0**	**7244**	**0**	**0**		
Mean		**7.08**	**215.75**	**1074.00**	**#DIV/0!**	**905.50**	**#DIV/0!**	**#DIV/0!**		
Lowest		**6.40**	**124.00**	**194.00**	**0.00**	**86.00**	**0.00**	**0.00**		
Highest		**7.70**	**436.00**	**2600.00**	**0.00**	**2678.00**	**0.00**	**0.00**		

EPL POINT 9

South of O/Burden dump

Dam 3 - SB3a **Range - 6.5 - 8.5**

Month	Number of Samples	pH	Electrical Conductivity	Turbidity	Total Dissolved Solids	Total Suspend Solids	Oxygen demand	Oil/Grease	Volume Discharged - KL - Estimated	Comment
									2000	Discharge EPL 9 - 153mm recorded - Austen - 1st to 06th July 2022
05/07/2022	1	6.8	338	130		78		<5	2000	Discharge EPL 9 - 153mm recorded - Austen - 1st to 06th July 2023
06/07/2022	1	5.8	68	70		34		<5	1000	Discharge EPL 9 - 153mm recorded - Austen - 1st to 06th July 2024
07/07/2022	1	6.1	71	56		20		<5	1000	Discharge EPL 9 - 153mm recorded - Austen - 1st to 06th July 2025
08/07/2022	1	7.3	113	38		10		<5	1000	Discharge EPL 9 - 153mm recorded - Austen - 1st to 06th July 2026
31/08/2022	0									Nil Discharge
30/09/2022	0									Nil Discharge
31/10/2022	0									Nil Discharge
30/11/2022	0									Nil Discharge
31/12/2022	0									Nil Discharge
31/01/2023	0									Nil Discharge
28/02/2023	0									Nil Discharge
31/03/2023	0									Nil Discharge
30/04/2023	0									Nil Discharge
31/05/2023	0									Nil Discharge
30/06/2023	0									Nil Discharge
		26	**590**	**294**	**0**	**142**	**0**	**0**		
Mean		**6.50**	**147.50**	**73.50**	**#DIV/0!**	**35.50**	**#DIV/0!**	**#DIV/0!**		
Lowest		**5.80**	**68.00**	**38.00**	**0.00**	**10.00**	**0.00**	**0.00**		
Highest		**7.30**	**338.00**	**130.00**	**0.00**	**78.00**	**0.00**	**0.00**		

EPL POINT 10

Storage Dam 4

Dam 4 - SD2 **Range - 6.5 - 8.5**

Month	Number of Samples	pH	Electrical Conductivity	Turbidity	Total Dissolved Solids	Total Suspend Solids	Oxygen demand	Oil/Grease	Volume Discharged - KL - Estimated	Comment

31/07/2022	0									Nil Discharge
31/08/2022	0									Nil Discharge
30/09/2022	0									Nil Discharge
31/10/2022	0									Nil Discharge
14/11/2022	1	7.4	527	13		10		<5	2000	Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.30
15/11/2022	1	7.8	508	72		57		<5	1000	Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.31
16/11/2022	1	7.5	461	50		37		<5	1000	Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.32
17/11/2022	1	7.7	429	38		30		<5	1000	Discharge - 75mm rain recorded 13.11.22 to 9.00am 14.11.33
31/12/2022	0									Nil Discharge
31/01/2023	0									Nil Discharge
28/02/2023	0									Nil Discharge
31/03/2023	0									Nil Discharge
30/04/2023	0									Nil Discharge
31/05/2023	0									Nil Discharge
30/06/2023	0									
		0	0	0	0	0	0	0		
	Mean	7.60	481.25	43.25	#DIV/0!	33.50	#DIV/0!	#DIV/0!		
	Lowest	7.40	429.00	13.00	0.00	10.00	0.00	0.00		
	Highest	7.80	527.00	72.00	0.00	57.00	0.00	0.00		

EPL POINT 11

Dam 5 - SD6 - AQW-8 Range - 6.5 - 8.5

Month	Number of Samples	pH	Electrical Conductivity	Turbidity	Total Dissolved Solids	Total Suspend Solids	Oxygen demand	Oil/Grease	Volume Discharged - 2000	Comment
05/07/2022	1	6.2	67	120		94		<5	1000	Discharge EPL 11 - 153mm recorded - Austen - 1st to 06th July 2022
06/07/2022	1	6.1	69	70		32		<5	1000	Discharge EPL 11 - 153mm recorded - Austen - 1st to 06th July 2023
07/07/2022	1	5.8	70	52		11		<5	2000	Discharge EPL 11 - 153mm recorded - Austen - 1st to 06th July 2024
08/07/2022	1	7.2	94	39		8		<5	1000	Discharge EPL 11 - 153mm recorded - Austen - 1st to 06th July 2025
31/08/2022	0									Discharge EPL 11 - 153mm recorded - Austen - 1st to 06th July 2026
30/09/2022	0									Nil Discharge
31/10/2022	0									Nil Discharge
30/11/2022	0									Nil Discharge
31/12/2022	0									Nil Discharge
31/01/2023	0									Nil Discharge
28/02/2023	0									Nil Discharge
31/03/2023	0									Nil Discharge
30/04/2023	0									Nil Discharge
31/05/2023	0									Nil Discharge
30/06/2023	0									Nil Discharge
		25.3	300	281	0	145	0	0		
	Mean	6.33	75.00	70.25	#DIV/0!	36.25	#DIV/0!	#DIV/0!		
	Lowest	5.80	67.00	39.00	0.00	8.00	0.00	0.00		
	Highest	7.20	94.00	120.00	0.00	94.00	0.00	0.00		

Weather station results available upon request

AuS-10 Rhyolite - Licence number 12323

Blasting	Frequency	Date	Blast Number	Limits	Units of measure	Results - Hartley Village	2nd Monitor 781 Jenolan Caves Rd	3rd Monitor - South east of quarry	
Ground Vibration	Per Blast	11/05/2022	220	5 - trigger point >0.51	mm/s	Nil Trigger	Nil Trigger		
Overpressure	Per Blast	11/05/2022	220	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		
Ground Vibration	Per Blast	27/05/2022	221	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger		
Overpressure	Per Blast	27/05/2022	221	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		
Ground Vibration	Per Blast	3/06/2022	222	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger		
Overpressure	Per Blast	3/06/2022	222	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		
Ground Vibration	Per Blast	23/06/2022	223	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger		
Overpressure	Per Blast	23/06/2022	223	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		
Ground Vibration	Per Blast	13/07/2022	224	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger		1.09pm
Overpressure	Per Blast	13/07/2022	224	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		1.09pm
Ground Vibration	Per Blast	5/08/2022	225	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger		12.48pm
Overpressure	Per Blast	5/08/2022	225	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		12.48pm
Ground Vibration	Per Blast	10/08/2022	226	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger		1.40pm
Overpressure	Per Blast	10/08/2022	226	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		1.40pm
Ground Vibration	Per Blast	2/09/2022	227	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger		11.18am
Overpressure	Per Blast	2/09/2022	227	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		11.18am
Ground Vibration	Per Blast	16/09/2022	228	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger		12.59pm
Overpressure	Per Blast	16/09/2022	228	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		12.59pm
Ground Vibration	Per Blast	27/09/2022	229	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger		1.10pm
Overpressure	Per Blast	27/09/2022	229	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		1.10pm
Ground Vibration	Per Blast	12/10/2022	230	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger		2.30pm
Overpressure	Per Blast	12/10/2022	230	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		2.30pm
Ground Vibration	Per Blast	14/11/2022	231	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger		1.52pm
Overpressure	Per Blast	14/11/2022	231	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		1.52pm
Ground Vibration	Per Blast	30/11/2022	232	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger		11.33am
Overpressure	Per Blast	30/11/2022	232	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		11.33am
Ground Vibration	Per Blast	14/12/2022	233	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger		1.03pm
Overpressure	Per Blast	14/12/2022	233	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		1.03pm
Ground Vibration	Per Blast	18/01/2023	234	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger		4.25pm
Overpressure	Per Blast	18/01/2023	234	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger		4.25pm
Ground Vibration	Per Blast	24/02/2023	235	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger	Nil Trigger	12.41pm
Overpressure	Per Blast	24/02/2023	235	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger	Nil Trigger	12.41pm
Ground Vibration	Per Blast	3/03/2023	236	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger	Not required	1.43pm
Overpressure	Per Blast	3/03/2023	236	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger	Not required	1.43pm
Ground Vibration	Per Blast	13/03/2023	237	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger	Not required	2.36pm
Overpressure	Per Blast	13/03/2023	237	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger	Not required	2.36pm
Ground Vibration	Per Blast	22/03/2023	238	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger	Not required	11.10am
Overpressure	Per Blast	22/03/2023	238	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger	Not required	11.10am
Ground Vibration	Per Blast	20/04/2023	239	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger	Not required	12.40pm
Overpressure	Per Blast	20/04/2023	239	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger	Not required	12.40pm
Ground Vibration	Per Blast	11/05/2023	240	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger	Not required	1.39pm
Overpressure	Per Blast	11/05/2023	240	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger	Not required	1.39pm
Ground Vibration	Per Blast	20/04/2023	241	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger	Not required	2.20pm
Overpressure	Per Blast	20/04/2023	241	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger	Not required	2.20pm
Ground Vibration	Per Blast	31/05/2023	242	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger	Not required	11.17am
Overpressure	Per Blast	31/05/2023	242	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger	Not required	11.17am
Ground Vibration	Per Blast	14/06/2023	243	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger	Not required	1.44pm
Overpressure	Per Blast	14/06/2023	243	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger	Not required	1.44pm
Ground Vibration	Per Blast	3/07/2023	244	5 - trigger point >0.51	dB	Nil Trigger	Nil Trigger	Not required	1.10pm
Overpressure	Per Blast	3/07/2023	244	115 - Trigger point <100	dB	Nil Trigger	Nil Trigger	Not required	1.10pm

Grant's Head Quarry - Licence Number 4040

EPL Point 1 - sump	Pollutant	Aluminium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Comment
	Units of Measure	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	
Month	Number of Samples										
03/06/2022	1	0.19	<0.001	0.0003	<0.001	0.28	<0.001	<0.0001	0.016	0.037	ERM Qtrly sample
29/08/2022	1	0.212	<0.0002	0.0003	0.0004	0.298	0.0006	<0.0001	0.0171	0.045	Hy-Tec Qtrly Sample
17/10/2022	1	0.18	<0.001	0.0003	<0.001	0.26	<0.001	<0.0001	0.017	0.035	ERM Qtrly sample
22/11/2022	1	0.25	0.0002	0.0003	0.0005	0.276	0.0006	<0.00001	0.0163	0.037	Hy-Tec Qtrly Sample
07/12/2022	1	0.23	<0.001	0.0004	<0.001	0.26	<0.001	<0.0001	0.017	0.037	ERM Qtrly sample
14/02/2023	1	0.376	0.0002	0.0004	0.0006	0.37	0.0008	0.00006	0.0201	0.038	Hy-Tec Qtrly Sample
24/02/2023	1	0.3	<0.001	0.0004	<0.001	0.35	<0.001	<0.0001	0.022	0.043	ERM Qtrly sample
29/05/2023	1	0.477	0.0002	0.0005	0.0009	0.411	0.001	<0.00001	0.0259	0.044	Hy-Tec Qtrly Sample
06/06/2023	1	0.45	<0.001	0.0005	<0.001	0.42	0.001	<0.0001	0.025	0.043	ERM Qtrly sample

Wetland site (new Oct 2018	Pollutant	Aluminium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	COMMENTS
	Units of Measure	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	
Date	No. of samples										
09.12.2021	1	0.47	<0.001	<0.0002	0.001	0.011	<0.001	<0.0001	0.001	0.009	ERM Qtrly sample
08/03/2022	1	0.43	0.001	<0.0002	0.001	0.011	<0.001	<0.0001	0.002	0.011	ERM Qtrly sample
03/06/2022	1	0.019	<0.001	<0.0002	<0.001	0.005	<0.001	<0.0001	<0.001	0.006	ERM Qtrly sample
17/10/2022	1	0.31	<0.001	<0.0002	<0.001	0.007	<0.001	<0.0001	0.001	0.014	ERM Qtrly sample
07/12/2022	1	0.16	<0.001	<0.0002	0.001	0.002	<0.001	<0.0001	<0.001	0.005	ERM Qtrly sample
24/02/2023	1	0.12	<0.001	<0.0002	0.001	0.002	<0.001	<0.0001	<0.001	0.008	ERM Qtrly sample
06/06/2023	1	0.07	<0.001	<0.0002	<0.001	0.002	<0.001	<0.0001	<0.001	0.006	ERM Qtrly sample

Wetland site	Pollutant Units of Measure	pH mg/l	µS/cm mg/l	
09.12.2021		5.54	209	
08/03/2022		5.22	266	ERM Qtrly sample
03/06/2022		5.69	231	ERM Qtrly sample
17/10/2022		5.63	182.1	ERM Qtrly sample
07/12/2022		4.54	193.8	ERM Qtrly sample
24/02/2023		6.97	303.6	ERM Qtrly sample
06/06/2023		6.03	253.9	ERM Qtrly sample

EPL Point 1 - sump	Pollutant Units of Measure	pH (wet) Range 5.3 to 7.0	Electrical Conductivity	Turbidity	Total Suspended Solids Max 30 Milligrams per litre	Oil and Grease	Hours of pump operation	Requirement to Monitor Volume or Mass - KL	COMMENTS
Month	Number of	pH	uS/cm	NTU	mg/l	Visible	Hours	KL	
03/06/2022	1	4.98	216					Nil Discharge - Sample only	ERM Qtrly sample - nil discharge
9/06/2022	1	5.6	233	2	<3	<5	24	6,825.6	
29/06/2022	1	5.7	268	1.8	4	<5	24	6,825.6	
11/07/2022	1	6.3	190	5	4	<5	24	6,825.6	
12/07/2022	1	5.9	184	11	7	<5	24	6,825.6	
14/07/2022	1	5.8	191	13	10	<5	24	6,825.6	
11/08/2022	1	5.2	251	0.95	<3	<5	0	Nil Discharge - Sample only	Nil Discharge - Sample only
29/08/2022	1	6.1	279	1.2	<3	<5	24	6,825.6	Qtrly sampling
4/10/2022	1	6.4	279	7.2	7	<5	24	6,825.6	
5/10/2022	1	6.0	282	4.1	5	<5	24	6,825.6	
17/10/2022	1	4.15	269.2				0	Nil Discharge - Sample only	ERM Qtrly sample - nil discharge
26/10/2022	1	5.9	224	18	13	<5	24	6,825.6	
22/11/2022	1	6.1	274		4	<5	24	6,825.6	Qtrly sampling
24/11/2022	1	6.3	293	2.4	4	<5	**24**	6,825.6	
7/12/2022	1	4.0	262.6					Nil Discharge - Sample only	ERM Qtrly sample - nil discharge
20/12/2022	1	6.1	315	4.2	5	<5	24	6,825.6	
21/12/2022	1	5.9	314	4.8	7	<5	24	6,825.6	
14/02/2023	1	6.1	362	3.4	9	<5	24	6,825.6	Qtrly sampling
24/02/2023	1	4.65	206.7					Nil Discharge - Sample only	ERM Qtrly sample - nil discharge
20/03/2023	1	6.0	312	4.3	6	<5	**24**	6,825.6	
21/03/2023	1	5.8	316	3.4	5	<5	24	6,825.6	
17/04/2023	1	5.2	302	3.4	6	<5	0		Nil Discharge - Sample only
27/04/2023	1	6.1	318	N/R	6	<5	24	6,825.6	
29/05/2023	1	6.2	375	2.4	6	<5	24	6,825.6	Qtrly sampling
6/06/2023	1	4.9	396					Nil Discharge - Sample only	ERM Qtrly sample - nil discharge
	Mean	**5.69**	**281.02**	**5.33**	**6.35**	**#DIV/0!**			
	Lowest	**3.97**	**184.00**	**0.95**	**4.00**	**0.00**			
	Highest	**6.40**	**396.00**	**18.00**	**13.00**	**0.00**			
								116,035.2	

Grant's Head Points 2 & 3		Standing Water Level Meters (mAHD)		Standing Water Level Metres (mAHD)
	Position ID	Quarterly	Position ID	Quarterly
08.04.2021	**MW05**	4.949	**MW06**	4.939
10.06.2021	**MW05**	4.829	**MW06**	4.905
23.09.2021	**MW05**	4.648	**MW06**	4.729
09.12.2021	**MW05**	4.868	**MW06**	4.899
08.03.2022	**MW05**	4.948	**MW06**	5.036
03.06.2022	**MW05**	4.914	**MW06**	5.009
17/10/2022	**MW05**	4.885	**MW06**	4.944
07/12/2022	**MW05**	4.823	**MW06**	4.894
24/02/2023	**MW05**	4.659	**MW06**	4.735
06/06/2023	**MW05**	4.713	**MW06**	4.773
	Mean	**4.799**	Mean	**4.871**
	Lowest	**4.659**	Lowest	**4.735**
	Highest	**4.914**	Highest	**5.009**

Grant's Head Point 4	Position ID	Conductivity	pH	Standing Water Level	Aluminium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
08/03/2022	NW01D	700	4.87	-0.083	0.36	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.002	0.006
03/06/2022	NW01D	501	7.4	0.271	0.51	<0.001	<0.0002	<0.001	<0.001	<0.001	0.0001	0.003	<0.005
17/10/2022	NW01D	442.3	4.83	-2.76	0.46	<0.001	<0.0002	<0.001	0.004	<0.001	0.0001	0.002	0.006
07/12/2022	NW01D	525	5.28	-0.761	0.51	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.002	0.006
24/02/2023	NW01D	254.7	5.74	-2.324	<0.05	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.003	0.006
06/06/2023	NW01D	487.9	7.71	-1.596	<0.05	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.002	<0.005
08/03/2022	NW01S	640	5.39	0.679	0.29	<0.001	<0.0002	<0.001	0.001	<0.001	<0.0001	0.001	0.006
03/06/2022	NW01S	404	5.58	1.007	0.35	<0.001	<0.0002	<0.001	0.002	<0.001	<0.0001	0.002	0.006
17/10/2022	NW01S	399.1	5.15	0.57	0.46	<0.001	<0.0002	<0.001	0.003	<0.001	<0.0001	0.001	<0.005
07/12/2022	NW01S	377.1	4.5	0.014	0.29	<0.001	<0.0002	<0.001	0.001	<0.001	<0.0001	0.002	0.008
24/02/2023	NW01S	421.9	5.5	-1.45	0.36	<0.001	<0.0002	<0.001	0.003	<0.001	<0.0001	0.002	0.008
06/06/2023	NW01S	521	8.41	-0.781	0.38	<0.001	<0.0002	<0.001	0.003	<0.001	<0.0001	0.001	<0.005
	NW01D	Mean	**-1.434**	NW01S	Mean	**-0.128**							
	NW01D	Lowest	**-2.760**	NW01S	Lowest	**-1.450**							
	NW01D	Highest	**0.271**	NW01S	Highest	**1.007**							

Grant's Head Point 5	Position ID	Conductivity	pH	Standing Water Level	Aluminium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
08/03/2022	NW02D	1160	6.24	0.917	<0.05	0.003	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.011	<0.005
03/06/2022	NW02D	820	7.11	1.179	<0.05	0.004	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.013	<0.005
17/10/2022	NW02D	774	6.32	1.081	<0.05	0.003	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.011	<0.005
07/12/2022	NW02D	730	5.84	1.014	<0.05	0.003	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.009	<0.005
24/02/2023	NW02D	782	6.3	0.804	<0.05	0.003	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.009	<0.005
06/06/2023	NW02D	464.7	6.24	0.865	<0.05	0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.001	<0.005
08/03/2022	NW02S	640	4.44	-7.952	0.78	<0.001	<0.0002	<0.001	0.005	<0.001	<0.0001	<0.001	0.007
03/06/2022	NW02S	372	5.22	-8.565	0.82	<0.001	<0.0002	<0.001	0.004	<0.001	<0.0001	<0.001	<0.005
17/10/2022	NW02S	333.7	4.27	-8.768	0.73	<0.001	<0.0002	<0.001	0.005	<0.001	<0.0001	<0.001	<0.005
07/12/2022	NW02S	313	3.62	-15.852	0.59	<0.001	<0.0002	0.001	0.005	<0.001	<0.0001	<0.001	<0.005
24/02/2023	NW02S	324.7	5.00	-9.012	0.53	<0.001	<0.0002	0.001	0.002	<0.001	<0.0001	<0.001	<0.005
06/06/2023	NW02S	311.7	5.04	-9.059	0.47	<0.001	<0.0002	<0.001	0.003	<0.001	<0.0001	0.001	<0.005
	NW02S	Mean	**-10.251**	NW02D	Mean	**0.989**							
	NW02S	Lowest	**-15.852**	NW02D	Lowest	**0.804**							
	NW02S	Highest	**-8.565**	NW02D	Highest	**1.179**							

Grant's Head Point 6	Position ID	Conductivity	pH	Standing Water Level	Aluminium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
08/03/2022	NW03D-A	1270	6.79	-11.712	<0.05	0.004	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.003	<0.005
03/06/2022	NW03D-A	914	6.85	-11.738	<0.05	0.003	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.003	0.015
17/10/2022	NW03D-A	Sampling not done due to hydrasleeve stuck in well	Sampling not done due to hydrasleeve stuck in well	-12.052	Sampling not done due to hydrasleeve stuck in well	Sampling not done due to hydrasleeve stuck in well	Sampling not done due to hydrasleeve stuck in well	Sampling not done due to hydrasleeve stuck in well	Sampling not done due to hydrasleeve stuck in well	Sampling not done due to hydrasleeve stuck in well	Sampling not done due to hydrasleeve stuck in well		
07/12/2022	NW03D-A	470	6.09	-12.177	0.06	0.001	<0.0002	<0.001	<0.001	0.002	<0.0001	0.001	0.021
24/02/2023	NW03D-A	970	6.67	-12.346	<0.05	0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.002	<0.005
06/06/2023	NW03D-A	321.8	7.24	-12.192	<0.05	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	0.014
08/03/2022	NW03S-A	710	5.48	-11.596	<0.05	0.003	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.002	0.047
03/06/2022	NW03S-A	448	5.59	-11.852	<0.05	0.004	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.003	1.2
17/10/2022	NW03S-A	457.7	5.19	-11.938	<0.05	0.004	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.002	0.042
07/12/2022	NW03S-A	443.1	4.82	-12.026	0.05	0.005	<0.0002	0.001	0.002	<0.001	<0.0001	0.003	0.012
24/02/2023	NW03S-A	276	5.55	-12.038	<0.05	0.005	<0.0002	0.001	<0.001	<0.001	<0.0001	0.003	0.007
06/06/2023	NW03S-A	60.9	7.24	-12.038	0.06	0.004	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.002	0.022
	NW03D-A	Mean	**-12.078**	NW03S-A	Mean	**-11.978**							
	NW03D-A	Lowest	**-12.346**	NW03S-A	Lowest	**-12.038**							
	NW03D-A	Highest	**-11.738**	NW03S-A	Highest	**-11.852**							

Grant's Head Quarry - Licence Number 4040

Blasting	Frequency	Date	Limits	Units of measure	Results Bonny Hills 1st House	Results - Sherrod Park	Blast No #
Ground Vibration	Per Blast	22.01.2020	5 - trigger point >0.27	5 - trigger point >0.30	**3.07**	**Nil Trigger**	#126
Overpressure	Per Blast	22.01.2020	115 - Trigger point >100	115 - Trigger point >100	**105.7**	**Nil Trigger**	#126
Ground Vibration	Per Blast	09.04.2020	5 - trigger point >0.27	5 - trigger point >0.30	**Nil Trigger**	**Nil Trigger**	#127
Overpressure	Per Blast	09.04.2020	115 - Trigger point >100	115 - Trigger point >100	**Nil Trigger**	**Nil Trigger**	#127
Ground Vibration	Per Blast	25.06.2020	5 - trigger point >0.27	5 - trigger point >0.30	**1.7**	**Nil Trigger**	#128
Overpressure	Per Blast	25.06.2020	115 - Trigger point >100	115 - Trigger point >100	**111.5**	**Nil Trigger**	#128
Ground Vibration	Per Blast	20.11.2020	5 - trigger point >0.27	5 - trigger point >0.10	**3.24**	**0.13**	#129
Overpressure	Per Blast	20.11.2020	115 - Trigger point >100	115 - Trigger point >100	**82.7**	**112.0**	#129

Ground Vibration	Per Blast	04.06.2021	5 - trigger point >0.27	5 - trigger point >0.10	**3.96**	**0.13**	#130	
Overpressure	Per Blast	04.06.2021	115 - Trigger point >100	115 - Trigger point >100	**108.5**	**100.0**	#130	
Ground Vibration	Per Blast	07.09.2021	5 - trigger point >0.27	5 - trigger point >0.10	**1.32**	**0.13**	#131	
Overpressure	Per Blast	07.09.2021	115 - Trigger point >100	115 - Trigger point >100	**106.8**	**107.5**	#131	
Ground Vibration	Per Blast	12.11.2021	5 - trigger point >0.27	5 - trigger point >0.10	**2.08**	**0.13**	#132	
Overpressure	Per Blast	12.11.2021	115 - Trigger point >100	115 - Trigger point >100	**100.7**	**106.5**	#132	
Ground Vibration	Per Blast	17.01.2022	5 - trigger point >0.27	5 - trigger point >0.10	**1.41**	**0.25**	#133	
Overpressure	Per Blast	17.01.2022	115 - Trigger point >100	115 - Trigger point >100	**101.8**	**102.8**	#133	
Ground Vibration	Per Blast	06/06/2022	5 - trigger point >0.27	5 - trigger point >0.10	**2.16**	**0.13**	#134	
Overpressure	Per Blast	06/06/2022	115 - Trigger point >100	115 - Trigger point >100	**105.9**	**101.9**	#134	
Ground Vibration	Per Blast	20/09/2022	6 - trigger point >0.27	6 - trigger point >0.10	**3.18**	**0.21**	#135	
Overpressure	Per Blast	20/09/2022	115 - Trigger point >100	115 - Trigger point >100	**103.5**	**108.5**	#135	
Ground Vibration	Per Blast	21/02/2023	7 - trigger point >0.27	7 - trigger point >0.10	**1.44**	**0.25**	#136	12.49pm
Overpressure	Per Blast	21/02/2023	115 - Trigger point >100	115 - Trigger point >100	**100.9**	**108.0**	#136	
Ground Vibration	Per Blast	01/05/2023	8 - trigger point >0.27	8 - trigger point >0.10	**2.17**	**0.13**	#137	12.55pm
Overpressure	Per Blast	01/05/2023	115 - Trigger point >100	115 - Trigger point >100	**111.7**	**103.5**	#137	

Tumbulgum EPL 3430

Tumbulgum Point 1	**WM 1**	**Pollutant**	**OIL and Grease -**10 Milligrams per lt.	**Total Suspended Solids** Max 50 Milligrams per litre	**pH (wet)** Range 6.5 to 8.5	**Requirement to Monitor Volume or Mass**	
Month	**Number of Samples**	**Frequency**	Less than 24 hours before Discharge	Less than 24 hours before Discharge	Less than 24 hours before Discharge	Daily when wastes (water) discharged Klitres per day	Why Sampled - Discharge or Random?
Jul-2022	0						**Nil Controlled Discharge**
Aug-2022	0						**Nil Controlled Discharge**
Sep-2022	0						**Nil Controlled Discharge**
Oct-2022	0						**Nil Controlled Discharge**
Nov-2022	0						**Nil Controlled Discharge**
Dec-2022	0						**Nil Controlled Discharge**
Jan-2023	0						**Nil Controlled Discharge**
Feb-2023	0						**Nil Controlled Discharge**
Mar-2023	0						**Nil Controlled Discharge**
Apr-2023	0						**Nil Controlled Discharge**
May-2023	0						**Nil Controlled Discharge**
Jun-2023	0						**Nil Controlled Discharge**

Tumbulgum Point 2	**WM 2**	**Pollutant**	**OIL and Grease -**10 Milligrams per lt.	**Total Suspended Solids** Max 50 Milligrams per litre	**pH (wet)** Range 6.5 to 8.5	**Requirement to Monitor Volume or Mass**	
Month	**Number of Samples**	**Frequency**		Monthly during discharge	<24hrs prior to discharge	Daily when wastes (water) discharged Klitres per day	Why Sampled - Discharge or Random?
Jul-2022	0						**Nil Controlled Discharge**
Aug-2022	0						**Nil Controlled Discharge**
Sep-2022	0						**Nil Controlled Discharge**
Oct-2022	0						**Nil Controlled Discharge**
Nov-2022	0						**Nil Controlled Discharge**
Dec-2022	0						**Nil Controlled Discharge**
Jan-2023	0						**Nil Controlled Discharge**
Feb-2023	0						**Nil Controlled Discharge**
Mar-2023	0						**Nil Controlled Discharge**
Apr-2023	0						**Nil Controlled Discharge**
May-2023	0						**Nil Controlled Discharge**
Jun-2023	0						**Nil Controlled Discharge**

Tumbulgum Additional to EPL requirements testing sites	**Site Location**	**Pollutant**	**OIL and Grease -**10 Milligrams per lt.	**Total Suspended Solids** Max 50 Milligrams per litre	**pH (wet)** Range 6.5 to 8.5	**Requirement to Monitor Volume or Mass**	
Date	**location**	**Samples**		Monthly during	<24hrs prior to discharge	Daily when	Why Sampled - Discharge

EPL 3430 - Condition L2.5 The concentration limits in the above tables do not apply to any discharge from the final sediment basin arising from rainfall exceeding 82.5mm in total falling over any consecutive five day period

Tumbulgum EPL 3430

Tumbulgum Blast Monitoring results

Blasting	Frequency	Date	Limits	Units of measure	Loc # 1 - 43 Pollard Rd	Loc # 2 - 23 Pollard Rd	Loc # 3 - 729 - 731 Dulguigan Rd	Blast #	
Ground Vibration	Per Blast	11.05.2022	8 - trigger point >0.26	mm/s	**1.40**	**No Trigger**	Not required	#90	
Overpressure	Per Blast	11.05.2022	Max 115 - Trigger point >103	dB	**107.00**	**No Trigger**	Not required	#90	
Ground Vibration	Per Blast	17.03.2022	9 - trigger point >0.26	mm/s	**Not required**	**2.03**	Not required	#91	
Overpressure	Per Blast	17.03.2022	Max 115 - Trigger point >104	dB	**Not required**	**111.2**	Not required	#91	
Ground Vibration	Per Blast	11.05.2022	8 - trigger point >0.26	mm/s	**1.40**	**No Trigger**	Not required	#92	
Overpressure	Per Blast	11.05.2022	Max 115 - Trigger point >103	dB	**107.00**	**No Trigger**	Not required	#92	
Ground Vibration	Per Blast	11.05.2022	8 - trigger point >0.26	mm/s	**No Trigger**	**No Trigger**	Not required	#93	
Overpressure	Per Blast	11.05.2022	Max 115 - Trigger point >103	dB	**No Trigger**	**No Trigger**	Not required	#93	
Ground Vibration	Per Blast	28.07.2022	8 - trigger point >0.26	mm/s	**2.29**	**Not Required**	Not required	#94	14.15pm
Overpressure	Per Blast	28.07.2022	Max 115 - Trigger point >103	dB	**111.50**	**Not Required**	Not required	#94	
Ground Vibration	Per Blast	28.07.2022	8 - trigger point >0.26	mm/s	**2.29**	**Not Required**	Not required	#95	14.15pm
Overpressure	Per Blast	28.07.2022	Max 115 - Trigger point >103	dB	**111.50**	**Not Required**	Not required	#95	
Ground Vibration	Per Blast	28.07.2022	8 - trigger point >0.26	mm/s	**2.29**	**Not Required**	Not required	#96	14.15pm
Overpressure	Per Blast	28.07.2022	Max 115 - Trigger point >103	dB	**111.50**	**Not Required**	Not required	#96	
Ground Vibration	Per Blast	04.10.2022	8 - trigger point >0.26	mm/s	**2.29**	**2.29**	Not required	#97	14.37
Overpressure	Per Blast	04.10.2022	Max 115 - Trigger point >103	dB	**114.20**	**114.20**	Not required	#97	
Ground Vibration	Per Blast	04.10.2022	8 - trigger point >0.26	mm/s	**2.29**	**2.29**	Not required	#98	14.37
Overpressure	Per Blast	04.10.2022	Max 115 - Trigger point >103	dB	**114.20**	**114.20**	Not required	#98	
Ground Vibration	Per Blast	04.10.2022	8 - trigger point >0.26	mm/s	**2.29**	**2.29**	Not required	#99	14.37
Overpressure	Per Blast	04.10.2022	Max 115 - Trigger point >103	dB	**114.20**	**114.20**	Not required	#99	
Ground Vibration	Per Blast	09.12.2022	9 - trigger point >0.26	mm/s	**1.27**	**1.78**	Not required	#100	13.49
Overpressure	Per Blast	09.12.2022	Max 115 - Trigger point >104	dB	**112.40**	**111.20**	Not required	#100	
Ground Vibration	Per Blast	09.12.2022	10 - trigger point >0.26	mm/s	**1.27**	**1.78**	Not required	#101	13.49
Overpressure	Per Blast	09.12.2022	Max 115 - Trigger point >105	dB	**112.40**	**111.20**	Not required	#101	
Ground Vibration	Per Blast	09.12.2022	11 - trigger point >0.26	mm/s	**1.27**	**1.78**	Not required	#102	13.49
Overpressure	Per Blast	09.12.2022	Max 115 - Trigger point >106	dB	**112.40**	**111.20**	Not required	#102	
Ground Vibration	Per Blast	02.03.2023	12 - trigger point >0.26	mm/s	**1.02**	**1.65**	Not required	#103	12.31
Overpressure	Per Blast	02.03.2023	Max 115 - Trigger point >107	dB	**111.20**	**112.80**	Not required	#103	
Ground Vibration	Per Blast	02.03.2023	13 - trigger point >0.26	mm/s	**1.02**	**1.65**	Not required	#104	12.31
Overpressure	Per Blast	02.03.2023	Max 115 - Trigger point >108	dB	**111.20**	**112.80**	Not required	#104	
Ground Vibration	Per Blast	29.05.2023	13 - trigger point >0.26	mm/s	**1.40**	**2.40**	Not required	#105	2.00pm
Overpressure	Per Blast	29.05.2023	Max 115 - Trigger point >108	dB	**114.40**	**113.20**	Not required	#105	
Ground Vibration	Per Blast	29.05.2023	13 - trigger point >0.26	mm/s	**1.40**	**2.40**	Not required	#106	2.00pm
Overpressure	Per Blast	29.05.2023	Max 115 - Trigger point >108	dB	**114.40**	**113.20**	Not required	#106	

Yarrabee Rd Quarry - Licence Number 11462

M2.3 Note - Special Frequency 1 means sampling once during each discharge event arising from rainfall not exceeding the 90 percentile five day rainevent of 70 mm falling in total over a period of up to five days duration.

Yarrabee Rd Point 3		**Pollutant**	**Total Suspended Solids** Max 50 Milligrams per litre	**pH (wet)** Range 6.5 to 8.5	**Requirement to Monitor Volume or Mass - Estimate**		
Month	**Number of Samples**	**Frequency**	<24hrs prior to discharge	<24hrs prior to discharge	Daily when wastes (water) discharged KiloLitres per day	Rainfall recorded - mm	Comments
4 - 7 Jul 2022					460	122	**Greater than 70MM of rain - not sampled**

3 - 6 Sep 2022					350	93	**Greater than 70MM of rain - not sampled**
Number of samples	0						
	Mean		**#REF!**	**#REF!**	**405.00**		
	Lowest		**#REF!**	**#REF!**	**350.00**		
	Highest		**#REF!**	**#REF!**	**460.00**		

EPL 11462 - Condition L2.2 The concentration limits in the below table do not apply to any discharge from sediment pond (at Point 3)

solely arising from rainfall exceeding 90th percentile (70 mm) 5 day rainevent in total falling over any consecutive five day period

Yarrabee Rd Quarry - Licence Number 11462

Blasting	Frequency	Date	Limits	Units of measure	Results	Blast #	Blast ID	
Ground Vibration	Per Blast	13.07.2022	8 - trigger point >0.30	mm/s	**1.41**	#100	YRQ-2205	
Overpressure	Per Blast	13.07.2022	Max 115 - Trigger point >100dB	dBl	**109.5**	#100	YRQ-2205	
Ground Vibration	Per Blast	25.07.2022	9 - trigger point >0.30	mm/s	**1.36**	#101	YRQ-2206	
Overpressure	Per Blast	25.07.2022	Max 115 - Trigger point >100dB	dBl	**114.0**	#101	YRQ-2206	
Ground Vibration	Per Blast	25.08.2022	10 - trigger point >0.30	mm/s	**Nil Trigger**	#102	YRQ-2207	
Overpressure	Per Blast	25.08.2022	Max 115 - Trigger point >100dB	dBl	**Nil Trigger**	#102	YRQ-2207	
Ground Vibration	Per Blast	08.09.2022	11 - trigger point >0.30	mm/s	**Nil Trigger**	#103	YRQ-2208	
Overpressure	Per Blast	08.09.2022	Max 115 - Trigger point >100dB	dBl	**Nil Trigger**	#103	YRQ-2208	
Ground Vibration	Per Blast	13.09.2022	12 - trigger point >0.30	mm/s	**Nil Trigger**	#104	YRQ-2209	
Overpressure	Per Blast	13.09.2022	Max 115 - Trigger point >100dB	dBl	**Nil Trigger**	#104	YRQ-2209	
Ground Vibration	Per Blast	07.10.2022	13 - trigger point >0.30	mm/s	**Nil Trigger**	#105	YRQ-2210	12.49pm
Overpressure	Per Blast	07.10.2022	Max 115 - Trigger point >100dB	dBl	**Nil Trigger**	#105	YRQ-2210	
Ground Vibration	Per Blast	07.11.2022	14 - trigger point >0.30	mm/s	**0.78**	#106	YRQ-2211	12.15pm
Overpressure	Per Blast	07.11.2022	Max 115 - Trigger point >100dB	dBl	**111.7**	#106	YRQ-2211	
Ground Vibration	Per Blast	25.11.2022	15 - trigger point >0.30	mm/s	**Nil Trigger**	#107	YRQ-2212	11.00AM
Overpressure	Per Blast	25.11.2022	Max 115 - Trigger point >100dB	dBl	**Nil Trigger**	#107	YRQ-2212	
Ground Vibration	Per Blast	12/01/2023	16 - trigger point >0.30	mm/s	**0.70**	#108	YRQ-2301	12.04pm
Overpressure	Per Blast	12/01/2023	Max 115 - Trigger point >100dB	dBl	**110.0**	#108	YRQ-2301	
Ground Vibration	Per Blast	23/01/2023	17 - trigger point >0.30	mm/s	**1.49**	#109	YRQ-2302	12.29pm
Overpressure	Per Blast	23/01/2023	Max 115 - Trigger point >100dB	dBl	**103.6**	#109	YRQ-2302	
Ground Vibration	Per Blast	15/02/2023	17 - trigger point >0.30	mm/s	**Nil Trigger**	#110	YRQ-2303	1.56pm
Overpressure	Per Blast	15/02/2023	Max 115 - Trigger point >100dB	dBl	**Nil Trigger**	#110	YRQ-2303	
Ground Vibration	Per Blast	08/03/2023	18 - trigger point >0.30	mm/s	**Nil Trigger**	#111	YRQ-2304	11.06am
Overpressure	Per Blast	08/03/2023	Max 115 - Trigger point >100dB	dBl	**Nil Trigger**	#111	YRQ-2304	
Ground Vibration	Per Blast	10/03/2023	19 - trigger point >0.30	mm/s	**Nil Trigger**	#112	YRQ-2305	12.16pm
Overpressure	Per Blast	10/03/2023	Max 115 - Trigger point >100dB	dBl	**Nil Trigger**	#112	YRQ-2305	
Ground Vibration	Per Blast	09/05/2023	19 - trigger point >0.30	mm/s	**1.14**	#113	YRQ-2306	12.36pm
Overpressure	Per Blast	09/05/2023	Max 115 - Trigger point >100dB	dBl	**103.2**	#113	YRQ-2306	
Ground Vibration	Per Blast	26/06/2023	20 - trigger point >0.30	mm/s	**205.26**	#113	YRQ-2307	1.16pm