



Pollution Monitoring Data - Holcim Cooma Road Quarry (EPL Number 1453)

Facility Address	Cooma Road, Queanbeyan, NSW, 2620
Licence Details	Link to EPL on Public Register
Date Dataset Updated	Monday, April 15, 2024
Date Dataset Uploaded	15 April 2024
Reporting Period	May to April (Annually)

Air Quality Monitoring - Deposition Results

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Average (YTD)	Month Sample Date Report Date	January	February	March	April	May	June	July	August	September	October	November	December				
									5 Jan 2023 17 Jan 2023	6 Feb 2023 20 Feb 2023	8 Mar 2023 17 Mar 2023	5 Apr 2023 18 Apr 2023	3 May 2023 16 May 2023	5 Jun 2023 23 Jun 2023	5 Jul 2023 27 Jul 2023	6 Jul 2023 16 Aug 2023	4 Sep 2023 15 Sep 2023	4 Oct 2023 23 Oct 2023	6 Nov 2023 24 Nov 2023	6 Dec 2023 17 Dec 2023				
DD1	Monthly & Annual Average	Consent Schedule 3 Condition 14	-	4	mg/m2/month	Insoluble Solids	1.75	Result	1.1	1.1	2.8	3.5	1.9	2.4	0.1	0.1	2.3	1.0	2.7	2.0				
								Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria
DD2								Result	0.8	0.8	0.4	0.2	0.9	2.1	0.1	0.1	2.9	1.5	1.0	1.4				
								Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria				
DD3								Result	0.8	0.5	0.5	0.9	2.8	2.7	0.1	0.1	1.6	0.3	0.9	1.6				
								Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria				
DD4								Result	0.6	0.4	0.3	11.0	1.7	0.1	0.2	0.2	3.4	0.6	2.1	1.5				
								Within Criteria	Within Criteria	Within Criteria	Outside Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria				
DD5								Result	0.5	0.3	2.4	0.3	0.2	0.3	0.1	0.1	0.4	0.4	1.2	0.8				
								Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria				

2024 Total Suspended Particles (TSP)

Average (YTD) **µg/m3**

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Sample Date	05/01/2024	11/01/2024	17/01/2024	23/01/2024	29/01/2024	04/02/2024	10/02/2024	16/02/2024	22/02/2024	28/02/2024
HVAS Unit	Annual Average (Updated Monthly)	Consent Schedule 3 Condition 14	-	90	µg/m3	Outcome	10	17.1	13.7	19.2	33.8	41.2	14.6		17.7	28.1
						Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria
HVAS Unit	Annual Average (Updated Monthly)	Consent Schedule 3 Condition 14	-	90	µg/m3	Outcome										
						Result										
HVAS Unit	Annual Average (Updated Monthly)	Consent Schedule 3 Condition 14	-	90	µg/m3	Outcome										
						Result										
HVAS Unit	Annual Average (Updated Monthly)	Consent Schedule 3 Condition 14	-	90	µg/m3	Outcome										
						Result										

Comments regarding blast monitoring outcomes

Comment 1:	
Comment 2:	
Comment 3:	

2023 - Particulate Matter (PM10)							Average (YTD)					10.04 µg/m3									
Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Sample Date	4 Jan 2023	10 Jan 2023	16 Jan 2023	22 Jan 2023	28 Jan 2023	3 Feb 2023	9 Feb 2023	15 Feb 2023	21 Feb 2023	27 Feb 2023	5 Mar 2023	11 Mar 2023	17 Mar 2023	23 Mar 2023	
HVAS Unit	Annual Average (Updated Monthly)	Consent Schedule 3 Condition 14	-	30	µg/m3	Report Date	20 Feb 2023	20 Feb 2023	20 Feb 2023	20 Feb 2023	20 Feb 2023	20 Feb 2023	17 Mar 2023	17 Mar 2023	17 Mar 2023	17 Mar 2023	17 Mar 2023	18 Apr 2023	18 Apr 2023	18 Apr 2023	
						Outcome	6.9	11.9	9.3	6.3	15.9	13.2	7.4	13.3	14.5	16.7	14.9	18.6	17.6	7.7	
						Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria
Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Sample Date	29 Mar 2023	4 Apr 2023	10 Apr 2023	16 Apr 2023	22 Apr 2023	28 Apr 2023	4 May 2023	10 May 2023	16 May 2023	22 May 2023	28 May 2023	3 Jun 2023	9 Jun 2023	15 Jun 2023	
HVAS Unit	Annual Average (Updated Monthly)	Consent Schedule 3 Condition 14	-	30	µg/m3	Report Date	18 Apr 2023	18 Apr 2023	16 May 2023	16 May 2023	16 May 2023	16 May 2023	23 Jun 2023	23 Jun 2023	23 Jun 2023	23 Jun 2023	23 Jun 2023	23 Jun 2023	23 Jun 2023	27 Jul 2023	27 Jul 2023
						Outcome	7.2	9.9	6	7.2	12.4	15.9	11.1	9.5	19.2	17.3	3.4	9	5.7	4.9	
						Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria
Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Sample Date	21 Jun 2023	27 Jun 2023	3 Jul 2023	9 Jul 2023	15 Jul 2023	21 Jul 2023	27 Jul 2023	2 Aug 2023	8 Aug 2023	14 Aug 2023	20 Aug 2023	26 Aug 2023	1 Sep 2023	7 Sep 2023	
HVAS Unit	Annual Average (Updated Monthly)	Consent Schedule 3 Condition 14	-	30	µg/m3	Report Date	27 Jul 2023	27 Jul 2023	27 Jul 2023	16 Aug 2023	16 Aug 2023	16 Aug 2023	16 Aug 2023	16 Aug 2023	16 Aug 2023	15 Sep 2023	15 Sep 2023	15 Sep 2023	15 Sep 2023	15 Sep 2023	23 Oct 2023
						Outcome	7.3	5.8	8.1	3.7	7.9	6.7	13.7	10.6	13.8	2	2.8	6	5.5	10.4	
						Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria
Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Sample Date	13 Sep 2023	19 Sep 2023	25 Sep 2023	1 Oct 2023	7 Oct 2023	13 Oct 2023	19 Oct 2023	25 Oct 2023	31 Oct 2023	6 Nov 2023	12 Nov 2023	18 Nov 2023	24 Nov 2023	30 Nov 2023	
HVAS Unit	Annual Average (Updated Monthly)	Consent Schedule 3 Condition 14	-	30	µg/m3	Report Date	23 Oct 2023	23 Oct 2023	23 Oct 2023	-	24 Nov 2023	24 Nov 2023	24 Nov 2023	24 Nov 2023	24 Nov 2023	24 Nov 2023	17 Dec 2023	17 Dec 2023	17 Dec 2023	17 Dec 2023	
						Outcome	8.7	23.8	12.3	-	5.4	5.1	7.6	16.3	10.4	9.2	12.4	11.2	5.3	5	
						Result	Within Criteria	Within Criteria	Within Criteria	-	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria
Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Sample Date	6 Dec 2023	12 Dec 2023	18 Dec 2023	24 Dec 2023	30 Dec 2023										
HVAS Unit	Annual Average (Updated Monthly)	Consent Schedule 3 Condition 14	-	30	µg/m3	Report Date	17 Dec 2023	18 Jan 2024	18 Jan 2024	18 Jan 2024	18 Jan 2024										
						Outcome	14.8	5.4	17	4.2	11.1										
						Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria										
Comments regarding blast monitoring outcomes																					
Comment 1:	Filler for 1/10/2023 detached from apparatus and was lost - No outcomes available																				

2024 - Noise Monitoring Results

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Quarter				
							Sample Date (From)	Q1	Q2	Q3	Q4
							Sample Date (To)				
Report Date											
N3 15 Copperfield Place, Lot 2, DP808393 Jerrabomberra	Quarterly	Consent Schedule 3 Condition 7(c)	-	35	dB	Morning LAeq(15min)	Outcome				
						Contribution					
						Result					
			-	35	dB	Day LAeq(15min)	Outcome				
						Contribution					
						Result					
			-	35	dB	Evening LAeq(15min)	Outcome				
						Contribution					
						Result					
N8 North East of Quarry along Tempe Crescent	Quarterly	Consent Schedule 3 Condition 7(c)	-	40	dB	Morning LAeq(15min)	Outcome				
						Contribution					
						Result					
			-	44	dB	Day LAeq(15min)	Outcome				
						Contribution					
						Result					
			-	39	dB	Evening LAeq(15min)	Outcome				
						Contribution					
						Result					
N38 Heights Road	Quarterly	Consent Schedule 3 Condition 7(c)	-	36	dB	Morning LAeq(15min)	Outcome				
						Contribution					
						Result					
			-	38	dB	Day LAeq(15min)	Outcome				
						Contribution					
						Result					
			-	35	dB	Evening LAeq(15min)	Outcome				
						Contribution					
						Result					
N60 501 Old Cooma Road	Quarterly	Consent Schedule 3 Condition 7(c)	-	36	dB	Morning LAeq(15min)	Outcome				
						Contribution					
						Result					
			-	38	dB	Day LAeq(15min)	Outcome				
						Contribution					
						Result					
			-	35	dB	Evening LAeq(15min)	Outcome				
						Contribution					
						Result					
N67 732 Old Cooma Road	Quarterly	Consent Schedule 3 Condition 7(c)	-	36	dB	Morning LAeq(15min)	Outcome				
						Contribution					
						Result					
			-	41	dB	Day LAeq(15min)	Outcome				
						Contribution					
						Result					
			-	35	dB	Evening LAeq(15min)	Outcome				
						Contribution					
						Result					

Comments regarding blast monitoring outcomes

Comment 1: Inaudible = Quarry was either not contributing to noise measurements or the quarry was not operational during monitoring

2023 - Noise Monitoring Results

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Quarter	Q1	Q2	Q3	Q4
							Sample Date (From)	7 Mar 2023	2 May 2023	1 Aug 2023	4 Oct 2023
							Sample Date (To)	8 Mar 2023	3 May 2023	3 Aug 2023	6 Oct 2023
							Report Date	11 May 2023	25 Jul 2023	25 Oct 2023	1 Feb 2024
N3 15 Copperfield Place, Lot 2, DP808393 Jerrabomberra	Quarterly	Consent Schedule 3 Condition 7(c)	-	35	dB	Morning LAeq(15min)	Outcome	41.8	43.5	51.2	52.8
							Contribution	Inaudible	<29	<32	<35
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria
			-	35	dB	Day LAeq(15min)	Outcome	52.8	60.5	41.7	51.7
							Contribution	Inaudible	<35	<26	<32
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria
			-	35	dB	Evening LAeq(15min)	Outcome	52.1	38.1	47.3	46.3
							Contribution	Inaudible	<25	Inaudible	Inaudible
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria
N8 North East of Quarry along Tempe Crescent	Quarterly	Consent Schedule 3 Condition 7(c)	-	40	dB	Morning LAeq(15min)	Outcome	54.1	60.6	48.4	50.8
							Contribution	Inaudible	<40	<32	<36
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria
			-	44	dB	Day LAeq(15min)	Outcome	59.1	55.4	58.2	56.6
							Contribution	Inaudible	<40	<35	<37
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria
			-	39	dB	Evening LAeq(15min)	Outcome	55.7	53.4	58.4	59.5
							Contribution	Inaudible	<36	Inaudible	Inaudible
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria
N38 Heights Road	Quarterly	Consent Schedule 3 Condition 7(c)	-	36	dB	Morning LAeq(15min)	Outcome	52.9	61.5	49.1	53
							Contribution	Inaudible	<36	<34	<24
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria
			-	38	dB	Day LAeq(15min)	Outcome	55.7	55.9	50.5	46.8
							Contribution	Inaudible	<38	<34	<23
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria
			-	35	dB	Evening LAeq(15min)	Outcome	52.6	51	53.9	53.7
							Contribution	Inaudible	<32	Inaudible	Inaudible
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria
N60 501 Old Cooma Road	Quarterly	Consent Schedule 3 Condition 7(c)	-	36	dB	Morning LAeq(15min)	Outcome	67.3	60.2	63.6	61.8
							Contribution	Inaudible	<29	<35	<33
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria
			-	38	dB	Day LAeq(15min)	Outcome	66.1	64.1	60.9	63.1
							Contribution	Inaudible	<38	<32	<32
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria
			-	35	dB	Evening LAeq(15min)	Outcome	58.1	60.2	59.7	57.7
							Contribution	Inaudible	<29	Inaudible	Inaudible
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria
N67 732 Old Cooma Road	Quarterly	Consent Schedule 3 Condition 7(c)	-	36	dB	Morning LAeq(15min)	Outcome	57.6	61.9	66.2	66.8
							Contribution	Inaudible	<36	<35	<33
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria
			-	41	dB	Day LAeq(15min)	Outcome	53.1	63.6	64	68.7
							Contribution	Inaudible	<40	<31	<41
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria
			-	35	dB	Evening LAeq(15min)	Outcome	59.5	59	61.9	62
							Contribution	Inaudible	<30	Inaudible	Inaudible
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria

Comments regarding blast monitoring outcomes

Comment 1: Inaudible = Quarry was either not contributing to noise measurements or the quarry was not operational during monitoring

2024 - Blast Monitoring Results

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Date Time	17 Jan 2024	5 Feb 2024	12 Feb 2024	20 Feb 2024	27 Feb 2024	4 Mar 2024	21 Mar 2024	28 Mar 2024	5 Apr 2024
								30 Dec 1899	30 Dec 1899	30 Dec 1899	30 Dec 1899	30 Dec 1899	30 Dec 1899	30 Dec 1899	30 Dec 1899	30 Dec 1899
Heffernanas House	Per Blast	EPL Clause L4.1	-	115	dB (Lin Peak)	Over Pressure	Outcome	4 Apr 1900	3 Apr 1900	DNT	DNT	6 Apr 1900	DNT	18 Apr 1900	DNT	DNT
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria
			-	5	mm/s	Ground Vibration	Outcome	30 Dec 1899	30 Dec 1899	DNT	DNT	30 Dec 1899	DNT	30 Dec 1899	DNT	DNT
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria
Jerrabomberra	Per Blast	Blast Management Plan	-	115	dB (Lin Peak)	Over Pressure	Outcome	DNT	DNT	DNT	DNT	DNT	DNT	6 Apr 1900	DNT	DNT
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria
			-	5	mm/s	Ground Vibration	Outcome	DNT	DNT	DNT	DNT	DNT	DNT	30 Dec 1899	DNT	DNT
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Date Time									
								Heffernanas House	Per Blast	EPL Clause L4.1	-	115	dB (Lin Peak)	Over Pressure	Outcome	
			-	5	mm/s	Ground Vibration	Outcome									
							Result									
Jerrabomberra	Per Blast	Blast Management Plan	-	115	dB (Lin Peak)	Over Pressure	Outcome									
			-	5	mm/s	Ground Vibration	Outcome									
							Result									

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Date Time									
								Heffernanas House	Per Blast	EPL Clause L4.1	-	115	dB (Lin Peak)	Over Pressure	Outcome	
			-	5	mm/s	Ground Vibration	Outcome									
							Result									
Jerrabomberra	Per Blast	Blast Management Plan	-	115	dB (Lin Peak)	Over Pressure	Outcome									
			-	5	mm/s	Ground Vibration	Outcome									
							Result									

Over Pressure Monitor Trigger Setting	90	dB
Ground Vibration Monitor Trigger Setting	0.1	mm/s

2023 - Blast Monitoring Results

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Date Time	10 Feb 2023	14 Feb 2023	24 Feb 2023	14 Mar 2023	21 Mar 2023	29 Mar 2023	19 Apr 2023	18 May 2023	23 May 2023	8 Jun 2023	19 Jun 2023	22 Jun 2023	30 Jun 2023	
Heffernans House	Per Blast	EPL Clause L4.1	-	115	dB (Lin Peak)	Over Pressure	Outcome	106.9	DNT	114.2	105.2	110.0	101.0	96.4	98.5	110.5	DNT	DNT	DNT	DNT	
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria
			5	mm/s	Ground Vibration	Outcome	1.01	DNT	0.55	1.88	0.68	1.78	0.78	1.78	0.64	DNT	DNT	DNT	DNT	DNT	DNT
						Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Date Time	7 Jul 2023	14 Jul 2023	28 Jul 2023	31 Jul 2023	15 Aug 2023	25 Aug 2023	4 Sep 2023	11 Sep 2023	18 Sep 2023	25 Sep 2023	26 Sep 2023	9 Oct 2023	30 Oct 2023
Heffernans House	Per Blast	EPL Clause L4.1	-	115	dB (Lin Peak)	Over Pressure	Outcome	12.10	13.16	13.00	12.39	12.12	10.59	11.12	11.32	11.01	11.04	12.38	11.18	05.31
							Result	DNT	93.0	DNT	103.8	DNT	DNT	DNT	DNT	DNT	DNT	DNT	DNT	DNT
			5	mm/s	Ground Vibration	Outcome	DNT	1.15	DNT	0.95	DNT	DNT	DNT	DNT	DNT	DNT	DNT	DNT	DNT	DNT
						Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Date Time	27 Nov 2023	15 Dec 2023	18 Dec 2023
Heffernans House	Per Blast	EPL Clause L4.1	-	115	dB (Lin Peak)	Over Pressure	Outcome	10.35	10.09	13.05
							Result	Within Criteria	Within Criteria	Within Criteria
			5	mm/s	Ground Vibration	Outcome	DNT	DNT	DNT	
						Result	Within Criteria	Within Criteria	Within Criteria	

Over Pressure Monitor Trigger Setting	90	dB
Ground Vibration Monitor Trigger Setting	0.1	mm/s

2024 - Discharge Water Monitoring Results

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Sample Date	17 Jan 2024	27 Feb 2024												
								Report Date	2 Feb 2024	8 Mar 2024											
EPA Discharge Point 1 SIP Discharge to Barracks Creek	Each Discharge Event	EPL Section L2	6.5	8.5	pH	pH	Outcome	8.58	8.18												
							Result	Outside Criteria	Within Criteria												
			-	50	mg/L	Suspended Solids	Outcome	35	3												
							Result	Within Criteria	Within Criteria												
			-	10	mg/L	Total Oil & Grease	Outcome	0	0												
							Result	Within Criteria	Within Criteria												

2024 - Barracks Creek Water Quality & Flow Monitoring

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Month	January	February	March	April	May	June	July	August	September	October	November	December
								Sample Date	22 Jan 2024	5 Feb 2024	4 Mar 2024	2 Apr 2024							
Downstream in Barracks Creek	Monthly (Provided creek conditions allows safe access)	Water Management Plan Clause 5.1.2 & 5.1.3	6.5	8.5	pH	pH	Outcome	7.8	7.8	8.1	7.8								
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria								
			-	50	mg/L	Suspended Solids	Outcome	5	5	5									
							Result	Within Criteria	Within Criteria	Within Criteria									
			-	10	mg/L	Total Oil & Grease	Outcome	10	13	10									
							Result	Within Criteria	Outside Criteria	Within Criteria									
			125	2200	µS/cm	Electrical Conductivity	Outcome	555	777	1110	783								
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria								
			-	-	m	Creek Depth	Outcome	-	-	-	0.095								
			-	-	KL	Flow Calculation	Outcome	-	-	-	-								

Comments: Add any comments regarding the surface water monitoring outcomes in the fields below

- Comment 1: As the site did not discharge water to Barracks Creek in 2023 monitoring at the SIP discharge Point was not triggered
- Comment 2: Creek depth measurement using a manual staff guage to commence in 2024
- Comment 3: Methodology to convert depth measurement into flow volume using flow rating curve to be determined.

2024 - Upslope Catchment Inflow Monitoring

Inflow Volume

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Discharge Volume (YTD)	January	February	March	April	May	June	July	August	September	October	November	December
							Entry of Upflow catchment to CRQ	Monthly	Water Management Plan Clause 5.1.2 & 5.1.3	-	-	kL	Measured Volume from V-notch Weir	28	88	9		

Comments: Add any comments regarding the surface water monitoring outcomes in the fields below

- Comment 1: Recording of upslope inflow using a v-notch wier to commence in 2024

2023 - Discharge Water Monitoring Results

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Sample Date Report Date	
EPA Discharge Point 1 SIP Discharge to Barracks Creek	Each Discharge Event	EPL Section L2	6.5	8.5	pH	pH	Outcome	Comment 1
							Result	
			-	50	mg/L	Suspended Solids	Outcome	
							Result	
			-	10	mg/L	Total Oil & Grease	Outcome	
							Result	

2023 - Barracks Creek Water Quality & Flow Monitoring

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Month Sample Date Report Date	January	February	March	April	May	June	July	August	September	October	November	December		
								5 Jan 2023 17 Jan 2023	6 Feb 2023 20 Feb 2023	8 Mar 2023 17 Mar 2023	5 Apr 2023 28 Apr 2023	3 May 2023 16 May 2023	5 Jun 2023 23 Jun 2023	4 Jul 2023 27 Jul 2023	2 Aug 2023 14 Aug 2023	7 Sep 2023 15 Sep 2023	8 Sep 2023 23 Oct 2023	7 Nov 2023 24 Nov 2023	6 Dec 2023 17 Dec 2023		
Downstream in Barracks Creek	Monthly (Provided creek conditions allows safe access)	Water Management Plan Clause 5.1.2 & 5.1.3	6.5	8.5	pH	pH	Outcome	8.6	8.4	8.6	8.5	8.6	8.6	8.9	9.4	8.4	8.4	8.7	11.7		
							Result	Outside Criteria	Within Criteria	Outside Criteria	Within Criteria	Outside Criteria	Outside Criteria	Outside Criteria	Outside Criteria	Within Criteria	Within Criteria	Outside Criteria	Outside Criteria		
							Outcome	5.6	8.7	18	5	10	5.3	6.1	5	11	7.8	5	5.4		
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria		
							Outcome	24	10	31	10	12	28	5	10	10	16	10	10		
							Result	Outside Criteria	Within Criteria	Outside Criteria	Within Criteria	Outside Criteria	Outside Criteria	Within Criteria	Within Criteria	Within Criteria	Outside Criteria	Within Criteria	Within Criteria		
			-	10	mg/L	Total Oil & Grease	Outcome	385	296	496	413	410	523	535	816	1130	741	842	663		
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria			
							Outcome	-	-	-	-	-	-	-	-	-	-	-	-	-	-
							Result	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria	Within Criteria		
							Outcome	Comment 2	Comment 2	Comment 2	Comment 2	Comment 2	Comment 2	Comment 2	Comment 2	Comment 2	Comment 2	Comment 2	Comment 2		
							Result	Comment 3	Comment 3	Comment 3	Comment 3	Comment 3	Comment 3	Comment 3	Comment 3	Comment 3	Comment 3	Comment 3	Comment 3		

Comments: Add any comments regarding the surface water monitoring outcomes in the fields below

- Comment 1: As the site did not discharge water to Barracks Creek in 2023 monitoring at the SIP discharge Point was not triggered
- Comment 2: Creek depth measurement using a manual staff guage to commence in 2024
- Comment 3: Methodology to convert depth measurement into flow volume using flow rating curve to be determined.

2023 - Upslope Catchment Inflow Monitoring

Inflow Volume

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Discharge Volume (YTD)	January	February	March	April	May	June	July	August	September	October	November	December
Entry of Uplow catchment to CRQ	Monthly	Water Management Plan Clause 5.1.2 & 5.1.3	-	-	kL	Measured Volume from V-notch Weir	Comment 1	Comment 1	Comment 1	Comment 1	Comment 1	Comment 1	Comment 1	Comment 1	Comment 1	Comment 1	Comment 1	Comment 1

Comments: Add any comments regarding the surface water monitoring outcomes in the fields below

- Comment 1: Recording of upslope inflow using a v-notch wier to commence in 2024

2024 - Groundwater Monitoring Results

Location	Frequency	Source	Description	Unit	Quarter Sample Date Report Date	Q1	Q2	Q3	Q4
MB01	Quarterly	Water Management Plan Section 5.2	Depth to water	Meters	Outcomes				
			pH	ph Units					
			Temperature	deg. C					
			Electrical Conductivity	µS/cm					
			Total Dissolved Solids	mg/L					
			Observation - Colour (Clear, Cloudy or Dirty)	-					
			Observation - Odour (No Odour, Mild Odour, Strong Odour)	-					
MB02	Quarterly	Water Management Plan Section 5.2	Depth to water	Meters	Outcomes				
			pH	ph Units					
			Temperature	deg. C					
			Electrical Conductivity	µS/cm					
			Total Dissolved Solids	mg/L					
			Observation - Colour (Clear, Cloudy or Dirty)	-					
			Observation - Odour (No Odour, Mild Odour, Strong Odour)	-					
GW400534	Quarterly	Water Management Plan Section 5.2	Depth to water	Meters	Outcomes				
			pH	ph Units					
			Temperature	deg. C					
			Electrical Conductivity	µS/cm					
			Total Dissolved Solids	mg/L					
			Observation - Colour (Clear, Cloudy or Dirty)	-					
			Observation - Odour (No Odour, Mild Odour, Strong Odour)	-					
GW416130	Quarterly	Water Management Plan Section 5.2	Depth to water	Meters	Outcomes				
			pH	ph Units					
			Temperature	deg. C					
			Electrical Conductivity	µS/cm					
			Total Dissolved Solids	mg/L					
			Observation - Colour (Clear, Cloudy or Dirty)	-					
			Observation - Odour (No Odour, Mild Odour, Strong Odour)	-					

2023 - Groundwater Monitoring Results

Location	Frequency	Source	Description	Unit	Quarter Sample Date Report Date	Q1	Q2	Q3	Q4
						6 Feb 2023	5 Apr 2023	2 Aug 2023	10 Apr 2023
MB01	Quarterly	Water Management Plan Section 5.2	Depth to water	Meters	Outcomes	67.63	67.34	66.4	66.5
			pH	ph Units		7.5	9.4	7.8	7.4
			Temperature	deg. C		21.6	22.8	15.7	16.5
			Electrical Conductivity	µS/cm		595	707.0	1570.0	1590.0
			Total Dissolved Solids	mg/L		381	453.0	9.9	1020.0
			Observation - Colour (Clear, Cloudy or Dirty)	-		Clear	Clear	Cloudy	Clear
			Observation - Odour (No Odour, Mild Odour, Strong Odour)	-		Mild Odour	No Odour	Mild Odour	Mild Odour
			Observation - Odour (No Odour, Mild Odour, Strong Odour)	-					
MB02	Quarterly	Water Management Plan Section 5.2	Depth to water	Meters	Outcomes	38.79	43.77	43.4	43.4
			pH	ph Units		7.13	7.9	8.0	7.4
			Temperature	deg. C		17.83	18.02	15.4	16.6
			Electrical Conductivity	µS/cm		579	6250.0	1460.0	1440.0
			Total Dissolved Solids	mg/L		37	4000.0	2.9	922.0
			Observation - Colour (Clear, Cloudy or Dirty)	-		Cloudy	Cloudy	Clear	Clear
			Observation - Odour (No Odour, Mild Odour, Strong Odour)	-		No Odour	No Odour	Mild Odour	No Odour
			Observation - Odour (No Odour, Mild Odour, Strong Odour)	-					
GW400534	Quarterly	Water Management Plan Section 5.2	Depth to water	Meters	Outcomes	47.31	47.29	46.4	46.2
			pH	ph Units		7.1	7.2	7.4	7.2
			Temperature	deg. C		18.06	23.67	14.5	16.3
			Electrical Conductivity	µS/cm		581	602	733.0	713.0
			Total Dissolved Solids	mg/L		372	375.0	1.2	456.0
			Observation - Colour (Clear, Cloudy or Dirty)	-		Cloudy	Cloudy	Cloudy	Cloudy
			Observation - Odour (No Odour, Mild Odour, Strong Odour)	-		No Odour	No Odour	No Odour	No Odour
			Observation - Odour (No Odour, Mild Odour, Strong Odour)	-					
GW416130	Quarterly	Water Management Plan Section 5.2	Depth to water	Meters	Outcomes	24.63	25.4	24.7	24.6
			pH	ph Units		6.8	7.6	6.9	6.8
			Temperature	deg. C		17.75	20.35	15.1	16.0
			Electrical Conductivity	µS/cm		883	1000	2540.0	2410.0
			Total Dissolved Solids	mg/L		565	6420	2.2	1550.0
			Observation - Colour (Clear, Cloudy or Dirty)	-		Cloudy	Cloudy	Cloudy	Clear
			Observation - Odour (No Odour, Mild Odour, Strong Odour)	-		No Odour	No Odour	No Odour	No Odour
			Observation - Odour (No Odour, Mild Odour, Strong Odour)	-					