Vales Point Power Station Monthly Environmental Data Summary

LICENCE NO	761	http://www.epa.nsw.gov.au/prpoeoapp/
LICENCE HOLDER	SUNSET POWER INTERNATIONAL PTY LTD	
REPORTING PERIOD	November 2022	
ADDRESS	VALES ROAD, MANNERING PARK NSW	



POINT 2 Combined air emissions from boiler 5 via Points 4 to 7 to Point 1 marked and shown as EPA ID 2 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1). Samples 99 Percentile 100 Percentile Exceed Collected 8 **Date Sampled** Lowest Sample Mean of **Highest Sample** Concentration Concentration 100% Limit Unit of Measure Month Pollutant Sample/Measurement Frequency Analysed Value Value (yes/no) Comments Samples Limit Limit Nov-22 Cadmium (mg/m3) Every 6 months 0.2 Nov-22 Chlorine (mg/m3) 20 Every 6 months Nov-22 Fluorine (mg/m3) Every 6 months 30 Every 6 months 50 Nov-22 Hydrogen chloride (mg/m3) 0.05 Nov-22 (mg/m3) Every 6 months Mercury 81.2% Nov-22 319 677 828 850 980 No Nov-22 Nitrogen Oxides (mg/m3) Continuous Nov-22 Solid Particles (mg/m3) Quarterly 1 October 2022 5.4 5.4 5.4 50 Nov-22 Sulfur dioxide (mg/m3) Continuous 81.2% Nov-22 506 877 1290 1400 1700 No Sulfuric acid mist and sulfur trioxide (as SO3) Nov-22 (mg/m3) 100 Every 6 months Nov-22 Type 1 and Type 2 substances in aggregate (mg/m3) Every 6 months 0.75 Nov-22 VOC's as n-propane equivalent (mg/m3) 10 Every 6 months

POINT 3	Combined air emissions from boiler 6 via Points 8	to 11 to Point 1 mar	ked and shown as EPA ID 3 on The Pla	ans ("VX83735	1-1 AND "VX8373	51-2" 03/06/2020	DEPA REFERENC	E DOC20/476695 A	AND DOC20/4766	595-1).		
				Samples					99 Percentile	100 Percentile	Exceed	
				Collected &		Lowest Sample	Mean of	Highest Sample	Concentration	Concentration	100% Limit	
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Cadmium	(mg/m3)	Every 6 months							0.2		
Nov-22	Chlorine	(mg/m3)	Every 6 months							20		
Nov-22	Fluorine	(mg/m3)	Every 6 months							30		
Nov-22	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Nov-22	Mercury	(mg/m3)	Every 6 months							0.05		
Nov-22	Nitrogen Oxides	(mg/m3)	Continuous	83.6%	Nov-22	262	661	847	850	980	No	
Nov-22	Solid Particles	(mg/m3)	Quarterly	1	October 2022	1.6	1.6	1.6		50		
Nov-22	Sulfur dioxide	(mg/m3)	Continuous	83.6%	Nov-22	466	868	1271	1400	1700	No	
Nov-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Nov-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Nov-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months							10		

POINT 4 Boiler number 5 exhaust - duct A marked and shown as EPA ID 4 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

				Samples Collected &		Lowest Sample	Mean of	Highest Sample	Concentration		Exceedance	
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Cadmium	(mg/m3)	Every 6 months									
Nov-22	Carbon dioxide	(%)	Every 6 months									
Nov-22	Chlorine	(mg/m3)	Every 6 months									
Nov-22	Flow rate	(m3/s)	Continuous									
Nov-22	Fluorine	(mg/m3)	Every 6 months									
Nov-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Nov-22	Mercury	(mg/m3)	Every 6 months									Continuous monitoring of flow rate, moisture, O2 and temperature
Nov-22	Moisture	(%)	Continuous									not required until 30/11/2022.
Nov-22	Oxygen (O2)	(%)	Continuous									
Nov-22	Solid Particles	(mg/m3)	Quarterly	1	October 2022	3.7	3.7	3.7				
Nov-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Nov-22	Temperature	(°C)	Continuous									
Nov-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Nov-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months									

POINT 5 Boiler number 5 exhaust - duct B marked and shown as EPA ID 5 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

101113	Boller Humber 9 exhaust - duct B marked and sho	WITUS ET ATE 5 OF TH	10 1 10113 (VX037331-1 AND VX03733	J1-2 03/00/2	020 EI A KEI EKEN	CL DOC20/4/0055	AND DOCLO,47	0055-1).				
				Samples					99 Percentile	100 Percentile		
				Collected &		Lowest Sample	Mean of	Highest Sample	Concentration	Concentration	Exceedance	
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Cadmium	(mg/m3)	Every 6 months									
Nov-22	Flow rate	(m3/s)	Continuous									
Nov-22	Mercury	(mg/m3)	Every 6 months									
Nov-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature
Nov-22	Oxygen (O2)	(%)	Continuous									not required until 30/11/2022.
Nov-22	Solid Particles	(mg/m3)	Quarterly	1	October 2022	1.6	1.6	1.6				
Nov-22	Temperature	(°C)	Continuous									
Nov-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									

POINT 6 Boiler number 5 exhaust - duct C marked and shown as EPA ID 6 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

				Samples					99 Percentile	100 Percentile		
				Collected &		Lowest Sample	Mean of	Highest Sample	Concentration	Concentration	Exceedance	
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Cadmium	(mg/m3)	Every 6 months									
Nov-22	Carbon dioxide	(%)	Every 6 months									
Nov-22	Chlorine	(mg/m3)	Every 6 months									
Nov-22	Flow rate	(m3/s)	Continuous									
Nov-22	Fluorine	(mg/m3)	Every 6 months									
Nov-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Nov-22	Mercury	(mg/m3)	Every 6 months									Continuous monitoring of flow rate, moisture, O2 and temperature
Nov-22	Moisture	(%)	Continuous									not required until 30/11/2022.
Nov-22	Oxygen (O2)	(%)	Continuous									
Nov-22	Solid Particles	(mg/m3)	Quarterly	1	October 2022	8.1	8.1	8.1				
Nov-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Nov-22	Temperature	(°C)	Continuous									
Nov-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Nov-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months									

POINT 7	Boiler number 5 exhaust - duct D marked and sho	wn as EPA ID 7 on Th	e Plans ("VX837351-1 AND "VX8373	51-2" 03/06/2	020 EPA REFEREN	CE DOC20/47669	5 AND DOC20/47	76695-1).				
				Samples					99 Percentile	100 Percentile		
				Collected &		Lowest Sample	Mean of	Highest Sample	Concentration	Concentration	Exceedance	
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Cadmium	(mg/m3)	Every 6 months									
Nov-22	Flow rate	(m3/s)	Continuous									
Nov-22	Mercury	(mg/m3)	Every 6 months									
Nov-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature
Nov-22	Oxygen (O2)	(%)	Continuous									not required until 30/11/2022.
Nov-22	Solid Particles	(mg/m3)	Quarterly	1	October 2022	7.8	7.8	7.8				
Nov-22	Temperature	(°C)	Continuous									
Nov-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									

POINT 8 Boiler number 6 exhaust - duct A marked and shown as EPA ID 8 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

PUINT 6	Boller humber o exhaust - duct A marked and she					22 20 220, 47 0033	/110 00020/1/		00 D 11	100 Percentile		
				Samples								
				Collected &		Lowest Sample	Mean of	Highest Sample				
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Cadmium	(mg/m3)	Every 6 months									
Nov-22	Carbon dioxide	(%)	Every 6 months									
Nov-22	Chlorine	(mg/m3)	Every 6 months									
Nov-22	Flow rate	(m3/s)	Continuous									
Nov-22	Fluorine	(mg/m3)	Every 6 months									
Nov-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Nov-22	Mercury	(mg/m3)	Every 6 months									Continuous monitoring of flow rate, moisture, O2 and temperature
Nov-22	Moisture	(%)	Continuous									not required until 30/11/2022.
Nov-22	Oxygen (O2)	(%)	Continuous									
Nov-22	Solid Particles	(mg/m3)	Quarterly	1	October 2022	1.1	1.1	1.1				
Nov-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Nov-22	Temperature	(°C)	Continuous									
Nov-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Nov-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months									

POINT 9 Boiler number 6 exhaust - duct B marked and shown as EPA ID 9 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

101113	Boller humber o exhaust - duct b marked and sho		IC TIAII3 (VX037331-1 AND VX0373.	J1-2 03/00/2	020 EI A REI EREN	CL DOC20/4/0053	AND DOCLO/4/	0055-1).				
				Samples					99 Percentile	100 Percentile		
				Collected &		Lowest Sample	Mean of	Highest Sample	Concentration	Concentration	Exceedance	
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Cadmium	(mg/m3)	Every 6 months									
Nov-22	Flow rate	(m3/s)	Continuous									
Nov-22	Mercury	(mg/m3)	Every 6 months									
Nov-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature
Nov-22	Oxygen (O2)	(%)	Continuous									not required until 30/11/2022.
Nov-22	Solid Particles	(mg/m3)	Quarterly	1	October 2022	1.5	1.5	1.5				
Nov-22	Temperature	(°C)	Continuous									
Nov-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									

POINT 10 Boiler number 6 exhaust - duct C marked and shown as EPA ID 10 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

				Samples					99 Percentile	100 Percentile		
				Collected &		Lowest Sample	Mean of	Highest Sample	Concentration	Concentration	Exceedance	
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Cadmium	(mg/m3)	Every 6 months									
Nov-22	Carbon dioxide	(%)	Every 6 months									
Nov-22	Chlorine	(mg/m3)	Every 6 months									
Nov-22	Flow rate	(m3/s)	Continuous									
Nov-22	Fluorine	(mg/m3)	Every 6 months									
Nov-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Nov-22	Mercury	(mg/m3)	Every 6 months									Continuous monitoring of flow rate, moisture, O2 and temperature
Nov-22	Moisture	(%)	Continuous									not required until 30/11/2022.
Nov-22	Oxygen (O2)	(%)	Continuous									
Nov-22	Solid Particles	(mg/m3)	Quarterly	1	October 2022	4.0	4.0	4.0				
Nov-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Nov-22	Temperature	(°C)	Continuous									
Nov-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Nov-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months									

POINT 11	Boiler number 6 exhaust - duct D marked and shown as EPA ID 11 on The Plans	"VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).
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				Samples						100 Percentile		
				Collected &		Lowest Sample	Mean of	Highest Sample	Concentration	Concentration	Exceedance	
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Cadmium	(mg/m3)	Every 6 months									
Nov-22	Flow rate	(m3/s)	Continuous									
Nov-22	Mercury	(mg/m3)	Every 6 months									
Nov-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature
Nov-22	Oxygen (O2)	(%)	Continuous									not required until 30/11/2022.
Nov-22	Solid Particles	(mg/m3)	Quarterly	1	October 2022	<0.6	<0.6	<0.6				
Nov-22	Temperature	(°C)	Continuous									
Nov-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									

POINT 12 Boiler number 5 combined exhaust - duct A and B (points 4 and 5) marked and shown as EPA ID 12 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

				Samples					99 Percentile	100 Percentile		
				Collected &		Lowest Sample	Mean of	Highest Sample	Concentration	Concentration	Exceedance	
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Nitrogen Oxides	(mg/m3)	Continuous	81.2%	Nov-22	289	662	821			N/A	
Nov-22	Sulfur dioxide	(mg/m3)	Continuous	81.2%	Nov-22	460	827	1192			N/A	

POINT 13 Boiler number 5 combined exhaust - duct C and D (points 6 and 7) marked and shownas EPA ID 13 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

				Samples					99 Percentile	100 Percentile		
		1		Collected &		Lowest Sample	Mean of	Highest Sample	Concentration	Concentration	Exceedance	
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Nitrogen Oxides	(mg/m3)	Continuous	81.1%	Nov-22	284	693	866			N/A	
Nov-22	Sulfur dioxide	(mg/m3)	Continuous	81.1%	Nov-22	547	927	1388			N/A	

POINT 14 Boiler number 6 combined exhaust - duct A and B (points 8 and 9) marked and shownas EPA ID 14 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

				Samples					99 Percentile	100 Percentile		
		1		Collected &		Lowest Sample	Mean of	Highest Sample	Concentration	Concentration	Exceedance	
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Nitrogen Oxides	(mg/m3)	Continuous	83.6%	Nov-22	268	707	859		[]	N/A	
Nov-22	Sulfur dioxide	(mg/m3)	Continuous	83.6%	Nov-22	452	900	1297			N/A	

POINT 15	Boiler number 6 combined exhaust - duct C and D (points 10 and 11) marked and shownas EPA ID 12 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).												
				Samples					99 Percentile	100 Percentile			
				Collected &		Lowest Sample	Mean of	Highest Sample	Concentration	Concentration	Exceedance		
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments	
Nov-22	Nitrogen Oxides	(mg/m3)	Continuous	83.6%	Nov-22	241	615	862			N/A		
Nov-22	Sulfur dioxide	(mg/m3)	Continuous	83.6%	Nov-22	454	835	1245			N/A		

POINT 22 Discharge of cooling water from the cooling water outlet canal to Wyee Bay marked and shown as EPA ID 22 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

				Samples Collected &		Lowest Sample		Highest Sample		Concentration	Exceed 100%	
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	Limit (yes/no)	Comments
Nov-22	Chlorine (free residual)	(mg/L)	Monthly during discharge	1	1/11/2022	<0.1	<0.1	<0.1		0.2	No	
Nov-22	Copper	(mg/L)	Monthly during discharge	1	1/11/2022	0.003	0.003	0.003		0.005	No	
Nov-22	Iron	(mg/L)	Monthly during discharge	1	1/11/2022	0.120	0.120	0.120		0.3	No	
Nov-22	Oil and Grease	Visible	Continuous during discharge	100%	Nov-22	NIL	NIL	NIL				
Nov-22	Selenium	(mg/L)	Monthly during discharge	1	1/11/2022	0.001	0.001	0.001		0.005	No	
Nov-22	Temperature	(°C)	Continuous during discharge	100%	Nov-22	23.5	29.7	33.4	35	37.5	No	

POINT 23													
				Samples					99 Percentile	100 Percentile			
				Collected &		Lowest Sample	Mean of	Highest Sample	Concentration	Concentration	Exceedance		
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments	
Nov-22	Aluminium	(mg/L)	Monthly during discharge	1	1/11/2022	0.06	0.06	0.06					
Nov-22	Ammonia	(mg/L)	Monthly during discharge	1	1/11/2022	0.044	0.044	0.044					
Nov-22	Arsenic (III)	(mg/L)	Monthly during discharge	1	1/11/2022	<0.001	< 0.001	< 0.001					
Nov-22	Arsenic (V)	(mg/L)	Monthly during discharge	1	1/11/2022	0.006	0.006	0.006					
Nov-22	Cadmium	(mg/L)	Monthly during discharge	1	1/11/2022	< 0.0001	<0.0001	< 0.0001					
Nov-22	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	1/11/2022	< 0.005	<0.005	< 0.005					
Nov-22	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	1/11/2022	0.050	0.050	0.050					
Nov-22	Copper	(mg/L)	Monthly during discharge	1	1/11/2022	< 0.001	< 0.001	< 0.001					
Nov-22	Iron	(mg/L)	Monthly during discharge	1	1/11/2022	0.032	0.032	0.032					
Nov-22	Lead	(mg/L)	Monthly during discharge	1	1/11/2022	< 0.001	< 0.001	< 0.001					
Nov-22	Manganese	(mg/L)	Monthly during discharge	1	1/11/2022	< 0.005	<0.005	< 0.005					
Nov-22	Nickel	(mg/L)	Monthly during discharge	1	1/11/2022	< 0.001	< 0.001	< 0.001					
Nov-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	1/11/2022	0.30	0.30	0.30					
Nov-22	Nitrogen	(mg/L)	Monthly during discharge	1	1/11/2022	0.30	0.30	0.30					
Nov-22	pH	рН	Monthly during discharge	1	1/11/2022	7.32	7.32	7.32		6.5 - 9.5	No		
Nov-22	Phosphorus	(mg/L)	Monthly during discharge	1	1/11/2022	< 0.05	<0.05	<0.05					
Nov-22	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	1/11/2022	0.005	0.005	0.005					
Nov-22	Selenium	(mg/L)	Monthly during discharge	1	1/11/2022	0.07	0.07	0.07					
Nov-22	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	1/11/2022	0.3	0.3	0.3					
Nov-22	Total Suspended Solids	(mg/L)	Monthly during discharge	1	1/11/2022	<5	<5	<5		50	No		
Nov-22	Vanadium	(mg/L)	Monthly during discharge	1	1/11/2022	0.089	0.089	0.089					
Nov-22	Zinc	(mg/L)	Monthly during discharge	1	1/11/2022	<0.001	<0.001	< 0.001					

POINT 24	Discharge of seepage water from the ash dam rehabilitation area to Mannering Bay marked and shown as EPA ID 24 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).
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Nov-22 Arr Nov-22 Ars Nov-22 Ars Nov-22 Ca Nov-22 Ch Nov-22 Ch Nov-22 Ch Nov-22 Ch Nov-22 Ch	Pollutant Aluminium Ammonia Arsenic (III) Arsenic (V) Cadmium	Unit of Measure (mg/L) (mg/L) (mg/L) (mg/L)	Sample/Measurement Frequency Monthly during discharge Monthly during discharge Monthly during discharge	Collected & Analysed	Date Sampled 1/11/2022	Lowest Sample Value	Mean of Samples	Highest Sample Value	(yes/no)	Concentration		
Nov-22 Am Nov-22 Ars Nov-22 Ars Nov-22 Ca Nov-22 Ch Nov-22 Ch Nov-22 Ch Nov-22 Ch	Ammonia Arsenic (III) Arsenic (V) Cadmium	(mg/L) (mg/L)	Monthly during discharge	1	1/11/2022					Limit	(yes/no)	Comments
Nov-22 Ars Nov-22 Ars Nov-22 Cai Nov-22 Ch Nov-22 Ch Nov-22 Ch Nov-22 Ch	Arsenic (III) Arsenic (V) Cadmium	(mg/L)	i i j i gi i i gi	1		0.11	0.11	0.11	Yes			
Nov-22 Ars Nov-22 Ca Nov-22 Ch Nov-22 Ch Nov-22 Ch Nov-22 Ch	Arsenic (V) Cadmium		Monthly during discharge	1	1/11/2022	1.40	1.40	1.40	Yes			
Nov-22 Cat Nov-22 Ch Nov-22 Ch Nov-22 Ch Nov-22 Ch	Cadmium	(mg/L)		1	1/11/2022	< 0.001	< 0.001	< 0.001	Yes			
Nov-22 Ch Nov-22 Ch Nov-22 Co			Monthly during discharge	1	1/11/2022	0.004	0.004	0.004	Yes			
Nov-22 Ch Nov-22 Co		(mg/L)	Monthly during discharge	1	1/11/2022	0.0002	0.0002	0.0002	Yes			
Nov-22 Co	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	1/11/2022	< 0.005	<0.005	< 0.005	Yes			
	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	1/11/2022	< 0.005	<0.005	< 0.005	Yes			
	Copper	(mg/L)	Monthly during discharge	1	1/11/2022	< 0.001	< 0.001	< 0.001	Yes			
Nov-22 Iro	ron	(mg/L)	Monthly during discharge	1	1/11/2022	0.96	0.96	0.96	Yes			
Nov-22 Lea	Lead	(mg/L)	Monthly during discharge	1	1/11/2022	< 0.001	< 0.001	< 0.001	Yes			
Nov-22 Ma	Manganese	(mg/L)	Monthly during discharge	1	1/11/2022	0.12	0.12	0.12	Yes			
Nov-22 Nic	Nickel	(mg/L)	Monthly during discharge	1	1/11/2022	< 0.001	< 0.001	< 0.001	Yes			
Nov-22 Nit	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	1/11/2022	1.30	1.30	1.30	Yes			
Nov-22 Nit	Nitrogen	(mg/L)	Monthly during discharge	1	1/11/2022	1.40	1.40	1.40	Yes			
Nov-22 pH	pH	pН	Monthly during discharge	1	1/11/2022	8.01	8.01	8.01	Yes	6.5 - 9.5	No	
Nov-22 Ph	Phosphorus	(mg/L)	Monthly during discharge	1	1/11/2022	<0.05	<0.05	<0.05	Yes			
Nov-22 Rea	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	1/11/2022	< 0.005	<0.005	<0.005	Yes			
Nov-22 Sel	Selenium	(mg/L)	Monthly during discharge	1	1/11/2022	0.002	0.002	0.002	Yes			
Nov-22 Tot	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	1/11/2022	1.30	1.30	1.30	Yes			
Nov-22 Tot	Total Suspended Solids	(mg/L)	Monthly during discharge	1	1/11/2022	<5	<5	<5	Yes	50	No	
Nov-22 Va	Vanadium	(mg/L)	Monthly during discharge	1	1/11/2022	0.01	0.01	0.01	Yes			

POINT 25 Discharge of over boarded water from the ash dam to Mannering Bay marked and shown as EPA ID 25 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

				Samples					Discharge	100 Percentile		
				Collected &		Lowest Sample	Mean of	Highest Sample	(yes/no)	Concentration		
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	(yes/110)	Limit	(yes/no)	Comments
Nov-22	Aluminium	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Ammonia	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Arsenic (III)	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Arsenic (V)	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Cadmium	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Chromium (trivalent)	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Chromium (VI) Compounds	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Copper	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Iron	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Lead	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Manganese	(mg/L)	Daily for any discharge >2 hrs						No			No discharge from EPA Point 25 during November 2022
Nov-22	Nickel	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	pН	рН	Daily for any discharge >2 hrs						No	6.5 - 9.5	No	
Nov-22	Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Reactive Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Selenium	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Total Kjeldahl Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Total Suspended Solids	(mg/L)	Daily for any discharge >2 hrs						No	50	No	
Nov-22	Vanadium	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-22	Zinc	(mg/L)	Daily for any discharge >2 hrs						No			

POINT 30 Groundwater quality monitoring bore marked and shown as EPA ID 30 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

POINT 30	Groundwater quality monitoring bore marked an	d shown as EPA ID 30	on The Plans ("VX837351-1 AND "V	(837351-2" 03	8/06/2020 EPA RE	FERENCE DOC20/4	76695 AND DOC	20/476695-1).				
				Samples					99 Percentile	100 Percentile		
				Collected &		Lowest Sample	Mean of	Highest Sample	Concentration	Concentration	Exceedance	
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Aluminium	(mg/L)	Quarterly									
Nov-22	Ammonia	(mg/L)	Quarterly									
Nov-22	Arsenic (III)	(mg/L)	Quarterly									
Nov-22	Arsenic (V)	(mg/L)	Quarterly									
Nov-22	Cadmium	(mg/L)	Quarterly									
Nov-22	Chromium (trivalent)	(mg/L)	Quarterly									
Nov-22	Chromium (VI) Compounds	(mg/L)	Quarterly									
Nov-22	Copper	(mg/L)	Quarterly									
Nov-22	Electrical Conductivity	(us/cm)	Quarterly									
Nov-22	Iron	(mg/L)	Quarterly									Next sample scheduled for January 2023
Nov-22	Lead	(mg/L)	Quarterly									
Nov-22	Magnesium	(mg/L)	Quarterly									
Nov-22	Manganese	(mg/L)	Quarterly									
Nov-22	Nickel	(mg/L)	Quarterly									
Nov-22	рН	рН	Quarterly									
Nov-22	Potassium	(mg/L)	Quarterly									
Nov-22	Selenium	(mg/L)	Quarterly									
Nov-22	Sodium	(mg/L)	Quarterly									
Nov-22	Standing Water Level	(m)	Quarterly									
Nov-22	Vanadium	(mg/L)	Quarterly									
Nov-22	Zinc	(mg/L)	Quarterly									

POINT 31	Groundwater quality monitoring bore marked an	d shown as EPA ID 31	L on The Plans ("VX837351-1 AND "V)	(837351-2" 03	3/06/2020 EPA RE	FERENCE DOC20/4	76695 AND DOC	20/476695-1).				
				Samples Collected &		Lowest Sample	Mean of	Highest Sample		100 Percentile Concentration		
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Aluminium	(mg/L)	Quarterly									
Nov-22	Ammonia	(mg/L)	Quarterly									
Nov-22	Arsenic (III)	(mg/L)	Quarterly									
Nov-22	Arsenic (V)	(mg/L)	Quarterly									
Nov-22	Cadmium	(mg/L)	Quarterly									
Nov-22	Chromium (trivalent)	(mg/L)	Quarterly									
Nov-22	Chromium (VI) Compounds	(mg/L)	Quarterly									
Nov-22	Copper	(mg/L)	Quarterly									
Nov-22	Electrical Conductivity	(us/cm)	Quarterly									
Nov-22	Iron	(mg/L)	Quarterly									
Nov-22	Lead	(mg/L)	Quarterly									Next sample scheduled for January 2023
Nov-22	Magnesium	(mg/L)	Quarterly									
Nov-22	Manganese	(mg/L)	Quarterly									
Nov-22	Nickel	(mg/L)	Quarterly									
Nov-22	рН	рН	Quarterly									
Nov-22	Potassium	(mg/L)	Quarterly									
Nov-22	Selenium	(mg/L)	Quarterly									
Nov-22	Sodium	(mg/L)	Quarterly									
Nov-22	Standing Water Level	(m)	Quarterly									
Nov-22	Vanadium	(mg/L)	Quarterly									
Nov-22	Zinc	(mg/L)	Quarterly									

POINT 32 Groundwater quality monitoring bore marked and shown as EPA ID 32 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1

POINT 32	Groundwater quality monitoring bore marked and	d shown as EPA ID 32	on The Plans ("VX837351-1 AND "V	(837351-2" 03	8/06/2020 EPA RE	FERENCE DOC20/4	76695 AND DOC	20/476695-1).				
				Samples					99 Percentile	100 Percentile		
				Collected &		Lowest Sample	Mean of	Highest Sample	Concentration	Concentration	Exceedance	
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Aluminium	(mg/L)	Quarterly									
Nov-22	Ammonia	(mg/L)	Quarterly									
Nov-22	Arsenic (III)	(mg/L)	Quarterly									
Nov-22	Arsenic (V)	(mg/L)	Quarterly									
Nov-22	Cadmium	(mg/L)	Quarterly									
Nov-22	Chromium (trivalent)	(mg/L)	Quarterly									
Nov-22	Chromium (VI) Compounds	(mg/L)	Quarterly									
Nov-22	Copper	(mg/L)	Quarterly									
Nov-22	Electrical Conductivity	(us/cm)	Quarterly									
Nov-22	Iron	(mg/L)	Quarterly									
Nov-22	Lead	(mg/L)	Quarterly									Next sample scheduled for January 2023
Nov-22	Magnesium	(mg/L)	Quarterly									
Nov-22	Manganese	(mg/L)	Quarterly									
Nov-22	Nickel	(mg/L)	Quarterly									
Nov-22	pH	рН	Quarterly									
Nov-22	Potassium	(mg/L)	Quarterly									
Nov-22	Selenium	(mg/L)	Quarterly									
Nov-22	Sodium	(mg/L)	Quarterly									
Nov-22	Standing Water Level	(m)	Quarterly									
Nov-22	Vanadium	(mg/L)	Quarterly									
Nov-22	Zinc	(mg/L)	Quarterly									

POINT 33	Groundwater quality monitoring bore marked and	d shown as EPA ID 33	on The Plans ("VX837351-1 AND "V	(837351-2" 03	3/06/2020 EPA RE	FERENCE DOC20/4	76695 AND DO	20/476695-1).		
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	100 Percentile Concentration Limit	Comments
Nov-22	Aluminium	(mg/L)	Quarterly							
Nov-22	Ammonia	(mg/L)	Quarterly							
Nov-22	Arsenic (III)	(mg/L)	Quarterly							
Nov-22	Arsenic (V)	(mg/L)	Quarterly							
Nov-22	Cadmium	(mg/L)	Quarterly							
Nov-22	Chromium (trivalent)	(mg/L)	Quarterly							
Nov-22	Chromium (VI) Compounds	(mg/L)	Quarterly							
Nov-22	Copper	(mg/L)	Quarterly							
Nov-22	Electrical Conductivity	(us/cm)	Quarterly							
Nov-22	Iron	(mg/L)	Quarterly							Next sample scheduled for January 2023
Nov-22	Lead	(mg/L)	Quarterly							
Nov-22	Magnesium	(mg/L)	Quarterly							
Nov-22	Manganese	(mg/L)	Quarterly							
Nov-22	Nickel	(mg/L)	Quarterly				-			
Nov-22	рН	рН	Quarterly							
Nov-22	Potassium	(mg/L)	Quarterly							
Nov-22	Selenium	(mg/L)	Quarterly							
Nov-22	Sodium	(mg/L)	Quarterly							
Nov-22	Standing Water Level	(m)	Quarterly							
Nov-22	Vanadium	(mg/L)	Quarterly							
Nov-22	Zinc	(mg/L)	Quarterly							

POINT 34 Groundwater quality monitoring bore marked and shown as EPA ID 33 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

POINT 34	roundwater quality monitoring bore marked and shown as EPA ID 33 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1). Samples 9 9 Percentile 100 Percen											
				Samples								
				Collected &		Lowest Sample	Mean of	Highest Sample				
Month	Pollutant		Sample/Measurement Frequency	Analysed	Date Sampled	Value	Samples	Value	Limit	Limit	(yes/no)	Comments
Nov-22	Aluminium	(mg/L)	Quarterly									
Nov-22	Ammonia	(mg/L)	Quarterly									
Nov-22	Arsenic (III)	(mg/L)	Quarterly									
Nov-22	Arsenic (V)	(mg/L)	Quarterly									
Nov-22	Cadmium	(mg/L)	Quarterly									
Nov-22	Chromium (trivalent)	(mg/L)	Quarterly									
Nov-22	Chromium (VI) Compounds	(mg/L)	Quarterly									
Nov-22	Copper	(mg/L)	Quarterly									
Nov-22	Electrical Conductivity	(us/cm)	Quarterly									
Nov-22	Iron	(mg/L)	Quarterly									Next sample scheduled for January 2023
Nov-22	Lead	(mg/L)	Quarterly									
Nov-22	Magnesium	(mg/L)	Quarterly									
Nov-22	Manganese	(mg/L)	Quarterly									
Nov-22	Nickel	(mg/L)	Quarterly									
Nov-22	рН	рН	Quarterly									
Nov-22	Potassium	(mg/L)	Quarterly									
Nov-22	Selenium	(mg/L)	Quarterly									
Nov-22	Sodium	(mg/L)	Quarterly									
Nov-22	Standing Water Level	(m)	Quarterly									
Nov-22	Vanadium	(mg/L)	Quarterly									
Nov-22	Zinc	(mg/L)	Quarterly									

GENERAL COMMENTS