

## Vales Point Power Station Monthly Environmental Data Summary



LICENCE NO	761	<a href="http://www.epa.nsw.gov.au/prpoeoapp/">http://www.epa.nsw.gov.au/prpoeoapp/</a>
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).												
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceed 100% 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	81.2%	Nov-22	319	677	828	850	980	No	
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	
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 3 Combined air emissions from boiler 6 via Points 8 to 11 to Point 1 marked and shown as EPA ID 3 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).												
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceed 100% 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).												
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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									
Nov-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature 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).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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 not required until 30/11/2022.
Nov-22	Oxygen (O2)	(%)	Continuous									
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).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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 not required until 30/11/2022.
Nov-22	Moisture	(%)	Continuous									
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 shown as EPA ID 7 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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 not required until 30/11/2022.
Nov-22	Oxygen (O2)	(%)	Continuous									
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).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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 not required until 30/11/2022.
Nov-22	Moisture	(%)	Continuous									
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).												
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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 not required until 30/11/2022.
Nov-22	Oxygen (O2)	(%)	Continuous									
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).												
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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 not required until 30/11/2022.
Nov-22	Moisture	(%)	Continuous									
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).												
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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 not required until 30/11/2022.
Nov-22	Oxygen (O2)	(%)	Continuous									
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).												
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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 shown as EPA ID 13 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).												
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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 shown as EPA ID 14 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).												
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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 shown as EPA ID 12 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	98.5 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceed 100% 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 Discharge of supernatant water from the ash dam to the cooling water outlet canal to Wyee Bay marked and shown as EPA ID 23 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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	pH	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).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	Discharge (yes/no)	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Nov-22	Aluminium	(mg/L)	Monthly during discharge	1	1/11/2022	0.11	0.11	0.11	Yes			
Nov-22	Ammonia	(mg/L)	Monthly during discharge	1	1/11/2022	1.40	1.40	1.40	Yes			
Nov-22	Arsenic (III)	(mg/L)	Monthly during discharge	1	1/11/2022	<0.001	<0.001	<0.001	Yes			
Nov-22	Arsenic (V)	(mg/L)	Monthly during discharge	1	1/11/2022	0.004	0.004	0.004	Yes			
Nov-22	Cadmium	(mg/L)	Monthly during discharge	1	1/11/2022	0.0002	0.0002	0.0002	Yes			
Nov-22	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	1/11/2022	<0.005	<0.005	<0.005	Yes			
Nov-22	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	1/11/2022	<0.005	<0.005	<0.005	Yes			
Nov-22	Copper	(mg/L)	Monthly during discharge	1	1/11/2022	<0.001	<0.001	<0.001	Yes			
Nov-22	Iron	(mg/L)	Monthly during discharge	1	1/11/2022	0.96	0.96	0.96	Yes			
Nov-22	Lead	(mg/L)	Monthly during discharge	1	1/11/2022	<0.001	<0.001	<0.001	Yes			
Nov-22	Manganese	(mg/L)	Monthly during discharge	1	1/11/2022	0.12	0.12	0.12	Yes			
Nov-22	Nickel	(mg/L)	Monthly during discharge	1	1/11/2022	<0.001	<0.001	<0.001	Yes			
Nov-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	1/11/2022	1.30	1.30	1.30	Yes			
Nov-22	Nitrogen	(mg/L)	Monthly during discharge	1	1/11/2022	1.40	1.40	1.40	Yes			
Nov-22	pH	pH	Monthly during discharge	1	1/11/2022	8.01	8.01	8.01	Yes	6.5 - 9.5	No	
Nov-22	Phosphorus	(mg/L)	Monthly during discharge	1	1/11/2022	<0.05	<0.05	<0.05	Yes			
Nov-22	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	1/11/2022	<0.005	<0.005	<0.005	Yes			
Nov-22	Selenium	(mg/L)	Monthly during discharge	1	1/11/2022	0.002	0.002	0.002	Yes			
Nov-22	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	1/11/2022	1.30	1.30	1.30	Yes			
Nov-22	Total Suspended Solids	(mg/L)	Monthly during discharge	1	1/11/2022	<5	<5	<5	Yes	50	No	
Nov-22	Vanadium	(mg/L)	Monthly during discharge	1	1/11/2022	0.01	0.01	0.01	Yes			
Nov-22	Zinc	(mg/L)	Monthly during discharge	1	1/11/2022	<0.001	<0.001	<0.001	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).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	Discharge (yes/no)	100 Percentile Concentration Limit	Exceedance (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	pH	pH	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).

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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	pH	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 and shown as EPA ID 31 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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	pH	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).

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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	pH	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 shown as EPA ID 33 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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	pH	pH	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).

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (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	pH	pH	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**