

## 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	October 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
Oct-22	Cadmium	(mg/m3)	Every 6 months							0.2		
Oct-22	Chlorine	(mg/m3)	Every 6 months							20		
Oct-22	Fluorine	(mg/m3)	Every 6 months							30		
Oct-22	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Oct-22	Mercury	(mg/m3)	Every 6 months							0.05		
Oct-22	Nitrogen Oxides	(mg/m3)	Continuous	90.0%	Oct-22	427	650	806	850	980	No	
Oct-22	Solid Particles	(mg/m3)	Quarterly							50		
Oct-22	Sulfur dioxide	(mg/m3)	Continuous	90.0%	Oct-22	541	941	1709	1400	1700	Yes	The exceedance of the emission concentration limit was reported to the EPA as per condition R4.2 of EPL761.
Oct-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Oct-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Oct-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
Oct-22	Cadmium	(mg/m3)	Every 6 months							0.2		
Oct-22	Chlorine	(mg/m3)	Every 6 months							20		
Oct-22	Fluorine	(mg/m3)	Every 6 months							30		
Oct-22	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Oct-22	Mercury	(mg/m3)	Every 6 months							0.05		
Oct-22	Nitrogen Oxides	(mg/m3)	Continuous	99.0%	Oct-22	498	638	829	850	980	No	
Oct-22	Solid Particles	(mg/m3)	Quarterly							50		
Oct-22	Sulfur dioxide	(mg/m3)	Continuous	99.0%	Oct-22	497	950	1666	1400	1700	No	
Oct-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Oct-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Oct-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
Oct-22	Cadmium	(mg/m3)	Every 6 months									
Oct-22	Carbon dioxide	(%)	Every 6 months									
Oct-22	Chlorine	(mg/m3)	Every 6 months									
Oct-22	Flow rate	(m3/s)	Continuous									
Oct-22	Fluorine	(mg/m3)	Every 6 months									
Oct-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Oct-22	Mercury	(mg/m3)	Every 6 months									
Oct-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature not required until 30/11/2022.
Oct-22	Oxygen (O2)	(%)	Continuous									
Oct-22	Solid Particles	(mg/m3)	Quarterly									
Oct-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Oct-22	Temperature	(°C)	Continuous									
Oct-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Oct-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 & Analyzed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Oct-22	Cadmium	(mg/m3)	Every 6 months									
Oct-22	Flow rate	(m3/s)	Continuous									
Oct-22	Mercury	(mg/m3)	Every 6 months									
Oct-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature not required until 30/11/2022.
Oct-22	Oxygen (O2)	(%)	Continuous									
Oct-22	Solid Particles	(mg/m3)	Quarterly									
Oct-22	Temperature	(°C)	Continuous									
Oct-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Oct-22												

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

**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 & Analyzed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Oct-22	Cadmium	(mg/m3)	Every 6 months									
Oct-22	Flow rate	(m3/s)	Continuous									
Oct-22	Mercury	(mg/m3)	Every 6 months									
Oct-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature not required until 30/11/2022.
Oct-22	Oxygen (O2)	(%)	Continuous									
Oct-22	Solid Particles	(mg/m3)	Quarterly									
Oct-22	Temperature	(°C)	Continuous									
Oct-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Oct-22												

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

**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
Oct-22	Cadmium	(mg/m3)	Every 6 months									
Oct-22	Flow rate	(m3/s)	Continuous									
Oct-22	Mercury	(mg/m3)	Every 6 months									
Oct-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature not required until 30/11/2022.
Oct-22	Oxygen (O2)	(%)	Continuous									
Oct-22	Solid Particles	(mg/m3)	Quarterly									
Oct-22	Temperature	(°C)	Continuous									
Oct-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
Oct-22	Cadmium	(mg/m3)	Every 6 months									
Oct-22	Carbon dioxide	(%)	Every 6 months									
Oct-22	Chlorine	(mg/m3)	Every 6 months									
Oct-22	Flow rate	(m3/s)	Continuous									
Oct-22	Fluorine	(mg/m3)	Every 6 months									
Oct-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Oct-22	Mercury	(mg/m3)	Every 6 months									Continuous monitoring of flow rate, moisture, O2 and temperature not required until 30/11/2022.
Oct-22	Moisture	(%)	Continuous									
Oct-22	Oxygen (O2)	(%)	Continuous									
Oct-22	Solid Particles	(mg/m3)	Quarterly									
Oct-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Oct-22	Temperature	(°C)	Continuous									
Oct-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Oct-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
Oct-22	Cadmium	(mg/m3)	Every 6 months									
Oct-22	Flow rate	(m3/s)	Continuous									
Oct-22	Mercury	(mg/m3)	Every 6 months									
Oct-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature not required until 30/11/2022.
Oct-22	Oxygen (O2)	(%)	Continuous									
Oct-22	Solid Particles	(mg/m3)	Quarterly									
Oct-22	Temperature	(°C)	Continuous									
Oct-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
Oct-22	Nitrogen Oxides	(mg/m3)	Continuous	89.3%	Oct-22	407	630	741			N/A	
Oct-22	Sulfur dioxide	(mg/m3)	Continuous	89.3%	Oct-22	493	894	1652			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
Oct-22	Nitrogen Oxides	(mg/m3)	Continuous	90.6%	Oct-22	445	670	870			N/A	
Oct-22	Sulfur dioxide	(mg/m3)	Continuous	90.6%	Oct-22	580	987	1765			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
Oct-22	Nitrogen Oxides	(mg/m3)	Continuous	99.1%	Oct-22	543	690	881			N/A	
Oct-22	Sulfur dioxide	(mg/m3)	Continuous	99.1%	Oct-22	502	979	1714			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
Oct-22	Nitrogen Oxides	(mg/m3)	Continuous	98.9%	Oct-22	390	586	784			N/A	
Oct-22	Sulfur dioxide	(mg/m3)	Continuous	98.9%	Oct-22	477	920	1619			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
Oct-22	Chlorine (free residual)	(mg/L)	Monthly during discharge	1	4/10/2022	<0.1	<0.1	<0.1		0.2	No	
Oct-22	Copper	(mg/L)	Monthly during discharge	1	4/10/2022	0.002	0.002	0.002		0.005	No	
Oct-22	Iron	(mg/L)	Monthly during discharge	1	4/10/2022	0.061	0.061	0.061		0.3	No	
Oct-22	Oil and Grease	Visible	Continuous during discharge	100%	Oct-22	NIL	NIL	NIL				
Oct-22	Selenium	(mg/L)	Monthly during discharge	1	4/10/2022	<0.002	<0.002	<0.002		0.005	No	
Oct-22	Temperature	(°C)	Continuous during discharge	100%	Oct-22	22.4	27.9	33.0	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
Oct-22	Aluminium	(mg/L)	Monthly during discharge	1	4/10/2022	0.06	0.06	0.06				
Oct-22	Ammonia	(mg/L)	Monthly during discharge	1	4/10/2022	0.024	0.024	0.024				
Oct-22	Arsenic (III)	(mg/L)	Monthly during discharge	1	4/10/2022	<0.001	<0.001	<0.001				
Oct-22	Arsenic (V)	(mg/L)	Monthly during discharge	1	4/10/2022	0.004	0.004	0.004				
Oct-22	Cadmium	(mg/L)	Monthly during discharge	1	4/10/2022	<0.0001	<0.0001	<0.0001				
Oct-22	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	4/10/2022	0.061	0.061	0.061				
Oct-22	Copper	(mg/L)	Monthly during discharge	1	4/10/2022	<0.001	<0.001	<0.001				
Oct-22	Iron	(mg/L)	Monthly during discharge	1	4/10/2022	0.034	0.034	0.034				
Oct-22	Lead	(mg/L)	Monthly during discharge	1	4/10/2022	<0.001	<0.001	<0.001				
Oct-22	Manganese	(mg/L)	Monthly during discharge	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Nickel	(mg/L)	Monthly during discharge	1	4/10/2022	<0.001	<0.001	<0.001				
Oct-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	4/10/2022	0.06	0.06	0.06				
Oct-22	Nitrogen	(mg/L)	Monthly during discharge	1	4/10/2022	0.40	0.40	0.40				
Oct-22	pH	pH	Monthly during discharge	1	4/10/2022	7.91	7.91	7.91		6.5 - 9.5	No	
Oct-22	Phosphorus	(mg/L)	Monthly during discharge	1	4/10/2022	<0.05	<0.05	<0.05				
Oct-22	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Selenium	(mg/L)	Monthly during discharge	1	4/10/2022	0.076	0.076	0.076				
Oct-22	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	4/10/2022	0.3	0.3	0.3				
Oct-22	Total Suspended Solids	(mg/L)	Monthly during discharge	1	4/10/2022	6	6	6		50	No	
Oct-22	Vanadium	(mg/L)	Monthly during discharge	1	4/10/2022	0.095	0.095	0.095				
Oct-22	Zinc	(mg/L)	Monthly during discharge	1	4/10/2022	0.019	0.019	0.019				

**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
Oct-22	Aluminium	(mg/L)	Monthly during discharge	1	4/10/2022	0.11	0.11	0.11	Yes			
Oct-22	Ammonia	(mg/L)	Monthly during discharge	1	4/10/2022	1.30	1.30	1.30	Yes			
Oct-22	Arsenic (III)	(mg/L)	Monthly during discharge	1	4/10/2022	<0.001	<0.001	<0.001	Yes			
Oct-22	Arsenic (V)	(mg/L)	Monthly during discharge	1	4/10/2022	0.002	0.002	0.002	Yes			
Oct-22	Cadmium	(mg/L)	Monthly during discharge	1	4/10/2022	0.0001	0.0001	0.0001	Yes			
Oct-22	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	4/10/2022	<0.005	<0.005	<0.005	Yes			
Oct-22	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	4/10/2022	<0.005	<0.005	<0.005	Yes			
Oct-22	Copper	(mg/L)	Monthly during discharge	1	4/10/2022	<0.001	<0.001	<0.001	Yes			
Oct-22	Iron	(mg/L)	Monthly during discharge	1	4/10/2022	0.98	0.98	0.98	Yes			
Oct-22	Lead	(mg/L)	Monthly during discharge	1	4/10/2022	<0.001	<0.001	<0.001	Yes			
Oct-22	Manganese	(mg/L)	Monthly during discharge	1	4/10/2022	0.12	0.12	0.12	Yes			
Oct-22	Nickel	(mg/L)	Monthly during discharge	1	4/10/2022	<0.0101	<0.0101	<0.0101	Yes			
Oct-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	4/10/2022	0.10	0.10	0.10	Yes			
Oct-22	Nitrogen	(mg/L)	Monthly during discharge	1	4/10/2022	1.80	1.80	1.80	Yes			
Oct-22	pH	pH	Monthly during discharge	1	4/10/2022	7.17	7.17	7.17	Yes	6.5 - 9.5	No	
Oct-22	Phosphorus	(mg/L)	Monthly during discharge	1	4/10/2022	<0.05	<0.05	<0.05	Yes			
Oct-22	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	4/10/2022	<0.005	<0.005	<0.005	Yes			
Oct-22	Selenium	(mg/L)	Monthly during discharge	1	4/10/2022	0.002	0.002	0.002	Yes			
Oct-22	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	4/10/2022	1.70	1.70	1.70	Yes			
Oct-22	Total Suspended Solids	(mg/L)	Monthly during discharge	1	4/10/2022	<5	<5	<5	Yes	50	No	
Oct-22	Vanadium	(mg/L)	Monthly during discharge	1	4/10/2022	0.009	0.009	0.009	Yes			
Oct-22	Zinc	(mg/L)	Monthly during discharge	1	4/10/2022	0.002	0.002	0.002	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
Oct-22	Aluminium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Ammonia	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Arsenic (III)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Arsenic (V)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Cadmium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Chromium (trivalent)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Chromium (VI) Compounds	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Copper	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Iron	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Lead	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Manganese	(mg/L)	Daily for any discharge >2 hrs						No			No discharge from EPA Point 25 during October 2022
Oct-22	Nickel	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	pH	pH	Daily for any discharge >2 hrs						No	6.5 - 9.5	No	
Oct-22	Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Reactive Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Selenium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Total Kjeldahl Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-22	Total Suspended Solids	(mg/L)	Daily for any discharge >2 hrs						No	50	No	
Oct-22	Vanadium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-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
Oct-22	Aluminium	(mg/L)	Quarterly	1	4/10/2022	0.170	0.170	0.170				
Oct-22	Ammonia	(mg/L)	Quarterly	1	4/10/2022	3.80	3.80	3.80				
Oct-22	Arsenic (III)	(mg/L)	Quarterly	1	4/10/2022	0.005	0.005	0.005				
Oct-22	Arsenic (V)	(mg/L)	Quarterly	1	4/10/2022	<0.001	<0.001	<0.001				
Oct-22	Cadmium	(mg/L)	Quarterly	1	4/10/2022	<0.0002	<0.0002	<0.0002				
Oct-22	Chromium (trivalent)	(mg/L)	Quarterly	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Chromium (VI) Compounds	(mg/L)	Quarterly	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Copper	(mg/L)	Quarterly	1	4/10/2022	<0.002	<0.002	<0.002				
Oct-22	Electrical Conductivity	(us/cm)	Quarterly	1	4/10/2022	34000	34000	34000				
Oct-22	Iron	(mg/L)	Quarterly	1	4/10/2022	74.0	74.0	74.0				
Oct-22	Lead	(mg/L)	Quarterly	1	4/10/2022	0.004	0.004	0.004				
Oct-22	Magnesium	(mg/L)	Quarterly	1	4/10/2022	720	720	720				
Oct-22	Manganese	(mg/L)	Quarterly	1	4/10/2022	5.3	5.3	5.3				
Oct-22	Nickel	(mg/L)	Quarterly	1	4/10/2022	0.021	0.021	0.021				
Oct-22	pH	pH	Quarterly	1	4/10/2022	5.48	5.48	5.48				
Oct-22	Potassium	(mg/L)	Quarterly	1	4/10/2022	98	98	98				
Oct-22	Selenium	(mg/L)	Quarterly	1	4/10/2022	<0.002	<0.002	<0.002				
Oct-22	Sodium	(mg/L)	Quarterly	1	4/10/2022	5700	5700	5700				
Oct-22	Standing Water Level	(m)	Quarterly	1	4/10/2022	3.81	3.81	3.81				
Oct-22	Vanadium	(mg/L)	Quarterly	1	4/10/2022	<0.002	<0.002	<0.002				
Oct-22	Zinc	(mg/L)	Quarterly	1	4/10/2022	0.012	0.012	0.012				

**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
Oct-22	Aluminium	(mg/L)	Quarterly	1	4/10/2022	1.70	1.70	1.70				
Oct-22	Ammonia	(mg/L)	Quarterly	1	4/10/2022	0.22	0.22	0.22				
Oct-22	Arsenic (III)	(mg/L)	Quarterly	1	4/10/2022	<0.001	<0.001	<0.001				
Oct-22	Arsenic (V)	(mg/L)	Quarterly	1	4/10/2022	<0.001	<0.001	<0.001				
Oct-22	Cadmium	(mg/L)	Quarterly	1	4/10/2022	<0.0002	<0.0002	<0.0002				
Oct-22	Chromium (trivalent)	(mg/L)	Quarterly	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Chromium (VI) Compounds	(mg/L)	Quarterly	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Copper	(mg/L)	Quarterly	1	4/10/2022	0.017	0.017	0.017				
Oct-22	Electrical Conductivity	(us/cm)	Quarterly	1	4/10/2022	6000	6000	6000				
Oct-22	Iron	(mg/L)	Quarterly	1	4/10/2022	34.0	34.0	34.0				
Oct-22	Lead	(mg/L)	Quarterly	1	4/10/2022	0.007	0.007	0.007				
Oct-22	Magnesium	(mg/L)	Quarterly	1	4/10/2022	130	130	130				
Oct-22	Manganese	(mg/L)	Quarterly	1	4/10/2022	0.630	0.630	0.630				
Oct-22	Nickel	(mg/L)	Quarterly	1	4/10/2022	0.023	0.023	0.023				
Oct-22	pH	pH	Quarterly	1	4/10/2022	5.25	5.25	5.25				
Oct-22	Potassium	(mg/L)	Quarterly	1	4/10/2022	8.8	8.8	8.8				
Oct-22	Selenium	(mg/L)	Quarterly	1	4/10/2022	<0.002	<0.002	<0.002				
Oct-22	Sodium	(mg/L)	Quarterly	1	4/10/2022	720	720	720				
Oct-22	Standing Water Level	(m)	Quarterly	1	4/10/2022	1.49	1.49	1.49				
Oct-22	Vanadium	(mg/L)	Quarterly	1	4/10/2022	0.004	0.004	0.004				
Oct-22	Zinc	(mg/L)	Quarterly	1	4/10/2022	0.46	0.46	0.46				

**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
Oct-22	Aluminium	(mg/L)	Quarterly	1	4/10/2022	1.30	1.30	1.30				
Oct-22	Ammonia	(mg/L)	Quarterly	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Arsenic (III)	(mg/L)	Quarterly	1	4/10/2022	<0.001	<0.001	<0.001				
Oct-22	Arsenic (V)	(mg/L)	Quarterly	1	4/10/2022	<0.001	<0.001	<0.001				
Oct-22	Cadmium	(mg/L)	Quarterly	1	4/10/2022	<0.0002	<0.0002	<0.0002				
Oct-22	Chromium (trivalent)	(mg/L)	Quarterly	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Chromium (VI) Compounds	(mg/L)	Quarterly	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Copper	(mg/L)	Quarterly	1	4/10/2022	<0.002	<0.002	<0.002				
Oct-22	Electrical Conductivity	(us/cm)	Quarterly	1	4/10/2022	170	170	170				
Oct-22	Iron	(mg/L)	Quarterly	1	4/10/2022	17	17	17				
Oct-22	Lead	(mg/L)	Quarterly	1	4/10/2022	<0.002	<0.002	<0.002				
Oct-22	Magnesium	(mg/L)	Quarterly	1	4/10/2022	3	3	3				
Oct-22	Manganese	(mg/L)	Quarterly	1	4/10/2022	0.014	0.014	0.014				
Oct-22	Nickel	(mg/L)	Quarterly	1	4/10/2022	<0.002	<0.002	<0.002				
Oct-22	pH	pH	Quarterly	1	4/10/2022	5.12	5.12	5.12				
Oct-22	Potassium	(mg/L)	Quarterly	1	4/10/2022	0.8	0.8	0.8				
Oct-22	Selenium	(mg/L)	Quarterly	1	4/10/2022	<0.002	<0.002	<0.002				
Oct-22	Sodium	(mg/L)	Quarterly	1	4/10/2022	21	21	21				
Oct-22	Standing Water Level	(m)	Quarterly	1	4/10/2022	2.22	2.22	2.22				
Oct-22	Vanadium	(mg/L)	Quarterly	1	4/10/2022	0.0020	0.0020	0.0020				
Oct-22	Zinc	(mg/L)	Quarterly	1	4/10/2022	0.018	0.018	0.018				

**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
Oct-22	Aluminium	(mg/L)	Quarterly	1	4/10/2022	4.50	4.50	4.50				
Oct-22	Ammonia	(mg/L)	Quarterly	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Arsenic (III)	(mg/L)	Quarterly	1	4/10/2022	<0.001	<0.001	<0.001				
Oct-22	Arsenic (V)	(mg/L)	Quarterly	1	4/10/2022	<0.001	<0.001	<0.001				
Oct-22	Cadmium	(mg/L)	Quarterly	1	4/10/2022	0.0006	0.0006	0.0006				
Oct-22	Chromium (trivalent)	(mg/L)	Quarterly	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Chromium (VI) Compounds	(mg/L)	Quarterly	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Copper	(mg/L)	Quarterly	1	4/10/2022	0.007	0.007	0.007				
Oct-22	Electrical Conductivity	(us/cm)	Quarterly	1	4/10/2022	46000	46000	46000				
Oct-22	Iron	(mg/L)	Quarterly	1	4/10/2022	120	120	120				
Oct-22	Lead	(mg/L)	Quarterly	1	4/10/2022	0.017	0.017	0.017				
Oct-22	Magnesium	(mg/L)	Quarterly	1	4/10/2022	1100	1100	1100				
Oct-22	Manganese	(mg/L)	Quarterly	1	4/10/2022	0.56	0.56	0.56				
Oct-22	Nickel	(mg/L)	Quarterly	1	4/10/2022	0.0500	0.0500	0.0500				
Oct-22	pH	pH	Quarterly	1	4/10/2022	6.18	6.18	6.18				
Oct-22	Potassium	(mg/L)	Quarterly	1	4/10/2022	280	280	280				
Oct-22	Selenium	(mg/L)	Quarterly	1	4/10/2022	<0.002	<0.002	<0.002				
Oct-22	Sodium	(mg/L)	Quarterly	1	4/10/2022	8700	8700	8700				
Oct-22	Standing Water Level	(m)	Quarterly	1	4/10/2022	0.46	0.46	0.46				
Oct-22	Vanadium	(mg/L)	Quarterly	1	4/10/2022	0.019	0.019	0.019				
Oct-22	Zinc	(mg/L)	Quarterly	1	4/10/2022	0.085	0.085	0.085				

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
Oct-22	Aluminium	(mg/L)	Quarterly	1	4/10/2022	4.50	4.50	4.50				
Oct-22	Ammonia	(mg/L)	Quarterly	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Arsenic (III)	(mg/L)	Quarterly	1	4/10/2022	0.003	0.003	0.003				
Oct-22	Arsenic (V)	(mg/L)	Quarterly	1	4/10/2022	0.003	0.003	0.003				
Oct-22	Cadmium	(mg/L)	Quarterly	1	4/10/2022	<0.0002	<0.0002	<0.0002				
Oct-22	Chromium (trivalent)	(mg/L)	Quarterly	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Chromium (VI) Compounds	(mg/L)	Quarterly	1	4/10/2022	<0.005	<0.005	<0.005				
Oct-22	Copper	(mg/L)	Quarterly	1	4/10/2022	0.023	0.023	0.023				
Oct-22	Electrical Conductivity	(us/cm)	Quarterly	1	4/10/2022	680	680	680				
Oct-22	Iron	(mg/L)	Quarterly	1	4/10/2022	14	14	14				
Oct-22	Lead	(mg/L)	Quarterly	1	4/10/2022	0.017	0.017	0.017				
Oct-22	Magnesium	(mg/L)	Quarterly	1	4/10/2022	9	9	9				
Oct-22	Manganese	(mg/L)	Quarterly	1	4/10/2022	0.084	0.084	0.084				
Oct-22	Nickel	(mg/L)	Quarterly	1	4/10/2022	0.011	0.011	0.011				
Oct-22	pH	pH	Quarterly	1	4/10/2022	5.05	5.05	5.05				
Oct-22	Potassium	(mg/L)	Quarterly	1	4/10/2022	2	2	2				
Oct-22	Selenium	(mg/L)	Quarterly	1	4/10/2022	<0.002	<0.002	<0.002				
Oct-22	Sodium	(mg/L)	Quarterly	1	4/10/2022	98	98	98				
Oct-22	Standing Water Level	(m)	Quarterly	1	4/10/2022	0.35	0.35	0.35				
Oct-22	Vanadium	(mg/L)	Quarterly	1	4/10/2022	0.05	0.05	0.05				
Oct-22	Zinc	(mg/L)	Quarterly	1	4/10/2022	0.036	0.036	0.036				

GENERAL COMMENTS