

## 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	December 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
Dec-22	Cadmium	(mg/m3)	Every 6 months							0.2		
Dec-22	Chlorine	(mg/m3)	Every 6 months							20		
Dec-22	Fluorine	(mg/m3)	Every 6 months							30		
Dec-22	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Dec-22	Mercury	(mg/m3)	Every 6 months							0.05		
Dec-22	Nitrogen Oxides	(mg/m3)	Continuous	91.1%	Dec-22	339	675	877	850	980	No	
Dec-22	Solid Particles	(mg/m3)	Quarterly							50		
Dec-22	Sulfur dioxide	(mg/m3)	Continuous	91.2%	Dec-22	457	869	1132	1400	1700	No	
Dec-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Dec-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Dec-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
Dec-22	Cadmium	(mg/m3)	Every 6 months							0.2		
Dec-22	Chlorine	(mg/m3)	Every 6 months							20		
Dec-22	Fluorine	(mg/m3)	Every 6 months							30		
Dec-22	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Dec-22	Mercury	(mg/m3)	Every 6 months							0.05		
Dec-22	Nitrogen Oxides	(mg/m3)	Continuous	92.2%	Dec-22	236	624	880	850	980	No	
Dec-22	Solid Particles	(mg/m3)	Quarterly							50		
Dec-22	Sulfur dioxide	(mg/m3)	Continuous	92.2%	Dec-22	459	839	1140	1400	1700	No	
Dec-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Dec-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Dec-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
Dec-22	Cadmium	(mg/m3)	Every 6 months									
Dec-22	Carbon dioxide	(%)	Every 6 months									
Dec-22	Chlorine	(mg/m3)	Every 6 months									
Dec-22	Fluorine	(mg/m3)	Every 6 months									
Dec-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Dec-22	Mercury	(mg/m3)	Every 6 months									
Dec-22	Solid Particles	(mg/m3)	Quarterly									
Dec-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Dec-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Dec-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
Dec-22	Cadmium	(mg/m3)	Every 6 months									
Dec-22	Mercury	(mg/m3)	Every 6 months									
Dec-22	Solid Particles	(mg/m3)	Quarterly									
Dec-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
Dec-22	Cadmium	(mg/m3)	Every 6 months									
Dec-22	Carbon dioxide	(%)	Every 6 months									
Dec-22	Chlorine	(mg/m3)	Every 6 months									
Dec-22	Fluorine	(mg/m3)	Every 6 months									
Dec-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Dec-22	Mercury	(mg/m3)	Every 6 months									
Dec-22	Solid Particles	(mg/m3)	Quarterly									
Dec-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Dec-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Dec-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
Dec-22	Cadmium	(mg/m3)	Every 6 months									
Dec-22	Mercury	(mg/m3)	Every 6 months									
Dec-22	Solid Particles	(mg/m3)	Quarterly									
Dec-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
Dec-22	Cadmium	(mg/m3)	Every 6 months									
Dec-22	Carbon dioxide	(%)	Every 6 months									
Dec-22	Chlorine	(mg/m3)	Every 6 months									
Dec-22	Fluorine	(mg/m3)	Every 6 months									
Dec-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Dec-22	Mercury	(mg/m3)	Every 6 months									
Dec-22	Solid Particles	(mg/m3)	Quarterly									
Dec-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Dec-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Dec-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
Dec-22	Cadmium	(mg/m3)	Every 6 months									
Dec-22	Mercury	(mg/m3)	Every 6 months									
Dec-22	Solid Particles	(mg/m3)	Quarterly									
Dec-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
Dec-22	Cadmium	(mg/m3)	Every 6 months									
Dec-22	Carbon dioxide	(%)	Every 6 months									
Dec-22	Chlorine	(mg/m3)	Every 6 months									
Dec-22	Fluorine	(mg/m3)	Every 6 months									
Dec-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Dec-22	Mercury	(mg/m3)	Every 6 months									
Dec-22	Solid Particles	(mg/m3)	Quarterly									
Dec-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Dec-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Dec-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
Dec-22	Cadmium	(mg/m3)	Every 6 months									
Dec-22	Mercury	(mg/m3)	Every 6 months									
Dec-22	Solid Particles	(mg/m3)	Quarterly									
Dec-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
Dec-22	Nitrogen Oxides	(mg/m3)	Continuous	91.1%	Dec-22	317	648	846			N/A	
Dec-22	Sulfur dioxide	(mg/m3)	Continuous	91.1%	Dec-22	421	806	1069			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
Dec-22	Nitrogen Oxides	(mg/m3)	Continuous	91.1%	Dec-22	334	701	960			N/A	
Dec-22	Sulfur dioxide	(mg/m3)	Continuous	91.3%	Dec-22	489	932	1195			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
Dec-22	Nitrogen Oxides	(mg/m3)	Continuous	91.1%	Dec-22	264	667	913			N/A	
Dec-22	Sulfur dioxide	(mg/m3)	Continuous	92.2%	Dec-22	452	854	1205			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
Dec-22	Nitrogen Oxides	(mg/m3)	Continuous	92.2%	Dec-22	208	580	867			N/A	
Dec-22	Sulfur dioxide	(mg/m3)	Continuous	92.2%	Dec-22	425	824	1128			N/A	

**POINT 22 Discharge of cooling water from the cooling water outlet canal to Wye 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
Dec-22	Chlorine (free residual)	(mg/L)	Monthly during discharge	1	8/12/2022	<0.1	<0.1	<0.1		0.2	No	
Dec-22	Copper	(mg/L)	Monthly during discharge	1	8/12/2022	0.001	0.001	0.001		0.005	No	
Dec-22	Iron	(mg/L)	Monthly during discharge	1	8/12/2022	0.051	0.051	0.051		0.3	No	
Dec-22	Oil and Grease	Visible	Continuous during discharge	100%	Dec-22	NIL	NIL	NIL				
Dec-22	Selenium	(mg/L)	Monthly during discharge	1	8/12/2022	0.001	0.001	0.001		0.005	No	
Dec-22	Temperature	(°C)	Continuous during discharge	100%	Dec-22	25.3	30.1	33.8	35	37.5	No	

**POINT 23 Discharge of supernatant water from the ash dam to the cooling water outlet canal to Wye 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
Dec-22	Aluminium	(mg/L)	Monthly during discharge	1	8/12/2022	0.04	0.04	0.04				
Dec-22	Ammonia	(mg/L)	Monthly during discharge	1	8/12/2022	0.100	0.100	0.100				
Dec-22	Arsenic (III)	(mg/L)	Monthly during discharge	1	8/12/2022	<0.001	<0.001	<0.001				
Dec-22	Arsenic (V)	(mg/L)	Monthly during discharge	1	8/12/2022	0.007	0.007	0.007				
Dec-22	Cadmium	(mg/L)	Monthly during discharge	1	8/12/2022	<0.0001	<0.0001	<0.0001				
Dec-22	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	8/12/2022	0.025	0.025	0.025				
Dec-22	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	8/12/2022	<0.005	<0.005	<0.005				
Dec-22	Copper	(mg/L)	Monthly during discharge	1	8/12/2022	<0.001	<0.001	<0.001				
Dec-22	Iron	(mg/L)	Monthly during discharge	1	8/12/2022	0.036	0.036	0.036				
Dec-22	Lead	(mg/L)	Monthly during discharge	1	8/12/2022	<0.001	<0.001	<0.001				
Dec-22	Manganese	(mg/L)	Monthly during discharge	1	8/12/2022	<0.005	<0.005	<0.005				
Dec-22	Nickel	(mg/L)	Monthly during discharge	1	8/12/2022	<0.001	<0.001	<0.001				
Dec-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	8/12/2022	0.02	0.02	0.02				
Dec-22	Nitrogen	(mg/L)	Monthly during discharge	1	8/12/2022	0.30	0.30	0.30				
Dec-22	pH	pH	Monthly during discharge	1	8/12/2022	8.64	8.64	8.64		6.5 - 9.5	No	
Dec-22	Phosphorus	(mg/L)	Monthly during discharge	1	8/12/2022	0.06	0.06	0.06				
Dec-22	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	8/12/2022	0.006	0.006	0.006				
Dec-22	Selenium	(mg/L)	Monthly during discharge	1	8/12/2022	0.092	0.092	0.092				
Dec-22	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	8/12/2022	0.3	0.3	0.3				
Dec-22	Total Suspended Solids	(mg/L)	Monthly during discharge	1	8/12/2022	<5	<5	<5		50	No	
Dec-22	Vanadium	(mg/L)	Monthly during discharge	1	8/12/2022	0.130	0.130	0.130				
Dec-22	Zinc	(mg/L)	Monthly during discharge	1	8/12/2022	<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
Dec-22	Aluminium	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Ammonia	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Arsenic (III)	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Arsenic (V)	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Cadmium	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Copper	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Iron	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Lead	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Manganese	(mg/L)	Monthly during discharge	1	8/12/2022				No			No discharge from EPA Point 24 during December 2022
Dec-22	Nickel	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Nitrogen	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	pH	pH	Monthly during discharge	1	8/12/2022				No	6.5 - 9.5	No	
Dec-22	Phosphorus	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Selenium	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Total Suspended Solids	(mg/L)	Monthly during discharge	1	8/12/2022				No	50	No	
Dec-22	Vanadium	(mg/L)	Monthly during discharge	1	8/12/2022				No			
Dec-22	Zinc	(mg/L)	Monthly during discharge	1	8/12/2022				No			

**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
Dec-22	Aluminium	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Ammonia	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Arsenic (III)	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Arsenic (V)	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Cadmium	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Chromium (trivalent)	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Chromium (VI) Compounds	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Copper	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Iron	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Lead	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Manganese	(mg/L)	Daily for any discharge >2 hrs						No			No discharge from EPA Point 25 during December 2022
Dec-22	Nickel	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	pH	pH	Daily for any discharge >2 hrs						No	6.5 - 9.5	No	
Dec-22	Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Reactive Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Selenium	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Total Kjeldahl Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-22	Total Suspended Solids	(mg/L)	Daily for any discharge >2 hrs						No	50	No	
Dec-22	Vanadium	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-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
Dec-22	Aluminium	(mg/L)	Quarterly									
Dec-22	Ammonia	(mg/L)	Quarterly									
Dec-22	Arsenic (III)	(mg/L)	Quarterly									
Dec-22	Arsenic (V)	(mg/L)	Quarterly									
Dec-22	Cadmium	(mg/L)	Quarterly									
Dec-22	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-22	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-22	Copper	(mg/L)	Quarterly									
Dec-22	Electrical Conductivity	(us/cm)	Quarterly									
Dec-22	Iron	(mg/L)	Quarterly									
Dec-22	Lead	(mg/L)	Quarterly									Next sample scheduled for January 2023
Dec-22	Magnesium	(mg/L)	Quarterly									
Dec-22	Manganese	(mg/L)	Quarterly									
Dec-22	Nickel	(mg/L)	Quarterly									
Dec-22	pH	pH	Quarterly									
Dec-22	Potassium	(mg/L)	Quarterly									
Dec-22	Selenium	(mg/L)	Quarterly									
Dec-22	Sodium	(mg/L)	Quarterly									
Dec-22	Standing Water Level	(m)	Quarterly									
Dec-22	Vanadium	(mg/L)	Quarterly									
Dec-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
Dec-22	Aluminium	(mg/L)	Quarterly									
Dec-22	Ammonia	(mg/L)	Quarterly									
Dec-22	Arsenic (III)	(mg/L)	Quarterly									
Dec-22	Arsenic (V)	(mg/L)	Quarterly									
Dec-22	Cadmium	(mg/L)	Quarterly									
Dec-22	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-22	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-22	Copper	(mg/L)	Quarterly									
Dec-22	Electrical Conductivity	(us/cm)	Quarterly									
Dec-22	Iron	(mg/L)	Quarterly									
Dec-22	Lead	(mg/L)	Quarterly									Next sample scheduled for January 2023
Dec-22	Magnesium	(mg/L)	Quarterly									
Dec-22	Manganese	(mg/L)	Quarterly									
Dec-22	Nickel	(mg/L)	Quarterly									
Dec-22	pH	pH	Quarterly									
Dec-22	Potassium	(mg/L)	Quarterly									
Dec-22	Selenium	(mg/L)	Quarterly									
Dec-22	Sodium	(mg/L)	Quarterly									
Dec-22	Standing Water Level	(m)	Quarterly									
Dec-22	Vanadium	(mg/L)	Quarterly									
Dec-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
Dec-22	Aluminium	(mg/L)	Quarterly									
Dec-22	Ammonia	(mg/L)	Quarterly									
Dec-22	Arsenic (III)	(mg/L)	Quarterly									
Dec-22	Arsenic (V)	(mg/L)	Quarterly									
Dec-22	Cadmium	(mg/L)	Quarterly									
Dec-22	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-22	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-22	Copper	(mg/L)	Quarterly									
Dec-22	Electrical Conductivity	(us/cm)	Quarterly									
Dec-22	Iron	(mg/L)	Quarterly									
Dec-22	Lead	(mg/L)	Quarterly									Next sample scheduled for January 2023
Dec-22	Magnesium	(mg/L)	Quarterly									
Dec-22	Manganese	(mg/L)	Quarterly									
Dec-22	Nickel	(mg/L)	Quarterly									
Dec-22	pH	pH	Quarterly									
Dec-22	Potassium	(mg/L)	Quarterly									
Dec-22	Selenium	(mg/L)	Quarterly									
Dec-22	Sodium	(mg/L)	Quarterly									
Dec-22	Standing Water Level	(m)	Quarterly									
Dec-22	Vanadium	(mg/L)	Quarterly									
Dec-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
Dec-22	Aluminium	(mg/L)	Quarterly									
Dec-22	Ammonia	(mg/L)	Quarterly									
Dec-22	Arsenic (III)	(mg/L)	Quarterly									
Dec-22	Arsenic (V)	(mg/L)	Quarterly									
Dec-22	Cadmium	(mg/L)	Quarterly									
Dec-22	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-22	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-22	Copper	(mg/L)	Quarterly									
Dec-22	Electrical Conductivity	(us/cm)	Quarterly									
Dec-22	Iron	(mg/L)	Quarterly									Next sample scheduled for January 2023
Dec-22	Lead	(mg/L)	Quarterly									
Dec-22	Magnesium	(mg/L)	Quarterly									
Dec-22	Manganese	(mg/L)	Quarterly									
Dec-22	Nickel	(mg/L)	Quarterly									
Dec-22	pH	pH	Quarterly									
Dec-22	Potassium	(mg/L)	Quarterly									
Dec-22	Selenium	(mg/L)	Quarterly									
Dec-22	Sodium	(mg/L)	Quarterly									
Dec-22	Standing Water Level	(m)	Quarterly									
Dec-22	Vanadium	(mg/L)	Quarterly									
Dec-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
Dec-22	Aluminium	(mg/L)	Quarterly									
Dec-22	Ammonia	(mg/L)	Quarterly									
Dec-22	Arsenic (III)	(mg/L)	Quarterly									
Dec-22	Arsenic (V)	(mg/L)	Quarterly									
Dec-22	Cadmium	(mg/L)	Quarterly									
Dec-22	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-22	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-22	Copper	(mg/L)	Quarterly									
Dec-22	Electrical Conductivity	(us/cm)	Quarterly									
Dec-22	Iron	(mg/L)	Quarterly									Next sample scheduled for January 2023
Dec-22	Lead	(mg/L)	Quarterly									
Dec-22	Magnesium	(mg/L)	Quarterly									
Dec-22	Manganese	(mg/L)	Quarterly									
Dec-22	Nickel	(mg/L)	Quarterly									
Dec-22	pH	pH	Quarterly									
Dec-22	Potassium	(mg/L)	Quarterly									
Dec-22	Selenium	(mg/L)	Quarterly									
Dec-22	Sodium	(mg/L)	Quarterly									
Dec-22	Standing Water Level	(m)	Quarterly									
Dec-22	Vanadium	(mg/L)	Quarterly									
Dec-22	Zinc	(mg/L)	Quarterly									

GENERAL COMMENTS