

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 2020
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	Exceedance (yes/no)	Comments
Nov-20	Cadmium	(mg/m3)	Every 6 months							0.2		
Nov-20	Chlorine	(mg/m3)	Every 6 months							20		
Nov-20	Fluorine	(mg/m3)	Every 6 months							30		
Nov-20	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Nov-20	Mercury	(mg/m3)	Every 6 months							0.05		
Nov-20	Nitrogen Oxides	(mg/m3)	Continuous	99.2%	Nov-20	271	520	918	1100	1500	No	
Nov-20	Solid Particles	(mg/m3)	Quarterly							50		
Nov-20	Sulfur dioxide	(mg/m3)	Continuous	99.2%	Nov-20	479	610	703	1400	1700	No	
Nov-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Nov-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Nov-20	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	Exceedance (yes/no)	Comments
Nov-20	Cadmium	(mg/m3)	Every 6 months							0.2		
Nov-20	Chlorine	(mg/m3)	Every 6 months							20		
Nov-20	Fluorine	(mg/m3)	Every 6 months							30		
Nov-20	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Nov-20	Mercury	(mg/m3)	Every 6 months							0.05		
Nov-20	Nitrogen Oxides	(mg/m3)	Continuous	99.7%	Nov-20	472	779	1060	1100	1500	No	The 99th percentile limit does not apply until 31/1/2021
Nov-20	Solid Particles	(mg/m3)	Quarterly							50		
Nov-20	Sulfur dioxide	(mg/m3)	Continuous	99.7%	Nov-20	413	596	707	1400	1700	No	
Nov-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Nov-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Nov-20	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-20	Cadmium	(mg/m3)	Every 6 months									
Nov-20	Carbon dioxide	(%)	Every 6 months									
Nov-20	Chlorine	(mg/m3)	Every 6 months									
Nov-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Nov-20	Fluorine	(mg/m3)	Every 6 months									
Nov-20	Hydrogen chloride	(mg/m3)	Every 6 months									
Nov-20	Mercury	(mg/m3)	Every 6 months									
Nov-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Nov-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Nov-20	Solid Particles	(mg/m3)	Quarterly									
Nov-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Nov-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Nov-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Nov-20	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-20	Cadmium	(mg/m3)	Every 6 months									
Nov-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Nov-20	Mercury	(mg/m3)	Every 6 months									
Nov-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Nov-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Nov-20	Solid Particles	(mg/m3)	Quarterly									
Nov-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Nov-20	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-20	Cadmium	(mg/m3)	Every 6 months									
Nov-20	Carbon dioxide	(%)	Every 6 months									
Nov-20	Chlorine	(mg/m3)	Every 6 months									
Nov-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Nov-20	Fluorine	(mg/m3)	Every 6 months									
Nov-20	Hydrogen chloride	(mg/m3)	Every 6 months									
Nov-20	Mercury	(mg/m3)	Every 6 months									
Nov-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Nov-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Nov-20	Solid Particles	(mg/m3)	Quarterly									
Nov-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Nov-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Nov-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Nov-20	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-20	Cadmium	(mg/m3)	Every 6 months									
Nov-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Nov-20	Mercury	(mg/m3)	Every 6 months									
Nov-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Nov-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Nov-20	Solid Particles	(mg/m3)	Quarterly									
Nov-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Nov-20	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-20	Cadmium	(mg/m3)	Every 6 months									
Nov-20	Carbon dioxide	(%)	Every 6 months									
Nov-20	Chlorine	(mg/m3)	Every 6 months									
Nov-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Nov-20	Fluorine	(mg/m3)	Every 6 months									
Nov-20	Hydrogen chloride	(mg/m3)	Every 6 months									
Nov-20	Mercury	(mg/m3)	Every 6 months									
Nov-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Nov-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Nov-20	Solid Particles	(mg/m3)	Quarterly									
Nov-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Nov-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Nov-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Nov-20	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-20	Cadmium	(mg/m3)	Every 6 months									
Nov-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Nov-20	Mercury	(mg/m3)	Every 6 months									
Nov-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Nov-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Nov-20	Solid Particles	(mg/m3)	Quarterly									
Nov-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Nov-20	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-20	Cadmium	(mg/m3)	Every 6 months									
Nov-20	Carbon dioxide	(%)	Every 6 months									
Nov-20	Chlorine	(mg/m3)	Every 6 months									
Nov-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Nov-20	Fluorine	(mg/m3)	Every 6 months									
Nov-20	Hydrogen chloride	(mg/m3)	Every 6 months									
Nov-20	Mercury	(mg/m3)	Every 6 months									
Nov-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Nov-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Nov-20	Solid Particles	(mg/m3)	Quarterly									
Nov-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Nov-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Nov-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Nov-20	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-20	Cadmium	(mg/m3)	Every 6 months									
Nov-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Nov-20	Mercury	(mg/m3)	Every 6 months									
Nov-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Nov-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Nov-20	Solid Particles	(mg/m3)	Quarterly									
Nov-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Nov-20	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-20	Nitrogen Oxides	(mg/m3)	Continuous	96.1%	Nov-20	233	459	963			No	
Nov-20	Sulfur dioxide	(mg/m3)	Continuous	96.1%	Nov-20	385	531	642			No	

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-20	Nitrogen Oxides	(mg/m3)	Continuous	99.2%	Nov-20	271	584	896			No	
Nov-20	Sulfur dioxide	(mg/m3)	Continuous	99.2%	Nov-20	555	689	785			No	

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-20	Nitrogen Oxides	(mg/m3)	Continuous	99.3%	Nov-20	415	756	961			No	
Nov-20	Sulfur dioxide	(mg/m3)	Continuous	99.3%	Nov-20	445	639	791			No	

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-20	Nitrogen Oxides	(mg/m3)	Continuous	99.7%	Nov-20	468	802	1172			No	
Nov-20	Sulfur dioxide	(mg/m3)	Continuous	99.7%	Nov-20	375	553	650			No	

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	97 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Nov-20	Chlorine (free residual)	(mg/L)	Monthly during discharge	1	10/11/2020	<0.1	<0.1	<0.1		0.2	No	
Nov-20	Copper	(mg/L)	Monthly during discharge	1	10/11/2020	0.0038	0.0038	0.0038		0.005	No	
Nov-20	Iron	(mg/L)	Monthly during discharge	1	10/11/2020	0.096	0.096	0.096		0.3	No	
Nov-20	Oil and Grease	Visible	Continuous during discharge	100%	Nov-20	NIL	NIL	NIL				
Nov-20	Selenium	(mg/L)	Monthly during discharge	1	10/11/2020	0.0017	0.0017	0.0017		0.005	No	
Nov-20	Temperature	(°C)	Continuous during discharge	100%	Nov-20	26.1	31.0	34.8	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-20	Aluminium	(mg/L)	Monthly during discharge	1	10/11/2020	0.147	0.147	0.147				
Nov-20	Ammonia	(mg/L)	Monthly during discharge	1	10/11/2020	<0.10	<0.10	<0.10				
Nov-20	Arsenic (III)	(mg/L)	Monthly during discharge	1	10/11/2020	0.0028	0.0028	0.0028				
Nov-20	Arsenic (V)	(mg/L)	Monthly during discharge	1	10/11/2020	0.0029	0.0029	0.0029				
Nov-20	Cadmium	(mg/L)	Monthly during discharge	1	10/11/2020	0.00007	0.00007	0.00007				
Nov-20	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	10/11/2020	0.007	0.007	0.007				
Nov-20	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	10/11/2020	0.001	0.001	0.001				
Nov-20	Copper	(mg/L)	Monthly during discharge	1	10/11/2020	0.0038	0.0038	0.0038				
Nov-20	Iron	(mg/L)	Monthly during discharge	1	10/11/2020	0.396	0.396	0.396				
Nov-20	Lead	(mg/L)	Monthly during discharge	1	10/11/2020	0.0007	0.0007	0.0007				
Nov-20	Manganese	(mg/L)	Monthly during discharge	1	10/11/2020	0.0326	0.0326	0.0326				
Nov-20	Nickel	(mg/L)	Monthly during discharge	1	10/11/2020	0.002	0.002	0.002				
Nov-20	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	10/11/2020	0.08	0.08	0.08				
Nov-20	Nitrogen	(mg/L)	Monthly during discharge	1	10/11/2020	<0.5	<0.5	<0.5				
Nov-20	pH	pH	Monthly during discharge	1	10/11/2020	8.67	8.67	8.67		6.5 - 9.5	No	
Nov-20	Phosphorus	(mg/L)	Monthly during discharge	1	10/11/2020	0.19	0.19	0.19				
Nov-20	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	10/11/2020	0.02	0.02	0.02				
Nov-20	Selenium	(mg/L)	Monthly during discharge	1	10/11/2020	0.037	0.037	0.037				
Nov-20	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	10/11/2020	<0.5	<0.5	<0.5				
Nov-20	Total Suspended Solids	(mg/L)	Monthly during discharge	1	10/11/2020	7	7	7		50	No	
Nov-20	Vanadium	(mg/L)	Monthly during discharge	1	10/11/2020	0.0295	0.0295	0.0295				
Nov-20	Zinc	(mg/L)	Monthly during discharge	1	10/11/2020	0.025	0.025	0.025				

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-20	Aluminium	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Ammonia	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Arsenic (III)	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Arsenic (V)	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Cadmium	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Copper	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Iron	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Lead	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Manganese	(mg/L)	Monthly during discharge	1	10/11/2020				No			No discharge from EPA Point 24 during November 2020
Nov-20	Nickel	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Nitrogen	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	pH	pH	Monthly during discharge	1	10/11/2020				No	6.5 - 9.5		
Nov-20	Phosphorus	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Selenium	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Total Suspended Solids	(mg/L)	Monthly during discharge	1	10/11/2020				No	50		
Nov-20	Vanadium	(mg/L)	Monthly during discharge	1	10/11/2020				No			
Nov-20	Zinc	(mg/L)	Monthly during discharge	1	10/11/2020				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
Nov-20	Aluminium	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Ammonia	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Arsenic (III)	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Arsenic (V)	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Cadmium	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Chromium (trivalent)	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Chromium (VI) Compounds	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Copper	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Iron	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Lead	(mg/L)	Daily for any discharge >2 hrs						No			No discharge from EPA Point 25 during November 2020
Nov-20	Manganese	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Nickel	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	pH	pH	Daily for any discharge >2 hrs						No	6.5 - 9.5	No	
Nov-20	Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Reactive Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Selenium	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Total Kjeldahl Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	Total Suspended Solids	(mg/L)	Daily for any discharge >2 hrs						No	50	No	
Nov-20	Vanadium	(mg/L)	Daily for any discharge >2 hrs						No			
Nov-20	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-20	Aluminium	(mg/L)	Quarterly									
Nov-20	Ammonia	(mg/L)	Quarterly									
Nov-20	Arsenic (III)	(mg/L)	Quarterly									
Nov-20	Arsenic (V)	(mg/L)	Quarterly									
Nov-20	Cadmium	(mg/L)	Quarterly									
Nov-20	Chromium (trivalent)	(mg/L)	Quarterly									
Nov-20	Chromium (VI) Compounds	(mg/L)	Quarterly									
Nov-20	Copper	(mg/L)	Quarterly									
Nov-20	Electrical Conductivity	(us/cm)	Quarterly									
Nov-20	Iron	(mg/L)	Quarterly									
Nov-20	Lead	(mg/L)	Quarterly									
Nov-20	Magnesium	(mg/L)	Quarterly									
Nov-20	Manganese	(mg/L)	Quarterly									
Nov-20	Nickel	(mg/L)	Quarterly									
Nov-20	pH	pH	Quarterly									
Nov-20	Potassium	(mg/L)	Quarterly									
Nov-20	Selenium	(mg/L)	Quarterly									
Nov-20	Sodium	(mg/L)	Quarterly									
Nov-20	Standing Water Level	(m)	Quarterly									
Nov-20	Vanadium	(mg/L)	Quarterly									
Nov-20	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-20	Aluminium	(mg/L)	Quarterly									
Nov-20	Ammonia	(mg/L)	Quarterly									
Nov-20	Arsenic (III)	(mg/L)	Quarterly									
Nov-20	Arsenic (V)	(mg/L)	Quarterly									
Nov-20	Cadmium	(mg/L)	Quarterly									
Nov-20	Chromium (trivalent)	(mg/L)	Quarterly									
Nov-20	Chromium (VI) Compounds	(mg/L)	Quarterly									
Nov-20	Copper	(mg/L)	Quarterly									
Nov-20	Electrical Conductivity	(us/cm)	Quarterly									
Nov-20	Iron	(mg/L)	Quarterly									
Nov-20	Lead	(mg/L)	Quarterly									
Nov-20	Magnesium	(mg/L)	Quarterly									
Nov-20	Manganese	(mg/L)	Quarterly									
Nov-20	Nickel	(mg/L)	Quarterly									
Nov-20	pH	pH	Quarterly									
Nov-20	Potassium	(mg/L)	Quarterly									
Nov-20	Selenium	(mg/L)	Quarterly									
Nov-20	Sodium	(mg/L)	Quarterly									
Nov-20	Standing Water Level	(m)	Quarterly									
Nov-20	Vanadium	(mg/L)	Quarterly									
Nov-20	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-20	Aluminium	(mg/L)	Quarterly									
Nov-20	Ammonia	(mg/L)	Quarterly									
Nov-20	Arsenic (III)	(mg/L)	Quarterly									
Nov-20	Arsenic (V)	(mg/L)	Quarterly									
Nov-20	Cadmium	(mg/L)	Quarterly									
Nov-20	Chromium (trivalent)	(mg/L)	Quarterly									
Nov-20	Chromium (VI) Compounds	(mg/L)	Quarterly									
Nov-20	Copper	(mg/L)	Quarterly									
Nov-20	Electrical Conductivity	(us/cm)	Quarterly									
Nov-20	Iron	(mg/L)	Quarterly									
Nov-20	Lead	(mg/L)	Quarterly									
Nov-20	Magnesium	(mg/L)	Quarterly									
Nov-20	Manganese	(mg/L)	Quarterly									
Nov-20	Nickel	(mg/L)	Quarterly									
Nov-20	pH	pH	Quarterly									
Nov-20	Potassium	(mg/L)	Quarterly									
Nov-20	Selenium	(mg/L)	Quarterly									
Nov-20	Sodium	(mg/L)	Quarterly									
Nov-20	Standing Water Level	(m)	Quarterly									
Nov-20	Vanadium	(mg/L)	Quarterly									
Nov-20	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-20	Aluminium	(mg/L)	Quarterly									
Nov-20	Ammonia	(mg/L)	Quarterly									
Nov-20	Arsenic (III)	(mg/L)	Quarterly									
Nov-20	Arsenic (V)	(mg/L)	Quarterly									
Nov-20	Cadmium	(mg/L)	Quarterly									
Nov-20	Chromium (trivalent)	(mg/L)	Quarterly									
Nov-20	Chromium (VI) Compounds	(mg/L)	Quarterly									
Nov-20	Copper	(mg/L)	Quarterly									
Nov-20	Electrical Conductivity	(us/cm)	Quarterly									
Nov-20	Iron	(mg/L)	Quarterly									
Nov-20	Lead	(mg/L)	Quarterly									
Nov-20	Magnesium	(mg/L)	Quarterly									
Nov-20	Manganese	(mg/L)	Quarterly									
Nov-20	Nickel	(mg/L)	Quarterly									
Nov-20	pH	pH	Quarterly									
Nov-20	Potassium	(mg/L)	Quarterly									
Nov-20	Selenium	(mg/L)	Quarterly									
Nov-20	Sodium	(mg/L)	Quarterly									
Nov-20	Standing Water Level	(m)	Quarterly									
Nov-20	Vanadium	(mg/L)	Quarterly									
Nov-20	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-20	Aluminium	(mg/L)	Quarterly									
Nov-20	Ammonia	(mg/L)	Quarterly									
Nov-20	Arsenic (III)	(mg/L)	Quarterly									
Nov-20	Arsenic (V)	(mg/L)	Quarterly									
Nov-20	Cadmium	(mg/L)	Quarterly									
Nov-20	Chromium (trivalent)	(mg/L)	Quarterly									
Nov-20	Chromium (VI) Compounds	(mg/L)	Quarterly									
Nov-20	Copper	(mg/L)	Quarterly									
Nov-20	Electrical Conductivity	(us/cm)	Quarterly									
Nov-20	Iron	(mg/L)	Quarterly									
Nov-20	Lead	(mg/L)	Quarterly									
Nov-20	Magnesium	(mg/L)	Quarterly									
Nov-20	Manganese	(mg/L)	Quarterly									
Nov-20	Nickel	(mg/L)	Quarterly									
Nov-20	pH	pH	Quarterly									
Nov-20	Potassium	(mg/L)	Quarterly									
Nov-20	Selenium	(mg/L)	Quarterly									
Nov-20	Sodium	(mg/L)	Quarterly									
Nov-20	Standing Water Level	(m)	Quarterly									
Nov-20	Vanadium	(mg/L)	Quarterly									
Nov-20	Zinc	(mg/L)	Quarterly									

GENERAL COMMENTS