

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	July 2021
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
Jul-21	Cadmium	(mg/m3)	Every 6 months							0.2		
Jul-21	Chlorine	(mg/m3)	Every 6 months							20		
Jul-21	Fluorine	(mg/m3)	Every 6 months							30		
Jul-21	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Jul-21	Mercury	(mg/m3)	Every 6 months							0.05		
Jul-21	Nitrogen Oxides	(mg/m3)	Continuous	92.8%	Jul-21	456	617	732	1100	1500	No	
Jul-21	Solid Particles	(mg/m3)	Quarterly	1	May 2021	2.9	2.9	2.9		50	No	
Jul-21	Sulfur dioxide	(mg/m3)	Continuous	92.8%	Jul-21	586	728	941	1400	1700	No	
Jul-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Jul-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Jul-21	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
Jul-21	Cadmium	(mg/m3)	Every 6 months							0.2		
Jul-21	Chlorine	(mg/m3)	Every 6 months							20		
Jul-21	Fluorine	(mg/m3)	Every 6 months							30		
Jul-21	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Jul-21	Mercury	(mg/m3)	Every 6 months							0.05		
Jul-21	Nitrogen Oxides	(mg/m3)	Continuous	99.0%	Jul-21	158	509	741	1100	1500	No	
Jul-21	Solid Particles	(mg/m3)	Quarterly							50		
Jul-21	Sulfur dioxide	(mg/m3)	Continuous	99.0%	Jul-21	334	666	945	1400	1700	No	
Jul-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Jul-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Jul-21	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
Jul-21	Cadmium	(mg/m3)	Every 6 months									
Jul-21	Carbon dioxide	(%)	Every 6 months									
Jul-21	Chlorine	(mg/m3)	Every 6 months									
Jul-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Jul-21	Fluorine	(mg/m3)	Every 6 months									
Jul-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Jul-21	Mercury	(mg/m3)	Every 6 months									
Jul-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Jul-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Jul-21	Solid Particles	(mg/m3)	Quarterly	1	25/5/2021	2.4	2.4	2.4				
Jul-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Jul-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Jul-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Jul-21	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
Jul-21	Cadmium	(mg/m3)	Every 6 months									
Jul-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Jul-21	Mercury	(mg/m3)	Every 6 months									
Jul-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Jul-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Jul-21	Solid Particles	(mg/m3)	Quarterly	1	24/5/2021	4	4	4				
Jul-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Jul-21	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
Jul-21	Cadmium	(mg/m3)	Every 6 months									
Jul-21	Carbon dioxide	(%)	Every 6 months									
Jul-21	Chlorine	(mg/m3)	Every 6 months									
Jul-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Jul-21	Fluorine	(mg/m3)	Every 6 months									
Jul-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Jul-21	Mercury	(mg/m3)	Every 6 months									
Jul-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Jul-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Jul-21	Solid Particles	(mg/m3)	Quarterly	1	21/5/2021	1.5	1.5	1.5				
Jul-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Jul-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Jul-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Jul-21	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
Jul-21	Cadmium	(mg/m3)	Every 6 months									
Jul-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Jul-21	Mercury	(mg/m3)	Every 6 months									
Jul-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Jul-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Jul-21	Solid Particles	(mg/m3)	Quarterly	1	20/5/2021	3.9	3.9	3.9				
Jul-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Jul-21	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
Jul-21	Cadmium	(mg/m3)	Every 6 months									
Jul-21	Carbon dioxide	(%)	Every 6 months									
Jul-21	Chlorine	(mg/m3)	Every 6 months									
Jul-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Jul-21	Fluorine	(mg/m3)	Every 6 months									
Jul-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Jul-21	Mercury	(mg/m3)	Every 6 months									
Jul-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Jul-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Jul-21	Solid Particles	(mg/m3)	Quarterly									
Jul-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Jul-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Jul-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Jul-21	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
Jul-21	Cadmium	(mg/m3)	Every 6 months									
Jul-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Jul-21	Mercury	(mg/m3)	Every 6 months									
Jul-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Jul-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Jul-21	Solid Particles	(mg/m3)	Quarterly									
Jul-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Jul-21	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
Jul-21	Cadmium	(mg/m3)	Every 6 months									
Jul-21	Carbon dioxide	(%)	Every 6 months									
Jul-21	Chlorine	(mg/m3)	Every 6 months									
Jul-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Jul-21	Fluorine	(mg/m3)	Every 6 months									
Jul-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Jul-21	Mercury	(mg/m3)	Every 6 months									
Jul-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Jul-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Jul-21	Solid Particles	(mg/m3)	Quarterly									
Jul-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Jul-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Jul-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Jul-21	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
Jul-21	Cadmium	(mg/m3)	Every 6 months									
Jul-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Jul-21	Mercury	(mg/m3)	Every 6 months									
Jul-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Jul-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Jul-21	Solid Particles	(mg/m3)	Quarterly									
Jul-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Jul-21	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
Jul-21	Nitrogen Oxides	(mg/m3)	Continuous	93.5%	Jul-21	375	587	753			No	
Jul-21	Sulfur dioxide	(mg/m3)	Continuous	93.5%	Jul-21	432	696	907			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
Jul-21	Nitrogen Oxides	(mg/m3)	Continuous	92.8%	Jul-21	445	645	799			No	
Jul-21	Sulfur dioxide	(mg/m3)	Continuous	92.8%	Jul-21	594	758	982			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
Jul-21	Nitrogen Oxides	(mg/m3)	Continuous	99.0%	Jul-21	259	513	740			No	
Jul-21	Sulfur dioxide	(mg/m3)	Continuous	99.0%	Jul-21	606	753	1008			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
Jul-21	Nitrogen Oxides	(mg/m3)	Continuous	90.9%	Jul-21	353	550	787			No	
Jul-21	Sulfur dioxide	(mg/m3)	Continuous	90.9%	Jul-21	442	629	881			No	

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	97 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-21	Chlorine (free residual)	(mg/L)	Monthly during discharge	1	29/07/2021	<0.1	<0.1	<0.1		0.2	No	
Jul-21	Copper	(mg/L)	Monthly during discharge	1	29/07/2021	0.007	0.007	0.007		0.005	Yes	
Jul-21	Iron	(mg/L)	Monthly during discharge	1	29/07/2021	0.141	0.141	0.141		0.3	No	
Jul-21	Oil and Grease	Visible	Continuous during discharge	100%	Jul-21	NIL	NIL	NIL				
Jul-21	Selenium	(mg/L)	Monthly during discharge	1	29/07/2021	<0.002	<0.002	<0.002		0.005	No	
Jul-21	Temperature	(°C)	Continuous during discharge	100%	Jul-21	18.3	22.6	25.7	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
Jul-21	Aluminium	(mg/L)	Monthly during discharge	1	29/07/2021	0.020	0.020	0.020				
Jul-21	Ammonia	(mg/L)	Monthly during discharge	1	29/07/2021	0.38	0.38	0.38				
Jul-21	Arsenic (III)	(mg/L)	Monthly during discharge	1	29/07/2021	<0.0005	<0.0005	<0.0005				
Jul-21	Arsenic (V)	(mg/L)	Monthly during discharge	1	29/07/2021	0.0045	0.0045	0.0045				
Jul-21	Cadmium	(mg/L)	Monthly during discharge	1	29/07/2021	<0.00005	<0.00005	<0.00005				
Jul-21	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	29/07/2021	<0.001	<0.001	<0.001				
Jul-21	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	29/07/2021	0.031	0.031	0.031				
Jul-21	Copper	(mg/L)	Monthly during discharge	1	29/07/2021	<0.0005	<0.0005	<0.0005				
Jul-21	Iron	(mg/L)	Monthly during discharge	1	29/07/2021	0.019	0.019	0.019				
Jul-21	Lead	(mg/L)	Monthly during discharge	1	29/07/2021	<0.0001	<0.0001	<0.0001				
Jul-21	Manganese	(mg/L)	Monthly during discharge	1	29/07/2021	0.0054	0.0054	0.0054				
Jul-21	Nickel	(mg/L)	Monthly during discharge	1	29/07/2021	0.0013	0.0013	0.0013				
Jul-21	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	29/07/2021	0.24	0.24	0.24				
Jul-21	Nitrogen	(mg/L)	Monthly during discharge	1	29/07/2021	0.70	0.70	0.70				
Jul-21	pH	pH	Monthly during discharge	1	29/07/2021	9.32	9.32	9.32		6.5 - 9.5	No	
Jul-21	Phosphorus	(mg/L)	Monthly during discharge	1	29/07/2021	0.06	0.06	0.06				
Jul-21	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	29/07/2021	0.02	0.02	0.02				
Jul-21	Selenium	(mg/L)	Monthly during discharge	1	29/07/2021	0.0701	0.0701	0.0701				
Jul-21	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	29/07/2021	0.5	0.5	0.5				
Jul-21	Total Suspended Solids	(mg/L)	Monthly during discharge	1	29/07/2021	4	4	4		50	No	
Jul-21	Vanadium	(mg/L)	Monthly during discharge	1	29/07/2021	0.0468	0.0468	0.0468				
Jul-21	Zinc	(mg/L)	Monthly during discharge	1	29/07/2021	0.002	0.002	0.002				

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
Jul-21	Aluminium	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Ammonia	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Arsenic (III)	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Arsenic (V)	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Cadmium	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Copper	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Iron	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Lead	(mg/L)	Monthly during discharge	1	29/07/2021				No			No discharge from EPA Point 24 during July 2021
Jul-21	Manganese	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Nickel	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Nitrogen	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	pH	pH	Monthly during discharge	1	29/07/2021				No	6.5 - 9.5	No	
Jul-21	Phosphorus	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Selenium	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Total Suspended Solids	(mg/L)	Monthly during discharge	1	29/07/2021				No	50	No	
Jul-21	Vanadium	(mg/L)	Monthly during discharge	1	29/07/2021				No			
Jul-21	Zinc	(mg/L)	Monthly during discharge	1	29/07/2021				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
Jul-21	Aluminium	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Ammonia	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Arsenic (III)	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Arsenic (V)	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Cadmium	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Chromium (trivalent)	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Chromium (VI) Compounds	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Copper	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Iron	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Lead	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Manganese	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Nickel	(mg/L)	Daily for any discharge >2 hrs						No			No discharge from EPA Point 25 during July 2021
Jul-21	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	pH	pH	Daily for any discharge >2 hrs						No	6.5 - 9.5	No	
Jul-21	Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Reactive Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Selenium	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Total Kjeldahl Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	Total Suspended Solids	(mg/L)	Daily for any discharge >2 hrs						No	50	No	
Jul-21	Vanadium	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-21	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
Jul-21	Aluminium	(mg/L)	Quarterly									
Jul-21	Ammonia	(mg/L)	Quarterly									
Jul-21	Arsenic (III)	(mg/L)	Quarterly									
Jul-21	Arsenic (V)	(mg/L)	Quarterly									
Jul-21	Cadmium	(mg/L)	Quarterly									
Jul-21	Chromium (trivalent)	(mg/L)	Quarterly									
Jul-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Jul-21	Copper	(mg/L)	Quarterly									
Jul-21	Electrical Conductivity	(us/cm)	Quarterly									
Jul-21	Iron	(mg/L)	Quarterly									
Jul-21	Lead	(mg/L)	Quarterly									
Jul-21	Magnesium	(mg/L)	Quarterly									
Jul-21	Manganese	(mg/L)	Quarterly									
Jul-21	Nickel	(mg/L)	Quarterly									
Jul-21	pH	pH	Quarterly									
Jul-21	Potassium	(mg/L)	Quarterly									
Jul-21	Selenium	(mg/L)	Quarterly									
Jul-21	Sodium	(mg/L)	Quarterly									
Jul-21	Standing Water Level	(m)	Quarterly									
Jul-21	Vanadium	(mg/L)	Quarterly									
Jul-21	Zinc	(mg/L)	Quarterly									

Next sample due before end of September 2021

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
Jul-21	Aluminium	(mg/L)	Quarterly									
Jul-21	Ammonia	(mg/L)	Quarterly									
Jul-21	Arsenic (III)	(mg/L)	Quarterly									
Jul-21	Arsenic (V)	(mg/L)	Quarterly									
Jul-21	Cadmium	(mg/L)	Quarterly									
Jul-21	Chromium (trivalent)	(mg/L)	Quarterly									
Jul-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Jul-21	Copper	(mg/L)	Quarterly									
Jul-21	Electrical Conductivity	(us/cm)	Quarterly									
Jul-21	Iron	(mg/L)	Quarterly									
Jul-21	Lead	(mg/L)	Quarterly									
Jul-21	Magnesium	(mg/L)	Quarterly									
Jul-21	Manganese	(mg/L)	Quarterly									
Jul-21	Nickel	(mg/L)	Quarterly									
Jul-21	pH	pH	Quarterly									
Jul-21	Potassium	(mg/L)	Quarterly									
Jul-21	Selenium	(mg/L)	Quarterly									
Jul-21	Sodium	(mg/L)	Quarterly									
Jul-21	Standing Water Level	(m)	Quarterly									
Jul-21	Vanadium	(mg/L)	Quarterly									
Jul-21	Zinc	(mg/L)	Quarterly									

Next sample due before end of September 2021

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
Jul-21	Aluminium	(mg/L)	Quarterly									
Jul-21	Ammonia	(mg/L)	Quarterly									
Jul-21	Arsenic (III)	(mg/L)	Quarterly									
Jul-21	Arsenic (V)	(mg/L)	Quarterly									
Jul-21	Cadmium	(mg/L)	Quarterly									
Jul-21	Chromium (trivalent)	(mg/L)	Quarterly									
Jul-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Jul-21	Copper	(mg/L)	Quarterly									
Jul-21	Electrical Conductivity	(us/cm)	Quarterly									
Jul-21	Iron	(mg/L)	Quarterly									
Jul-21	Lead	(mg/L)	Quarterly									
Jul-21	Magnesium	(mg/L)	Quarterly									
Jul-21	Manganese	(mg/L)	Quarterly									Next sample due before end of September 2021
Jul-21	Nickel	(mg/L)	Quarterly									
Jul-21	pH	pH	Quarterly									
Jul-21	Potassium	(mg/L)	Quarterly									
Jul-21	Selenium	(mg/L)	Quarterly									
Jul-21	Sodium	(mg/L)	Quarterly									
Jul-21	Standing Water Level	(m)	Quarterly									
Jul-21	Vanadium	(mg/L)	Quarterly									
Jul-21	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
Jul-21	Aluminium	(mg/L)	Quarterly									
Jul-21	Ammonia	(mg/L)	Quarterly									
Jul-21	Arsenic (III)	(mg/L)	Quarterly									
Jul-21	Arsenic (V)	(mg/L)	Quarterly									
Jul-21	Cadmium	(mg/L)	Quarterly									
Jul-21	Chromium (trivalent)	(mg/L)	Quarterly									
Jul-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Jul-21	Copper	(mg/L)	Quarterly									
Jul-21	Electrical Conductivity	(us/cm)	Quarterly									
Jul-21	Iron	(mg/L)	Quarterly									
Jul-21	Lead	(mg/L)	Quarterly									
Jul-21	Magnesium	(mg/L)	Quarterly									
Jul-21	Manganese	(mg/L)	Quarterly									Next sample due before end of September 2021
Jul-21	Nickel	(mg/L)	Quarterly									
Jul-21	pH	pH	Quarterly									
Jul-21	Potassium	(mg/L)	Quarterly									
Jul-21	Selenium	(mg/L)	Quarterly									
Jul-21	Sodium	(mg/L)	Quarterly									
Jul-21	Standing Water Level	(m)	Quarterly									
Jul-21	Vanadium	(mg/L)	Quarterly									
Jul-21	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
Jul-21	Aluminium	(mg/L)	Quarterly									
Jul-21	Ammonia	(mg/L)	Quarterly									
Jul-21	Arsenic (III)	(mg/L)	Quarterly									
Jul-21	Arsenic (V)	(mg/L)	Quarterly									
Jul-21	Cadmium	(mg/L)	Quarterly									
Jul-21	Chromium (trivalent)	(mg/L)	Quarterly									
Jul-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Jul-21	Copper	(mg/L)	Quarterly									
Jul-21	Electrical Conductivity	(us/cm)	Quarterly									
Jul-21	Iron	(mg/L)	Quarterly									
Jul-21	Lead	(mg/L)	Quarterly									
Jul-21	Magnesium	(mg/L)	Quarterly									
Jul-21	Manganese	(mg/L)	Quarterly									
Jul-21	Nickel	(mg/L)	Quarterly									
Jul-21	pH	pH	Quarterly									
Jul-21	Potassium	(mg/L)	Quarterly									
Jul-21	Selenium	(mg/L)	Quarterly									
Jul-21	Sodium	(mg/L)	Quarterly									
Jul-21	Standing Water Level	(m)	Quarterly									
Jul-21	Vanadium	(mg/L)	Quarterly									
Jul-21	Zinc	(mg/L)	Quarterly									

Next sample due before end of September 2021

GENERAL COMMENTS