

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	April 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
Apr-21	Cadmium	(mg/m3)	Every 6 months							0.2		
Apr-21	Chlorine	(mg/m3)	Every 6 months							20		
Apr-21	Fluorine	(mg/m3)	Every 6 months							30		
Apr-21	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Apr-21	Mercury	(mg/m3)	Every 6 months							0.05		
Apr-21	Nitrogen Oxides	(mg/m3)	Continuous	98.77%	Apr-21	330	620	742	1100	1500	No	
Apr-21	Solid Particles	(mg/m3)	Quarterly	1	Dec 20 - Feb 21	5.0	5.0	5.0		50	No	Sample method TM-38
Apr-21	Sulfur dioxide	(mg/m3)	Continuous	98.77%	Apr-21	511	747	933	1400	1700	No	
Apr-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Apr-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Apr-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
Apr-21	Cadmium	(mg/m3)	Every 6 months							0.2		
Apr-21	Chlorine	(mg/m3)	Every 6 months							20		
Apr-21	Fluorine	(mg/m3)	Every 6 months							30		
Apr-21	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Apr-21	Mercury	(mg/m3)	Every 6 months							0.05		
Apr-21	Nitrogen Oxides	(mg/m3)	Continuous	98.60%	Apr-21	441	684	996	1100	1500	No	
Apr-21	Solid Particles	(mg/m3)	Quarterly	1	Jan-21	35.8	35.8	35.8		50	No	Sample method TM-38
Apr-21	Sulfur dioxide	(mg/m3)	Continuous	98.60%	Apr-21	529	654	821	1400	1700	No	
Apr-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Apr-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Apr-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
Apr-21	Cadmium	(mg/m3)	Every 6 months									
Apr-21	Carbon dioxide	(%)	Every 6 months									
Apr-21	Chlorine	(mg/m3)	Every 6 months									
Apr-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Apr-21	Fluorine	(mg/m3)	Every 6 months									
Apr-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Apr-21	Mercury	(mg/m3)	Every 6 months									
Apr-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Apr-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Apr-21	Solid Particles	(mg/m3)	Quarterly	1	18/12/2020	2.37	2.37	2.37				
Apr-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Apr-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Apr-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Apr-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
Apr-21	Cadmium	(mg/m3)	Every 6 months									
Apr-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Apr-21	Mercury	(mg/m3)	Every 6 months									
Apr-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Apr-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Apr-21	Solid Particles	(mg/m3)	Quarterly	1	21/12/2020	4.54	4.54	4.54				
Apr-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Apr-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
Apr-21	Cadmium	(mg/m3)	Every 6 months									
Apr-21	Carbon dioxide	(%)	Every 6 months									
Apr-21	Chlorine	(mg/m3)	Every 6 months									
Apr-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Apr-21	Fluorine	(mg/m3)	Every 6 months									
Apr-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Apr-21	Mercury	(mg/m3)	Every 6 months									
Apr-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Apr-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Apr-21	Solid Particles	(mg/m3)	Quarterly	1	12/1/2021	10.14	10.14	10.14				
Apr-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Apr-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Apr-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Apr-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
Apr-21	Cadmium	(mg/m3)	Every 6 months									
Apr-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Apr-21	Mercury	(mg/m3)	Every 6 months									
Apr-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Apr-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Apr-21	Solid Particles	(mg/m3)	Quarterly	1	3/2/2021	2.61	2.61	2.61				
Apr-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Apr-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
Apr-21	Cadmium	(mg/m3)	Every 6 months									
Apr-21	Carbon dioxide	(%)	Every 6 months									
Apr-21	Chlorine	(mg/m3)	Every 6 months									
Apr-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Apr-21	Fluorine	(mg/m3)	Every 6 months									
Apr-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Apr-21	Mercury	(mg/m3)	Every 6 months									
Apr-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Apr-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Apr-21	Solid Particles	(mg/m3)	Quarterly	1	14/1/2021	2.81	2.81	2.81				
Apr-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Apr-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Apr-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Apr-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
Apr-21	Cadmium	(mg/m3)	Every 6 months									
Apr-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Apr-21	Mercury	(mg/m3)	Every 6 months									
Apr-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Apr-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Apr-21	Solid Particles	(mg/m3)	Quarterly	1	15/1/2021	5.11	5.11	5.11				
Apr-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Apr-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
Apr-21	Cadmium	(mg/m3)	Every 6 months									
Apr-21	Carbon dioxide	(%)	Every 6 months									
Apr-21	Chlorine	(mg/m3)	Every 6 months									
Apr-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Apr-21	Fluorine	(mg/m3)	Every 6 months									
Apr-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Apr-21	Mercury	(mg/m3)	Every 6 months									
Apr-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Apr-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Apr-21	Solid Particles	(mg/m3)	Quarterly	1	19/1/2021	20.45	20.45	20.45				
Apr-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Apr-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Apr-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Apr-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
Apr-21	Cadmium	(mg/m3)	Every 6 months									
Apr-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Apr-21	Mercury	(mg/m3)	Every 6 months									
Apr-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Apr-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Apr-21	Solid Particles	(mg/m3)	Quarterly	1	20/1/2021	144.41	144.41	144.41				
Apr-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Apr-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
Apr-21	Nitrogen Oxides	(mg/m3)	Continuous	99.2%	Apr-21	235	537	726			No	
Apr-21	Sulfur dioxide	(mg/m3)	Continuous	99.2%	Apr-21	400	655	865			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
Apr-21	Nitrogen Oxides	(mg/m3)	Continuous	98.3%	Apr-21	425	699	872			No	
Apr-21	Sulfur dioxide	(mg/m3)	Continuous	98.3%	Apr-21	528	835	933			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
Apr-21	Nitrogen Oxides	(mg/m3)	Continuous	98.6%	Apr-21	398	651	922			No	
Apr-21	Sulfur dioxide	(mg/m3)	Continuous	98.6%	Apr-21	525	713	910			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
Apr-21	Nitrogen Oxides	(mg/m3)	Continuous	98.6%	Apr-21	419	718	1070			No	
Apr-21	Sulfur dioxide	(mg/m3)	Continuous	98.6%	Apr-21	474	601	745			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
Apr-21	Chlorine (free residual)	(mg/L)	Monthly during discharge	1	13/04/2021	0.16	0.16	0.16		0.2	No	
Apr-21	Copper	(mg/L)	Monthly during discharge	1	13/04/2021	0.002	0.002	0.002		0.005	No	
Apr-21	Iron	(mg/L)	Monthly during discharge	1	13/04/2021	0.106	0.106	0.106		0.3	No	
Apr-21	Oil and Grease	Visible	Continuous during discharge	100%	Apr-21	NIL	NIL	NIL				
Apr-21	Selenium	(mg/L)	Monthly during discharge	1	13/04/2021	<0.002	<0.002	<0.002		0.005	No	
Apr-21	Temperature	(°C)	Continuous during discharge	100%	Apr-21	19.9	28.2	31.6	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
Apr-21	Aluminium	(mg/L)	Monthly during discharge	1	13/04/2021	0.066	0.066	0.066				
Apr-21	Ammonia	(mg/L)	Monthly during discharge	1	13/04/2021	0.05	0.05	0.05				
Apr-21	Arsenic (III)	(mg/L)	Monthly during discharge	1	13/04/2021	<0.0005	<0.0005	<0.0005				
Apr-21	Arsenic (V)	(mg/L)	Monthly during discharge	1	13/04/2021	0.0011	0.0011	0.0011				
Apr-21	Cadmium	(mg/L)	Monthly during discharge	1	13/04/2021	0.00009	0.00009	0.00009				
Apr-21	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	13/04/2021	0.002	0.002	0.002				
Apr-21	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	13/04/2021	0.006	0.006	0.006				
Apr-21	Copper	(mg/L)	Monthly during discharge	1	13/04/2021	<0.0005	<0.0005	<0.0005				
Apr-21	Iron	(mg/L)	Monthly during discharge	1	13/04/2021	0.126	0.126	0.126				
Apr-21	Lead	(mg/L)	Monthly during discharge	1	13/04/2021	<0.0001	<0.0001	<0.0001				
Apr-21	Manganese	(mg/L)	Monthly during discharge	1	13/04/2021	0.0095	0.0095	0.0095				
Apr-21	Nickel	(mg/L)	Monthly during discharge	1	13/04/2021	0.0007	0.0007	0.0007				
Apr-21	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	13/04/2021	0.14	0.14	0.14				
Apr-21	Nitrogen	(mg/L)	Monthly during discharge	1	13/04/2021	0.50	0.50	0.50				
Apr-21	pH	pH	Monthly during discharge	1	13/04/2021	6.90	6.90	6.90		6.5 - 9.5	No	
Apr-21	Phosphorus	(mg/L)	Monthly during discharge	1	13/04/2021	0.04	0.04	0.04				
Apr-21	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	13/04/2021	<0.01	<0.01	<0.01				
Apr-21	Selenium	(mg/L)	Monthly during discharge	1	13/04/2021	0.03	0.03	0.03				
Apr-21	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	13/04/2021	0.4	0.4	0.4				
Apr-21	Total Suspended Solids	(mg/L)	Monthly during discharge	1	13/04/2021	3	3	3		50	No	
Apr-21	Vanadium	(mg/L)	Monthly during discharge	1	13/04/2021	0.0289	0.0289	0.0289				
Apr-21	Zinc	(mg/L)	Monthly during discharge	1	13/04/2021	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
Apr-21	Aluminium	(mg/L)	Monthly during discharge	1	13/04/2021	0.087	0.087	0.087	Yes			
Apr-21	Ammonia	(mg/L)	Monthly during discharge	1	13/04/2021	1.50	1.50	1.50	Yes			
Apr-21	Arsenic (III)	(mg/L)	Monthly during discharge	1	13/04/2021	<0.0050	<0.0050	<0.0050	Yes			
Apr-21	Arsenic (V)	(mg/L)	Monthly during discharge	1	13/04/2021	<0.0050	<0.0050	<0.0050	Yes			
Apr-21	Cadmium	(mg/L)	Monthly during discharge	1	13/04/2021	0.0003	0.0003	0.0003	Yes			
Apr-21	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	13/04/2021	<0.001	<0.001	<0.001	Yes			
Apr-21	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	13/04/2021	<0.001	<0.001	<0.001	Yes			
Apr-21	Copper	(mg/L)	Monthly during discharge	1	13/04/2021	<0.001	<0.001	<0.001	Yes			
Apr-21	Iron	(mg/L)	Monthly during discharge	1	13/04/2021	0.736	0.736	0.736	Yes			
Apr-21	Lead	(mg/L)	Monthly during discharge	1	13/04/2021	<0.0002	<0.0002	<0.0002	Yes			
Apr-21	Manganese	(mg/L)	Monthly during discharge	1	13/04/2021	0.0999	0.0999	0.0999	Yes			
Apr-21	Nickel	(mg/L)	Monthly during discharge	1	13/04/2021	0.0006	0.0006	0.0006	Yes			
Apr-21	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	13/04/2021	0.21	0.21	0.21	Yes			
Apr-21	Nitrogen	(mg/L)	Monthly during discharge	1	13/04/2021	1.80	1.80	1.80	Yes			
Apr-21	pH	pH	Monthly during discharge	1	13/04/2021	6.67	6.67	6.67	Yes	6.5 - 9.5		
Apr-21	Phosphorus	(mg/L)	Monthly during discharge	1	13/04/2021	<0.05	<0.05	<0.05	Yes			
Apr-21	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	13/04/2021	0.01	0.01	0.01	Yes			
Apr-21	Selenium	(mg/L)	Monthly during discharge	1	13/04/2021	0.002	0.002	0.002	Yes			
Apr-21	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	13/04/2021	1.60	1.60	1.60	Yes			
Apr-21	Total Suspended Solids	(mg/L)	Monthly during discharge	1	13/04/2021	<2	<2	<2	Yes	50		
Apr-21	Vanadium	(mg/L)	Monthly during discharge	1	13/04/2021	0.0104	0.0104	0.0104	Yes			
Apr-21	Zinc	(mg/L)	Monthly during discharge	1	13/04/2021	<0.005	<0.005	<0.005	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
Apr-21	Aluminium	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	0.086	0.204	1.290	Yes			
Apr-21	Ammonia	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	0.01	0.57	1.03	Yes			
Apr-21	Arsenic (III)	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	0.0006	0.0021	0.0066	Yes			
Apr-21	Arsenic (V)	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	<0.0005	0.0007	0.0017	Yes			Discharge from the ash dam at licensed discharge point EPA 25 commenced on 21.3.2021 and ended on 12.4.2021. Rainfall measured at EPA monitoring point 16 during the 31-day period immediately prior to discharge was 447.4mm.
Apr-21	Cadmium	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	<0.00005	0.00005	0.00008	Yes			
Apr-21	Chromium (trivalent)	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	<0.001	0.004	0.008	Yes			
Apr-21	Chromium (VI) Compounds	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	<0.001	0.003	0.005	Yes			
Apr-21	Copper	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	<0.0005	0.0007	0.0028	Yes			
Apr-21	Iron	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	0.074	0.465	4.070	Yes			
Apr-21	Lead	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	<0.0001	0.0002	0.0013	Yes			
Apr-21	Manganese	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	0.0248	0.0517	0.1280	Yes			
Apr-21	Nickel	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	<0.0005	0.0008	0.0038	Yes			
Apr-21	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	<0.01	0.03	0.05	Yes			
Apr-21	Nitrogen	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	0.2	0.8	1.2	Yes			
Apr-21	pH	pH	Daily for any discharge >2 hrs	12	1 - 12 April	7.30	8.21	8.65	Yes	6.5 - 9.5	No	
Apr-21	Phosphorus	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	0.06	0.10	0.15	Yes			
Apr-21	Reactive Phosphorus	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	<0.01	0.07	0.12	Yes			
Apr-21	Selenium	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	0.0059	0.0314	0.0426	Yes			
Apr-21	Total Kjeldahl Nitrogen	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	0.2	0.8	1.1	Yes			
Apr-21	Total Suspended Solids	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	1	6	15	Yes	50	No	
Apr-21	Vanadium	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	0.0062	0.0314	0.0402	Yes			
Apr-21	Zinc	(mg/L)	Daily for any discharge >2 hrs	12	1 - 12 April	<0.001	0.003	0.018	Yes			

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/Masurement 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
Apr-21	Aluminium	(mg/L)	Quarterly	1	13/04/2021	0.468	0.468	0.468				
Apr-21	Ammonia	(mg/L)	Quarterly	1	13/04/2021	1.68	1.68	1.68				
Apr-21	Arsenic (III)	(mg/L)	Quarterly	1	13/04/2021	<0.0005	<0.0005	<0.0005				
Apr-21	Arsenic (V)	(mg/L)	Quarterly	1	13/04/2021	0.0013	0.0013	0.0013				
Apr-21	Cadmium	(mg/L)	Quarterly	1	13/04/2021	0.00011	0.00011	0.00011				
Apr-21	Chromium (trivalent)	(mg/L)	Quarterly	1	13/04/2021	<0.001	<0.001	<0.001				
Apr-21	Chromium (VI) Compounds	(mg/L)	Quarterly	1	13/04/2021	<0.001	<0.001	<0.001				
Apr-21	Copper	(mg/L)	Quarterly	1	13/04/2021	0.0029	0.0029	0.0029				
Apr-21	Electrical Conductivity	(us/cm)	Quarterly	1	13/04/2021	14220	14220	14220				
Apr-21	Iron	(mg/L)	Quarterly	1	13/04/2021	45.2	45.2	45.2				
Apr-21	Lead	(mg/L)	Quarterly	1	13/04/2021	0.0018	0.0018	0.0018				
Apr-21	Magnesium	(mg/L)	Quarterly	1	13/04/2021	319	319	319				
Apr-21	Manganese	(mg/L)	Quarterly	1	13/04/2021	2.17	2.17	2.17				
Apr-21	Nickel	(mg/L)	Quarterly	1	13/04/2021	0.0128	0.0128	0.0128				
Apr-21	pH	pH	Quarterly	1	13/04/2021	6.01	6.01	6.01				
Apr-21	Potassium	(mg/L)	Quarterly	1	13/04/2021	42	42	42				
Apr-21	Selenium	(mg/L)	Quarterly	1	13/04/2021	0.0015	0.0015	0.0015				
Apr-21	Sodium	(mg/L)	Quarterly	1	13/04/2021	2340	2340	2340				
Apr-21	Standing Water Level	(m)	Quarterly	1	13/04/2021	3.69	3.69	3.69				
Apr-21	Vanadium	(mg/L)	Quarterly	1	13/04/2021	0.0017	0.0017	0.0017				
Apr-21	Zinc	(mg/L)	Quarterly	1	13/04/2021	0.013	0.013	0.013				

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/Masurement 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
Apr-21	Aluminium	(mg/L)	Quarterly	1	13/04/2021	1.27	1.27	1.27				
Apr-21	Ammonia	(mg/L)	Quarterly	1	13/04/2021	0.07	0.07	0.07				
Apr-21	Arsenic (III)	(mg/L)	Quarterly	1	13/04/2021	0.0006	0.0006	0.0006				
Apr-21	Arsenic (V)	(mg/L)	Quarterly	1	13/04/2021	0.0012	0.0012	0.0012				
Apr-21	Cadmium	(mg/L)	Quarterly	1	13/04/2021	0.00006	0.00006	0.00006				
Apr-21	Chromium (trivalent)	(mg/L)	Quarterly	1	13/04/2021	<0.001	<0.001	<0.001				
Apr-21	Chromium (VI) Compounds	(mg/L)	Quarterly	1	13/04/2021	0.005	0.005	0.005				
Apr-21	Copper	(mg/L)	Quarterly	1	13/04/2021	0.0115	0.0115	0.0115				
Apr-21	Electrical Conductivity	(us/cm)	Quarterly	1	13/04/2021	3480	3480	3480				
Apr-21	Iron	(mg/L)	Quarterly	1	13/04/2021	8.08	8.08	8.08				
Apr-21	Lead	(mg/L)	Quarterly	1	13/04/2021	0.0097	0.0097	0.0097				
Apr-21	Magnesium	(mg/L)	Quarterly	1	13/04/2021	13	13	13				
Apr-21	Manganese	(mg/L)	Quarterly	1	13/04/2021	0.127	0.127	0.127				
Apr-21	Nickel	(mg/L)	Quarterly	1	13/04/2021	0.0032	0.0032	0.0032				
Apr-21	pH	pH	Quarterly	1	13/04/2021	6.27	6.27	6.27				
Apr-21	Potassium	(mg/L)	Quarterly	1	13/04/2021	3	3	3				
Apr-21	Selenium	(mg/L)	Quarterly	1	13/04/2021	0.0015	0.0015	0.0015				
Apr-21	Sodium	(mg/L)	Quarterly	1	13/04/2021	144	144	144				
Apr-21	Standing Water Level	(m)	Quarterly	1	13/04/2021	0.42	0.42	0.42				
Apr-21	Vanadium	(mg/L)	Quarterly	1	13/04/2021	0.005	0.005	0.005				
Apr-21	Zinc	(mg/L)	Quarterly	1	13/04/2021	0.293	0.293	0.293				

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
Apr-21	Aluminium	(mg/L)	Quarterly	1	13/04/2021	3.55	3.55	3.55				
Apr-21	Ammonia	(mg/L)	Quarterly	1	13/04/2021	<0.01	<0.01	<0.01				
Apr-21	Arsenic (III)	(mg/L)	Quarterly	1	13/04/2021	<0.0005	<0.0005	<0.0005				
Apr-21	Arsenic (V)	(mg/L)	Quarterly	1	13/04/2021	<0.0005	<0.0005	<0.0005				
Apr-21	Cadmium	(mg/L)	Quarterly	1	13/04/2021	<0.00005	<0.00005	<0.00005				
Apr-21	Chromium (trivalent)	(mg/L)	Quarterly	1	13/04/2021	0.001	0.001	0.001				
Apr-21	Chromium (VI) Compounds	(mg/L)	Quarterly	1	13/04/2021	0.002	0.002	0.002				
Apr-21	Copper	(mg/L)	Quarterly	1	13/04/2021	0.0015	0.0015	0.0015				
Apr-21	Electrical Conductivity	(us/cm)	Quarterly	1	13/04/2021	977	977	977				
Apr-21	Iron	(mg/L)	Quarterly	1	13/04/2021	1.67	1.67	1.67				
Apr-21	Lead	(mg/L)	Quarterly	1	13/04/2021	0.0012	0.0012	0.0012				
Apr-21	Magnesium	(mg/L)	Quarterly	1	13/04/2021	3	3	3				
Apr-21	Manganese	(mg/L)	Quarterly	1	13/04/2021	0.0066	0.0066	0.0066				
Apr-21	Nickel	(mg/L)	Quarterly	1	13/04/2021	0.001	0.001	0.001				
Apr-21	pH	pH	Quarterly	1	13/04/2021	5.55	5.55	5.55				
Apr-21	Potassium	(mg/L)	Quarterly	1	13/04/2021	1	1	1				
Apr-21	Selenium	(mg/L)	Quarterly	1	13/04/2021	0.0002	0.0002	0.0002				
Apr-21	Sodium	(mg/L)	Quarterly	1	13/04/2021	24	24	24				
Apr-21	Standing Water Level	(m)	Quarterly	1	13/04/2021	1.03	1.03	1.03				
Apr-21	Vanadium	(mg/L)	Quarterly	1	13/04/2021	0.0037	0.0037	0.0037				
Apr-21	Zinc	(mg/L)	Quarterly	1	13/04/2021	0.008	0.008	0.008				

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
Apr-21	Aluminium	(mg/L)	Quarterly	1	13/04/2021	3.23	3.23	3.23				
Apr-21	Ammonia	(mg/L)	Quarterly	1	13/04/2021	0.26	0.26	0.26				
Apr-21	Arsenic (III)	(mg/L)	Quarterly	1	13/04/2021	<0.0050	<0.0050	<0.0050				
Apr-21	Arsenic (V)	(mg/L)	Quarterly	1	13/04/2021	<0.0050	<0.0050	<0.0050				
Apr-21	Cadmium	(mg/L)	Quarterly	1	13/04/2021	<0.0002	<0.0002	<0.0002				
Apr-21	Chromium (trivalent)	(mg/L)	Quarterly	1	13/04/2021	0.003	0.003	0.003				
Apr-21	Chromium (VI) Compounds	(mg/L)	Quarterly	1	13/04/2021	<0.001	<0.001	<0.001				
Apr-21	Copper	(mg/L)	Quarterly	1	13/04/2021	0.003	0.003	0.003				
Apr-21	Electrical Conductivity	(us/cm)	Quarterly	1	13/04/2021	37000	37000	37000				
Apr-21	Iron	(mg/L)	Quarterly	1	13/04/2021	69	69	69				
Apr-21	Lead	(mg/L)	Quarterly	1	13/04/2021	0.0044	0.0044	0.0044				
Apr-21	Magnesium	(mg/L)	Quarterly	1	13/04/2021	787	787	787				
Apr-21	Manganese	(mg/L)	Quarterly	1	13/04/2021	0.500	0.500	0.500				
Apr-21	Nickel	(mg/L)	Quarterly	1	13/04/2021	0.0034	0.0034	0.0034				
Apr-21	pH	pH	Quarterly	1	13/04/2021	6.80	6.80	6.80				
Apr-21	Potassium	(mg/L)	Quarterly	1	13/04/2021	180	180	180				
Apr-21	Selenium	(mg/L)	Quarterly	1	13/04/2021	<0.002	<0.002	<0.002				
Apr-21	Sodium	(mg/L)	Quarterly	1	13/04/2021	5900	5900	5900				
Apr-21	Standing Water Level	(m)	Quarterly	1	13/04/2021	-0.10	-0.10	-0.10				
Apr-21	Vanadium	(mg/L)	Quarterly	1	13/04/2021	0.0093	0.0093	0.0093				
Apr-21	Zinc	(mg/L)	Quarterly	1	13/04/2021	0.026	0.026	0.026				

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
Apr-21	Aluminium	(mg/L)	Quarterly	1	13/04/2021	2.97	2.97	2.97				
Apr-21	Ammonia	(mg/L)	Quarterly	1	13/04/2021	0.03	0.03	0.03				
Apr-21	Arsenic (III)	(mg/L)	Quarterly	1	13/04/2021	<0.0005	<0.0005	<0.0005				
Apr-21	Arsenic (V)	(mg/L)	Quarterly	1	13/04/2021	<0.0005	<0.0005	<0.0005				
Apr-21	Cadmium	(mg/L)	Quarterly	1	13/04/2021	0.00014	0.00014	0.00014				
Apr-21	Chromium (trivalent)	(mg/L)	Quarterly	1	13/04/2021	0.008	0.008	0.008				
Apr-21	Chromium (VI) Compounds	(mg/L)	Quarterly	1	13/04/2021	<0.001	<0.001	<0.001				
Apr-21	Copper	(mg/L)	Quarterly	1	13/04/2021	0.0083	0.0083	0.0083				
Apr-21	Electrical Conductivity	(us/cm)	Quarterly	1	13/04/2021	1822	1822	1822				
Apr-21	Iron	(mg/L)	Quarterly	1	13/04/2021	8.84	8.84	8.84				
Apr-21	Lead	(mg/L)	Quarterly	1	13/04/2021	0.0073	0.0073	0.0073				
Apr-21	Magnesium	(mg/L)	Quarterly	1	13/04/2021	13	13	13				
Apr-21	Manganese	(mg/L)	Quarterly	1	13/04/2021	0.0792	0.0792	0.0792				
Apr-21	Nickel	(mg/L)	Quarterly	1	13/04/2021	0.0124	0.0124	0.0124				
Apr-21	pH	pH	Quarterly	1	13/04/2021	6.67	6.67	6.67				
Apr-21	Potassium	(mg/L)	Quarterly	1	13/04/2021	3	3	3				
Apr-21	Selenium	(mg/L)	Quarterly	1	13/04/2021	0.0006	0.0006	0.0006				
Apr-21	Sodium	(mg/L)	Quarterly	1	13/04/2021	128	128	128				
Apr-21	Standing Water Level	(m)	Quarterly	1	13/04/2021	-0.53	-0.53	-0.53				
Apr-21	Vanadium	(mg/L)	Quarterly	1	13/04/2021	0.0215	0.0215	0.0215				
Apr-21	Zinc	(mg/L)	Quarterly	1	13/04/2021	0.051	0.051	0.051				

GENERAL COMMENTS