

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	March 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
Mar-21	Cadmium	(mg/m3)	Every 6 months							0.2		
Mar-21	Chlorine	(mg/m3)	Every 6 months							20		
Mar-21	Fluorine	(mg/m3)	Every 6 months							30		
Mar-21	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Mar-21	Mercury	(mg/m3)	Every 6 months							0.05		
Mar-21	Nitrogen Oxides	(mg/m3)	Continuous	96.29%	Mar-21	450	581	783	1100	1500	No	
Mar-21	Solid Particles	(mg/m3)	Quarterly							50		
Mar-21	Sulfur dioxide	(mg/m3)	Continuous	96.29%	Mar-21	497	692	871	1400	1700	No	
Mar-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Mar-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Mar-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
Mar-21	Cadmium	(mg/m3)	Every 6 months							0.2		
Mar-21	Chlorine	(mg/m3)	Every 6 months							20		
Mar-21	Fluorine	(mg/m3)	Every 6 months							30		
Mar-21	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Mar-21	Mercury	(mg/m3)	Every 6 months							0.05		
Mar-21	Nitrogen Oxides	(mg/m3)	Continuous	95.30%	Mar-21	356	672	933	1100	1500	No	
Mar-21	Solid Particles	(mg/m3)	Quarterly							50		
Mar-21	Sulfur dioxide	(mg/m3)	Continuous	95.30%	Mar-21	366	658	875	1400	1700	No	
Mar-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Mar-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Mar-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
Mar-21	Cadmium	(mg/m3)	Every 6 months									
Mar-21	Carbon dioxide	(%)	Every 6 months									
Mar-21	Chlorine	(mg/m3)	Every 6 months									
Mar-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Mar-21	Fluorine	(mg/m3)	Every 6 months									
Mar-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Mar-21	Mercury	(mg/m3)	Every 6 months									
Mar-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Mar-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Mar-21	Solid Particles	(mg/m3)	Quarterly									
Mar-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Mar-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Mar-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Mar-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/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
Mar-21	Cadmium	(mg/m3)	Every 6 months									
Mar-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Mar-21	Mercury	(mg/m3)	Every 6 months									
Mar-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Mar-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Mar-21	Solid Particles	(mg/m3)	Quarterly									
Mar-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Mar-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/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
Mar-21	Cadmium	(mg/m3)	Every 6 months									
Mar-21	Carbon dioxide	(%)	Every 6 months									
Mar-21	Chlorine	(mg/m3)	Every 6 months									
Mar-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Mar-21	Fluorine	(mg/m3)	Every 6 months									
Mar-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Mar-21	Mercury	(mg/m3)	Every 6 months									
Mar-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Mar-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Mar-21	Solid Particles	(mg/m3)	Quarterly									
Mar-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Mar-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Mar-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Mar-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/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
Mar-21	Cadmium	(mg/m3)	Every 6 months									
Mar-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Mar-21	Mercury	(mg/m3)	Every 6 months									
Mar-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Mar-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Mar-21	Solid Particles	(mg/m3)	Quarterly									
Mar-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Mar-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/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
Mar-21	Cadmium	(mg/m3)	Every 6 months									
Mar-21	Carbon dioxide	(%)	Every 6 months									
Mar-21	Chlorine	(mg/m3)	Every 6 months									
Mar-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Mar-21	Fluorine	(mg/m3)	Every 6 months									
Mar-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Mar-21	Mercury	(mg/m3)	Every 6 months									
Mar-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Mar-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Mar-21	Solid Particles	(mg/m3)	Quarterly									
Mar-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Mar-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Mar-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Mar-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
Mar-21	Cadmium	(mg/m3)	Every 6 months									
Mar-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Mar-21	Mercury	(mg/m3)	Every 6 months									
Mar-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Mar-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Mar-21	Solid Particles	(mg/m3)	Quarterly									
Mar-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Mar-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
Mar-21	Cadmium	(mg/m3)	Every 6 months									
Mar-21	Carbon dioxide	(%)	Every 6 months									
Mar-21	Chlorine	(mg/m3)	Every 6 months									
Mar-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Mar-21	Fluorine	(mg/m3)	Every 6 months									
Mar-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Mar-21	Mercury	(mg/m3)	Every 6 months									
Mar-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Mar-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Mar-21	Solid Particles	(mg/m3)	Quarterly									
Mar-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Mar-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Mar-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Mar-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
Mar-21	Cadmium	(mg/m3)	Every 6 months									
Mar-21	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Mar-21	Mercury	(mg/m3)	Every 6 months									
Mar-21	Moisture	(%)	Continuous									Not required until 31 October 2021
Mar-21	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Mar-21	Solid Particles	(mg/m3)	Quarterly									
Mar-21	Temperature	(°C)	Continuous									Not required until 31 October 2021
Mar-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
Mar-21	Nitrogen Oxides	(mg/m3)	Continuous	98.90%	Mar-21	324	516	683			No	
Mar-21	Sulfur dioxide	(mg/m3)	Continuous	98.90%	Mar-21	399	618	813			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
Mar-21	Nitrogen Oxides	(mg/m3)	Continuous	96.29%	Mar-21	472	646	888			No	
Mar-21	Sulfur dioxide	(mg/m3)	Continuous	96.29%	Mar-21	595	767	871			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
Mar-21	Nitrogen Oxides	(mg/m3)	Continuous	96.64%	Mar-21	403	659	940			No	
Mar-21	Sulfur dioxide	(mg/m3)	Continuous	96.64%	Mar-21	526	723	960			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
Mar-21	Nitrogen Oxides	(mg/m3)	Continuous	95.56%	Mar-21	313	687	944			No	
Mar-21	Sulfur dioxide	(mg/m3)	Continuous	95.56%	Mar-21	282	596	805			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
Mar-21	Chlorine (free residual)	(mg/L)	Monthly during discharge	1	19/3/2021	0.02	0.02	0.02		0.2	No	
Mar-21	Copper	(mg/L)	Monthly during discharge	1	19/3/2021	0.001	0.001	0.001		0.005	No	
Mar-21	Iron	(mg/L)	Monthly during discharge	1	19/3/2021	0.178	0.178	0.178		0.3	No	
Mar-21	Oil and Grease	Visible	Continuous during discharge	100%	Mar-21	NIL	NIL	NIL				
Mar-21	Selenium	(mg/L)	Monthly during discharge	1	19/3/2021	0.0037	0.0037	0.0037		0.005	No	
Mar-21	Temperature	(°C)	Continuous during discharge	100%	Mar-21	25.04	29.97	34.00	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
Mar-21	Aluminium	(mg/L)	Monthly during discharge	1	10/3/2021	0.518	0.518	0.518				
Mar-21	Ammonia	(mg/L)	Monthly during discharge	1	10/3/2021	<0.10	<0.10	<0.10				
Mar-21	Arsenic (III)	(mg/L)	Monthly during discharge	1	10/3/2021	<0.005	<0.005	<0.005				
Mar-21	Arsenic (V)	(mg/L)	Monthly during discharge	1	10/3/2021	<0.005	<0.005	<0.005				
Mar-21	Cadmium	(mg/L)	Monthly during discharge	1	10/3/2021	0.0002	0.0002	0.0002				
Mar-21	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	10/3/2021	0.024	0.024	0.024				
Mar-21	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	10/3/2021	0.006	0.006	0.006				
Mar-21	Copper	(mg/L)	Monthly during discharge	1	10/3/2021	0.003	0.003	0.003				
Mar-21	Iron	(mg/L)	Monthly during discharge	1	10/3/2021	1.16	1.16	1.16				
Mar-21	Lead	(mg/L)	Monthly during discharge	1	10/3/2021	0.0008	0.0008	0.0008				
Mar-21	Manganese	(mg/L)	Monthly during discharge	1	10/3/2021	0.24	0.24	0.24				
Mar-21	Nickel	(mg/L)	Monthly during discharge	1	10/3/2021	0.0044	0.0044	0.0044				
Mar-21	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	10/3/2021	0.19	0.19	0.19				
Mar-21	Nitrogen	(mg/L)	Monthly during discharge	1	10/3/2021	0.9	0.9	0.9				
Mar-21	pH	pH	Monthly during discharge	1	10/3/2021	8.43	8.43	8.43		6.5 - 9.5	No	
Mar-21	Phosphorus	(mg/L)	Monthly during discharge	1	10/3/2021	0.11	0.11	0.11				
Mar-21	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	10/3/2021	0.03	0.03	0.03				
Mar-21	Selenium	(mg/L)	Monthly during discharge	1	10/3/2021	0.062	0.062	0.062				
Mar-21	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	10/3/2021	0.7	0.7	0.7				
Mar-21	Total Suspended Solids	(mg/L)	Monthly during discharge	1	10/3/2021	30	30	30		50	No	
Mar-21	Vanadium	(mg/L)	Monthly during discharge	1	10/3/2021	0.0504	0.0504	0.0504				
Mar-21	Zinc	(mg/L)	Monthly during discharge	1	10/3/2021	0.013	0.013	0.013				

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
Mar-21	Aluminium	(mg/L)	Monthly during discharge	1	10/3/2021	0.071	0.071	0.071	Yes			
Mar-21	Ammonia	(mg/L)	Monthly during discharge	1	10/3/2021	1.62	1.62	1.62	Yes			
Mar-21	Arsenic (III)	(mg/L)	Monthly during discharge	1	10/3/2021	<0.005	<0.005	<0.005	Yes			
Mar-21	Arsenic (V)	(mg/L)	Monthly during discharge	1	10/3/2021	<0.005	<0.005	<0.005	Yes			
Mar-21	Cadmium	(mg/L)	Monthly during discharge	1	10/3/2021	0.0004	0.0004	0.0004	Yes			
Mar-21	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	10/3/2021	<0.001	<0.001	<0.001	Yes			
Mar-21	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	10/3/2021	<0.001	<0.001	<0.001	Yes			
Mar-21	Copper	(mg/L)	Monthly during discharge	1	10/3/2021	<0.001	<0.001	<0.001	Yes			
Mar-21	Iron	(mg/L)	Monthly during discharge	1	10/3/2021	0.434	0.434	0.434	Yes			
Mar-21	Lead	(mg/L)	Monthly during discharge	1	10/3/2021	<0.0002	<0.0002	<0.0002	Yes			
Mar-21	Manganese	(mg/L)	Monthly during discharge	1	10/3/2021	0.0972	0.0972	0.0972	Yes			
Mar-21	Nickel	(mg/L)	Monthly during discharge	1	10/3/2021	<0.0005	<0.0005	<0.0005	Yes			Intermittent discharge at EPA 24 during high rainfall event due to surface water ingress into the seepage pit.
Mar-21	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	10/3/2021	0.21	0.21	0.21	Yes			
Mar-21	Nitrogen	(mg/L)	Monthly during discharge	1	10/3/2021	1.9	1.9	1.9	Yes			
Mar-21	pH	pH	Monthly during discharge	1	10/3/2021	7.95	7.95	7.95	Yes	6.5 - 9.5	No	
Mar-21	Phosphorus	(mg/L)	Monthly during discharge	1	10/3/2021	<0.05	<0.05	<0.05	Yes			
Mar-21	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	10/3/2021	<0.01	<0.01	<0.01	Yes			
Mar-21	Selenium	(mg/L)	Monthly during discharge	1	10/3/2021	0.002	0.002	0.002	Yes			
Mar-21	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	10/3/2021	1.7	1.7	1.7	Yes			
Mar-21	Total Suspended Solids	(mg/L)	Monthly during discharge	1	10/3/2021	<2	<2	<2	Yes	50	No	
Mar-21	Vanadium	(mg/L)	Monthly during discharge	1	10/3/2021	0.007	0.007	0.007	Yes			
Mar-21	Zinc	(mg/L)	Monthly during discharge	1	10/3/2021	<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
Mar-21	Aluminium	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	0.141	0.473	0.942	Yes			
Mar-21	Ammonia	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	<0.01	0.086	0.190	Yes			
Mar-21	Arsenic (III)	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	<0.0005	0.0008	0.0017	Yes			
Mar-21	Arsenic (V)	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	<0.0005	0.0012	0.0024	Yes			Discharge from the ash dam at licensed discharge point EPA 25 commenced on 21.3.2021. Rainfall measured at EPA monitoring point 16 during the 31-day period immediately prior to discharge was 447.4mm.
Mar-21	Cadmium	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	<0.00005	0.00006	0.00010	Yes			
Mar-21	Chromium (trivalent)	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	<0.001	0.002	0.004	Yes			
Mar-21	Chromium (VI) Compounds	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	<0.001	0.004	0.010	Yes			
Mar-21	Copper	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	<0.0005	0.0011	0.0017	Yes			
Mar-21	Iron	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	0.32	0.68	1.09	Yes			
Mar-21	Lead	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	<0.0001	0.0004	0.0007	Yes			
Mar-21	Manganese	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	0.0322	0.0985	0.2520	Yes			
Mar-21	Nickel	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	<0.0005	0.0008	0.0015	Yes			
Mar-21	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	<0.01	0.02	0.05	Yes			
Mar-21	Nitrogen	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	0.2	0.4	0.7	Yes			
Mar-21	pH	pH	Daily for any discharge >2 hrs	11	21 - 31 March	6.66	6.99	7.58	Yes	6.5 - 9.5	No	
Mar-21	Phosphorus	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	0.02	0.04	0.06	Yes			
Mar-21	Reactive Phosphorus	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	<0.01	<0.01	<0.01	Yes			
Mar-21	Selenium	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	0.0029	0.0156	0.0238	Yes			
Mar-21	Total Kjeldahl Nitrogen	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	0.2	0.4	0.7	Yes			
Mar-21	Total Suspended Solids	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	4	16	74	Yes	50	Yes	Water sample taken on 25/3/2021 had TSS concentration of 74mg/L.
Mar-21	Vanadium	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	0.0043	0.0147	0.0202	Yes			Notification provided to EPA in accordance with EPL condition R4.1.
Mar-21	Zinc	(mg/L)	Daily for any discharge >2 hrs	11	21 - 31 March	0.003	0.023	0.066	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
Mar-21	Aluminium	(mg/L)	Quarterly									
Mar-21	Ammonia	(mg/L)	Quarterly									
Mar-21	Arsenic (III)	(mg/L)	Quarterly									
Mar-21	Arsenic (V)	(mg/L)	Quarterly									
Mar-21	Cadmium	(mg/L)	Quarterly									
Mar-21	Chromium (trivalent)	(mg/L)	Quarterly									
Mar-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Mar-21	Copper	(mg/L)	Quarterly									
Mar-21	Electrical Conductivity	(us/cm)	Quarterly									
Mar-21	Iron	(mg/L)	Quarterly									
Mar-21	Lead	(mg/L)	Quarterly									
Mar-21	Magnesium	(mg/L)	Quarterly									
Mar-21	Manganese	(mg/L)	Quarterly									
Mar-21	Nickel	(mg/L)	Quarterly									
Mar-21	pH	pH	Quarterly									
Mar-21	Potassium	(mg/L)	Quarterly									
Mar-21	Selenium	(mg/L)	Quarterly									
Mar-21	Sodium	(mg/L)	Quarterly									
Mar-21	Standing Water Level	(m)	Quarterly									
Mar-21	Vanadium	(mg/L)	Quarterly									
Mar-21	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/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
Mar-21	Aluminium	(mg/L)	Quarterly									
Mar-21	Ammonia	(mg/L)	Quarterly									
Mar-21	Arsenic (III)	(mg/L)	Quarterly									
Mar-21	Arsenic (V)	(mg/L)	Quarterly									
Mar-21	Cadmium	(mg/L)	Quarterly									
Mar-21	Chromium (trivalent)	(mg/L)	Quarterly									
Mar-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Mar-21	Copper	(mg/L)	Quarterly									
Mar-21	Electrical Conductivity	(us/cm)	Quarterly									
Mar-21	Iron	(mg/L)	Quarterly									
Mar-21	Lead	(mg/L)	Quarterly									
Mar-21	Magnesium	(mg/L)	Quarterly									
Mar-21	Manganese	(mg/L)	Quarterly									
Mar-21	Nickel	(mg/L)	Quarterly									
Mar-21	pH	pH	Quarterly									
Mar-21	Potassium	(mg/L)	Quarterly									
Mar-21	Selenium	(mg/L)	Quarterly									
Mar-21	Sodium	(mg/L)	Quarterly									
Mar-21	Standing Water Level	(m)	Quarterly									
Mar-21	Vanadium	(mg/L)	Quarterly									
Mar-21	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/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
Mar-21	Aluminium	(mg/L)	Quarterly									
Mar-21	Ammonia	(mg/L)	Quarterly									
Mar-21	Arsenic (III)	(mg/L)	Quarterly									
Mar-21	Arsenic (V)	(mg/L)	Quarterly									
Mar-21	Cadmium	(mg/L)	Quarterly									
Mar-21	Chromium (trivalent)	(mg/L)	Quarterly									
Mar-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Mar-21	Copper	(mg/L)	Quarterly									
Mar-21	Electrical Conductivity	(us/cm)	Quarterly									
Mar-21	Iron	(mg/L)	Quarterly									
Mar-21	Lead	(mg/L)	Quarterly									
Mar-21	Magnesium	(mg/L)	Quarterly									
Mar-21	Manganese	(mg/L)	Quarterly									
Mar-21	Nickel	(mg/L)	Quarterly									
Mar-21	pH	pH	Quarterly									
Mar-21	Potassium	(mg/L)	Quarterly									
Mar-21	Selenium	(mg/L)	Quarterly									
Mar-21	Sodium	(mg/L)	Quarterly									
Mar-21	Standing Water Level	(m)	Quarterly									
Mar-21	Vanadium	(mg/L)	Quarterly									
Mar-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/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
Mar-21	Aluminium	(mg/L)	Quarterly									
Mar-21	Ammonia	(mg/L)	Quarterly									
Mar-21	Arsenic (III)	(mg/L)	Quarterly									
Mar-21	Arsenic (V)	(mg/L)	Quarterly									
Mar-21	Cadmium	(mg/L)	Quarterly									
Mar-21	Chromium (trivalent)	(mg/L)	Quarterly									
Mar-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Mar-21	Copper	(mg/L)	Quarterly									
Mar-21	Electrical Conductivity	(us/cm)	Quarterly									
Mar-21	Iron	(mg/L)	Quarterly									
Mar-21	Lead	(mg/L)	Quarterly									
Mar-21	Magnesium	(mg/L)	Quarterly									
Mar-21	Manganese	(mg/L)	Quarterly									
Mar-21	Nickel	(mg/L)	Quarterly									
Mar-21	pH	pH	Quarterly									
Mar-21	Potassium	(mg/L)	Quarterly									
Mar-21	Selenium	(mg/L)	Quarterly									
Mar-21	Sodium	(mg/L)	Quarterly									
Mar-21	Standing Water Level	(m)	Quarterly									
Mar-21	Vanadium	(mg/L)	Quarterly									
Mar-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/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
Mar-21	Aluminium	(mg/L)	Quarterly									
Mar-21	Ammonia	(mg/L)	Quarterly									
Mar-21	Arsenic (III)	(mg/L)	Quarterly									
Mar-21	Arsenic (V)	(mg/L)	Quarterly									
Mar-21	Cadmium	(mg/L)	Quarterly									
Mar-21	Chromium (trivalent)	(mg/L)	Quarterly									
Mar-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Mar-21	Copper	(mg/L)	Quarterly									
Mar-21	Electrical Conductivity	(us/cm)	Quarterly									
Mar-21	Iron	(mg/L)	Quarterly									
Mar-21	Lead	(mg/L)	Quarterly									
Mar-21	Magnesium	(mg/L)	Quarterly									
Mar-21	Manganese	(mg/L)	Quarterly									
Mar-21	Nickel	(mg/L)	Quarterly									
Mar-21	pH	pH	Quarterly									
Mar-21	Potassium	(mg/L)	Quarterly									
Mar-21	Selenium	(mg/L)	Quarterly									
Mar-21	Sodium	(mg/L)	Quarterly									
Mar-21	Standing Water Level	(m)	Quarterly									
Mar-21	Vanadium	(mg/L)	Quarterly									
Mar-21	Zinc	(mg/L)	Quarterly									

Next sample due April 2021

GENERAL COMMENTS