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 2022	
ADDRESS	VALES ROAD, MANNERING PARK NSW	

POINT 2 **Combined air emissions from boiler 5 via Points 4 to 7 to Point 1 marked and shown as EPA ID 2 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceed 100% Limit (yes/no)	Comments
Mar-22	Cadmium	(mg/m3)	Every 6 months							0.2		
Mar-22	Chlorine	(mg/m3)	Every 6 months							20		
Mar-22	Fluorine	(mg/m3)	Every 6 months							30		
Mar-22	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Mar-22	Mercury	(mg/m3)	Every 6 months							0.05		
Mar-22	Nitrogen Oxides	(mg/m3)	Continuous	98.1%	Mar-22	298	632	833	850	980	No	
Mar-22	Solid Particles	(mg/m3)	Quarterly	1	Nov-2021	1.2	1.2	1.2		50	No	
Mar-22	Sulfur dioxide	(mg/m3)	Continuous	98.1%	Mar-22	541	685	889	1400	1700	No	
Mar-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Mar-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Mar-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months							10		

POINT 3 **Combined air emissions from boiler 6 via Points 8 to 11 to Point 1 marked and shown as EPA ID 3 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceed 100% Limit (yes/no)	Comments
Mar-22	Cadmium	(mg/m3)	Every 6 months							0.2		
Mar-22	Chlorine	(mg/m3)	Every 6 months							20		
Mar-22	Fluorine	(mg/m3)	Every 6 months							30		
Mar-22	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Mar-22	Mercury	(mg/m3)	Every 6 months							0.05		
Mar-22	Nitrogen Oxides	(mg/m3)	Continuous	98.6%	Mar-22	307	667	912	850	980	No	*Result corrected 5/8/22. See note at end of report*
Mar-22	Solid Particles	(mg/m3)	Quarterly	1	Nov-2021	42.6	42.6	42.6		50	No	
Mar-22	Sulfur dioxide	(mg/m3)	Continuous	98.6%	Mar-22	501	668	885	1400	1700	No	*Result corrected 5/8/22. See note at end of report*
Mar-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Mar-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Mar-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months							10		

POINT 4 **Boiler number 5 exhaust - duct A marked and shown as EPA ID 4 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Mar-22	Cadmium	(mg/m3)	Every 6 months									
Mar-22	Carbon dioxide	(%)	Every 6 months									
Mar-22	Chlorine	(mg/m3)	Every 6 months									
Mar-22	Flow rate	(m3/s)	Continuous									
Mar-22	Fluorine	(mg/m3)	Every 6 months									
Mar-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Mar-22	Mercury	(mg/m3)	Every 6 months									See note at end of report regarding installation of continuous monitoring instrumentation.
Mar-22	Moisture	(%)	Continuous									
Mar-22	Oxygen (O2)	(%)	Continuous									
Mar-22	Solid Particles	(mg/m3)	Quarterly	1	Nov-2021	1.8	1.8	1.8				
Mar-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Mar-22	Temperature	(°C)	Continuous									
Mar-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Mar-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months									

POINT 5 **Boiler number 5 exhaust - duct B marked and shown as EPA ID 5 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Mar-22	Cadmium	(mg/m3)	Every 6 months									
Mar-22	Flow rate	(m3/s)	Continuous									
Mar-22	Mercury	(mg/m3)	Every 6 months									
Mar-22	Moisture	(%)	Continuous									See note at end of report regarding installation of continuous monitoring instrumentation.
Mar-22	Oxygen (O2)	(%)	Continuous									
Mar-22	Solid Particles	(mg/m3)	Quarterly	1	Nov-2021	0.5	0.5	0.5				
Mar-22	Temperature	(°C)	Continuous									
Mar-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									

POINT 6 **Boiler number 5 exhaust - duct C marked and shown as EPA ID 6 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Mar-22	Cadmium	(mg/m3)	Every 6 months									
Mar-22	Carbon dioxide	(%)	Every 6 months									
Mar-22	Chlorine	(mg/m3)	Every 6 months									
Mar-22	Flow rate	(m3/s)	Continuous									
Mar-22	Fluorine	(mg/m3)	Every 6 months									
Mar-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Mar-22	Mercury	(mg/m3)	Every 6 months									See note at end of report regarding installation of continuous monitoring instrumentation.
Mar-22	Moisture	(%)	Continuous									
Mar-22	Oxygen (O2)	(%)	Continuous									
Mar-22	Solid Particles	(mg/m3)	Quarterly	1	Nov-2021	1.8	1.8	1.8				
Mar-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Mar-22	Temperature	(°C)	Continuous									
Mar-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Mar-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months									

POINT 7 **Boiler number 5 exhaust - duct D marked and shown as EPA ID 7 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Mar-22	Cadmium	(mg/m3)	Every 6 months									
Mar-22	Flow rate	(m3/s)	Continuous									
Mar-22	Mercury	(mg/m3)	Every 6 months									
Mar-22	Moisture	(%)	Continuous									See note at end of report regarding installation of continuous monitoring instrumentation.
Mar-22	Oxygen (O2)	(%)	Continuous									
Mar-22	Solid Particles	(mg/m3)	Quarterly	1	Nov-2021	0.9	0.9	0.9				
Mar-22	Temperature	(°C)	Continuous									
Mar-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									

POINT 8 **Boiler number 6 exhaust - duct A marked and shown as EPA ID 8 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Mar-22	Cadmium	(mg/m3)	Every 6 months									
Mar-22	Carbon dioxide	(%)	Every 6 months									
Mar-22	Chlorine	(mg/m3)	Every 6 months									
Mar-22	Flow rate	(m3/s)	Continuous									
Mar-22	Fluorine	(mg/m3)	Every 6 months									
Mar-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Mar-22	Mercury	(mg/m3)	Every 6 months									See note at end of report regarding installation of continuous monitoring instrumentation.
Mar-22	Moisture	(%)	Continuous									
Mar-22	Oxygen (O2)	(%)	Continuous									
Mar-22	Solid Particles	(mg/m3)	Quarterly	1	Nov-2021	9.0	9.0	9.0				
Mar-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Mar-22	Temperature	(°C)	Continuous									
Mar-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Mar-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months									

POINT 9 **Boiler number 6 exhaust - duct B marked and shown as EPA ID 9 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Mar-22	Cadmium	(mg/m3)	Every 6 months									
Mar-22	Flow rate	(m3/s)	Continuous									
Mar-22	Mercury	(mg/m3)	Every 6 months									
Mar-22	Moisture	(%)	Continuous									See note at end of report regarding installation of continuous monitoring instrumentation.
Mar-22	Oxygen (O2)	(%)	Continuous									
Mar-22	Solid Particles	(mg/m3)	Quarterly	1	Nov-2021	9.5	9.5	9.5				
Mar-22	Temperature	(°C)	Continuous									
Mar-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									

POINT 10 **Boiler number 6 exhaust - duct C marked and shown as EPA ID 10 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Mar-22	Cadmium	(mg/m3)	Every 6 months									
Mar-22	Carbon dioxide	(%)	Every 6 months									
Mar-22	Chlorine	(mg/m3)	Every 6 months									
Mar-22	Flow rate	(m3/s)	Continuous									
Mar-22	Fluorine	(mg/m3)	Every 6 months									
Mar-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Mar-22	Mercury	(mg/m3)	Every 6 months									See note at end of report regarding installation of continuous monitoring instrumentation.
Mar-22	Moisture	(%)	Continuous									
Mar-22	Oxygen (O2)	(%)	Continuous									
Mar-22	Solid Particles	(mg/m3)	Quarterly	1	Nov-2021	0.5	0.5	0.5				
Mar-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Mar-22	Temperature	(°C)	Continuous									
Mar-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Mar-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months									

POINT 11 **Boiler number 6 exhaust - duct D marked and shown as EPA ID 11 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Mar-22	Cadmium	(mg/m3)	Every 6 months									
Mar-22	Flow rate	(m3/s)	Continuous									
Mar-22	Mercury	(mg/m3)	Every 6 months									
Mar-22	Moisture	(%)	Continuous									See note at end of report regarding installation of continuous monitoring instrumentation.
Mar-22	Oxygen (O2)	(%)	Continuous									
Mar-22	Solid Particles	(mg/m3)	Quarterly	1	Nov-2021	116.0	116.0	116.0				
Mar-22	Temperature	(°C)	Continuous									
Mar-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									

POINT 12 **Boiler number 5 combined exhaust - duct A and B (points 4 and 5) marked and shown as EPA ID 12 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Mar-22	Nitrogen Oxides	(mg/m3)	Continuous	100.0%	Mar-22	270	597	730			N/A	
Mar-22	Sulfur dioxide	(mg/m3)	Continuous	100.0%	Mar-22	496	647	860			N/A	

POINT 13 **Boiler number 5 combined exhaust - duct C and D (points 6 and 7) marked and shownas 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-22	Nitrogen Oxides	(mg/m3)	Continuous	96.2%	Mar-22	327	668	954			N/A	
Mar-22	Sulfur dioxide	(mg/m3)	Continuous	96.2%	Mar-22	565	722	932			N/A	

POINT 14 **Boiler number 6 combined exhaust - duct A and B (points 8 and 9) marked and shownas 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-22	Nitrogen Oxides	(mg/m3)	Continuous	97.2%	Mar-22	369	735	978			N/A	*Result corrected 5/8/22. See note at end of report*
Mar-22	Sulfur dioxide	(mg/m3)	Continuous	97.2%	Mar-22	475	690	917			N/A	*Result corrected 5/8/22. See note at end of report*

POINT 15 **Boiler number 6 combined exhaust - duct C and D (points 10 and 11) marked and shownas 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-22	Nitrogen Oxides	(mg/m3)	Continuous	100.0%	Mar-22	244	599	876			N/A	
Mar-22	Sulfur dioxide	(mg/m3)	Continuous	100.0%	Mar-22	517	646	853			N/A	

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	98.5 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceed 100% Limit (yes/no)	Comments
Mar-22	Chlorine (free residual)	(mg/L)	Monthly during discharge	1	10/03/2022	<0.1	<0.1	<0.1		**0.2**	**No**	
Mar-22	Copper	(mg/L)	Monthly during discharge	1	10/03/2022	0.0040	0.0040	0.0040		**0.005**	**No**	
Mar-22	Iron	(mg/L)	Monthly during discharge	1	10/03/2022	0.421	0.421	0.421		**0.3**	**Yes**	EPA notified as per licence 761 condition R4.1.
Mar-22	Oil and Grease	Visible	Continuous during discharge	100%	Mar-22	NIL	NIL	NIL				
Mar-22	Selenium	(mg/L)	Monthly during discharge	1	10/03/2022	<0.002	<0.002	<0.002		**0.005**	**No**	
Mar-22	Temperature	(°C)	Continuous during discharge	100%	Mar-22	26.7	29.6	34.3	**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-22	Aluminium	(mg/L)	Monthly during discharge	1	10/03/2022	0.147	0.147	0.147				
Mar-22	Ammonia	(mg/L)	Monthly during discharge	1	10/03/2022	0.25	0.25	0.25				
Mar-22	Arsenic (III)	(mg/L)	Monthly during discharge	1	10/03/2022	<0.005	<0.005	<0.005				
Mar-22	Arsenic (V)	(mg/L)	Monthly during discharge	1	10/03/2022	0.0059	0.0059	0.0059				
Mar-22	Cadmium	(mg/L)	Monthly during discharge	1	10/03/2022	<0.00005	<0.00005	<0.00005				
Mar-22	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	10/03/2022	0.006	0.006	0.006				
Mar-22	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	10/03/2022	0.012	0.012	0.012				
Mar-22	Copper	(mg/L)	Monthly during discharge	1	10/03/2022	0.0075	0.0075	0.0075				
Mar-22	Iron	(mg/L)	Monthly during discharge	1	10/03/2022	0.091	0.091	0.091				
Mar-22	Lead	(mg/L)	Monthly during discharge	1	10/03/2022	0.0004	0.0004	0.0004				
Mar-22	Manganese	(mg/L)	Monthly during discharge	1	10/03/2022	0.0094	0.0094	0.0094				
Mar-22	Nickel	(mg/L)	Monthly during discharge	1	10/03/2022	<0.0005	<0.0005	<0.0005				
Mar-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	10/03/2022	0.22	0.22	0.22				
Mar-22	Nitrogen	(mg/L)	Monthly during discharge	1	10/03/2022	0.80	0.80	0.80				
Mar-22	pH	pH	Monthly during discharge	1	10/03/2022	8.36	8.36	8.36		**6.5 - 9.5**	**No**	
Mar-22	Phosphorus	(mg/L)	Monthly during discharge	1	10/03/2022	0.08	0.08	0.08				
Mar-22	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	10/03/2022	0.04	0.04	0.04				
Mar-22	Selenium	(mg/L)	Monthly during discharge	1	10/03/2022	0.0419	0.0419	0.0419				
Mar-22	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	10/03/2022	0.6	0.6	0.6				
Mar-22	Total Suspended Solids	(mg/L)	Monthly during discharge	1	10/03/2022	6	6	6		**50**	**No**	
Mar-22	Vanadium	(mg/L)	Monthly during discharge	1	10/03/2022	0.0452	0.0452	0.0452				
Mar-22	Zinc	(mg/L)	Monthly during discharge	1	10/03/2022	0.008	0.008	0.008				

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-22	Aluminium	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Ammonia	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Arsenic (III)	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Arsenic (V)	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Cadmium	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Copper	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Iron	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Lead	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Manganese	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Nickel	(mg/L)	Monthly during discharge	1	10/03/2022				No			No discharge from EPA Point 24 during March 2022
Mar-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Nitrogen	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	pH	pH	Monthly during discharge	1	10/03/2022				No	6.5 - 9.5	No	
Mar-22	Phosphorus	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Selenium	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Total Suspended Solids	(mg/L)	Monthly during discharge	1	10/03/2022				No	50	No	
Mar-22	Vanadium	(mg/L)	Monthly during discharge	1	10/03/2022				No			
Mar-22	Zinc	(mg/L)	Monthly during discharge	1	10/03/2022				No			

POINT 25 Discharge of over boarded water from the ash dam to Mannering Bay marked and shown as EPA ID 25 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	Discharge (yes/no)	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Mar-22	Aluminium	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.173	0.173	0.173	Yes			
Mar-22	Ammonia	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.22	0.22	0.22	Yes			
Mar-22	Arsenic (III)	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	<0.0005	<0.0005	<0.0005	Yes			
Mar-22	Arsenic (V)	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.0027	0.0027	0.0027	Yes			
Mar-22	Cadmium	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	<0.00005	<0.00005	<0.00005	Yes			
Mar-22	Chromium (trivalent)	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.0040	0.0040	0.0040	Yes			
Mar-22	Chromium (VI) Compounds	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.02	0.02	0.02	Yes			
Mar-22	Copper	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.0031	0.0031	0.0031	Yes			
Mar-22	Iron	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.163	0.163	0.163	Yes			
Mar-22	Lead	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.0002	0.0002	0.0002	Yes			
Mar-22	Manganese	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.0070	0.0070	0.0070	Yes			
Mar-22	Nickel	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	<0.0005	<0.0005	<0.0005	Yes			
Mar-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.02	0.02	0.02	Yes			
Mar-22	Nitrogen	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.5	0.5	0.5	Yes			
Mar-22	pH	pH	Daily for any discharge >2 hrs	1	31/3/2022	8.35	8.35	8.35	Yes	6.5 - 9.5	No	
Mar-22	Phosphorus	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.02	0.02	0.02	Yes			
Mar-22	Reactive Phosphorus	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	<0.01	<0.01	<0.01	Yes			
Mar-22	Selenium	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.036	0.036	0.036	Yes			
Mar-22	Total Kjeldahl Nitrogen	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.5	0.5	0.5	Yes			
Mar-22	Total Suspended Solids	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	5	5	5	Yes	50	No	
Mar-22	Vanadium	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.0392	0.0392	0.0392	Yes			
Mar-22	Zinc	(mg/L)	Daily for any discharge >2 hrs	1	31/3/2022	0.0030	0.0030	0.0030	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/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-22	Aluminium	(mg/L)	Quarterly									
Mar-22	Ammonia	(mg/L)	Quarterly									
Mar-22	Arsenic (III)	(mg/L)	Quarterly									
Mar-22	Arsenic (V)	(mg/L)	Quarterly									
Mar-22	Cadmium	(mg/L)	Quarterly									
Mar-22	Chromium (trivalent)	(mg/L)	Quarterly									
Mar-22	Chromium (VI) Compounds	(mg/L)	Quarterly									
Mar-22	Copper	(mg/L)	Quarterly									
Mar-22	Electrical Conductivity	(us/cm)	Quarterly									
Mar-22	Iron	(mg/L)	Quarterly									
Mar-22	Lead	(mg/L)	Quarterly									Next Sampling Round Scheduled for April 2022
Mar-22	Magnesium	(mg/L)	Quarterly									
Mar-22	Manganese	(mg/L)	Quarterly									
Mar-22	Nickel	(mg/L)	Quarterly									
Mar-22	pH	pH	Quarterly									
Mar-22	Potassium	(mg/L)	Quarterly									
Mar-22	Selenium	(mg/L)	Quarterly									
Mar-22	Sodium	(mg/L)	Quarterly									
Mar-22	Standing Water Level	(m)	Quarterly									
Mar-22	Vanadium	(mg/L)	Quarterly									
Mar-22	Zinc	(mg/L)	Quarterly									

POINT 31 **Groundwater quality monitoring bore marked and shown as EPA ID 31 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Mar-22	Aluminium	(mg/L)	Quarterly									
Mar-22	Ammonia	(mg/L)	Quarterly									
Mar-22	Arsenic (III)	(mg/L)	Quarterly									
Mar-22	Arsenic (V)	(mg/L)	Quarterly									
Mar-22	Cadmium	(mg/L)	Quarterly									
Mar-22	Chromium (trivalent)	(mg/L)	Quarterly									
Mar-22	Chromium (VI) Compounds	(mg/L)	Quarterly									
Mar-22	Copper	(mg/L)	Quarterly									
Mar-22	Electrical Conductivity	(us/cm)	Quarterly									
Mar-22	Iron	(mg/L)	Quarterly									
Mar-22	Lead	(mg/L)	Quarterly									Next Sampling Round Scheduled for April 2022
Mar-22	Magnesium	(mg/L)	Quarterly									
Mar-22	Manganese	(mg/L)	Quarterly									
Mar-22	Nickel	(mg/L)	Quarterly									
Mar-22	pH	pH	Quarterly									
Mar-22	Potassium	(mg/L)	Quarterly									
Mar-22	Selenium	(mg/L)	Quarterly									
Mar-22	Sodium	(mg/L)	Quarterly									
Mar-22	Standing Water Level	(m)	Quarterly									
Mar-22	Vanadium	(mg/L)	Quarterly									
Mar-22	Zinc	(mg/L)	Quarterly									

POINT 32 **Groundwater quality monitoring bore marked and shown as EPA ID 32 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Mar-22	Aluminium	(mg/L)	Quarterly									
Mar-22	Ammonia	(mg/L)	Quarterly									
Mar-22	Arsenic (III)	(mg/L)	Quarterly									
Mar-22	Arsenic (V)	(mg/L)	Quarterly									
Mar-22	Cadmium	(mg/L)	Quarterly									
Mar-22	Chromium (trivalent)	(mg/L)	Quarterly									
Mar-22	Chromium (VI) Compounds	(mg/L)	Quarterly									
Mar-22	Copper	(mg/L)	Quarterly									
Mar-22	Electrical Conductivity	(us/cm)	Quarterly									
Mar-22	Iron	(mg/L)	Quarterly									
Mar-22	Lead	(mg/L)	Quarterly									Next Sampling Round Scheduled for April 2022
Mar-22	Magnesium	(mg/L)	Quarterly									
Mar-22	Manganese	(mg/L)	Quarterly									
Mar-22	Nickel	(mg/L)	Quarterly									
Mar-22	pH	pH	Quarterly									
Mar-22	Potassium	(mg/L)	Quarterly									
Mar-22	Selenium	(mg/L)	Quarterly									
Mar-22	Sodium	(mg/L)	Quarterly									
Mar-22	Standing Water Level	(m)	Quarterly									
Mar-22	Vanadium	(mg/L)	Quarterly									
Mar-22	Zinc	(mg/L)	Quarterly									

POINT 33 **Groundwater quality monitoring bore marked and shown as EPA ID 33 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Mar-22	Aluminium	(mg/L)	Quarterly									
Mar-22	Ammonia	(mg/L)	Quarterly									
Mar-22	Arsenic (III)	(mg/L)	Quarterly									
Mar-22	Arsenic (V)	(mg/L)	Quarterly									
Mar-22	Cadmium	(mg/L)	Quarterly									
Mar-22	Chromium (trivalent)	(mg/L)	Quarterly									
Mar-22	Chromium (VI) Compounds	(mg/L)	Quarterly									
Mar-22	Copper	(mg/L)	Quarterly									
Mar-22	Electrical Conductivity	(us/cm)	Quarterly									
Mar-22	Iron	(mg/L)	Quarterly									
Mar-22	Lead	(mg/L)	Quarterly									Next Sampling Round Scheduled for April 2022
Mar-22	Magnesium	(mg/L)	Quarterly									
Mar-22	Manganese	(mg/L)	Quarterly									
Mar-22	Nickel	(mg/L)	Quarterly									
Mar-22	pH	pH	Quarterly									
Mar-22	Potassium	(mg/L)	Quarterly									
Mar-22	Selenium	(mg/L)	Quarterly									
Mar-22	Sodium	(mg/L)	Quarterly									
Mar-22	Standing Water Level	(m)	Quarterly									
Mar-22	Vanadium	(mg/L)	Quarterly									
Mar-22	Zinc	(mg/L)	Quarterly									

POINT 34	Groundwater quality monitoring bore marked and shown as EPA ID 33 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Mar-22	Aluminium	(mg/L)	Quarterly									
Mar-22	Ammonia	(mg/L)	Quarterly									
Mar-22	Arsenic (III)	(mg/L)	Quarterly									
Mar-22	Arsenic (V)	(mg/L)	Quarterly									
Mar-22	Cadmium	(mg/L)	Quarterly									
Mar-22	Chromium (trivalent)	(mg/L)	Quarterly									
Mar-22	Chromium (VI) Compounds	(mg/L)	Quarterly									
Mar-22	Copper	(mg/L)	Quarterly									
Mar-22	Electrical Conductivity	(us/cm)	Quarterly									
Mar-22	Iron	(mg/L)	Quarterly									Next Sampling Round Scheduled for April 2022
Mar-22	Lead	(mg/L)	Quarterly									
Mar-22	Magnesium	(mg/L)	Quarterly									
Mar-22	Manganese	(mg/L)	Quarterly									
Mar-22	Nickel	(mg/L)	Quarterly									
Mar-22	pH	pH	Quarterly									
Mar-22	Potassium	(mg/L)	Quarterly									
Mar-22	Selenium	(mg/L)	Quarterly									
Mar-22	Sodium	(mg/L)	Quarterly									
Mar-22	Standing Water Level	(m)	Quarterly									
Mar-22	Vanadium	(mg/L)	Quarterly									
Mar-22	Zinc	(mg/L)	Quarterly									

GENERAL COMMENTS

***This report (March 2022) was corrected and re-published 5/8/2022. Error found during annual review. NOx and SO2 readings were affected by a faulty O2 sensor. Known incorrect data has been removed from the data set and corrected values have been included for EPA 3 and EPA 14 NOx and SO2.**