

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	December 2023	
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
Dec-23	Cadmium	(mg/m3)	Every 6 months							0.2	No	
Dec-23	Chlorine	(mg/m3)	Every 6 months							20	No	
Dec-23	Fluorine	(mg/m3)	Every 6 months							30	No	
Dec-23	Hydrogen chloride	(mg/m3)	Every 6 months							50	No	
Dec-23	Mercury	(mg/m3)	Every 6 months							0.05	No	
Dec-23	Nitrogen Oxides	(mg/m3)	Continuous	97.3%	Dec-23	276	653	807	850	980	No	
Dec-23	Solid Particles	(mg/m3)	Quarterly							50	No	
Dec-23	Sulfur dioxide	(mg/m3)	Continuous	98.5%	Dec-23	375	912	1173	1400	1700	No	
Dec-23	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100	No	
Dec-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75	No	
Dec-23	VOC's as n-propane equivalent	(mg/m3)	Every 6 months							10	No	

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
Dec-23	Cadmium	(mg/m3)	Every 6 months							0.2	No	
Dec-23	Chlorine	(mg/m3)	Every 6 months							20	No	
Dec-23	Fluorine	(mg/m3)	Every 6 months							30	No	
Dec-23	Hydrogen chloride	(mg/m3)	Every 6 months							50	No	
Dec-23	Mercury	(mg/m3)	Every 6 months							0.05	No	
Dec-23	Nitrogen Oxides	(mg/m3)	Continuous	97.3%	Dec-23	413	714	912	850	980	No	
Dec-23	Solid Particles	(mg/m3)	Quarterly							50	No	
Dec-23	Sulfur dioxide	(mg/m3)	Continuous	98.5%	Dec-23	467	1037	1266	1400	1700	No	
Dec-23	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100	No	
Dec-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75	No	
Dec-23	VOC's as n-propane equivalent	(mg/m3)	Every 6 months							10	No	

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
Dec-23	Cadmium	(mg/m3)	Every 6 months								N/A	
Dec-23	Carbon dioxide	(%)	Every 6 months								N/A	
Dec-23	Chlorine	(mg/m3)	Every 6 months								N/A	
Dec-23	Fluorine	(mg/m3)	Every 6 months								N/A	
Dec-23	Hydrogen chloride	(mg/m3)	Every 6 months								N/A	
Dec-23	Mercury	(mg/m3)	Every 6 months								N/A	
Dec-23	Solid Particles	(mg/m3)	Quarterly								N/A	
Dec-23	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months								N/A	
Dec-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months								N/A	
Dec-23	VOC's as n-propane equivalent	(mg/m3)	Every 6 months								N/A	

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
Dec-23	Cadmium	(mg/m3)	Every 6 months								N/A	
Dec-23	Mercury	(mg/m3)	Every 6 months								N/A	
Dec-23	Solid Particles	(mg/m3)	Quarterly								N/A	
Dec-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months								N/A	

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
Dec-23	Cadmium	(mg/m3)	Every 6 months								N/A	
Dec-23	Carbon dioxide	(%)	Every 6 months								N/A	
Dec-23	Chlorine	(mg/m3)	Every 6 months								N/A	
Dec-23	Fluorine	(mg/m3)	Every 6 months								N/A	
Dec-23	Hydrogen chloride	(mg/m3)	Every 6 months								N/A	
Dec-23	Mercury	(mg/m3)	Every 6 months								N/A	
Dec-23	Solid Particles	(mg/m3)	Quarterly								N/A	
Dec-23	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months								N/A	
Dec-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months								N/A	
Dec-23	VOC's as n-propane equivalent	(mg/m3)	Every 6 months								N/A	

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
Dec-23	Cadmium	(mg/m3)	Every 6 months								N/A	
Dec-23	Mercury	(mg/m3)	Every 6 months								N/A	
Dec-23	Solid Particles	(mg/m3)	Quarterly								N/A	
Dec-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months								N/A	

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
Dec-23	Cadmium	(mg/m3)	Every 6 months								N/A	
Dec-23	Carbon dioxide	(%)	Every 6 months								N/A	
Dec-23	Chlorine	(mg/m3)	Every 6 months								N/A	
Dec-23	Fluorine	(mg/m3)	Every 6 months								N/A	
Dec-23	Hydrogen chloride	(mg/m3)	Every 6 months								N/A	
Dec-23	Mercury	(mg/m3)	Every 6 months								N/A	
Dec-23	Solid Particles	(mg/m3)	Quarterly								N/A	
Dec-23	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months								N/A	
Dec-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months								N/A	
Dec-23	VOC's as n-propane equivalent	(mg/m3)	Every 6 months								N/A	

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
Dec-23	Cadmium	(mg/m3)	Every 6 months								N/A	
Dec-23	Mercury	(mg/m3)	Every 6 months								N/A	
Dec-23	Solid Particles	(mg/m3)	Quarterly								N/A	
Dec-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months								N/A	

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
Dec-23	Cadmium	(mg/m3)	Every 6 months								N/A	
Dec-23	Carbon dioxide	(%)	Every 6 months								N/A	
Dec-23	Chlorine	(mg/m3)	Every 6 months								N/A	
Dec-23	Fluorine	(mg/m3)	Every 6 months								N/A	
Dec-23	Hydrogen chloride	(mg/m3)	Every 6 months								N/A	
Dec-23	Mercury	(mg/m3)	Every 6 months								N/A	
Dec-23	Solid Particles	(mg/m3)	Quarterly								N/A	
Dec-23	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months								N/A	
Dec-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months								N/A	
Dec-23	VOC's as n-propane equivalent	(mg/m3)	Every 6 months								N/A	

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
Dec-23	Cadmium	(mg/m3)	Every 6 months								N/A	
Dec-23	Mercury	(mg/m3)	Every 6 months								N/A	
Dec-23	Solid Particles	(mg/m3)	Quarterly								N/A	
Dec-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months								N/A	

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
Dec-23	Nitrogen Oxides	(mg/m3)	Continuous	97.0%	Dec-23	243	656	944			N/A	
Dec-23	Sulfur dioxide	(mg/m3)	Continuous	98.5%	Dec-23	327	831	1084			N/A	

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
Dec-23	Nitrogen Oxides	(mg/m3)	Continuous	97.6%	Dec-23	261	650	822			N/A	
Dec-23	Sulfur dioxide	(mg/m3)	Continuous	98.5%	Dec-23	423	993	1262			N/A	

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
Dec-23	Nitrogen Oxides	(mg/m3)	Continuous	97.6%	Dec-23	454	755	1038			N/A	
Dec-23	Sulfur dioxide	(mg/m3)	Continuous	98.5%	Dec-23	526	1064	1341			N/A	

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
Dec-23	Nitrogen Oxides	(mg/m3)	Continuous	97.0%	Dec-23	365	673	932			N/A	
Dec-23	Sulfur dioxide	(mg/m3)	Continuous	98.5%	Dec-23	408	1010	1285			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
Dec-23	Chlorine (free residual)	(mg/L)	Monthly during discharge	1	5/12/2023	0	0	0		0.2	No	
Dec-23	Copper	(mg/L)	Monthly during discharge	1	5/12/2023	0.003	0.003	0.003		0.005	No	
Dec-23	Iron	(mg/L)	Monthly during discharge	1	5/12/2023	0.100	0.100	0.100		0.3	No	
Dec-23	Oil and Grease	Visible	Continuous during discharge	100%	Dec-23	NIL	NIL	NIL				
Dec-23	Selenium	(mg/L)	Monthly during discharge	1	5/12/2023	<0.002	<0.002	<0.002		0.005	No	
Dec-23	Temperature	(°C)	Continuous during discharge	100%	Dec-23	29.1	32.2	36.5	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
Dec-23	Aluminium	(mg/L)	Monthly during discharge	1	5/12/2023	0.07	0.07	0.07				
Dec-23	Ammonia	(mg/L)	Monthly during discharge	1	5/12/2023	0.047	0.047	0.047				
Dec-23	Arsenic (III)	(mg/L)	Monthly during discharge	1	5/12/2023	<0.001	<0.001	<0.001				
Dec-23	Arsenic (V)	(mg/L)	Monthly during discharge	1	5/12/2023	0.009	0.009	0.009				
Dec-23	Cadmium	(mg/L)	Monthly during discharge	1	5/12/2023	<0.0002	<0.0002	<0.0002				
Dec-23	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	5/12/2023	<0.005	<0.005	<0.005				
Dec-23	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	5/12/2023	0.020	0.020	0.020				
Dec-23	Copper	(mg/L)	Monthly during discharge	1	5/12/2023	0.002	0.002	0.002				
Dec-23	Iron	(mg/L)	Monthly during discharge	1	5/12/2023	1.700	1.700	1.700				
Dec-23	Lead	(mg/L)	Monthly during discharge	1	5/12/2023	<0.002	<0.002	<0.002				
Dec-23	Manganese	(mg/L)	Monthly during discharge	1	5/12/2023	0.0350	0.0350	0.0350				
Dec-23	Nickel	(mg/L)	Monthly during discharge	1	5/12/2023	0.002	0.002	0.002				
Dec-23	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	5/12/2023	0.420	0.420	0.420				
Dec-23	Nitrogen	(mg/L)	Monthly during discharge	1	5/12/2023	0.50	0.50	0.50				
Dec-23	pH	pH	Monthly during discharge	1	5/12/2023	8.8	8.8	8.8		6.5 - 9.5	No	
Dec-23	Phosphorus	(mg/L)	Monthly during discharge	1	5/12/2023	0.10	0.10	0.10				
Dec-23	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	5/12/2023	0.05	0.05	0.05				
Dec-23	Selenium	(mg/L)	Monthly during discharge	1	5/12/2023	0.068	0.068	0.068				
Dec-23	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	5/12/2023	<0.1	<0.1	<0.1				
Dec-23	Total Suspended Solids	(mg/L)	Monthly during discharge	1	5/12/2023	12	12	12		50	No	
Dec-23	Vanadium	(mg/L)	Monthly during discharge	1	5/12/2023	0.09	0.09	0.09				
Dec-23	Zinc	(mg/L)	Monthly during discharge	1	5/12/2023	0.043	0.043	0.043				

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
Dec-23	Aluminium	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Ammonia	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Arsenic (III)	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Arsenic (V)	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Cadmium	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Copper	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Iron	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Lead	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Manganese	(mg/L)	Monthly during discharge	1	5/12/2023				No			No discharge from EPA Point 24 during December 2023
Dec-23	Nickel	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Nitrogen	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	pH	pH	Monthly during discharge	1	5/12/2023				No	6.5 - 9.5	No	
Dec-23	Phosphorus	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Selenium	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Total Suspended Solids	(mg/L)	Monthly during discharge	1	5/12/2023				No	50	No	
Dec-23	Vanadium	(mg/L)	Monthly during discharge	1	5/12/2023				No			
Dec-23	Zinc	(mg/L)	Monthly during discharge	1	5/12/2023				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
Dec-23	Aluminium	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Ammonia	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Arsenic (III)	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Arsenic (V)	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Cadmium	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Chromium (trivalent)	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Chromium (VI) Compounds	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Copper	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Iron	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Lead	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Manganese	(mg/L)	Daily for any discharge >2 hrs						No			No discharge from EPA Point 25 during December 2023
Dec-23	Nickel	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	pH	pH	Daily for any discharge >2 hrs						No	6.5 - 9.5	No	
Dec-23	Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Reactive Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Selenium	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Total Kjeldahl Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Total Suspended Solids	(mg/L)	Daily for any discharge >2 hrs						No	50	No	
Dec-23	Vanadium	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-23	Zinc	(mg/L)	Daily for any discharge >2 hrs						No			

POINT 30 Groundwater quality monitoring bore marked and shown as EPA ID 30 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Dec-23	Aluminium	(mg/L)	Quarterly									
Dec-23	Ammonia	(mg/L)	Quarterly									
Dec-23	Arsenic (III)	(mg/L)	Quarterly									
Dec-23	Arsenic (V)	(mg/L)	Quarterly									
Dec-23	Cadmium	(mg/L)	Quarterly									
Dec-23	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-23	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-23	Copper	(mg/L)	Quarterly									
Dec-23	Electrical Conductivity	(us/cm)	Quarterly									
Dec-23	Iron	(mg/L)	Quarterly									
Dec-23	Lead	(mg/L)	Quarterly									
Dec-23	Magnesium	(mg/L)	Quarterly									
Dec-23	Manganese	(mg/L)	Quarterly									
Dec-23	Nickel	(mg/L)	Quarterly									
Dec-23	pH	pH	Quarterly									
Dec-23	Potassium	(mg/L)	Quarterly									
Dec-23	Selenium	(mg/L)	Quarterly									
Dec-23	Sodium	(mg/L)	Quarterly									
Dec-23	Standing Water Level	(m)	Quarterly									
Dec-23	Vanadium	(mg/L)	Quarterly									
Dec-23	Zinc	(mg/L)	Quarterly									

Next sample scheduled for January 2024

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
Dec-23	Aluminium	(mg/L)	Quarterly									
Dec-23	Ammonia	(mg/L)	Quarterly									
Dec-23	Arsenic (III)	(mg/L)	Quarterly									
Dec-23	Arsenic (V)	(mg/L)	Quarterly									
Dec-23	Cadmium	(mg/L)	Quarterly									
Dec-23	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-23	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-23	Copper	(mg/L)	Quarterly									
Dec-23	Electrical Conductivity	(us/cm)	Quarterly									
Dec-23	Iron	(mg/L)	Quarterly									
Dec-23	Lead	(mg/L)	Quarterly									
Dec-23	Magnesium	(mg/L)	Quarterly									
Dec-23	Manganese	(mg/L)	Quarterly									
Dec-23	Nickel	(mg/L)	Quarterly									
Dec-23	pH	pH	Quarterly									
Dec-23	Potassium	(mg/L)	Quarterly									
Dec-23	Selenium	(mg/L)	Quarterly									
Dec-23	Sodium	(mg/L)	Quarterly									
Dec-23	Standing Water Level	(m)	Quarterly									
Dec-23	Vanadium	(mg/L)	Quarterly									
Dec-23	Zinc	(mg/L)	Quarterly									

Next sample scheduled for January 2024

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
Dec-23	Aluminium	(mg/L)	Quarterly									
Dec-23	Ammonia	(mg/L)	Quarterly									
Dec-23	Arsenic (III)	(mg/L)	Quarterly									
Dec-23	Arsenic (V)	(mg/L)	Quarterly									
Dec-23	Cadmium	(mg/L)	Quarterly									
Dec-23	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-23	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-23	Copper	(mg/L)	Quarterly									
Dec-23	Electrical Conductivity	(us/cm)	Quarterly									
Dec-23	Iron	(mg/L)	Quarterly									
Dec-23	Lead	(mg/L)	Quarterly									
Dec-23	Magnesium	(mg/L)	Quarterly									
Dec-23	Manganese	(mg/L)	Quarterly									
Dec-23	Nickel	(mg/L)	Quarterly									
Dec-23	pH	pH	Quarterly									
Dec-23	Potassium	(mg/L)	Quarterly									
Dec-23	Selenium	(mg/L)	Quarterly									
Dec-23	Sodium	(mg/L)	Quarterly									
Dec-23	Standing Water Level	(m)	Quarterly									
Dec-23	Vanadium	(mg/L)	Quarterly									
Dec-23	Zinc	(mg/L)	Quarterly									

Next sample scheduled for January 2024

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
Dec-23	Aluminium	(mg/L)	Quarterly									
Dec-23	Ammonia	(mg/L)	Quarterly									
Dec-23	Arsenic (III)	(mg/L)	Quarterly									
Dec-23	Arsenic (V)	(mg/L)	Quarterly									
Dec-23	Cadmium	(mg/L)	Quarterly									
Dec-23	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-23	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-23	Copper	(mg/L)	Quarterly									
Dec-23	Electrical Conductivity	(us/cm)	Quarterly									
Dec-23	Iron	(mg/L)	Quarterly									
Dec-23	Lead	(mg/L)	Quarterly									
Dec-23	Magnesium	(mg/L)	Quarterly									
Dec-23	Manganese	(mg/L)	Quarterly									
Dec-23	Nickel	(mg/L)	Quarterly									
Dec-23	pH	pH	Quarterly									
Dec-23	Potassium	(mg/L)	Quarterly									
Dec-23	Selenium	(mg/L)	Quarterly									
Dec-23	Sodium	(mg/L)	Quarterly									
Dec-23	Standing Water Level	(m)	Quarterly									
Dec-23	Vanadium	(mg/L)	Quarterly									
Dec-23	Zinc	(mg/L)	Quarterly									

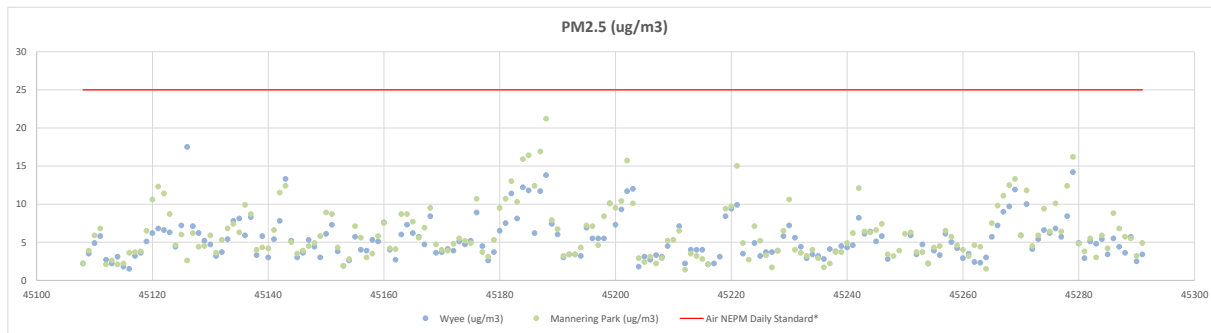
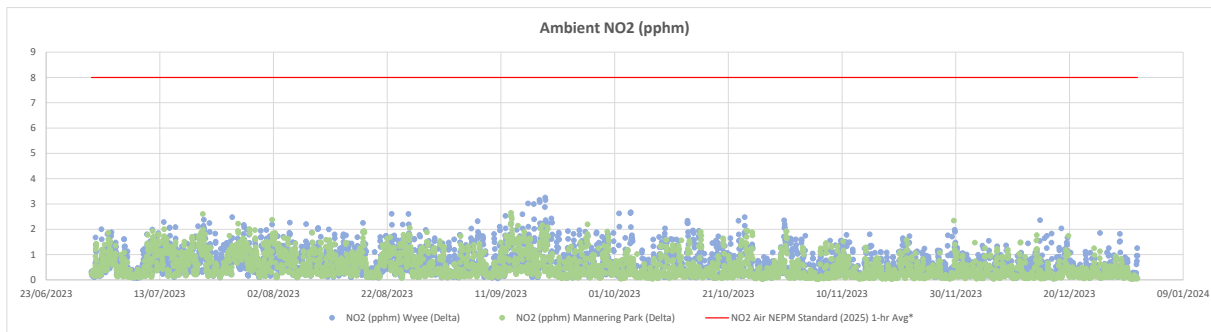
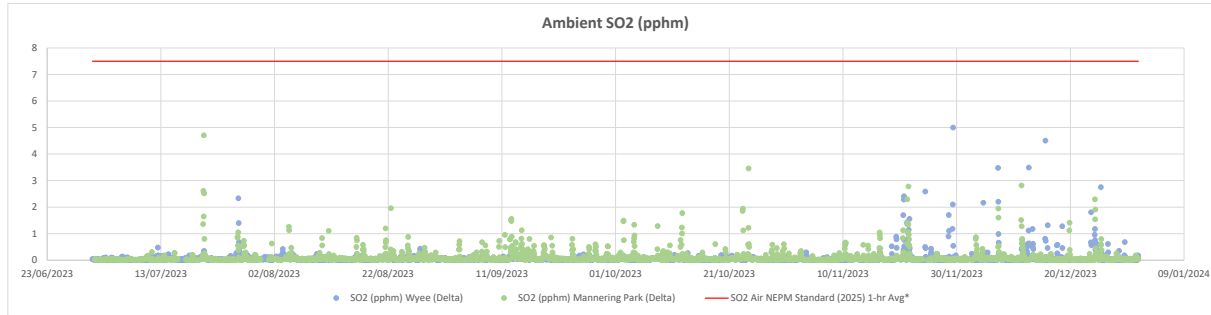
Next sample scheduled for January 2024

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
Dec-23	Aluminium	(mg/L)	Quarterly									
Dec-23	Ammonia	(mg/L)	Quarterly									
Dec-23	Arsenic (III)	(mg/L)	Quarterly									
Dec-23	Arsenic (V)	(mg/L)	Quarterly									
Dec-23	Cadmium	(mg/L)	Quarterly									
Dec-23	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-23	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-23	Copper	(mg/L)	Quarterly									
Dec-23	Electrical Conductivity	(us/cm)	Quarterly									
Dec-23	Iron	(mg/L)	Quarterly									
Dec-23	Lead	(mg/L)	Quarterly									
Dec-23	Magnesium	(mg/L)	Quarterly									Next sample scheduled for January 2024
Dec-23	Manganese	(mg/L)	Quarterly									
Dec-23	Nickel	(mg/L)	Quarterly									
Dec-23	pH	pH	Quarterly									
Dec-23	Potassium	(mg/L)	Quarterly									
Dec-23	Selenium	(mg/L)	Quarterly									
Dec-23	Sodium	(mg/L)	Quarterly									
Dec-23	Standing Water Level	(m)	Quarterly									
Dec-23	Vanadium	(mg/L)	Quarterly									
Dec-23	Zinc	(mg/L)	Quarterly									

Ambient Air Quality Graphs

POINTS 16 & 35 Meteorological and ambient air quality monitoring stations at Wyee & Mannering Park marked and shown as EPA ID 16 & EPA ID 35 respectively on The Plan.



GENERAL COMMENTS

*For more information about the Australian Governments National Environment Protection (Ambient Air Quality) Measure (Air NEPM) visit <<https://www.nepc.gov.au/nepms/ambient-air-quality>>