

## Vales Point Power Station Monthly Environmental Data Summary



LICENCE NO	761	<a href="http://www.epa.nsw.gov.au/prpoeoapp/">http://www.epa.nsw.gov.au/prpoeoapp/</a>
LICENCE HOLDER	SUNSET POWER INTERNATIONAL PTY LTD	
REPORTING PERIOD	October 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
Oct-21	Cadmium	(mg/m3)	Every 6 months							0.2		
Oct-21	Chlorine	(mg/m3)	Every 6 months							20		
Oct-21	Fluorine	(mg/m3)	Every 6 months							30		
Oct-21	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Oct-21	Mercury	(mg/m3)	Every 6 months							0.05		
Oct-21	Nitrogen Oxides	(mg/m3)	Continuous	96.5%	Oct-21	328	652	794	1100	1500	No	
Oct-21	Solid Particles	(mg/m3)	Quarterly							50	No	
Oct-21	Sulfur dioxide	(mg/m3)	Continuous	96.7%	Oct-21	547	736	899	1400	1700	No	
Oct-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Oct-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Oct-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
Oct-21	Cadmium	(mg/m3)	Every 6 months							0.2		
Oct-21	Chlorine	(mg/m3)	Every 6 months							20		
Oct-21	Fluorine	(mg/m3)	Every 6 months							30		
Oct-21	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Oct-21	Mercury	(mg/m3)	Every 6 months							0.05		
Oct-21	Nitrogen Oxides	(mg/m3)	Continuous	99.5%	Oct-21	388	599	844	1100	1500	No	
Oct-21	Solid Particles	(mg/m3)	Quarterly							50		
Oct-21	Sulfur dioxide	(mg/m3)	Continuous	99.5%	Oct-21	485	720	902	1400	1700	No	
Oct-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Oct-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Oct-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
Oct-21	Cadmium	(mg/m3)	Every 6 months									
Oct-21	Carbon dioxide	(%)	Every 6 months									
Oct-21	Chlorine	(mg/m3)	Every 6 months									
Oct-21	Flow rate	(m3/s)	Continuous									
Oct-21	Fluorine	(mg/m3)	Every 6 months									
Oct-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Oct-21	Mercury	(mg/m3)	Every 6 months									
Oct-21	Moisture	(%)	Continuous									
Oct-21	Oxygen (O2)	(%)	Continuous									
Oct-21	Solid Particles	(mg/m3)	Quarterly									
Oct-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Oct-21	Temperature	(°C)	Continuous									
Oct-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Oct-21	VOC's as n-propane equivalent	(mg/m3)	Every 6 months									

See note at end of report regarding installation of continuous monitoring instrumentation.

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
Oct-21	Cadmium	(mg/m3)	Every 6 months									
Oct-21	Flow rate	(m3/s)	Continuous									
Oct-21	Mercury	(mg/m3)	Every 6 months									
Oct-21	Moisture	(%)	Continuous									
Oct-21	Oxygen (O2)	(%)	Continuous									
Oct-21	Solid Particles	(mg/m3)	Quarterly									
Oct-21	Temperature	(°C)	Continuous									
Oct-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
Oct-21	Cadmium	(mg/m3)	Every 6 months									
Oct-21	Carbon dioxide	(%)	Every 6 months									
Oct-21	Chlorine	(mg/m3)	Every 6 months									
Oct-21	Flow rate	(m3/s)	Continuous									
Oct-21	Fluorine	(mg/m3)	Every 6 months									
Oct-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Oct-21	Mercury	(mg/m3)	Every 6 months									
Oct-21	Moisture	(%)	Continuous									
Oct-21	Oxygen (O2)	(%)	Continuous									
Oct-21	Solid Particles	(mg/m3)	Quarterly									
Oct-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Oct-21	Temperature	(°C)	Continuous									
Oct-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Oct-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
Oct-21	Cadmium	(mg/m3)	Every 6 months									
Oct-21	Flow rate	(m3/s)	Continuous									
Oct-21	Mercury	(mg/m3)	Every 6 months									
Oct-21	Moisture	(%)	Continuous									
Oct-21	Oxygen (O2)	(%)	Continuous									
Oct-21	Solid Particles	(mg/m3)	Quarterly									
Oct-21	Temperature	(°C)	Continuous									
Oct-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
Oct-21	Cadmium	(mg/m3)	Every 6 months									
Oct-21	Carbon dioxide	(%)	Every 6 months									
Oct-21	Chlorine	(mg/m3)	Every 6 months									
Oct-21	Flow rate	(m3/s)	Continuous									
Oct-21	Fluorine	(mg/m3)	Every 6 months									
Oct-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Oct-21	Mercury	(mg/m3)	Every 6 months									
Oct-21	Moisture	(%)	Continuous									
Oct-21	Oxygen (O2)	(%)	Continuous									
Oct-21	Solid Particles	(mg/m3)	Quarterly									
Oct-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Oct-21	Temperature	(°C)	Continuous									
Oct-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Oct-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
Oct-21	Cadmium	(mg/m3)	Every 6 months									
Oct-21	Flow rate	(m3/s)	Continuous									
Oct-21	Mercury	(mg/m3)	Every 6 months									
Oct-21	Moisture	(%)	Continuous									See note at end of report regarding installation of continuous monitoring instrumentation.
Oct-21	Oxygen (O2)	(%)	Continuous									
Oct-21	Solid Particles	(mg/m3)	Quarterly									
Oct-21	Temperature	(°C)	Continuous									
Oct-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
Oct-21	Cadmium	(mg/m3)	Every 6 months									
Oct-21	Carbon dioxide	(%)	Every 6 months									
Oct-21	Chlorine	(mg/m3)	Every 6 months									
Oct-21	Flow rate	(m3/s)	Continuous									
Oct-21	Fluorine	(mg/m3)	Every 6 months									
Oct-21	Hydrogen chloride	(mg/m3)	Every 6 months									
Oct-21	Mercury	(mg/m3)	Every 6 months									See note at end of report regarding installation of continuous monitoring instrumentation.
Oct-21	Moisture	(%)	Continuous									
Oct-21	Oxygen (O2)	(%)	Continuous									
Oct-21	Solid Particles	(mg/m3)	Quarterly									
Oct-21	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Oct-21	Temperature	(°C)	Continuous									
Oct-21	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Oct-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
Oct-21	Cadmium	(mg/m3)	Every 6 months									
Oct-21	Flow rate	(m3/s)	Continuous									
Oct-21	Mercury	(mg/m3)	Every 6 months									
Oct-21	Moisture	(%)	Continuous									See note at end of report regarding installation of continuous monitoring instrumentation.
Oct-21	Oxygen (O2)	(%)	Continuous									
Oct-21	Solid Particles	(mg/m3)	Quarterly									
Oct-21	Temperature	(°C)	Continuous									
Oct-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
Oct-21	Nitrogen Oxides	(mg/m3)	Continuous	94.4%	Oct-21	258	624	779			No	
Oct-21	Sulfur dioxide	(mg/m3)	Continuous	94.4%	Oct-21	348	699	873			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
Oct-21	Nitrogen Oxides	(mg/m3)	Continuous	98.7%	Oct-21	345	681	876			No	
Oct-21	Sulfur dioxide	(mg/m3)	Continuous	98.9%	Oct-21	548	774	924			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
Oct-21	Nitrogen Oxides	(mg/m3)	Continuous	99.5%	Oct-21	357	557	751			No	
Oct-21	Sulfur dioxide	(mg/m3)	Continuous	99.5%	Oct-21	488	738	949			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/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
Oct-21	Nitrogen Oxides	(mg/m3)	Continuous	99.6%	Oct-21	244	642	1043			No	
Oct-21	Sulfur dioxide	(mg/m3)	Continuous	99.6%	Oct-21	417	701	870			No	

**POINT 22 Discharge of cooling water from the cooling water outlet canal to Wye Bay marked and shown as EPA ID 22 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Masurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	98.5 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Oct-21	Chlorine (free residual)	(mg/L)	Monthly during discharge	1	21/10/2021	<0.1	<0.1	<0.1		0.2	No	
Oct-21	Copper	(mg/L)	Monthly during discharge	1	21/10/2021	0.004	0.004	0.004		0.005	No	
Oct-21	Iron	(mg/L)	Monthly during discharge	1	21/10/2021	0.166	0.166	0.166		0.3	No	
Oct-21	Oil and Grease	Visible	Continuous during discharge	100%	Oct-21	NIL	NIL	NIL				
Oct-21	Selenium	(mg/L)	Monthly during discharge	1	21/10/2021	<0.002	<0.002	<0.002		0.005	No	
Oct-21	Temperature	(°C)	Continuous during discharge	100%	Oct-21	21.7	25.8	30.3	35	37.5	No	

**POINT 23 Discharge of supernatant water from the ash dam to the cooling water outlet canal to Wye Bay marked and shown as EPA ID 23 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/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
Oct-21	Aluminium	(mg/L)	Monthly during discharge	1	21/10/2021	0.125	0.125	0.125				
Oct-21	Ammonia	(mg/L)	Monthly during discharge	1	21/10/2021	0.21	0.21	0.21				
Oct-21	Arsenic (III)	(mg/L)	Monthly during discharge	1	21/10/2021	<0.001	<0.001	<0.001				
Oct-21	Arsenic (V)	(mg/L)	Monthly during discharge	1	21/10/2021	0.0064	0.0064	0.0064				
Oct-21	Cadmium	(mg/L)	Monthly during discharge	1	21/10/2021	<0.0002	<0.0002	<0.0002				
Oct-21	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	21/10/2021	0.010	0.010	0.010				
Oct-21	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	21/10/2021	0.020	0.020	0.020				
Oct-21	Copper	(mg/L)	Monthly during discharge	1	21/10/2021	<0.001	<0.001	<0.001				
Oct-21	Iron	(mg/L)	Monthly during discharge	1	21/10/2021	0.17	0.17	0.17				
Oct-21	Lead	(mg/L)	Monthly during discharge	1	21/10/2021	<0.0002	<0.0002	<0.0002				
Oct-21	Manganese	(mg/L)	Monthly during discharge	1	21/10/2021	0.0089	0.0089	0.0089				
Oct-21	Nickel	(mg/L)	Monthly during discharge	1	21/10/2021	<0.0005	<0.0005	<0.0005				
Oct-21	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	21/10/2021	0.36	0.36	0.36				
Oct-21	Nitrogen	(mg/L)	Monthly during discharge	1	21/10/2021	<0.1	<0.1	<0.1				
Oct-21	pH	pH	Monthly during discharge	1	21/10/2021	8.90	8.90	8.90		6.5 - 9.5	No	
Oct-21	Phosphorus	(mg/L)	Monthly during discharge	1	21/10/2021	<0.1	<0.1	<0.1				
Oct-21	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	21/10/2021	0.04	0.04	0.04				
Oct-21	Selenium	(mg/L)	Monthly during discharge	1	21/10/2021	0.116	0.116	0.116				
Oct-21	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	21/10/2021	<0.1	<0.1	<0.1				
Oct-21	Total Suspended Solids	(mg/L)	Monthly during discharge	1	21/10/2021	<2	<2	<2		50	No	
Oct-21	Vanadium	(mg/L)	Monthly during discharge	1	21/10/2021	0.0952	0.0952	0.0952				
Oct-21	Zinc	(mg/L)	Monthly during discharge	1	21/10/2021	<0.005	<0.005	<0.005				

**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
Oct-21	Aluminium	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Ammonia	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Arsenic (III)	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Arsenic (V)	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Cadmium	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Copper	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Iron	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Lead	(mg/L)	Monthly during discharge	1	21/10/2021				No			No discharge from EPA Point 24 during October 2021
Oct-21	Manganese	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Nickel	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Nitrogen	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	pH	pH	Monthly during discharge	1	21/10/2021				No	6.5 - 9.5	No	
Oct-21	Phosphorus	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Selenium	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Total Suspended Solids	(mg/L)	Monthly during discharge	1	21/10/2021				No	50	No	
Oct-21	Vanadium	(mg/L)	Monthly during discharge	1	21/10/2021				No			
Oct-21	Zinc	(mg/L)	Monthly during discharge	1	21/10/2021				No			

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

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	Discharge (yes/no)	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Oct-21	Aluminium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Ammonia	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Arsenic (III)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Arsenic (V)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Cadmium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Chromium (trivalent)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Chromium (VI) Compounds	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Copper	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Iron	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Lead	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Manganese	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Nickel	(mg/L)	Daily for any discharge >2 hrs						No			No discharge from EPA Point 25 during October 2021
Oct-21	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	pH	pH	Daily for any discharge >2 hrs						No	6.5 - 9.5	No	
Oct-21	Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Reactive Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Selenium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Total Kjeldahl Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Total Suspended Solids	(mg/L)	Daily for any discharge >2 hrs						No	50	No	
Oct-21	Vanadium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-21	Zinc	(mg/L)	Daily for any discharge >2 hrs						No			

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

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Oct-21	Aluminium	(mg/L)	Quarterly									
Oct-21	Ammonia	(mg/L)	Quarterly									
Oct-21	Arsenic (III)	(mg/L)	Quarterly									
Oct-21	Arsenic (V)	(mg/L)	Quarterly									
Oct-21	Cadmium	(mg/L)	Quarterly									
Oct-21	Chromium (trivalent)	(mg/L)	Quarterly									
Oct-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Oct-21	Copper	(mg/L)	Quarterly									
Oct-21	Electrical Conductivity	(us/cm)	Quarterly									
Oct-21	Iron	(mg/L)	Quarterly									
Oct-21	Lead	(mg/L)	Quarterly									
Oct-21	Magnesium	(mg/L)	Quarterly									Next sample due before end of December 2021
Oct-21	Manganese	(mg/L)	Quarterly									
Oct-21	Nickel	(mg/L)	Quarterly									
Oct-21	pH	pH	Quarterly									
Oct-21	Potassium	(mg/L)	Quarterly									
Oct-21	Selenium	(mg/L)	Quarterly									
Oct-21	Sodium	(mg/L)	Quarterly									
Oct-21	Standing Water Level	(m)	Quarterly									
Oct-21	Vanadium	(mg/L)	Quarterly									
Oct-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/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
Oct-21	Aluminium	(mg/L)	Quarterly									
Oct-21	Ammonia	(mg/L)	Quarterly									
Oct-21	Arsenic (III)	(mg/L)	Quarterly									
Oct-21	Arsenic (V)	(mg/L)	Quarterly									
Oct-21	Cadmium	(mg/L)	Quarterly									
Oct-21	Chromium (trivalent)	(mg/L)	Quarterly									
Oct-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Oct-21	Copper	(mg/L)	Quarterly									
Oct-21	Electrical Conductivity	(us/cm)	Quarterly									
Oct-21	Iron	(mg/L)	Quarterly									
Oct-21	Lead	(mg/L)	Quarterly									
Oct-21	Magnesium	(mg/L)	Quarterly									Next sample due before end of December 2021
Oct-21	Manganese	(mg/L)	Quarterly									
Oct-21	Nickel	(mg/L)	Quarterly									
Oct-21	pH	pH	Quarterly									
Oct-21	Potassium	(mg/L)	Quarterly									
Oct-21	Selenium	(mg/L)	Quarterly									
Oct-21	Sodium	(mg/L)	Quarterly									
Oct-21	Standing Water Level	(m)	Quarterly									
Oct-21	Vanadium	(mg/L)	Quarterly									
Oct-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/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
Oct-21	Aluminium	(mg/L)	Quarterly									
Oct-21	Ammonia	(mg/L)	Quarterly									
Oct-21	Arsenic (III)	(mg/L)	Quarterly									
Oct-21	Arsenic (V)	(mg/L)	Quarterly									
Oct-21	Cadmium	(mg/L)	Quarterly									
Oct-21	Chromium (trivalent)	(mg/L)	Quarterly									
Oct-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Oct-21	Copper	(mg/L)	Quarterly									
Oct-21	Electrical Conductivity	(us/cm)	Quarterly									
Oct-21	Iron	(mg/L)	Quarterly									
Oct-21	Lead	(mg/L)	Quarterly									
Oct-21	Magnesium	(mg/L)	Quarterly									
Oct-21	Manganese	(mg/L)	Quarterly									
Oct-21	Nickel	(mg/L)	Quarterly									
Oct-21	pH	pH	Quarterly									
Oct-21	Potassium	(mg/L)	Quarterly									
Oct-21	Selenium	(mg/L)	Quarterly									
Oct-21	Sodium	(mg/L)	Quarterly									
Oct-21	Standing Water Level	(m)	Quarterly									
Oct-21	Vanadium	(mg/L)	Quarterly									
Oct-21	Zinc	(mg/L)	Quarterly									

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

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Oct-21	Aluminium	(mg/L)	Quarterly									
Oct-21	Ammonia	(mg/L)	Quarterly									
Oct-21	Arsenic (III)	(mg/L)	Quarterly									
Oct-21	Arsenic (V)	(mg/L)	Quarterly									
Oct-21	Cadmium	(mg/L)	Quarterly									
Oct-21	Chromium (trivalent)	(mg/L)	Quarterly									
Oct-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Oct-21	Copper	(mg/L)	Quarterly									
Oct-21	Electrical Conductivity	(us/cm)	Quarterly									
Oct-21	Iron	(mg/L)	Quarterly									
Oct-21	Lead	(mg/L)	Quarterly									
Oct-21	Magnesium	(mg/L)	Quarterly									
Oct-21	Manganese	(mg/L)	Quarterly									
Oct-21	Nickel	(mg/L)	Quarterly									
Oct-21	pH	pH	Quarterly									
Oct-21	Potassium	(mg/L)	Quarterly									
Oct-21	Selenium	(mg/L)	Quarterly									
Oct-21	Sodium	(mg/L)	Quarterly									
Oct-21	Standing Water Level	(m)	Quarterly									
Oct-21	Vanadium	(mg/L)	Quarterly									
Oct-21	Zinc	(mg/L)	Quarterly									

POINT 34 Groundwater quality monitoring bore marked and shown as EPA ID 33 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Oct-21	Aluminium	(mg/L)	Quarterly									
Oct-21	Ammonia	(mg/L)	Quarterly									
Oct-21	Arsenic (III)	(mg/L)	Quarterly									
Oct-21	Arsenic (V)	(mg/L)	Quarterly									
Oct-21	Cadmium	(mg/L)	Quarterly									
Oct-21	Chromium (trivalent)	(mg/L)	Quarterly									
Oct-21	Chromium (VI) Compounds	(mg/L)	Quarterly									
Oct-21	Copper	(mg/L)	Quarterly									
Oct-21	Electrical Conductivity	(us/cm)	Quarterly									
Oct-21	Iron	(mg/L)	Quarterly									
Oct-21	Lead	(mg/L)	Quarterly									
Oct-21	Magnesium	(mg/L)	Quarterly									
Oct-21	Manganese	(mg/L)	Quarterly									
Oct-21	Nickel	(mg/L)	Quarterly									
Oct-21	pH	pH	Quarterly									
Oct-21	Potassium	(mg/L)	Quarterly									
Oct-21	Selenium	(mg/L)	Quarterly									
Oct-21	Sodium	(mg/L)	Quarterly									
Oct-21	Standing Water Level	(m)	Quarterly									
Oct-21	Vanadium	(mg/L)	Quarterly									
Oct-21	Zinc	(mg/L)	Quarterly									

Next sample due before end of December 2021

**GENERAL COMMENTS**

Delta has requested amendment of the required date for installation of continuous monitoring instrumentation (temperature, oxygen, moisture) as permissible under Condition M2.4 of EPL761. Delta has also provided the EPA with a proposal for utilisation of a gas flowrate calculation at monitoring points 4 to 11 as an alternative to in-line instrumentation. Instrument suppliers advise that there are currently no flow instruments capable of accurately measuring gas flowrate at monitoring locations 4 to 11.