

## 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	March 2018	
ADDRESS	VALES POINT ROAD, MANNERING PARK NSW	

POINT 1 Cooling water outlet at Wyee Bay, marked and shown as "VPOC" on the Plan (VX837351, 30.06.2015, DOC15/381265).												
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	97% limit	Exceedance (yes/no)	Comments
March 2018	Chlorine (free residual)	milligrams per litre	Monthly	1	08/03/2018	0.14	0.14	0.14	0.2	35	No	
March 2018	Temperature	degrees celsius	Continuous	100%	March 2018	27.1	32.2	34.9	37.5		No	
March 2018	Oil and Grease	Visible	Continuous	97.6%	March 2018	NIL	NIL	NIL				No visible oil or grease detected during March 2018

POINT 2 Discharge from the ash water recycle system to the cooling water outlet canal, marked and shown as "VPADB" on the Plan (VX837351, 30.06.2015, DOC15/381265).												
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments	
March 2018	Ammonia	milligrams per litre	Quarterly									
March 2018	Cadmium	milligrams per litre	Quarterly									
March 2018	Copper	milligrams per litre	Quarterly									
March 2018	Lead	milligrams per litre	Quarterly									
March 2018	Manganese	milligrams per litre	Quarterly									
March 2018	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	8/03/2018	0.02	0.02	0.02				
March 2018	Nitrogen (total)	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2018)	
March 2018	pH	pH	Monthly	1	8/03/2018	8.41	8.41	8.41	6.5 - 9.5	No		
March 2018	Phosphorus (total)	milligrams per litre	Monthly	1	8/03/2018	<0.1	<0.1	<0.1				
March 2018	Reactive Phosphorus	milligrams per litre	Monthly	1	8/03/2018	0.02	0.02	0.02				
March 2018	Selenium	milligrams per litre	Quarterly									
March 2018	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly									
March 2018	Total Suspended Solids	milligrams per litre	Fortnightly	4	8, 12, 20 & 26/3/18	<2	5.8	9	50	No		
March 2018	Zinc	milligrams per litre	Quarterly									

POINT 4 Seepage from ash dam rehabilitated area, marked and shown as "VPADS" on the Plan (VX837351, 30.06.2015, DOC15/381265).												
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments	
March 2018	Ammonia	milligrams per litre	Quarterly									
March 2018	Cadmium	milligrams per litre	Quarterly								** Seepage water sampled is captured and pumped back to the ash dam. There was no licence 'discharge to waters' (i.e. to Mannerling Bay) during March 2018.	
March 2018	Copper	milligrams per litre	Quarterly									
March 2018	Lead	milligrams per litre	Quarterly									
March 2018	Manganese	milligrams per litre	Quarterly									
March 2018	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	8/03/2018	0.52	0.52	0.52				
March 2018	Nitrogen (total)	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2018)	
March 2018	pH	pH	Monthly	1	8/03/2018	7.94	7.94	7.94				
March 2018	Phosphorus (total)	milligrams per litre	Monthly	1	8/03/2018	<0.05	<0.05	<0.05				
March 2018	Selenium	milligrams per litre	Quarterly									
March 2018	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly									
March 2018	Total Suspended Solids	milligrams per litre	Monthly	1	8/03/2018	2	2	2	50			
March 2018	Zinc	milligrams per litre	Quarterly									

POINT 18 Overboarding of Ash Dam, marked and shown as "VPADD" on the Plan (VX837351, 30.06.2015, DOC15/381265).												
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments	
March 2018	Ammonia	milligrams per litre	Daily for discharge >2 hrs									
March 2018	Cadmium	milligrams per litre	Daily for discharge >2 hrs									
March 2018	Copper	milligrams per litre	Daily for discharge >2 hrs									
March 2018	Lead	milligrams per litre	Daily for discharge >2 hrs									
March 2018	Manganese	milligrams per litre	Daily for discharge >2 hrs									
March 2018	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Daily for discharge >2 hrs									
March 2018	Nitrogen (total)	milligrams per litre	Daily for discharge >2 hrs								No discharge from EPA Point 18 during March 2018	
March 2018	pH	pH	Daily for discharge >2 hrs						6.5 - 9.0			
March 2018	Phosphorus (total)	milligrams per litre	Daily for discharge >2 hrs									
March 2018	Selenium	milligrams per litre	Daily for discharge >2 hrs									
March 2018	Total Kjeldahl Nitrogen	milligrams per litre	Daily for discharge >2 hrs									
March 2018	Total Suspended Solids	milligrams per litre	Daily for discharge >2 hrs						50			
March 2018	Zinc	milligrams per litre	Daily for discharge >2 hrs									

POINT 19 Groundwater bore, marked and shown as "VPGM/D3" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
March 2018	Arsenic	milligrams per litre	Quarterly								
March 2018	Cadmium	milligrams per litre	Quarterly								
March 2018	Calcium	milligrams per litre	Quarterly								
March 2018	Chromium	milligrams per litre	Quarterly								
March 2018	Copper	milligrams per litre	Quarterly								
March 2018	Electrical conductivity	microsiemens per centimetre	Quarterly								
March 2018	Iron	milligrams per litre	Quarterly								
March 2018	Lead	milligrams per litre	Quarterly								
March 2018	Magnesium	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2018)
March 2018	Manganese	milligrams per litre	Quarterly								
March 2018	Nickel	milligrams per litre	Quarterly								
March 2018	pH	pH	Quarterly								
March 2018	Potassium	milligrams per litre	Quarterly								
March 2018	Selenium	milligrams per litre	Quarterly								
March 2018	Sodium	milligrams per litre	Quarterly								
March 2018	Standing Water Level	metres	Quarterly								
March 2018	Zinc	milligrams per litre	Quarterly								

POINT 20 Groundwater bore, marked and shown as "VPGM/D5" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
March 2018	Arsenic	milligrams per litre	Quarterly								
March 2018	Cadmium	milligrams per litre	Quarterly								
March 2018	Calcium	milligrams per litre	Quarterly								
March 2018	Chromium	milligrams per litre	Quarterly								
March 2018	Copper	milligrams per litre	Quarterly								
March 2018	Electrical conductivity	microsiemens per centimetre	Quarterly								
March 2018	Iron	milligrams per litre	Quarterly								
March 2018	Lead	milligrams per litre	Quarterly								
March 2018	Magnesium	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2018)
March 2018	Manganese	milligrams per litre	Quarterly								
March 2018	Nickel	milligrams per litre	Quarterly								
March 2018	pH	pH	Quarterly								
March 2018	Potassium	milligrams per litre	Quarterly								
March 2018	Selenium	milligrams per litre	Quarterly								
March 2018	Sodium	milligrams per litre	Quarterly								
March 2018	Standing Water Level	metres	Quarterly								
March 2018	Zinc	milligrams per litre	Quarterly								

POINT 21 Groundwater bore, marked and shown as "VPGM/D6" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
March 2018	Arsenic	milligrams per litre	Quarterly								
March 2018	Cadmium	milligrams per litre	Quarterly								
March 2018	Calcium	milligrams per litre	Quarterly								
March 2018	Chromium	milligrams per litre	Quarterly								
March 2018	Copper	milligrams per litre	Quarterly								
March 2018	Electrical conductivity	microsiemens per centimetre	Quarterly								
March 2018	Iron	milligrams per litre	Quarterly								
March 2018	Lead	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2018)
March 2018	Magnesium	milligrams per litre	Quarterly								
March 2018	Manganese	milligrams per litre	Quarterly								
March 2018	Nickel	milligrams per litre	Quarterly								
March 2018	pH	pH	Quarterly								
March 2018	Potassium	milligrams per litre	Quarterly								
March 2018	Selenium	milligrams per litre	Quarterly								
March 2018	Sodium	milligrams per litre	Quarterly								
March 2018	Standing Water Level	metres	Quarterly								
March 2018	Zinc	milligrams per litre	Quarterly								

POINT 22 Groundwater bore, marked and shown as "VPGM/D8" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
March 2018	Arsenic	milligrams per litre	Quarterly								
March 2018	Cadmium	milligrams per litre	Quarterly								
March 2018	Calcium	milligrams per litre	Quarterly								
March 2018	Chromium	milligrams per litre	Quarterly								
March 2018	Copper	milligrams per litre	Quarterly								
March 2018	Electrical conductivity	microsiemens per centimetre	Quarterly								
March 2018	Iron	milligrams per litre	Quarterly								
March 2018	Lead	milligrams per litre	Quarterly								
March 2018	Magnesium	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2018)
March 2018	Manganese	milligrams per litre	Quarterly								
March 2018	Nickel	milligrams per litre	Quarterly								
March 2018	pH	pH	Quarterly								
March 2018	Potassium	milligrams per litre	Quarterly								
March 2018	Selenium	milligrams per litre	Quarterly								
March 2018	Sodium	milligrams per litre	Quarterly								
March 2018	Standing Water Level	metres	Quarterly								
March 2018	Zinc	milligrams per litre	Quarterly								

POINT 23 Groundwater bore, marked and shown as "VPGM/D10" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
March 2018	Arsenic	milligrams per litre	Quarterly								
March 2018	Cadmium	milligrams per litre	Quarterly								
March 2018	Calcium	milligrams per litre	Quarterly								
March 2018	Chromium	milligrams per litre	Quarterly								
March 2018	Copper	milligrams per litre	Quarterly								
March 2018	Electrical conductivity	microsiemens per centimetre	Quarterly								
March 2018	Iron	milligrams per litre	Quarterly								
March 2018	Lead	milligrams per litre	Quarterly								
March 2018	Magnesium	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2018)
March 2018	Manganese	milligrams per litre	Quarterly								
March 2018	Nickel	milligrams per litre	Quarterly								
March 2018	pH	pH	Quarterly								
March 2018	Potassium	milligrams per litre	Quarterly								
March 2018	Selenium	milligrams per litre	Quarterly								
March 2018	Sodium	milligrams per litre	Quarterly								
March 2018	Standing Water Level	metres	Quarterly								
March 2018	Zinc	milligrams per litre	Quarterly								

POINT 11 Stack serving Boiler Unit No. 5, marked and shown as "11" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
March 2018	Cadmium	milligrams per cubic metre	Yearly						1	No	
March 2018	Chlorine	milligrams per cubic metre	Yearly						200	No	
March 2018	Copper	milligrams per cubic metre	Yearly								
March 2018	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
March 2018	Mercury	milligrams per cubic metre	Yearly						1	No	
March 2018	Moisture	percent	Yearly								
March 2018	Molecular weight of stack gases	grams per gram mole	Yearly								
March 2018	Nitrogen Oxides	milligrams per cubic metre	Continuous	99.2%	March 2018	350	640	951	1500	No	
March 2018	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	2018/19 Annual Stack Test scheduled for October 2018
March 2018	Sulphur dioxide	parts per million	Continuous	99.2%	March 2018	189	286	452	600	No	
March 2018	Temperature	degrees Celsius	Yearly								
March 2018	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
March 2018	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
March 2018	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
March 2018	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	March 2018	13.8	23.2	49.4			
March 2018	Velocity	metres per second	Yearly								
March 2018	Volatile organic compounds	parts per million	Yearly								
March 2018	Volumetric flowrate	cubic metres per second	Yearly								

**POINT 12** Stack serving Boiler Unit No. 6, marked and shown as "12" on the Plan (VX837351, 30.06.2015, DOC15/381265).

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
March 2018	Cadmium	milligrams per cubic metre	Yearly						1	No	
March 2018	Chlorine	milligrams per cubic metre	Yearly						200	No	
March 2018	Copper	milligrams per cubic metre	Yearly								
March 2018	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
March 2018	Mercury	milligrams per cubic metre	Yearly						1	No	
March 2018	Moisture	percent	Yearly								
March 2018	Molecular weight of stack gases	grams per gram mole	Yearly								
March 2018	Nitrogen Oxides	milligrams per cubic metre	Continuous	98.4%	March 2018	553	810	1001	1500	No	
March 2018	Sulfuric acid mist and sulfur trioxide (as SO <sub>3</sub> )	milligrams per cubic metre	Yearly						100	No	2018/19 Annual Stack Test scheduled for October 2018
March 2018	Sulphur dioxide	parts per million	Continuous	98.4%	March 2018	152	270	434	600	No	
March 2018	Temperature	degrees Celsius	Yearly								
March 2018	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
March 2018	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
March 2018	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
March 2018	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	March 2018	25.2	48.1	60.6			
March 2018	Velocity	metres per second	Yearly								
March 2018	Volatile organic compounds	parts per million	Yearly								
March 2018	Volumetric flowrate	cubic metres per second	Yearly								

**GENERAL COMMENTS**

2017/18 Annual Stack Test conducted in December 2017