

## 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	November 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
Nov-18	Chlorine (free residual)	milligrams per litre	Monthly	1	5/11/2018	0.04	0.04	0.04	0.2		No	
Nov-18	Temperature	degrees celsius	Continuous	100%	Nov-18	28.1	32.2	33.8	37.5	35	No	
Nov-18	Oil and Grease	Visible	Continuous	100%	Nov-18	NIL	NIL	NIL				No visible oil or grease detected during November

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	
Nov-18	Ammonia	milligrams per litre	Quarterly									
Nov-18	Cadmium	milligrams per litre	Quarterly									
Nov-18	Copper	milligrams per litre	Quarterly									
Nov-18	Lead	milligrams per litre	Quarterly									
Nov-18	Manganese	milligrams per litre	Quarterly									
Nov-18	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	5/11/2018	<0.01	<0.01	<0.01				
Nov-18	Nitrogen (total)	milligrams per litre	Quarterly									
Nov-18	pH	pH	Monthly	1	5/11/2018	8.58	8.58	8.58	6.5 - 9.5	No		
Nov-18	Phosphorus (total)	milligrams per litre	Monthly	1	5/11/2018	0.06	0.06	0.06				
Nov-18	Reactive Phosphorus	milligrams per litre	Monthly	1	5/11/2018	0.03	0.03	0.03				
Nov-18	Selenium	milligrams per litre	Quarterly									
Nov-18	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly									
Nov-18	Total Suspended Solids	milligrams per litre	Fortnightly	4	Nov-18	5	27	47	50	No		
Nov-18	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	
Nov-18	Ammonia	milligrams per litre	Quarterly									
Nov-18	Cadmium	milligrams per litre	Quarterly									
Nov-18	Copper	milligrams per litre	Quarterly									
Nov-18	Lead	milligrams per litre	Quarterly									
Nov-18	Manganese	milligrams per litre	Quarterly								121hrs of overflow from 1/11/2018 to 6/11/2018.	
Nov-18	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	5/11/2018	0.2	0.2	0.2				
Nov-18	Nitrogen (total)	milligrams per litre	Quarterly									
Nov-18	pH	pH	Monthly	1	5/11/2018	8.04	8.04	8.04				
Nov-18	Phosphorus (total)	milligrams per litre	Monthly	1	5/11/2018	<0.02	<0.02	<0.02				
Nov-18	Selenium	milligrams per litre	Quarterly									
Nov-18	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly									
Nov-18	Total Suspended Solids	milligrams per litre	Monthly	1	5/11/2018	49	49	49	50	No		
Nov-18	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	
Nov-18	Ammonia	milligrams per litre	Daily for discharge >2 hrs									
Nov-18	Cadmium	milligrams per litre	Daily for discharge >2 hrs									
Nov-18	Copper	milligrams per litre	Daily for discharge >2 hrs									
Nov-18	Lead	milligrams per litre	Daily for discharge >2 hrs									
Nov-18	Manganese	milligrams per litre	Daily for discharge >2 hrs									
Nov-18	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Daily for discharge >2 hrs									
Nov-18	Nitrogen (total)	milligrams per litre	Daily for discharge >2 hrs								No discharge from EPA Point 18 during November 2018	
Nov-18	pH	pH	Daily for discharge >2 hrs						6.5 - 9.0			
Nov-18	Phosphorus (total)	milligrams per litre	Daily for discharge >2 hrs									
Nov-18	Selenium	milligrams per litre	Daily for discharge >2 hrs									
Nov-18	Total Kjeldahl Nitrogen	milligrams per litre	Daily for discharge >2 hrs									
Nov-18	Total Suspended Solids	milligrams per litre	Daily for discharge >2 hrs						50			
Nov-18	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	
Nov-18	Arsenic	milligrams per litre	Quarterly									
Nov-18	Cadmium	milligrams per litre	Quarterly									
Nov-18	Calcium	milligrams per litre	Quarterly									
Nov-18	Chromium	milligrams per litre	Quarterly									
Nov-18	Copper	milligrams per litre	Quarterly									
Nov-18	Electrical conductivity	microsiemens per centimetre	Quarterly									
Nov-18	Iron	milligrams per litre	Quarterly									
Nov-18	Lead	milligrams per litre	Quarterly								(next quarterly sample scheduled for January 2018)	
Nov-18	Magnesium	milligrams per litre	Quarterly									
Nov-18	Manganese	milligrams per litre	Quarterly									
Nov-18	Nickel	milligrams per litre	Quarterly									
Nov-18	pH	pH	Quarterly									
Nov-18	Potassium	milligrams per litre	Quarterly									
Nov-18	Selenium	milligrams per litre	Quarterly									
Nov-18	Sodium	milligrams per litre	Quarterly									
Nov-18	Standing Water Level	metres	Quarterly									
Nov-18	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	
Nov-18	Arsenic	milligrams per litre	Quarterly									
Nov-18	Cadmium	milligrams per litre	Quarterly									
Nov-18	Calcium	milligrams per litre	Quarterly									
Nov-18	Chromium	milligrams per litre	Quarterly									
Nov-18	Copper	milligrams per litre	Quarterly									
Nov-18	Electrical conductivity	microsiemens per centimetre	Quarterly									
Nov-18	Iron	milligrams per litre	Quarterly									
Nov-18	Lead	milligrams per litre	Quarterly									
Nov-18	Magnesium	milligrams per litre	Quarterly								(next quarterly sample scheduled for January 2018)	
Nov-18	Manganese	milligrams per litre	Quarterly									
Nov-18	Nickel	milligrams per litre	Quarterly									
Nov-18	pH	pH	Quarterly									
Nov-18	Potassium	milligrams per litre	Quarterly									
Nov-18	Selenium	milligrams per litre	Quarterly									
Nov-18	Sodium	milligrams per litre	Quarterly									
Nov-18	Standing Water Level	metres	Quarterly									
Nov-18	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	
Nov-18	Arsenic	milligrams per litre	Quarterly									
Nov-18	Cadmium	milligrams per litre	Quarterly									
Nov-18	Calcium	milligrams per litre	Quarterly									
Nov-18	Chromium	milligrams per litre	Quarterly									
Nov-18	Copper	milligrams per litre	Quarterly									
Nov-18	Electrical conductivity	microsiemens per centimetre	Quarterly									
Nov-18	Iron	milligrams per litre	Quarterly									
Nov-18	Lead	milligrams per litre	Quarterly								(next quarterly sample scheduled for January 2018)	
Nov-18	Magnesium	milligrams per litre	Quarterly									
Nov-18	Manganese	milligrams per litre	Quarterly									
Nov-18	Nickel	milligrams per litre	Quarterly									
Nov-18	pH	pH	Quarterly									
Nov-18	Potassium	milligrams per litre	Quarterly									
Nov-18	Selenium	milligrams per litre	Quarterly									
Nov-18	Sodium	milligrams per litre	Quarterly									
Nov-18	Standing Water Level	metres	Quarterly									
Nov-18	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
Nov-18	Arsenic	milligrams per litre	Quarterly								
Nov-18	Cadmium	milligrams per litre	Quarterly								
Nov-18	Calcium	milligrams per litre	Quarterly								
Nov-18	Chromium	milligrams per litre	Quarterly								
Nov-18	Copper	milligrams per litre	Quarterly								
Nov-18	Electrical conductivity	microsiemens per centimetre	Quarterly								
Nov-18	Iron	milligrams per litre	Quarterly								
Nov-18	Lead	milligrams per litre	Quarterly								
Nov-18	Magnesium	milligrams per litre	Quarterly								(next quarterly sample scheduled for January 2018)
Nov-18	Manganese	milligrams per litre	Quarterly								
Nov-18	Nickel	milligrams per litre	Quarterly								
Nov-18	pH	pH	Quarterly								
Nov-18	Potassium	milligrams per litre	Quarterly								
Nov-18	Selenium	milligrams per litre	Quarterly								
Nov-18	Sodium	milligrams per litre	Quarterly								
Nov-18	Standing Water Level	metres	Quarterly								
Nov-18	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
Nov-18	Arsenic	milligrams per litre	Quarterly								
Nov-18	Cadmium	milligrams per litre	Quarterly								
Nov-18	Calcium	milligrams per litre	Quarterly								
Nov-18	Chromium	milligrams per litre	Quarterly								
Nov-18	Copper	milligrams per litre	Quarterly								
Nov-18	Electrical conductivity	microsiemens per centimetre	Quarterly								
Nov-18	Iron	milligrams per litre	Quarterly								
Nov-18	Lead	milligrams per litre	Quarterly								
Nov-18	Magnesium	milligrams per litre	Quarterly								(next quarterly sample scheduled for January 2018)
Nov-18	Manganese	milligrams per litre	Quarterly								
Nov-18	Nickel	milligrams per litre	Quarterly								
Nov-18	pH	pH	Quarterly								
Nov-18	Potassium	milligrams per litre	Quarterly								
Nov-18	Selenium	milligrams per litre	Quarterly								
Nov-18	Sodium	milligrams per litre	Quarterly								
Nov-18	Standing Water Level	metres	Quarterly								
Nov-18	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
Nov-18	Cadmium	milligrams per cubic metre	Yearly						1	No	Annual stack gas testing to be undertaken before 1 July 2019
Nov-18	Chlorine	milligrams per cubic metre	Yearly						200	No	
Nov-18	Copper	milligrams per cubic metre	Yearly								
Nov-18	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
Nov-18	Mercury	milligrams per cubic metre	Yearly						1	No	
Nov-18	Moisture	percent	Yearly								
Nov-18	Molecular weight of stack gases	grams per gram mole	Yearly								
Nov-18	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	Nov-18	351	592	734	1500	No	
Nov-18	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	
Nov-18	Sulphur dioxide	parts per million	Continuous	100%	Nov-18	168	272	331	600	No	
Nov-18	Temperature	degrees Celsius	Yearly								
Nov-18	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
Nov-18	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
Nov-18	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
Nov-18	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	Nov-18	9.9	24.3	68.6			
Nov-18	Velocity	metres per second	Yearly								
Nov-18	Volatile organic compounds	parts per million	Yearly								
Nov-18	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
Nov-18	Cadmium	milligrams per cubic metre	Yearly						1	No	Annual stack gas testing to be undertaken before 1 July 2019
Nov-18	Chlorine	milligrams per cubic metre	Yearly						200	No	
Nov-18	Copper	milligrams per cubic metre	Yearly								
Nov-18	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
Nov-18	Mercury	milligrams per cubic metre	Yearly						1	No	
Nov-18	Moisture	percent	Yearly								
Nov-18	Molecular weight of stack gases	grams per gram mole	Yearly								
Nov-18	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	Nov-18	557	846	1041	1500	No	
Nov-18	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	
Nov-18	Sulphur dioxide	parts per million	Continuous	100%	Nov-18	162	262	332	600	No	
Nov-18	Temperature	degrees Celsius	Yearly								
Nov-18	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
Nov-18	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
Nov-18	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
Nov-18	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	Nov-18	34.2	50.9	68.7			
Nov-18	Velocity	metres per second	Yearly								
Nov-18	Volatile organic compounds	parts per million	Yearly								
Nov-18	Volumetric flowrate	cubic metres per second	Yearly								

**GENERAL COMMENTS**