

## Vales Point Power Station Monthly Environmental Data Summary



LICENCE NO	761	<a href="http://www.epa.nsw.gov.au/prpoeaopp/">http://www.epa.nsw.gov.au/prpoeaopp/</a>
LICENCE HOLDER	SUNSET POWER INTERNATIONAL PTY LTD	
REPORTING PERIOD	July 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
July 2018	Chlorine (free residual)	milligrams per litre	Monthly	1	11/07/2018	0.03	0.03	0.03	<b>0.2</b>	<b>35</b>	<b>No</b>	
July 2018	Temperature	degrees celsius	Continuous	100%	July 2018	20.2	24.0	27.2	<b>37.5</b>	<b>35</b>	<b>No</b>	
July 2018	Oil and Grease	Visible	Continuous	100%	July 2018	NIL	NIL	NIL				No visible oil or grease detected during July 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	
July 2018	Ammonia	milligrams per litre	Quarterly	1	11/07/2018	0.0061	0.0061	0.0061				
July 2018	Cadmium	milligrams per litre	Quarterly	1	11/07/2018	<0.00021	<0.00021	<0.00021				
July 2018	Copper	milligrams per litre	Quarterly	1	11/07/2018	<0.001	<0.001	<0.001				
July 2018	Lead	milligrams per litre	Quarterly	1	11/07/2018	<0.0002	<0.0002	<0.0002				
July 2018	Manganese	milligrams per litre	Quarterly	1	11/07/2018	0.0113	0.0113	0.0113				
July 2018	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	11/07/2018	0.02	0.02	0.02				
July 2018	Nitrogen (total)	milligrams per litre	Quarterly	1	11/07/2018	<0.5	<0.5	<0.5				
July 2018	pH	pH	Monthly	1	11/07/2018	8.96	8.96	8.96	<b>6.5 - 9.5</b>	<b>No</b>		
July 2018	Phosphorus (total)	milligrams per litre	Monthly	1	11/07/2018	0.11	0.11	0.11				
July 2018	Reactive Phosphorus	milligrams per litre	Monthly	1	11/07/2018	0.02	0.02	0.02				
July 2018	Selenium	milligrams per litre	Quarterly	1	11/07/2018	0.0644	0.0644	0.0644				
July 2018	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	1	11/07/2018	<0.5	<0.5	<0.5				
July 2018	Total Suspended Solids	milligrams per litre	Fortnightly	3	2, 20, 30/07/2018	3	5	9	<b>50</b>	<b>Yes</b>		
July 2018	Zinc	milligrams per litre	Quarterly	1	11/07/2018	0.0005	0.0005	0.0005				

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	
July 2018	Ammonia	milligrams per litre	Quarterly	1	11/07/2018							
July 2018	Cadmium	milligrams per litre	Quarterly	1	11/07/2018							
July 2018	Copper	milligrams per litre	Quarterly	1	11/07/2018							
July 2018	Lead	milligrams per litre	Quarterly	1	11/07/2018							
July 2018	Manganese	milligrams per litre	Quarterly	1	11/07/2018							
July 2018	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	11/07/2018						** Seepage water sampled is captured and pumped back to the ash dam.	
July 2018	Nitrogen (total)	milligrams per litre	Quarterly	1	11/07/2018						There was no licence 'discharge to waters' (i.e. to Mannering Bay) during July 2018.	
July 2018	pH	pH	Monthly	1	11/07/2018							
July 2018	Phosphorus (total)	milligrams per litre	Monthly	1	11/07/2018							
July 2018	Selenium	milligrams per litre	Quarterly	1	11/07/2018							
July 2018	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	1	11/07/2018							
July 2018	Total Suspended Solids	milligrams per litre	Monthly	1	11/07/2018				<b>50</b>	<b>No</b>		
July 2018	Zinc	milligrams per litre	Quarterly	1	11/07/2018							

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	
July 2018	Ammonia	milligrams per litre	Daily for discharge >2 hrs	1	11/07/2018							
July 2018	Cadmium	milligrams per litre	Daily for discharge >2 hrs	1	11/07/2018							
July 2018	Copper	milligrams per litre	Daily for discharge >2 hrs	1	11/07/2018							
July 2018	Lead	milligrams per litre	Daily for discharge >2 hrs	1	11/07/2018							
July 2018	Manganese	milligrams per litre	Daily for discharge >2 hrs	1	11/07/2018							
July 2018	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Daily for discharge >2 hrs	1	11/07/2018							
July 2018	Nitrogen (total)	milligrams per litre	Daily for discharge >2 hrs	1	11/07/2018						No discharge from EPA Point 18 during July 2018	
July 2018	pH	pH	Daily for discharge >2 hrs	1	11/07/2018				<b>6.5 - 9.0</b>			
July 2018	Phosphorus (total)	milligrams per litre	Daily for discharge >2 hrs	1	11/07/2018							
July 2018	Selenium	milligrams per litre	Daily for discharge >2 hrs	1	11/07/2018							
July 2018	Total Kjeldahl Nitrogen	milligrams per litre	Daily for discharge >2 hrs	1	11/07/2018							
July 2018	Total Suspended Solids	milligrams per litre	Daily for discharge >2 hrs	1	11/07/2018				<b>50</b>			
July 2018	Zinc	milligrams per litre	Daily for discharge >2 hrs	1	11/07/2018							

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
July 2018	Arsenic	milligrams per litre	Quarterly	1	11/07/2018	13.2	13.2	13.2			
July 2018	Cadmium	milligrams per litre	Quarterly	1	11/07/2018	<0.21	<0.21	<0.21			
July 2018	Calcium	milligrams per litre	Quarterly	1	11/07/2018	844	844	844			
July 2018	Chromium	milligrams per litre	Quarterly	1	11/07/2018	0.8	0.8	0.8			
July 2018	Copper	milligrams per litre	Quarterly	1	11/07/2018	1.6	1.6	1.6			
July 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	11/07/2018	33600	33600	33600			
July 2018	Iron	milligrams per litre	Quarterly	1	11/07/2018	41500	41500	41500			
July 2018	Lead	milligrams per litre	Quarterly	1	11/07/2018	0.6	0.6	0.6			
July 2018	Magnesium	milligrams per litre	Quarterly	1	11/07/2018	434	434	434			
July 2018	Manganese	milligrams per litre	Quarterly	1	11/07/2018	3240	3240	3240			
July 2018	Nickel	milligrams per litre	Quarterly	1	11/07/2018	13.2	13.2	13.2			
July 2018	pH	pH	Quarterly	1	11/07/2018	6	6	6			
July 2018	Potassium	milligrams per litre	Quarterly	1	11/07/2018	71	71	71			
July 2018	Selenium	milligrams per litre	Quarterly	1	11/07/2018	<2.1	<2.1	<2.1			
July 2018	Sodium	milligrams per litre	Quarterly	1	11/07/2018	4470	4470	4470			
July 2018	Standing Water Level	metres	Quarterly	1	11/07/2018	3.85	3.85	3.85			
July 2018	Zinc	milligrams per litre	Quarterly	1	11/07/2018	8	8	8			

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
July 2018	Arsenic	milligrams per litre	Quarterly	1	11/07/2018	2.5	2.5	2.5			
July 2018	Cadmium	milligrams per litre	Quarterly	1	11/07/2018	0.19	0.19	0.19			
July 2018	Calcium	milligrams per litre	Quarterly	1	11/07/2018	74	74	74			
July 2018	Chromium	milligrams per litre	Quarterly	1	11/07/2018	1	1	1			
July 2018	Copper	milligrams per litre	Quarterly	1	11/07/2018	15.3	15.3	15.3			
July 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	11/07/2018	7380	7380	7380			
July 2018	Iron	milligrams per litre	Quarterly	1	11/07/2018	20000	20000	20000			
July 2018	Lead	milligrams per litre	Quarterly	1	11/07/2018	4.9	4.9	4.9			
July 2018	Magnesium	milligrams per litre	Quarterly	1	11/07/2018	154	154	154			
July 2018	Manganese	milligrams per litre	Quarterly	1	11/07/2018	458	458	458			
July 2018	Nickel	milligrams per litre	Quarterly	1	11/07/2018	25	25	25			
July 2018	pH	pH	Quarterly	1	11/07/2018	5.71	5.71	5.71			
July 2018	Potassium	milligrams per litre	Quarterly	1	11/07/2018	10	10	10			
July 2018	Selenium	milligrams per litre	Quarterly	1	11/07/2018	0.8	0.8	0.8			
July 2018	Sodium	milligrams per litre	Quarterly	1	11/07/2018	1090	1090	1090			
July 2018	Standing Water Level	metres	Quarterly	1	11/07/2018	0.69	0.69	0.69			
July 2018	Zinc	milligrams per litre	Quarterly	1	11/07/2018	880	880	880			

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
July 2018	Arsenic	milligrams per litre	Quarterly	1	11/07/2018	0.4	0.4	0.4			
July 2018	Cadmium	milligrams per litre	Quarterly	1	11/07/2018	<0.05	<0.05	<0.05			
July 2018	Calcium	milligrams per litre	Quarterly	1	11/07/2018	2	2	2			
July 2018	Chromium	milligrams per litre	Quarterly	1	11/07/2018	1.1	1.1	1.1			
July 2018	Copper	milligrams per litre	Quarterly	1	11/07/2018	3.3	3.3	3.3			
July 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	11/07/2018	361	361	361			
July 2018	Iron	milligrams per litre	Quarterly	1	11/07/2018	948	948	948			
July 2018	Lead	milligrams per litre	Quarterly	1	11/07/2018	1.9	1.9	1.9			
July 2018	Magnesium	milligrams per litre	Quarterly	1	11/07/2018	6	6	6			
July 2018	Manganese	milligrams per litre	Quarterly	1	11/07/2018	32.1	32.1	32.1			
July 2018	Nickel	milligrams per litre	Quarterly	1	11/07/2018	7.3	7.3	7.3			
July 2018	pH	pH	Quarterly	1	11/07/2018	5.6	5.6	5.6			
July 2018	Potassium	milligrams per litre	Quarterly	2	11/07/2018	2	2	2			
July 2018	Selenium	milligrams per litre	Quarterly	1	11/07/2018	<0.2	<0.2	<0.2			
July 2018	Sodium	milligrams per litre	Quarterly	1	11/07/2018	51	51	51			
July 2018	Standing Water Level	metres	Quarterly	1	11/07/2018	2.45	2.45	2.45			
July 2018	Zinc	milligrams per litre	Quarterly	1	11/07/2018	12	12	12			

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
July 2018	Arsenic	milligrams per litre	Quarterly	1	11/07/2018	7.8	7.8	7.8			
July 2018	Cadmium	milligrams per litre	Quarterly	1	11/07/2018	<0.21	<0.21	<0.21			
July 2018	Calcium	milligrams per litre	Quarterly	1	11/07/2018	404	404	404			
July 2018	Chromium	milligrams per litre	Quarterly	1	11/07/2018	7.9	7.9	7.9			
July 2018	Copper	milligrams per litre	Quarterly	1	11/07/2018	5.8	5.8	5.8			
July 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	11/07/2018	65800	65800	65800			
July 2018	Iron	milligrams per litre	Quarterly	1	11/07/2018	68900	68900	68900			
July 2018	Lead	milligrams per litre	Quarterly	1	11/07/2018	4.6	4.6	4.6			
July 2018	Magnesium	milligrams per litre	Quarterly	1	11/07/2018	1220	1220	1220			
July 2018	Manganese	milligrams per litre	Quarterly	1	11/07/2018	368	368	368			
July 2018	Nickel	milligrams per litre	Quarterly	1	11/07/2018	6.3	6.3	6.3			
July 2018	pH	pH	Quarterly	1	11/07/2018	6.75	6.75	6.75			
July 2018	Potassium	milligrams per litre	Quarterly	1	11/07/2018	284	284	284			
July 2018	Selenium	milligrams per litre	Quarterly	1	11/07/2018	2.5	2.5	2.5			
July 2018	Sodium	milligrams per litre	Quarterly	1	11/07/2018	9430	9430	9430			
July 2018	Standing Water Level	metres	Quarterly	1	11/07/2018	0.03	0.03	0.03			
July 2018	Zinc	milligrams per litre	Quarterly	1	11/07/2018	46	46	46			

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
July 2018	Arsenic	milligrams per litre	Quarterly	1	11/07/2018	10.5	10.5	10.5			
July 2018	Cadmium	milligrams per litre	Quarterly	1	11/07/2018	0.18	0.18	0.18			
July 2018	Calcium	milligrams per litre	Quarterly	1	11/07/2018	2	2	2			
July 2018	Chromium	milligrams per litre	Quarterly	1	11/07/2018	20.3	20.3	20.3			
July 2018	Copper	milligrams per litre	Quarterly	1	11/07/2018	13.6	13.6	13.6			
July 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	11/07/2018	916	916	916			
July 2018	Iron	milligrams per litre	Quarterly	1	11/07/2018	1300	1300	1300			
July 2018	Lead	milligrams per litre	Quarterly	1	11/07/2018	13.9	13.9	13.9			
July 2018	Magnesium	milligrams per litre	Quarterly	1	11/07/2018	12	12	12			
July 2018	Manganese	milligrams per litre	Quarterly	1	11/07/2018	83.5	83.5	83.5			
July 2018	Nickel	milligrams per litre	Quarterly	1	11/07/2018	12.5	12.5	12.5			
July 2018	pH	pH	Quarterly	1	11/07/2018	5.2	5.2	5.2			
July 2018	Potassium	milligrams per litre	Quarterly	1	11/07/2018	2	2	2			
July 2018	Selenium	milligrams per litre	Quarterly	1	11/07/2018	0.7	0.7	0.7			
July 2018	Sodium	milligrams per litre	Quarterly	1	11/07/2018	132	132	132			
July 2018	Standing Water Level	metres	Quarterly	1	11/07/2018	0.01	0.01	0.01			
July 2018	Zinc	milligrams per litre	Quarterly	1	11/07/2018	124	124	124			

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
July 2018	Cadmium	milligrams per cubic metre	Yearly						1	No	
July 2018	Chlorine	milligrams per cubic metre	Yearly						200	No	
July 2018	Copper	milligrams per cubic metre	Yearly								
July 2018	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
July 2018	Mercury	milligrams per cubic metre	Yearly						1	No	
July 2018	Moisture	percent	Yearly								
July 2018	Molecular weight of stack gases	grams per gram mole	Yearly								
July 2018	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	July 2018	511	626	831	1500	No	
July 2018	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	Annual stack gas testing to be undertaken before 1 July 2019
July 2018	Sulphur dioxide	parts per million	Continuous	100%	July 2018	187	230	304	600	No	
July 2018	Temperature	degrees Celsius	Yearly								
July 2018	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
July 2018	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
July 2018	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
July 2018	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	July 2018	17.9	23.1	49.2			
July 2018	Velocity	metres per second	Yearly								
July 2018	Volatile organic compounds	parts per million	Yearly								
July 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
July 2018	Cadmium	milligrams per cubic metre	Yearly						1	No	
July 2018	Chlorine	milligrams per cubic metre	Yearly						200	No	
July 2018	Copper	milligrams per cubic metre	Yearly								
July 2018	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
July 2018	Mercury	milligrams per cubic metre	Yearly						1	No	
July 2018	Moisture	percent	Yearly								
July 2018	Molecular weight of stack gases	grams per gram mole	Yearly								
July 2018	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	July 2018	540	784	988	1500	No	
July 2018	Sulfuric acid mist and sulfur trioxide (as SO <sub>3</sub> )	milligrams per cubic metre	Yearly						100	No	Annual stack gas testing to be undertaken before 1 July 2019
July 2018	Sulphur dioxide	parts per million	Continuous	100%	July 2018	172	223	308	600	No	
July 2018	Temperature	degrees Celsius	Yearly								
July 2018	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
July 2018	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
July 2018	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
July 2018	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	July 2018	31.9	48.7	73.7			
July 2018	Velocity	metres per second	Yearly								
July 2018	Volatile organic compounds	parts per million	Yearly								
July 2018	Volumetric flowrate	cubic metres per second	Yearly								

**GENERAL COMMENTS**

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