

## 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	January 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
January 2018	Chlorine (free residual)	milligrams per litre	Monthly	1	18/01/2018	0.06	0.06	0.06	<b>0.2</b>		<b>No</b>	
January 2018	Temperature	degrees celsius	Continuous	100%	January 2018	29.6	33.4	36.4	<b>37.5</b>	<b>35</b>	<b>No</b>	
January 2018	Oil and Grease	Visible	Continuous	100%	January 2018	NIL	NIL	NIL				No visible oil or grease detected during January 2018

POINT 2 Discharge from the ash water recycle system to the cooling water outlet canal, marked and shown as "VPAD8" 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
January 2018	Ammonia	milligrams per litre	Quarterly	1	18/01/2018	<0.01	<0.01	<0.01				
January 2018	Cadmium	milligrams per litre	Quarterly	1	18/01/2018	<0.0002	<0.0002	<0.0002				
January 2018	Copper	milligrams per litre	Quarterly	1	18/01/2018	<0.001	<0.001	<0.001				
January 2018	Lead	milligrams per litre	Quarterly	1	18/01/2018	<0.0002	<0.0002	<0.0002				
January 2018	Manganese	milligrams per litre	Quarterly	1	18/01/2018	0.0044	0.0044	0.0044				
January 2018	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	18/01/2018	<0.01	<0.01	<0.01				
January 2018	Nitrogen (total)	milligrams per litre	Quarterly	1	18/01/2018	<1	<1	<1				(next quarterly samples scheduled for April/May 2018)
January 2018	pH	pH	Monthly	1	18/01/2018	8.68	8.68	8.68	<b>6.5 - 9.5</b>		<b>No</b>	
January 2018	Phosphorus (total)	milligrams per litre	Monthly	1	18/01/2018	0.1	0.1	0.1				
January 2018	Reactive Phosphorus	milligrams per litre	Monthly	1	18/01/2018	0.1	0.1	0.1				
January 2018	Selenium	milligrams per litre	Quarterly	1	18/01/2018	0.03	0.03	0.03				
January 2018	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	1	18/01/2018	<1	<1	<1				
January 2018	Total Suspended Solids	milligrams per litre	Fortnightly	4	18/01/2018	8	13.5	24	<b>50</b>		<b>No</b>	
January 2018	Zinc	milligrams per litre	Quarterly	1	18/01/2018	<0.005	<0.005	<0.005				

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	97% limit	Exceedance (yes/no)	Comments
January 2018	Ammonia	milligrams per litre	Quarterly	1	18/01/2018							
January 2018	Cadmium	milligrams per litre	Quarterly	1	18/01/2018							
January 2018	Copper	milligrams per litre	Quarterly	1	18/01/2018							
January 2018	Lead	milligrams per litre	Quarterly	1	18/01/2018							
January 2018	Manganese	milligrams per litre	Quarterly	1	18/01/2018							
January 2018	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	18/01/2018							** Seepage water sampled is captured and pumped back to the ash dam.
January 2018	Nitrogen (total)	milligrams per litre	Quarterly	1	18/01/2018							There was no licence 'discharge to waters' (i.e. to Mannering Bay ) during January 2018.
January 2018	pH	pH	Monthly	1	18/01/2018							
January 2018	Phosphorus (total)	milligrams per litre	Monthly	1	18/01/2018							
January 2018	Selenium	milligrams per litre	Quarterly	1	18/01/2018							
January 2018	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	1	18/01/2018							
January 2018	Total Suspended Solids	milligrams per litre	Monthly	1	18/01/2018				<b>50</b>			
January 2018	Zinc	milligrams per litre	Quarterly	1	18/01/2018							

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	97% limit	Exceedance (yes/no)	Comments
January 2018	Ammonia	milligrams per litre	Daily for discharge >2 hrs									
January 2018	Cadmium	milligrams per litre	Daily for discharge >2 hrs									
January 2018	Copper	milligrams per litre	Daily for discharge >2 hrs									
January 2018	Lead	milligrams per litre	Daily for discharge >2 hrs									
January 2018	Manganese	milligrams per litre	Daily for discharge >2 hrs									
January 2018	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Daily for discharge >2 hrs									
January 2018	Nitrogen (total)	milligrams per litre	Daily for discharge >2 hrs									No discharge from EPA Point 18 during January 2018
January 2018	pH	pH	Daily for discharge >2 hrs						<b>6.5 - 9.0</b>			
January 2018	Phosphorus (total)	milligrams per litre	Daily for discharge >2 hrs									
January 2018	Selenium	milligrams per litre	Daily for discharge >2 hrs									
January 2018	Total Kjeldahl Nitrogen	milligrams per litre	Daily for discharge >2 hrs									
January 2018	Total Suspended Solids	milligrams per litre	Daily for discharge >2 hrs						<b>50</b>			
January 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
January 2018	Arsenic	milligrams per litre	Quarterly	1	18/01/2018	0.0147	0.0147	0.0147			
January 2018	Cadmium	milligrams per litre	Quarterly	1	18/01/2018	<0.0002	<0.0002	<0.0002			
January 2018	Calcium	milligrams per litre	Quarterly	1	18/01/2018	850	850	850			
January 2018	Chromium	milligrams per litre	Quarterly	1	18/01/2018	0.001	0.001	0.001			
January 2018	Copper	milligrams per litre	Quarterly	1	18/01/2018	<0.001	<0.001	<0.001			
January 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	18/01/2018	36000	36000	36000			
January 2018	Iron	milligrams per litre	Quarterly	1	18/01/2018	64.1	64.1	64.1			
January 2018	Lead	milligrams per litre	Quarterly	1	18/01/2018	0.0018	0.0018	0.0018			
January 2018	Magnesium	milligrams per litre	Quarterly	1	18/01/2018	1020	1020	1020			(next quarterly samples scheduled for April/May 2018)
January 2018	Manganese	milligrams per litre	Quarterly	1	18/01/2018	4.48	4.48	4.48			
January 2018	Nickel	milligrams per litre	Quarterly	1	18/01/2018	0.0166	0.0166	0.0166			
January 2018	pH	pH	Quarterly	1	18/01/2018	5.58	5.58	5.58			
January 2018	Potassium	milligrams per litre	Quarterly	1	18/01/2018	97	97	97			
January 2018	Selenium	milligrams per litre	Quarterly	1	18/01/2018	0.002	0.002	0.002			
January 2018	Sodium	milligrams per litre	Quarterly	1	18/01/2018	6290	6290	6290			
January 2018	Standing Water Level	metres	Quarterly	1	18/01/2018	3.93	3.93	3.93			
January 2018	Zinc	milligrams per litre	Quarterly	1	18/01/2018	0.009	0.009	0.009			

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
January 2018	Arsenic	milligrams per litre	Quarterly	1	18/01/2018	0.0098	0.0098	0.0098			
January 2018	Cadmium	milligrams per litre	Quarterly	1	18/01/2018	<0.0002	<0.0002	<0.0002			
January 2018	Calcium	milligrams per litre	Quarterly	1	18/01/2018	360	360	360			
January 2018	Chromium	milligrams per litre	Quarterly	1	18/01/2018	0.0014	0.0014	0.0014			
January 2018	Copper	milligrams per litre	Quarterly	1	18/01/2018	0.005	0.005	0.005			
January 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	18/01/2018	27000	27000	27000			
January 2018	Iron	milligrams per litre	Quarterly	1	18/01/2018	247	247	247			
January 2018	Lead	milligrams per litre	Quarterly	1	18/01/2018	0.0052	0.0052	0.0052			
January 2018	Magnesium	milligrams per litre	Quarterly	1	18/01/2018	698	698	698			(next quarterly samples scheduled for April/May 2018)
January 2018	Manganese	milligrams per litre	Quarterly	1	18/01/2018	3.35	3.35	3.35			
January 2018	Nickel	milligrams per litre	Quarterly	1	18/01/2018	0.0942	0.0942	0.0942			
January 2018	pH	pH	Quarterly	1	18/01/2018	5.25	5.25	5.25			
January 2018	Potassium	milligrams per litre	Quarterly	1	18/01/2018	31	31	31			
January 2018	Selenium	milligrams per litre	Quarterly	1	18/01/2018	0.004	0.004	0.004			
January 2018	Sodium	milligrams per litre	Quarterly	1	18/01/2018	3900	3900	3900			
January 2018	Standing Water Level	metres	Quarterly	1	18/01/2018	0.91	0.91	0.91			
January 2018	Zinc	milligrams per litre	Quarterly	1	18/01/2018	0.337	0.337	0.337			

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
January 2018	Arsenic	milligrams per litre	Quarterly	1	18/01/2018	0.0007	0.0007	0.0007			
January 2018	Cadmium	milligrams per litre	Quarterly	1	18/01/2018	0.00006	0.00006	0.00006			
January 2018	Calcium	milligrams per litre	Quarterly	1	18/01/2018	76	76	76			
January 2018	Chromium	milligrams per litre	Quarterly	1	18/01/2018	0.0025	0.0025	0.0025			
January 2018	Copper	milligrams per litre	Quarterly	1	18/01/2018	0.0032	0.0032	0.0032			
January 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	18/01/2018	3150	3150	3150			
January 2018	Iron	milligrams per litre	Quarterly	1	18/01/2018	22.5	22.5	22.5			
January 2018	Lead	milligrams per litre	Quarterly	1	18/01/2018	0.0032	0.0032	0.0032			(next quarterly samples scheduled for April/May 2018)
January 2018	Magnesium	milligrams per litre	Quarterly	1	18/01/2018	61	61	61			
January 2018	Manganese	milligrams per litre	Quarterly	1	18/01/2018	0.549	0.549	0.549			
January 2018	Nickel	milligrams per litre	Quarterly	1	18/01/2018	0.0184	0.0184	0.0184			
January 2018	pH	pH	Quarterly	1	18/01/2018	5.44	5.44	5.44			
January 2018	Potassium	milligrams per litre	Quarterly	1	18/01/2018	10	10	10			
January 2018	Selenium	milligrams per litre	Quarterly	1	18/01/2018	0.0004	0.0004	0.0004			
January 2018	Sodium	milligrams per litre	Quarterly	1	18/01/2018	701	701	701			
January 2018	Standing Water Level	metres	Quarterly	1	18/01/2018	3.16	3.16	3.16			
January 2018	Zinc	milligrams per litre	Quarterly	1	18/01/2018	0.019	0.019	0.019			

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
January 2018	Arsenic	milligrams per litre	Quarterly	1	18/01/2018	0.0125	0.0125	0.0125			
January 2018	Cadmium	milligrams per litre	Quarterly	1	18/01/2018	0.0002	0.0002	0.0002			
January 2018	Calcium	milligrams per litre	Quarterly	1	18/01/2018	457	457	457			
January 2018	Chromium	milligrams per litre	Quarterly	1	18/01/2018	0.0179	0.0179	0.0179			
January 2018	Copper	milligrams per litre	Quarterly	1	18/01/2018	0.007	0.007	0.007			
January 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	18/01/2018	54400	54400	54400			
January 2018	Iron	milligrams per litre	Quarterly	1	18/01/2018	94.3	94.3	94.3			
January 2018	Lead	milligrams per litre	Quarterly	1	18/01/2018	0.0095	0.0095	0.0095			
January 2018	Magnesium	milligrams per litre	Quarterly	1	18/01/2018	1350	1350	1350			(next quarterly samples scheduled for April/May 2018)
January 2018	Manganese	milligrams per litre	Quarterly	1	18/01/2018	0.21	0.21	0.21			
January 2018	Nickel	milligrams per litre	Quarterly	1	18/01/2018	0.0117	0.0117	0.0117			
January 2018	pH	pH	Quarterly	1	18/01/2018	6.53	6.53	6.53			
January 2018	Potassium	milligrams per litre	Quarterly	1	18/01/2018	343	343	343			
January 2018	Selenium	milligrams per litre	Quarterly	1	18/01/2018	0.005	0.005	0.005			
January 2018	Sodium	milligrams per litre	Quarterly	1	18/01/2018	10700	10700	10700			
January 2018	Standing Water Level	metres	Quarterly	1	18/01/2018	0.08	0.08	0.08			
January 2018	Zinc	milligrams per litre	Quarterly	1	18/01/2018	0.072	0.072	0.072			

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
January 2018	Arsenic	milligrams per litre	Quarterly	1	18/01/2018	0.0029	0.0029	0.0029			
January 2018	Cadmium	milligrams per litre	Quarterly	1	18/01/2018	0.00009	0.00009	0.00009			
January 2018	Calcium	milligrams per litre	Quarterly	1	18/01/2018	2	2	2			
January 2018	Chromium	milligrams per litre	Quarterly	1	18/01/2018	0.0374	0.0374	0.0374			
January 2018	Copper	milligrams per litre	Quarterly	1	18/01/2018	0.0269	0.0269	0.0269			
January 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	18/01/2018	824	824	824			
January 2018	Iron	milligrams per litre	Quarterly	1	18/01/2018	1.15	1.15	1.15			
January 2018	Lead	milligrams per litre	Quarterly	1	18/01/2018	0.0189	0.0189	0.0189			
January 2018	Magnesium	milligrams per litre	Quarterly	1	18/01/2018	12	12	12			(next quarterly samples scheduled for April/May 2018)
January 2018	Manganese	milligrams per litre	Quarterly	1	18/01/2018	0.0928	0.0928	0.0928			
January 2018	Nickel	milligrams per litre	Quarterly	1	18/01/2018	0.0134	0.0134	0.0134			
January 2018	pH	pH	Quarterly	1	18/01/2018	4.82	4.82	4.82			
January 2018	Potassium	milligrams per litre	Quarterly	1	18/01/2018	2	2	2			
January 2018	Selenium	milligrams per litre	Quarterly	1	18/01/2018	0.0009	0.0009	0.0009			
January 2018	Sodium	milligrams per litre	Quarterly	1	18/01/2018	111	111	111			
January 2018	Standing Water Level	metres	Quarterly	1	18/01/2018	0.68	0.68	0.68			
January 2018	Zinc	milligrams per litre	Quarterly	1	18/01/2018	0.043	0.043	0.043			

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
January 2018	Cadmium	milligrams per cubic metre	Yearly						1	No	
January 2018	Chlorine	milligrams per cubic metre	Yearly						200	No	
January 2018	Copper	milligrams per cubic metre	Yearly								
January 2018	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
January 2018	Mercury	milligrams per cubic metre	Yearly						1	No	
January 2018	Moisture	percent	Yearly								
January 2018	Molecular weight of stack gases	grams per gram mole	Yearly								
January 2018	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	January 2018	434	631	976	1500	No	
January 2018	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	
January 2018	Sulphur dioxide	parts per million	Continuous	100%	January 2018	208	286	420	600	No	
January 2018	Temperature	degrees Celsius	Yearly								
January 2018	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
January 2018	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
January 2018	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
January 2018	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	January 2018	23.6	43.1	76.0			
January 2018	Velocity	metres per second	Yearly								
January 2018	Volatile organic compounds	parts per million	Yearly								
January 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
January 2018	Cadmium	milligrams per cubic metre	Yearly						1	No	
January 2018	Chlorine	milligrams per cubic metre	Yearly						200	No	
January 2018	Copper	milligrams per cubic metre	Yearly								
January 2018	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
January 2018	Mercury	milligrams per cubic metre	Yearly						1	No	
January 2018	Moisture	percent	Yearly								
January 2018	Molecular weight of stack gases	grams per gram mole	Yearly								
January 2018	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	January 2018	367	753	1161	1500	No	
January 2018	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	
January 2018	Sulphur dioxide	parts per million	Continuous	100%	January 2018	178	263	370	600	No	
January 2018	Temperature	degrees Celsius	Yearly								
January 2018	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
January 2018	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
January 2018	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
January 2018	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	January 2018	27.3	45.2	63.4			
January 2018	Velocity	metres per second	Yearly								
January 2018	Volatile organic compounds	parts per million	Yearly								
January 2018	Volumetric flowrate	cubic metres per second	Yearly								

**GENERAL COMMENTS**

2017/18 Annual Stack Test for units 5 and 6 completed in December 2017. Results will be published when stack gas test report is received from stack gas testing contractors.