

Monthly Environmental Monitoring Data Report

EPL Number: 13007
 EPL Holder: EnergyAustralia NSW
 EPL Name of Facility: MOUNT PIPER POWER STATION
 EPL Address of Facility: 350 BOULDER RD PORTLAND, NSW 2847
 EPL Website link: <https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=194327&SYSUID=1&LICID=13007>
 EPL Monitoring Locations: <https://www.energyaustralia.com.au/about-us/energy-generation/mt-piper-power-station/mt-piper-epa-reports>
 EPL Unit of measure abbreviations: <https://www.energyaustralia.com.au/about-us/energy-generation/mt-piper-power-station/mt-piper-epa-reports>
 EPL Period monitored: 1 – 31 December 2020
 Monthly Summary Status: Complete: all monitoring data obtained

Discharge to water

Table 1 - Water Quality at EPL Point 12*

2020	Samples required by EPL (1/mth during discharge)	No. of samples during month	Conductivity (µS/cm)		Oil & Grease (mg/l)		pH		Total Suspended Solids (mg/l)		Turbidity (NTU)		Compliant	Comment
			Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit		
January	1	NIL	NR	-	NR	10	NR	6.5-8.5	NR	50	NR	-	Yes	Not sampled: due to no flow / no discharge
February	1	NIL	NR	-	NR	10	NR	6.5-8.5	NR	50	NR	-	Yes	Not sampled: due to no flow / no discharge
March	1	1	NR	-	<5	10	7.03	6.5-8.5	3.8	50	NR	-	Yes	Flow / Discharge recorded week of 07/03/2020-13/03/2020
April	1	1	NR	-	<5	10	7.27	6.5-8.5	3.6	50	NR	-	Yes	Flow / Discharge weeks of 04/04/2020 – 10/04/2020 and 11/04/2020 – 17/04/2020
May	1	1	NR	-	<5	10	6.96	6.5-8.5	2.7	50	NR	-	Yes	Flow / Discharge recorded week of 02/05/2020-08/05/2020
June	1	NIL	NR	-	NR	10	NR	6.5-8.5	NR	50	NR	-	Yes	Not sampled: due to no flow / no discharge
July	1	1	492	500	<5	10	7.64	6.5-8.5	4.6	50	13.8	25	Yes	Flow / Discharge recorded week of 25/07/2020 – 31/07/2020
August	1	1	454	500	<5	10	7.47	6.5-8.5	8	50	10.5	25	Yes	Flow / Discharge recorded weeks of 08/08/2020 – 14/08/2020, 15/08/2020 – 21/08/2020, 22/08/2020 – 28/08/2020
September	1	1	475	500	<5	10	7.07	6.5-8.5	11	50	10	25	Yes	Flow discharge recorded week of 19/09/2020 – 25/09/2020
October	1	NIL	NR	500	NR	10	NR	6.5-8.5	NR	50	NR	25	Yes	Not sampled due to no flow / no discharge
November	1	1	420	500	<5	10	7.03	6.5-8.5	3.6	50	2.4	25	Yes	Flow discharge recorded week of 01/11/2020 – 06/11/2020
December	1	1	406	500	<5	10	7.49	6.5-8.5	6.3	50	9.51	25	Yes	Flow discharge recorded week of 13/12/2020 – 19/12/2020

* EPL Point 1 renamed EPL Point 12 within EPL 13007 on 23 July 2020.

Air Emissions

Table 2 - Nitrogen Oxides (NO_x) Monitoring at EPL Points 2 and 3

2020	No. of samples required by licence	No. of samples during Month	EPL Point	Lowest sample value (mg/m ³ , hourly average)	Mean of sample (mg/m ³)	Highest sample value (mg/m ³ , hourly average)	Limit (mg/m ³ , hourly average)	Compliant
January	Continuous	Continuous	2	0.01	0.65	1.15	1.5	Yes
			3	0.13	0.46	0.84		Yes
February	Continuous	Continuous	2	0.03	0.63	0.99	1.5	Yes
			3	0.20	0.53	1.12		Yes
March	Continuous	Continuous	2	0.24	0.84	1.10	1.5	Yes
			3	0.36	0.55	0.71		Yes
April	Continuous	Continuous	2	0.33	0.68	0.88	1.5	Yes
			3	0.21	0.60	0.99		Yes
May	Continuous	Continuous	2	0.13	0.65	1.06	1.5	Yes
			3	0.09	0.86	1.27		Yes
June	Continuous	Continuous	2	0.5	0.87	1.08	1.5	Yes
			3	0.32	0.76	1.20		Yes
July	Continuous	Continuous	2	304	666	928	1500*	Yes
			3	410	865	1117		Yes
August	Continuous	Continuous	2	414	789	985	1500	Yes
			3	237	760	1073		Yes
September	Continuous	Continuous	2	122	713	1012	1500	Yes
			3	185	616	909		Yes
October	Continuous	Continuous	2	NR (Outage)	NR (Outage)	NR (Outage)	1500	Yes
			3	132	599	842		Yes
November	Continuous	Continuous	2	NR (Outage)	NR (Outage)	NR (Outage)	1500	Yes
			3	162	633	900		Yes
December	Continuous	Continuous	2	185	383	666	1500	Yes
			3	194	691	1021		Yes

* Units of Measurement for NO_x changed from g/m³ to mg/m³ within EPL 13007 on 23 July 2020.

Table 3 - Sulphur Dioxides (SO₂) Monitoring at EPL Points 2 and 3

2020	No. of samples required by licence	No. of samples during Month	EPL Point	Lowest sample value (mg/m ³ , hourly average)	Mean of sample (mg/m ³)	Highest sample value (mg/m ³ , hourly average)	Limit (mg/m ³ , hourly average)	Compliant
January	Continuous	Continuous	2	825	1227	1365	-	Yes
			3	918	1246	1359		Yes
February	Continuous	Continuous	2	72	1240	1347	-	Yes
			3	962	1278	1412		Yes
March	Continuous	Continuous	2	956	1170	1425	-	Yes
			3	976	1283	1335		Yes
April	Continuous	Continuous	2	1070	1192	1297	-	Yes
			3	1080	1235	1597		Yes
May	Continuous	Continuous	2	56	1206	1358	-	Yes
			3	249	1166	1382		Yes
June	Continuous	Continuous	2	864	1124	1247	-	Yes
			3	968	1106	1206		Yes
July	Continuous	Continuous	2	567	1124	1214	1700	Yes
			3	983	1102	1189		Yes
August	Continuous	Continuous	2	701	1177	1325	1700	Yes
			3	687	1132	1239		Yes
September	Continuous	Continuous	2	733	1126	1264	1700	Yes
			3	656	1105	1248		Yes
October	Continuous	Continuous	2	NR (Outage)	NR (Outage)	NR (Outage)	1700	Yes
			3	619	1244	1324		Yes
November	Continuous	Continuous	2	NR (Outage)	NR (Outage)	NR (Outage)	1700	Yes
			3	1137	1256	1359		Yes
December	Continuous	Continuous	2	1065	1234	1436	1700	Yes
			3	1102	1253	1370		Yes

Table 4 - Stack Emissions Monitoring at EPL Points 2 and 3

2020	No. of samples required by EPL	EPL Point	Samples taken during year	Result				Limit	Compliant	
				Q1	Q2	Q3	Q4			
Carbon Dioxide (%)	3	2	2	NR	12.7	10.5	NR (Outage)	-	Yes	
		3	3		13	10	10.35			
Solid Particles (mg/m ³)	3	2	2		14	14	NR (Outage)	50	Yes	
		3	3		11.5	18	16			
Cadmium (mg/m ³)	2	2	2		0.0005	<0.0003	NR (Outage)	0.2	Yes	
		3	2		0.0001	<0.0003	NR			
Chlorine (mg/m ³)	2	2	1		0.005	NR	NR (Outage)	20	Yes	
		3	2		0.002		<0.006			
Fluorine (mg/m ³)	2	2	1		1.2		NR (Outage)	30	Yes	
		3	2		3.9		13			
Hydrogen Chloride (mg/m ³)	2	2	1		0.12		NR (Outage)	50	Yes	
		3	2		0.53		2.6			
Mercury (mg/m ³)	2	2	2		0.0018		0.0004	NR	0.05	Yes
		3	2		0.00026		<0.0002			
Sulfuric Acid Mist and Sulfur Trioxide as SO ₃ (mg/m ³)	2	2	1		4.2		NR	NR (Outage)	100	Yes
		3	2		41			3.3		
Type 1 and Type 2 substances in aggregate (mg/m ³)	2	2	2		0.0095	<0.02	NR (Outage)	0.75	Yes	
		3	2		0.006	<0.02	NR			
Volatile Organic Compounds as n-propane equivalent (mg/m ³)	2	2	1		0.18	NR	NR (Outage)	10	Yes	
		3	2		0.04		<0.09			
Oxygen (%)	-	2	2	7.3	8.15	NR (Outage)	-	Yes		
		3	3	7.13	8.95	8.5				
Temperature (°C)	-	2	2	125	119.5	NR (Outage)	-	Yes		
		3	3	125	118.5	118.5				
Flow Rate (m ³ /s)	-	2	2	330	302	NR (Outage)	-	Yes		
		3	3	350	262	300				
Moisture as H ₂ O (%)	-	2	2	5.5	5.6	NR (Outage)	-	Yes		
		3	3	5.4	5.9	6				

Table 5 - 99th percentile rolling 12 month NO_x & SO₂ Performance*

2020	EPL Point	Description	99% Limit (mg/m ³)	1-hr averaging periods/yr	Rolling 12mth, 1hr averaging periods > limit	Compliant
NO _x	2	Unit 1 (duct A & B)	1,100	88	0	Yes
	3	Unit 2 (duct A & B)		88	0	Yes
SO ₂	2	Unit 1 (duct A & B)	1,400	88	4	Yes
	3	Unit 2 (duct A & B)		88	0	Yes

*99% NO_x & SO₂ limits commenced on 23 July 2020 following a variation to the Mt Piper Licence