

Monthly Data Summary

Environmental Protection Licence 2122

AGL Macquarie - Liddell Power Station

Monitoring Period

JANUARY 2022



EPA Identification Number 3

Air emission monitoring - Combined air emissions from boiler 1 via Points 7 and 8 to Point 1

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample values	Highest sample value	100th percentile concentration limits
Nitrogen Oxides	mg/m ³	Continuous	100.00%	229.3	507.2	688.8	1500 mg/m ³
Sulfur Dioxide	mg/m ³	Continuous	100.00%	687.7	972.2	1231.3	1700 mg/m ³

In addition to the 100th percentile concentration limits, 99th percentile concentration limits of 1100 mg/m³ and 1400 mg/m³ apply to Nitrogen oxides and Sulfur dioxide, respectively.

Pollutant	Unit of measure	No. of samples required by licence	Date of sample	Most recent result	100th percentile concentration limits
Cadmium	mg/m ³	Six monthly	31/08/2021	0.0001	0.2 mg/m ³
Chlorine	mg/m ³	Six monthly	31/08/2021	0.049	20 mg/m ³
Fluorine	mg/m ³	Six monthly	31/08/2021	9.4	20 mg/m ³
Hydrogen chloride	mg/m ³	Six monthly	31/08/2021	14.0	50 mg/m ³
Mercury	mg/m ³	Six monthly	31/08/2021	0.0004	0.05 mg/m ³
Solid Particles	mg/m ³	Quarterly	19/10/2021	33.0	50 mg/m ³
Sulfuric acid mist and sulfur trioxide (as SO ₃)	mg/m ³	Six monthly	31/08/2021	1.100	100 mg/m ³
Type 1 and Type 2 substances in aggregate	mg/m ³	Six monthly	31/08/2021	0.009	0.75 mg/m ³
Volatile organic compounds as n-propane equivalent	mg/m ³	Six monthly	31/08/2021	0.050	10 mg/m ³

Measured concentrations from the boiler's A and B ducts are used to calculate the concentrations from the boiler. Some of the duct concentrations for some substances may be reported as less than the relevant Limit of Detection, in which case the calculation uses 50% of the Limit of Detection value, in accordance with LBL Protocol rules.

The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

EPA Identification Number 4

Air emission monitoring - Combined air emissions from boiler 2 via Points 9 and 10 to Point 1

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value	100th percentile concentration limits
Nitrogen Oxides	mg/m ³	Continuous	100.00%	270.8	426.1	580.2	1500 mg/m ³
Sulfur Dioxide	mg/m ³	Continuous	100.00%	596.7	843.9	1000.0	1700 mg/m ³

In addition to the 100th percentile concentration limits, 99th percentile concentration limits of 1100 mg/m³ and 1400 mg/m³ apply to Nitrogen oxides and Sulfur dioxide, respectively .

Pollutant	Unit of measure	No. of samples required by licence	Date of sample	Most recent result	100th percentile concentration limits
Cadmium	mg/m ³	Six monthly	1/09/2021	0.0001	0.2 mg/m ³
Chlorine	mg/m ³	Six monthly	1/09/2021	0.009	20 mg/m ³
Fluorine	mg/m ³	Six monthly	1/09/2021	9.7	20 mg/m ³
Hydrogen chloride	mg/m ³	Six monthly	1/09/2021	13.0	50 mg/m ³
Mercury	mg/m ³	Six monthly	1/09/2021	0.0010	0.05 mg/m ³
Solid Particles	mg/m ³	Quarterly	5/11/2021	33.4	50 mg/m ³
Sulfuric acid mist and sulfur trioxide (as SO ₃)	mg/m ³	Six monthly	1/09/2021	1.800	100 mg/m ³
Type 1 and Type 2 substances in aggregate	mg/m ³	Six monthly	1/09/2021	0.009	0.75 mg/m ³
Volatile organic compounds as n-propane equivalent	mg/m ³	Six monthly	1/09/2021	0.045	10 mg/m ³

Measured concentrations from the boiler's A and B ducts are used to calculate the concentrations from the boiler. Some of the duct concentrations for some substances may be reported as less than the relevant Limit of Detection, in which case the calculation uses 50% of the Limit of Detection value, in accordance with LBL Protocol rules.

The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

EPA Identification Number 5

Air emission monitoring - Combined air emissions from boiler 3 via Points 11 and 12 to Point 2

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value	100th percentile concentration limits
Nitrogen Oxides	mg/m ³	Continuous	100.0%	374.7	581.2	821.1	1500 mg/m ³
Sulfur Dioxide	mg/m ³	Continuous	100.0%	802.1	1023.8	1263.7	1700 mg/m ³

In addition to the 100th percentile concentration limits, 99th percentile concentration limits of 1100 mg/m³ and 1400 mg/m³ apply to Nitrogen oxides and Sulfur dioxide, respectively .

Pollutant	Unit of measure	No. of samples required by licence	Date of sample	Most recent result	100th percentile concentration limits
Cadmium	mg/m ³	Six monthly	15/09/2021	0.0001	0.2 mg/m ³
Chlorine	mg/m ³	Six monthly	15/09/2021	0.016	20 mg/m ³
Fluorine	mg/m ³	Six monthly	15/09/2021	11.0	20 mg/m ³
Hydrogen chloride	mg/m ³	Six monthly	15/09/2021	16.0	50 mg/m ³
Mercury	mg/m ³	Six monthly	15/09/2021	0.0018	0.05 mg/m ³
Solid Particles	mg/m ³	Quarterly	20/10/2021	15.4	50 mg/m ³
Sulfuric acid mist and sulfur trioxide (as SO ₃)	mg/m ³	Six monthly	15/09/2021	2.000	100 mg/m ³
Type 1 and Type 2 substances in aggregate	mg/m ³	Six monthly	15/09/2021	0.014	0.75 mg/m ³
Volatile organic compounds as n-propane equivalent	mg/m ³	Six monthly	15/09/2021	0.045	10 mg/m ³

Measured concentrations from the boiler's A and B ducts are used to calculate the concentrations from the boiler. Some of the duct concentrations for some substances may be reported as less than the relevant Limit of Detection, in which case the calculation uses 50% of the Limit of Detection value, in accordance with LBL Protocol rules.

The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

EPA Identification Number 6

Air emission monitoring - Combined air emissions from boiler 4 via Points 13 and 14 to Point 2

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value	100th percentile concentration limits
Nitrogen Oxides	mg/m ³	Continuous	100.0%	351.3	525.9	712.7	1500 mg/m ³
Sulfur Dioxide	mg/m ³	Continuous	100.0%	810.4	1024.3	1240.0	1700 mg/m ³

In addition to the 100th percentile concentration limits, 99th percentile concentration limits of 1100 mg/m³ and 1400 mg/m³ apply to Nitrogen oxides and Sulfur dioxide, respectively .

Pollutant	Unit of measure	No. of samples required by licence	Date of sample	Most recent result	100th percentile concentration limits
Cadmium	mg/m ³	Six monthly	2/09/2021	0.0001	0.2 mg/m ³
Chlorine	mg/m ³	Six monthly	2/09/2021	0.012	20 mg/m ³
Fluorine	mg/m ³	Six monthly	2/09/2021	11.0	20 mg/m ³
Hydrogen chloride	mg/m ³	Six monthly	2/09/2021	15.0	50 mg/m ³
Mercury	mg/m ³	Six monthly	2/09/2021	0.0020	0.05 mg/m ³
Solid Particles	mg/m ³	Quarterly	21/10/2021	10.0	50 mg/m ³
Sulfuric acid mist and sulfur trioxide (as SO ₃)	mg/m ³	Six monthly	2/09/2021	1.100	100 mg/m ³
Type 1 and Type 2 substances in aggregate	mg/m ³	Six monthly	2/09/2021	0.018	0.75 mg/m ³
Volatile organic compounds as n-propane equivalent	mg/m ³	Six monthly	2/09/2021	0.045	10 mg/m ³

Measured concentrations from the boiler's A and B ducts are used to calculate the concentrations from the boiler. Some of the duct concentrations for some substances may be reported as less than the relevant Limit of Detection, in which case the calculation uses 50% of the Limit of Detection value, in accordance with LBL Protocol rules.

The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

EPA Identification Number 7

Air emission monitoring - Boiler number 1 exhaust - duct A

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Nitrogen Oxides	mg/m ³	Continuous	100.0%	229.3	507.2	688.8
Sulfur Dioxide	mg/m ³	Continuous	100.0%	687.7	972.2	1231.3
Flow	cubic metres per second	Continuous				
Moisture	percent	Continuous				
Oxygen	percent	Continuous				
Temperature	degrees Celsius	degrees Celsius				

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m ³	Six monthly	1	11/03/2021	<0.0003
Chlorine	mg/m ³	Six monthly	1	31/08/2021	0.049
Fluorine	mg/m ³	Six monthly	1	31/08/2021	9.4
Hydrogen chloride	mg/m ³	Six monthly	1	31/08/2021	14.0
Mercury	mg/m ³	Six monthly	1	31/08/2021	0.0006
Solid Particles	mg/m ³	Quarterly	2	19/10/2021	55.0
Sulfuric acid mist and sulfur trioxide (as SO ₃)	mg/m ³	Six monthly	1	19/10/2021	1.100
Type 1 and Type 2 substances in aggregate	mg/m ³	Six monthly	1	31/08/2021	<0.02
Volatile organic compounds as n-propane equivalent	mg/m ³	Six monthly	1	31/08/2021	<0.1
Carbon dioxide	percent	Six monthly	1	19/10/2021	5.7

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 8

Air emission monitoring - Boiler number 1 exhaust - duct B

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Flow	cubic metres per second	Continuous				
Moisture	percent	Continuous				
Oxygen	percent	Continuous				
Temperature	degrees Celsius	Continuous				

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m3	Six monthly	1	22/10/2019	<0.0002
Mercury	mg/m3	Six monthly	1	31/08/2021	0.0003
Solid Particles	mg/m3	Quarterly	2	19/10/2021	11.0
Type 1 and Type 2 substances in aggregate	mg/m3	Six monthly	1	31/08/2021	<0.014

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 9

Air emission monitoring - Boiler number 2 exhaust - duct A

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Flow	cubic metres per second	Continuous				
Moisture	percent	Continuous				
Oxygen	percent	Continuous				
Temperature	degrees Celsius	Continuous				

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m3	Six monthly	1	4/04/2019	<0.0002
Mercury	mg/m3	Six monthly	1	1/09/2021	0.0015
Solid Particles	mg/m3	Quarterly	2	5/11/2021	53.0
Type 1 and Type 2 substances in aggregate	mg/m3	Six monthly	1	1/09/2021	<0.017

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 10

Air emission monitoring - Boiler number 2 exhaust - duct B

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Nitrogen Oxides	mg/m3	Continuous	100.0%	270.8	426.1	580.2
Sulfur Dioxide	mg/m3	Continuous	100.0%	596.7	779.3	1000.0
Flow	cubic metres per second	Continuous	-			
Moisture	percent	Continuous	-			
Oxygen	percent	Continuous	-			
Temperature	degrees Celsius	Continuous	-			

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m3	Six monthly	1	10/03/2020	<0.0002
Chlorine	mg/m3	Six monthly	1	1/09/2021	0.009
Fluorine	mg/m3	Six monthly	1	1/09/2021	9.7
Hydrogen chloride	mg/m3	Six monthly	1	1/09/2021	13.0
Mercury	mg/m3	Six monthly	1	1/09/2021	0.0004
Solid Particles	mg/m3	Quarterly	2	5/11/2021	18.0
Sulfuric acid mist and sulfur trioxide (as SO3)	mg/m3	Six monthly	1	2/06/2021	2.300
Type 1 and Type 2 substances in aggregate	mg/m3	Six monthly	1	1/09/2021	<0.019
Volatile organic compounds as n-propane equivalent	mg/m3	Six monthly	1	1/09/2021	<0.09
Carbon dioxide	percent	Six monthly	1	1/09/2021	10.5

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 11

Air emission monitoring - Boiler number 3 exhaust - duct A

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Nitrogen Oxides	mg/m3	Continuous	100.0%	374.7	581.2	821.1
Sulfur Dioxide	mg/m3	Continuous	100.0%	802.1	1023.8	1263.7
Flow	cubic metres per second	Continuous				
Moisture	percent	Continuous				
Oxygen	percent	Continuous				
Temperature	degrees Celsius	Continuous				

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m3	Six monthly	1	15/09/2021	<0.0002
Chlorine	mg/m3	Six monthly	1	15/09/2021	0.016
Fluorine	mg/m3	Six monthly	1	3/06/2021	11.0
Hydrogen chloride	mg/m3	Six monthly	1	15/09/2021	16.0
Mercury	mg/m3	Six monthly	1	15/09/2021	0.0015
Solid Particles	mg/m3	Quarterly	2	20/10/2021	14.0
Sulfuric acid mist and sulfur trioxide (as SO3)	mg/m3	Six monthly	1	3/06/2021	2.200
Type 1 and Type 2 substances in aggregate	mg/m3	Six monthly	1	15/09/2021	<0.026
Volatile organic compounds as n-propane equivalent	mg/m3	Six monthly	1	3/06/2021	<0.09
Carbon dioxide	percent	Six monthly	1	15/09/2021	9.6

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 12

Air emission monitoring - Boiler number 3 exhaust - duct B

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Flow	cubic metres per second	Continuous				
Moisture	percent	Continuous				
Oxygen	percent	Continuous				
Temperature	degrees Celsius	Continuous				

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m3	Six monthly	1	16/09/2021	<0.0003
Mercury	mg/m3	Six monthly	1	16/09/2021	0.0022
Solid Particles	mg/m3	Quarterly	2	20/10/2021	17.0
Type 1 and Type 2 substances in aggregate	mg/m3	Six monthly	1	16/09/2021	<0.031

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 13

Air emission monitoring - Boiler number 4 exhaust - duct A

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Flow	cubic metres per second	Continuous				
Moisture	percent	Continuous				
Oxygen	percent	Continuous				
Temperature	degrees Celsius	Continuous				

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m3	Six monthly	1	24/09/2019	<0.0002
Mercury	mg/m3	Six monthly	1	2/09/2021	0.0026
Solid Particles	mg/m3	Quarterly	2	21/10/2021	9.2
Type 1 and Type 2 substances in aggregate	mg/m3	Six monthly	1	2/09/2021	<0.038

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 14

Air emission monitoring - Boiler number 4 exhaust - duct B

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Nitrogen Oxides	mg/m3	Continuous	100.0%	351.3	525.9	712.7
Sulfur Dioxide	mg/m3	Continuous	100.0%	810.4	1024.3	1240.0
Flow	cubic metres per second	Continuous				
Moisture	percent	Continuous				
Oxygen	percent	Continuous				
Temperature	degrees Celsius	Continuous				

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m3	Six monthly	1	9/03/2021	<0.0003
Chlorine	mg/m3	Six monthly	1	2/09/2021	0.012
Fluorine	mg/m3	Six monthly	1	11/10/2018	11.0
Hydrogen chloride	mg/m3	Six monthly	1	2/09/2021	15.0
Mercury	mg/m3	Six monthly	1	2/09/2021	0.0013
Solid Particles	mg/m3	Quarterly	2	9/03/2021	11.0
Sulfuric acid mist and sulfur trioxide (as SO3)	mg/m3	Six monthly	1	1/06/2021	3.200
Type 1 and Type 2 substances in aggregate	mg/m3	Six monthly	1	2/09/2021	<0.032
Volatile organic compounds as n-propane equivalent	mg/m3	Six monthly	1	2/09/2021	<0.09
Carbon dioxide	percent	Six monthly	1	9/03/2021	11.0

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 16

Discharge to waters - Discharge quality monitoring

Discharge of cooling water from the cooling water outlet canal to Lake Liddell

Pollutant	Unit of measure	No. of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Ammonia	mg/L	Fortnightly	2	<0.01	0.01	0.02
Antimony	mg/L	Fortnightly	2	0.008	0.01	0.008
Arsenic	mg/L	Fortnightly	2	0.008	0.01	0.008
Barium	mg/L	Fortnightly	2	0.101	0.11	0.109
Beryllium	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Boron	mg/L	Fortnightly	2	1.08	1.19	1.29
Cadmium	mg/L	Fortnightly	2	<0.0001	0.00	<0.0001
Chlorine	mg/L	Fortnightly	2	0.03	0.06	0.08
Chromium (trivalent)	mg/L	Fortnightly	2	<0.01	0.01	<0.01
Chromium (VI) compounds	mg/L	Fortnightly	2	<0.01	0.01	<0.01
Cobalt	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Conductivity	µS/cm	Fortnightly	2	2760	2765	2770
Copper	mg/L	Fortnightly	2	0.004	0.00	0.005
Fluoride	mg/L	Fortnightly	2	1.6	1.54	1.6
Lead	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Manganese	mg/L	Fortnightly	2	0.014	0.01	0.015
Mercury	mg/L	Fortnightly	2	<0.0001	0.00	<0.0001
Methyl Blue Active Substances	mg/L	Fortnightly	2	<0.1	0.05	<0.1
Molybdenum	mg/L	Fortnightly	2	0.122	0.12	0.126
Nickel	mg/L	Fortnightly	2	0.005	0.01	0.005
Nitrogen	mg/L	Fortnightly	2	0.4	0.45	0.5
Oil and Grease	mg/L	Weekly during any discharge	4	<2	1	<2
pH		Daily during any discharge	31	7.9	8.0	8.2
Phosphorus	mg/L	Fortnightly	2	0.03	0.04	0.04
Selenium	mg/L	Fortnightly	2	<0.01	0.01	<0.01
Sulfur	mg/L	Fortnightly	2	670	670.00	670
Temperature	°C	Fortnightly	2	29.9	31.2	32.5
Tin	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Total dissolved solids	mg/L	Fortnightly	2	1970	1980.00	1990
Total organic carbon	mg/L	Fortnightly	2	8	8.00	8
Total suspended solids	mg/L	Fortnightly	2	<5	2.50	<5
Vanadium	mg/L	Fortnightly	2	0.01	0.01	0.01
Zinc	mg/L	Fortnightly	2	<0.005	0.00	<0.005

EPA Identification Number 17

Discharge to waters - Discharge quality monitoring

Discharge from oil and grit trap weir overflow to Lake Liddell

Pollutant	Unit of measure	No. of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Ammonia	mg/L	Fortnightly	2	0.02	0.05	0.07
Antimony	mg/L	Fortnightly	2	0.008	0.01	0.008
Arsenic	mg/L	Fortnightly	2	0.007	0.01	0.008
Barium	mg/L	Fortnightly	2	0.1	0.10	0.104
Beryllium	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Boron	mg/L	Fortnightly	2	1.08	1.18	1.27
Cadmium	mg/L	Fortnightly	2	<0.0001	0.00	<0.0001
Chlorine	mg/L	Fortnightly	2	0.02	0.05	0.08
Chromium (trivalent)	mg/L	Fortnightly	2	<0.01	0.01	<0.01
Chromium (VI) compounds	mg/L	Fortnightly	2	<0.01	0.01	<0.01
Cobalt	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Conductivity	µS/cm	Fortnightly	2	2620	2625	2630
Copper	mg/L	Fortnightly	2	0.004	0.00	0.005
Fluoride	mg/L	Fortnightly	2	1.4	1.55	1.69
Lead	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Manganese	mg/L	Fortnightly	2	0.014	0.02	0.02
Mercury	mg/L	Fortnightly	2	<0.0001	0.00	<0.0001
Methyl Blue Active Substances	mg/L	Fortnightly	2	<0.1	0.05	<0.1
Molybdenum	mg/L	Fortnightly	2	0.113	0.12	0.122
Nickel	mg/L	Fortnightly	2	0.004	0.00	0.005
Nitrogen	mg/L	Fortnightly	2	0.4	0.40	0.4
Oil and Grease	mg/L	Weekly during any discharge	4	<2	1	<2
pH		Daily during any discharge	31	8.2	8.2	8.3
Phosphorus	mg/L	Fortnightly	2	0.04	0.05	0.05
Selenium	mg/L	Fortnightly	2	<0.01	0.01	<0.01
Sulfur	mg/L	Fortnightly	2	570	585.00	600
Temperature	°C	Fortnightly	2	26.6	27.5	28.4
Tin	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Total dissolved solids	mg/L	Fortnightly	2	1870	1885.00	1900
Total organic carbon	mg/L	Fortnightly	2	7	7.50	8
Total suspended solids	mg/L	Fortnightly	2	6	6.50	7
Vanadium	mg/L	Fortnightly	2	0.01	0.01	0.01
Zinc	mg/L	Fortnightly	2	0.007	0.01	0.008

EPA Identification Number 18

Discharge to waters - Discharge quality monitoring and Volume monitoring

Discharge from skimmer dam overflow spillway to Lake Liddell

Pollutant	Unit of measure	No. of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Arsenic	mg/L	Weekly during any discharge	5	0.044	0.053	0.061
Boron	mg/L	Weekly during any discharge	5	0.98	1.53	1.84
Cadmium	mg/L	Weekly during any discharge	5	<0.0001	0.00010	0.0003
Chromium (trivalent)	mg/L	Weekly during any discharge	5	<0.01	0.005	<0.01
Chromium (VI) compounds	mg/L	Weekly during any discharge	5	<0.01	0.005	<0.01
Copper	mg/L	Weekly during any discharge	5	<0.001	0.001	0.001
Electrical conductivity	µS/cm	Weekly during any discharge	5	2760	2850	2980
Fluoride	mg/L	Weekly during any discharge	5	2.4	2.46	2.6
Lead	mg/L	Weekly during any discharge	5	<0.001	0.0005	<0.001
Mercury	mg/L	Weekly during any discharge	5	<0.0001	0.00005	<0.0001
Oil and Grease	mg/L	Weekly during any discharge	5	<2	1	<2
pH		Weekly during any discharge	5	8.1	8.3	8.4
Selenium	mg/L	Weekly during any discharge	5	0.03	0.036	0.04
Total suspended solids	mg/L	Weekly during any discharge	5	<5	4.6	7
Zinc	mg/L	Weekly during any discharge	5	<0.005	0.003	<0.005
Volume	kilolitres per day	Daily	31	138000	174968	233000

EPA Identification Number 19

Discharge utilisation area - Volume monitoring

Discharge of effluent from the final pond of the sewage treatment system adjacent to utilisation area.

Pollutant	Unit of measure	No. of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Volume	kilolitres per day	Daily	31	0.27	38.25	160.07

Details of Non-Compliance with Licence Conditions
Licence condition number not complied with
M2.5
Summary of particulars of the non-compliance (NO MORE THAN 50 WORDS)
Missed weekly sampling at EPL points 16 and 17
If required, further details on particulars of non-compliance
Oil and grease sampling was missed by the contractor for the week ending 28 January 2022. AGLM was informed by the contractor when the error was discovered on 3 February 2022.
Date(s) when the non-compliance occurred, if applicable
24-Jan-22
If relevant, precise location where the non-compliance occurred (attach a map or diagram)
EPL Point 16 and EPL point 17
If applicable, registration numbers of any vehicles or the chassis number of any mobile plant involved in the non-compliance
N/A
Cause of non-compliance
Investigation by the contractor determined administration and communication errors were responsible.
Action taken or that will be taken to mitigate any adverse effects of the non-compliance
Immediate investigation by the contractor into the cause of the omission. All recommendations have been implemented or are in progress
Action taken or that will be taken to prevent a recurrence of the non-compliance
Document security improved. Review period for quality assurance process reduced. Improvements and training communicated to personnel and contractors.