Reporting of Emission to Surface Water for the period of March 2024

Operator: CCR Energy Ltd **Form: Water1**

Location: Aberthaw Ash Disposal Site

Permit/Variation Number: DP3432SW

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
S1 (Group Five Spring)	Aluminium, Dissolved		<10 µg/L		27/03/2024	Sampling WSP / Testing ALS	
	Antimony, Dissolved		4.34 µg/L				
	Arsenic, Dissolved		13 µg/L				
	Boron, Dissolved		7120 µg/L				
	Cadmium, Dissolved		<0.08 µg/L				
	Calcium, Dissolved		816000 µg/L				
	Chromium, Dissolved		<1 µg/L				
	Copper, Dissolved		0.469 µg/L				
	Manganese. Dissolved		750 µg/L				
	Molybdenum, Dissolved		2950 µg/L				
	Nickel, Dissolved		0.785 µg/L				
	Selenium Dissolved		22 µg/L				
	Vanadium, Dissolved		19.7 µg/L				
	Mercury, Dissolved		<0.01 µg/L				
	Alkalinity to pH 4.5 as $CaCO_3$		198000 µg/L				
	Potassium, Dissolved		147000 µg/L				
	Sodium, Dissolved		2050000 µg/L				
	Sulphate, Dissolved as SO_4		1.07 g/L				
	Nitrogen: Total Oxidised as N		6670 µg/L				
	Chloride		3640000 µg/L				
	Fluoride		<500 µg/L				
	Ammoniacal Nitrogen as NH_3		6790 µg/L				
	Carbon, Organic: Total as C		4430 µg/L				
	Electrical conductivity		10218 µS/cm	Field measurements			
	Temperature		11.6 °C				
	Dissolved oxygen		9.83 mg/L				

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
	pH		6.33				
	Oxidation reduction potential		102 mV				

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
Eastern Perimeter Drain	Aluminium, Dissolved		<10 µg/L		27/03/2024	Sampling WSP / Testing ALS	
	Antimony, Dissolved		<1 µg/L				
	Arsenic, Dissolved		1.78 µg/L				
	Boron, Dissolved		1790 µg/L				
	Cadmium, Dissolved		<0.08 µg/L				
	Calcium, Dissolved		161000 µg/L				
	Chromium, Dissolved		<1 µg/L				
	Copper, Dissolved		0.499 µg/L				
	Manganese. Dissolved		61.9 µg/L				
	Molybdenum, Dissolved		273 µg/L				
	Nickel, Dissolved		0.864 µg/L				
	Selenium Dissolved		6.47 µg/L				
	Vanadium, Dissolved		1.58 µg/L				
	Mercury, Dissolved		<0.01 µg/L				
	Alkalinity to pH 4.5 as $CaCO_3$		287000 µg/L				
	Potassium, Dissolved		14000 µg/L				
	Sodium, Dissolved		80400 µg/L				
	Sulphate, Dissolved as SO_4		0.193 g/L				
	Nitrogen: Total Oxidised as N		2500 µg/L				
	Chloride		129000 µg/L				
	Fluoride		<500 µg/L				
	Ammoniacal Nitrogen as NH_3		<200 µg/L				
	Carbon, Organic: Total as C		<3000 µg/L				
	Electrical conductivity		1241 µS/cm	Field measurements			
	Temperature		9.5 °C				
	Dissolved oxygen		10.62 mg/L				

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
	pH		7.93				
	Oxidation reduction potential		86 mV				

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
S3 (River Thaw)	Aluminium, Dissolved		<10 µg/L		27/03/2024	Sampling WSP / Testing ALS	
	Antimony, Dissolved		<1 µg/L				
	Arsenic, Dissolved		0.509 µg/L				
	Boron, Dissolved		69.8 µg/L				
	Cadmium, Dissolved		<0.08 µg/L				
	Calcium, Dissolved		101000 µg/L				
	Chromium, Dissolved		<1 µg/L				
	Copper, Dissolved		0.702 µg/L				
	Manganese. Dissolved		12.2 µg/L				
	Molybdenum, Dissolved		4.73 µg/L				
	Nickel, Dissolved		0.523 µg/L				
	Selenium Dissolved		<1 µg/L				
	Vanadium, Dissolved		<1 µg/L				
	Mercury, Dissolved		<0.01 µg/L				
	Alkalinity to pH 4.5 as $CaCO_3$		283000 µg/L				
	Potassium, Dissolved		5660 µg/L				
	Sodium, Dissolved		84200 µg/L				
	Sulphate, Dissolved as SO_4		0.0385 g/L				
	Nitrogen: Total Oxidised as N		3570 µg/L				
	Chloride		161000 µg/L				
	Fluoride		<500 µg/L				
	Ammoniacal Nitrogen as NH_3		<200 µg/L				
	Carbon, Organic: Total as C		<3000 µg/L				
	Electrical conductivity		1100 µS/cm	Field measurements			
	Temperature		9.0 °C				
	Dissolved oxygen		9.11 mg/L				
	pH		8.07				
	Oxidation reduction potential		108 mV				

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
Brackish Lagoon	Aluminium, Dissolved		<10 µg/L		27/03/2024	Sampling WSP / Testing ALS	
	Antimony, Dissolved		<1 µg/L				
	Arsenic, Dissolved		1.74 µg/L				
	Boron, Dissolved		1990 µg/L				
	Cadmium, Dissolved		<0.08 µg/L				
	Calcium, Dissolved		167000 µg/L				
	Chromium, Dissolved		<1 µg/L				
	Copper, Dissolved		0.889 µg/L				
	Manganese. Dissolved		41.8 µg/L				
	Molybdenum, Dissolved		290 µg/L				
	Nickel, Dissolved		0.999 µg/L				
	Selenium Dissolved		3.81 µg/L				
	Vanadium, Dissolved		1.19 µg/L				
	Mercury, Dissolved		<0.01 µg/L				
	Alkalinity to pH 4.5 as $CaCO_3$		268000 µg/L				
	Potassium, Dissolved		35000 µg/L				
	Sodium, Dissolved		569000 µg/L				
	Sulphate, Dissolved as SO_4		0.32 g/L				
	Nitrogen: Total Oxidised as N		2130 µg/L				
	Chloride		1190000 µg/L				
	Fluoride		<500 µg/L				
	Ammoniacal Nitrogen as NH_3		<200 µg/L				
	Carbon, Organic: Total as C		<3000 µg/L				
	Electrical conductivity		28411 µS/cm	Field measurements			
	Temperature		13.6 °C				
	Dissolved oxygen		11.47 mg/L				
	pH		8.37				
	Oxidation reduction potential		67 mV				

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. colorimetry.
[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements, or flow/time proportional samples, the percentage of the process operating time covered by the monitoring is given.
[4] The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.
[5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

[redacted]

Signed …… …… Date……18/06/2024……
(authorised to sign as representative of the Operator)