

Reporting of Emission to Groundwater for the period from 1st July 2024 to 31st December 2024.

Operator : RWE Generation UK plc

Form: Groundwater1

Location: Aberthaw Quarry Ash Disposal Site

Permit/Variation Number: BP3339BH

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E09_01A	Aluminium, Dissolved		<10 ug/l		23/07/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<0.5 ug/l				
	Boron, Dissolved		57.3 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		123 mg/l				
	Chromium, Dissolved		<0.2 ug/l				
	Copper, Dissolved		0.827 ug/l				
	Iron, Dissolved		<19 ug/l				
	Magnesium, Dissolved		5.15 mg/l				
	Manganese, Dissolved		<3 ug/l				
	Molybdenum, Dissolved		<3 ug/l				
	Nickel, Dissolved		0.71 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		<1 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		307 mg/l				
	Electrical Conductivity at 20C		637 uS/cm				
	Potassium, Dissolved		3.05 mg/l				
	Sodium, Dissolved		14.6 mg/l				
	Sulphate, Dissolved		29.1 mg/l				
	Total Oxidised Nitrogen		2.17 mg/l				
	Chloride		27.7 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		<0.2 mg/l				
	Total Organic Carbon		3.04 mg/l				
	pH		7.43 pH Units				
	Nitrate		2.17 mg/l				
	Ionic Balance		-2.77 %				
	Electrical Conductivity		763 µS/cm	Field Measurements			
Temperature		0.0 deg C					
Dissolved Oxygen		2.9 mg/l					
pH		7.0 pH Units					
Groundwater Level		26.00 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E09_01A	Aluminium, Dissolved		<10 ug/l		30/10/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<0.5 ug/l				
	Boron, Dissolved		56 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		130 mg/l				
	Chromium, Dissolved		0.636 ug/l				
	Copper, Dissolved		1.2 ug/l				
	Iron, Dissolved		<19 ug/l				
	Magnesium, Dissolved		5.03 mg/l				
	Manganese, Dissolved		<3 ug/l				
	Molybdenum, Dissolved		7.15 ug/l				
	Nickel, Dissolved		0.674 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		<1 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		300 mg/l				
	Electrical Conductivity at 25C		648 uS/cm				
	Potassium, Dissolved		1.54 mg/l				
	Sodium, Dissolved		14.3 mg/l				
	Sulphate, Dissolved		24 mg/l				
	Total Oxidised Nitrogen		7.4 mg/l				
	Chloride		20.9 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		<0.2 mg/l				
	Total Organic Carbon		<3 mg/l				
	pH		7.35 pH Units				
	Nitrate		7.4 mg/l				
	Ionic Balance		-0.497 %				
	Electrical Conductivity		678 µS/cm	Field Measurements			
Temperature		14.9 deg C					
Dissolved Oxygen		2.8 mg/l					
pH		7.0 pH Units					
Groundwater Level		26.00 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E09_01B	Aluminium, Dissolved		<10 ug/l		23/07/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<0.5 ug/l				
	Boron, Dissolved		50.3 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		123 mg/l				
	Chromium, Dissolved		<0.2 ug/l				
	Copper, Dissolved		0.644 ug/l				
	Iron, Dissolved		<19 ug/l				
	Magnesium, Dissolved		6.59 mg/l				
	Manganese, Dissolved		<3 ug/l				
	Molybdenum, Dissolved		7.93 ug/l				
	Nickel, Dissolved		0.636 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		<1 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		303 mg/l				
	Electrical Conductivity at 25C		638 uS/cm				
	Potassium, Dissolved		1.41 mg/l				
	Sodium, Dissolved		14.9 mg/l				
	Sulphate, Dissolved		32.1 mg/l				
	Total Oxidised Nitrogen		2.23 mg/l				
	Chloride		27.9 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		<0.2 mg/l				
	Total Organic Carbon		<3 mg/l				
	pH		7.57 pH Units				
Nitrate		2.23 mg/l					
Ionic Balance		-1.96 %					
Electrical Conductivity		748 µS/cm					
Temperature		0.0 deg C	Field Measurements				
Dissolved Oxygen		2.9 mg/l					
pH		7.2 pH Units					
Groundwater Level		24.56 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E09_01B	Aluminium, Dissolved		<10 ug/l		30/10/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<0.5 ug/l				
	Boron, Dissolved		42 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		126 mg/l				
	Chromium, Dissolved		0.397 ug/l				
	Copper, Dissolved		0.7 ug/l				
	Iron, Dissolved		<19 ug/l				
	Magnesium, Dissolved		6.75 mg/l				
	Manganese, Dissolved		<3 ug/l				
	Molybdenum, Dissolved		<3 ug/l				
	Nickel, Dissolved		0.678 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		<1 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		302 mg/l				
	Electrical Conductivity at 25C		654 uS/cm				
	Potassium, Dissolved		1.27 mg/l				
	Sodium, Dissolved		14.9 mg/l				
	Sulphate, Dissolved		30.8 mg/l				
	Total Oxidised Nitrogen		5.72 mg/l				
	Chloride		23.7 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		<0.2 mg/l				
	Total Organic Carbon		3.24 mg/l				
	pH		7.39 pH Units				
Nitrate		5.72 mg/l					
Ionic Balance		-1.41 %					
Electrical Conductivity		0 µS/cm	Field Measurements				
Temperature		0.0 deg C					
Dissolved Oxygen		0.0 mg/l					
pH		0.0 pH Units					
Groundwater Level		25.71 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E09_02A	Aluminium, Dissolved		<10 ug/l		23/07/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		5.81 ug/l				
	Boron, Dissolved		159 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		167 mg/l				
	Chromium, Dissolved		<0.2 ug/l				
	Copper, Dissolved		1.12 ug/l				
	Iron, Dissolved		1360 ug/l				
	Magnesium, Dissolved		24.2 mg/l				
	Manganese, Dissolved		90.6 ug/l				
	Molybdenum, Dissolved		<3 ug/l				
	Nickel, Dissolved		2.74 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		<1 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		486 mg/l				
	Electrical Conductivity at 25C		948 uS/cm				
	Potassium, Dissolved		1.8 mg/l				
	Sodium, Dissolved		21.4 mg/l				
	Sulphate, Dissolved		58.9 mg/l				
	Total Oxidised Nitrogen		<0.1 mg/l				
	Chloride		32.4 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		3.65 mg/l				
	Total Organic Carbon		13.1 mg/l				
	pH		7.08 pH Units				
	Nitrate		0.0863 mg/l				
	Ionic Balance		-1.24 %				
	Electrical Conductivity		1116 µS/cm	Field Measurements			
Temperature		0.0 deg C					
Dissolved Oxygen		2.7 mg/l					
pH		6.6 pH Units					
Groundwater Level		27.47 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E09_02A	Aluminium, Dissolved		<10 ug/l		30/10/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		3.06 ug/l				
	Boron, Dissolved		85 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		229 mg/l				
	Chromium, Dissolved		0.469 ug/l				
	Copper, Dissolved		1.5 ug/l				
	Iron, Dissolved		1360 ug/l				
	Magnesium, Dissolved		14.9 mg/l				
	Manganese, Dissolved		74.5 ug/l				
	Molybdenum, Dissolved		5.59 ug/l				
	Nickel, Dissolved		4.22 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		<1 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		577 mg/l				
	Electrical Conductivity at 25C		1120 uS/cm				
	Potassium, Dissolved		1.53 mg/l				
	Sodium, Dissolved		22.9 mg/l				
	Sulphate, Dissolved		77.3 mg/l				
	Total Oxidised Nitrogen		4.47 mg/l				
	Chloride		30.3 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		3.13 mg/l				
	Total Organic Carbon		9.99 mg/l				
	pH		6.89 pH Units				
	Nitrate		3.44 mg/l				
	Ionic Balance		-1.24 %				
	Electrical Conductivity		1192 µS/cm	Field Measurements			
Temperature		14.4 deg C					
Dissolved Oxygen		2.4 mg/l					
pH		6.5 pH Units					
Groundwater Level		28.15 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E09_02B	Aluminium, Dissolved		<10 ug/l		23/07/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		0.763 ug/l				
	Boron, Dissolved		67.8 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		251 mg/l				
	Chromium, Dissolved		1.22 ug/l				
	Copper, Dissolved		2.3 ug/l				
	Iron, Dissolved		23 ug/l				
	Magnesium, Dissolved		16.1 mg/l				
	Manganese, Dissolved		43.3 ug/l				
	Molybdenum, Dissolved		<3 ug/l				
	Nickel, Dissolved		6.17 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		<1 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		510 mg/l				
	Electrical Conductivity at 25C		1240 uS/cm				
	Potassium, Dissolved		2.39 mg/l				
	Sodium, Dissolved		28 mg/l				
	Sulphate, Dissolved		137 mg/l				
	Total Oxidised Nitrogen		15.8 mg/l				
	Chloride		46.2 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		2.07 mg/l				
	Total Organic Carbon		8.9 mg/l				
	pH		7.37 pH Units				
	Nitrate		15.4 mg/l				
	Ionic Balance		-0.623 %				
	Electrical Conductivity		1446 µS/cm	Field Measurements			
Temperature		14.9 deg C					
Dissolved Oxygen		3.1 mg/l					
pH		7.7 pH Units					
Groundwater Level		27.54 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E09_02B	Aluminium, Dissolved		<10 ug/l		30/10/2024	Sampling RPS / Testing ALS.	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<0.5 ug/l				
	Boron, Dissolved		58 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		254 mg/l				
	Chromium, Dissolved		0.635 ug/l				
	Copper, Dissolved		1.5 ug/l				
	Iron, Dissolved		<19 ug/l				
	Magnesium, Dissolved		12.6 mg/l				
	Manganese, Dissolved		4.41 ug/l				
	Molybdenum, Dissolved		<3 ug/l				
	Nickel, Dissolved		5.57 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		<1 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		502 mg/l				
	Electrical Conductivity at 25C		1210 uS/cm				
	Potassium, Dissolved		1.03 mg/l				
	Sodium, Dissolved		24.8 mg/l				
	Sulphate, Dissolved		96.8 mg/l				
	Total Oxidised Nitrogen		25.5 mg/l				
	Chloride		35.6 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		0.564 mg/l				
	Total Organic Carbon		6.2 mg/l				
	pH		6.96 pH Units				
	Nitrate		25.5 mg/l				
	Ionic Balance		-0.0895 %				
	Electrical Conductivity		1294 µS/cm	Field Measurements			
Temperature		14.9 deg C					
Dissolved Oxygen		3.0 mg/l					
pH		6.5 pH Units					
Groundwater Level		28.52 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E23_03	Aluminium, Dissolved	50	<10 ug/l		23/07/2024	Sampling RPS / Testing ALS.	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved	10	0.521 ug/l				
	Boron, Dissolved	2800	1390 ug/l				
	Cadmium, Dissolved	0.4	0.318 ug/l				
	Calcium, Dissolved		309 mg/l				
	Chromium, Dissolved	50	<0.2 ug/l				
	Copper, Dissolved		0.5 ug/l				
	Iron, Dissolved		19 ug/l				
	Magnesium, Dissolved		195 mg/l				
	Manganese, Dissolved		64.3 ug/l				
	Molybdenum, Dissolved	50	1530 ug/l				
	Nickel, Dissolved		3.79 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved	20	<1 ug/l				
	Mercury, Dissolved	0.03	<0.02 ug/l				
	Total Alkalinity as CaCO3		172 mg/l				
	Electrical Conductivity at 25C		5610 uS/cm				
	Potassium, Dissolved		16.9 mg/l				
	Sodium, Dissolved		712 mg/l				
	Sulphate, Dissolved	400	800 mg/l				
	Total Oxidised Nitrogen		1.43 mg/l				
	Chloride		1600 mg/l				
	Fluoride		0.914 mg/l				
	Ammoniacal Nitrogen	1.6	1.39 mg/l				
	Total Organic Carbon		<3 mg/l				
	pH		7.7 pH Units				
	Nitrate		1.31 mg/l				
	Ionic Balance		-1.89 %				
	Electrical Conductivity		>3999 µS/cm				
Temperature		14.2 deg C	Field Measurements				
Dissolved Oxygen		6.4 mg/l					
pH		7.5 pH Units					
Groundwater Level		17.39 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E23_03	Aluminium, Dissolved	50	<10 ug/l		30/10/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved	10	<0.5 ug/l				
	Boron, Dissolved	2800	961 ug/l				
	Cadmium, Dissolved	0.4	0.307 ug/l				
	Calcium, Dissolved		274 mg/l				
	Chromium, Dissolved	50	0.424 ug/l				
	Copper, Dissolved		0.914 ug/l				
	Iron, Dissolved		<19 ug/l				
	Magnesium, Dissolved		134 mg/l				
	Manganese, Dissolved		48.2 ug/l				
	Molybdenum, Dissolved	50	1620 ug/l				
	Nickel, Dissolved		1.77 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved	20	<1 ug/l				
	Mercury, Dissolved	0.03	0.0234 ug/l				
	Total Alkalinity as CaCO3		130 mg/l				
	Electrical Conductivity at 25C		3970 uS/cm				
	Potassium, Dissolved		38.8 mg/l				
	Sodium, Dissolved		388 mg/l				
	Sulphate, Dissolved	400	912 mg/l				
	Total Oxidised Nitrogen		1.02 mg/l				
	Chloride		831 mg/l				
	Fluoride		0.641 mg/l				
	Ammoniacal Nitrogen	1.6	0.434 mg/l				
	Total Organic Carbon		<3 mg/l				
	pH		7.48 pH Units				
	Nitrate		0.93 mg/l				
	Ionic Balance		-2.82 %				
	Electrical Conductivity		4230 µS/cm	Field Measurements			
Temperature		14.2 deg C					
Dissolved Oxygen		6.3 mg/l					
pH		7.4 pH Units					
Groundwater Level		18.46 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E05_04	Aluminium, Dissolved	50	<10 ug/l		23/07/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved	10	1.99 ug/l				
	Boron, Dissolved	2800	2190 ug/l				
	Cadmium, Dissolved	0.4	<0.08 ug/l				
	Calcium, Dissolved		9.97 mg/l				
	Chromium, Dissolved	50	0.78 ug/l				
	Copper, Dissolved		<0.3 ug/l				
	Iron, Dissolved		<19 ug/l				
	Magnesium, Dissolved		7.89 mg/l				
	Manganese, Dissolved		13.7 ug/l				
	Molybdenum, Dissolved	50	70.7 ug/l				
	Nickel, Dissolved		0.499 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved	20	<1 ug/l				
	Mercury, Dissolved	0.03	<0.02 ug/l				
	Total Alkalinity as CaCO3		378 mg/l				
	Electrical Conductivity at 25C		1470 uS/cm				
	Potassium, Dissolved		2.97 mg/l				
	Sodium, Dissolved		307 mg/l				
	Sulphate, Dissolved	400	155 mg/l				
	Total Oxidised Nitrogen		0.416 mg/l				
	Chloride		197 mg/l				
	Fluoride		5.21 mg/l				
	Ammoniacal Nitrogen	1.6	0.475 mg/l				
	Total Organic Carbon		<3 mg/l				
	pH		8.43 pH Units				
	Nitrate		0.336 mg/l				
	Ionic Balance		-5.72 %				
	Electrical Conductivity		1721 µS/cm	Field Measurements			
Temperature		14.1 deg C					
Dissolved Oxygen		6.0 mg/l					
pH		8.3 pH Units					
Groundwater Level		19.26 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E05_04	Aluminium, Dissolved	50	<10 ug/l		30/10/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved	10	1.7 ug/l				
	Boron, Dissolved	2800	2130 ug/l				
	Cadmium, Dissolved	0.4	<0.08 ug/l				
	Calcium, Dissolved		10.5 mg/l				
	Chromium, Dissolved	50	1.04 ug/l				
	Copper, Dissolved		<0.3 ug/l				
	Iron, Dissolved		32.5 ug/l				
	Magnesium, Dissolved		9.73 mg/l				
	Manganese, Dissolved		12.1 ug/l				
	Molybdenum, Dissolved	50	77.2 ug/l				
	Nickel, Dissolved		0.741 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved	20	1.07 ug/l				
	Mercury, Dissolved	0.03	<0.02 ug/l				
	Total Alkalinity as CaCO3		365 mg/l				
	Electrical Conductivity at 25C		1460 uS/cm				
	Potassium, Dissolved		3.1 mg/l				
	Sodium, Dissolved		310 mg/l				
	Sulphate, Dissolved	400	138 mg/l				
	Total Oxidised Nitrogen		2.39 mg/l				
	Chloride		197 mg/l				
	Fluoride		5.3 mg/l				
	Ammoniacal Nitrogen	1.6	0.543 mg/l				
	Total Organic Carbon		<3 mg/l				
	pH		8.05 pH Units				
	Nitrate		2.33 mg/l				
	Ionic Balance		-3.16 %				
	Electrical Conductivity		1584 µS/cm	Field Measurements			
Temperature		14.1 deg C					
Dissolved Oxygen		5.9 mg/l					
pH		8.9 pH Units					
Groundwater Level		19.26 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E06_01	Aluminium, Dissolved	50	<10 ug/l		23/07/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved	10	<0.5 ug/l				
	Boron, Dissolved	2800	1860 ug/l				
	Cadmium, Dissolved	0.4	<0.08 ug/l				
	Calcium, Dissolved		3.18 mg/l				
	Chromium, Dissolved	50	1.43 ug/l				
	Copper, Dissolved		<0.3 ug/l				
	Iron, Dissolved		<19 ug/l				
	Magnesium, Dissolved		2.1 mg/l				
	Manganese, Dissolved		6.13 ug/l				
	Molybdenum, Dissolved	50	6.82 ug/l				
	Nickel, Dissolved		0.674 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved	20	<1 ug/l				
	Mercury, Dissolved	0.03	<0.02 ug/l				
	Total Alkalinity as CaCO3		387 mg/l				
	Electrical Conductivity at 25C		900 uS/cm				
	Potassium, Dissolved		1.88 mg/l				
	Sodium, Dissolved		222 mg/l				
	Sulphate, Dissolved	400	87 mg/l				
	Total Oxidised Nitrogen		<0.1 mg/l				
	Chloride		33.5 mg/l				
	Fluoride		2.96 mg/l				
	Ammoniacal Nitrogen	1.6	0.466 mg/l				
	Total Organic Carbon		<3 mg/l				
	pH		8.76 pH Units				
	Nitrate		<0.07 mg/l				
Ionic Balance		-2.12 %					
Electrical Conductivity		1050 µS/cm					
Temperature		15.0 deg C	Field Measurements				
Dissolved Oxygen		2.9 mg/l					
pH		8.7 pH Units					
Groundwater Level		19.07 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E06_01	Aluminium, Dissolved	50	<10 ug/l		30/10/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved	10	<0.5 ug/l				
	Boron, Dissolved	2800	1790.0 ug/l				
	Cadmium, Dissolved	0.4	<0.08 ug/l				
	Calcium, Dissolved		13.7 mg/l				
	Chromium, Dissolved	50	0.42 ug/l				
	Copper, Dissolved		<0.3 ug/l				
	Iron, Dissolved		<19 ug/l				
	Magnesium, Dissolved		9.98 mg/l				
	Manganese, Dissolved		22.6 ug/l				
	Molybdenum, Dissolved	50	206 ug/l				
	Nickel, Dissolved		<0.4 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved	20	1.77 ug/l				
	Mercury, Dissolved	0.03	<0.02 ug/l				
	Total Alkalinity as CaCO3		356 mg/l				
	Electrical Conductivity at 25C		1270.0 uS/cm				
	Potassium, Dissolved		3.26 mg/l				
	Sodium, Dissolved		263 mg/l				
	Sulphate, Dissolved	400	178 mg/l				
	Total Oxidised Nitrogen		2.43 mg/l				
	Chloride		121 mg/l				
	Fluoride		2.57 mg/l				
	Ammoniacal Nitrogen	1.6	0.752 mg/l				
	Total Organic Carbon		<3 mg/l				
	pH		8.53 pH Units				
	Nitrate		2.31 mg/l				
	Ionic Balance		-4.82 %				
	Electrical Conductivity		1296.0 µS/cm	Field Measurements			
Temperature		15.0 deg C					
Dissolved Oxygen		2.9 mg/l					
pH		8.4 pH Units					
Groundwater Level		19.05 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E06_02	Aluminium, Dissolved		<10 ug/l		23/07/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		1.84 ug/l				
	Arsenic Dissolved		3.89 ug/l				
	Boron, Dissolved		222 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		162 mg/l				
	Chromium, Dissolved		0.476 ug/l				
	Copper, Dissolved		0.4 ug/l				
	Iron, Dissolved		319.0 ug/l				
	Magnesium, Dissolved		63.2 mg/l				
	Manganese, Dissolved		72.6 ug/l				
	Molybdenum, Dissolved		12 ug/l				
	Nickel, Dissolved		1.56 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		1.72 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		261 mg/l				
	Electrical Conductivity at 25C		1290 uS/cm				
	Potassium, Dissolved		10.5 mg/l				
	Sodium, Dissolved		54.5 mg/l				
	Sulphate, Dissolved		511 mg/l				
	Total Oxidised Nitrogen		<0.1 mg/l				
	Chloride		28.9 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		1.05 mg/l				
	Total Organic Carbon		3.88 mg/l				
	pH		7.73 pH Units				
	Nitrate		<0.07 mg/l				
	Ionic Balance		-1.99 %				
	Electrical Conductivity		1050 µS/cm	Field Measurements			
Temperature		15.0 deg C					
Dissolved Oxygen		2.9 mg/l					
pH		8.7 pH Units					
Groundwater Level		21.03 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E06_02	Aluminium, Dissolved		12.4 ug/l		30/10/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		1.95 ug/l				
	Arsenic Dissolved		1.72 ug/l				
	Boron, Dissolved		166 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		102 mg/l				
	Chromium, Dissolved		0.42 ug/l				
	Copper, Dissolved		0.521 ug/l				
	Iron, Dissolved		62.9 ug/l				
	Magnesium, Dissolved		27.5 mg/l				
	Manganese, Dissolved		12.5 ug/l				
	Molybdenum, Dissolved		13.4 ug/l				
	Nickel, Dissolved		1.28 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		3.96 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		154 mg/l				
	Electrical Conductivity at 25C		777 uS/cm				
	Potassium, Dissolved		10.2 mg/l				
	Sodium, Dissolved		29.4 mg/l				
	Sulphate, Dissolved		256 mg/l				
	Total Oxidised Nitrogen		0.39 mg/l				
	Chloride		23.3 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		0.682 mg/l				
	Total Organic Carbon		<3 mg/l				
	pH		7.57 pH Units				
	Nitrate		0.39 mg/l				
	Ionic Balance		-0.819 %				
	Electrical Conductivity		941 µS/cm	Field Measurements			
Temperature		13.6 deg C					
Dissolved Oxygen		2.4 mg/l					
pH		7.7 pH Units					
Groundwater Level		20.95 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E06_03	Aluminium, Dissolved		<10 ug/l		23/07/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<0.5 ug/l				
	Boron, Dissolved		331 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		115 mg/l				
	Chromium, Dissolved		0.377 ug/l				
	Copper, Dissolved		0.9 ug/l				
	Iron, Dissolved		<19 ug/l				
	Magnesium, Dissolved		61.9 mg/l				
	Manganese, Dissolved		<3 ug/l				
	Molybdenum, Dissolved		7.08 ug/l				
	Nickel, Dissolved		1.6 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		1.12 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		165 mg/l				
	Electrical Conductivity at 25C		1020 uS/cm				
	Potassium, Dissolved		6.89 mg/l				
	Sodium, Dissolved		28.5 mg/l				
	Sulphate, Dissolved		439 mg/l				
	Total Oxidised Nitrogen		0.772 mg/l				
	Chloride		28.1 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		<0.2 mg/l				
	Total Organic Carbon		<3 mg/l				
	pH		7.88 pH Units				
	Nitrate		0.735 mg/l				
	Ionic Balance		-4.08 %				
	Electrical Conductivity		1182 µS/cm	Field Measurements			
Temperature		14.1 deg C					
Dissolved Oxygen		3.1 mg/l					
pH		7.7 pH Units					
Groundwater Level		21.55 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E06_03	Aluminium, Dissolved		<10 ug/l		30/10/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		1.87 ug/l				
	Arsenic Dissolved		1.08 ug/l				
	Boron, Dissolved		276 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		91.8 mg/l				
	Chromium, Dissolved		0.466 ug/l				
	Copper, Dissolved		0.811 ug/l				
	Iron, Dissolved		49.6 ug/l				
	Magnesium, Dissolved		51.3 mg/l				
	Manganese, Dissolved		8.76 ug/l				
	Molybdenum, Dissolved		9.48 ug/l				
	Nickel, Dissolved		2.08 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		1.76 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		159 mg/l				
	Electrical Conductivity at 25C		881 uS/cm				
	Potassium, Dissolved		6.85 mg/l				
	Sodium, Dissolved		29 mg/l				
	Sulphate, Dissolved		329 mg/l				
	Total Oxidised Nitrogen		0.832 mg/l				
	Chloride		18.5 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		<0.2 mg/l				
	Total Organic Carbon		4.44 mg/l				
	pH		7.72 pH Units				
	Nitrate		0.817 mg/l				
	Ionic Balance		-1.74 %				
	Electrical Conductivity		843 µS/cm	Field Measurements			
Temperature		14.1 deg C					
Dissolved Oxygen		3.1 mg/l					
pH		7.5 pH Units					
Groundwater Level		21.86 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E23_04B	Aluminium, Dissolved		<10 ug/l		23/07/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		1.09 ug/l				
	Arsenic Dissolved		0.83 ug/l				
	Boron, Dissolved		1110 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		87.9 mg/l				
	Chromium, Dissolved		<0.2 ug/l				
	Copper, Dissolved		1 ug/l				
	Iron, Dissolved		19 ug/l				
	Magnesium, Dissolved		65.4 mg/l				
	Manganese, Dissolved		22.9 ug/l				
	Molybdenum, Dissolved		<3 ug/l				
	Nickel, Dissolved		7.34 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		<1 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		266 mg/l				
	Electrical Conductivity at 25C		1200 uS/cm				
	Potassium, Dissolved		7.34 mg/l				
	Sodium, Dissolved		95.7 mg/l				
	Sulphate, Dissolved		444 mg/l				
	Total Oxidised Nitrogen		1.93 mg/l				
	Chloride		31.9 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		0.584 mg/l				
	Total Organic Carbon		<3 mg/l				
	pH		7.86 pH Units				
	Nitrate		1.87 mg/l				
	Ionic Balance		-4.82 %				
	Electrical Conductivity		1405 µS/cm	Field Measurements			
Temperature		7.8 deg C					
Dissolved Oxygen		4.2 mg/l					
pH		7.8 pH Units					
Groundwater Level		22.82 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E23_04B	Aluminium, Dissolved		<10 ug/l		30/10/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		1.08 ug/l				
	Arsenic Dissolved		0.882 ug/l				
	Boron, Dissolved		1200 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		86.8 mg/l				
	Chromium, Dissolved		0.535 ug/l				
	Copper, Dissolved		0.433 ug/l				
	Iron, Dissolved		<19 ug/l				
	Magnesium, Dissolved		65.5 mg/l				
	Manganese, Dissolved		27.6 ug/l				
	Molybdenum, Dissolved		5.28 ug/l				
	Nickel, Dissolved		8.97 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		<1 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		266 mg/l				
	Electrical Conductivity at 25C		1190 uS/cm				
	Potassium, Dissolved		7.09 mg/l				
	Sodium, Dissolved		95.6 mg/l				
	Sulphate, Dissolved		407 mg/l				
	Total Oxidised Nitrogen		1.99 mg/l				
	Chloride		29.5 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		0.617 mg/l				
	Total Organic Carbon		<3 mg/l				
	pH		7.57 pH Units				
	Nitrate		1.94 mg/l				
	Ionic Balance		-2.28 %				
	Electrical Conductivity		1209 µS/cm	Field Measurements			
Temperature		13.9 deg C					
Dissolved Oxygen		4.1 mg/l					
pH		7.4 pH Units					
Groundwater Level		22.98 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E06_05	Aluminium, Dissolved		<10 ug/l		23/07/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<0.5 ug/l				
	Boron, Dissolved		202 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		195 mg/l				
	Chromium, Dissolved		<0.2 ug/l				
	Copper, Dissolved		<0.2 ug/l				
	Iron, Dissolved		<19 ug/l				
	Magnesium, Dissolved		62.6 mg/l				
	Manganese, Dissolved		20.1 ug/l				
	Molybdenum, Dissolved		4.08 ug/l				
	Nickel, Dissolved		1.72 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		<1 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		186 mg/l				
	Electrical Conductivity at 25C		1240 uS/cm				
	Potassium, Dissolved		4.5 mg/l				
	Sodium, Dissolved		17.7 mg/l				
	Sulphate, Dissolved		537 mg/l				
	Total Oxidised Nitrogen		<0.1 mg/l				
	Chloride		44.7 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		<0.2 mg/l				
	Total Organic Carbon		<3 mg/l				
	pH		7.7 pH Units				
	Nitrate		<0.07 mg/l				
	Ionic Balance		-1.3 %				
	Electrical Conductivity		1463 µS/cm	Field Measurements			
Temperature		17.3 deg C					
Dissolved Oxygen		4.1 mg/l					
pH		7.3 pH Units					
Groundwater Level		25.29 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E06_05	Aluminium, Dissolved		<10 ug/l		30/10/2024	Sampling RPS / Testing ALS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<0.5 ug/l				
	Boron, Dissolved		163 ug/l				
	Cadmium, Dissolved		<0.08 ug/l				
	Calcium, Dissolved		176 mg/l				
	Chromium, Dissolved		0.619 ug/l				
	Copper, Dissolved		0.374 ug/l				
	Iron, Dissolved		89.0 ug/l				
	Magnesium, Dissolved		58.2 mg/l				
	Manganese, Dissolved		10.5 ug/l				
	Molybdenum, Dissolved		6.79 ug/l				
	Nickel, Dissolved		1.28 ug/l				
	Selenium Dissolved		n/s ug/l				
	Vanadium, Dissolved		<1 ug/l				
	Mercury, Dissolved		<0.02 ug/l				
	Total Alkalinity as CaCO3		154 mg/l				
	Electrical Conductivity at 25C		1140 uS/cm				
	Potassium, Dissolved		4.35 mg/l				
	Sodium, Dissolved		15.6 mg/l				
	Sulphate, Dissolved		503 mg/l				
	Total Oxidised Nitrogen		0.247 mg/l				
	Chloride		23.9 mg/l				
	Fluoride		<0.5 mg/l				
	Ammoniacal Nitrogen		<0.2 mg/l				
	Total Organic Carbon		<3 mg/l				
	pH		7.7 pH Units				
	Nitrate		0.247 mg/l				
	Ionic Balance		0.427 %				
	Electrical Conductivity		1196 µS/cm	Field Measurements			
Temperature		17.3 deg C					
Dissolved Oxygen		4.1 mg/l					
pH		7.6 pH Units					
Groundwater Level		25.86 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
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[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.

[6] The emission limit values for all substances is expressed as a maximum individual value, unless otherwise stated.

Signed 
 (authorised to sign as representative of the Operator)

Date 05/02/2025