

Reporting of Emission to Groundwater for the period from ...1st July 2019 to 31st December 2019

Operator : RWE Generation UK plc

Form: Groundwater1

Location: Aberthaw Ash Disposal Site

Permit/Variation Number: DP3432SW

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH3	Aluminium, Dissolved		<40 µg/l		28/08/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved	310	25 µg/l				
	Boron, Dissolved	60000	26000 µg/l				
	Cadmium, Dissolved	15	0.55 µg/l				
	Calcium, Dissolved		900 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		26 µg/l				
	Magnesium, Dissolved		220 mg/l				
	Manganese, Dissolved		1900 µg/l				
	Molybdenum, Dissolved	9000	4900 µg/l				
	Nickel, Dissolved		2.2 µg/l				
	Selenium Dissolved	350	0.00 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved	20	<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		140 mg/l				
	Conductivity at 20C		18000 uS/cm				
	Potassium, Dissolved		330 mg/l				
	Sodium, Dissolved		3400 mg/l				
	Sulphate, Dissolved as SO4		2100 mg/l				
	Nitrogen : Total Oxidised as N		1.40 mg/l				
	Chloride		6400 mg/l				
	Fluoride		0.37 mg/l				
	Ammoniacal Nitrogen as N	6.6	2.70 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2 mg/l				
pH		7.30 pH Units					
Ionic Balance		1.75 %					
Electrical Conductivity		18000 µS/cm	Field Measurements				
Temperature		13.5 deg C					
Dissolved Oxygen		1.86 mg/l					
pH		6.95 pH Units					
Groundwater Level		5.79 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH3	Aluminium, Dissolved		>40 µg/l		03/12/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		12 µg/l				
	Arsenic Dissolved	310	150 µg/l				
	Boron, Dissolved	60000	0 µg/l				
	Cadmium, Dissolved	15	0.24 µg/l				
	Calcium, Dissolved		360 mg/l				
	Chromium, Dissolved		0 µg/l				
	Copper, Dissolved		26.00 µg/l				
	Magnesium, Dissolved		190 mg/l				
	Manganese, Dissolved		170 µg/l				
	Molybdenum, Dissolved	9000	1900 µg/l				
	Nickel, Dissolved		0.7 µg/l				
	Selenium Dissolved	350	0.00 µg/l				
	Vanadium, Dissolved		49 µg/l				
	Mercury, Dissolved	20	0.014 µg/l				
	Alkalinity to pH 4.5 as CaCO3		245 mg/l				
	Conductivity at 20C		4700 uS/cm				
	Potassium, Dissolved		93 mg/l				
	Sodium, Dissolved		560 mg/l				
	Sulphate, Dissolved as SO4		1400 mg/l				
	Nitrogen : Total Oxidised as N		0.94 mg/l				
	Chloride		820 mg/l				
	Fluoride		0.08 mg/l				
	Ammoniacal Nitrogen as N	6.6	<0.010 mg/l				
	Carbon, Organic : Total as C :- (TOC)		<0.7 mg/l				
	pH		7.60 pH Units				
	Ionic Balance		2.65 %				
Electrical Conductivity		5057 µS/cm	Field Measurements				
Temperature		12.7 deg C					
Dissolved Oxygen		1.39 mg/l					
pH		7.48 pH Units					
Groundwater Level		7.17 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH5	Aluminium, Dissolved		0 µg/l		28/08/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		0 µg/l				
	Arsenic Dissolved		0 µg/l				
	Boron, Dissolved		0 µg/l				
	Cadmium, Dissolved		0.00 µg/l				
	Calcium, Dissolved		0 mg/l				
	Chromium, Dissolved		0 µg/l				
	Copper, Dissolved		0.00 µg/l				
	Magnesium, Dissolved		0 mg/l				
	Manganese, Dissolved		0 µg/l				
	Molybdenum, Dissolved		0 µg/l				
	Nickel, Dissolved		0.0 µg/l				
	Selenium Dissolved		0.00 µg/l				
	Vanadium, Dissolved		0 µg/l				
	Mercury, Dissolved		0 µg/l				
	Alkalinity to pH 4.5 as CaCO3		320 mg/l				
	Conductivity at 20C		1400 uS/cm				
	Potassium, Dissolved		0 mg/l				
	Sodium, Dissolved		0 mg/l				
	Sulphate, Dissolved as SO4		0 mg/l				
	Nitrogen : Total Oxidised as N		0.31 mg/l				
	Chloride		53 mg/l				
	Fluoride		<0.050 mg/l				
	Ammoniacal Nitrogen as N		<0.030 mg/l				
	Carbon, Organic : Total as C :- (TOC)		0 mg/l				
pH		6.90 pH Units					
Ionic Balance		0.00 %					
Electrical Conductivity		1400 µS/cm	Field Measurements				
Temperature		0.0 deg C					
Dissolved Oxygen		0.00 mg/l					
pH		6.90 pH Units					
Groundwater Level		8.58 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH5	Aluminium, Dissolved		<10 µg/l		03/12/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		430 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		210 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.60 µg/l				
	Magnesium, Dissolved		15 mg/l				
	Manganese, Dissolved		25 µg/l				
	Molybdenum, Dissolved		<3 µg/l				
	Nickel, Dissolved		1.3 µg/l				
	Selenium Dissolved		0.00 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		400 mg/l				
	Conductivity at 20C		1100 uS/cm				
	Potassium, Dissolved		3 mg/l				
	Sodium, Dissolved		41 mg/l				
	Sulphate, Dissolved as SO4		180 mg/l				
	Nitrogen : Total Oxidised as N		1.60 mg/l				
	Chloride		51 mg/l				
	Fluoride		0 mg/l				
	Ammoniacal Nitrogen as N		<0.030 mg/l				
	Carbon, Organic : Total as C :- (TOC)		3 mg/l				
	pH		6.90 pH Units				
	Ionic Balance		0.99 %				
Electrical Conductivity		1144 µS/cm	Field Measurements				
Temperature		10.2 deg C					
Dissolved Oxygen		3.26 mg/l					
pH		6.86 pH Units					
Groundwater Level		9.70 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH6	Aluminium, Dissolved		0 µg/l		28/08/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		0 µg/l				
	Arsenic Dissolved		0 µg/l				
	Boron, Dissolved		0 µg/l				
	Cadmium, Dissolved		0.00 µg/l				
	Calcium, Dissolved		0 mg/l				
	Chromium, Dissolved		0 µg/l				
	Copper, Dissolved		0.00 µg/l				
	Magnesium, Dissolved		0 mg/l				
	Manganese, Dissolved		0 µg/l				
	Molybdenum, Dissolved		0 µg/l				
	Nickel, Dissolved		0.0 µg/l				
	Selenium Dissolved		0.00 µg/l				
	Vanadium, Dissolved		0 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		0 mg/l				
	Conductivity at 20C		5400 uS/cm				
	Potassium, Dissolved		0 mg/l				
	Sodium, Dissolved		0 mg/l				
	Sulphate, Dissolved as SO4		0 mg/l				
	Nitrogen : Total Oxidised as N		0.00 mg/l				
	Chloride		850 mg/l				
	Fluoride		0.11 mg/l				
	Ammoniacal Nitrogen as N		0.00 mg/l				
	Carbon, Organic : Total as C :- (TOC)		0 mg/l				
pH		7.30 pH Units					
Ionic Balance		0.00 %					
Electrical Conductivity		5400 µS/cm	Field Measurements				
Temperature		0.0 deg C					
Dissolved Oxygen		0.00 mg/l					
pH		7.30 pH Units					
Groundwater Level		8.26 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH6	Aluminium, Dissolved		280 µg/l		03/12/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		35 µg/l				
	Boron, Dissolved		17000 µg/l				
	Cadmium, Dissolved		0.44 µg/l				
	Calcium, Dissolved		630 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.30 µg/l				
	Magnesium, Dissolved		170 mg/l				
	Manganese, Dissolved		1300 µg/l				
	Molybdenum, Dissolved		2000 µg/l				
	Nickel, Dissolved		6.0 µg/l				
	Selenium Dissolved		0.00 µg/l				
	Vanadium, Dissolved		36 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		475 mg/l				
	Conductivity at 20C		7800 uS/cm				
	Potassium, Dissolved		88 mg/l				
	Sodium, Dissolved		1000 mg/l				
	Sulphate, Dissolved as SO4		1400 mg/l				
	Nitrogen : Total Oxidised as N		11.00 mg/l				
	Chloride		2000 mg/l				
	Fluoride		0.11 mg/l				
	Ammoniacal Nitrogen as N		0.42 mg/l				
	Carbon, Organic : Total as C :- (TOC)		2 mg/l				
	pH		7.30 pH Units				
Ionic Balance		2.11 %					
Electrical Conductivity		8097 µS/cm	Field Measurements				
Temperature		10.3 deg C					
Dissolved Oxygen		11.37 mg/l					
pH		7.90 pH Units					
Groundwater Level		9.38 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH7	Aluminium, Dissolved		<40 ug/l		28/08/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved	310	6 µg/l				
	Boron, Dissolved	60000	20800 µg/l				
	Cadmium, Dissolved	15	0.40 µg/l				
	Calcium, Dissolved		828 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.53 µg/l				
	Magnesium, Dissolved		113 mg/l				
	Manganese, Dissolved		1220 µg/l				
	Molybdenum, Dissolved	9000	2960 µg/l				
	Nickel, Dissolved		<0.3 µg/l				
	Selenium Dissolved	350	0.00 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved	20	<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		265 mg/l				
	Conductivity at 20C		13500 uS/cm				
	Potassium, Dissolved		259 mg/l				
	Sodium, Dissolved		2240 mg/l				
	Sulphate, Dissolved as SO4		1830 mg/l				
	Nitrogen : Total Oxidised as N		<0.200 mg/l				
	Chloride		4040 mg/l				
	Fluoride		0.39 mg/l				
	Ammoniacal Nitrogen as N	6.6	3.30 mg/l				
	Carbon, Organic : Total as C :- (TOC)		1 mg/l				
	pH		7.17 pH Units				
	Ionic Balance		0.89 %				
Electrical Conductivity		17 µS/cm	Field Measurements				
Temperature		13.1 deg C					
Dissolved Oxygen		0.41 mg/l					
pH		6.87 pH Units					
Groundwater Level		3.40 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH7	Aluminium, Dissolved		<40 µg/l		03/12/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved	310	8 µg/l				
	Boron, Dissolved	60000	19000 µg/l				
	Cadmium, Dissolved	15	0.35 µg/l				
	Calcium, Dissolved		730 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		100 mg/l				
	Manganese, Dissolved		1200 µg/l				
	Molybdenum, Dissolved	9000	2600 µg/l				
	Nickel, Dissolved		<0.3 µg/l				
	Selenium Dissolved	350	0.00 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved	20	<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		305 mg/l				
	Conductivity at 20C		12000 uS/cm				
	Potassium, Dissolved		240 mg/l				
	Sodium, Dissolved		1900 mg/l				
	Sulphate, Dissolved as SO4		1600 mg/l				
	Nitrogen : Total Oxidised as N		<0.20 mg/l				
	Chloride		3500 mg/l				
	Fluoride		0.36 mg/l				
	Ammoniacal Nitrogen as N	6.6	3.10 mg/l				
	Carbon, Organic : Total as C :- (TOC)		1 mg/l				
	pH		7.30 pH Units				
	Ionic Balance		1.76 %				
Electrical Conductivity		13551 µS/cm	Field Measurements				
Temperature		12.7 deg C					
Dissolved Oxygen		1.14 mg/l					
pH		7.17 pH Units					
Groundwater Level		3.30 mAOD					



Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH8	Aluminium, Dissolved		µg/l		Borehole not sampled due to damage	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		µg/l				
	Arsenic Dissolved		µg/l				
	Boron, Dissolved		µg/l				
	Cadmium, Dissolved		µg/l				
	Calcium, Dissolved		mg/l				
	Chromium, Dissolved		µg/l				
	Copper, Dissolved		µg/l				
	Magnesium, Dissolved		mg/l				
	Manganese, Dissolved		µg/l				
	Molybdenum, Dissolved		µg/l				
	Nickel, Dissolved		µg/l				
	Selenium Dissolved		µg/l				
	Vanadium, Dissolved		µg/l				
	Mercury, Dissolved		µg/l				
	Alkalinity to pH 4.5 as CaCO3		mg/l				
	Conductivity at 20C		uS/cm				
	Potassium, Dissolved		mg/l				
	Sodium, Dissolved		mg/l				
	Sulphate, Dissolved as SO4		mg/l				
	Nitrogen : Total Oxidised as N		mg/l				
	Chloride		mg/l				
	Fluoride		mg/l				
	Ammoniacal Nitrogen as N		mg/l				
	Carbon, Organic : Total as C :- (TOC)		mg/l				
	pH		pH Units				
Ionic Balance		%					
Electrical Conductivity		µS/cm	Field Measurements				
Temperature		deg C					
Dissolved Oxygen		mg/l					
pH		pH Units					
Groundwater Level		mAOD					

	Substance/ Emission point	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH8	Aluminium, Dissolved		µg/l		Borehole not sampled due to damage	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		µg/l				
	Arsenic Dissolved		µg/l				
	Boron, Dissolved		µg/l				
	Cadmium, Dissolved		µg/l				
	Calcium, Dissolved		mg/l				
	Chromium, Dissolved		µg/l				
	Copper, Dissolved		µg/l				
	Magnesium, Dissolved		mg/l				
	Manganese, Dissolved		µg/l				
	Molybdenum, Dissolved		µg/l				
	Nickel, Dissolved		µg/l				
	Selenium Dissolved		µg/l				
	Vanadium, Dissolved		µg/l				
	Mercury, Dissolved		µg/l				
	Alkalinity to pH 4.5 as CaCO3		mg/l				
	Conductivity at 20C		uS/cm				
	Potassium, Dissolved		mg/l				
	Sodium, Dissolved		mg/l				
	Sulphate, Dissolved as SO4		mg/l				
	Nitrogen : Total Oxidised as N		mg/l				
	Chloride		mg/l				
	Fluoride		mg/l				
	Ammoniacal Nitrogen as N		mg/l				
	Carbon, Organic : Total as C :- (TOC)		mg/l				
pH		pH Units					
Ionic Balance		%					
Electrical Conductivity		µS/cm	Field Measurements				
Temperature		deg C					
Dissolved Oxygen		mg/l					
pH		pH Units					
Groundwater Level		mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH9	Aluminium, Dissolved		<10 µg/l		28/08/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		140 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		95 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<1 µg/l				
	Magnesium, Dissolved		20 mg/l				
	Manganese, Dissolved		12 µg/l				
	Molybdenum, Dissolved		3 µg/l				
	Nickel, Dissolved		1 µg/l				
	Selenium Dissolved		0 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		330 mg/l				
	Conductivity at 20C		660 uS/cm				
	Potassium, Dissolved		2 mg/l				
	Sodium, Dissolved		25 mg/l				
	Sulphate, Dissolved as SO4		32 mg/l				
	Nitrogen : Total Oxidised as N		1 mg/l				
	Chloride		32 mg/l				
	Fluoride		0.26 mg/l				
	Ammoniacal Nitrogen as N		0.13 mg/l				
	Carbon, Organic : Total as C :- (TOC)		1 mg/l				
	pH		7.4 pH Units				
	Ionic Balance		-5 %				
Electrical Conductivity		660 µS/cm	Field Measurements				
Temperature		nm deg C					
Dissolved Oxygen		nm mg/l					
pH		8 pH Units					
Groundwater Level		4.21 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH9	Aluminium, Dissolved		<10 µg/l		03/12/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		170 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		89 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<1 µg/l				
	Magnesium, Dissolved		27 mg/l				
	Manganese, Dissolved		31 µg/l				
	Molybdenum, Dissolved		<3 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		0.00 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		300 mg/l				
	Conductivity at 20C		650 uS/cm				
	Potassium, Dissolved		2.40 mg/l				
	Sodium, Dissolved		25.0 mg/l				
	Sulphate, Dissolved as SO4		30.0 mg/l				
	Nitrogen : Total Oxidised as N		<0.0040 mg/l				
	Chloride		36.0 mg/l				
	Fluoride		0.22 mg/l				
	Ammoniacal Nitrogen as N		<0.030 mg/l				
	Carbon, Organic : Total as C :- (TOC)		1 mg/l				
	pH		7.40 pH Units				
	Ionic Balance		-0.22 %				
Electrical Conductivity		728 µS/cm	Field Measurements				
Temperature		10.1 deg C					
Dissolved Oxygen		6.48 mg/l					
pH		7.40 pH Units					
Groundwater Level		5.01 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH10	Aluminium, Dissolved		0 µg/l		28/08/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		0 µg/l				
	Arsenic Dissolved		3 µg/l				
	Boron, Dissolved		0 µg/l				
	Cadmium, Dissolved		0.00 µg/l				
	Calcium, Dissolved		0 mg/l				
	Chromium, Dissolved		0 µg/l				
	Copper, Dissolved		0.00 µg/l				
	Magnesium, Dissolved		0 mg/l				
	Manganese, Dissolved		0 µg/l				
	Molybdenum, Dissolved		0 µg/l				
	Nickel, Dissolved		0.0 µg/l				
	Selenium Dissolved		0.00 µg/l				
	Vanadium, Dissolved		0 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		540 mg/l				
	Conductivity at 20C		8800 uS/cm				
	Potassium, Dissolved		0 mg/l				
	Sodium, Dissolved		0 mg/l				
	Sulphate, Dissolved as SO4		0 mg/l				
	Nitrogen : Total Oxidised as N		<0.20 mg/l				
	Chloride		2400 mg/l				
	Fluoride		0.19 mg/l				
	Ammoniacal Nitrogen as N		6.10 mg/l				
	Carbon, Organic : Total as C :- (TOC)		1 mg/l				
	pH		7.30 pH Units				
	Ionic Balance		0.00 %				
Electrical Conductivity		10 µS/cm	Field Measurements				
Temperature		13.4 deg C					
Dissolved Oxygen		0.00 mg/l					
pH		6.91 pH Units					
Groundwater Level		2.74 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH10	Aluminium, Dissolved		<40 µg/l		28/08/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		13 µg/l				
	Boron, Dissolved		7600 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		340 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.26 µg/l				
	Magnesium, Dissolved		490 mg/l				
	Manganese, Dissolved		470 µg/l				
	Molybdenum, Dissolved		320 µg/l				
	Nickel, Dissolved		<0.3 µg/l				
	Selenium Dissolved		0.00 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		1050 mg/l				
	Conductivity at 20C		23000 uS/cm				
	Potassium, Dissolved		180 mg/l				
	Sodium, Dissolved		4300 mg/l				
	Sulphate, Dissolved as SO4		850 mg/l				
	Nitrogen : Total Oxidised as N		<0.20 mg/l				
	Chloride		8100 mg/l				
	Fluoride		0.15 mg/l				
	Ammoniacal Nitrogen as N		41.00 mg/l				
	Carbon, Organic : Total as C :- (TOC)		8 mg/l				
pH		7.40 pH Units					
Ionic Balance		3.56 %					
Electrical Conductivity		25407 µS/cm	Field Measurements				
Temperature		12.4 deg C					
Dissolved Oxygen		0.49 mg/l					
pH		7.22 pH Units					
Groundwater Level		1.47 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH11	Aluminium, Dissolved		<40 µg/l		28/08/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		7.9 µg/l				
	Boron, Dissolved		12000 µg/l				
	Cadmium, Dissolved		0.08 µg/l				
	Calcium, Dissolved		370 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.74 µg/l				
	Magnesium, Dissolved		170 mg/l				
	Manganese, Dissolved		1100 µg/l				
	Molybdenum, Dissolved		840 µg/l				
	Nickel, Dissolved		1.0 µg/l				
	Selenium Dissolved		0.00 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		645 mg/l				
	Conductivity at 20C		7500 uS/cm				
	Potassium, Dissolved		120 mg/l				
	Sodium, Dissolved		1200 mg/l				
	Sulphate, Dissolved as SO4		1000 mg/l				
	Nitrogen : Total Oxidised as N		<0.20 mg/l				
	Chloride		2000 mg/l				
	Fluoride		0.49 mg/l				
	Ammoniacal Nitrogen as N		6.80 mg/l				
	Carbon, Organic : Total as C :- (TOC)		5.6 mg/l				
	pH		7.40 pH Units				
Ionic Balance		1.39 %					
Electrical Conductivity		8517 µS/cm	Field Measurements				
Temperature		13.8 deg C					
Dissolved Oxygen		0.52 mg/l					
pH		6.99 pH Units					
Groundwater Level		3.93 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
BH11	Aluminium, Dissolved		<40 µg/l		03/12/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		17 µg/l				
	Boron, Dissolved		6700 µg/l				
	Cadmium, Dissolved		0.04 µg/l				
	Calcium, Dissolved		260 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		84 mg/l				
	Manganese, Dissolved		800 µg/l				
	Molybdenum, Dissolved		370 µg/l				
	Nickel, Dissolved		<0.3 µg/l				
	Selenium Dissolved		0.00 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		635 mg/l				
	Conductivity at 20C		3200 uS/cm				
	Potassium, Dissolved		55.0 mg/l				
	Sodium, Dissolved		420 mg/l				
	Sulphate, Dissolved as SO4		390 mg/l				
	Nitrogen : Total Oxidised as N		2.10 mg/l				
	Chloride		620 mg/l				
	Fluoride		0.21 mg/l				
	Ammoniacal Nitrogen as N		2.10 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.8 mg/l				
pH		7.40 pH Units					
Ionic Balance		1.59 %					
Electrical Conductivity		3640 µS/cm	Field Measurements				
Temperature		13.0 deg C					
Dissolved Oxygen		0.87 mg/l					
pH		7.20 pH Units					
Groundwater Level		4.32 mAOD					

[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  Date 14/02/2020  
(authorised to sign as representative of the Operator)



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