Reporting of Emission to Groundwater for the period from ...1st January 2019..to...30th June 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 [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH3	Aluminium, Dissolved		<40 µg/l		13/02/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		13 µg/l				
	Arsenic Dissolved	310	186 µg/l				
	Boron, Dissolved	60000	22900 µg/l				
	Cadmium, Dissolved	15	0.19 µg/l				
	Calcium, Dissolved		347 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		201 mg/l				
	Manganese, Dissolved		104 µg/l				
	Molybdenum, Dissolved	9000	1740 µg/l				
	Nickel, Dissolved		<0.3 µg/l				
	Selenium Dissolved	350	11.00 µg/l				
	Vanadium, Dissolved		60 µg/l				
	Mercury, Dissolved	20	<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		270 mg/l				
	Conductivity at 20C		4130 uS/cm				
	Potassium, Dissolved		85 mg/l				
	Sodium, Dissolved		432 mg/l				
	Sulphate, Dissolved as SO4		1500 mg/l				
	Nitrogen : Total Oxidised as N		0.71 mg/l				
	Chloride		551 mg/l				
	Fluoride		0.08 mg/l				
	Ammoniacal Nitrogen as N	6.6	<0.01 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<0.7 mg/l				
	pH		7.72 pH Units				
	Ionic Balance		2.45 %				
	Electrical Conductivity		3414 µS/cm	Field Measurements			
	Temperature		12.5 deg C				
	Dissolved Oxygen		2.54 mg/l				
	pH		7.71 pH Units				
	Groundwater Level		6.35 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH3	Aluminium, Dissolved		<40 µg/l		29/05/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved	310	100 µg/l				
	Boron, Dissolved	60000	23900 µg/l				
	Cadmium, Dissolved	15	0.63 µg/l				
	Calcium, Dissolved		872 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.10 µg/l				
	Magnesium, Dissolved		218 mg/l				
	Manganese, Dissolved		806 µg/l				
	Molybdenum, Dissolved	9000	4820 µg/l				
	Nickel, Dissolved		1.1 µg/l				
	Selenium Dissolved	350	µg/l				
	Vanadium, Dissolved		33 µg/l				
	Mercury, Dissolved	20	0.012 µg/l				
	Alkalinity to pH 4.5 as CaCO3		155 mg/l				
	Conductivity at 20C		16800 uS/cm				
	Potassium, Dissolved		247 mg/l				
	Sodium, Dissolved		2930 mg/l				
	Sulphate, Dissolved as SO4		1960 mg/l				
	Nitrogen : Total Oxidised as N		1.26 mg/l				
	Chloride		6940 mg/l				
	Fluoride		0.20 mg/l				
	Ammoniacal Nitrogen as N	6.6	1.42 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2 mg/l				
	pH		7.25 pH Units				
	Ionic Balance		10.25 %				
	Electrical Conductivity		15918 µS/cm	Field Measurements			
	Temperature		13.0 deg C				
	Dissolved Oxygen		2.12 mg/l				
	pH		7.29 pH Units				
	Groundwater Level		6.73 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH5	Aluminium, Dissolved		<10 µg/l		14/02/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		485 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		232 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.82 µg/l				
	Magnesium, Dissolved		15 mg/l				
	Manganese, Dissolved		11 µg/l				
	Molybdenum, Dissolved		<3 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		374 mg/l				
	Conductivity at 20C		1200 uS/cm				
	Potassium, Dissolved		2 mg/l				
	Sodium, Dissolved		45 mg/l				
	Sulphate, Dissolved as SO4		260 mg/l				
	Nitrogen : Total Oxidised as N		1.77 mg/l				
	Chloride		68 mg/l				
	Fluoride		0.11 mg/l				
	Ammoniacal Nitrogen as N		<0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		3 mg/l				
	pH		6.99 pH Units				
	Ionic Balance		-0.26 %				
	Electrical Conductivity		934 µS/cm	Field Measurements			
	Temperature		10.0 deg C				
	Dissolved Oxygen		4.40 mg/l				
	pH		7.13 pH Units				
	Groundwater Level		10.13 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH5	Aluminium, Dissolved		<10 µg/l		29/05/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		1060 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		271 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<1 µg/l				
	Magnesium, Dissolved		18 mg/l				
	Manganese, Dissolved		14 µg/l				
	Molybdenum, Dissolved		3.75 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		305 mg/l				
	Conductivity at 20C		1370 uS/cm				
	Potassium, Dissolved		2 mg/l				
	Sodium, Dissolved		58 mg/l				
	Sulphate, Dissolved as SO4		420 mg/l				
	Nitrogen : Total Oxidised as N		0.69 mg/l				
	Chloride		65 mg/l				
	Fluoride		<0.0500 mg/l				
	Ammoniacal Nitrogen as N		<0.0300 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1 mg/l				
	pH		6.96 pH Units				
	Ionic Balance		2.45 %				
	Electrical Conductivity		1335 µS/cm	Field Measurements			
	Temperature		12.4 deg C				
	Dissolved Oxygen		1.11 mg/l				
	pH		6.92 pH Units				
	Groundwater Level		8.60 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH6	Aluminium, Dissolved		<40 µg/l		12/02/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		9 µg/l				
	Boron, Dissolved		17300 µg/l				
	Cadmium, Dissolved		0.59 µg/l				
	Calcium, Dissolved		1090 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.40 µg/l				
	Magnesium, Dissolved		194 mg/l				
	Manganese, Dissolved		1200 µg/l				
	Molybdenum, Dissolved		3490 µg/l				
	Nickel, Dissolved		8.0 µg/l				
	Selenium Dissolved		8.31 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		253 mg/l				
	Conductivity at 20C		14300 uS/cm				
	Potassium, Dissolved		141 mg/l				
	Sodium, Dissolved		2370 mg/l				
	Sulphate, Dissolved as SO4		1680 mg/l				
	Nitrogen : Total Oxidised as N		26.60 mg/l				
	Chloride		4440 mg/l				
	Fluoride		0.13 mg/l				
	Ammoniacal Nitrogen as N		1.00 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2 mg/l				
	pH		7.38 pH Units				
	Ionic Balance		3.41 %				
	Electrical Conductivity		11826 µS/cm	Field Measurements			
	Temperature		12.2 deg C				
	Dissolved Oxygen		5.39 mg/l				
	pH		7.27 pH Units				
	Groundwater Level		9.39 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH6	Aluminium, Dissolved		<40 µg/l		29/05/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		50 µg/l				
	Boron, Dissolved		25200 µg/l				
	Cadmium, Dissolved		0.43 µg/l				
	Calcium, Dissolved		573 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.22 µg/l				
	Magnesium, Dissolved		204 mg/l				
	Manganese, Dissolved		1350 µg/l				
	Molybdenum, Dissolved		3370 µg/l				
	Nickel, Dissolved		4.8 µg/l				
	Selenium Dissolved		µg/l				
	Vanadium, Dissolved		53 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		400 mg/l				
	Conductivity at 20C		5440 uS/cm				
	Potassium, Dissolved		69 mg/l				
	Sodium, Dissolved		566 mg/l				
	Sulphate, Dissolved as SO4		1850 mg/l				
	Nitrogen : Total Oxidised as N		10.50 mg/l				
	Chloride		874 mg/l				
	Fluoride		0.13 mg/l				
	Ammoniacal Nitrogen as N		0.37 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1 mg/l				
	pH		7.26 pH Units				
	Ionic Balance		0.37 %				
	Electrical Conductivity		5230 µS/cm	Field Measurements			
	Temperature		15.5 deg C				
	Dissolved Oxygen		1.65 mg/l				
	pH		7.07 pH Units				
	Groundwater Level		8.14 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH7	Aluminium, Dissolved		<40 ug/l		12/02/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved	310	5 µg/l				
	Boron, Dissolved	60000	21600 µg/l				
	Cadmium, Dissolved	15	0.37 µg/l				
	Calcium, Dissolved		771 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.24 µg/l				
	Magnesium, Dissolved		113 mg/l				
	Manganese, Dissolved		1240 µg/l				
	Molybdenum, Dissolved	9000	3400 µg/l				
	Nickel, Dissolved		0.3 µg/l				
	Selenium Dissolved	350	<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved	20	<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		291 mg/l				
	Conductivity at 20C		12800 uS/cm				
	Potassium, Dissolved		285 mg/l				
	Sodium, Dissolved		2320 mg/l				
	Sulphate, Dissolved as SO4		1770 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		3740 mg/l				
	Fluoride		0.42 mg/l				
	Ammoniacal Nitrogen as N	6.6	3.05 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1 mg/l				
	pH		7.15 pH Units				
	Ionic Balance		2.54 %				
	Electrical Conductivity		10616 µS/cm	Field Measurements			
	Temperature		12.4 deg C				
	Dissolved Oxygen		0.15 mg/l				
	pH		7.29 pH Units				
	Groundwater Level		3.50 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH7	Aluminium, Dissolved		<40 µg/l		29/05/2019	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	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		12484 µS/cm	Field Measurements			
	Temperature		12.9 deg C				
	Dissolved Oxygen		0.75 mg/l				
	pH		7.15 pH Units				
	Groundwater Level		2.13 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
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 [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
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 [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH9	Aluminium, Dissolved		<10 µg/l		12/02/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		103 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		86 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<1 µg/l				
	Magnesium, Dissolved		19 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		<3 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		261 mg/l				
	Conductivity at 20C		585 uS/cm				
	Potassium, Dissolved		2 mg/l				
	Sodium, Dissolved		21 mg/l				
	Sulphate, Dissolved as SO4		31 mg/l				
	Nitrogen : Total Oxidised as N		3 mg/l				
	Chloride		32 mg/l				
	Fluoride		0.20 mg/l				
	Ammoniacal Nitrogen as N		<0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2 mg/l				
	pH		7.5 pH Units				
	Ionic Balance		-1 %				
	Electrical Conductivity		458 µS/cm	Field Measurements			
	Temperature		10 deg C				
	Dissolved Oxygen		8 mg/l				
	pH		8 pH Units				
	Groundwater Level		5.18 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH9	Aluminium, Dissolved		<10 µg/l		29/05/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		<100 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		92 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<1 µg/l				
	Magnesium, Dissolved		18 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		<3 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		242 mg/l				
	Conductivity at 20C		599 uS/cm				
	Potassium, Dissolved		1.81 mg/l				
	Sodium, Dissolved		20.9 mg/l				
	Sulphate, Dissolved as SO4		32.3 mg/l				
	Nitrogen : Total Oxidised as N		3.95 mg/l				
	Chloride		29.0 mg/l				
	Fluoride		0.11 mg/l				
	Ammoniacal Nitrogen as N		<0.0300 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<0.7 mg/l				
	pH		7.40 pH Units				
	Ionic Balance		3.13 %				
	Electrical Conductivity		539 µS/cm	Field Measurements			
	Temperature		11.3 deg C				
	Dissolved Oxygen		7.18 mg/l				
	pH		7.45 pH Units				
	Groundwater Level		4.35 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH10	Aluminium, Dissolved		<40 µg/l		12/02/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		17 µg/l				
	Boron, Dissolved		15000 µg/l				
	Cadmium, Dissolved		0.17 µg/l				
	Calcium, Dissolved		477 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.46 µg/l				
	Magnesium, Dissolved		206 mg/l				
	Manganese, Dissolved		959 µg/l				
	Molybdenum, Dissolved		1740 µg/l				
	Nickel, Dissolved		<0.3 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		535 mg/l				
	Conductivity at 20C		8280 uS/cm				
	Potassium, Dissolved		107 mg/l				
	Sodium, Dissolved		1150 mg/l				
	Sulphate, Dissolved as SO4		1190 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		2210 mg/l				
	Fluoride		0.21 mg/l				
	Ammoniacal Nitrogen as N		5.08 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1 mg/l				
	pH		7.24 pH Units				
	Ionic Balance		2.28 %				
	Electrical Conductivity		6359 µS/cm	Field Measurements			
	Temperature		12.5 deg C				
	Dissolved Oxygen		0.12 mg/l				
	pH		7.38 pH Units				
	Groundwater Level		2.42 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH10	Aluminium, Dissolved		<40 µg/l		29/05/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		21 µg/l				
	Boron, Dissolved		9850 µg/l				
	Cadmium, Dissolved		0.06 µg/l				
	Calcium, Dissolved		384 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.57 µg/l				
	Magnesium, Dissolved		477 mg/l				
	Manganese, Dissolved		526 µg/l				
	Molybdenum, Dissolved		533 µg/l				
	Nickel, Dissolved		<0.3 µg/l				
	Selenium Dissolved		µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		1020 mg/l				
	Conductivity at 20C		20100 uS/cm				
	Potassium, Dissolved		175 mg/l				
	Sodium, Dissolved		3960 mg/l				
	Sulphate, Dissolved as SO4		909 mg/l				
	Nitrogen : Total Oxidised as N		<0.200 mg/l				
	Chloride		5440 mg/l				
	Fluoride		0.17 mg/l				
	Ammoniacal Nitrogen as N		38.60 mg/l				
	Carbon, Organic : Total as C :- {TOC}		9 mg/l				
	pH		7.28 pH Units				
	Ionic Balance		9.87 %				
	Electrical Conductivity		18650 µS/cm	Field Measurements			
	Temperature		13.1 deg C				
	Dissolved Oxygen		1.31 mg/l				
	pH		7.12 pH Units				
	Groundwater Level		1.51 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH11	Aluminium, Dissolved		<40 µg/l		12/02/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		12.9 µg/l				
	Boron, Dissolved		7810 µg/l				
	Cadmium, Dissolved		0.05 µg/l				
	Calcium, Dissolved		281 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		94 mg/l				
	Manganese, Dissolved		860 µg/l				
	Molybdenum, Dissolved		496 µg/l				
	Nickel, Dissolved		<0.3 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		584 mg/l				
	Conductivity at 20C		3580 uS/cm				
	Potassium, Dissolved		66 mg/l				
	Sodium, Dissolved		451 mg/l				
	Sulphate, Dissolved as SO4		514 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		713 mg/l				
	Fluoride		0.22 mg/l				
	Ammoniacal Nitrogen as N		2.11 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.9 mg/l				
	pH		7.27 pH Units				
	Ionic Balance		0.65 %				
	Electrical Conductivity		2922 µS/cm	Field Measurements			
	Temperature		12.5 deg C				
	Dissolved Oxygen		0.05 mg/l				
	pH		7.35 pH Units				
	Groundwater Level		4.25 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH11	Aluminium, Dissolved		<40 µg/l		29/05/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		22 µg/l				
	Boron, Dissolved		11800 µg/l				
	Cadmium, Dissolved		0.11 µg/l				
	Calcium, Dissolved		371 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		163 mg/l				
	Manganese, Dissolved		1080 µg/l				
	Molybdenum, Dissolved		980 µg/l				
	Nickel, Dissolved		<0.3 µg/l				
	Selenium Dissolved		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		7420 uS/cm				
	Potassium, Dissolved		116.0 mg/l				
	Sodium, Dissolved		1180 mg/l				
	Sulphate, Dissolved as SO4		1030 mg/l				
	Nitrogen : Total Oxidised as N		<0.200 mg/l				
	Chloride		1830 mg/l				
	Fluoride		0.46 mg/l				
	Ammoniacal Nitrogen as N		7.31 mg/l				
	Carbon, Organic : Total as C :- {TOC}		4.0 mg/l				
	pH		7.32 pH Units				
	Ionic Balance		0.24 %				
	Electrical Conductivity		7203 µS/cm	Field Measurements			
	Temperature		13.6 deg C				
	Dissolved Oxygen		1.21 mg/l				
	pH		7.30 pH Units				
	Groundwater Level		3.93 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.

R. T. Powell

Signed …… Date 27/007/2019

(authorised to sign as representative of the Operator)

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