

Reporting of Emission to Groundwater for the period from ...1st July 2014..to....31st December 2014...

Operator : RWE Generation UK plc

Form: Groundwater1

Location: Aberthaw Power Station

Permit/Variation Number: RP3133LD

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH12	Aluminium, Dissolved		<10 µg/l		02/09/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		298 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		111 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.41 µg/l				
	Magnesium, Dissolved		30.6 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		5.2 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Zinc, Dissolved		7.49 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		296 mg/l				
	Conductivity at 20C		1700 uS/cm				
	Potassium, Dissolved		13.7 mg/l				
	Sodium, Dissolved		231 mg/l				
	Sulphate, Dissolved as SO4		111 mg/l				
	Nitrogen : Total Oxidised as N		1.66 mg/l				
	Chloride		320 mg/l				
	Fluoride		0.225 mg/l				
	Ammoniacal Nitrogen as N		<0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2.3 mg/l				
	pH		7.35 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
BH12	Aluminium, Dissolved		<10 µg/l		19/11/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		325 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		112 mg/l				
	Chromium, Dissolved		7.92 µg/l				
	Copper, Dissolved		1.71 µg/l				
	Magnesium, Dissolved		26.5 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		7.57 µg/l				
	Nickel, Dissolved		1.26 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Zinc, Dissolved		6.9 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		304 mg/l				
	Conductivity at 20C		1500 uS/cm				
	Potassium, Dissolved		13.5 mg/l				
	Sodium, Dissolved		197 mg/l				
	Sulphate, Dissolved as SO4		107 mg/l				
	Nitrogen : Total Oxidised as N		2.49 mg/l				
	Chloride		262 mg/l				
	Fluoride		0.243 mg/l				
	Ammoniacal Nitrogen as N		0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		3 mg/l				
	pH		7.45 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
BH13	Aluminium, Dissolved		<40 µg/l		02/09/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		<700 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		102 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.681 µg/l				
	Magnesium, Dissolved		35.9 mg/l				
	Manganese, Dissolved		86.8 µg/l				
	Molybdenum, Dissolved		<30 µg/l				
	Nickel, Dissolved		1.88 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Zinc, Dissolved		1.2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		480 mg/l				
	Conductivity at 20C		2090 uS/cm				
	Potassium, Dissolved		10.5 mg/l				
	Sodium, Dissolved		289 mg/l				
	Sulphate, Dissolved as SO4		126 mg/l				
	Nitrogen : Total Oxidised as N		0.3 mg/l				
	Chloride		472 mg/l				
	Fluoride		0.238 mg/l				
	Ammoniacal Nitrogen as N		<0.01 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.9 mg/l				
	pH		7.41 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
BH13	Aluminium, Dissolved		<40 µg/l		19/11/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		<700 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		119 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.456 µg/l				
	Magnesium, Dissolved		37.5 mg/l				
	Manganese, Dissolved		26.2 µg/l				
	Molybdenum, Dissolved		<30 µg/l				
	Nickel, Dissolved		1.35 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Zinc, Dissolved		0.976 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		873 mg/l				
	Conductivity at 20C		2100 uS/cm				
	Potassium, Dissolved		11.9 mg/l				
	Sodium, Dissolved		315 mg/l				
	Sulphate, Dissolved as SO4		122 mg/l				
	Nitrogen : Total Oxidised as N		1.28 mg/l				
	Chloride		495 mg/l				
	Fluoride		0.233 mg/l				
	Ammoniacal Nitrogen as N		<0.01 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.4 mg/l				
	pH		7.45 pH Units				

[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 26-01-15

(authorised to sign as representative of the Operator)

Reporting of Emission to Groundwater for the period from ...1st July 2014..to...31st December 2014...

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		02/09/2014	Sampling Amec/Testing EA NLS	
BH3	Antimony, Dissolved		11.4 µg/l		02/09/2014	-	
BH3	Arsenic, Dissolved	310	119 µg/l		02/09/2014	-	
BH3	Boron, Dissolved	60000	24200 µg/l		02/09/2014	-	
BH3	Cadmium, Dissolved	15	0.162 µg/l		02/09/2014	-	
BH3	Calcium, Dissolved		540 mg/l		02/09/2014	-	
BH3	Chromium, Dissolved		<0.5 µg/l		02/09/2014	-	
BH3	Copper, Dissolved		0.511 µg/l		02/09/2014	-	
BH3	Magnesium, Dissolved		210 mg/l		02/09/2014	-	
BH3	Manganese, Dissolved		238 µg/l		02/09/2014	-	
BH3	Molybdenum, Dissolved	9000	3380 µg/l		02/09/2014	-	
BH3	Nickel, Dissolved		0.624 µg/l		02/09/2014	-	
BH3	Selenium, Dissolved	350	8.07 µg/l		02/09/2014	-	
BH3	Vanadium, Dissolved		<20 µg/l		02/09/2014	-	
BH3	Mercury, Dissolved	20	<0.01 µg/l		02/09/2014	-	
BH3	Alkalinity to pH 4.5 as CaCO3		175 mg/l		02/09/2014	-	
BH3	Conductivity at 20C		10200 uS/cm		02/09/2014	-	
BH3	Potassium, Dissolved		161 mg/l		02/09/2014	-	
BH3	Sodium, Dissolved		1440 mg/l		02/09/2014	-	
BH3	Sulphate, Dissolved as SO4		1680 mg/l		02/09/2014	-	
BH3	Nitrogen : Total Oxidised as N		1.05 mg/l		02/09/2014	-	
BH3	Chloride		2840 mg/l		02/09/2014	-	
BH3	Fluoride		0.137 mg/l		02/09/2014	-	
BH3	Ammoniacal Nitrogen as N	6.6	0.359 mg/l		02/09/2014	-	
BH3	Carbon, Organic : Total as C :- {TOC}		<1 mg/l		02/09/2014	-	
BH3	pH		7.61 pH Units		02/09/2014	-	
BH3	Groundwater Level		6.09 mAOD		02/09/2014	Sampling Amec	

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		18/11/2014	Sampling Amec/Testing EA NLS	
BH3	Antimony, Dissolved		15.6 µg/l		18/11/2014		
BH3	Arsenic Dissolved	310	169 µg/l		18/11/2014		
BH3	Boron, Dissolved	60000	26600 µg/l		18/11/2014		
BH3	Cadmium, Dissolved	15	0.036 µg/l		18/11/2014		
BH3	Calcium, Dissolved		416 mg/l		18/11/2014		
BH3	Chromium, Dissolved		<0.5 µg/l		18/11/2014		
BH3	Copper, Dissolved		<0.2 µg/l		18/11/2014		
BH3	Magnesium, Dissolved		231 mg/l		18/11/2014		
BH3	Manganese, Dissolved		100 µg/l		18/11/2014		
BH3	Molybdenum, Dissolved	9000	2880 µg/l		18/11/2014		
BH3	Nickel, Dissolved		0.426 µg/l		18/11/2014		
BH3	Selenium Dissolved	350	14.2 µg/l		18/11/2014		
BH3	Vanadium, Dissolved		46.8 µg/l		18/11/2014		
BH3	Mercury, Dissolved	20	<0.01 µg/l		18/11/2014		
BH3	Alkalinity to pH 4.5 as CaCO3		146 mg/l		18/11/2014		
BH3	Conductivity at 20C		5990 uS/cm		18/11/2014		
BH3	Potassium, Dissolved		113 mg/l		18/11/2014		
BH3	Sodium, Dissolved		728 mg/l		18/11/2014		
BH3	Sulphate, Dissolved as SO4		1840 mg/l		18/11/2014		
BH3	Nitrogen : Total Oxidised as N		1.26 mg/l		18/11/2014		
BH3	Chloride		1140 mg/l		18/11/2014		
BH3	Fluoride		<0.05 mg/l		18/11/2014		
BH3	Ammoniacal Nitrogen as N	6.6	0.436 mg/l		18/11/2014		
BH3	Carbon, Organic : Total as C :- (TOC)		<1 mg/l		18/11/2014		
BH3	pH		7.65 pH Units		18/11/2014		
BH3	Groundwater Level		6.27 mAOD		18/11/2014	Sampling Amec	

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		10.7 µg/l		02/09/2014	EA NLS	
BH5	Antimony, Dissolved		<1 µg/l		02/09/2014		
BH5	Arsenic Dissolved		<1 µg/l		02/09/2014		
BH5	Boron, Dissolved		533 µg/l		02/09/2014		
BH5	Cadmium, Dissolved		<0.1 µg/l		02/09/2014		
BH5	Calcium, Dissolved		260 mg/l		02/09/2014		
BH5	Chromium, Dissolved		<0.5 µg/l		02/09/2014		
BH5	Copper, Dissolved		1.99 µg/l		02/09/2014		
BH5	Magnesium, Dissolved		17.2 mg/l		02/09/2014		
BH5	Manganese, Dissolved		<10 µg/l		02/09/2014		
BH5	Molybdenum, Dissolved		<3 µg/l		02/09/2014		
BH5	Nickel, Dissolved		1.73 µg/l		02/09/2014		
BH5	Selenium Dissolved		<1 µg/l		02/09/2014		
BH5	Vanadium, Dissolved		<2 µg/l		02/09/2014		
BH5	Mercury, Dissolved		<0.01 µg/l		02/09/2014		
BH5	Alkalinity to pH 4.5 as CaCO3		301 mg/l		02/09/2014		
BH5	Conductivity at 20C		1340 uS/cm		02/09/2014		
BH5	Potassium, Dissolved		1.7 mg/l		02/09/2014		
BH5	Sodium, Dissolved		52.8 mg/l		02/09/2014		
BH5	Sulphate, Dissolved as SO4		387 mg/l		02/09/2014		
BH5	Nitrogen : Total Oxidised as N		0.57 mg/l		02/09/2014		
BH5	Chloride		76.5 mg/l		02/09/2014		
BH5	Fluoride		0.063 mg/l		02/09/2014		
BH5	Ammoniacal Nitrogen as N		<0.03 mg/l		02/09/2014		
BH5	Carbon, Organic : Total as C :- {TOC}		2.1 mg/l		02/09/2014		
BH5	pH		7.05 pH Units		02/09/2014		
BH5	Groundwater Level		9.13 mAOD		02/09/2014	Sampling Amec	

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		18/11/2014	EA NLS	
BH5	Antimony, Dissolved		<1 µg/l		18/11/2014	EA NLS	
BH5	Arsenic Dissolved		<1 µg/l		18/11/2014	EA NLS	
BH5	Boron, Dissolved		329 µg/l		18/11/2014	EA NLS	
BH5	Cadmium, Dissolved		<0.1 µg/l		18/11/2014	EA NLS	
BH5	Calcium, Dissolved		244 mg/l		18/11/2014	EA NLS	
BH5	Chromium, Dissolved		<0.5 µg/l		18/11/2014	EA NLS	
BH5	Copper, Dissolved		2.31 µg/l		18/11/2014	EA NLS	
BH5	Magnesium, Dissolved		16.8 mg/l		18/11/2014	EA NLS	
BH5	Manganese, Dissolved		<10 µg/l		18/11/2014	EA NLS	
BH5	Molybdenum, Dissolved		<3 µg/l		18/11/2014	EA NLS	
BH5	Nickel, Dissolved		1.83 µg/l		18/11/2014	EA NLS	
BH5	Selenium Dissolved		<1 µg/l		18/11/2014	EA NLS	
BH5	Vanadium, Dissolved		<2 µg/l		18/11/2014	EA NLS	
BH5	Mercury, Dissolved		<0.01 µg/l		18/11/2014	EA NLS	
BH5	Alkalinity to pH 4.5 as CaCO ₃		342 mg/l		18/11/2014	EA NLS	
BH5	Conductivity at 20°C		1230 µS/cm		18/11/2014	EA NLS	
BH5	Potassium, Dissolved		3.09 mg/l		18/11/2014	EA NLS	
BH5	Sodium, Dissolved		43.4 mg/l		18/11/2014	EA NLS	
BH5	Sulphate, Dissolved as SO ₄		321 mg/l		18/11/2014	EA NLS	
BH5	Nitrogen : Total Oxidised as N		0.73 mg/l		18/11/2014	EA NLS	
BH5	Chloride		70.3 mg/l		18/11/2014	EA NLS	
BH5	Fluoride		0.128 mg/l		18/11/2014	EA NLS	
BH5	Ammoniacal Nitrogen as N		<0.03 mg/l		18/11/2014	EA NLS	
BH5	Carbon, Organic : Total as C :- {TOC}		2.5 mg/l		18/11/2014	EA NLS	
BH5	pH		7.04 pH Units		18/11/2014	EA NLS	
BH5	Groundwater Level		10 mAOD		18/11/2014	Sampling Amec	

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		02/09/2014	Sampling Amec/Testing EA NLS	
BH6	Antimony, Dissolved		<10 µg/l		02/09/2014		
BH6	Arsenic Dissolved		25.1 µg/l		02/09/2014		
BH6	Boron, Dissolved		26000 µg/l		02/09/2014		
BH6	Cadmium, Dissolved		0.3 µg/l		02/09/2014		
BH6	Calcium, Dissolved		720 mg/l		02/09/2014		
BH6	Chromium, Dissolved		0.99 µg/l		02/09/2014		
BH6	Copper, Dissolved		0.353 µg/l		02/09/2014		
BH6	Magnesium, Dissolved		242 mg/l		02/09/2014		
BH6	Manganese, Dissolved		1570 µg/l		02/09/2014		
BH6	Molybdenum, Dissolved		4430 µg/l		02/09/2014		
BH6	Nickel, Dissolved		5.36 µg/l		02/09/2014		
BH6	Selenium Dissolved		18.7 µg/l		02/09/2014		
BH6	Vanadium, Dissolved		<20 µg/l		02/09/2014		
BH6	Mercury, Dissolved		<0.01 µg/l		02/09/2014		
BH6	Alkalinity to pH 4.5 as CaCO3		255 mg/l		02/09/2014		
BH6	Conductivity at 20C		9320 uS/cm		02/09/2014		
BH6	Potassium, Dissolved		105 mg/l		02/09/2014		
BH6	Sodium, Dissolved		1030 mg/l		02/09/2014		
BH6	Sulphate, Dissolved as SO4		1890 mg/l		02/09/2014		
BH6	Nitrogen : Total Oxidised as N		30 mg/l		02/09/2014		
BH6	Chloride		2300 mg/l		02/09/2014		
BH6	Fluoride		0.156 mg/l		02/09/2014		
BH6	Ammoniacal Nitrogen as N		0.14 mg/l		02/09/2014		
BH6	Carbon, Organic : Total as C :- {TOC}		1.6 mg/l		02/09/2014		
BH6	pH		7.42 pH Units		02/09/2014		
BH6	Groundwater Level		8.46 mAOD		02/09/2014	Sampling Amec	

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		18/11/2014	Sampling Anec/Testing EA NLS	
BH6	Antimony, Dissolved		<10 µg/l		18/11/2014		
BH6	Arsenic Dissolved		8.58 µg/l		18/11/2014		
BH6	Boron, Dissolved		28300 µg/l		18/11/2014		
BH6	Cadmium, Dissolved		0.478 µg/l		18/11/2014		
BH6	Calcium, Dissolved		1240 mg/l		18/11/2014		
BH6	Chromium, Dissolved		<0.5 µg/l		18/11/2014		
BH6	Copper, Dissolved		0.259 µg/l		18/11/2014		
BH6	Magnesium, Dissolved		320 mg/l		18/11/2014		
BH6	Manganese, Dissolved		1770 µg/l		18/11/2014		
BH6	Molybdenum, Dissolved		4390 µg/l		18/11/2014		
BH6	Nickel, Dissolved		9.09 µg/l		18/11/2014		
BH6	Selenium Dissolved		8.38 µg/l		18/11/2014		
BH6	Vanadium, Dissolved		<20 µg/l		18/11/2014		
BH6	Mercury, Dissolved		<0.01 µg/l		18/11/2014		
BH6	Alkalinity to pH 4.5 as CaCO3		245 mg/l		18/11/2014		
BH6	Conductivity at 20C		17400 uS/cm		18/11/2014		
BH6	Potassium, Dissolved		172 mg/l		18/11/2014		
BH6	Sodium, Dissolved		2750 mg/l		18/11/2014		
BH6	Sulphate, Dissolved as SO4		2030 mg/l		18/11/2014		
BH6	Nitrogen : Total Oxidised as N		48.8 mg/l		18/11/2014		
BH6	Chloride		5470 mg/l		18/11/2014		
BH6	Fluoride		0.13 mg/l		18/11/2014		
BH6	Ammoniacal Nitrogen as N		0.098 mg/l		18/11/2014		
BH6	Carbon, Organic : Total as C :- {TOC}		1.2 mg/l		18/11/2014		
BH6	pH		7.31 pH Units		18/11/2014		
BH6	Groundwater Level		8.84 mAOD		18/11/2014	Sampling Anec	

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		02/09/2014	Sampling Amec/Testing EA NLS	
BH7	Antimony, Dissolved		<10 µg/l		02/09/2014	- - -	
BH7	Arsenic Dissolved	310	4.42 µg/l		02/09/2014	- - -	
BH7	Boron, Dissolved	60000	19700 µg/l		02/09/2014	- - -	
BH7	Cadmium, Dissolved	15	0.127 µg/l		02/09/2014	- - -	
BH7	Calcium, Dissolved		761 mg/l		02/09/2014	- - -	
BH7	Chromium, Dissolved		<0.5 µg/l		02/09/2014	- - -	
BH7	Copper, Dissolved		0.442 µg/l		02/09/2014	- - -	
BH7	Magnesium, Dissolved		116 mg/l		02/09/2014	- - -	
BH7	Manganese, Dissolved		1340 µg/l		02/09/2014	- - -	
BH7	Molybdenum, Dissolved	9000	3360 µg/l		02/09/2014	- - -	
BH7	Nickel, Dissolved		0.474 µg/l		02/09/2014	- - -	
BH7	Selenium Dissolved	350	<1 µg/l		02/09/2014	- - -	
BH7	Vanadium, Dissolved		<20 µg/l		02/09/2014	- - -	
BH7	Mercury, Dissolved	20	<0.01 µg/l		02/09/2014	- - -	
BH7	Alkalinity to pH 4.5 as CaCO3		320 mg/l		02/09/2014	- - -	
BH7	Conductivity at 20C		13200 uS/cm		02/09/2014	- - -	
BH7	Potassium, Dissolved		233 mg/l		02/09/2014	- - -	
BH7	Sodium, Dissolved		1930 mg/l		02/09/2014	- - -	
BH7	Sulphate, Dissolved as SO4		1730 mg/l		02/09/2014	- - -	
BH7	Nitrogen : Total Oxidised as N		<0.2 mg/l		02/09/2014	- - -	
BH7	Chloride		3920 mg/l		02/09/2014	- - -	
BH7	Fluoride		0.434 mg/l		02/09/2014	- - -	
BH7	Ammoniacal Nitrogen as N	6.6	3.36 mg/l		02/09/2014	- - -	
BH7	Carbon, Organic : Total as C :- {TOC}		0.434 mg/l		02/09/2014	- - -	
BH7	pH		7.23 pH Units		02/09/2014	- - -	
BH7	Groundwater Level		3 mAOD		02/09/2014	Sampling Amec	

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		18/11/2014	EA NLS	
BH7	Antimony, Dissolved		<10 µg/l		18/11/2014		
BH7	Arsenic Dissolved	310	4.61 µg/l		18/11/2014		
BH7	Boron, Dissolved	60000	22100 µg/l		18/11/2014		
BH7	Cadmium, Dissolved	15	0.071 µg/l		18/11/2014		
BH7	Calcium, Dissolved		816 mg/l		18/11/2014		
BH7	Chromium, Dissolved		<1 µg/l		18/11/2014		
BH7	Copper, Dissolved		0.332 µg/l		18/11/2014		
BH7	Magnesium, Dissolved		159 mg/l		18/11/2014		
BH7	Manganese, Dissolved		1310 µg/l		18/11/2014		
BH7	Molybdenum, Dissolved	9000	3430 µg/l		18/11/2014		
BH7	Nickel, Dissolved		0.376 µg/l		18/11/2014		
BH7	Selenium Dissolved	350	<1 µg/l		18/11/2014		
BH7	Vanadium, Dissolved		<200 µg/l		18/11/2014		
BH7	Mercury, Dissolved	20	<0.01 µg/l		18/11/2014		
BH7	Alkalinity to pH 4.5 as CaCO ₃		299 mg/l		18/11/2014		
BH7	Conductivity at 20C		13400 uS/cm		18/11/2014		
BH7	Potassium, Dissolved		282 mg/l		18/11/2014		
BH7	Sodium, Dissolved		2480 mg/l		18/11/2014		
BH7	Sulphate, Dissolved as SO ₄		1300 mg/l		18/11/2014		
BH7	Nitrogen : Total Oxidised as N		<0.2 mg/l		18/11/2014		
BH7	Chloride		3950 mg/l		18/11/2014		
BH7	Fluoride		0.47 mg/l		18/11/2014		
BH7	Ammoniacal Nitrogen as N	6.6	3.37 mg/l		18/11/2014		
BH7	Carbon, Organic : Total as C :- {TOC}		<1 mg/l		18/11/2014		
BH7	pH		7.3 pH Units		18/11/2014		
BH7	Groundwater Level		2.52 mAOD		18/11/2014	Sampling Anec	

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		<40 µg/l		02/09/2014	Sampling Amec/Testing EA NLS	
BH8	Antimony, Dissolved		<10 µg/l		02/09/2014		
BH8	Arsenic Dissolved		<1 µg/l		02/09/2014		
BH8	Boron, Dissolved		1800 µg/l		02/09/2014		
BH8	Cadmium, Dissolved		<0.03 µg/l		02/09/2014		
BH8	Calcium, Dissolved		224 mg/l		02/09/2014		
BH8	Chromium, Dissolved		<0.5 µg/l		02/09/2014		
BH8	Copper, Dissolved		<0.2 µg/l		02/09/2014		
BH8	Magnesium, Dissolved		437 mg/l		02/09/2014		
BH8	Manganese, Dissolved		77.9 µg/l		02/09/2014		
BH8	Molybdenum, Dissolved		<30 µg/l		02/09/2014		
BH8	Nickel, Dissolved		<0.3 µg/l		02/09/2014		
BH8	Selenium Dissolved		<1 µg/l		02/09/2014		
BH8	Vanadium, Dissolved		<20 µg/l		02/09/2014		
BH8	Mercury, Dissolved		<0.01 µg/l		02/09/2014		
BH8	Alkalinity to pH 4.5 as CaCO3		735 mg/l		02/09/2014		
BH8	Conductivity at 20C		21000 uS/cm		02/09/2014		
BH8	Potassium, Dissolved		123 mg/l		02/09/2014		
BH8	Sodium, Dissolved		3830 mg/l		02/09/2014		
BH8	Sulphate, Dissolved as SO4		314 mg/l		02/09/2014		
BH8	Nitrogen : Total Oxidised as N		<0.2 mg/l		02/09/2014		
BH8	Chloride		7490 mg/l		02/09/2014		
BH8	Fluoride		0.571 mg/l		02/09/2014		
BH8	Ammoniacal Nitrogen as N		7.09 mg/l		02/09/2014		
BH8	Carbon, Organic : Total as C :- {TOC}		4.1 mg/l		02/09/2014		
BH8	pH		7.14 pH Units		02/09/2014		
BH8	Groundwater Level		5.53 mAOD		02/09/2014	Sampling Amec	

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		<40 µg/l		18/11/2014	Sampling Amec/Testing EA NLS	
BH8	Antimony, Dissolved		<10 µg/l		18/11/2014	-*-	
BH8	Arsenic Dissolved		<1 µg/l		18/11/2014	-*-	
BH8	Boron, Dissolved		1780 µg/l		18/11/2014	-*-	
BH8	Cadmium, Dissolved		<0.03 µg/l		18/11/2014	-*-	
BH8	Calcium, Dissolved		217 mg/l		18/11/2014	-*-	
BH8	Chromium, Dissolved		<0.5 µg/l		18/11/2014	-*-	
BH8	Copper, Dissolved		<0.2 µg/l		18/11/2014	-*-	
BH8	Magnesium, Dissolved		433 mg/l		18/11/2014	-*-	
BH8	Manganese, Dissolved		56.4 µg/l		18/11/2014	-*-	
BH8	Molybdenum, Dissolved		<30 µg/l		18/11/2014	-*-	
BH8	Nickel, Dissolved		<0.3 µg/l		18/11/2014	-*-	
BH8	Selenium Dissolved		<1 µg/l		18/11/2014	-*-	
BH8	Vanadium, Dissolved		<20 µg/l		18/11/2014	-*-	
BH8	Mercury, Dissolved		<0.01 µg/l		18/11/2014	-*-	
BH8	Alkalinity to pH 4.5 as CaCO3		738 mg/l		18/11/2014	-*-	
BH8	Conductivity at 20C		20000 µS/cm		18/11/2014	-*-	
BH8	Potassium, Dissolved		123 mg/l		18/11/2014	-*-	
BH8	Sodium, Dissolved		4200 mg/l		18/11/2014	-*-	
BH8	Sulphate, Dissolved as SO4		331 mg/l		18/11/2014	-*-	
BH8	Nitrogen : Total Oxidised as N		<0.2 mg/l		18/11/2014	-*-	
BH8	Chloride		7090 mg/l		18/11/2014	-*-	
BH8	Fluoride		0.507 mg/l		18/11/2014	-*-	
BH8	Ammoniacal Nitrogen as N		7.16 mg/l		18/11/2014	-*-	
BH8	Carbon, Organic : Total as C :- {TOC}		3.4 mg/l		18/11/2014	-*-	
BH8	pH		7.18 pH Units		18/11/2014	-*-	
BH8	Groundwater Level		6.22 mAOD		18/11/2014	Sampling Amec	

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		02/09/2014	Sampling Amec/Testing EA NLS	
BH9	Antimony, Dissolved		<1 µg/l		02/09/2014		
BH9	Arsenic Dissolved		<1 µg/l		02/09/2014		
BH9	Boron, Dissolved		120 µg/l		02/09/2014		
BH9	Cadmium, Dissolved		<0.1 µg/l		02/09/2014		
BH9	Calcium, Dissolved		92.7 mg/l		02/09/2014		
BH9	Chromium, Dissolved		<0.5 µg/l		02/09/2014		
BH9	Copper, Dissolved		<1 µg/l		02/09/2014		
BH9	Magnesium, Dissolved		21 mg/l		02/09/2014		
BH9	Manganese, Dissolved		<10 µg/l		02/09/2014		
BH9	Molybdenum, Dissolved		<3 µg/l		02/09/2014		
BH9	Nickel, Dissolved		1.19 µg/l		02/09/2014		
BH9	Selenium Dissolved		<1 µg/l		02/09/2014		
BH9	Vanadium, Dissolved		<2 µg/l		02/09/2014		
BH9	Mercury, Dissolved		<0.01 µg/l		02/09/2014		
BH9	Alkalinity to pH 4.5 as CaCO3		268 mg/l		02/09/2014		
BH9	Conductivity at 20C		605 uS/cm		02/09/2014		
BH9	Potassium, Dissolved		1.98 mg/l		02/09/2014		
BH9	Sodium, Dissolved		23.1 mg/l		02/09/2014		
BH9	Sulphate, Dissolved as SO4		31.1 mg/l		02/09/2014		
BH9	Nitrogen : Total Oxidised as N		2.83 mg/l		02/09/2014		
BH9	Chloride		28.7 mg/l		02/09/2014		
BH9	Fluoride		0.163 mg/l		02/09/2014		
BH9	Ammoniacal Nitrogen as N		<0.03 mg/l		02/09/2014		
BH9	Carbon, Organic : Total as C :- {TOC}		<1 mg/l		02/09/2014		
BH9	pH		7.42 pH Units		02/09/2014		
BH9	Groundwater Level		4.3 mAOD		02/09/2014	Sampling Amec	

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		407 µg/l		18/11/2014	Sampling Amec/Testing EA NLS	
BH9	Antimony, Dissolved		<1 µg/l		18/11/2014	- - -	
BH9	Arsenic Dissolved		<1 µg/l		18/11/2014	- - -	
BH9	Boron, Dissolved		102 µg/l		18/11/2014	- - -	
BH9	Cadmium, Dissolved		<0.1 µg/l		18/11/2014	- - -	
BH9	Calcium, Dissolved		88.2 mg/l		18/11/2014	- - -	
BH9	Chromium, Dissolved		1.41 µg/l		18/11/2014	- - -	
BH9	Copper, Dissolved		1.72 µg/l		18/11/2014	- - -	
BH9	Magnesium, Dissolved		19.3 mg/l		18/11/2014	- - -	
BH9	Manganese, Dissolved		13.8 µg/l		18/11/2014	- - -	
BH9	Molybdenum, Dissolved		<3 µg/l		18/11/2014	- - -	
BH9	Nickel, Dissolved		<1 µg/l		18/11/2014	- - -	
BH9	Selenium Dissolved		<1 µg/l		18/11/2014	- - -	
BH9	Vanadium, Dissolved		<2 µg/l		18/11/2014	- - -	
BH9	Mercury, Dissolved		<0.01 µg/l		18/11/2014	- - -	
BH9	Alkalinity to pH 4.5 as CaCO3		248 mg/l		18/11/2014	- - -	
BH9	Conductivity at 20C		574 uS/cm		18/11/2014	- - -	
BH9	Potassium, Dissolved		2.31 mg/l		18/11/2014	- - -	
BH9	Sodium, Dissolved		20.4 mg/l		18/11/2014	- - -	
BH9	Sulphate, Dissolved as SO4		30.5 mg/l		18/11/2014	- - -	
BH9	Nitrogen : Total Oxidised as N		2.85 mg/l		18/11/2014	- - -	
BH9	Chloride		28.4 mg/l		18/11/2014	- - -	
BH9	Fluoride		0.181 mg/l		18/11/2014	- - -	
BH9	Ammoniacal Nitrogen as N		<0.03 mg/l		18/11/2014	- - -	
BH9	Carbon, Organic : Total as C :- (TOC)		<1 mg/l		18/11/2014	- - -	
BH9	pH		7.5 pH Units		18/11/2014	- - -	
BH9	Groundwater Level		4.95 mAOD		18/11/2014	Sampling Amec	

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		02/09/2014	EA NLS	
BH10	Antimony, Dissolved		<10 µg/l		02/09/2014		
BH10	Arsenic Dissolved		27.3 µg/l		02/09/2014		
BH10	Boron, Dissolved		10300 µg/l		02/09/2014		
BH10	Cadmium, Dissolved		0.042 µg/l		02/09/2014		
BH10	Calcium, Dissolved		382 mg/l		02/09/2014		
BH10	Chromium, Dissolved		<0.5 µg/l		02/09/2014		
BH10	Copper, Dissolved		<0.2 µg/l		02/09/2014		
BH10	Magnesium, Dissolved		375 mg/l		02/09/2014		
BH10	Manganese, Dissolved		596 µg/l		02/09/2014		
BH10	Molybdenum, Dissolved		925 µg/l		02/09/2014		
BH10	Nickel, Dissolved		<0.3 µg/l		02/09/2014		
BH10	Selenium Dissolved		<1 µg/l		02/09/2014		
BH10	Vanadium, Dissolved		<20 µg/l		02/09/2014		
BH10	Mercury, Dissolved		<0.01 µg/l		02/09/2014		
BH10	Alkalinity to pH 4.5 as CaCO3		765 mg/l		02/09/2014		
BH10	Conductivity at 20C		16700 uS/cm		02/09/2014		
BH10	Potassium, Dissolved		147 mg/l		02/09/2014		
BH10	Sodium, Dissolved		2800 mg/l		02/09/2014		
BH10	Sulphate, Dissolved as SO4		1010 mg/l		02/09/2014		
BH10	Nitrogen : Total Oxidised as N		<0.2 mg/l		02/09/2014		
BH10	Chloride		5460 mg/l		02/09/2014		
BH10	Fluoride		0.225 mg/l		02/09/2014		
BH10	Ammoniacal Nitrogen as N		27.2 mg/l		02/09/2014		
BH10	Carbon, Organic : Total as C :- {TOC}		5.2 mg/l		02/09/2014		
BH10	pH		7.55 pH Units		02/09/2014		
BH10	Groundwater Level		2.33 mAOD		02/09/2014	Sampling Amec	

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		18/11/2014	EA NLS	
BH10	Antimony, Dissolved		<10 µg/l		18/11/2014	-*-	
BH10	Arsenic Dissolved		55.6 µg/l		18/11/2014	-*-	
BH10	Boron, Dissolved		8260 µg/l		18/11/2014	-*-	
BH10	Cadmium, Dissolved		<0.03 µg/l		18/11/2014	-*-	
BH10	Calcium, Dissolved		377 mg/l		18/11/2014	-*-	
BH10	Chromium, Dissolved		<0.5 µg/l		18/11/2014	-*-	
BH10	Copper, Dissolved		<0.2 µg/l		18/11/2014	-*-	
BH10	Magnesium, Dissolved		644 mg/l		18/11/2014	-*-	
BH10	Manganese, Dissolved		465 µg/l		18/11/2014	-*-	
BH10	Molybdenum, Dissolved		309 µg/l		18/11/2014	-*-	
BH10	Nickel, Dissolved		<0.3 µg/l		18/11/2014	-*-	
BH10	Selenium Dissolved		<1 µg/l		18/11/2014	-*-	
BH10	Vanadium, Dissolved		<20 µg/l		18/11/2014	-*-	
BH10	Mercury, Dissolved		<0.01 µg/l		18/11/2014	-*-	
BH10	Alkalinity to pH 4.5 as CaCO ₃		1120 mg/l		18/11/2014	-*-	
BH10	Conductivity at 20C		24800 µS/cm		18/11/2014	-*-	
BH10	Potassium, Dissolved		211 mg/l		18/11/2014	-*-	
BH10	Sodium, Dissolved		5290 mg/l		18/11/2014	-*-	
BH10	Sulphate, Dissolved as SO ₄		931 mg/l		18/11/2014	-*-	
BH10	Nitrogen : Total Oxidised as N		<0.2 mg/l		18/11/2014	-*-	
BH10	Chloride		8840 mg/l		18/11/2014	-*-	
BH10	Fluoride		0.197 mg/l		18/11/2014	-*-	
BH10	Ammoniacal Nitrogen as N		47.1 mg/l		18/11/2014	-*-	
BH10	Carbon, Organic : Total as C :- (TOC)		9.8 mg/l		18/11/2014	-*-	
BH10	pH		7.43 pH Units		18/11/2014	-*-	
BH10	Groundwater Level		1.68 mAOD		18/11/2014	Sampling Amec	

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		02/09/2014	Sampling Amec/Testing EA NLS	
BH11	Antimony, Dissolved		<10 µg/l		02/09/2014		
BH11	Arsenic Dissolved		13.9 µg/l		02/09/2014		
BH11	Boron, Dissolved		7480 µg/l		02/09/2014		
BH11	Cadmium, Dissolved		<0.03 µg/l		02/09/2014		
BH11	Calcium, Dissolved		252 mg/l		02/09/2014		
BH11	Chromium, Dissolved		<0.5 µg/l		02/09/2014		
BH11	Copper, Dissolved		<0.2 µg/l		02/09/2014		
BH11	Magnesium, Dissolved		115 mg/l		02/09/2014		
BH11	Manganese, Dissolved		754 µg/l		02/09/2014		
BH11	Molybdenum, Dissolved		555 µg/l		02/09/2014		
BH11	Nickel, Dissolved		0.458 µg/l		02/09/2014		
BH11	Selenium Dissolved		<1 µg/l		02/09/2014		
BH11	Vanadium, Dissolved		<20 µg/l		02/09/2014		
BH11	Mercury, Dissolved		<0.01 µg/l		02/09/2014		
BH11	Alkalinity to pH 4.5 as CaCO3		675 mg/l		02/09/2014		
BH11	Conductivity at 20C		4720 uS/cm		02/09/2014		
BH11	Potassium, Dissolved		74.5 mg/l		02/09/2014		
BH11	Sodium, Dissolved		620 mg/l		02/09/2014		
BH11	Sulphate, Dissolved as SO4		488 mg/l		02/09/2014		
BH11	Nitrogen : Total Oxidised as N		<0.2 mg/l		02/09/2014		
BH11	Chloride		996 mg/l		02/09/2014		
BH11	Fluoride		0.267 mg/l		02/09/2014		
BH11	Ammoniacal Nitrogen as N		3.41 mg/l		02/09/2014		
BH11	Carbon, Organic : Total as C :- {TOC}		3 mg/l		02/09/2014		
BH11	pH		7.4 pH Units		02/09/2014		
BH11	Groundwater Level		4.14 mAOD		02/09/2014	Sampling Amec	

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		18/11/2014	Sampling Amec/Testing EA NLS	
BH11	Antimony, Dissolved		<10 µg/l		18/11/2014	-	
BH11	Arsenic Dissolved		30.1 µg/l		18/11/2014	-	
BH11	Boron, Dissolved		6360 µg/l		18/11/2014	-	
BH11	Cadmium, Dissolved		<0.03 µg/l		18/11/2014	-	
BH11	Calcium, Dissolved		205 mg/l		18/11/2014	-	
BH11	Chromium, Dissolved		<0.5 µg/l		18/11/2014	-	
BH11	Copper, Dissolved		<0.2 µg/l		18/11/2014	-	
BH11	Magnesium, Dissolved		87.6 mg/l		18/11/2014	-	
BH11	Manganese, Dissolved		593 µg/l		18/11/2014	-	
BH11	Molybdenum, Dissolved		349 µg/l		18/11/2014	-	
BH11	Nickel, Dissolved		0.767 µg/l		18/11/2014	-	
BH11	Selenium Dissolved		<1 µg/l		18/11/2014	-	
BH11	Vanadium, Dissolved		<20 µg/l		18/11/2014	-	
BH11	Mercury, Dissolved		<0.01 µg/l		18/11/2014	-	
BH11	Alkalinity to pH 4.5 as CaCO ₃		623 mg/l		18/11/2014	-	
BH11	Conductivity at 20C		2370 µS/cm		18/11/2014	-	
BH11	Potassium, Dissolved		45.6 mg/l		18/11/2014	-	
BH11	Sodium, Dissolved		244 mg/l		18/11/2014	-	
BH11	Sulphate, Dissolved as SO ₄		283 mg/l		18/11/2014	-	
BH11	Nitrogen : Total Oxidised as N		<0.2 mg/l		18/11/2014	-	
BH11	Chloride		358 mg/l		18/11/2014	-	
BH11	Fluoride		0.176 mg/l		18/11/2014	-	
BH11	Ammoniacal Nitrogen as N		1.52 mg/l		18/11/2014	-	
BH11	Carbon, Organic : Total as C :- (TOC)		1.5 mg/l		18/11/2014	-	
BH11	pH		7.6 pH Units		18/11/2014	-	
BH11	Groundwater Level		4.12 mAOD		18/11/2014	Sampling Amec	

[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 26-01-15
(authorised to sign as representative of the Operator)

Reporting of Emission to Surface Water for the period from1st July 2014.....to.....31st December 2014.....

Operator : RWE Generation UK plc

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		415 ug/l		29/09/2014	Sampling Station/Testing EA NLS	
S1 (Group Five Spring)	Antimony		<10 ug/l		29/09/2014		
S1 (Group Five Spring)	Arsenic		22.8 µg/l		29/09/2014		
S1 (Group Five Spring)	Boron		14900 ug/l		29/09/2014		
S1 (Group Five Spring)	Cadmium		0.195 ug/l		29/09/2014		
S1 (Group Five Spring)	Calcium		1200 mg/l		29/09/2014		
S1 (Group Five Spring)	Chromium		1.82 ug/l		29/09/2014		
S1 (Group Five Spring)	Copper		23.9 ug/l		29/09/2014		
S1 (Group Five Spring)	Magnesium		97.5 mg/l		29/09/2014		
S1 (Group Five Spring)	Manganese		914 ug/l		29/09/2014		
S1 (Group Five Spring)	Molybdenum		4880 ug/l		29/09/2014		
S1 (Group Five Spring)	Nickel		0.789 ug/l		29/09/2014		
S1 (Group Five Spring)	Selenium		10.8 ug/l		29/09/2014		
S1 (Group Five Spring)	Vanadium		<20 ug/l		29/09/2014		
S1 (Group Five Spring)	Mercury		0.0118 ug/l		29/09/2014		
S1 (Group Five Spring)	Alkalinity to pH 4.5 as CaCO3		84 mg/l		29/09/2014		
S1 (Group Five Spring)	Conductivity		19000 uS/cm		29/09/2014		
S1 (Group Five Spring)	Potassium		269 mg/l		29/09/2014		
S1 (Group Five Spring)	Sodium		3350 mg/l		29/09/2014		
S1 (Group Five Spring)	Sulphate		1680 mg/l		29/09/2014		
S1 (Group Five Spring)	Nitrogen (Total Oxidised) as N		17.7 mg/l		29/09/2014		
S1 (Group Five Spring)	Chloride		6190 mg/l		29/09/2014		
S1 (Group Five Spring)	Fluoride		0.088 mg/l		29/09/2014		
S1 (Group Five Spring)	Ammoniacal Nitrogen as N		1.97 mg/l		29/09/2014		
S1 (Group Five Spring)	Carbon (Total Organic)		5.1 mg/l		29/09/2014		
S1 (Group Five Spring)	pH		7.14 pH Units		29/09/2014		

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		425 ug/l		20/11/2014	Sampling Station/Testing EA NLS	
S1 (Group Five Spring)	Antimony		36.8 ug/l		20/11/2014		
S1 (Group Five Spring)	Arsenic		360 µg/l		20/11/2014		
S1 (Group Five Spring)	Boron		4230 ug/l		20/11/2014		
S1 (Group Five Spring)	Cadmium		0.097 ug/l		20/11/2014		
S1 (Group Five Spring)	Calcium		352 mg/l		20/11/2014		
S1 (Group Five Spring)	Chromium		8.35 ug/l		20/11/2014		
S1 (Group Five Spring)	Copper		1.03 ug/l		20/11/2014		
S1 (Group Five Spring)	Magnesium		106 mg/l		20/11/2014		
S1 (Group Five Spring)	Manganese		77.3 ug/l		20/11/2014		
S1 (Group Five Spring)	Molybdenum		2240 ug/l		20/11/2014		
S1 (Group Five Spring)	Nickel		7.03 ug/l		20/11/2014		
S1 (Group Five Spring)	Selenium		205 ug/l		20/11/2014		
S1 (Group Five Spring)	Vanadium		247 ug/l		20/11/2014		
S1 (Group Five Spring)	Mercury		<0.01 ug/l		20/11/2014		
S1 (Group Five Spring)	Alkalinity to pH 4.5 as CaCO3		141 mg/l		20/11/2014		
S1 (Group Five Spring)	Conductivity		4720 uS/cm		20/11/2014		
S1 (Group Five Spring)	Potassium		54.5 mg/l		20/11/2014		
S1 (Group Five Spring)	Sodium		617 mg/l		20/11/2014		
S1 (Group Five Spring)	Sulphate		1060 mg/l		20/11/2014		
S1 (Group Five Spring)	Nitrogen (Total Oxidised) as N		1.26 mg/l		20/11/2014		
S1 (Group Five Spring)	Chloride		1010 mg/l		20/11/2014		
S1 (Group Five Spring)	Fluoride		3.45 mg/l		20/11/2014		
S1 (Group Five Spring)	Ammoniacal Nitrogen as N		18.8 mg/l		20/11/2014		
S1 (Group Five Spring)	Carbon (Total Organic)		<1.00 mg/l		20/11/2014		
S1 (Group Five Spring)	pH		8.23 pH Units		20/11/2014		

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		<40 ug/l		29/09/2014	Sampling Station/Testing EA NLS	
Eastern Perimeter Drain	Antimony		<10 ug/l		29/09/2014		
Eastern Perimeter Drain	Arsenic		3.06 ug/l		29/09/2014		
Eastern Perimeter Drain	Boron		<700 ug/l		29/09/2014		
Eastern Perimeter Drain	Cadmium		<0.03 ug/l		29/09/2014		
Eastern Perimeter Drain	Calcium		92.7 mg/l		29/09/2014		
Eastern Perimeter Drain	Chromium		<0.5 ug/l		29/09/2014		
Eastern Perimeter Drain	Copper		1.13 ug/l		29/09/2014		
Eastern Perimeter Drain	Magnesium		21.3 mg/l		29/09/2014		
Eastern Perimeter Drain	Manganese		<20 ug/l		29/09/2014		
Eastern Perimeter Drain	Molybdenum		61.7 ug/l		29/09/2014		
Eastern Perimeter Drain	Nickel		0.54 ug/l		29/09/2014		
Eastern Perimeter Drain	Selenium		<1 ug/l		29/09/2014		
Eastern Perimeter Drain	Vanadium		<20 ug/l		29/09/2014		
Eastern Perimeter Drain	Mercury		<0.01 ug/l		29/09/2014		
Eastern Perimeter Drain	Alkalinity to pH 4.5 as CaCO3		211 mg/l		29/09/2014		
Eastern Perimeter Drain	Conductivity		664 uS/cm		29/09/2014		
Eastern Perimeter Drain	Potassium		3.34 mg/l		29/09/2014		
Eastern Perimeter Drain	Sodium		41.6 mg/l		29/09/2014		
Eastern Perimeter Drain	Sulphate		61.7 mg/l		29/09/2014		
Eastern Perimeter Drain	Nitrogen (Total Oxidised) as N		3.23 mg/l		29/09/2014		
Eastern Perimeter Drain	Chloride		58 mg/l		29/09/2014		
Eastern Perimeter Drain	Fluoride		0.1 mg/l		29/09/2014		
Eastern Perimeter Drain	Ammoniacal Nitrogen as N		<0.0100 mg/l		29/09/2014		
Eastern Perimeter Drain	Carbon (Total Organic)		<1.00 mg/l		29/09/2014		
Eastern Perimeter Drain	pH		8.04 pH Units		29/09/2014		

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		270 ug/l		20/11/2014	Sampling Station/Testing EA NLS	
Eastern Perimeter Drain	Antimony		<10 ug/l		20/11/2014		
Eastern Perimeter Drain	Arsenic		2.91 ug/l		20/11/2014		
Eastern Perimeter Drain	Boron		2610 ug/l		20/11/2014		
Eastern Perimeter Drain	Cadmium		0.03 ug/l		20/11/2014		
Eastern Perimeter Drain	Calcium		222 mg/l		20/11/2014		
Eastern Perimeter Drain	Chromium		<0.5 ug/l		20/11/2014		
Eastern Perimeter Drain	Copper		1.34 ug/l		20/11/2014		
Eastern Perimeter Drain	Magnesium		20.5 mg/l		20/11/2014		
Eastern Perimeter Drain	Manganese		827 ug/l		20/11/2014		
Eastern Perimeter Drain	Molybdenum		315 ug/l		20/11/2014		
Eastern Perimeter Drain	Nickel		1.69 ug/l		20/11/2014		
Eastern Perimeter Drain	Selenium		<1 ug/l		20/11/2014		
Eastern Perimeter Drain	Vanadium		<20 ug/l		20/11/2014		
Eastern Perimeter Drain	Mercury		<0.01 ug/l		20/11/2014		
Eastern Perimeter Drain	Alkalinity to pH 4.5 as CaCO3		269 mg/l		20/11/2014		
Eastern Perimeter Drain	Conductivity		1810 uS/cm		20/11/2014		
Eastern Perimeter Drain	Potassium		22.6 mg/l		20/11/2014		
Eastern Perimeter Drain	Sodium		183 mg/l		20/11/2014		
Eastern Perimeter Drain	Sulphate		308 mg/l		20/11/2014		
Eastern Perimeter Drain	Nitrogen (Total Oxidised) as N		2.3 mg/l		20/11/2014		
Eastern Perimeter Drain	Chloride		304 mg/l		20/11/2014		
Eastern Perimeter Drain	Fluoride		0.118 mg/l		20/11/2014		
Eastern Perimeter Drain	Ammoniacal Nitrogen as N		0.056 mg/l		20/11/2014		
Eastern Perimeter Drain	Carbon (Total Organic)		1.7 mg/l		20/11/2014		
Eastern Perimeter Drain	pH		8.04 pH Units		20/11/2014		

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		119 ug/l		29/09/2014	Sampling Station/Testing EA NLS	
S3 (River Thaw)	Antimony		<10 ug/l		29/09/2014		
S3 (River Thaw)	Arsenic		<1 ug/l		29/09/2014		
S3 (River Thaw)	Boron		<700 ug/l		29/09/2014		
S3 (River Thaw)	Cadmium		<0.03 ug/l		29/09/2014		
S3 (River Thaw)	Calcium		159 mg/l		29/09/2014		
S3 (River Thaw)	Chromium		0.98 ug/l		29/09/2014		
S3 (River Thaw)	Copper		1.26 ug/l		29/09/2014		
S3 (River Thaw)	Magnesium		187 mg/l		29/09/2014		
S3 (River Thaw)	Manganese		20.1 ug/l		29/09/2014		
S3 (River Thaw)	Molybdenum		<30 ug/l		29/09/2014		
S3 (River Thaw)	Nickel		0.671 ug/l		29/09/2014		
S3 (River Thaw)	Selenium		<1 ug/l		29/09/2014		
S3 (River Thaw)	Vanadium		<20 ug/l		29/09/2014		
S3 (River Thaw)	Mercury		<0.01 ug/l		29/09/2014		
S3 (River Thaw)	Alkalinity to pH 4.5 as CaCO3		258 mg/l		29/09/2014		
S3 (River Thaw)	Conductivity		7870 uS/cm		29/09/2014		
S3 (River Thaw)	Potassium		60.3 mg/l		29/09/2014		
S3 (River Thaw)	Sodium		1410 mg/l		29/09/2014		
S3 (River Thaw)	Sulphate		379 mg/l		29/09/2014		
S3 (River Thaw)	Nitrogen (Total Oxidised) as N		3.53 mg/l		29/09/2014		
S3 (River Thaw)	Chloride		2450 mg/l		29/09/2014		
S3 (River Thaw)	Fluoride		0.218 mg/l		29/09/2014		
S3 (River Thaw)	Ammoniacal Nitrogen as N		0.025 mg/l		29/09/2014		
S3 (River Thaw)	Carbon (Total Organic)		1.7 mg/l		29/09/2014		
S3 (River Thaw)	pH		7.98 pH Units		29/09/2014		

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		98.3 ug/l		20/11/2014	Sampling Station/Testing EA NLS	
S3 (River Thaw)	Antimony		<10 ug/l		20/11/2014		
S3 (River Thaw)	Arsenic		<1 ug/l		20/11/2014		
S3 (River Thaw)	Boron		<700 ug/l		20/11/2014		
S3 (River Thaw)	Cadmium		0.043 ug/l		20/11/2014		
S3 (River Thaw)	Calcium		122 mg/l		20/11/2014		
S3 (River Thaw)	Chromium		<0.5 ug/l		20/11/2014		
S3 (River Thaw)	Copper		1.74 ug/l		20/11/2014		
S3 (River Thaw)	Magnesium		13.3 mg/l		20/11/2014		
S3 (River Thaw)	Manganese		<20 ug/l		20/11/2014		
S3 (River Thaw)	Molybdenum		<30 ug/l		20/11/2014		
S3 (River Thaw)	Nickel		0.842 ug/l		20/11/2014		
S3 (River Thaw)	Selenium		<1 ug/l		20/11/2014		
S3 (River Thaw)	Vanadium		<20 ug/l		20/11/2014		
S3 (River Thaw)	Mercury		<0.01 ug/l		20/11/2014		
S3 (River Thaw)	Alkalinity to pH 4.5 as CaCO3		293 mg/l		20/11/2014		
S3 (River Thaw)	Conductivity		664 uS/cm		20/11/2014		
S3 (River Thaw)	Potassium		2.57 mg/l		20/11/2014		
S3 (River Thaw)	Sodium		23 mg/l		20/11/2014		
S3 (River Thaw)	Sulphate		26.3 mg/l		20/11/2014		
S3 (River Thaw)	Nitrogen (Total Oxidised) as N		3.85 mg/l		20/11/2014		
S3 (River Thaw)	Chloride		40 mg/l		20/11/2014		
S3 (River Thaw)	Fluoride		0.081 mg/l		20/11/2014		
S3 (River Thaw)	Ammoniacal Nitrogen as N		0.035 mg/l		20/11/2014		
S3 (River Thaw)	Carbon (Total Organic)		2.1 mg/l		20/11/2014		
S3 (River Thaw)	pH		8.02 pH Units		20/11/2014		

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		<40 ug/l		29/09/2014	Sampling Station/Testing EA NLS	
Brackish Lagoon	Antimony		<1 ug/l		29/09/2014		
Brackish Lagoon	Arsenic		4 ug/l		29/09/2014		
Brackish Lagoon	Boron		3460 ug/l		29/09/2014		
Brackish Lagoon	Cadmium		0.037 ug/l		29/09/2014		
Brackish Lagoon	Calcium		261 mg/l		29/09/2014		
Brackish Lagoon	Chromium		<0.5 ug/l		29/09/2014		
Brackish Lagoon	Copper		0.628 ug/l		29/09/2014		
Brackish Lagoon	Magnesium		365 mg/l		29/09/2014		
Brackish Lagoon	Manganese		108 ug/l		29/09/2014		
Brackish Lagoon	Molybdenum		536 ug/l		29/09/2014		
Brackish Lagoon	Nickel		<0.3 ug/l		29/09/2014		
Brackish Lagoon	Selenium		<1 ug/l		29/09/2014		
Brackish Lagoon	Vanadium		<20 ug/l		29/09/2014		
Brackish Lagoon	Mercury		<0.01 ug/l		29/09/2014		
Brackish Lagoon	Alkalinity to pH 4.5 as CaCO3		169 mg/l		29/09/2014		
Brackish Lagoon	Conductivity		15700 uS/cm		29/09/2014		
Brackish Lagoon	Potassium		151 mg/l		29/09/2014		
Brackish Lagoon	Sodium		3110 mg/l		29/09/2014		
Brackish Lagoon	Sulphate		937 mg/l		29/09/2014		
Brackish Lagoon	Nitrogen (Total Oxidised) as N		1 mg/l		29/09/2014		
Brackish Lagoon	Chloride		5380 mg/l		29/09/2014		
Brackish Lagoon	Fluoride		0.39 mg/l		29/09/2014		
Brackish Lagoon	Ammoniacal Nitrogen as N		0.014 mg/l		29/09/2014		
Brackish Lagoon	Carbon (Total Organic)		4 mg/l		29/09/2014		
Brackish Lagoon	pH		8.13 pH Units		29/09/2014		

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		<40 ug/l		20/11/2014	Sampling Station/Testing EA NLS	
Brackish Lagoon	Antimony		<10 ug/l		20/11/2014		
Brackish Lagoon	Arsenic		2.11 µg/l		20/11/2014		
Brackish Lagoon	Boron		2270 ug/l		20/11/2014		
Brackish Lagoon	Cadmium		<0.03 ug/l		20/11/2014		
Brackish Lagoon	Calcium		195 mg/l		20/11/2014		
Brackish Lagoon	Chromium		<0.5 ug/l		20/11/2014		
Brackish Lagoon	Copper		0.81 ug/l		20/11/2014		
Brackish Lagoon	Magnesium		123 mg/l		20/11/2014		
Brackish Lagoon	Manganese		124 ug/l		20/11/2014		
Brackish Lagoon	Molybdenum		306 ug/l		20/11/2014		
Brackish Lagoon	Nickel		0.798 ug/l		20/11/2014		
Brackish Lagoon	Selenium		<1 ug/l		20/11/2014		
Brackish Lagoon	Vanadium		<20 ug/l		20/11/2014		
Brackish Lagoon	Mercury		<0.01 ug/l		20/11/2014		
Brackish Lagoon	Alkalinity to pH 4.5 as CaCO3		247 mg/l		20/11/2014		
Brackish Lagoon	Conductivity		5850 uS/cm		20/11/2014		
Brackish Lagoon	Potassium		56.5 mg/l		20/11/2014		
Brackish Lagoon	Sodium		941 mg/l		20/11/2014		
Brackish Lagoon	Sulphate		437 mg/l		20/11/2014		
Brackish Lagoon	Nitrogen (Total Oxidised) as N		2.01 mg/l		20/11/2014		
Brackish Lagoon	Chloride		1680 mg/l		20/11/2014		
Brackish Lagoon	Fluoride		0.208 mg/l		20/11/2014		
Brackish Lagoon	Ammoniacal Nitrogen as N		0.048 mg/l		20/11/2014		
Brackish Lagoon	Carbon (Total Organic)		1.8 mg/l		20/11/2014		
Brackish Lagoon	pH		8.07 pH Units		20/11/2014		

[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 26-01-15

(authorised to sign as representative of the Operator)

Reporting of Emission to Groundwater for the period from ...1st July 2014...to...31st December 2014...

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		03/09/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<1 ug/l				
	Boron, Dissolved		<100 ug/l				
	Cadmium, Dissolved		<0.1 ug/l				
	Calcium, Dissolved		126 mg/l				
	Chromium, Dissolved		<0.5 ug/l				
	Copper, Dissolved		1 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		5.29 mg/l				
	Manganese, Dissolved		<10 ug/l				
	Molybdenum, Dissolved		<3 ug/l				
	Nickel, Dissolved		<1 ug/l				
	Selenium Dissolved		<1 ug/l				
	Vanadium, Dissolved		<2 ug/l				
	Mercury, Dissolved		<0.01 ug/l				
	Total Alkalinity as CaCO3		282 mg/l				
	Electrical Conductivity at 20C		607 uS/cm				
	Potassium, Dissolved		1.26 mg/l				
	Sodium, Dissolved		15.5 mg/l				
	Sulphate, Dissolved		27.9 mg/l				
	Total Oxidised Nitrogen		2.76 mg/l				
	Chloride		22.4 mg/l				
	Fluoride		0.089 mg/l				
	Ammoniacal Nitrogen		<0.03 mg/l				
	Total Organic Carbon		1.4 mg/l				
	pH		7.26 pH Units				
	Nitrate		<2.76 mg/l				
	Ionic Balance		2.63 %				
	Electrical Conductivity		740 uS/cm				
	Temperature		12.00 deg C				
	Dissolved Oxygen		3.20 mg/l	Field Measurements			
	pH		7.08 pH Units				
	Groundwater Level		26.48 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		19/11/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<1 ug/l				
	Boron, Dissolved		<100 ug/l				
	Cadmium, Dissolved		<0.1 ug/l				
	Calcium, Dissolved		137 mg/l				
	Chromium, Dissolved		0.775 ug/l				
	Copper, Dissolved		<1 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		5.22 mg/l				
	Manganese, Dissolved		<10 ug/l				
	Molybdenum, Dissolved		<3 ug/l				
	Nickel, Dissolved		<1 ug/l				
	Selenium Dissolved		<1 ug/l				
	Vanadium, Dissolved		<2 ug/l				
	Mercury, Dissolved		<0.01 ug/l				
	Total Alkalinity as CaCO3		294 mg/l				
	Electrical Conductivity at 25C		649 uS/cm				
	Potassium, Dissolved		1.19 mg/l				
	Sodium, Dissolved		15.9 mg/l				
	Sulphate, Dissolved		31 mg/l				
	Total Oxidised Nitrogen		3.82 mg/l				
	Chloride		27.9 mg/l				
	Fluoride		0.077 mg/l				
	Ammoniacal Nitrogen		<0.03 mg/l				
	Total Organic Carbon		1.2 mg/l				
	pH		7.3 pH Units				
Nitrate		<3.82 mg/l					
Ionic Balance		2.59 %					
Electrical Conductivity		810 µS/cm	Field Measurements				
Temperature		12.00 deg C					
Dissolved Oxygen		4.68 mg/l					
pH		7.11 pH Units					
Groundwater Level		27.11 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		03/09/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<1 ug/l				
	Boron, Dissolved		<100 ug/l				
	Cadmium, Dissolved		<0.1 ug/l				
	Calcium, Dissolved		127 mg/l				
	Chromium, Dissolved		<0.5 ug/l				
	Copper, Dissolved		<1 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		5.69 mg/l				
	Manganese, Dissolved		<10 ug/l				
	Molybdenum, Dissolved		<3 ug/l				
	Nickel, Dissolved		<1 ug/l				
	Selenium Dissolved		<1 ug/l				
	Vanadium, Dissolved		<2 ug/l				
	Mercury, Dissolved		<0.01 ug/l				
	Total Alkalinity as CaCO3		290 mg/l				
	Electrical Conductivity at 25C		609 uS/cm				
	Potassium, Dissolved		1.21 mg/l				
	Sodium, Dissolved		15.7 mg/l				
	Sulphate, Dissolved		29 mg/l				
	Total Oxidised Nitrogen		2.66 mg/l				
	Chloride		22.8 mg/l				
	Fluoride		0.083 mg/l				
	Ammoniacal Nitrogen		<0.03 mg/l				
	Total Organic Carbon		1.3 mg/l				
	pH		7.29 pH Units				
	Nitrate		<2.86 mg/l				
	Ionic Balance		1.92 %				
	Electrical Conductivity		740 uS/cm				
	Temperature		12.20 deg C				
	Dissolved Oxygen		2.82 mg/l	Field Measurements			
	pH		7.07 pH Units				
	Groundwater Level		25.23 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		19/11/2014	Sampling Amec/Testing EA NLS			
	Antimony, Dissolved		<1 ug/l						
	Arsenic Dissolved		<1 ug/l						
	Boron, Dissolved		<100 ug/l						
	Cadmium, Dissolved		<0.1 ug/l						
	Calcium, Dissolved		135 mg/l						
	Chromium, Dissolved		1.03 ug/l						
	Copper, Dissolved		<1 ug/l						
	Iron, Dissolved		<30 ug/l						
	Magnesium, Dissolved		5.66 mg/l						
	Manganese, Dissolved		<10 ug/l						
	Molybdenum, Dissolved		<3 ug/l						
	Nickel, Dissolved		<1 ug/l						
	Selenium Dissolved		<1 ug/l						
	Vanadium, Dissolved		<2 ug/l						
	Mercury, Dissolved		0.0109 ug/l						
	Total Alkalinity as CaCO3		277 mg/l						
	Electrical Conductivity at 25C		647 uS/cm						
	Potassium, Dissolved		1.19 mg/l						
	Sodium, Dissolved		15.8 mg/l						
	Sulphate, Dissolved		32.1 mg/l						
	Total Oxidised Nitrogen		3.67 mg/l						
	Chloride		26.7 mg/l						
	Fluoride		0.073 mg/l						
	Ammoniacal Nitrogen		<0.03 mg/l						
	Total Organic Carbon		1.4 mg/l						
	pH		7.33 pH Units						
	Nitrate		<3.67 mg/l						
	Ionic Balance		4.61 %						
	Electrical Conductivity		810 µS/cm						
	Temperature		12.10 deg C	Field Measurements					
	Dissolved Oxygen		4.01 mg/l						
	pH		7.11 pH Units						
	Groundwater Level		26.08 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		03/09/2014	Sampling Amec/Testing EA NLS			
	Antimony, Dissolved		<1 ug/l						
	Arsenic Dissolved		<1 ug/l						
	Boron, Dissolved		<100 ug/l						
	Cadmium, Dissolved		<0.1 ug/l						
	Calcium, Dissolved		112 mg/l						
	Chromium, Dissolved		<0.5 ug/l						
	Copper, Dissolved		<1 ug/l						
	Iron, Dissolved		75.5 ug/l						
	Magnesium, Dissolved		40.6 mg/l						
	Manganese, Dissolved		629 ug/l						
	Molybdenum, Dissolved		<3 ug/l						
	Nickel, Dissolved		6.61 ug/l						
	Selenium Dissolved		<1 ug/l						
	Vanadium, Dissolved		<2 ug/l						
	Mercury, Dissolved		<0.01 ug/l						
	Total Alkalinity as CaCO3		361 mg/l						
	Electrical Conductivity at 25C		761 uS/cm						
	Potassium, Dissolved		1.46 mg/l						
	Sodium, Dissolved		19.5 mg/l						
	Sulphate, Dissolved		51.6 mg/l						
	Total Oxidised Nitrogen		<0.2 mg/l						
	Chloride		27.9 mg/l						
	Fluoride		0.237 mg/l						
	Ammoniacal Nitrogen		0.666 mg/l						
	Total Organic Carbon		1.8 mg/l						
	pH		7.3 pH Units						
	Nitrate		<0.184 mg/l						
	Ionic Balance		3.89 %						
	Electrical Conductivity		910 uS/cm	Field Measurements					
	Temperature		13.60 deg C						
	Dissolved Oxygen		0.44 mg/l						
	pH		7.19 pH Units						
	Groundwater Level		27.57 mAOD						

Substance/ Emission point	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		19/11/2014	Sampling Amed/Testing EA NLS			
	Antimony, Dissolved		<1 ug/l						
	Arsenic Dissolved		<1 ug/l						
	Boron, Dissolved		105 ug/l						
	Cadmium, Dissolved		<0.1 ug/l						
	Calcium, Dissolved		132 mg/l						
	Chromium, Dissolved		0.524 ug/l						
	Copper, Dissolved		<1 ug/l						
	Iron, Dissolved		<30 ug/l						
	Magnesium, Dissolved		35.8 mg/l						
	Manganese, Dissolved		282 ug/l						
	Molybdenum, Dissolved		<3 ug/l						
	Nickel, Dissolved		3.86 ug/l						
	Selenium Dissolved		<1 ug/l						
	Vanadium, Dissolved		<2 ug/l						
	Mercury, Dissolved		<0.01 ug/l						
	Total Alkalinity as CaCO3		413 mg/l						
	Electrical Conductivity at 25C		857 uS/cm						
	Potassium, Dissolved		2 mg/l						
	Sodium, Dissolved		26.5 mg/l						
	Sulphate, Dissolved		57.3 mg/l						
	Total Oxidised Nitrogen		1.16 mg/l						
	Chloride		29.7 mg/l						
	Fluoride		0.254 mg/l						
	Ammoniacal Nitrogen		0.512 mg/l						
	Total Organic Carbon		2.4 mg/l						
	pH		7.31 pH Units						
	Nitrate		1.15 mg/l						
	Ionic Balance		1.73 %						
	Electrical Conductivity		1020 µS/cm						
	Temperature		13.10 deg C	Field Measurements					
	Dissolved Oxygen		0.47 mg/l						
	pH		7.10 pH Units						
	Groundwater Level		28.11 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		03/09/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<1 ug/l				
	Boron, Dissolved		<100 ug/l				
	Cadmium, Dissolved		<0.1 ug/l				
	Calcium, Dissolved		216 mg/l				
	Chromium, Dissolved		<0.5 ug/l				
	Copper, Dissolved		1.4 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		23 mg/l				
	Manganese, Dissolved		23.7 ug/l				
	Molybdenum, Dissolved		<3 ug/l				
	Nickel, Dissolved		3.33 ug/l				
	Selenium Dissolved		<1 ug/l				
	Vanadium, Dissolved		<2 ug/l				
	Mercury, Dissolved		<0.01 ug/l				
	Total Alkalinity as CaCO3		421 mg/l				
	Electrical Conductivity at 25C		1150 uS/cm				
	Potassium, Dissolved		1.66 mg/l				
	Sodium, Dissolved		28.7 mg/l				
	Sulphate, Dissolved		106 mg/l				
	Total Oxidised Nitrogen		21.7 mg/l				
	Chloride		38.3 mg/l				
	Fluoride		0.112 mg/l				
	Ammoniacal Nitrogen		0.04 mg/l				
	Total Organic Carbon		3.7 mg/l				
	pH		7.05 pH Units				
	Nitrate		21.2 mg/l				
	Ionic Balance		2.6 %				
	Electrical Conductivity		1340 uS/cm				
	Temperature		13.30 deg C				
	Dissolved Oxygen		0.44 mg/l	Field Measurements			
	pH		6.74 pH Units				
	Groundwater Level		27.48 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		19/11/2014	Sampling Amec/Testing EA NLS			
	Antimony, Dissolved		<1 ug/l						
	Arsenic Dissolved		<1 ug/l						
	Boron, Dissolved		<100 ug/l						
	Cadmium, Dissolved		<0.1 ug/l						
	Calcium, Dissolved		253 mg/l						
	Chromium, Dissolved		0.685 ug/l						
	Copper, Dissolved		1.51 ug/l						
	Iron, Dissolved		<30 ug/l						
	Magnesium, Dissolved		14.8 mg/l						
	Manganese, Dissolved		<10 ug/l						
	Molybdenum, Dissolved		<3 ug/l						
	Nickel, Dissolved		2.74 ug/l						
	Selenium Dissolved		<1 ug/l						
	Vanadium, Dissolved		<2 ug/l						
	Mercury, Dissolved		<0.01 ug/l						
	Total Alkalinity as CaCO3		480 mg/l						
	Electrical Conductivity at 25C		1200 uS/cm						
	Potassium, Dissolved		1.16 mg/l						
	Sodium, Dissolved		25.8 mg/l						
	Sulphate, Dissolved		91.3 mg/l						
	Total Oxidised Nitrogen		25.6 mg/l						
	Chloride		37.4 mg/l						
	Fluoride		0.07 mg/l						
	Ammoniacal Nitrogen		<0.03 mg/l						
	Total Organic Carbon		3.9 mg/l						
	pH		6.81 pH Units						
	Nitrate		25.6 mg/l						
	Ionic Balance		2.09 %						
	Electrical Conductivity		1450 µS/cm						
	Temperature		12.50 deg C	Field Measurements					
	Dissolved Oxygen		3.18 mg/l						
	pH		7.09 pH Units						
	Groundwater Level		28.73 mAOD						

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
E05_03	Aluminium, Dissolved	50	<10 ug/l		03/09/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved	10	<1 ug/l				
	Boron, Dissolved	2800	1290 ug/l				
	Cadmium, Dissolved	0.4	<0.1 ug/l				
	Calcium, Dissolved		99.9 mg/l				
	Chromium, Dissolved	50	<0.5 ug/l				
	Copper, Dissolved		<1 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved	71.5	mg/l				
	Manganese, Dissolved		31.5 ug/l				
	Molybdenum, Dissolved	50	162*** ug/l				
	Nickel, Dissolved		<1 ug/l				
	Selenium Dissolved		<1 ug/l				
	Vanadium, Dissolved	20	<2 ug/l				
	Mercury, Dissolved	0.03	<0.01 ug/l				
	Total Alkalinity as CaCO3		218 mg/l				
	Electrical Conductivity at 25C		2110 uS/cm				
	Potassium, Dissolved		6.28 mg/l				
	Sodium, Dissolved		258 mg/l				
	Sulphate, Dissolved	400	188 mg/l				
	Total Oxidised Nitrogen		<0.2 mg/l				
	Chloride		471 mg/l				
	Fluoride		0.844 mg/l				
	Ammoniacal Nitrogen	1.6	0.716 mg/l				
	Total Organic Carbon		<1 mg/l				
	pH		7.61 pH Units				
	Nitrate		<0.175 mg/l				
	Ionic Balance		1.6 %				
	Electrical Conductivity		2380 uS/cm				
	Temperature		14.20 deg C				
	Dissolved Oxygen		0.56 mg/l	Field Measurements			
	pH		7.53 pH Units				
	Groundwater Level		17.65 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
E05_03	Aluminium, Dissolved	50	<10 ug/l		19/11/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved	10	<1 ug/l				
	Boron, Dissolved	2800	1370 ug/l				
	Cadmium, Dissolved	0.4	<0.1 ug/l				
	Calcium, Dissolved		110 mg/l				
	Chromium, Dissolved	50	0.504 ug/l				
	Copper, Dissolved		<1 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		75.4 mg/l				
	Manganese, Dissolved		34.7 ug/l				
	Molybdenum, Dissolved	50	176*** ug/l				
	Nickel, Dissolved		<1 ug/l				
	Selenium Dissolved		<1 ug/l				
	Vanadium, Dissolved	20	<2 ug/l				
	Mercury, Dissolved	0.03	<0.01 ug/l				
	Total Alkalinity as CaCO3		211 mg/l				
	Electrical Conductivity at 25C		2200 uS/cm				
	Potassium, Dissolved		6.39 mg/l				
	Sodium, Dissolved		257 mg/l				
	Sulphate, Dissolved	400	214 mg/l				
	Total Oxidised Nitrogen		<0.2 mg/l				
	Chloride		498 mg/l				
	Fluoride		1.1 mg/l				
	Ammoniacal Nitrogen	1.6	0.731 mg/l				
	Total Organic Carbon		<1 mg/l				
	pH		7.65 pH Units				
	Nitrate		<0.191 mg/l				
	Ionic Balance		0.705 %				
	Electrical Conductivity		2540 µS/cm				
	Temperature		13.70 deg C				
	Dissolved Oxygen		1.69 mg/l	Field Measurements			
	pH		7.57 pH Units				
	Groundwater Level		17.87 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	10.30 ug/l		03/09/2014	Sampling Amec/Testing EA NLS			
	Antimony, Dissolved		<1 ug/l						
	Arsenic Dissolved	10	1.64 ug/l						
	Boron, Dissolved	2800	2190 ug/l						
	Cadmium, Dissolved	0.4	<0.1 ug/l						
	Calcium, Dissolved		7.33 mg/l						
	Chromium, Dissolved	50	<0.5 ug/l						
	Copper, Dissolved		<1 ug/l						
	Iron, Dissolved		<30 ug/l						
	Magnesium, Dissolved		5.28 mg/l						
	Manganese, Dissolved		<10 ug/l						
	Molybdenum, Dissolved	50	6.92 ug/l						
	Nickel, Dissolved		<1 ug/l						
	Selenium Dissolved		<1 ug/l						
	Vanadium, Dissolved	20	<2 ug/l						
	Mercury, Dissolved	0.03	<0.01 ug/l						
	Total Alkalinity as CaCO3		389 mg/l						
	Electrical Conductivity at 25C		903 uS/cm						
	Potassium, Dissolved		2.89 mg/l						
	Sodium, Dissolved		221 mg/l						
	Sulphate, Dissolved	400	72.10 mg/l						
	Total Oxidised Nitrogen		<0.2 mg/l						
	Chloride		35.10 mg/l						
	Fluoride		<0.05 mg/l						
	Ammoniacal Nitrogen	1.6	0.41 mg/l						
	Total Organic Carbon		<1 mg/l						
	pH		8.52 pH Units						
	Nitrate		<0.2 mg/l						
	Ionic Balance		1.05 %						
	Electrical Conductivity		1080 µS/cm	Field Measurements					
	Temperature		14.90 deg C						
	Dissolved Oxygen		0.54 mg/l						
	pH		8.64 pH Units						
	Groundwater Level		18.83 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	11.00 ug/l		19/11/2014	Sampling Amec/Testing EA NLS			
	Antimony, Dissolved		<1 ug/l						
	Arsenic Dissolved	10	1.70 ug/l						
	Boron, Dissolved	2800	2120 ug/l						
	Cadmium, Dissolved	0.4	<0.1 ug/l						
	Calcium, Dissolved		8.59 mg/l						
	Chromium, Dissolved	50	0.94 ug/l						
	Copper, Dissolved		<1 ug/l						
	Iron, Dissolved		<30 ug/l						
	Magnesium, Dissolved		6.42 mg/l						
	Manganese, Dissolved		<10 ug/l						
	Molybdenum, Dissolved	50	7.68 ug/l						
	Nickel, Dissolved		<1 ug/l						
	Selenium Dissolved		<1 ug/l						
	Vanadium, Dissolved	20	<2 ug/l						
	Mercury, Dissolved	0.03	<0.01 ug/l						
	Total Alkalinity as CaCO3		397 mg/l						
	Electrical Conductivity at 25C		903 uS/cm						
	Potassium, Dissolved		3.06 mg/l						
	Sodium, Dissolved		211 mg/l						
	Sulphate, Dissolved	400	74.60 mg/l						
	Total Oxidised Nitrogen		<0.2 mg/l						
	Chloride		36.90 mg/l						
	Fluoride		6.09 mg/l						
	Ammoniacal Nitrogen	1.6	0.35 mg/l						
	Total Organic Carbon		<1 mg/l						
	pH		8.50 pH Units						
	Nitrate		<0.2 mg/l						
	Ionic Balance		-1.53 %						
	Electrical Conductivity		1120 µS/cm	Field Measurements					
	Temperature		13.20 deg C						
	Dissolved Oxygen		1.19 mg/l						
	pH		8.56 pH Units						
	Groundwater Level		19.04 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	*	ug/l	03/09/2014	Sampling Amec/Testing EA NLS		
	Antimony, Dissolved		<1	ug/l				
	Arsenic Dissolved	10	4.42	ug/l				
	Boron, Dissolved	2800	1740	ug/l				
	Cadmium, Dissolved	0.4	*	ug/l				
	Calcium, Dissolved		*	mg/l				
	Chromium, Dissolved	50	*	ug/l				
	Copper, Dissolved		*	ug/l				
	Iron, Dissolved		*	ug/l				
	Magnesium, Dissolved		7.11	mg/l				
	Manganese, Dissolved		*	ug/l				
	Molybdenum, Dissolved	50	<3	ug/l				
	Nickel, Dissolved		*	ug/l				
	Selenium Dissolved		<1	ug/l				
	Vanadium, Dissolved	20	*	ug/l				
	Mercury, Dissolved	0.03	<0.01	ug/l				
	Total Alkalinity as CaCO3		349	mg/l				
	Electrical Conductivity at 25C		841	uS/cm				
	Potassium, Dissolved		5.90	mg/l				
	Sodium, Dissolved		200	mg/l				
	Sulphate, Dissolved	400	84.00	mg/l				
	Total Oxidised Nitrogen		<0.2	mg/l				
	Chloride		32.50	mg/l				
	Fluoride		1.65	mg/l				
	Ammoniacal Nitrogen	1.6	0.41	mg/l				
	Total Organic Carbon							
	pH			<1			mg/l	
				8.55			pH Units	
	Nitrate			<0.172			mg/l	
				12.70			%	
	Ionic Balance							
	Electrical Conductivity			1210			µS/cm	
	Temperature			17.30			deg C	
	Dissolved Oxygen			4.32			mg/l	Field Measurements
pH			8.69	pH Units				
Groundwater Level			19.38	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	28.80 ug/l		19/11/2014	Sampling Aneac/Testing EA NLS			
	Antimony, Dissolved		<1 ug/l						
	Arsenic Dissolved	10	<1 ug/l						
	Boron, Dissolved	2800	1830 ug/l						
	Cadmium, Dissolved	0.4	<0.1 ug/l						
	Calcium, Dissolved		5.17 mg/l						
	Chromium, Dissolved	50	<0.5 ug/l						
	Copper, Dissolved		<1 ug/l						
	Iron, Dissolved		<30 ug/l						
	Magnesium, Dissolved		3.70 mg/l						
	Manganese, Dissolved		<10 ug/l						
	Molybdenum, Dissolved	50	<3 ug/l						
	Nickel, Dissolved		<1 ug/l						
	Selenium Dissolved		<1 ug/l						
	Vanadium, Dissolved	20	<2 ug/l						
	Mercury, Dissolved	0.03	<0.01 ug/l						
	Total Alkalinity as CaCO3		331 mg/l						
	Electrical Conductivity at 25C		840 uS/cm						
	Potassium, Dissolved		2.78 mg/l						
	Sodium, Dissolved		202 mg/l						
	Sulphate, Dissolved	400	90.40 mg/l						
	Total Oxidised Nitrogen		<0.2 mg/l						
	Chloride		32.00 mg/l						
	Fluoride		2.41 mg/l						
	Ammoniacal Nitrogen	1.6	0.40 mg/l						
	Total Organic Carbon		1.30 mg/l						
	pH		8.60 pH Units						
	Nitrate		<0.189 mg/l						
	Ionic Balance		0.10 %						
	Electrical Conductivity		1050 µS/cm						
	Temperature		12.10 deg C	Field Measurements					
	Dissolved Oxygen		3.25 mg/l						
	pH		8.78 pH Units						
	Groundwater Level		19.34 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		* ug/l		03/09/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		* ug/l				
	Boron, Dissolved		966 ug/l				
	Cadmium, Dissolved		0.15 ug/l				
	Calcium, Dissolved		162.00 mg/l				
	Chromium, Dissolved		* ug/l				
	Copper, Dissolved		* ug/l				
	Iron, Dissolved		* ug/l				
	Magnesium, Dissolved		51.30 mg/l				
	Manganese, Dissolved		* ug/l				
	Molybdenum, Dissolved		<20 ug/l				
	Nickel, Dissolved		* ug/l				
	Selenium Dissolved		1.41 ug/l				
	Vanadium, Dissolved		* ug/l				
	Mercury, Dissolved		<0.01 ug/l				
	Total Alkalinity as CaCO3		242 mg/l				
	Electrical Conductivity at 25C		1170 uS/cm				
	Potassium, Dissolved		11.10 mg/l				
	Sodium, Dissolved		129 mg/l				
	Sulphate, Dissolved		306.00 mg/l				
	Total Oxidised Nitrogen		0.32 mg/l				
	Chloride		81.80 mg/l				
	Fluoride		0.54 mg/l				
	Ammoniacal Nitrogen		0.28 mg/l				
	Total Organic Carbon		1.50 mg/l				
	pH		7.75 pH Units				
	Nitrate		0.24 mg/l				
	Ionic Balance		14.70 %				
	Electrical Conductivity		1430 uS/cm				
	Temperature		16.50 deg C				
	Dissolved Oxygen		7.88 mg/l	Field Measurements			
	pH		7.94 pH Units				
	Groundwater Level		20.71 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		20/11/2014	Sampling Area/Testing EA NLS			
	Antimony, Dissolved		<1 ug/l						
	Arsenic Dissolved		<1 ug/l						
	Boron, Dissolved		1040 ug/l						
	Cadmium, Dissolved		<0.1 ug/l						
	Calcium, Dissolved		82.60 mg/l						
	Chromium, Dissolved		<0.5 ug/l						
	Copper, Dissolved		1.29 ug/l						
	Iron, Dissolved		<30 ug/l						
	Magnesium, Dissolved		51.40 mg/l						
	Manganese, Dissolved		<10 ug/l						
	Molybdenum, Dissolved		45.00 ug/l						
	Nickel, Dissolved		1.75 ug/l						
	Selenium Dissolved		<1 ug/l						
	Vanadium, Dissolved		3.35 ug/l						
	Mercury, Dissolved		<0.01 ug/l						
	Total Alkalinity as CaCO3		204 mg/l						
	Electrical Conductivity at 25C		1190 uS/cm						
	Potassium, Dissolved		7.92 mg/l						
	Sodium, Dissolved		132 mg/l						
	Sulphate, Dissolved		349.00 mg/l						
	Total Oxidised Nitrogen		1.31 mg/l						
	Chloride		92.30 mg/l						
	Fluoride		0.53 mg/l						
	Ammoniacal Nitrogen		0.20 mg/l						
	Total Organic Carbon		<1 mg/l						
	pH		7.78 pH Units						
	Nitrate		1.29 mg/l						
	Ionic Balance		0.92 %						
	Electrical Conductivity		1440 µS/cm	Field Measurements					
	Temperature		13.40 deg C						
	Dissolved Oxygen		7.63 mg/l						
	pH		7.63 pH Units						
	Groundwater Level		20.60 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		04/09/2014	Sampling Amec/Testing EA NLS			
	Antimony, Dissolved		<1 ug/l						
	Arsenic Dissolved		<1 ug/l						
	Boron, Dissolved		488 ug/l						
	Cadmium, Dissolved		<0.1 ug/l						
	Calcium, Dissolved		137 mg/l						
	Chromium, Dissolved		<0.5 ug/l						
	Copper, Dissolved		1.55 ug/l						
	Iron, Dissolved		<30 ug/l						
	Magnesium, Dissolved		82.90 mg/l						
	Manganese, Dissolved		<10 ug/l						
	Molybdenum, Dissolved		11.10 ug/l						
	Nickel, Dissolved		2.16 ug/l						
	Selenium Dissolved		<1 ug/l						
	Vanadium, Dissolved		<2 ug/l						
	Mercury, Dissolved		<0.01 ug/l						
	Total Alkalinity as CaCO3		167 mg/l						
	Electrical Conductivity at 25C		1210 uS/cm						
	Potassium, Dissolved		7.82 mg/l						
	Sodium, Dissolved		55 mg/l						
	Sulphate, Dissolved		554 mg/l						
	Total Oxidised Nitrogen		<0.2 mg/l						
	Chloride		38.50 mg/l						
	Fluoride		0.44 mg/l						
	Ammoniacal Nitrogen		0.17 mg/l						
	Total Organic Carbon		<1 mg/l						
	pH		7.67 pH Units						
	Nitrate		<0.194 mg/l						
	Ionic Balance		0.91 %						
	Electrical Conductivity		1660 µS/cm						
	Temperature		13.60 deg C	Field Measurements					
	Dissolved Oxygen		2.65 mg/l						
	pH		7.91 pH Units						
	Groundwater Level		21.28 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		** ug/l		20/11/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		1.09 ug/l				
	Arsenic Dissolved		<1 ug/l				
	Boron, Dissolved		350 ug/l				
	Cadmium, Dissolved		<0.1 ug/l				
	Calcium, Dissolved		112 mg/l				
	Chromium, Dissolved		0.85 ug/l				
	Copper, Dissolved		1.91 ug/l				
	Iron, Dissolved		** ug/l				
	Magnesium, Dissolved		58.10 mg/l				
	Manganese, Dissolved		14.30 ug/l				
	Molybdenum, Dissolved		16.30 ug/l				
	Nickel, Dissolved		1.99 ug/l				
	Selenium Dissolved		<1 ug/l				
	Vanadium, Dissolved		<2 ug/l				
	Mercury, Dissolved		<0.01 ug/l				
	Total Alkalinity as CaCO3		128 mg/l				
	Electrical Conductivity at 25C		984 uS/cm				
	Potassium, Dissolved		7.65 mg/l				
	Sodium, Dissolved		22 mg/l				
	Sulphate, Dissolved		384 mg/l				
	Total Oxidised Nitrogen		0.32 mg/l				
	Chloride		26.00 mg/l				
	Fluoride		0.53 mg/l				
	Ammoniacal Nitrogen		0.08 mg/l				
	Total Organic Carbon		<1 mg/l				
	pH		7.84 pH Units				
	Nitrate		<0.32 mg/l				
	Ionic Balance		1.02 %				
	Electrical Conductivity		1120 µS/cm				
	Temperature		13.60 deg C				
	Dissolved Oxygen		9.02 mg/l	Field Measurements			
	pH		7.85 pH Units				
	Groundwater Level		21.41 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾		
E06_04	Aluminium, Dissolved		10.30 ug/l		04/09/2014	Sampling Amec/Testing EA NLS			
	Antimony, Dissolved		<1 ug/l						
	Arsenic Dissolved		<1 ug/l						
	Boron, Dissolved		171 ug/l						
	Cadmium, Dissolved		<0.1 ug/l						
	Calcium, Dissolved		178 mg/l						
	Chromium, Dissolved		<0.5 ug/l						
	Copper, Dissolved		1.62 ug/l						
	Iron, Dissolved		<30 ug/l						
	Magnesium, Dissolved		62.40 mg/l						
	Manganese, Dissolved		<10 ug/l						
	Molybdenum, Dissolved		<3 ug/l						
	Nickel, Dissolved		1.89 ug/l						
	Selenium Dissolved		<1 ug/l						
	Vanadium, Dissolved		<2 ug/l						
	Mercury, Dissolved		<0.01 ug/l						
	Total Alkalinity as CaCO3		194 mg/l						
	Electrical Conductivity at 25C		1090 uS/cm						
	Potassium, Dissolved		4.04 mg/l						
	Sodium, Dissolved		20 mg/l						
	Sulphate, Dissolved		466 mg/l						
	Total Oxidised Nitrogen		<0.2 mg/l						
	Chloride		26.40 mg/l						
	Fluoride		0.31 mg/l						
	Ammoniacal Nitrogen		<0.03 mg/l						
	Total Organic Carbon		<1 mg/l						
	pH		7.60 pH Units						
	Nitrate		<0.2 mg/l						
	Ionic Balance		2.28 %						
	Electrical Conductivity		1280 uS/cm	Field Measurements					
	Temperature		13.30 deg C						
	Dissolved Oxygen		2.45 mg/l						
	pH		7.70 pH Units						
	Groundwater Level		21.91 mAOD						

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
E06_04	Aluminium, Dissolved		**	ug/l	20/11/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1	ug/l			
	Arsenic Dissolved		1.09	ug/l			
	Boron, Dissolved		356	ug/l			
	Cadmium, Dissolved		0.14	ug/l			
	Calcium, Dissolved		355	mg/l			
	Chromium, Dissolved		6.79	ug/l			
	Copper, Dissolved		15.40	ug/l			
	Iron, Dissolved		**	ug/l			
	Magnesium, Dissolved		86.20	mg/l			
	Manganese, Dissolved		309.00	ug/l			
	Molybdenum, Dissolved		<3	ug/l			
	Nickel, Dissolved		14.60	ug/l			
	Selenium Dissolved		<1	ug/l			
	Vanadium, Dissolved		5.59	ug/l			
	Mercury, Dissolved		<0.01	ug/l			
	Total Alkalinity as CaCO3		165	mg/l			
	Electrical Conductivity at 25C		2190	uS/cm			
	Potassium, Dissolved		11.50	mg/l			
	Sodium, Dissolved		54	mg/l			
	Sulphate, Dissolved		557	mg/l			
	Total Oxidised Nitrogen		<0.2	mg/l			
	Chloride		360.00	mg/l			
	Fluoride		0.25	mg/l			
	Ammoniacal Nitrogen		0.03	mg/l			
	Total Organic Carbon		6.00	mg/l			
	pH		7.40	pH Units			
	Nitrate		<0.2	mg/l			
	Ionic Balance		4.58	%			
	Electrical Conductivity		2510	µS/cm			
	Temperature		12.80	deg C			
	Dissolved Oxygen		3.29	mg/l			
	pH		7.05	pH Units			
	Groundwater Level		22.75	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		04/09/2014	Sampling Amec/Testing EA NLS			
	Antimony, Dissolved		<1 ug/l						
	Arsenic Dissolved		<1 ug/l						
	Boron, Dissolved		280 ug/l						
	Cadmium, Dissolved		<0.1 ug/l						
	Calcium, Dissolved		178 mg/l						
	Chromium, Dissolved		<0.5 ug/l						
	Copper, Dissolved		1.63 ug/l						
	Iron, Dissolved		<30 ug/l						
	Magnesium, Dissolved		75.10 mg/l						
	Manganese, Dissolved		<10 ug/l						
	Molybdenum, Dissolved		5.09 ug/l						
	Nickel, Dissolved		2.29 ug/l						
	Selenium Dissolved		<1 ug/l						
	Vanadium, Dissolved		<2 ug/l						
	Mercury, Dissolved		<0.01 ug/l						
	Total Alkalinity as CaCO3		175 mg/l						
	Electrical Conductivity at 25C		1190 uS/cm						
	Potassium, Dissolved		4.64 mg/l						
	Sodium, Dissolved		21 mg/l						
	Sulphate, Dissolved		541 mg/l						
	Total Oxidised Nitrogen		<0.2 mg/l						
	Chloride		21.10 mg/l						
	Fluoride		0.43 mg/l						
	Ammoniacal Nitrogen		0.11 mg/l						
	Total Organic Carbon		<1 mg/l						
	pH		7.50 pH Units						
	Nitrate		<0.2 mg/l						
	Ionic Balance		2.42 %						
	Electrical Conductivity		1360 µS/cm	Field Measurements					
	Temperature		14.60 deg C						
	Dissolved Oxygen		1.86 mg/l						
	pH		7.58 pH Units						
	Groundwater Level		24.85 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		**	ug/l	20/11/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		1.16	ug/l			
	Arsenic Dissolved		<1	ug/l			
	Boron, Dissolved		214	ug/l			
	Cadmium, Dissolved		0.20	ug/l			
	Calcium, Dissolved		397	mg/l			
	Chromium, Dissolved		12.80	ug/l			
	Copper, Dissolved		17.20	ug/l			
	Iron, Dissolved		**	ug/l			
	Magnesium, Dissolved		69.70	mg/l			
	Manganese, Dissolved		**	ug/l			
	Molybdenum, Dissolved		4.28	ug/l			
	Nickel, Dissolved		16.50	ug/l			
	Selenium Dissolved		<1	ug/l			
	Vanadium, Dissolved		10.50	ug/l			
	Mercury, Dissolved		<0.01	ug/l			
	Total Alkalinity as CaCO3		154	mg/l			
	Electrical Conductivity at 25C		1090	uS/cm			
	Potassium, Dissolved		6.51	mg/l			
	Sodium, Dissolved		19	mg/l			
	Sulphate, Dissolved		487	mg/l			
	Total Oxidised Nitrogen		1.12	mg/l			
	Chloride		21.30	mg/l			
	Fluoride		0.49	mg/l			
	Ammoniacal Nitrogen		0.03	mg/l			
	Total Organic Carbon		<1	mg/l			
	pH		7.56	pH Units			
	Nitrate		<1.12	mg/l			
	Ionic Balance		31.30	%			
	Electrical Conductivity		1330	µS/cm			
	Temperature		13.20	deg C			
	Dissolved Oxygen		2.20	mg/l			
	pH		7.83	pH Units			
	Groundwater Level		25.45	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.

*Considered Anomalous in comparison to historical and duplicate results. Suspected due to EA NLS not filtering samples before analysis.

**Considered Anomalous in comparison to historical and duplicate results.

***Compliance limit exceeded for 3 consecutive sampling events after March 2014 results (6 elevated sampling events in total). Discussed with NRW and under investigation.

Signed  Date 26-01-15
(authorised to sign as representative of the Operator)

Reporting of Emission to Surface Water for the period from ...1st July 2014...to...31st December 2014...

Operator : RWE Generation UK plc Form: Water1

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]
SW12	Aluminium, Dissolved		<10 µg/l		03/09/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		361 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		167 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.58 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		48.1 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		567 µg/l				
	Nickel, Dissolved		3.18 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		85 mg/l				
	Electrical Conductivity at 20C		1940 mS/cm				
	Potassium, Dissolved		23.8 mg/l				
	Sodium, Dissolved		204 mg/l				
	Sulphate, Dissolved		460 mg/l				
	Total Oxidised Nitrogen		<0.2 mg/l				
	Chloride		340 mg/l				
	Fluoride		<0.05 mg/l				
	Ammoniacal Nitrogen		<0.03 mg/l				
	Total Organic Carbon		3.1 mg/l				
	Nitrate		<0.187 mg/l				
	pH		8.27 pH Units				

Substance/ Emission point Parameter		Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
SW12	Aluminium, Dissolved		10.7 µg/l		19/11/2014	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		444 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		217 mg/l				
	Chromium, Dissolved		4.25 µg/l				
	Copper, Dissolved		1.49 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		52.2 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		861 µg/l				
	Nickel, Dissolved		6.85 µg/l				
	Selenium Dissolved		1.35 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		141 mg/l				
	Electrical Conductivity at 20C		2610 mS/cm				
	Potassium, Dissolved		30.1 mg/l				
	Sodium, Dissolved		285 mg/l				
	Sulphate, Dissolved		553 mg/l				
	Total Oxidised Nitrogen		4.71 mg/l				
	Chloride		498 mg/l				
	Fluoride		0.257 mg/l				
	Ammoniacal Nitrogen		0.03 mg/l				
	Total Organic Carbon		2.1 mg/l				
	Nitrate		4.6 mg/l				
	pH		8.16 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
Settlement Ponds	Aluminium, Dissolved		40 µg/l		10/07/2014	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		1.08 µg/l				
	Arsenic Dissolved	50	1.94 µg/l				
	Boron, Dissolved	2000	433 µg/l				
	Cadmium, Dissolved	5	<0.2 µg/l				
	Calcium, Dissolved		188 mg/l				
	Chromium, Dissolved	50	7.51 µg/l				
	Copper, Dissolved		3.25 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		48.5 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		1430 µg/l				
	Nickel, Dissolved		6.92 µg/l				
	Selenium Dissolved		1.51 µg/l				
	Vanadium, Dissolved	60	5.06 µg/l				
	Mercury, Dissolved		0.0111 µg/l				
	Total Alkalinity as CaCO3		48 mg/l				
	Electrical Conductivity at 20C		3120 mS/cm				
	Potassium, Dissolved		34.1 mg/l				
	Sodium, Dissolved		429 mg/l				
	Sulphate, Dissolved	400	423** mg/l				
	Total Oxidised Nitrogen		9.3 mg/l				
	Chloride		819 mg/l				
	Fluoride		0.147 mg/l				
	Ammoniacal Nitrogen	0.6	<0.500 mg/l				
	Total Organic Carbon		5 mg/l				
	Nitrate		9 mg/l				
	pH	<9	7.70 pH Units				

Substance/ Emission point Parameter		Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
Settlement Ponds	Aluminium, Dissolved		27 µg/l		07/08/2014	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		1.13 µg/l				
	Arsenic Dissolved	50	2.82 µg/l				
	Boron, Dissolved	2000	552 µg/l				
	Cadmium, Dissolved	5	0.519 µg/l				
	Calcium, Dissolved		246 mg/l				
	Chromium, Dissolved	50	5.84 µg/l				
	Copper, Dissolved		4.08 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		55 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		1660 µg/l				
	Nickel, Dissolved		8.75 µg/l				
	Selenium Dissolved		1.8 µg/l				
	Vanadium, Dissolved	60	5.01 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		90 mg/l				
	Electrical Conductivity at 20C		3830 mS/cm				
	Potassium, Dissolved		38.2 mg/l				
	Sodium, Dissolved		519 mg/l				
	Sulphate, Dissolved	400	501** mg/l				
	Total Oxidised Nitrogen		10.2 mg/l				
	Chloride		955 mg/l				
	Fluoride		0.162 mg/l				
	Ammoniacal Nitrogen	0.6	<0.500 mg/l				
	Total Organic Carbon		3.9 mg/l				
	Nitrate		9.9 mg/l				
	pH	<9	8.08 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
Settlement Ponds	Aluminium, Dissolved		15 µg/l		04/09/2014	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		1.04 µg/l				
	Arsenic Dissolved	50	2.29 µg/l				
	Boron, Dissolved	2000	639 µg/l				
	Cadmium, Dissolved	5	<0.1 µg/l				
	Calcium, Dissolved		298 mg/l				
	Chromium, Dissolved	50	15.6 µg/l				
	Copper, Dissolved		2.2 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		62.4 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		1700 µg/l				
	Nickel, Dissolved		13.3 µg/l				
	Selenium Dissolved		1.81 µg/l				
	Vanadium, Dissolved	60	3.26 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		130 mg/l				
	Electrical Conductivity at 20C		4010 mS/cm				
	Potassium, Dissolved		40.6 mg/l				
	Sodium, Dissolved		495 mg/l				
	Sulphate, Dissolved	400	717** mg/l				
	Total Oxidised Nitrogen		14.9 mg/l				
	Chloride		960 mg/l				
	Fluoride		0.179 mg/l				
	Ammoniacal Nitrogen	0.6	<0.5 mg/l				
	Total Organic Carbon		2.8 mg/l				
	Nitrate		14.6 mg/l				
	pH	<9	7.93 pH Units				

Emission point		Substance/Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
Settlement Ponds		Aluminium, Dissolved		23 µg/l		06/10/2014	Sampling Station/Testing EA NLS	
		Antimony, Dissolved		1.05 µg/l				
		Arsenic Dissolved	50	1.62 µg/l				
		Boron, Dissolved	2000	673 µg/l				
		Cadmium, Dissolved	5	<0.1 µg/l				
		Calcium, Dissolved		311 mg/l				
		Chromium, Dissolved	50	11.8 µg/l				
		Copper, Dissolved		2.9 µg/l				
		Iron, Dissolved		<30 µg/l				
		Magnesium, Dissolved		66.8 mg/l				
		Manganese, Dissolved		<10 µg/l				
		Molybdenum, Dissolved		1850 µg/l				
		Nickel, Dissolved		13 µg/l				
		Selenium Dissolved		1.86 µg/l				
		Vanadium, Dissolved	60	3.91 µg/l				
		Mercury, Dissolved		<0.01 µg/l				
		Total Alkalinity as CaCO3		128 mg/l				
		Electrical Conductivity at 20C		4300 mS/cm				
		Potassium, Dissolved		44.5 mg/l				
		Sodium, Dissolved		573 mg/l				
		Sulphate, Dissolved	400	800** mg/l				
		Total Oxidised Nitrogen		13.3 mg/l				
		Chloride		967 mg/l				
		Fluoride		0.193 mg/l				
		Ammoniacal Nitrogen	0.6	<0.500 mg/l				
		Total Organic Carbon		3.2 mg/l				
		Nitrate		13.1 mg/l				
		pH	<9	7.96 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
Settlement Ponds	Aluminium, Dissolved		14 µg/l		06/11/2014	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved	50	2 µg/l				
	Boron, Dissolved	2000	615 µg/l				
	Cadmium, Dissolved	5	<0.5 µg/l				
	Calcium, Dissolved		306 mg/l				
	Chromium, Dissolved	50	13 µg/l				
	Copper, Dissolved		4 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		69 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		1680 µg/l				
	Nickel, Dissolved		17 µg/l				
	Selenium Dissolved		2 µg/l				
	Vanadium, Dissolved	60	3 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		157 mg/l				
	Electrical Conductivity at 20C		4090 mS/cm				
	Potassium, Dissolved		42 mg/l				
	Sodium, Dissolved		505 mg/l				
	Sulphate, Dissolved	400	947** mg/l				
	Total Oxidised Nitrogen		15 mg/l				
	Chloride		943 mg/l				
	Fluoride		0.193 mg/l				
	Ammoniacal Nitrogen	0.6	<0.500 mg/l				
	Total Organic Carbon		3 mg/l				
	Nitrate		14 mg/l				
	pH	<9	7.91 pH Units				

Substance/ Emission point Parameter		Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
Settlement Ponds	Aluminium, Dissolved		<10 µg/l		02/12/2014	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved	50	2.03 µg/l				
	Boron, Dissolved	2000	451 µg/l				
	Cadmium, Dissolved	5	<0.1 µg/l				
	Calcium, Dissolved		212 mg/l				
	Chromium, Dissolved	50	14.3 µg/l				
	Copper, Dissolved		5.08 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		48.5 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		867 µg/l				
	Nickel, Dissolved		20.2 µg/l				
	Selenium Dissolved		1.33 µg/l				
	Vanadium, Dissolved	60	2.92 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		224 mg/l				
	Electrical Conductivity at 20C		2320 mS/cm				
	Potassium, Dissolved		26.9 mg/l				
	Sodium, Dissolved		258 mg/l				
	Sulphate, Dissolved	400	* mg/l				
	Total Oxidised Nitrogen		11.4 mg/l				
	Chloride		414 mg/l				
	Fluoride		0.205 mg/l				
	Ammoniacal Nitrogen	0.6	<0.500 mg/l				
	Total Organic Carbon		1.2 mg/l				
	Nitrate		11 mg/l				
	pH	<9	7.96 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
DP2	Aluminium, Dissolved		13.4 µg/l		10/07/2014	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		1.08 µg/l				
	Arsenic Dissolved		2.76 µg/l				
	Boron, Dissolved		574 µg/l				
	Cadmium, Dissolved		2.31 µg/l				
	Calcium, Dissolved		309 mg/l				
	Chromium, Dissolved		70.4 µg/l				
	Copper, Dissolved		15.7 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		47.7 mg/l				
	Manganese, Dissolved		11.9 µg/l				
	Molybdenum, Dissolved		2630 µg/l				
	Nickel, Dissolved		17.1 µg/l				
	Selenium Dissolved		1.16 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		271 mg/l				
	Electrical Conductivity at 20C		4530 mS/cm				
	Potassium, Dissolved		58.6 mg/l				
	Sodium, Dissolved		632 mg/l				
	Sulphate, Dissolved		413 mg/l				
	Total Oxidised Nitrogen		28.5 mg/l				
	Chloride		1140 mg/l				
	Fluoride		0.229 mg/l				
	Ammoniacal Nitrogen		5.85 mg/l				
	Total Organic Carbon		<1.00 mg/l				
	Nitrate		19.7 mg/l				
	pH		7.50 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
DP2	Aluminium, Dissolved		12.3 µg/l		07/08/2014	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		1.08 µg/l				
	Arsenic Dissolved		2.12 µg/l				
	Boron, Dissolved		970 µg/l				
	Cadmium, Dissolved		1.1 µg/l				
	Calcium, Dissolved		397 mg/l				
	Chromium, Dissolved		51.8 µg/l				
	Copper, Dissolved		4.67 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		74.3 mg/l				
	Manganese, Dissolved		24.1 µg/l				
	Molybdenum, Dissolved		3560 µg/l				
	Nickel, Dissolved		21.6 µg/l				
	Selenium Dissolved		1.04 µg/l				
	Vanadium, Dissolved		2.56 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		247 mg/l				
	Electrical Conductivity at 20C		5490 mS/cm				
	Potassium, Dissolved		67.5 mg/l				
	Sodium, Dissolved		721 mg/l				
	Sulphate, Dissolved		729 mg/l				
	Total Oxidised Nitrogen		36.8 mg/l				
	Chloride		1290 mg/l				
	Fluoride		0.234 mg/l				
	Ammoniacal Nitrogen		6.24 mg/l				
	Total Organic Carbon		<1.00 mg/l				
	Nitrate		27.8 mg/l				
	pH		7.38 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
DP2	Aluminium, Dissolved		<10 µg/l		04/09/2014	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		1.82 µg/l				
	Boron, Dissolved		831 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		365 mg/l				
	Chromium, Dissolved		33.9 µg/l				
	Copper, Dissolved		3.17 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		99.3 mg/l				
	Manganese, Dissolved		27.7 µg/l				
	Molybdenum, Dissolved		2040 µg/l				
	Nickel, Dissolved		19.8 µg/l				
	Selenium Dissolved		1.13 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		146 mg/l				
	Electrical Conductivity at 20C		4440 mS/cm				
	Potassium, Dissolved		51.6 mg/l				
	Sodium, Dissolved		515 mg/l				
	Sulphate, Dissolved		1330 mg/l				
	Total Oxidised Nitrogen		21.8 mg/l				
	Chloride		872 mg/l				
	Fluoride		0.307 mg/l				
	Ammoniacal Nitrogen		2.77 mg/l				
	Total Organic Carbon		<1.00 mg/l				
	Nitrate		17.8 mg/l				
	pH		7.44 pH Units				

Substance/ Emission point Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
Aluminium, Dissolved		<10 µg/l		06/10/2014	Sampling Station/Testing EA NLS	
Antimony, Dissolved		<1 µg/l				
Arsenic Dissolved		2.19 µg/l				
Boron, Dissolved		639 µg/l				
Cadmium, Dissolved		<0.1 µg/l				
Calcium, Dissolved		360 mg/l				
Chromium, Dissolved		18.2 µg/l				
Copper, Dissolved		2.44 µg/l				
Iron, Dissolved		<30 µg/l				
Magnesium, Dissolved		69 mg/l				
Manganese, Dissolved		41.2 µg/l				
Molybdenum, Dissolved		1990 µg/l				
Nickel, Dissolved		22.5 µg/l				
Selenium Dissolved		1.6 µg/l				
Vanadium, Dissolved		2.16 µg/l				
Mercury, Dissolved		<0.01 µg/l				
Total Alkalinity as CaCO3		251 mg/l				
Electrical Conductivity at 20C		4800 mS/cm				
Potassium, Dissolved		43.9 mg/l				
Sodium, Dissolved		611 mg/l				
Sulphate, Dissolved		534 mg/l				
Total Oxidised Nitrogen		21.2 mg/l				
Chloride		1150 mg/l				
Fluoride		0.228 mg/l				
Ammoniacal Nitrogen		1.42 mg/l				
Total Organic Carbon		1.5 mg/l				
Nitrate		19.3 mg/l				
pH		7.52 pH Units				
DP2						

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
DP2	Aluminium, Dissolved		<10 µg/l		06/11/2014	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		1.07 µg/l				
	Boron, Dissolved		357 µg/l				
	Cadmium, Dissolved		<0.5 µg/l				
	Calcium, Dissolved		257 mg/l				
	Chromium, Dissolved		12.4 µg/l				
	Copper, Dissolved		3.37 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		59.9 mg/l				
	Manganese, Dissolved		10.5 µg/l				
	Molybdenum, Dissolved		926 µg/l				
	Nickel, Dissolved		24.9 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		269 mg/l				
	Electrical Conductivity at 20C		2920 mS/cm				
	Potassium, Dissolved		25.1 mg/l				
	Sodium, Dissolved		328 mg/l				
	Sulphate, Dissolved		550 mg/l				
	Total Oxidised Nitrogen		11.7 mg/l				
	Chloride		548 mg/l				
	Fluoride		0.197 mg/l				
	Ammoniacal Nitrogen		0.65 mg/l				
	Total Organic Carbon		1 mg/l				
	Nitrate		11 mg/l				
	pH		7.42 pH Units				

Emission point	Substance/Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
DP2	Aluminium, Dissolved		<10 µg/l		02/12/2014	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		373 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		186 mg/l				
	Chromium, Dissolved		10.3 µg/l				
	Copper, Dissolved		3.28 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		51.5 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		628 µg/l				
	Nickel, Dissolved		24.4 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		265 mg/l				
	Electrical Conductivity at 20C		1840 mS/cm				
	Potassium, Dissolved		17.4 mg/l				
	Sodium, Dissolved		166 mg/l				
	Sulphate, Dissolved		391 mg/l				
	Total Oxidised Nitrogen		10.3 mg/l				
	Chloride		270 mg/l				
	Fluoride		0.256 mg/l				
	Ammoniacal Nitrogen		0.94 mg/l				
	Total Organic Carbon		<1.00 mg/l				
	Nitrate		9.68 mg/l				
	pH		7.61 pH Units				

- [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
- [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
- [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
- [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.

*Considered Anomalous result in comparison to duplicates.

**Compliance limit exceeded for 3 consecutive sampling events after July 2014, however, discharge prevented. With continuing high concentrations and water levels, an investigation was completed and restricted discharge approved by NRW on 07/11/14. Investigation continuing.

Signed  Date 26-11-15

(authorised to sign as representative of the Operator)