

Reporting of Emissions to Surface Water for the period from ... 1st January 2017...to 30th June 2017...

Operator : RWE Generation UK plc

Location: Abberthaw Quarry Ash Disposal Site

Form: VCEC/1

PermitVariation Number: BP33398H

Emission point Parameter	Substance)	Emission Limit Value	Result (1)	Test Method (2)	Sample Date and Time (3)	Accreditation/4	Certification (5)	Uncertainty %
Alluminium, Dissolved	Antimony, Dissolved	c(10) µg/l	<1 µg/l					
Arsenic, Dissolved	Boron, Dissolved		<1 µg/l					
Cadmium, Dissolved	Calcium, Dissolved	803 µg/l	<0.1 µg/l					
Chromium, Dissolved	Chromium, Dissolved	229 mg/l	1.02 µg/l					
Copper, Dissolved	Copper, Dissolved	1.46 µg/l	1.46 µg/l					
Iron, Dissolved	Iron, Dissolved	<30 µg/l	<30 µg/l					
Magnesium, Dissolved	Magnesium, Dissolved	48.1 mg/l	18.1 µg/l					
Manganese, Dissolved	Molybdenum, Dissolved	1370 µg/l	5.89 µg/l					
Nickel, Dissolved	Nickel, Dissolved	2.46 µg/l	<2 µg/l					
Selenium Dissolved	Selenium Dissolved	<0.01 µg/l	<0.01 µg/l					
Mercury, Dissolved	Total Alkalinity as CaCO ₃	73 mg/l	3090 mS/cm					
Electrical Conductivity at 20C	Potassium, Dissolved	36.5 mg/l	380 mg/l					
Potassium, Dissolved	Sodium, Dissolved	380 mg/l	522 mg/l					
Sodium, Dissolved	Subphate, Dissolved	3.21 mg/l	705 mg/l					
Subphate, Dissolved	Total Oxidised Nitrogen	0.257 mg/l	0.031 mg/l					
Total Oxidised Nitrogen	Chloride	4.2 mg/l	4.2 mg/l					
Chloride	Fluoride	0 mg/l	0 mg/l					
Fluoride	Ammonical Nitrogen	7.71 pH Units	7.71 pH Units					
Ammonical Nitrogen	Total Organic Carbon							
Total Organic Carbon	Nitrate							
Nitrate	pH							
pH								

SW/12

Sampling Area/Testing
EA NLS

Substance/ Emission Point Parameter	Emission Limit Value	Result [^a] <10 µg/l	Test Method [4]	Date and Times [4]	Sample Certification [4]	Accreditation/ Certification [4]	Uncertainty [4]
Aluminium, Dissolved							
Antimony, Dissolved		<1 µg/l					
Arsenic, Dissolved		<1 µg/l					
Boron, Dissolved		657 µg/l					
Cadmium, Dissolved		0.436 µg/l					
Calcium, Dissolved		272 mg/l					
Chromium, Dissolved		1.37 µg/l					
Copper, Dissolved		1.44 µg/l					
Iron, Dissolved		<30 µg/l					
Magnesium, Dissolved		48.6 mg/l					
Manganese, Dissolved		<10 µg/l					
Molybdenum, Dissolved		1800 µg/l					
Nickel, Dissolved		5.14 µg/l					
Selenium, Dissolved		3.9 µg/l					
Vanadium, Dissolved		<2 µg/l					
Mercury, Dissolved		<0.01 µg/l					
Total Alkalinity as CaCO ₃		135 mg/l					
Electrical Conductivity at 20C		3400 mS/cm					
Potassium, Dissolved		40.3 mg/l					
Sodium, Dissolved		431 mg/l					
Sulphate, Dissolved		557 mg/l					
Total Oxidised Nitrogen		5.98 mg/l					
Chloride		803 mg/l					
Fluoride		0.213 mg/l					
Ammoniacal Nitrogen		<0.03 mg/l					
Total Organic Carbon		3.7 mg/l					
Nitrate		0 mg/l					
pH		8.12 pH Units					

SW12

Sampling Annex Testing
EA NLS

09/11/2017

Substance/ Parameter	Emission point/ Location	Emission Limit Value	Result (U)	Method (n)	Date and Time (t)	Sample (v)	Accreditation (g)	Certification (h)	Uncertainty (w)
Ammonium, Dissolved			81 µg/l						
Antimony, Dissolved			1.38 µg/l						
Arsenic, Dissolved		50	<1 µg/l						
Boron, Dissolved		2000	875 µg/l						
Cadmium, Dissolved		5	0.142 µg/l						
Calcium, Dissolved			348 mg/l						
Chromium, Dissolved		50	7.44 µg/l						
Copper, Dissolved			4.7 µg/l						
Iron, Dissolved			<30 µg/l						
Magnesium, Dissolved			58.9 mg/l						
Manganese, Dissolved			<10 µg/l						
Molybdenum, Dissolved			2830 µg/l						
Nitrate, Dissolved			6.1 µg/l						
Selenium Dissolved			2 µg/l						
Vanadium, Dissolved		60	7.85 µg/l						
Mercury, Dissolved			<0.01 µg/l						
Total Alkalinity as CaCO ₃			37 mg/l						
Electrical Conductivity at 20C			5010 mS/cm						
Potassium, Dissolved			58 mg/l						
Sodium, Dissolved			872 mg/l						
Sulphate, Dissolved		400	785 mg/l						
Total Oxidised Nitrogen			24.5 mg/l						
Chloride			1290 mg/l						
Fluoride			0.133 mg/l						
Ammoniacal Nitrogen		0.6	<0.500 mg/l						
Total Organic Carbon			6.5 mg/l						
Nitrate			24 mg/l						
pH		<9	8.57 pH Units						

Emission point Parameter	Emission Limit Value	Result [1]	Method[2]	Date and Times [3]	Sample	Accreditation[4]	Certification[5]	Uncertainty [6]
Aluminium, Dissolved		12 µg/l						
Actinium, Dissolved		<1 µg/l						
Arsenic, Dissolved	50	<1 µg/l						
Boron, Dissolved	2000	920 µg/l						
Cadmium, Dissolved	5	0.421 µg/l						
Cobalt, Dissolved		382 mg/l						
Chromium, Dissolved	50	9.73 µg/l						
Copper, Dissolved		2.34 µg/l						
Iron, Dissolved		<30 µg/l						
Magnesium, Dissolved		59.1 mg/l						
Manganese, Dissolved		<10 µg/l						
Molybdenum, Dissolved		2970 µg/l						
Nickel, Dissolved		10.8 µg/l						
Selenium, Dissolved		2.18 µg/l						
Vanadium, Dissolved	60	5.97 µg/l						
Mercury, Dissolved		<0.01 µg/l						
Total Alkalinity as CaCO ₃		72 mg/l						
Electrical Conductivity at 20C		5220 mS/cm						
Potassium, Dissolved		80.4 mg/l						
Sodium, Dissolved		688 mg/l						
Sulphate, Dissolved	400	721 mg/l						
Total Oxidised Nitrogen		28.6 mg/l						
Chloride		1340 mg/l						
Fluoride		0.122 mg/l						
Ammoniacal Nitrogen	0.6	<0.500 mg/l						
Total Organic Carbon		6 mg/l						
Nitrates		27.4 mg/l						
pH	<9	8.17 pH Units						

Sample Point, Parameter	Substance	Emission limit	Result (1)	Test	Date and Time (2)	Sample	Accredited/Unaccredited	Certification (3)	Uncertainty
Settlement Ponds	Aluminium, Dissolved		14 µg/l						W
	Antimony, Dissolved		<1 µg/l						
	Arsenic, Dissolved	50	1.24 µg/l						
	Boron, Dissolved	2000	911 µg/l						
	Cadmium, Dissolved	5	<0.1 µg/l						
	Calcium, Dissolved		338 mg/l						
	Chromium, Dissolved	50	9.55 µg/l						
	Copper, Dissolved		1.49 µg/l						
	Iron, Dissolved		<20 µg/l						
	Magnesium, Dissolved		52.8 mg/l						
	Manganese, Dissolved		<10 µg/l						
	Molybdenum, Dissolved		2890 µg/l						
	Nickel, Dissolved		113 µg/l						
	Selenium Dissolved		<1 µg/l						
	Vanadium, Dissolved	60	6.01 µg/l						
	Mercury, Dissolved		<0.01 µg/l						
	Total Alkalinity as CaCO3		57 mg/l						
	Electrical Conductivity at 20°C		5010 mS/cm						
	Potassium, Dissolved		60.2 mg/l						
	Sodium, Dissolved		677 mg/l						
	Sulphate, Dissolved	400	680 mg/l						
	Total Oxidised Nitrogen		25 mg/l						
	Chloride		1300 mg/l						
	Fluoride		0.133 mg/l						
	Ammoniacal Nitrogen	0.8	<0.500 mg/l						
	Total Organic Carbon		2.4 mg/l						
	Nitrate		23.8 mg/l						
	pH	<9	8.56 pH Units						

Emission point Parameter	Substance/ Parameter	Emission Limit Value	Result (1)	Method (1)	Date and Times (1)	Sample Accreditation (1)	Certification (1)	Uncertainty (1)
	Aluminium, Dissolved		10 µg/l					
Antimony, Dissolved		50	<1 µg/l					
Arsenic, Dissolved		2000	882 µg/l					
Boron, Dissolved		5	<0.1 µg/l					
Cadmium, Dissolved			342 mg/l					
Calcium, Dissolved		50	8.93 µg/l					
Chromium, Dissolved								
Copper, Dissolved			1.8 µg/l					
Iron, Dissolved			<30 µg/l					
Magnesium, Dissolved			48.9 mg/l					
Manganese, Dissolved			<10 µg/l					
Molybdenum, Dissolved			2860 µg/l					
Nickel, Dissolved			10.2 µg/l					
Selenium Dissolved			<1 µg/l					
Vanadium, Dissolved		80	5.15 µg/l					
Mercury, Dissolved			<0.01 µg/l					
Total Alkalinity ss CaCO ₃			151 mg/l					
Electrical Conductivity at 20C			4580 mS/cm					
Potassium, Dissolved			58.2 mg/l					
Sodium, Dissolved			608 mg/l					
Sulphate, Dissolved		400	698 mg/l					
Total Oxidised Nitrogen			22.5 mg/l					
Chloride			1090 mg/l					
Fluoride			0.138 mg/l					
Ammoniacal Nitrogen		0.6	<0.500 mg/l					
Total Organic Carbon			2.8 mg/l					
Nitrile			21.6 mg/l					
pH		<8	8.15 pH Units					

Sample Point / Parameter	Substance /	Emission limit	Result (µ)	Test Method (I)	Date and Times (P)	Sample Certification (P)	Accreditation /	Uncertainty (%)
	Aluminium, Dissolved		<10 µg/l					
	Antimony, Dissolved		<1 µg/l					
	Arsenic, Dissolved	50	<1 µg/l					
	Boron, Dissolved	2000	784 µg/l					
	Cadmium, Dissolved	5	<0.1 µg/l					
	Calcium, Dissolved		353 mg/l					
	Chromium, Dissolved	50	0.88 µg/l					
	Copper, Dissolved		2.73 µg/l					
	Iron, Dissolved		<30 µg/l					
	Magnesium, Dissolved		49.4 mg/l					
	Manganese, Dissolved		<10 µg/l					
	Molybdenum, Dissolved		2670 µg/l					
	Nickel, Dissolved		8.11 µg/l					
	Selenium Dissolved		1.98 µg/l					
	Vanadium, Dissolved	60	4.78 µg/l					
	Mercury, Dissolved		<0.01 µg/l					
Sediment Ponds	Total Alkalinity as CaCO ₃		<150 mg/l					
	Electrical Conductivity at 20C		4850 mS/cm					
	Potassium, Dissolved		59.2 mg/l					
	Sodium, Dissolved		948 mg/l					
	Sulphate, Dissolved	400	643 mg/l					
	Total Oxidised Nitrogen		24.4 mg/l					
	Chloride		1120 mg/l					
	Fluoride		0.139 mg/l					
	Ammoniacal Nitrogen	0.8	<0.500 mg/l					
	Total Organic Carbon		3.5 mg/l					
	Nitrate		23.6 mg/l					
	pH	<9	8.10 pH Units					

Emission point Parameter	Emission Limit	Result (1)	Test	Method (2)	Sample Date and Times (3)	Accreditation/ Certification (4)	Uncertainty (5)
Alumina/Alumina, Dissolved		<10 µg/l					
Antimony, Dissolved	50	>2 µg/l					
Arsenic, Dissolved	2000	1.21 µg/l					
Boron, Dissolved	5	722 µg/l					
Cadmium, Dissolved		0.838 µg/l					
Chromium, Dissolved	50	300 mg/l					
Copper, Dissolved		7.88 µg/l					
Iron, Dissolved		1.26 µg/l					
Magnesium, Dissolved		<30 µg/l					
Manganese, Dissolved		45.8 mg/l					
Molybdenum, Dissolved		<10 µg/l					
Nickel, Dissolved		220 µg/l					
Selenium, Dissolved		13.1 µg/l					
Vanadium, Dissolved	60	1.68 µg/l					
Mercury, Dissolved		<4 µg/l					
Total Alkalinity as CaCO3		<0.01 µg/l					
Electrical Conductivity at 20C		217 mg/l					
Potassium, Dissolved		3760 mS/cm					
Sodium, Dissolved		44.9 mg/l					
Sulphate, Dissolved	400	475 mg/l					
Total Oxidised Nitrogen		601 mg/l					
Chloride		20.7 mg/l					
Fluoride		883 mg/l					
Ammoniacal Nitrogen	0.6	0.156 mg/l					
Total Organic Carbon		0.67 mg/l					
Nitrates		1.3 mg/l					
pH	>9	20 mg/l					
		7.87 pH Units					

Sampling Station/Testing
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05/12/2017

Substance/ Parameter	Emission limit Value	Result: 10.7 µg/l	Test: Method (1)	Sample Date and Times (1)	Accreditation/ Certification (1)	Uncertainty %
Aluminium, Dissolved		<1 µg/l				
Antimony, Dissolved		1.81 µg/l				
Arsenic, Dissolved		798 µg/l				
Boron, Dissolved		0.163 µg/l				
Cadmium, Dissolved		440 µg/l				
Calcium, Dissolved		2.85 µg/l				
Chromium, Dissolved		4.88 µg/l				
Copper, Dissolved		<30 µg/l				
Iron, Dissolved		58.4 µg/l				
Magnesium, Dissolved		42.5 µg/l				
Manganese, Dissolved		2820 µg/l				
Molybdenum, Dissolved		20.8 µg/l				
Nickel, Dissolved		1.16 µg/l				
Selenium Dissolved		3.84 µg/l				
Vanadium, Dissolved		<0.01 µg/l				
Mercury, Dissolved		251 µg/l				
Total Alkalinity as CaCO ₃		5190 mS/cm				
Electrical Conductivity at 20C						
Potassium, Dissolved		40.1 µg/l				
Sodium, Dissolved		648 µg/l				
Sulphate, Dissolved		785 µg/l				
Total Dissolved Nitrogen		38 µg/l				
Chloride		1220 µg/l				
Fluoride		0.15 µg/l				
Total inorganic Nitrogen		3.32 µg/l				
Total Organic Carbon		1.90 µg/l				
Nitrates		34.4 µg/l				
pH		7.16 pH Units				

Emission point Parameter	Emission Limit	Result ⁽¹⁾	Test Method ⁽²⁾	Date and Times ⁽³⁾	Sample	Accreditation ⁽⁴⁾	Certification ⁽⁵⁾	Uncertainty ⁽⁶⁾
Aluminium, Dissolved	Value	11.2 µg/l						
Antimony, Dissolved		<1 µg/l						
Asentic Dissolved		2.36 µg/l						
Boron, Dissolved		952 µg/l						
Cadmium, Dissolved		0.515 µg/l						
Calcium, Dissolved		396 mg/l						
Chromium, Dissolved		2.72 µg/l						
Copper, Dissolved		2.35 µg/l						
Iron, Dissolved		<30 µg/l						
Magnesium, Dissolved		66.6 mg/l						
Manganese, Dissolved		53.2 µg/l						
Molybdenum, Dissolved		290 µg/l						
Nickel, Dissolved		20.9 µg/l						
Selenium Dissolved		1.41 µg/l						
Vanadium, Dissolved		4.53 µg/l						
Mercury, Dissolved		<0.01 µg/l						
Total Alkalinity as CaCO ₃		238 mg/l						
Electrical Conductivity at 20C		4500 mS/cm						
Potassium, Dissolved		44.8 mg/l						
Sodium, Dissolved		572 mg/l						
Sulphate, Dissolved		746 mg/l						
Total Oxidised Nitrogen		29.8 mg/l						
Chloride		1020 mg/l						
Fluoride		0.221 mg/l						
Amonia-Nitrogen		3.77 mg/l						
Total Organic Carbon		1.10 mg/l						
Nitrates		27.8 mg/l						
pH		7.36 pH Units						

Sampling Station/Testing
EA NLS

01/09/2017

D22

Substance/ Parameter	Emission point/ Parameter	Emission Limit Value	Result ^(a) Value	Test Method ^(b)	Date and Time ^(c) of Sample	Accreditation ^(d) Certification ^(e)	Uncertainty Value ^(f)
Aluminium, Dissolved			11.3 µg/l				
Antimony, Dissolved			<1 µg/l				
Arsenic, Dissolved			<1 µg/l				
Boron, Dissolved			537 µg/l				
Cadmium, Dissolved			<0.1 µg/l				
Catium, Dissolved			330 mg/l				
Chromium, Dissolved			2.6 µg/l				
Copper, Dissolved			1.42 µg/l				
Iron, Dissolved			<30 µg/l				
Magnesium, Dissolved			34.6 mg/l				
Manganese, Dissolved			53.1 µg/l				
Molybdenum, Dissolved			1820 µg/l				
Nitrate, Dissolved			11.1 µg/l				
Silicium, Dissolved			<1 µg/l				
Vanadium, Dissolved			<2 µg/l				
Mercury, Dissolved			<0.01 µg/l				
Total Alkalinity as CaCO ₃			254 mg/l				
Electrical Conductivity at 20C			4280 mS/cm				
Potassium, Dissolved			45.3 mg/l				
Sulfur, Dissolved			535 mg/l				
Sulfate, Dissolved			479 mg/l				
Total Oxidised Nitrogen			22.1 mg/l				
Chloride			1080 mg/l				
Fluoride			0.174 mg/l				
Ammoniacal Nitrogen			2.85 mg/l				
Total Organic Carbon			1.00 mg/l				
Nitrile			21.2 mg/l				
pH			7.21 pH Units				

DP2

Sampling Station/Testing
EA NLS

31/08/2017

Substance/ Emission Point/ Parameter	Emission Limit Aluminium, Dissolved	Result ⁽¹⁾ 11.3 µg/l	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Accreditation ⁽⁴⁾	Certification ⁽⁵⁾	Uncertainty
Antimony, Dissolved		<1 µg/l					
Arsenic, Dissolved		2.01 µg/l					
Boron, Dissolved		970 µg/l					
Cadmium, Dissolved		<0.1 µg/l					
Calcium, Dissolved		358 mg/l					
Chromium, Dissolved		3.22 µg/l					
Copper, Dissolved		1.47 µg/l					
Iron, Dissolved		<30 µg/l					
Magnesium, Dissolved		61.2 mg/l					
Manganese, Dissolved		32.5 µg/l					
Molybdenum, Dissolved		2850 µg/l					
Nickel, Dissolved		19.2 µg/l					
Selenium Dissolved		<1 µg/l					
Vanadium, Dissolved		4.85 µg/l					
Mercury, Dissolved		<0.01 µg/l					
Total Alkalinity as CaCO ₃		254 mg/l					
Electrical Conductivity at 20°C		4180 mS/cm					
Potassium, Dissolved		45 mg/l					
Sodium, Dissolved		497 mg/l					
Sulphate, Dissolved		745 mg/l					
Total Oxidised Nitrogen		28.2 mg/l					
Chloride		970 mg/l					
Fluoride		0.233 mg/l					
Ammoniacal Nitrogen		3.73 mg/l					
Total Organic Carbon		0.70 mg/l					
Nitrate		26.1 mg/l					
pH		7.39 pH Units					

Sampling Station/Testing
EA NLS

02/10/2017

Substance point Parameter	Emission Limit	Result (1)	Test Method (1)	Sample Date and Time(s) (1)	Accreditation (1)	Uncertainty (%) (1)
Aluminum, Dissolved		14.1 µg/l				
Antimony, Dissolved		<1 µg/l				
Arsenic Dissolved		3.02 µg/l				
Boron, Dissolved		961 µg/l				
Cadmium, Dissolved		<1 µg/l				
Calcium, Dissolved		402 mg/l				
Chromium, Dissolved		2.89 µg/l				
Copper, Dissolved		1.53 µg/l				
Iron, Dissolved		<30 µg/l				
Magnesium, Dissolved		88.8 mg/l				
Manganese, Dissolved		20.5 µg/l				
Molybdenum, Dissolved		3220 µg/l				
Nickel, Dissolved		18.8 µg/l				
Selenium Dissolved		1.99 µg/l				
Vanadium, Dissolved		7.45 µg/l				
Mercury, Dissolved		<0.01 µg/l				
Total Alkalinity as CaCO ₃		286 mg/l				
Electrical Conductivity at 20C		4700 mS/cm				
Potassium, Dissolved		57.1 mg/l				
Sodium, Dissolved		599 mg/l				
Sulphate, Dissolved		687 mg/l				
Total Oxidised Nitrogen		31.1 mg/l				
Chloride		1070 mg/l				
Fluoride		0.213 mg/l				
Ammonical Nitrogen		5.91 mg/l				
Total Organic Carbon		0.70 mg/l				
Nitrate		27.7 mg/l				
pH		7.43 pH Units				

DP2

Sampling Station/Testing
EA NLS

02/11/2017

Substance/ Parameter	Emission Limit Value	Result [^a] µg/l	Method [^b]	Date and Time [^c]	Sample Certification [^d]	Accreditation/ Certification [^e]	Uncertainty [%]
Antimony, Dissolved	<10 µg/l	<2 µg/l					
Argentic Dissolved	1.00 µg/l						
Boron, Dissolved	607 µg/l						
Cadmium, Dissolved	0.791 µg/l						
Caesium, Dissolved	256 µg/l						
Chromium, Dissolved	2.07 µg/l						
Copper, Dissolved	1.03 µg/l						
Iron, Dissolved	<30 µg/l						
Magnesium, Dissolved	41.3 mg/l						
Manganese, Dissolved	<10 µg/l						
Molybdenum, Dissolved	1880 µg/l						
Nickel, Dissolved	14 µg/l						
Selenium Dissolved	1.47 µg/l						
Vanadium, Dissolved	<4 µg/l						
Mercury, Dissolved total / Alkalinity as CaCO ₃	<0.01 µg/l 275 mg/l						
Electrical Conductivity at 20C	2800 mS/cm						
Potassium, Dissolved	34.3 mg/l						
Sodium, Dissolved	330 mg/l						
Sulphate, Dissolved	460 mg/l						
Total Oxidised Nitrogen	19.2 mg/l						
Chloride	586 mg/l						
Fluoride	0.185 mg/l						
Ammonical Nitrogen	2.08 mg/l						
Total Organic Carbon	0.70 mg/l						
Nitrate	16.1 mg/l						
pH	7.40 pH Units						

Sampling Station/Testing
EA N.S

05/12/2017

- [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 90% confidence interval, unless otherwise stated.
- [6] The emission limit values for all substances is expressed as a maximum individual value, unless otherwise stated.

Signed ... H. Weller..... Date

11/01/18

(authorised to sign as representative of the Operator)

Emission point / Parameter	Substance /	Emission Limit	Result	Test Method [U]	Date and Time [U]	Sample	Acquisition ID /	Creation Date [U]	Uncertainty [U]
	Aluminium, Dissolved	<10	<10	ug/l					
	Aluminium, Dissolved	<10	<10	ug/l					
	Antimony, Dissolved	<10	<10	ug/l					
	Boron, Dissolved	<100	<10	ug/l					
	Cadmium, Dissolved	<0.1	0.1	ug/l					
	Calcium, Dissolved	124	mg/l						
	Chromium, Dissolved	<0.5	ug/l						
	Copper, Dissolved	<1	ug/l						
	Iron, Dissolved	<50	ug/l						
	Magnesium, Dissolved	6.37	mg/l						
	Manganese, Dissolved	<10	ug/l						
	Molybdenum, Dissolved	<3	ug/l						
	Nickel, Dissolved	1.09	ug/l						
	Selenium, Dissolved	<1	ug/l						
	Vanadium, Dissolved	<2	ug/l						
	Mercury, Dissolved	<0.01	ug/l						
EDB-DIA	Total Alkalinity as CaCO ₃	278	mg/l						
	Electrical Conductivity at 20°C	0.25	µS/cm						
	Potassium, Dissolved	1.51	mg/l						
	Sodium, Dissolved	15.2	mg/l						
	Sulfate, Dissolved	27.2	mg/l						
	Total Dissolved Nitrogen	3.78	mg/l						
	Chloride	28.8	mg/l						
	Fluoride	0.002	mg/l						
	Amonia-Nitrogen	0.03	mg/l						
	Total Organic Carbon	1.4	mcg/l						
	pH	7.24	pH Units						
	Nitrate	<3.76	mg/l						
	Ionic Balance	0.708	%						
	Electrical Conductivity	598	µS/cm						
	Temperature	14.90	deg C						
	Dissolved Oxygen	4.74	mg/l						
	pH	7.09	pH Units						
	Groundwater Level	29.41	mAOU						
	Sampling Area/Testing	EA N.S							
		01/06/2017							

Substance/ Element/Point Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Time ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty in ⁽⁵⁾
Antimony, Dissolved	<10 µg/l	<1 µg/l				
Boron, Dissolved	<1 µg/l	<1 µg/l				
Cadmium, Dissolved	<100 µg/l	<0.1 µg/l				
Calcium, Dissolved	124 µg/l					
Chromium, Dissolved	<0.5 µg/l					
Copper, Dissolved	<1 µg/l	<1 µg/l				
Iron, Dissolved	<20 µg/l					
Magnesium, Dissolved	5.77 mg/l					
Manganese, Dissolved	<10 µg/l	<10 µg/l				
Molybdenum, Dissolved	<3 µg/l	<3 µg/l				
Nickel, Dissolved	<1 µg/l	<1 µg/l				
Selenium, Dissolved	<2 µg/l	<2 µg/l				
Vanadium, Dissolved	<0.01 µg/l	<0.01 µg/l				
Mercury, Dissolved	262 µg/l					
Total Alkalinity as CaCO ₃	630 µS/cm					
Electrical Conductivity at 25C	1.5 mg/l					
Potassium, Dissolved	16.2 mg/l					
Sodium, Dissolved	31.1 mg/l					
Sulfates, Dissolved	3.4 mg/l					
Total Dissolved Nitrogen	28.7 mg/l					
Chloride	0.1 mg/l					
Fluoride	<0.03 mg/l					
Ammoniacal Nitrogen	1.3 mg/l					
Total Organic Carbon	7.20 pH Units					
pH	<3.4 pH Units					
Nitrate	0.452 mg/l					
Ionic Balance	847 µS/cm					
Electrical Conductivity	11.30 deg C					
Temperature	2.92 mg/l					
Dissolved Oxygen	7.35 pH Units					
pH	26.07 mAUCD					
Chloride/Carbonate Level						

Sampling Area/Testing
EA NLS

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EN9_01A

Entsorgungseinheit / Parameter	Substanz / Parameter	Emissionszeit / Value	Resultat / Result	Test / Methodik	Sample / Date and Time (1)	Accreditation / Certification (2)	Uncertainty / (3)
	Aluminium, Disolved		<10	ug/l			
	Antimony, Dissolved		<1	ug/l			
	Arsenic, Dissolved		<1	ug/l			
Boron, Dissolved		<100	ug/l				
Cadmium, Dissolved		<0.1	ug/l				
Calcium, Dissolved		124	mg/l				
Chromium, Dissolved		<0.5	ug/l				
Copper, Dissolved		<1	ug/l				
Iron, Dissolved		<30	ug/l				
Magnesium, Dissolved		5.8	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 CaCO ₃		280	mg/l				
Electrical Conductivity at 25°C		631	µS/cm				
Potassium, Dissolved		1.43	mg/l				
Sodium, Dissolved		15.3	mg/l				
Sulfates, Dissolved		28.7	mg/l				
Total Oxidised Nitrogen		3.38	mg/l				
Dihydrogen		28.3	mg/l				
Fluorides		0.086	mg/l				
Amonium-Nitrogen		0.132	mg/l				
Total Organic Carbon		1.8	mg/l				
pH		7.18	pH Units				
Nitrates		3.37	mg/l				
Ionic Balance		0.0006	%				
Electrical Conductivity		604	µS/cm				
Temperature		16.10	deg C				
Dissolved Oxygen		3.80	mg/l				
pH		6.81	pH Units				
Groundwater Level		25.06	mAGD				

Elemental point Parameter	Substance	Method No.	Date and Time(s)	Accredited/ Certified to	Uncertainty (%)
Elemental point					
Aluminum, Dissolved	Aluminum, Dissolved	"10	2019-01-11 10:00:00	EA NEL	±10
Antimony, Dissolved	Antimony, Dissolved	<1	2019-01-11 10:00:00	EA NEL	±10
Boron, Dissolved	Boron, Dissolved	<100	2019-01-11 10:00:00	EA NEL	±10
Cadmium, Dissolved	Cadmium, Dissolved	<0.1	2019-01-11 10:00:00	EA NEL	±10
Calcium, Dissolved	Calcium, Dissolved	124	2019-01-11 10:00:00	EA NEL	±10
Chromium, Dissolved	Chromium, Dissolved	<0.5	2019-01-11 10:00:00	EA NEL	±10
Copper, Dissolved	Copper, Dissolved	<1	2019-01-11 10:00:00	EA NEL	±10
Iron, Dissolved	Iron, Dissolved	<30	2019-01-11 10:00:00	EA NEL	±10
Magnesium, Dissolved	Magnesium, Dissolved	5.76	2019-01-11 10:00:00	EA NEL	±10
Manganese, Dissolved	Manganese, Dissolved	<10	2019-01-11 10:00:00	EA NEL	±10
Molybdenum, Dissolved	Molybdenum, Dissolved	<3	2019-01-11 10:00:00	EA NEL	±10
Nickel, Dissolved	Nickel, Dissolved	<1	2019-01-11 10:00:00	EA NEL	±10
Selenium, Dissolved	Selenium, Dissolved	<1	2019-01-11 10:00:00	EA NEL	±10
Vanadium, Dissolved	Vanadium, Dissolved	<2	2019-01-11 10:00:00	EA NEL	±10
Mercury, Dissolved	Mercury, Dissolved	<0.01	2019-01-11 10:00:00	EA NEL	±10
Total Alkalinity as CaCO ₃	Total Alkalinity as CaCO ₃	280	2019-01-11 10:00:00	EA NEL	±10
Electrical Conductivity at 25°C	Electrical Conductivity at 25°C	632	2019-01-11 10:00:00	EA NEL	±10
Potassium, Dissolved	Potassium, Dissolved	1.38	2019-01-11 10:00:00	EA NEL	±10
Sodium, Dissolved	Sodium, Dissolved	16.2	2019-01-11 10:00:00	EA NEL	±10
Sulfate, Dissolved	Sulfate, Dissolved	31.8	2019-01-11 10:00:00	EA NEL	±10
Total Oxidized Nitrogen	Total Oxidized Nitrogen	3.12	2019-01-11 10:00:00	EA NEL	±10
Chloride	Chloride	28.7	2019-01-11 10:00:00	EA NEL	±10
Fluoride	Fluoride	0.097	2019-01-11 10:00:00	EA NEL	±10
Amonia-Nitrogen	Amonia-Nitrogen	<0.03	2019-01-11 10:00:00	EA NEL	±10
Total Organic Carbon	Total Organic Carbon	1.3	2019-01-11 10:00:00	EA NEL	±10
pH	pH	7.24	2019-01-11 10:00:00	EA NEL	±10
Nitrates	Nitrates	<12	2019-01-11 10:00:00	EA NEL	±10
Ionic Balance	Ionic Balance	0.738	2019-01-11 10:00:00	EA NEL	±10
Electrical Conductivity	Electrical Conductivity	647	2019-01-11 10:00:00	EA NEL	±10
Temperature	Temperature	11.20	2019-01-11 10:00:00	EA NEL	±10
Dissolved Oxygen	Dissolved Oxygen	2.84	2019-01-11 10:00:00	EA NEL	±10
pH	pH	7.15	2019-01-11 10:00:00	EA NEL	±10
Groundwater Level	Groundwater Level	24.80	2019-01-11 10:00:00	EA NEL	±10

Substance/ Emission point Parameter	Emission Limit Value	Result: Value	Test Method [1]	Sample Date and Times [2]	Accreditation/ Certification [3]	Universality [4]
Aluminum, Dissolved	<40	<10	40%			
Antimony, Dissolved		<1	ug/l			
Azotinic Dissolved		<1	ug/l			
Boron, Dissolved	<100	<100	ug/l			
Cadmium, Dissolved	<0.1	<0.1	ug/l			
Calcium, Dissolved	147	147	mg/l			
Chromium, Dissolved	<0.5	<0.5	ug/l			
Copper, Dissolved	<1	<1	ug/l			
Iron, Dissolved	<50	<50	ug/l			
Magnesium, Dissolved	29.3	29.3	mg/l			
Manganese, Dissolved	81	81	ug/l			
Molybdenum, Dissolved	<3	<3	ug/l			
Nickel, Dissolved	2.2	2.2	ug/l			
Selenium, Dissolved	<1	<1	ug/l			
Venndium, Dissolved	<2	<2	ug/l			
Mercury, Dissolved	<0.01	<0.01	ug/l			
Total Alkalinity as CaCO ₃	431	431	mg/l			
Electrical Conductivity at 25C	886	886	µS/cm			
Potassium, Dissolved	1.54	1.54	mg/l			
Sodium, Dissolved	20.2	20.2	mg/l			
Sulfide, Dissolved	51.8	51.8	mg/l			
Total Dissolved Nitrogen	<0.2	<0.2	mg/l			
Chloride	37.9	37.9	mg/l			
Fluoride	<0.05	<0.05	mg/l			
Ammoniacal Nitrogen	0.881	0.881	mg/l			
Total Organic Carbon	2.6	2.6	mg/l			
pH	0.67	0.67	pH Units			
Nitrate	<0.18	<0.18	mg/l			
Kinetic Balance	0.473	0.473	%			
Electrical Conductivity	773	773	µS/cm			
Temperature	13.30	13.30	deg C			
Dissolved Oxygen	0.67	0.67	mg/l			
pH	6.68	6.68	pH Units			
Groundwater Level	27.52	27.52	mADP			

Sampling Annex/Testing
EA N.S

01/03/2017

Emissions Point Parameter	Substance	Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Samples	Date and Time ⁽³⁾	Comments ⁽⁴⁾	Uncertainty in %
	Azurite, Dissolved		<10	<1	μg/l				
	Aspartate, Dissolved		2.75	1.97	μg/l				
	Boron, Dissolved		<100	101	μg/l				
	Cadmium, Dissolved		<0.1	0.1	μg/l				
	CaCO ₃ , Dissolved		<134	134	mg/l				
	Chromium, Dissolved		<0.5	0.5	μg/l				
	Copper, Dissolved		<1	0.95	μg/l				
	Iron, Dissolved		58.6	58.6	μg/l				
	Magnesium, Dissolved		34.5	34.5	μg/l				
	Manganese, Dissolved		67.2	67.2	μg/l				
	Molybdenum, Dissolved		<3	2.95	μg/l				
	Nitrate, Dissolved		1.87	1.87	μg/l				
	Samarium, Dissolved		<1	0.97	μg/l				
	Vanadium, Dissolved		<2	1.97	μg/l				
	Mercury, Dissolved		<0.01	0.01	μg/l				
	Total Alkalinity as CaCO ₃		426	426	mg/l				
	Electrical Conductivity at 25°C		860	860	μS/cm				
	Potassium, Dissolved		1.9	1.9	mg/l				
	Sodium, Dissolved		21.2	21.2	mg/l				
	Sulphate, Dissolved		54	54	mg/l				
	Total Oxidised Nitrogen		<0.2	0.2	mg/l				
	Uranium		35.9	35.9	mg/l				
	Fluoride		0.33	0.33	mg/l				
	Ammmonium Nitrogen		2.95	2.95	mg/l				
	Total Organic Carbon		2.6	2.6	mg/l				
pH			6.88	6.88	pH Units				
Nitrals			<0.2	<0.2	μM/L				
Ionic Balance			-0.751	-0.751	%				
	Electrical Conductivity		828	828	μS/cm				
	Temperature		12.50	12.50	deg C				
	Dissolved Oxygen		0.42	0.42	mg/l				
	pH		7.00	7.00	pH Units				
	Groundwater Level		27.48	27.48	mAOCD				

Substance/ Element/ Parameter	Environ. Limit Value	Result (1)	Method #:	Date and Time (2)	Sample	Accreditation: Classification (3)	Uncertainty W
Aluminum, Dissolved		<10	ug/l				
Antimony, Dissolved		<1	ug/l				
Arsenic, Dissolved		<1	ug/l				
Boron, Dissolved		110	ug/l				
Calcium, Dissolved		<0.1	ug/l				
Cadmium, Dissolved		205	ng/l				
Chromium, Dissolved		<0.5	ug/l				
Copper, Dissolved		1.98	ug/l				
Iron, Dissolved		<30	ug/l				
Magnesium, Dissolved		34	mg/l				
Manganese, Dissolved		20.8	ug/l				
Molybdenum, Dissolved		<3	ug/l				
Nickel, Dissolved		3.98	ug/l				
Germanium Dissolved		<1	ug/l				
Vanadium, Dissolved		<2	ug/l				
Mercury, Dissolved		<0.01	ug/l				
Total Alkalinity as CaCO ₃		463	mg/l				
Electrical Conductivity at 25C		1200	µS/cm				
Potassium, Dissolved		2.22	mg/l				
Sodium, Dissolved		30.5	mg/l				
Subphate, Dissolved		104	mg/l				
Total Dissolved Nitrogen		26.1	mg/l				
Chlorides		40.9	mg/l				
Fluoride		0.134	mg/l				
Amonia-Nitrogen		0.062	mg/l				
Total Organic Carbon		4.4	mg/l				
pH		7.04	pH Units				
Nitrile		28	mg/l				
Ionic Balance		-0.488	%				
Electrical Conductivity		1016	µS/cm				
Temperature		12.00	deg C				
Dissolved Oxygen		0.76	mg/l				
pH		18.24	pH Units				
Groundwater Level		27.48	mADD				

E09_028

Sampling Annex Testing
EA NLS

01/09/2017

Substance / Ion Parameter	Method ID	Result (1)	Method ID	Date and Time (1)	Accreditation / Certification (1)	Uncertainty (1)
		Value	Value			
Aluminum, Dissolved		<10	ug/l			
Anion, Dissolved		<1	ug/l			
Arsenic, Dissolved		<1	ug/l			
Boron, Dissolved		141	ug/l			
Cadmium, Dissolved		<0.1	ug/l			
Calcium, Dissolved		194	mg/l			
Chromium, Dissolved		<0.5	ug/l			
Copper, Dissolved		122	ug/l			
Ion, Dissolved		<30	ug/l			
Magnesium, Dissolved		31.5	mg/l			
Manganese, Dissolved		53.9	ug/l			
Molybdenum, Dissolved		<3	ug/l			
Nickel, Dissolved		3.21	ug/l			
Selenium, Dissolved		<1	ug/l			
Vanadium, Dissolved		<2	ug/l			
Mercury, Dissolved		<0.01	ug/l			
Total Alkalinity as CaCO ₃		431	mg/l			
Electrical Conductivity at 25C		1120	µS/cm			
Potassium, Dissolved		2.16	(mg/l)			
Sodium, Dissolved		30.8	mg/l			
Sulphate, Dissolved		107	mg/l			
Total Dissolved Nitrogen		18.2	mg/l			
(Nitrate)		45.8	mg/l			
Fluoride		0.141	(mg/l)			
Ammonium Nitrogen		0.041	mg/l			
Total Organic Carbon		4.6	(mg/l)			
pH		7.13	pH Units			
Nitrate		18.2	(mg/l)			
Kotic Balance		0.854	(%)			
Electrical Conductivity		1190	µS/cm			
Temperature		11.80	deg C			
Dissolved Oxygen		0.74	mg/l			
pH		8.87	pH Units			
GroundWater Level		27.39	m(AHD)			

ENR_028

Sampling Area/Testing
EA NLS

08/12/2017

Substance/ Emissions Point, Parameter	Emission Limit/ Value	Result (1)	Method (1)	Date and Time(s) (1)	Accreditation/ Certification (1)	Uncertainty %
Aluminum, Dissolved	50	<10	ug/l			
Antimony, Dissolved	10	<1	ug/l			
Barium, Dissolved	2800	1840	ug/l			
Cadmium, Dissolved	0.4	<0.1	ug/l			
Cerium, Dissolved	300	300	mg/l			
Chromium, Dissolved	50	<0.5	ug/l			
Copper, Dissolved		2.39	ug/l			
Iron, Dissolved		<30	ug/l			
Magnesium, Dissolved		250	mg/l			
Manganese, Dissolved	50	47.1	ug/l			
Molybdenum, Dissolved		1610	ug/l			
Nickel, Dissolved		2.14	ug/l			
Silver (1), Dissolved	20	<1	ug/l			
Vanadium, Dissolved		<2	ug/l			
Mercury, Dissolved	0.03	<0.01	ug/l			
Total Alkalinity as CaCO ₃		180	mg/l			
Electrical Conductivity at 25C		6430	µS/cm			
Potassium, Dissolved		10.6	mg/l			
Sodium, Dissolved		636	mg/l			
Sulfuric Acid Dissolved	400	546	mg/l			
Total Dissolved Nitrogen		1.8	mg/l			
Chloride		1950	mg/l			
Fluoride		0.063	mg/l			
Ammonium-Nitrogen	1.6	0.458	mg/l			
Total Organic Carbon		<0.7	mg/l			
pH		7.48	pH Units			
Nitrate		1.51	mg/l			
Ionic Balance		-0.978	%			
Electrical Conductivity		6158	µS/cm			
Temperature		17.00	deg C			
Dissolved Oxygen		5.98	mg/l			
pH		7.13	pH Units			
Groundwater Level		10.04	m AOD			

Sampling Areas/Testing
EA M/S

31/08/2017

Environmental Parameter	Emission Limit Value	Result (%)	Method [1]	Statute Date and Time [2]	Accreditation No.	Universality [3]
Aluminium, Dissolved	50	<10	mg/l			
Antimony, Dissolved	10	<1	ug/l			
Arsenic, Dissolved	2000	1690	ug/l			
Boron, Dissolved	0.4	0.425	ug/l			
Calcium, Dissolved	50	<0.5	mg/l			
Chromium, Dissolved	50	1.16	ug/l			
Copper, Dissolved	50	<30	ug/l			
Iron, Dissolved	50	216	mg/l			
Magnesium, Dissolved	50	44.9	mg/l			
Manganese, Dissolved	50	1160	ug/l			
Molybdenum, Dissolved	50	<1	ug/l			
Nickel, Dissolved	50	<1	ug/l			
Selenium, Dissolved	50	<1	ug/l			
Vanadium, Dissolved	20	<2	ug/l			
Mercury, Dissolved	0.03	<0.01	ug/l			
Total Alkalinity as CaCO ₃	400	167	mg/l			
Electrical Conductivity at 25C	5000	5780	µS/cm	08/11/2017	EA NLS	
Potassium, Dissolved	20	13.5	mg/l			
Sodium, Dissolved	500	643	mg/l			
Sulphate, Dissolved	400	438	mg/l			
Total Oxidised Nitrogen	50	<0.2	mg/l			
Chloride	500	1780	mg/l			
Fluoride	1.0	1.2	mg/l			
Ammoniacal Nitrogen	1.8	0.839	mg/l			
Total Organic Carbon	500	<0.7	mg/l			
pH	7.4	pH Units				
Nitrate	50	0.192	mg/l			
Ionic Balance	0.542	%				
Electro-conductivity	6108	µS/cm				
Turbidity (NTU's)	13.30	deg C				
Dissolved Oxygen	3.26	mg/l				
pH	6.85	pH Units				
Groundwater Level	17.64	mAD				

Sample Point Parameter	Substance	Method ID	Date and Time (E)	Sample	Accredited/Not Certified (E)	Uncertainty (E)
Aromatic, Dissolved	50	<1.0	2017-08-31 10:30			
Arsenic, Dissolved	10	<1				
Boron, Dissolved	2800	1.35				
Cadmium, Dissolved	0.4	<0.1				
Calcium, Dissolved	50	<0.5				
Chromium, Dissolved	50	<1				
Copper, Dissolved	50	<30				
Iron, Dissolved	50	0.88				
Magnesium, Dissolved	50	<10				
Manganese, Dissolved	50	31.00				
Molybdenum, Dissolved	50	<1				
Nickel, Dissolved	50	<1				
Selenium, Dissolved	20	<2				
Vanadium, Dissolved	0.05	<0.01				
Mercury, Dissolved	0.05	382	31/08/2017	Sampling Area Testing EA NLS		
Total Alkalinity as CaCO ₃						
Electrical Conductivity at 25C						
Potassium, Dissolved						
Sodium, Dissolved						
Sulfate, Dissolved	400	88.30				
Total Dissolved Nitrogen						
Chloride						
Fluoride						
Amonia-Nitrogen	1.6	0.48				
Total Organic Carbon						
pH						
Milliequivalents						
Ionic Balance		-1.77				
Electrical Conductivity		1019				
Temperature		16.80				
Dissolved Oxygen		0.36				
pH (Dissolved) Langelier		8.42				
		18.58	mAECO			

Elemental Parameter	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Date and Time ⁽³⁾	Accredited ⁽⁴⁾	Certification ⁽⁵⁾	Uncertainty in %
Aluminum, Dissolved	32	<10	mpf				
Antimony, Dissolved	10	<1	mpf				
Argentum, Dissolved	2900	1.20	mpf				
Boron, Dissolved	0.4	<0.1	mpf				
Cadmium, Dissolved	59	0.98	mpf				
Chromium, Dissolved	50	<0.5	mpf				
Copper, Dissolved		<1	4G				
Iron, Dissolved		<30	mpf				
Magnesium, Dissolved		5.33	mpf				
Manganese, Dissolved		<10	mpf				
Molybdenum, Dissolved	50	22.10	mpf				
Nickel, Dissolved		<1	mpf				
Selenium, Dissolved		<1	mpf				
Vanadium, Dissolved	20	<2	mpf				
Mercury, Dissolved	0.03	<0.01	mpf				
Total Alkalinity as CaCO ₃		376	mpf				
Electrical Conductivity at 25C		1010	µS/cm				
Potassium, Dissolved		2.60	mpf				
Sodium, Dissolved		248	mpf				
Sulfate, Dissolved	400	78.70	mpf				
Total Dissolved Nitrogen		<0.2	mpf				
Chloride		75.30	mpf				
Fluoride		6.21	mpf				
Amonium/Ionized Nitrogen	1.6	0.54	mpf				
Total Organic Carbon		<0.7	mpf				
pH		8.86	pH Units				
Nitrate		<0.2	mpf				
Ionic Balance		1.52	%				
Electrical Conductivity		1067	µS/cm				
Temperature		12.50	deg C				
Dissolved Oxygen		0.62	mg/l				
pH		8.49	pH Units				
Groundwater Level		18.31	mAO				

Sampling Area/Testing
EA NLS

02/11/2017

EN6_04

Sample Point Parameter	Emissivity Multipl. Dissolved	Emissivity Limit Value	Test Method(s)	Date Sent (e.g. 12/30)	Sample Time(s)	Accreditation Certification (e.g. III)	Uncertainty
Antimony, Dissolved		80	<1 1.40	<1 1.40	12.50 1780	ug/l ug/l	
Argentic Dissolved		10	<1 <1	<1 <1		ug/l ug/l	
Boron, Dissolved		2800	<0.1				
Calcium, Dissolved		0.4	6.18			mg/l	
Cesium, Dissolved							
Chromium, Dissolved		50	<0.5			ug/l	
Cuprite, Dissolved			<1			ug/l	
Iron, Dissolved			<30			ug/l	
Magnesium, Dissolved			4.60			mg/l	
Manganese, Dissolved			<10			ug/l	
Molybdenum, Dissolved		50	<3			ug/l	
Nickel, Dissolved			<1			ug/l	
Sodium, Dissolved			<1			ug/l	
Vanadium, Dissolved		20	<2			ug/l	
Mercury, Dissolved		0.03	<0.01			ug/l	
Total Alkalinity as CaCO ₃			370			mg/l	
Electrical Conductivity at 25C			887			µS/cm	
Potassium, Dissolved			2.23			ug/l	
Sodium, Dissolved			209			mg/l	
Sulfuric Acid		400	84.30			mg/l	
Total Dissolved Nitrogen			<0.2			mg/l	
Chloride			31.50			mg/l	
Fluoride			2.71			mg/l	
Ammomium Nitrogen		1.6	0.45			mg/l	
Total Organic Carbon			<0.7			mg/l	
pH			8.72			pH Units	
Nitrates			<0.181			mg/l	
Ionic Balance			-1.04			mg/l	
Electrical Conductivity			809			µS/cm	
Temperature			14.80			deg C	
Disolved Oxygen			3.46			mg/l	
pH			8.71			pH Units	
Groundwater Level			18.55			m(A.O.D.)	

Sampling Area/Testing
EA NLS

31/03/2017

Substance	Parameter	Emission Limit	Reported Value	Test Method	Date and Time(s)	Accreditation/ Certification No.	Uncertainty
Aluminum, Dissolved	Aluminum, Dissolved	50	10.50	494			
Antimony, Dissolved	Antimony, Dissolved	10	<1	494			
Boron, Dissolved	Boron, Dissolved	2000	1730	494			
Cesium, Dissolved	Cesium, Dissolved	0.4	<0.1	494			
Calcium, Dissolved	Calcium, Dissolved	70	7.72	494			
Chromium, Dissolved	Chromium, Dissolved	50	<0.5	494			
Copper, Dissolved	Copper, Dissolved		<1	494			
Iron, Dissolved	Iron, Dissolved		<0	494			
Magnesium, Dissolved	Magnesium, Dissolved	5.61	mg/l				
Manganese, Dissolved	Manganese, Dissolved	11.10	ug/l				
Molybdenum, Dissolved	Molybdenum, Dissolved	50	5.06	494			
Nickel, Dissolved	Nickel, Dissolved		<1	494			
Selenium, Dissolved	Selenium, Dissolved		<1	494			
Vanadium, Dissolved	Vanadium, Dissolved	20	<2	494			
Mercury, Dissolved	Mercury, Dissolved	0.09	<0.01	494			
Total Alkalinity as CaCO ₃			353	mg/l			
Electrical Conductivity at 25C			900	µS/cm			
Potassium, Dissolved	Potassium, Dissolved		3.32	mg/l			
Sodium, Dissolved	Sodium, Dissolved		204	mg/l			
Sulphate, Dissolved	Sulphate, Dissolved	400	82.00	mg/l			
Total Oxidised Nitrogen			<0.2	mg/l			
Chloride			38.20	mg/l			
Fluoride			3.64	mg/l			
Amydroxidic Nitrogen			1.6	0.50	mg/l		
Total Organic Carbon				<0.7	mg/l		
pH				8.62	pH Units		
Nitrate				<0.105	mg/l		
Ionic Balance				-1.23	%		
Electrical Conductivity				986	µS/cm		
Temperature				12.50	deg C		
Dissolved Oxygen				2.51	mg/l		
pH				8.70	pH Units		
Groundwater Level				18.59	mWWD		

Sampling Area/Testing
EA_N.S

08/11/2017

E06_01

BP333881

Substance/ Parameter/ Ablution	Emission Limit Value	Result [^a] Value	Method no.	Date and Time(s) of Test	Accreditation/ Certification [b]	Uncertainty [c]
Antimony, Dissolved		<10 ug/l				
Arsenic, Dissolved		<1 ug/l				
Boron, Dissolved		1.54 ug/l				
Cadmum, Dissolved		1130 ug/l				
Calcium, Dissolved		<0.1 ug/l				
Chromium, Dissolved		54.89 mg/l				
Copper, Dissolved		<0.5 ug/l				
Iron, Dissolved		<1 ug/l				
Magnesium, Dissolved		<30 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 CaCO ₃		273 mg/l				
Electrical Conductivity at 25C		845 uS/cm				
Potassium, Dissolved		6.37 mg/l				
Sodium, Dissolved		116 mg/l				
Sulfur, Dissolved		221.00 mg/l				
Total Oxidized Nitrogen		<0.2 ug/l				
Chloride		30.80 mg/l				
Fluoride		0.54 mg/l				
Ammonium Nitrogen		0.72 mg/l				
Total Organic Carbon		1.80 mg/l				
pH		7.59 pH Units				
Nitrate		0.03 mg/l				
Kono Balance		1.34 %				
Electrolyte Conductivity		853 µS/cm				
Temperature		14.60 deg C				
Dissolved Oxygen		0.25 mg/l				
pH		7.77 pH Units				
Groundwater Level		20.70 m ASL				

Sampling Area/Testing
EA-NLS

31/08/2017

Sampling Area/Testing
EA-NLS

E06_02

Sample ID	Parameter	Method of Analysis	Result (1)	Date and Time (1)	Comments (1)	Unit of Measure
EDS_02	Alkalinity, Dissolved		<10 mg/l			
	Antimony, Dissolved		<1 mg/l			
	Argentite, Dissolved		1.24 mg/l			
	Boron, Dissolved		1110 mg/l			
	Cadmium, Dissolved		<0.1 mg/l			
	Calcium, Dissolved		61.90 mg/l			
	Chromium, Dissolved		<0.5 mg/l			
	Copper, Dissolved		<1 mg/l			
	Iron, Dissolved		<30 mg/l			
	Magnesium, Dissolved		43.80 mg/l			
	Manganese, Dissolved		<10 mg/l			
	Molybdenum, Dissolved		4.52 mg/l			
	Nickel, Dissolved		<1 mg/l			
	Selenium, Dissolved		<1 mg/l			
	Vanadate, Dissolved		<2 mg/l			
	Mercury, Dissolved		<0.01 mg/l			
	Total Alkalinity as CaCO ₃		267 mg/l			
	Electrical Conductivity at 25C		973 µS/cm			
	Potassium, Dissolved		7.17 mg/l			
	Sodium, Dissolved		116 mg/l			
	Sulfobutate, Dissolved		273.00 mg/l			
	Total Dissolved Nitrogen		<0.2 mg/l			
	Chloride		30.50 mg/l			
	Fluoride		0.61 mg/l			
	Amydrolytic Nitrogen		0.61 mg/l			
	Total Organic Carbon		1.00 mg/l			
	pH		7.76 pH Units			
	Salinity		<0.182 mg/l			
	Ionic Balance		0.22 mg/l			
	Electrical Conductivity		1037 µS/cm			
	Temperature		13.20 deg C			
	Dissolved Oxygen		0.68 mg/l			
	pH		7.88 pH Units			
	Groundwater Level		20.64 mADL			

Sampling And Testing
EA NLS

08/12/2017

Emission point Parameter	Substance	Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Date and Time ⁽³⁾	Sample Certificate ⁽⁴⁾	Accreditation ⁽⁵⁾	Uncertainty in %
Antimony, Dissolved	Antimony, Dissolved		<10	ug/l				
Arsenic, Dissolved	Arsenic, Dissolved		2.03	ug/l				
Boron, Dissolved	Boron, Dissolved		<1	ug/l				
Cadmium, Dissolved	Cadmium, Dissolved		348	ug/l				
Calcium, Dissolved	Calcium, Dissolved		<0.1	ug/l				
Circum. Dissolved	Circum. Dissolved		131	mg/l				
Copper, Dissolved	Copper, Dissolved		<0.5	ug/l				
Iron, Dissolved	Iron, Dissolved		1.32	ug/l				
Magnesium, Dissolved	Magnesium, Dissolved		<20	ug/l				
Manganese, Dissolved	Manganese, Dissolved		65.00	mg/l				
Mercury, Dissolved	Mercury, Dissolved		<10	ug/l				
Nickel, Dissolved	Nickel, Dissolved		13.40	ug/l				
Potassium, Dissolved	Potassium, Dissolved		2.57	ug/l				
Selenium Dissolved	Selenium Dissolved		<1	ug/l				
Vanadium, Dissolved	Vanadium, Dissolved		<2	ug/l				
Mercury, Dissolved	Mercury, Dissolved		<0.01	ug/l				
Total Alkalinity as CaCO ₃			145	mg/l				
Total Electrical Conductivity at 25C			1000	µS/cm				
Potassium, Dissolved	Potassium, Dissolved		9.10	mg/l				
Sodium, Dissolved	Sodium, Dissolved		29	mg/l				
Sulfuric acid, Dissolved	Sulfuric acid, Dissolved		498	mg/l				
Total Dissolved Nitrogen	Total Dissolved Nitrogen		<0.2	mg/l				
Chloride	Chloride		27.20	mg/l				
Fluoride	Fluoride		0.43	mg/l				
Ammoniacal Nitrogen	Ammoniacal Nitrogen		0.09	mg/l				
Total Organic Carbon	Total Organic Carbon		1.70	mg/l				
pH	pH		7.37	pH Units				
Nitrile	Nitrile		<0.2	mg/l				
Ionic Balance	Ionic Balance		2.54	%				
Electrical Conductivity	Electrical Conductivity		898	µS/cm				
Temperature	Temperature		15.80	deg C				
Dissolved Oxygen	Dissolved Oxygen		8.35	mg/l				
pH	Groundwater Level		7.38	pH Units				
			21.41	mADC				

Sample ID	Substance / Point Parameter	Emission Limit Value	Result (1)	Test Method (1)	Date and Time (1)	Sample Classification (1)	Accreditation (1)	Uncertainty (%)
	Aluminum, Dissolved		<10	mg/l				
	Antimony, Dissolved		<1	mg/l				
	Arsenic, Dissolved		<1	mg/l				
	Boron, Dissolved	371	mg/l					
	Cadmium, Dissolved	<0.1	mg/l					
	Calcium, Dissolved	151	mg/l					
	Chromium(6), Dissolved	<0.5	mg/l					
	Copper, Dissolved	1.03	mg/l					
	Iron, Dissolved	<30	mg/l					
	Magnesium, Dissolved	74.90	mg/l					
	Manganese, Dissolved	<10	mg/l					
	Molybdenum, Dissolved	11.10	mg/l					
	Nickel, Dissolved	1.74	mg/l					
	Selenium, Dissolved	<1	mg/l					
	Vanadium(5), Dissolved	<2	mg/l					
	Mercury, Dissolved	<0.01	mg/l					
	Total Alkalinity as CaCO ₃	318	mg/l					
	Electrical Conductivity at 25C	1210	µS/cm					
E06_08	Phenanthrene, Dissolved	0.11	mg/l					
	Sodium, Dissolved	32	mg/l					
	Sulfate, Dissolved	554	mg/l					
	Total Dissolved Nitrogen	<0.2	mg/l					
	Chloride	202.00	mg/l					
	Fluoride	0.45	mg/l					
	Amonium/Nitrogen	0.19	mg/l					
	Total Organic Carbon	<0.7	mg/l					
	pH	7.72	pH Units					
	Nitrate	<0.2	mg/l					
	Ionic Balance	<21.20	%					
	Electrical Conductivity	1304	µS/cm					
	Temperature	13.00	deg C					
	Dissolved Oxygen	7.21	mg/l					
	pH	7.57	pH Units					
	Groundwater Level	21.26	mHO					
				Sampling Area/Testing EA NLS	09/12/2017			

Extraction Unit	Parameter	Substance	Enrichment Factor	Test Method	Date and Time(E)	Accreditation/Certification (E)	University (E)
EX0_04	Aluminum, Dissolved	Anhydrous, Dissolved	<10	ICP			
	Arsenic, Dissolved	Anhydrous, Dissolved	<1	ICP			
	Boron, Dissolved	Anhydrous, Dissolved	<1	ICP			
	Cadmium, Dissolved	Anhydrous, Dissolved	220	ICP			
	Chromium, Dissolved	Anhydrous, Dissolved	<0.1	ICP			
	Chromium, Dissolved	Anhydrous, Dissolved	304	ICP			
	Chromium, Dissolved	Anhydrous, Dissolved	<0.5	ICP			
	Copper, Dissolved	Anhydrous, Dissolved	3.56	ICP			
	Iron, Dissolved	Anhydrous, Dissolved	<30	ICP			
	Magnesium, Dissolved	Anhydrous, Dissolved	74.70	ICP			
	Manganese, Dissolved	Anhydrous, Dissolved	<10	ICP			
	Nickel, Dissolved	Anhydrous, Dissolved	7.78	ICP			
	Nickel, Dissolved	Anhydrous, Dissolved	4.78	ICP			
	Selenium, Dissolved	Anhydrous, Dissolved	<1	ICP			
	Vanadium, Dissolved	Anhydrous, Dissolved	<2	ICP			
	Mercury, Dissolved	Anhydrous, Dissolved	<0.01	ICP			
	Total Alkalinity as CaCO ₃	Anhydrous, Dissolved	161	ICP			
	Electrical Conductivity at 25°C	Anhydrous, Dissolved	18000	ICP/ECM			
	Potassium, Dissolved	Anhydrous, Dissolved	68.50	ICP			
	Sodium, Dissolved	Anhydrous, Dissolved	62	ICP			
	Sulfur, Dissolved	Anhydrous, Dissolved	864	ICP			
	Total Dissolved Nitrogen	Anhydrous, Dissolved	<0.2	ICP			
	Chloride	Anhydrous, Dissolved	128.00	ICP			
	Fluoride	Anhydrous, Dissolved	0.42	ICP			
	Aminonitreal Nitrogen	Anhydrous, Dissolved	0.03	ICP			
	Total Organic Carbon	Anhydrous, Dissolved	2.70	ICP			
	pH	Anhydrous, Dissolved	7.57	pH Units			
	Nitrates	Anhydrous, Dissolved	<0.2	ICP			
	Ionic Balance	Anhydrous, Dissolved	1.27	ICP			
	Electrical Conductivity	Anhydrous, Dissolved	1747	ICP/ECM			
	Turbidity	Anhydrous, Dissolved	13.70	deg C			
	Dissolved Oxygen	Anhydrous, Dissolved	7.70	mgh			
	pH	Anhydrous, Dissolved	7.20	pH Units			
	Groundwater Level	Anhydrous, Dissolved	21.75	mADE			
				Sampling Area/Testing EA NLS			

Substance/ Emission point Parameter	Emission 14nm; Vario	Result (n)	Test Method (n)	Date and Time (n)	Sample Classification [n]	Uncertainty [n]
Aluminum, Dissolved		<10	ALD			
Antimony, Dissolved		<1	UP			
Arsenic, Dissolved		<1	UP			
Boron, Dissolved	203	UP				
Cadmium, Dissolved	<0.1	UP				
Calcium, Dissolved	267	mg/l				
Chromium, Dissolved	<0.5	ug/l				
Copper, Dissolved	2.39	ug/l				
Iron, Dissolved	<30	ug/l				
Magnesium, Dissolved	71.20	mg/l				
Manganese, Dissolved	42.90	ug/l				
Molybdenum, Dissolved	6.05	ug/l				
Nickel, Dissolved	5.19	ug/l				
Selenium, Dissolved	<1	ug/l				
Vanadium, Dissolved	<2	ug/l				
Mercury, Dissolved	<0.01	ug/l				
Total Alkalinity as CaCO ₃	175	mg/l				
Electrical Conductivity at 25C	1920	µS/cm				
Potassium, Dissolved	82.10	mg/l				
Sodium, Dissolved	59	mg/l				
Sulfur, Dissolved	830	mg/l				
Total Dissolved Nitrogen	<0.2	mg/l				
Chloride	118.00	mg/l				
Fluoride	0.44	mg/l				
Ammonium-Nitrogen	<0.03	mg/l				
Total Organic Carbon	2.50	mg/l				
pH	7.47	pH Units				
Nitrate	<0.2	mg/l				
Ionic Balance	0.48	%				
Electrical Conductivity	1867	µS/cm				
Temperature	9.80	deg C				
Dissolved Oxygen	6.98	mg/l				
pH	7.39	pH Units				
Groundwater Level	21.98	m(AOD)				

Sampling Amec/Tesing
EA NLS

08/12/2017

Emission point Parameter	Emission Limit?	Result (µ)	Test Method #	Date and Time(s) E.	Accreditation/Certification No.	Universality
Aluminum, Dissolved		<10	ug/l			
Antimony, Dissolved		<1	ug/l			
Arsenic, Dissolved		<1	ug/l			
Boron, Dissolved		343	ug/l			
Cadmium, Dissolved		<0.1	ug/l			
Calcium, Dissolved		178	mg/l			
Chromium, Dissolved		<0.5	ug/l			
Copper, Dissolved		1.26	ug/l			
Iron, Dissolved		<30	ug/l			
Magnesium, Dissolved		74.90	mg/l			
Manganese, Dissolved		<10	ug/l			
Molybdenum, Dissolved		4.20	ug/l			
Nickel, Dissolved		1.78	ug/l			
Selenium Dissolved		<1	ug/l			
Vanadium, Dissolved		<2	ug/l			
Mercury, Dissolved		<0.01	ug/l			
Total Alkalinity as CaCO ₃		183	mg/l			
Electrical Conductivity at 25C		1210	µS/cm			
Potassium, Dissolved		4.85	mg/l			
Sodium, Dissolved		23	mg/l			
Sulfate, Dissolved		540	mg/l			
Total Oxidized Nitrogen		<0.2	mg/l			
Chloride		22.90	mg/l			
Fluoride		0.44	mg/l			
Amino-acid Nitrogen		0.14	mg/l			
Total Organic Carbon		0.80	mg/l			
pH		7.47	pH Units			
Nitrate		<0.2	mg/l			
Ionic Balance		1.61	%			
Electrical Conductivity		1104	µS/cm			
Temperature		14.90	deg C			
Dissolved Oxygen		3.51	mg/l			
phi		7.03	pH Units			
Groundwater Level		24.90	m(AHD)			

Sampling Area/Testing
EA N.S.

01/08/2017

Sample Number	Sampling Point/Location	Emulsion Limit Value	Result ⁽¹⁾	Method ⁽²⁾	Date and Time ⁽³⁾	Sample- Acquisition ⁽⁴⁾	Uncertainty ⁽⁵⁾
E06_05	Alkalinity Dissolved		<50	mg/L			
	Asenic Dissolved		<1	ug/L			
	Boron, Dissolved		<1	ug/L			
	Cadmium Dissolved		336	ug/L			
	Calcium, Dissolved		<1	ug/L			
	Chromium, Dissolved		182	ug/L			
	Copper, Dissolved		<0.5	ug/L			
	Iron, Dissolved		1.40	ug/L			
	Magnesium, Dissolved		<30	ug/L			
	Manganese, Dissolved		74.80	mg/L			
	Molybdenum, Dissolved		<10	ug/L			
	Nickel, Dissolved		3.90	ug/L			
	Potassium, Dissolved		1.45	ug/L			
	Sulfur, Dissolved		<1	ug/L			
	Sulfate, Dissolved		<2	ug/L			
	Mercury, Dissolved		<0.01	ug/L			
	Total Alkalinity as CaCO ₃		177	mg/L			
	Electrical Conductivity at 25C		1290	µS/cm			
	Potassium, Dissolved		5.92	mg/L			
	Sodium, Dissolved		26	mg/L			
	Sulfate, Dissolved		578	mg/L			
	Total Dissolved Nitrogen		<0.2	mg/L			
	Chloride		23.90	mg/L			
	Fluoride		0.45	mg/L			
	Amonium-Nitrogen		0.11	mg/L			
	Total Organic Carbon		<0.7	mg/L			
	pH		7.54	pH Units			
	Nitrate		<0.2	mg/L			
	Ionic Balance		0.67	%			
	Electrical Conductivity		1330	µS/cm			
	Temperature		-12.00	deg C			
	Dissolved Oxygen		4.61	mg/L			
	pH		7.43	pH Units			
	(G-E) Water Level		25.01	mACL			

[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 has been formally agreed with the Agency it 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 flowtions proportional samples, the percentage of the process operating time covered by the monitoring is given.

[4] The accreditation status of the equipment under the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.

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

[6] The emission limit value for all substances is expressed as a maximum individual value, unless otherwise stated.
H. Way J. 11/01/18
Signed Date
(authorised to sign as representative of the Operator)