Permit Number: EPR/VP3095FS Operator: Neal Soils

Facility: Neal Soils Form Number: Groundwater1 17/06/12

Reporting of groundwater monitoring for the period from June to November 2016

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result(1)	Test Method(2)	Sample Date and Times(3)	Uncertainty (4)
WS6	pH	7.3 ï 8.7	Bi-annually	7.56 pH Units	TM256	15/11/2016	Lab: Precision 0.4%, Bias 0.8%, Expanded Uncertainty 1.7%. Sampling: Immeasurable
WS6	Total Oxidised Nitrogen as N	>3.2 mg/l	Bi-annually	0.419 mg/l	TM184	15/11/2016	Lab: Precision 3.2%, Bias 3.0%, Expanded Uncertainty 9.4%. Sampling: Immeasurable
WS6	Nitrite as N	>300 mg/l	Bi-annually	0.031 mg/l	TM184	15/11/2016	Lab: Precision 2.2%, Bias 0.3%, Expanded Uncertainty 4.8%. Sampling: Immeasurable
WS6	Nitrate as N	>25.35 mg/l	Bi-annually	0.388 mg/l	TM184	15/11/2016	Lab: Unknown. Sampling: Immeasurable
WS6	Ammoniacal Nitrogen as N*	>0.0614 mg/l	Bi-annually	0.013 mg/l	TM099	15/11/2016	Lab: Precision 2.1%, Bias 1.6%, Expanded Uncertainty 5.7%. Sampling: Immeasurable

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
WS6	Chloride	>595 mg/l	Bi-annually	295 mg/l	TM184	15/11/2016	Lab: Precision 2.8%, Bias 2.6%, Expanded Uncertainty 8.2%. Sampling: Immeasurable
WS6	Conductivity	>7500 µS/cm	Bi-annually	2.51 mS/cm	TM120	15/11/2016	Lab: Precision 1.3%, Bias 3.1%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS6	Total TPH Aliphatics and Aromatics (>C5-C35)	>100 µg/l	Bi-annually	3,100 εg/l	TM174	15/11/2016	Lab: Unknown. Sampling: Immeasurable
WS6	EPH >C10-C40	>100 µg/l	Bi-annually	669 εg/l	TM 172	15/11/2016	Lab: Precision 9.0%, Bias -15.1%, Expanded Uncertainty 33.1%. Sampling: Immeasurable
WS6	EPH >C10-C40 Clean Up	>100 µg/l	Bi-annually	371 εg/l	TM172	15/11/2016	Lab: Precision 19.4%, Bias -32.2%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS6	Total PAH (16)	>20 µg/l	Bi-annually	219 εg/l	TM178	15/11/2016	Lab: Unknown. Sampling: Immeasurable
WS6	Total Sulphate	>1779 mg/l	Bi-annually	987 mg/l	TM184	15/11/2016	Lab: Precision 2.7%, Bias 2.2%, Expanded Uncertainty 7.7%.

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
							Sampling: Immeasurable
WS6	Total Cadmium	>3.45 µg/l	Bi-annually	53.4 ɛg/l	TM191	15/11/2016	Lab: Precision 5.3%, Bias -3.5%, Expanded Uncertainty 14.1%. Sampling: Immeasurable
WS6	Total Calcium	>354 mg/l	Bi-annually	7,390 mg/l	TM228	15/11/2016	Lab: Precision 5.2%, Bias -1.9%, Expanded Uncertainty 12.2%. Sampling: Immeasurable
WS6	Dissolved Nickel	>30 mg/l	Bi-annually	4.96 ɛg/l	TM152	15/11/2016	Lab: Precision 4.6%, Bias 1.2%, Expanded Uncertainty 10.4%. Sampling: Immeasurable
WS6	Dissolved Lead	>17.5 µg/l	Bi-annually	0.143 ɛg/l	TM152	15/11/2016	Lab: Precision 4.1%, Bias -1.3%, Expanded Uncertainty 9.4%. Sampling: Immeasurable
WS6	Total Zinc	>2645 mg/l	Bi-annually	17,200 ɛg/l	TM191	15/11/2016	Lab: Precision 5.7%, Bias -2%, Expanded Uncertainty 13.1%. Sampling: Immeasurable
WS7	pH	7.3 ï 8.7	Bi-annually	7.58 pH Units	TM256	16/11/2016	Lab: Precision 0.4%, Bias 0.8%, Expanded Uncertainty 1.7%. Sampling: Immeasurable

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
WS7	Total Oxidised Nitrogen as N	>3.2 mg/l	Bi-annually	<0.1 mg/l	TM184	16/11/2016	Lab: Precision 3.2%, Bias 3.0%, Expanded Uncertainty 9.4%. Sampling: Immeasurable
WS7	Nitrite as N	>300 mg/l	Bi-annually	<0.0152 mg/l	TM184	16/11/2016	Lab: Precision 2.2%, Bias 0.3%, Expanded Uncertainty 4.8%. Sampling: Immeasurable
WS7	Nitrate as N	>25.35 mg/l	Bi-annually	<0.0677 mg/l	TM184	16/11/2016	Lab: Unknown. Sampling: Immeasurable
WS7	Ammoniacal Nitrogen as N*	>0.0614 mg/l	Bi-annually	0.035 mg/l	TM099	16/11/2016	Lab: Precision 2.1%, Bias 1.6%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS7	Chloride	>595 mg/l	Bi-annually	344 mg/l	TM184	16/11/2016	Lab: Precision 2.8%, Bias 2.6%, Expanded Uncertainty 8.2%. Sampling: Immeasurable
WS7	Conductivity	>7500 µS/cm	Bi-annually	2.51 mS/cm	TM120	16/11/2016	Lab: Precision 1.3%, Bias 3.1%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS7	Total TPH Aliphatics and Aromatics (>C5-	>100 µg/l	Bi-annually	17 εg/l	TM174	16/11/2016	Lab: Unknown. Sampling: Immeasurable

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
	C35)						
WS7	EPH >C10-C40	>100 µg/l	Bi-annually	298 ε g/l	TM172	16/11/2016	Lab: Precision 9.0%, Bias -15.1%, Expanded Uncertainty 33.1%. Sampling: Immeasurable
WS7	EPH >C10-C40 Clean Up	>100 µg/l	Bi-annually	<46 ε g/l	TM172	16/11/2016	Lab: Precision 19.4%, Bias -32.2%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS7	Total PAH (16)	>20 µg/l	Bi-annually	0.654 ε g/l	TM178	16/11/2016	Lab: Unknown. Sampling: Immeasurable
WS7	Total Sulphate	>269 mg/l	Bi-annually	440 mg/l	TM184	16/11/2016	Lab: Precision 2.7%, Bias 2.2%, Expanded Uncertainty 7.7%. Sampling: Immeasurable
WS7	Total Cadmium	>3.45 µg/l	Bi-annually	<0.5 ε g/l	TM191	16/11/2016	Lab: Precision 5.3%, Bias -3.5%, Expanded Uncertainty 14.1%. Sampling: Immeasurable
WS7	Total Calcium	>354 mg/l	Bi-annually	299 mg/l	TM228	16/11/2016	Lab: Precision 5.2%, Bias -1.9%, Expanded Uncertainty 12.2%. Sampling: Immeasurable
WS7	Dissolved Nickel	>30 mg/l	Bi-annually	2.93 ε g/l	TM152	16/11/2016	Lab: Precision 4.6%, Bias 1.2%, Expanded

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
							Uncertainty 10.4%. Sampling: Immeasurable
WS7	Dissolved Lead	>17.5 µg/l	Bi-annually	<0.1 ε g/l	TM152	16/11/2016	Lab: Precision 4.1%, Bias -1.3%, Expanded Uncertainty 9.4%. Sampling: Immeasurable
WS7	Total Zinc	>2645 mg/l	Bi-annually	96.4 ε g/l	TM191	16/11/2016	Lab: Precision 5.7%, Bias -2%, Expanded Uncertainty 13.1%. Sampling: Immeasurable
WS10	pH	7.3 ï 8.7	Bi-annually	7.72 pH Units	TM256	16/11/2016	Lab: Precision 0.4%, Bias 0.8%, Expanded Uncertainty 1.7%. Sampling: Immeasurable
WS10	Total Oxidised Nitrogen as N	>3.2 mg/l	Bi-annually	0.617 mg/l	TM184	16/11/2016	Lab: Precision 3.2%, Bias 3.0%, Expanded Uncertainty 9.4%. Sampling: Immeasurable
WS10	Nitrite as N	>300 mg/l	Bi-annually	<0.0152 mg/l	TM184	16/11/2016	Lab: Precision 2.2%, Bias 0.3%, Expanded Uncertainty 4.8%. Sampling: Immeasurable
WS10	Nitrate as N	>25.35 mg/l	Bi-annually	0.61 mg/l	TM184	16/11/2016	Lab: Unknown. Sampling: Immeasurable
WS10	Ammoniacal	>0.0148 mg/l	Bi-annually	0.0035 mg/l	TM099	16/11/2016	Lab: Precision 2.1%, Bias

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
	Nitrogen as N*						1.6%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS10	Chloride	>595 mg/l	Bi-annually	73.6 mg/l	TM184	16/11/2016	Lab: Precision 2.8%, Bias 2.6%, Expanded Uncertainty 8.2%. Sampling: Immeasurable
WS10	Conductivity	>7500 µS/cm	Bi-annually	1.01 mS/cm	TM120	16/11/2016	Lab: Precision 1.3%, Bias 3.1%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS10	Total TPH Aliphatics and Aromatics (>C5-C35)	>100 µg/l	Bi-annually	<10 εg/l	TM174	16/11/2016	Lab: Unknown. Sampling: Immeasurable
WS10	EPH >C10-C40	>100 µg/l	Bi-annually	73.6 εg/l	TM172	16/11/2016	Lab: Precision 9.0%, Bias -15.1%, Expanded Uncertainty 33.1%. Sampling: Immeasurable
WS10	EPH >C10-C40 Clean Up	>100 µg/l	Bi-annually	<46 εg/l	TM172	16/11/2016	Lab: Precision 19.4%, Bias -32.2%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS10	Total PAH (16)	>20 µg/l	Bi-annually	0.59 εg/l	TM178	16/11/2016	Lab: Unknown. Sampling: Immeasurable

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
WS10	Total Sulphate	>269 mg/l	Bi-annually	105 mg/l	TM184	16/11/2016	Lab: Precision 2.7%, Bias 2.2%, Expanded Uncertainty 7.7%. Sampling: Immeasurable
WS10	Total Cadmium	>3.45 µg/l	Bi-annually	<0.5 ε g/l	TM191	16/11/2016	Lab: Precision 5.3%, Bias -3.5%, Expanded Uncertainty 14.1%. Sampling: Immeasurable
WS10	Total Calcium	>354 mg/l	Bi-annually	143 mg/l	TM228	16/11/2016	Lab: Precision 5.2%, Bias -1.9%, Expanded Uncertainty 12.2%. Sampling: Immeasurable
WS10	Dissolved Nickel	>30 mg/l	Bi-annually	2.89 ε g/l	TM152	16/11/2016	Lab: Precision 4.6%, Bias 1.2%, Expanded Uncertainty 10.4%. Sampling: Immeasurable
WS10	Dissolved Lead	>17.5 µg/l	Bi-annually	<0.1 ε g/l	TM152	16/11/2016	Lab: Precision 4.1%, Bias -1.3%, Expanded Uncertainty 9.4%. Sampling: Immeasurable
WS10	Total Zinc	>2645 mg/l	Bi-annually	146 ε g/l	TM191	16/11/2016	Lab: Precision 5.7%, Bias -2%, Expanded Uncertainty 13.1%. Sampling: Immeasurable

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
WS11	pH	7.3 ï 8.7	Bi-annually	7.68 pH Units	TM256	16/11/2016	Lab: Precision 0.4%, Bias 0.8%, Expanded Uncertainty 1.7%. Sampling: Immeasurable
WS11	Total Oxidised Nitrogen as N	>3.2 mg/l	Bi-annually	0.114 mg/l	TM184	16/11/2016	Lab: Precision 3.2%, Bias 3.0%, Expanded Uncertainty 9.4%. Sampling: Immeasurable
WS11	Nitrite as N	>300 mg/l	Bi-annually	<0.0152 mg/l	TM184	16/11/2016	Lab: Precision 2.2%, Bias 0.3%, Expanded Uncertainty 4.8%. Sampling: Immeasurable
WS11	Nitrate as N	>25.35 mg/l	Bi-annually	0.108 mg/l	TM184	16/11/2016	Lab: Unknown. Sampling: Immeasurable
WS11	Ammoniacal Nitrogen as N*	>0.0148 mg/l	Bi-annually	0.012 mg/l	TM099	16/11/2016	Lab: Precision 2.1%, Bias 1.6%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS11	Chloride	>595 mg/l	Bi-annually	29.2 mg/l	TM184	16/11/2016	Lab: Precision 2.8%, Bias 2.6%, Expanded Uncertainty 8.2%. Sampling: Immeasurable
WS11	Conductivity	>7500 µS/cm	Bi-annually	0.545 mS/cm	TM120	16/11/2016	Lab: Precision 1.3%, Bias 3.1%, Expanded Uncertainty 5.7%.

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
							Sampling: Immeasurable
WS11	Total TPH Aliphatics and Aromatics (>C5-C35)	>100 µg/l	Bi-annually	<10 ε g/l	TM174	16/11/2016	Lab: Unknown. Sampling: Immeasurable
WS11	EPH >C10-C40	>100 µg/l	Bi-annually	177 ε g/l	TM172	16/11/2016	Lab: Precision 9.0%, Bias -15.1%, Expanded Uncertainty 33.1%. Sampling: Immeasurable
WS11	EPH >C10-C40 Clean Up	>100 µg/l	Bi-annually	<46 ε g/l	TM172	16/11/2016	Lab: Precision 19.4%, Bias -32.2%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS11	Total PAH (16)	>20 µg/l	Bi-annually	1.78 ε g/l	TM178	16/11/2016	Lab: Unknown. Sampling: Immeasurable
WS11	Total Sulphate	>269 mg/l	Bi-annually	51 mg/l	TM184	16/11/2016	Lab: Precision 2.7%, Bias 2.2%, Expanded Uncertainty 7.7%. Sampling: Immeasurable
WS11	Total Cadmium	>3.45 µg/l	Bi-annually	<0.5 ε g/l	TM191	16/11/2016	Lab: Precision 5.3%, Bias -3.5%, Expanded Uncertainty 14.1%. Sampling: Immeasurable
WS11	Total Calcium	>354 mg/l	Bi-annually	444 mg/l	TM228	16/11/2016	Lab: Precision 5.2%, Bias -1.9%, Expanded

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
							Uncertainty 12.2%. Sampling: Immeasurable
WS11	Dissolved Nickel	>30 mg/l	Bi-annually	3.62 ε g/l	TM152	16/11/2016	Lab: Precision 4.6%, Bias 1.2%, Expanded Uncertainty 10.4%. Sampling: Immeasurable
WS11	Dissolved Lead	>17.5 µg/l	Bi-annually	<0.1 ε g/l	TM152	16/11/2016	Lab: Precision 4.1%, Bias -1.3%, Expanded Uncertainty 9.4%. Sampling: Immeasurable
WS11	Total Zinc	>2645 mg/l	Bi-annually	305 ε g/l	TM191	16/11/2016	Lab: Precision 5.7%, Bias -2%, Expanded Uncertainty 13.1%. Sampling: Immeasurable
WS12	pH	8.6 ï 9.2	Bi-annually	7.44 pH Units	TM256	15/11/2016	Lab: Precision 0.4%, Bias 0.8%, Expanded Uncertainty 1.7%. Sampling: Immeasurable
WS12	Total Oxidised Nitrogen as N	>3.2 mg/l	Bi-annually	0.481 mg/l	TM184	15/11/2016	Lab: Precision 3.2%, Bias 3.0%, Expanded Uncertainty 9.4%. Sampling: Immeasurable
WS12	Nitrite as N	>300 mg/l	Bi-annually	<0.0152 mg/l	TM184	15/11/2016	Lab: Precision 2.2%, Bias 0.3%, Expanded Uncertainty 4.8%.

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
							Sampling: Immeasurable
WS12	Nitrate as N	>25.35 mg/l	Bi-annually	0.474 mg/l	TM184	15/11/2016	Lab: Unknown. Sampling: Immeasurable
WS12	Ammoniacal Nitrogen as N*	>0.0614 mg/l	Bi-annually	0.00020 mg/l	TM099	15/11/2016	Lab: Precision 2.1%, Bias 1.6%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS12	Chloride	>595 mg/l	Bi-annually	48.6 mg/l	TM184	15/11/2016	Lab: Precision 2.8%, Bias 2.6%, Expanded Uncertainty 8.2%. Sampling: Immeasurable
WS12	Conductivity	>7500 µS/cm	Bi-annually	1.2 mS/cm	TM120	15/11/2016	Lab: Precision 1.3%, Bias 3.1%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS12	Total TPH Aliphatics and Aromatics (>C5-C35)	>100 µg/l	Bi-annually	180 εg/l	TM174	15/11/2016	Lab: Unknown. Sampling: Immeasurable
WS12	EPH >C10-C40	>100 µg/l	Bi-annually	86 εg/l	TM172	15/11/2016	Lab: Precision 9.0%, Bias -15.1%, Expanded Uncertainty 33.1%. Sampling: Immeasurable

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
WS12	EPH >C10-C40 Clean Up	>100 µg/l	Bi-annually	<46 ɛg/l	TM172	15/11/2016	Lab: Precision 19.4%, Bias -32.2%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS12	Total PAH (16)	>20 µg/l	Bi-annually	3.64 ɛg/l	TM178	15/11/2016	Lab: Unknown. Sampling: Immeasurable
WS12	Total Sulphate	>269 mg/l	Bi-annually	137 mg/l	TM184	15/11/2016	Lab: Precision 2.7%, Bias 2.2%, Expanded Uncertainty 7.7%. Sampling: Immeasurable
WS12	Total Cadmium	>3.45 µg/l	Bi-annually	<0.5 ɛg/l	TM191	15/11/2016	Lab: Precision 5.3%, Bias -3.5%, Expanded Uncertainty 14.1%. Sampling: Immeasurable
WS12	Total Calcium	>354 mg/l	Bi-annually	213 mg/l	TM228	15/11/2016	Lab: Precision 5.2%, Bias -1.9%, Expanded Uncertainty 12.2%. Sampling: Immeasurable
WS12	Dissolved Nickel	>30 mg/l	Bi-annually	3.83 ɛg/l	TM152	15/11/2016	Lab: Precision 4.6%, Bias 1.2%, Expanded Uncertainty 10.4%. Sampling: Immeasurable
WS12	Dissolved Lead	>17.5 µg/l	Bi-annually	0.104 ɛg/l	TM152	15/11/2016	Lab: Precision 4.1%, Bias -1.3%, Expanded Uncertainty 9.4%.

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
							Sampling: Immeasurable
WS12	Total Zinc	>2645 mg/l	Bi-annually	30.7 ε g/l	TM191	15/11/2016	Lab: Precision 5.7%, Bias -2%, Expanded Uncertainty 13.1%. Sampling: Immeasurable
WS14	pH	7.3 ï 8.7	Bi-annually	Insufficient sample.	TM256		Lab: Precision 0.4%, Bias 0.8%, Expanded Uncertainty 1.7%. Sampling: Immeasurable
WS14	Total Oxidised Nitrogen as N	>3.2 mg/l	Bi-annually	Insufficient sample.	TM184		Lab: Precision 3.2%, Bias 3.0%, Expanded Uncertainty 9.4%. Sampling: Immeasurable
WS14	Nitrite as N	>300 mg/l	Bi-annually	Insufficient sample.	TM184		Lab: Precision 2.2%, Bias 0.3%, Expanded Uncertainty 4.8%. Sampling: Immeasurable
WS14	Nitrate as N	>25.35 mg/l	Bi-annually	Insufficient sample.	TM184		Lab: Unknown. Sampling: Immeasurable
WS14	Ammoniacal Nitrogen as N*	>0.0148 mg/l	Bi-annually	Insufficient sample.	TM099		Lab: Precision 2.1%, Bias 1.6%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS14	Chloride	>595 mg/l	Bi-annually	Insufficient sample.	TM184		Lab: Precision 2.8%, Bias 2.6%, Expanded

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
							Uncertainty 8.2%. Sampling: Immeasurable
WS14	Conductivity	>7500 µS/cm	Bi-annually	Insufficient sample.	TM120		Lab: Precision 1.3%, Bias 3.1%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS14	Total TPH Aliphatics and Aromatics (>C5-C35)	>100 µg/l	Bi-annually	327 µg/l	TM174	16/11/2016	Lab: Unknown. Sampling: Immeasurable
WS14	EPH >C10-C40	>100 µg/l	Bi-annually	Insufficient sample.	TM172		Lab: Precision 9.0%, Bias -15.1%, Expanded Uncertainty 33.1%. Sampling: Immeasurable
WS14	EPH >C10-C40 Clean Up	>100 µg/l	Bi-annually	Insufficient sample.	TM172		Lab: Precision 19.4%, Bias -32.2%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS14	Total PAH (16)	>20 µg/l	Bi-annually	Insufficient sample.	TM178		Lab: Unknown. Sampling: Immeasurable
WS14	Total Sulphate	>269 mg/l	Bi-annually	Insufficient sample.	TM184		Lab: Precision 2.7%, Bias 2.2%, Expanded Uncertainty 7.7%. Sampling: Immeasurable

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
WS14	Total Cadmium	>3.45 µg/l	Bi-annually	Insufficient sample.	TM191		Lab: Precision 5.3%, Bias -3.5%, Expanded Uncertainty 14.1%. Sampling: Immeasurable
WS14	Total Calcium	>354 mg/l	Bi-annually	418 mg/l	TM228	16/11/2016	Lab: Precision 5.2%, Bias -1.9%, Expanded Uncertainty 12.2%. Sampling: Immeasurable
WS14	Dissolved Nickel	>30 mg/l	Bi-annually	Insufficient sample.	TM152		Lab: Precision 4.6%, Bias 1.2%, Expanded Uncertainty 10.4%. Sampling: Immeasurable
WS14	Dissolved Lead	>17.5 µg/l	Bi-annually	Insufficient sample.	TM152		Lab: Precision 4.1%, Bias -1.3%, Expanded Uncertainty 9.4%. Sampling: Immeasurable
WS14	Total Zinc	>2645 mg/l	Bi-annually	Insufficient sample.	TM191		Lab: Precision 5.7%, Bias -2%, Expanded Uncertainty 13.1%. Sampling: Immeasurable
WS15	pH	7.3 ï 8.7	Bi-annually	7.57 pH Units	TM256	15/11/2016	Lab: Precision 0.4%, Bias 0.8%, Expanded Uncertainty 1.7%. Sampling: Immeasurable

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[(1)]	Test Method[(2)]	Sample Date and Times[(3)]	Uncertainty [(4)]
WS15	Total Oxidised Nitrogen as N	>3.2 mg/l	Bi-annually	<0.1 mg/l	TM184	15/11/2016	Lab: Precision 3.2%, Bias 3.0%, Expanded Uncertainty 9.4%. Sampling: Immeasurable
WS15	Nitrite as N	>300 mg/l	Bi-annually	<0.0152 mg/l	TM184	15/11/2016	Lab: Precision 2.2%, Bias 0.3%, Expanded Uncertainty 4.8%. Sampling: Immeasurable
WS15	Nitrate as N	>25.35 mg/l	Bi-annually	<0.0677 mg/l	TM184	15/11/2016	Lab: Unknown. Sampling: Immeasurable
WS15	Ammoniacal Nitrogen as N*	>0.0148 mg/l	Bi-annually	0.0057mg/l	TM099	15/11/2016	Lab: Precision 2.1%, Bias 1.6%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS15	Chloride	>595 mg/l	Bi-annually	161 mg/l	TM184	15/11/2016	Lab: Precision 2.8%, Bias 2.6%, Expanded Uncertainty 8.2%. Sampling: Immeasurable
WS15	Conductivity	>7500 µS/cm	Bi-annually	1.47 mS/cm	TM120	15/11/2016	Lab: Precision 1.3%, Bias 3.1%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS15	Total TPH Aliphatics and Aromatics (>C5-	>100 µg/l	Bi-annually	20.5 εg/l	TM174	15/11/2016	Lab: Unknown. Sampling: Immeasurable

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
	C35)						
WS15	EPH >C10-C40	>100 µg/l	Bi-annually	<46 ɛg/l	TM172	15/11/2016	Lab: Precision 9.0%, Bias -15.1%, Expanded Uncertainty 33.1%. Sampling: Immeasurable
WS15	EPH >C10-C40 Clean Up	>100 µg/l	Bi-annually	<46 ɛg/l	TM172	15/11/2016	Lab: Precision 19.4%, Bias -32.2%, Expanded Uncertainty 5.7%. Sampling: Immeasurable
WS15	Total PAH (16)	>20 µg/l	Bi-annually	0.379 ɛg/l	TM178	15/11/2016	Lab: Unknown. Sampling: Immeasurable
WS15	Total Sulphate	>269 mg/l	Bi-annually	173 mg/l	TM184	15/11/2016	Lab: Precision 2.7%, Bias 2.2%, Expanded Uncertainty 7.7%. Sampling: Immeasurable
WS15	Total Cadmium	>3.45 µg/l	Bi-annually	<0.5 ɛg/l	TM191	15/11/2016	Lab: Precision 5.3%, Bias -3.5%, Expanded Uncertainty 14.1%. Sampling: Immeasurable
WS15	Total Calcium	>354 mg/l	Bi-annually	134 mg/l	TM228	15/11/2016	Lab: Precision 5.2%, Bias -1.9%, Expanded Uncertainty 12.2%. Sampling: Immeasurable
WS15	Dissolved Nickel	>30 mg/l	Bi-annually	3.58 ɛg/l	TM152	15/11/2016	Lab: Precision 4.6%, Bias 1.2%, Expanded

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result[1]	Test Method[2]	Sample Date and Times[3]	Uncertainty [4]
							Uncertainty 10.4%. Sampling: Immeasurable
WS15	Dissolved Lead	>17.5 µg/l	Bi-annually	<0.1 ε g/l	TM152	15/11/2016	Lab: Precision 4.1%, Bias -1.3%, Expanded Uncertainty 9.4%. Sampling: Immeasurable
WS15	Total Zinc	>2645 mg/l	Bi-annually	17.8 ε g/l	TM191	15/11/2016	Lab: Precision 5.7%, Bias -2%, Expanded Uncertainty 13.1%. Sampling: Immeasurable

*Total ammoniacal nitrogen converted to unionised ammonia using water temperature and pH.

[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 Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.



Signedé é
(Authorised to sign as representative of Operator)

Date: 9 December 2016

Permit Number EPR/VP3095FS