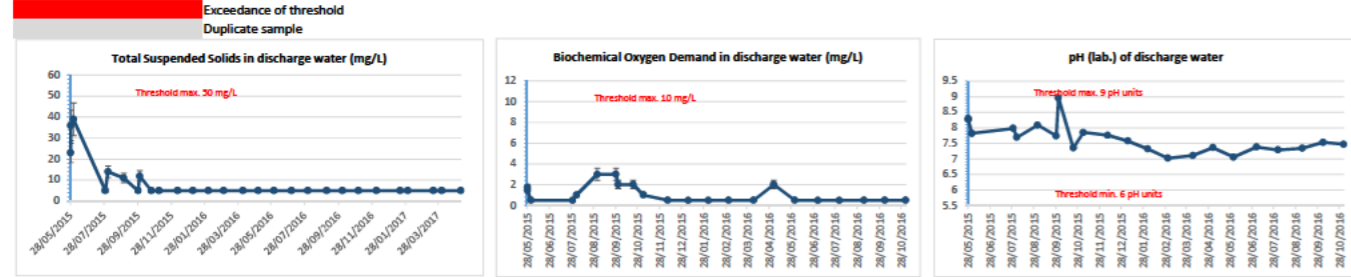


DCS2 - Discharge Point

Parameter	Discharge Consent Threshold	Detection limit (typical)	27/11/2014	16/12/2014	18/12/2014	14/01/2015	04/02/2015	Duplicate/DCS7	11/02/2015	Duplicate/DCS7	Duplicate	23/03/2015	26/03/2015	Duplicate	23/04/2015	Duplicate	28/05/2015	28/05/2015	02/06/2015	30/07/2015	04/08/2015	Duplicate	02/09/2015	28/09/2015	Duplicate	01/10/2015	22/10/2015	Duplicate	05/11/2015	Duplicate
Total Suspended Solids	50	10	3	11	18	22	6	<3	13	11	8	3	27	31	7	10	23	36	39	<10	14	23	11	<10	12	12	<10	<10	<10	<10
Biochemical Oxygen Demand	10	1	<1	<1	<1	1.58 ^a	1.76 ^a	1.61 ^a	1.03 ^a	<1	<2	<2	1.23 ^a	<2	1.04 ^a	<2	1.71 ^a	1.49 ^a	<1	<1	1	8	3	3	3	2	2	1	1	<1
pH	>6 & <9	-	7.38	7.47	7.08	7.18	7.34 (7.00)	6.92	7.5 (7.48)	7.68	7.8	7.7	7.83 (8.54)	7.8	7.83	7.9	8.29	8.27	7.82	7.98	7.69 (8.41)	7.7	8.09	7.74	7.73	8.96	7.35	7.14	7.85 (7.53)	8.06
Total zinc ^d	33.8	3	<18	<18	30	30	<18	<18	<18	<18	11.47	10.21	<18	30.07	<18	<3.73	17.8	14.6	<18	4	6	14.59	13	28	31	7	12	10	5	5
Dissolved mercury ^d	1.7	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.04	<0.01	<0.01	<0.1	<0.01	<0.01	1.051	<0.01	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5
Dissolved cadmium ^d	0.7	0.03	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.09	<0.09	<0.6	<0.09	<0.6	<0.05	<0.1	<0.1	<0.6	0.13	0.06	0.121	0.36	0.2	0.21	0.25	0.16	0.21	0.24	0.14
Dissolved iron ^d	3.9	0.0047	<0.23	<0.23	<0.23	<0.23	<0.23	0.34	<0.23	<0.23	0.04908	0.03045	<0.23	0.8087	<0.23	0.18	<0.019	<0.019	<0.23	<0.0047	0.1384	0.9932	0.0082	0.5821	0.5538	0.3261	0.6625	0.6613	0.2782	0.2208
Dissolved copper ^d	16.2	3	12	10	<9	<9	<9	<9	<9	9.065	7.101	10	2.202	<9	4.765	9.39	8.77	<9	<3	<3	13.99	<0.3	5	5	4	<3	<3	<3	<3	<3
Dissolved chromium ²	8.1	0.2	<2	<2	2	7	2	<2	<2	<2	<0.68	<0.68	<2	<0.68	<2	<0.28	2.13	2.01	<2	<0.2	<0.2	<0.68	0.6	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2
Chromium VI	N/A	2	<5	<5	<5	9	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<30	<30	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Chromium III	N/A	2	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Dissolved nickel ¹	20	0.2	<3	<3	6	14	10	<3	14	11	12.01	6.544	5	0.833	7	5.578	5.22	5.09	5	6.5	7	9.321	5.3	5	4.9	2.7	3.3	3.7	5.5	5.2
Dissolved arsenic ¹	50	0.9	1	<1	<1	3	4.8	1.1	5.1	4.3	6.23	2.971	7.9	1.929	2.5	2.214	16	13.7	7.7	6.7	6.5	8.64	4.2	7.5	6.5	4.7	3.5	1.8	3.2	3.9
Dissolved lead ³	7.2	0.4	<6	<6	<6	<6	<6	<6	<6	<6	<0.173	<0.173	<6	<0.173	<6	<0.12	<0.02	<0.02	<6	2.6	2.5	0.37	4.7	4.4	4.5	<0.4	1.9	1.8	3.6	2.8
Total hardness as CaCO3	N/A	1	123	137	132	135	137	24.1	150	146	139	136	106	114	147	159	140	148	141	179	175	183	163	157	157	93	167	168	197	198
Visible oil or grease	N/A	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 pH values presented in pH units. Values in brackets are field pH measurements. Total Suspended Solids, Biochemical Oxygen Demand, Total hardness & Dissolved iron concentrations are presented in mg/L, all other parameters are in µg/L.
^{1,2,3} Discharge Consent Threshold from The Water Framework Directive (Priority Substances and Classification) Regulations (Northern Ireland) 2011
¹ Annual mean value presented for 'Good Standard for rivers and freshwater lakes'
² Annual mean environmental standard for chromium III (4.7µg/L) plus annual mean environmental standard for chromium VI (3.4µg/L) presented for 'Good Standard for rivers and freshwater lakes'
³ Annual mean environmental standard (AA-EQS) value presented for priority substance and its compounds for all rivers and lakes
⁴ Department Specific

^a BOD over diluted, therefore result indicative only ^A Container with headspace



Notes:
 Half detection limit used for graphing when parameter less than detect
 Error bars of 20% to reflect limit of acceptable duplicate reproducibility

09/12/2015	Duplicate	06/01/2016	Duplicate	03/02/2016	Duplicate	03/02/2016 Retest	Duplicate	02/03/2016	Duplicate	06/04/2016	Duplicate	04/05/2016	Duplicate	02/06/2016	Duplicate	04/07/2016	Duplicate	03/08/2016	Duplicate	06/09/2016	Duplicate	05/10/2016	Duplicate	03/11/2016	Duplicate	06/12/2016	Duplicate	18/01/2017	Duplicate	01/02/2017	Duplicate	20/03/2017	Duplicate	04/04/2017	Duplicate	09/05/2017	Duplicate	
<10	<10	<10	<10	<10	<10	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
<1	1	<1	<1	<1	<1	-	-	<1	3	1	1	2	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	2	<1	<1	<1	<1	<1	<1	<1	<1	3	3	2	2
7.76 (7.28)	8.07	7.58 (7.05)	7.47	7.32 (7.10)	7.27	-	-	7.08 (7.02)	7.09	7.27 (7.11)	7.42	7.36 (7.07)	7.39	7.06 (7.35)	7.07	7.38 (7.08)	7.17	7.29 (6.95)	7.19	7.34 (7.18)	7.37	7.53 (6.81)	7.06	7.47 (6.91)	7.29	7.16 (6.88)	7	7.05 (7.00)	6.68	7.39 (7.18)	7.53	7.51 (7.00)	7.5	7.34 (7.22)	7.36	7.63 (7.27)	7.35	
13	12	9	9	33	35	30	30	13	11	19	18.6	<3	<3	5	6	3	3	3	3	<3	<3	7	6	7	6	<3	<3	25	26	29	28	29	32	12	11	3	3	
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0.43	0.19	0.25	0.12	<0.03	<0.03	-	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
0.0352	0.0075	0.1227	0.2064	0.1852	0.2213	-	-	0.4409	0.3247	0.4914	0.4934	0.5691	0.596	0.4472	0.4561	0.9222	0.9363	0.4984	0.5022	0.4894	0.4811	0.3381	0.3371	0.5496	0.6054	0.4327	0.44	0.1683	0.1642	0.1571	0.1609	<0.0047	<0.0047	0.7468	0.7717	0.4589	0.4493	
<3	<3	<3	<3	<3	<3	-	-	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	
1.4	<0.2	0.3	<0.2	0.7	<0.2	-	-	0.5	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	<0.2	0.3	<0.2	<0.2	0.5	<0.2	<0.2	<0.2	0.3	<0.2	<0.2	0.3	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
<2	<2	<2	<2	<2	<2	-	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
<2	<2	<2	<2	<2	<2	-	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
7.4	5.8	5.5	5.1	5.3	4.7	-	-	6.3	4.4	3	3	4.5	3.2	4.7	4.9	3.3	4.7	4.6	4	3.3	3.5	5.6	5.2	5.4	5.3	4.2	3.2	5.9	5.7	8	7.6	4.4	3.9	3.8	4	3.2	2.7	
0.9	2.6	6.7	5.1	<0.9	<0.9	-	-	2.4	<0.9	<0.9	<0.9	2.5	6	2.6	2.5	<0.9	<0.9	<0.9	<0.9	<0.9	<0.9	<0.9	4	5.6	3.9	4.3	3.3	2	2.6	2.2	<0.9	<0.9	1.5	2.1	<0.9	2.5		
6.5	3.8	3.3	4	<0.4	<0.4	-	-	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	
200	202	208	207	195	193	-	-	171	170	189	191	190	212	223	215	194	195	179	176	186	186	176	177	192	200	197	190	284	284	196	199	191	188	186	186	179	183	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

DCS1 - Curraghinalt Burn upstream

Parameter	Detection limit (typical)	27/11/2014	16/12/2014	18/12/2015	14/01/2015	04/02/2015	11/02/2015	Duplicate	26/03/2015	23/04/2015	21/05/2015	28/05/2015	02/06/2015	28/07/2015	30/07/2015	04/08/2015	02/09/2015
Total Suspended Solids	10	<3	<3	<3	9	<3	<3	<2	18	<3	3	5	4	9	<10	<10	32
Biochemical Oxygen Demand	1	<1	<1	<1	1.87 [#]	1.39 [#]	<1	<2	1.23 [#]	<1	1.29 [#]	<1	<1	1.49 ^{#Δ}	1	2	1
pH	-	6.7	6.75	7	6.9	7.23 (6.73)	6.8 (7.33)	8.2	6.81 (7.05)	6.99	7.19	7.7	6.57	5.94 (6.49)	6.85	5.74 (8.36)	7.46
Total zinc	3	<18	<18	<18	20	<18	<18	5.394	<18	<18	<18	7.49	<18	14	8	7	8
Dissolved mercury	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.01	<0.1	0.51	<0.01	<0.01	<0.01
Dissolved cadmium	0.03	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.09	<0.6	<0.6	<0.6	<0.1	<0.6	6.9	<0.03	<0.03	<0.03
Dissolved iron	0.0047	2.07	0.52	0.67	0.39	0.36	0.36	0.6633	<0.23	1.34	1.34	1.47	0.52	1.2	2.569	2.046	6.269
Dissolved copper	3	<9	<9	<9	<9	<9	<9	7.207	<9	<9	<9	2.56	<9	9.6	<3	<3	4
Dissolved chromium	0.2	<2	<2	<2	<2	<2	<2	<0.68	<2	<2	<2	0.956	<2	4.7	<0.2	0.6	1.2
Chromium VI	2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<30	<5	<20	<2	<2	<2
Chromium III	2	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<20	<2	<2	<2
Dissolved nickel	0.2	<3	<3	<3	<3	<3	<3	0.702	<3	<3	<3	0.913	<3	3.1	0.7	1	1.6
Dissolved arsenic	0.9	2.4	<1	<1	<1	1.3	<1	1.197	2	3.2	2.2	3.69	1.2	2.8	2.5	2.6	4.6
Dissolved lead	0.4	<6	<6	<6	<6	<6	<6	0.284	<6	<6	<6	0.315	<6	2.1	<0.4	<0.4	2.7
Total hardness as CaCO3	1	21.7	16.2	21.1	30.1	24.2	19.7	19	13.4	33.1	17.6	29.4	9.98	<15	229	12	23
Visible oil or grease	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

pH values presented in pH units. Values in brackets are field pH measurements. Total Suspended Solids, Biochemical Oxygen Demand, Total hardness & Dissolved iron concentrations are presented in mg/L, all other parameters are in µg/L.

[#] BOD over diluted, therefore result indicative only

^Δ Container with headspace

DCS3 - Curraghinalt Burn downstream

Parameter	Detection limit (typical)	27/11/2014	16/12/2014	18/12/2014	14/01/2015	04/02/2015	11/02/2015	Duplicate	26/03/2015	23/04/2015	21/05/2015	28/05/2015	02/06/2015	28/07/2015	30/07/2015	04/08/2015	02/09/2015
Total Suspended Solids	10	3	8	4	5	3	5	28	72	<3	18	9	3	16	<10	<10	<10
Biochemical Oxygen Demand	1	1.08 [#]	<1	<1	1.65 [#]	1.91 [#]	<1	1.31 [#]	<1	1.25 [#]	1.22 [#]	<1	<2	1.42 ^{#Δ}	1	2	1
pH	-	7.19	7.46	6.95	7.44	7.16 (6.93)	7.45 (7.2)	6.91 (7.31)	7.82	7.88	7.76	6.81	7.4	6.02 (6.28)	7.12	5.95 (6.40)	7.12
Total zinc	3	<18	<18	<18	20	<18	<18	<18	<18	<18	11.2	<18	36.51	13	9	7	9
Dissolved mercury	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.01	<0.1	<0.1	<0.2	<0.5	<0.01	<0.01
Dissolved cadmium	0.03	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.1	<0.6	<0.09	0.45	<0.03	<0.03	<0.03
Dissolved iron	0.0047	1.78	0.54	0.65	0.38	0.25	0.25	0.24	0.8	1.13	1.03	0.52	1.485	1.2	2.634	1.843	3.455
Dissolved copper	3	<9	<9	<9	<9	<9	<9	<9	<9	<9	<9	5.58	<9	19.83	4.2	3	3
Dissolved chromium	0.2	<2	<2	<2	6	<2	<2	<2	<2	<2	1.8	<2	1.017	4.6	<0.2	<0.2	<0.2
Chromium VI	2	<5	<5	<5	8	<5	<5	<5	<5	<5	<30	<5	<20	<2	<2	<2	<2
Chromium III	2	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<20	<2	<2	<2
Dissolved nickel	0.2	<3	<3	<3	<3	<3	4	<3	<3	<3	2.12	<3	6.816	4.6	0.7	0.4	2.4
Dissolved arsenic	0.9	2.1	<1	<1	<1	2	1.3	2.7	5.3	8.3	7.7	1.5	7.069	1.3	<0.9	2	3.4
Dissolved lead	0.4	<6	<6	<6	<6	<6	<6	<6	<6	<6	0.187	<6	0.381	<1	1	0.7	1.2
Total hardness as CaCO3	1	35.5	27.5	21	34.5	41.4	49.4	13.7	71.4	36.6	65.1	10.8	25	<15	21	21	68
Visible oil or grease	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

pH values presented in pH units. Values in brackets are field pH measurements. Total Suspended Solids, Biochemical Oxygen Demand, Total hardness & Dissolved iron concentrations are presented in mg/L, all other parameters are in µg/L.

[#] BOD over diluted, therefore result indicative only

^Δ Container with headspace

01/10/2015	22/10/2015	05/11/2015	09/12/2015	06/01/2016	03/02/2016	02/03/2016	06/04/2016	04/05/2016	02/06/2016	04/07/2016	03/08/2016	06/09/2016	05/10/2016	03/11/2016	06/12/2016	18/01/2017	01/02/2017	20/03/2017	04/04/2017	09/05/2017	
<10	<10	17	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	19	<10	
2	<1	2	2	1	<1	2	2	2	<1	<1	2	2	2	1	1	<1	9	<1	2	1	
6.75	7.34	7.74 (7.54)	6.79 (6.49)	7.59 (6.64)	6.09 (4.82)	7.18 (6.87)	6.70 (6.71)	6.94 (7.5)	7.21 (7.78)	7.04 (7.34)	6.51 (6.99)	6.5 (7.52)	7.76 (7.33)	7.81 (7.42)	6.55 (7.36)	6.85 (7.33)	6.57 (6.66)	6.14 (6.72)	7.15 (6.8)	8.8 (7.62)	
7	6	28	4	4	20	8	4	<3	<3	5	10	7	7	5	3	4	5	5	7	<3	
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	<0.5	
<0.03	<0.03	0.09	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
6.646	5.39	4.41	1.131	1.276	0.3198	0.7347	0.7676	1.861	3.229	1.876	3.405	3.162	8.689	7.586	3.364	0.6952	0.7231	0.7234	1.113	1.456	
<3	<3	4	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	4	6	<3	<3	<3	<3	<3	<3	
0.4	<0.2	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.5	<0.2	0.5	0.2	0.7	<0.2	<0.2	<0.2	
<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	
<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	
1.3	0.3	0.7	<0.2	1.2	0.4	0.3	<0.2	<0.2	0.3	0.4	0.7	0.2	2.2	1.5	0.9	0.5	0.6	0.3	0.6	0.4	
5.9	2.8	<0.9	1.2	1.8	<0.9	<0.9	<0.9	2.5	2.9	4	<0.9	1.1	7.2	10.5	5.4	0.9	<0.9	<0.9	<0.9	3.6	
<0.4	<0.4	1.2	1.1	1.2	<0.4	0.6	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.9	<0.4	<0.4	<0.4	<0.4	<0.4	
30	24	37	7	12	18	16	9	21	33	16	16	14	27	31	27	18	13	10	127	38	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

01/10/2015	22/10/2015	05/11/2015	09/12/2015	06/01/2016	03/02/2016	02/03/2016	06/04/2016	04/05/2016	02/06/2016	04/07/2016	03/08/2016	06/09/2016	05/10/2016	03/11/2016	06/12/2016	18/01/2017	01/02/2017	20/03/2017	04/04/2017	09/05/2017	
<10	<10	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	25	<10	
1	<1	2	3	<1	<1	2	2	1	1	1	2	1	2	<1	1	<1	<1	<1	2	1	
6.45	7.46	7.73 (7.5)	7.45 (6.5)	7.47 (6.68)	7.35 (5.77)	6.86 (7.14)	7.12 (6.77)	7.4 (7.25)	7.06 (7.47)	6.74 (7.20)	6.95 (7.12)	7.02 (7.13)	7.52 (7.12)	7.62 (6.97)	7.45 (6.91)	7.32 (6.74)	7.48 (6.71)	6.93 (7.06)	7.41 (7.16)	7.76 (7.39)	
7	8	17	4	6	18	8	4	<3	5	5	6	6	7	7	6	8	10	5	9	3	
0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	<0.5	
<0.03	<0.03	0.07	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
6.574	3.424	2.834	1.016	0.993	0.305	0.508	0.7319	1.043	1.172	1.901	3.003	3.11	3.905	3.272	1.987	0.5208	0.7368	0.7424	0.904	0.5302	
<3	<3	7	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	
<0.2	<0.2	0.9	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.4	0.3	1.3	<0.2	<0.2	<0.2	
<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	
<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	
1.4	2.3	2.5	<0.2	1.1	0.7	1	<0.2	1.8	3	<0.2	1	0.4	3.7	3.9	2.2	1.6	1.2	<0.2	0.9	1.4	
6.5	3.9	3.6	2.8	5.3	1.3	<0.9	<0.9	2.1	1.6	4.2	1.4	3.8	1.3	7.4	4.2	<0.9	2.4	<0.9	2.9	<0.9	
0.9	<0.4	2.8	<0.4	0.8	2	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	
31	84	100	22	57	33	41	12	102	157	26	35	35	110	124	93	71	23	12	49	128	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

DCS4 - Owenkillew River upstream

Parameter	Detection limit (typical)	27/11/2014	16/12/2014	18/12/2014	14/01/2015	04/02/2015	11/02/2015	26/03/2015	Duplicate	23/04/2015	Duplicate	21/05/2015	02/06/2015	07/07/2015	28/07/2015	30/07/2015	04/08/2015	Duplicate
Total Suspended Solids	10	<3	<3	6	<3	<3	<3	42	43	<3	<2	6	9	13	9	<10	12	3
Biochemical Oxygen Demand	1	<1	<1	<1	1.47 [#]	1.29 [#]	<1	2.57 [#]	8	<1	<2	1.95 [#]	1.28 [#]	2.47 [#]	1.95 ^{#A}	1	1	<2
pH	-	6.84	7.07	6.68	6.77	6.7 (5.92)	7.06 (8.15)	6.9 (8.54)	7.7	7.93	7.2	7.23	6.79	(7.36)	6.1 (6.50)	6.68	7.28 (9.90)	7.4
Total zinc	3	<18	<18	<18	<18	<18	<18	<18	9.716	<18	<0.63	<18	<18	6.7	9.6	6	6	10.31
Dissolved mercury	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.03	<0.1	<0.1	<0.5	<0.5	0.04	<0.01	<0.2
Dissolved cadmium	0.03	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.09	<0.6	<0.01	<0.6	<0.6	<0.08	0.6	<0.03	<0.03	<0.09
Dissolved iron	0.0047	1.05	0.5	0.45	0.43	0.4	0.36	0.25	0.2771	0.56	0.806	0.53	0.36	0.56	0.78	1.146	2.459	1.482
Dissolved copper	3	<9	<9	<9	<9	<9	<9	<9	20.09	<9	0.445	<9	<9	1.1	3.2	<3	<3	11.24
Dissolved chromium	0.2	<2	<2	<2	<2	<2	<2	<2	<0.68	<2	<0.58	<2	<2	<1	5.8	<0.2	<0.2	<0.68
Chromium VI	2	<5	<5	<5	<5	<5	<5	<5		<5		<5	<5	<20	<20	<2	<2	
Chromium III	2	<30	<30	<30	<30	<30	<30	<30		<30		<30	<30	<20	<20	<2	<2	
Dissolved nickel	0.2	<3	57	<3	<3	<3	<3	4	6.45	<3	0.569	<3	<3	<1	6.3	0.4	0.7	1.513
Dissolved arsenic	0.9	<1	<1	<1	<1	<1	<1	4.8	5.032	1.5	1.399	1.4	1.1	<1	1.2	2.4	2.4	3.454
Dissolved lead	0.4	<6	<6	<6	<6	<6	<6	<6	0.543	<6	<0.02	<6	<6	<1	<1	2.2	0.5	0.573
Total hardness as CaCO3	1	28.8	24.3	19.1	25.1	31	27.9	17.6	21	37.5	38	23.7	16.2	30	<15	25	23	22
Visible oil or grease	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

pH values presented in pH units. Values in brackets are field pH measurements. Total Suspended Solids, Biochemical Oxygen Demand, Total hardness & Dissolved iron concentrations are presented in mg/L, all other parameters are in µg/L.

[#] BOD over diluted, therefore result indicative only

^A Container with headspace

DCS5 - Owenkillew River downstream

Parameter	Detection limit (typical)	27/11/2014	16/12/2014	18/12/2014	14/01/2015	04/02/2015	11/02/2015	23/03/2015	26/03/2015	23/04/2015	21/05/2015	Duplicate	02/06/2015	07/07/2015	28/07/2015	30/07/2015	04/08/2015	02/09/2015
Total Suspended Solids	10	<3	<3	8	<3	<3	<3	5	35	<3	<3	2	<3	14	12	<10	<10	<10
Biochemical Oxygen Demand	1	<1	<1	<1	1.61 [#]	1.37 [#]	<1	<2	2.59 [#]	<1	1.17 [#]	<2	1.1 [#]	2.01 [#]	2.04 ^{#A}	1	2	1
pH	-	7.04	7.15	6.61	6.76	6.66 (5.54)	7.03 (7.45)	7.5	6.9 (6.77)	7.71	6.94	7.5	6.88	7.23 (7.41)	6.2 (6.96)	6.88	6.51 (7.41)	6.51
Total zinc	3	<18	<18	<18	<18	<18	<18	11.69	20	<18	<18	4.396	<18	8.8	11	7	5	5
Dissolved mercury	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.5	<0.5	0.05	0.03	0.01
Dissolved cadmium	0.03	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.09	<0.6	<0.6	<0.6	<0.09	<0.6	<0.08	0.5	<0.03	<0.03	0.19
Dissolved iron	0.0047	0.98	0.5	0.42	0.43	0.37	0.39	0.6379	0.25	0.58	0.56	0.5218	0.38	0.63	0.83	1.241	2.749	1.835
Dissolved copper	3	<9	<9	<9	<9	<9	<9	0.322	<9	<9	<9	2.819	<9	<1	3.2	<3	<3	<3
Dissolved chromium	0.2	<2	<2	<2	<2	<2	<2	<0.68	<2	<2	<2	<0.68	<2	<1	6.5	<0.2	0.3	1
Chromium VI	2	<5	<5	<5	8	<5	<5		<5	<5	<5		<5	<20	<20	<2	<2	<2
Chromium III	2	<30	<30	<30	<30	<30	<30		<30	<30	<30		<30	<20	<20	<2	<2	<2
Dissolved nickel	0.2	<3	<3	<3	<3	<3	<3	0.649	<3	<3	<3	0.997	<3	<1	7.1	0.5	0.8	1.4
Dissolved arsenic	0.9	<1	<1	<1	<1	1.2	<1	1.158	5	1.5	1.3	1.183	1.1	<1	1.2	2.4	5.4	<0.9
Dissolved lead	0.4	<6	<6	<6	<6	<6	<6	<0.173	<6	<6	<6	<0.173	<6	<1	<1	2.4	<0.4	2.2
Total hardness as CaCO3	1	29.3	23.8	18.2	25.3	31	27.1	35	17.2	41.6	23	25	16.3	31	<15	27	21	36
Visible oil or grease	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

pH values presented in pH units. Values in brackets are field pH measurements. Total Suspended Solids, Biochemical Oxygen Demand, Total hardness & Dissolved iron concentrations are presented in mg/L, all other parameters are in µg/L.

[#] BOD over diluted, therefore result indicative only

^A Container with headspace

02/09/2015	01/10/2015	22/10/2015	05/11/2015	09/12/2015	06/01/2016	03/02/2016	02/03/2016	06/04/2016	04/05/2016	02/06/2016	04/07/2016	03/08/2016	06/09/2016	05/10/2016	03/11/2016	06/12/2016	18/01/2017	01/02/2017	20/03/2017	04/04/2017	09/05/2017
<10	<10	<10	<10	11	<10	<10	<10	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	10	<10	<10
2	1	2	2	1	1	1	2	2	1	1	<1	1	1	<1	1	2	1	1	<1	2	1
7.79	6.45	7.46	7.65 (7.14)	6.83 (6.65)	7.1 (6.16)	7.08 (6.24)	7.19 (6.29)	7.2 (7.19)	7.08 (7.58)	7.23 (7.89)	6.74 (7.27)	7.08 (7.25)	7.07 (7.25)	7.61 (7.07)	7.73 (7.21)	7.59 (7.20)	7.39 (6.52)	7.38 (6.71)	6.69 (7.06)	7.34 (7.19)	7.3 (7.59)
4	3	<3	3	5	4	10	6	4	<3	<3	4	25	5	8	<3	<3	4	3.9	4	3	<1.5
<0.01	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.01	0.39	<0.01	<0.01	<0.01	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	<0.5
0.05	0.14	<0.03	0.08	0.2	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
1.806	1.503	0.9033	1.269	0.7594	0.7784	0.242	0.6605	0.6255	0.6549	0.8637	0.97	1.596	1.553	1.797	1.34	1.051	0.6403	0.7023	0.6057	0.8926	0.533
<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	3	<3	<3	<3	<3	<3	<3	<3	<3	<3
1	0.6	<0.2	<0.2	<0.2	0.3	<0.2	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.4	0.2	<0.2	<0.2	<0.2	0.3
<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
1.3	0.6	0.4	0.7	<0.2	1.6	0.8	<0.2	<0.2	<0.2	<0.2	<0.2	0.6	0.6	0.4	1.3	1	<0.2	0.7	<0.2	0.5	0.6
2.2	2.8	1.6	<0.9	2.7	<0.9	<0.9	<0.9	<0.9	<0.9	<0.9	2.5	<0.9	4.7	1.6	2.9	3.4	<0.9	<0.9	<0.9	<0.9	<0.9
4	<0.4	<0.4	1.9	<0.4	<0.4	1.2	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	1.5	<0.4	<0.4	<0.4	<0.4	<0.4
32	41	29	38	16	15	21	17	20	26	43	25	45	26	37	43	39	28	19	16	27	41
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

01/10/2015	22/10/2015	05/11/2015	09/12/2015	06/01/2016	03/02/2016	02/03/2016	06/04/2016	04/05/2016	02/06/2016	04/07/2016	03/08/2016	06/09/2016	05/10/2016	03/11/2016	06/12/2016	18/01/2017	01/02/2017	20/03/2017	04/04/2017	09/05/2017
<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1	<1	1	2	1	1	2	2	2	1	1	1	1	<1	<1	2	2	<1	<1	1	1
7.91	7.12	7.49 (7.11)	7.55 (6.66)	7.31 (6.49)	6.91 (6.22)	7.07 (6.32)	7.2 (7.23)	7.09 (7.7)	6.64 (7.87)	6.94 (7.11)	7.08 (7.29)	7.1 (7.20)	7.63 (6.90)	7.97 (7.17)	6.96 (7.18)	7.3 (6.59)	6.19 (6.74)	6.64 (7.04)	6.72 (7.32)	6.54 (7.60)
<3	4	4	5	5	9	5	4	<3	<3	5	4	5	4	<3	<3	3	4.4	5	3.7	<1.5
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.01	<0.01	<0.01	0.06	<0.01	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	<0.5
<0.03	0.2	0.14	0.11	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
1.938	1.312	1.37	0.7792	0.7899	0.2365	0.6817	0.6246	0.646	0.8452	1.166	1.868	1.675	1.824	1.374	1.063	0.6517	0.6844	0.6228	0.8342	0.505
<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
<0.2	<0.2	0.3	<0.2	0.5	<0.2	0.8	<0.2	<0.2	<0.2	0.6	<0.2	<0.2	0.3	0.5	<0.2	0.7	<0.2	0.3	<0.2	<0.2
<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
0.5	0.6	0.9	0.5	1.1	0.9	<0.2	<0.2	<0.2	0.9	1.2	0.9	1.5	1	0.8	0.4	<0.2	<0.2	<0.2	0.5	
1.8	1.7	<0.9	<0.9	<0.9	<0.9	<0.9	1	<0.9	1.9	<0.9	<0.9	2.3	3.8	3.7	2.3	<0.9	<0.9	<0.9	<0.9	1.6
<0.4	2.1	<0.4	<0.4	<0.4	0.6	0.8	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
43	30	41	16	18	22	18	21	29	47	26	38	29	43	45	45	30	21	18	28	48
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-