

Water Quality at Cuadrilla's Preston New Road site

January 2017

Carr Bridge Brook Monitoring programme

In summer 2015, we completed a six month programme of water quality sampling of Carr Bridge Brook close to Cuadrilla's Preston New Road site. We are now making this data available following the decision to grant planning permission to Cuadrilla for their exploration work and the recent start of site construction.

This background information provides us with useful data about water quality before site operations began. It will allow us to compare the water quality from 2015 with the future sampling we will carry out during and after the exploration work has taken place.

A map showing the sample locations is at appendix 1 below.

What we found

The results showed that the water quality for Carr Bridge Brook is as we would have expected for a brook in this location, which is affected by drainage from agriculture and private sewage treatment systems.

We analysed the samples for a wide range of substances. The full list of substances we tested for, and the results of the analysis, can be seen in appendices 2 and 3 below.

You will notice that some of the data includes the < symbol. If the symbol is present, it means that the amount of that substance in the sample is below the detectable limit (the figure after the symbol).

During the monitoring period there were some samples that we could not analyse. This was due to the loss or damage of the sample during transportation or analysis. However the gaps in the data do not affect the overall picture of water quality in the area that we have built up.

This first stage of the monitoring programme was to obtain a good level of baseline data rather than to identify the sources of the substances we found in the brook.

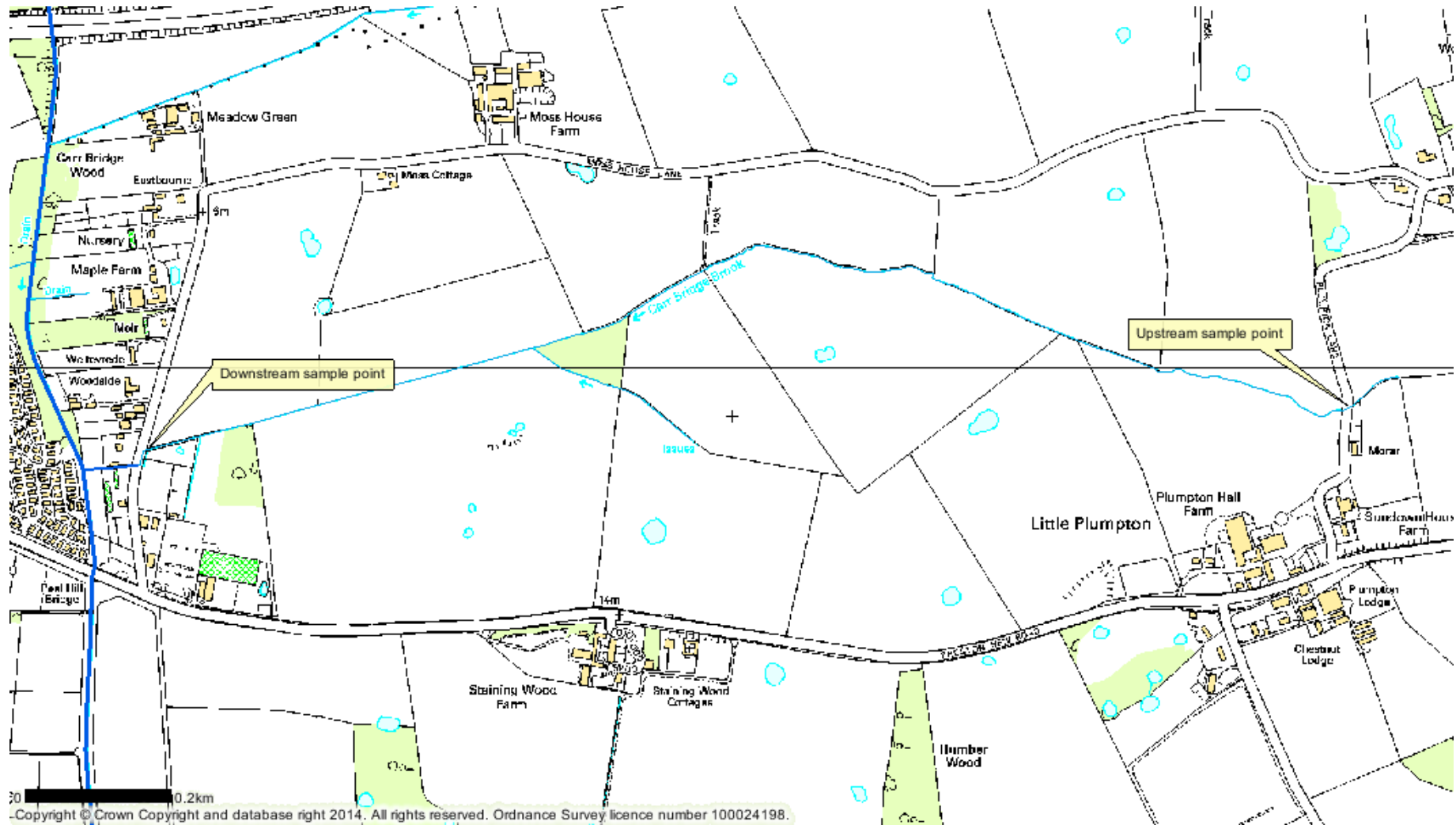
Future monitoring

We will be sampling Carr Bridge Brook monthly now that Cuadrilla has been given permission to start site operations. The sampling programme will be reviewed regularly and can be adjusted if we think we need to change the monitoring frequency. Ad hoc samples may be taken during site inspections if required.

We will regularly update our Citizen Space page with the monitoring results.

January 2017

Appendix 1 – Carr Bridge Brook, Preston New Road sample locations



customer service line
03708 506 506
www.gov.uk/environment-agency

incident hotline
0800 80 70 60

floodline
0345 988 1188

Appendix 2 – Preston New Road - Downstream Results

Date	Preston New Road - Downstream					
	01/12/2014	30/01/2015	16/02/2015	17/03/2015	22/04/2015	22/05/2015
0050: Lead - as Pb, ug/l	<2	<2	9.54	<2	<2	<2
0052: Pb Filtered, ug/l	<2	<2	<2	<2	<2	<2
0061: pH, PHUNITS	7.32	7.44	7.53	7.47	7.96	7.69
0062: Cond @ 20C, uS/cm	459	694	814	664	726	680
0077: Cond @ 25C, uS/cm	512	774	908	741	810	759
0085: BOD ATU, mg/l	3.46	<1	4.77	1.23	1.11	1.13
0092: COD as O2, mg/l	43	34	94	37	17	27
0103: Hg Filtered, ug/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
0105: Mercury - Hg, ug/l	<0.01	<0.01	0.013	<0.01	<0.01	<0.01
0106: Cd Filtered, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0108: Cadmium - Cd, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0111: Ammonia(N), mg/l	1.31	0.149	0.853	0.189	0.106	0.101
0116: N Oxidised, mg/l	6.09	11.3	4.89	8.32	3.14	3.39
0118: Nitrite-N, mg/l	0.145	0.0319	0.0646	0.0311	0.0319	0.0331
0134: Sld Filt@105, mg/l	354	541	537	11	525	534
0135: Sld Sus@105C, mg/l	13.5	8.47	146	30.1	3.7	3.43
0138: Sld Filtered, mg/l	340	520	531	<10	525	491
0162: Alky pH 4_5, mg/l	140	165	169	203	269	238
0172: Chloride Ion, mg/l	43.8	80.1	133	53.6	50.9	51.8
0180: Orthophosphat, mg/l	0.585	0.124	0.195	0.093	0.115	0.086
0182: SiO2 Rv, mg/l	8.58	8.24	7.58	8.85	8.99	8.7
0183: Sulphate SO4, mg/l		55.1	57.4	74.1	84.6	82.8
0205: Na- Filtered, mg/l	24.6	41.3	80.3	26.1	27.4	28.4
0207: Sodium - Na, mg/l	25.7	41.4	76.9	28	28.3	28.3
0209: K- Filtered, mg/l	5.44	5.53	6.92	3.85	2.87	3.58
0211: Potassium- K, mg/l	5.39	5.62	7.65	4.29	2.96	3.72
0235: Mg Filtered, mg/l	9.89	15.7	15.6	20.4	27.8	25.2
0237: Magnesium-Mg, mg/l	10.3	16	16.9	21.8	28.1	25.1
0239: Ca Filtered, mg/l	57.8	83.8	74.8	90.9	101	100
0241: Calcium - Ca, mg/l	60.7	83.9	73.1	95.3	105	101
0666: Oil & Grease, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
0714: B_ghi_-pery, ug/l	<0.02	<0.01	0.0141	<0.01	<0.01	<0.01
0731: B_b_-fluora, ug/l	<0.02	<0.01	0.0182	<0.01	<0.01	<0.01
0733: B_k_-fluora, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
0736: Fluoranthene, ug/l	<0.02	<0.01	0.0262	<0.01	<0.01	<0.01
0746: Ind123pyrene, ug/l	<0.02	<0.01	0.0151	<0.01	<0.01	<0.01
0772: B-(a)-anthra, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
1049: Carbon Tet, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3164: Chromium -Cr, ug/l	1.1	1.39	7.26	1.35	<0.5	<0.5
3268: 1,1,1-TCA, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3269: 11DCIethan, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3272: 12-DCA, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3282: BROMO-DCM, ug/l	0.14	<0.1	<0.1	<0.1	<0.1	<0.1
3283: Bromoform, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3290: Chlorobenzen, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3292: Chlordbrmthn, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3299: DiClMe, ug/l		<0.5	<0.5	<0.5	<0.5	<0.5
3328: TetClEthene, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3334: Trichloroeth, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3372: OilTypeQual, UNITLESS	1	1	1	1	1	1
3373: Chloroform, ug/l	0.38	<0.1	<0.1	<0.1	<0.1	<0.1
3408: Zn- Filtered, ug/l	7.88	9.44	5.66	5.43	<5	<5
3409: Cr- Filtered, ug/l	0.603	<0.5	<0.5	<0.5	<0.5	<0.5
3410: Ni- Filtered, ug/l	1.96	2.19	1.51	1.9	<1	1.98
3781: Benzene, ug/l	<0.1	<0.1	0.12	<0.1	<0.1	<0.1
3783: Dibromomethn, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3784: Toluene, ug/l	<0.1	<0.1	0.22	<0.1	<0.1	<0.1
4049: 14Dichlrbzn, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4117: Ethylbenzene, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4128: C>16-24, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4129: C>10-16, mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4130: C>6-8, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4147: C>5-44Screen, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4201: Lithium Filt, ug/l	<100	<100	<100	<100	<100	<100
4339: C>35-44, mg/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
4340: C>35-40, mg/l	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
4341: C>30-40, mg/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
4342: C>25-40, mg/l	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
4343: C>24-44, mg/l	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
4344: C>24-40, mg/l	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
4345: C>20-44, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4346: C>20-40, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

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4347: C>20-30, mg/l	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
4348: C>21-35, mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4349: C>16-35, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4350: C>16-21, mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
4351: C>12-16, mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
4352: C>10-44, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4353: C>10-40, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4354: C>10-35, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4355: C>10-25, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4356: C10-24, mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4357: C>10-20, mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
4358: C>10-12, mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4359: C>8-10, mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4360: C>6-44, mg/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
4361: C>6-40, mg/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
4362: C>6-10, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4363: C>5-44, mg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4364: C>5-40, mg/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
4365: C>5-10, mg/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
4366: C>5-8, mg/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
5104: Acrylamide, ug/l	<0.02		<0.02	<0.02	<0.02	<0.02
5234: HxCIEthane, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
5568: 3Chlorotolun, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6030: Silver - Ag, ug/l	<1	<1	<1	<1	<1	<1
6037: Al- Filtered, ug/l	36.2	57.2	22.6	60.9	34.6	54.9
6038: Sn- Filtered, ug/l	<2	<2	<2	<2	<2	<2
6040: Tin - as Sn, ug/l	<2	<2	<2	<2	<2	<2
6045: As-Filtered, ug/l	<1	<1	<1	<1	1.2	<1
6046: Arsenic - As, ug/l	1.08	1.15	3.65	1.46	1.83	1.28
6047: Se- Filtered, ug/l	<1	<1	<1	<1	<1	<1
6049: Selenium -Se, ug/l	<1	<1	<1	<1	<1	<1
6050: Manganse-Mn, ug/l	160	108	232	171	104	134
6051: Iron - as Fe, ug/l	739	836	4870	1130	276	379
6052: Co- Filtered, ug/l	<1	<1	<1	<1	<1	<1
6054: Cobalt - Co, ug/l	<1	1.04	2.7	1.35	<1	<1
6057: Aluminium-Al, ug/l	275	614	4330	750	88.5	115
6058: Antimony -Sb, ug/l	<1	<1	<1	<1	<1	<1
6059: Boron - as B, ug/l	<100	<100	<100	<100	<100	<100
6060: Titanium -Ti, ug/l	5.63	7.21	17.2	7.95	2.57	2.57
6061: Vanadium - V, ug/l	<2	<2	6.7	<2	<2	<2
6062: Barium - Ba, ug/l	40.1	66.2	86.6	73.8	67.8	67.4
6063: Strontium-Sr, ug/l	134	253	269	331	436	389
6064: Lithium - Li, ug/l	<100	<100	<100	<100	<100	<100
6376: Chloromethan, ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6396: TurbidityNTU, NTU	10.2	14.1	147	18.3	3.4	3.4
6399: B-_a_-pyrene, ug/l	<0.02	<0.01	0.0123	<0.01	<0.01	<0.01
6450: Cu Filtered, ug/l	4.24	4.05	3.51	2.44	1.02	1.83
6452: Copper - Cu, ug/l	6.59	5.6	12.9	3.95	1.34	1.94
6453: Ag- Filtered, ug/l	<1	<1	<1	<1	<1	<1
6455: Zinc - as Zn, ug/l	13.6	14.7	42.9	11.7	<5	<5
6458: Mn- Filtered, ug/l	134	88.4	138	138	95.4	118
6460: Fe- Filt, ug/l	157	98.3	81.2	74.5	73.6	133
6462: Nickel - Ni, ug/l	2.2	3.19	8.31	3.31	1.04	1.7
6534: 1,1,1,2 -TET, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6537: 1,2 -DIBROMO, ug/l	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1
6538: c12DCIethe, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6539: t12DCEe, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6540: 12DCPa, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6541: 123TriClProp, ug/l	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
6542: 1,3 -DICHLOR, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6543: 1,3 -DICHLOR, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6544: 1,3 -DICHLOR, ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6547: 2Chlortoluen, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6578: 4Chlorotolun, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6579: 4 -ISO-PROPY, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6604: Bromobenzene, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6605: BrClMethan, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6648: HEXACHLORO 1, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6656: MTBE, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6658: nButylbenzne, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6659: nPropylbenzn, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6690: SecButylbenz, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6693: StrontumFilt, ug/l	132	252	268	322	409	394
6697: TertButylbnz, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6699: TitaniumFilt, ug/l	<2	<2	<2	<2	<2	<2
6711: TrCFMethan, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6715: Vinyl Cl, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6716: m-p-Xylene, ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6744: 22DCPropan, ug/l	<0.1	<0.1	<0.1	<0.1		<0.1
6753: Anthracene, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01

Date	Preston New Road - Downstream					
	01/12/2014	30/01/2015	16/02/2015	17/03/2015	22/04/2015	22/05/2015
6830: Mo Diss, ug/l	<3	<3	<3	<3	<3	<3
7136: Sb DISS, ug/l	<1	<1	<1	<1	<1	<1
7137: Be DISS, ug/l	<1	<1	<1	<1	<1	<1
7325: PYRENE, ug/l	<0.02	<0.01	0.022	<0.01	<0.01	<0.01
7395: ACENAPTHEN, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
7531: 1122TetCIeth, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
7574: IsoPropylBen, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
7859: SO4dis, mg/l		55.5	59.9	71.8	83.9	83.2
7864: FLUORENE, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
8310: Chrysene, ug/l	<0.02	<0.01	0.0121	<0.01	<0.01	<0.01
8311: Acenaphthylen, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
8360: Dibenz_ah_an, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
8847: Carbon diS, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8940: B_e_pyrene, ug/l	<0.02	<0.01	0.0119	<0.01	<0.01	<0.01
9003: Perylene, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
9050: 1,2,3-TCB, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9051: 1,2,4-TCB, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9052: 1,3,5-TCB, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9145: 12Dibromethn, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9446: Ba- Filtered, ug/l	34.2	60.3	52.3	63.2	62.4	65.9
9447: B - Filtered, ug/l	<100	<100	<100	<100	<100	<100
9456: 1,2,4-Trimet, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9457: 1,2,3-Trimet, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9458: 135TriMeBenz, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9573: Molybdenm-Mo, ug/l	<3	<3	<3	<3	<3	<3
9618: 1,2-DCB, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9619: 1,3-DCB, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9669: Naphthalene, ug/l	<0.1	<0.1	0.27	<0.1	<0.1	<0.1
9671: Phenanthrene, ug/l	<0.02	<0.01	0.0148	<0.01	<0.01	<0.01
9684: 11DiClPropen, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9696: Beryllium-Be, ug/l	<1	<1	<1	<1	<1	<1
9811: 112TCEthan, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9836: 1,1-Dichloro, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9839: TAME, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9844: ETBE, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9845: o-Xylene, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9885: V - Filtered, ug/l	<2	<2	<2	<2	<2	<2
9888: Ethenylbenzn, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Appendix 3 – Preston New Road - Upstream Results

Date	Preston New Road - Upstream					
	01/12/2014	30/01/2015	16/02/2015	17/03/2015	22/04/2015	22/05/2015
0050: Lead - as Pb, ug/l	<2	2.38	25.6	6.83	<2	3.39
0052: Pb Filtered, ug/l	<2	<2	<2	<2	<2	<2
0061: pH, PHUNITS	7.56	7.22	7.26	7.23	7.55	7.43
0062: Cond @ 20C, uS/cm	711	694	718	450	446	451
0077: Cond @ 25C, uS/cm	794	774	801	502	498	503
0085: BOD ATU, mg/l	<2.92	4.49	5.8	2.65	3.41	1.68
0092: COD as O2, mg/l	27	42	144	46	31	30
0103: Hg Filtered, ug/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
0105: Mercury - Hg, ug/l	<0.01	<0.01	0.0314	<0.01	<0.01	<0.01
0106: Cd Filtered, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0108: Cadmium - Cd, ug/l	<0.1	<0.1	0.206	<0.1	<0.1	<0.1
0111: Ammonia(N), mg/l	0.132	0.678	1.03	1.31	2.52	0.909
0116: N Oxidised, mg/l	8.65	5.68	3.93	4.89	3.44	3.34
0118: Nitrite-N, mg/l	0.0646	0.0399	0.0669	0.0431	0.101	0.0561
0134: Sld Filt@105, mg/l	602	489	456	330	299	337
0135: Sld Sus@105C, mg/l	5.13	16	259	41.7	9.55	11.6
0138: Sld Filtered, mg/l	545	496	454	302	290	323
0162: Alky pH 4_5, mg/l	221	113	115	129	136	141
0172: Chloride Ion, mg/l	50.4	136	146	51.7	47.1	48.7
0180: Orthophosphat, mg/l	0.107	0.325	0.41	0.5	1.14	0.446
0182: SiO2 Rv, mg/l	10.7	6.69	6.63	6.81	6.46	7.79
0183: Sulphate SO4, mg/l		28	32.5	29.3	29.3	33.3
0205: Na- Filtered, mg/l	25.1	73.3	86.4	25.4	27.2	27.5
0207: Sodium - Na, mg/l	26.8	73.4	83.4	25.2	27.2	29.1
0209: K- Filtered, mg/l	4.12	5.84	5.23	4.44	4.57	4.15
0211: Potassium- K, mg/l	4.29	5.92	6.01	4.65	4.69	4.52
0235: Mg Filtered, mg/l	23.9	7.56	7.45	9.03	9.93	10.1
0237: Magnesium-Mg, mg/l	24.6	7.69	9.68	9.89	10.1	10.9
0239: Ca Filtered, mg/l	105	55.4	53.5	54.5	52.2	55.9
0241: Calcium - Ca, mg/l	110	55.5	54.3	54.3	52.7	59.7
0666: Oil & Grease, mg/l	<0.2	<0.2	0.25	<0.2	<0.2	<0.2
0714: B_ghi_pery, ug/l	<0.02	<0.01	0.0114	<0.01	<0.01	<0.01
0731: B_b_fluora, ug/l	<0.02	<0.01	0.0168	<0.01	<0.01	<0.01
0733: B_k_fluora, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
0736: Fluoranthene, ug/l	<0.02	0.0182	0.0264	<0.01	<0.01	<0.01
0746: Ind123pyrene, ug/l	<0.02	<0.01	0.0108	<0.01	<0.01	<0.01
0772: B(a)-anthra, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
1049: Carbon Tet, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3164: Chromium -Cr, ug/l	<0.5	1.66	10.6	3.59	0.737	1.52
3268: 1,1,1-TCA, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3269: 11DCIethan, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3272: 12-DCA, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3282: BROMO-DCM, ug/l	<0.1	<0.1	0.16	0.29	0.28	0.19
3283: Bromoform, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3290: Chlorobenzen, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3292: Chlordbrmthn, ug/l	<0.1	<0.1	<0.1	0.13	0.17	0.12
3299: DiClMe, ug/l		<0.5	<0.5	<0.5	<0.5	<0.5
3328: TetClEthene, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3334: Trichloroeth, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3372: OilTypeQual, UNITLESS	1	1	1	1	1	1
3373: Chloroform, ug/l	<0.1	0.27	0.48	0.78	0.99	0.48
3408: Zn- Filtered, ug/l	5.65	8.81	9.42	6.27	5.96	<5
3409: Cr- Filtered, ug/l	0.591	0.581	0.568	<0.5	<0.5	0.505
3410: Ni- Filtered, ug/l	2.41	1.71	1.41	1.43	1.26	1.6
3781: Benzene, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3783: Dibromomethn, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3784: Toluene, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4049: 14Dichlrbzn, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4117: Ethylbenzene, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4128: C>16-24, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4129: C>10-16, mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4130: C>6-8, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4147: C>5-44Screen, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4201: Lithium Filt, ug/l	<100	<100	<100	<100	<100	<100
4339: C>35-44, mg/l	<0.04	<0.04	0.0884	<0.04	<0.04	<0.04
4340: C>35-40, mg/l	<0.03	<0.03	0.0485	<0.03	<0.03	<0.03
4341: C>30-40, mg/l	<0.04	<0.04	0.108	<0.04	<0.04	<0.04
4342: C>25-40, mg/l	<0.06	<0.06	0.152	<0.06	<0.06	<0.06
4343: C>24-44, mg/l	<0.08	<0.08	0.192	<0.08	<0.08	<0.08
4344: C>24-40, mg/l	<0.07	<0.07	0.152	<0.07	<0.07	<0.07
4345: C>20-44, mg/l	<0.2	<0.2	0.251	<0.2	<0.2	<0.2
4346: C>20-40, mg/l	<0.2	<0.2	0.211	<0.2	<0.2	<0.2
4347: C>20-30, mg/l	<0.09	<0.09	0.103	<0.09	<0.09	<0.09
4348: C>21-35, mg/l	<0.1	<0.1	0.139	<0.1	<0.1	<0.1

Date	Preston New Road - Upstream					
	01/12/2014	30/01/2015	16/02/2015	17/03/2015	22/04/2015	22/05/2015
4349: C>16-35, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4350: C>16-21, mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
4351: C>12-16, mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
4352: C>10-44, mg/l	<0.2	<0.2	0.27	<0.2	<0.2	<0.2
4353: C>10-40, mg/l	<0.2	<0.2	0.23	<0.2	<0.2	<0.2
4354: C>10-35, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4355: C>10-25, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4356: C10-24, mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4357: C>10-20, mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
4358: C>10-12, mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4359: C>8-10, mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4360: C>6-44, mg/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
4361: C>6-40, mg/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
4362: C>6-10, mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4363: C>5-44, mg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4364: C>5-40, mg/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
4365: C>5-10, mg/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
4366: C>5-8, mg/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
5104: Acrylamide, ug/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.025
5234: HxCIEthane, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
5568: 3Chlorotolun, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6030: Silver - Ag, ug/l	<1	<1	<1	<1	<1	<1
6037: Al- Filtered, ug/l	77.5	41.3	24	23.2	16.3	21.5
6038: Sn- Filtered, ug/l	<2	<2	<2	<2	<2	<2
6040: Tin - as Sn, ug/l	<2	<2	<2	<2	<2	<2
6045: As-Filtered, ug/l	1.07	<1	<1	<1	<1	<1
6046: Arsenic - As, ug/l	1.19	1.08	4.61	1.77	1.49	1.43
6047: Se- Filtered, ug/l	<1	<1	<1	<1	<1	<1
6049: Selenium -Se, ug/l	<1	<1	<1	<1	<1	<1
6050: Manganse-Mn, ug/l	157	108	386	208	200	211
6051: Iron - as Fe, ug/l	377	1050	8490	2880	818	1230
6052: Co- Filtered, ug/l	<1	<1	<1	<1	<1	<1
6054: Cobalt - Co, ug/l	1.06	<1	3.55	1.33	<1	<1
6057: Aluminium-Al, ug/l	205	669	5630	1780	231	533
6058: Antimony -Sb, ug/l	<1	<1	<1	<1	<1	<1
6059: Boron - as B, ug/l	<100	<100	<100	<100	<100	<100
6060: Titanium -Ti, ug/l	3.44	9.94	18.9	9.05	4.98	8.48
6061: Vanadium - V, ug/l	<2	<2	9.1	2.92	<2	<2
6062: Barium - Ba, ug/l	74.2	43.5	107	56.7	33.7	41.3
6063: Strontium-Sr, ug/l	406	123	135	119	119	133
6064: Lithium - Li, ug/l	<100	<100	<100	<100	<100	<100
6376: Chloromethan, ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6396: TurbidityNTU, NTU	5.8	22.2	186	43.8	11.1	11.9
6399: B_a_-pyrene, ug/l	<0.02	<0.01	0.0102	<0.01	<0.01	<0.01
6450: Cu Filtered, ug/l	1.86	4.57	4.29	3.13	2.21	2.46
6452: Copper - Cu, ug/l	2.57	7.62	24.9	10.6	2.91	4.78
6453: Ag- Filtered, ug/l	<1	<1	<1	<1	<1	<1
6455: Zinc - as Zn, ug/l	6.96	18.6	90.9	26.7	8.47	11.6
6458: Mn- Filtered, ug/l	146	82.4	181	155	188	165
6460: Fe- Filt, ug/l	128	167	222	76.3	136	124
6462: Nickel - Ni, ug/l	2.18	2.71	11.3	4.86	1.66	2.7
6534: 1,1,1,2 -TET, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6537: 1,2 -DIBROMO, ug/l	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1
6538: c12DCIethe, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6539: t12DCEe, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6540: 12DCPa, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6541: 123TriClProp, ug/l	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
6542: 1,3 -DICHLOR, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6543: 1,3 -DICHLOR, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6544: 1,3 -DICHLOR, ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6547: 2Chlortoluen, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6578: 4Chlorotolun, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6579: 4 -ISO-PROPY, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6604: Bromobenzene, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6605: BrClMethan, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6648: HEXACHLORO 1, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6656: MTBE, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6658: nButylbenzne, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6659: nPropylbenzn, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6690: SecButylbenz, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6693: StrontumFilt, ug/l	394	123	130	120	117	126
6697: TertButylbnz, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6699: TitaniumFilt, ug/l	<2	<2	<2	<2	<2	<2
6711: TrCFMethan, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6715: Vinyl Cl, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6716: m-p-Xylene, ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6744: 22DCPropan, ug/l	<0.1	<0.1	<0.1	<0.1		<0.1
6753: Anthracene, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
6830: Mo Diss, ug/l	<3	<3	<3	<3	<3	<3
7136: Sb DISS, ug/l	<1	<1	1.04	<1	<1	<1

Date	Preston New Road - Upstream					
	01/12/2014	30/01/2015	16/02/2015	17/03/2015	22/04/2015	22/05/2015
7137: Be DISS, ug/l	<1	<1	<1	<1	<1	<1
7325: PYRENE, ug/l	<0.02	0.016	0.0222	<0.01	<0.01	<0.01
7395: ACENAPTHEN, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
7531: 1122TetClEth, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
7574: IsoPropylBen, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
7859: SO4dis, mg/l		28.2	33.1	29.5	29.5	32.6
7864: FLUORENE, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
8310: Chrysene, ug/l	<0.02	<0.01	0.0123	<0.01	<0.01	<0.01
8311: Acenaphthylen, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
8360: Dibenz_ah_an, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
8847: Carbon diS, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8940: B_e_pyrene, ug/l	<0.02	<0.01	0.0111	<0.01	<0.01	<0.01
9003: Perylene, ug/l	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
9050: 1,2,3-TCB, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9051: 1,2,4-TCB, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9052: 1,3,5-TCB, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9145: 12Dibromethn, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9446: Ba- Filtered, ug/l	72.9	37.1	32.3	32.6	28.4	31
9447: B - Filtered, ug/l	<100	<100	<100	<100	<100	<100
9456: 1,2,4-Trimet, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9457: 1,2,3-Trimet, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9458: 135TriMeBenz, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9573: Molybdenm-Mo, ug/l	<3	<3	<3	<3	<3	<3
9618: 1,2-DCB, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9619: 1,3-DCB, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9669: Naphthalene, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9671: Phenanthrene, ug/l	<0.02	0.0123	0.014	<0.01	<0.01	<0.01
9684: 11DiClPropen, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9696: Beryllium-Be, ug/l	<1	<1	<1	<1	<1	<1
9811: 112TCEthan, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9836: 1,1-Dichloro, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9839: TAME, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9844: ETBE, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9845: o-Xylene, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9885: V - Filtered, ug/l	<2	<2	<2	<2	<2	<2
9888: Ethenylbenzn, ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1