

Table S13, Hatley et al.

Sample ID	Date/Time	Location	pH	Temperature (C)	Dissolved Oxygen (mg/L)	Specific Conductivity (uS/cm)	Alkalinity (meq/L)	Alkalinity (as mg/L CaCO3)	F- (mg/L)	Cl- (mg/L)
20210415_1-1_1230	4/15/21 12:30	stream	6.59	13.9	9.8	481.5	5.52	276.2	0.45	2.94
20210506_1-1_1533	5/6/21 15:33	stream	6.94	19.1	8.0	568.5	5.70	285.3	0.44	3.18
20210507_1-1_1321	5/7/21 13:21	stream	7.04	13.7	8.1	570.9	5.25	262.9	0.43	2.89
20210508_1-1_1312	5/8/21 13:12	stream	7.38	22.8	5.4	574.6	5.72	286.4	0.42	3.63
20210508_1-1_2148	5/8/21 21:48	stream	7.02	16.9	5.9	1020.0	4.07	203.9	0.31	2.87
20210508_1-1_2240	5/8/21 22:40	stream	7.11	15.4	5.5	813.1	5.67	283.8	0.39	6.54
20210508_1-1_2325	5/8/21 23:25	stream	7.05	15.6	4.4	554.3	4.25	212.8	0.33	25.49
20210509_1-1_0010	5/9/21 0:10	stream	7.02	15.0	5.6	589.1	4.09	204.9	0.32	40.07
20210509_1-1_0120	5/9/21 1:20	stream	7.07	15.6	5.9	606.5	4.68	234.3	0.38	27.12
20210509_1-1_0241	5/9/21 2:41	stream	7.62	14.6	5.1	564.1	4.84	242.0	0.40	11.94
20210509_1-1_0442	5/9/21 4:42	stream	7.01	14.0	5.2	827.7	5.23	261.8	0.39	68.02
20210510_1-1_1010	5/10/21 10:10	stream	7.83	12.9	4.8	568.7	5.34	267.3	0.44	3.01
20210512_1-1_1610	5/12/21 16:10	stream	7.87	17.4	2.5	558.0	5.16	258.3	0.43	2.93
20210514_1-1_1738	5/14/21 17:38	stream	7.93	17.7	2.0	n.a.*	5.49	274.9	0.45	3.13
20210522_1-1_1808	5/22/21 18:08	stream	7.97	17.0	1.9	524.9	5.73	287.0	0.42	2.77
20210523_1-1_1842	5/23/21 18:42	stream	7.93	16.8	8.8	564.9	5.51	275.9	0.38	2.91
20210524_1-1_1331	5/24/21 13:31	stream	8.08	17.3	8.8	500.3	5.46	273.2	0.42	9.12
20210526_1-1_1012	5/26/21 10:12	stream	8.06	16.3	8.9	505.8	5.75	287.7	0.39	3.67
20210526_1-1_2041	5/26/21 20:41	stream	7.77	15.7	8.7	508.1	5.75	287.8	0.42	2.71
20210526_1-1_2140	5/26/21 21:40	stream	7.88	15.7	9.2	506.9	5.74	287.2	0.42	2.83
20210526_1-1_2300	5/26/21 23:00	stream	7.84	15.7	8.6	493.4	5.66	283.3	0.42	2.85
20210527_1-1_0000	5/27/21 0:00	stream	7.81	15.8	8.7	505.8	5.67	283.8	0.43	2.73
20210527_1-1_0100	5/27/21 1:00	stream	7.90	15.7	8.6	489.5	5.70	285.0	0.42	2.92
20210527_1-1_0200	5/27/21 2:00	stream	7.92	15.4	8.7	475.1	5.36	268.3	0.40	2.82
20210527_1-1_0330	5/27/21 3:30	stream	7.86	15.3	8.7	491.8	5.45	272.9	0.42	2.87
20210528_1-1_0929	5/28/21 9:29	stream	7.88	13.3	9.7	496.9	5.52	276.2	0.42	9.76
20210531_1-1_1754	5/31/21 17:54	stream	7.80	14.6	9.2	502.2	5.91	295.9	0.43	2.75
20210601_1-1_1150	6/1/21 11:50	stream	7.93	14.9	9.4	508.0	5.64	282.2	0.43	2.90
20210608_1-1_1711	6/8/21 17:11	stream	7.84	21.5	8.8	504.6	5.61	280.9	0.42	2.77
20210611_1-1_1332	6/11/21 13:32	stream	7.61	20.6	n.a.	515.0	5.73	286.5	0.43	3.04
20210611_1-1_1429	6/11/21 14:29	stream	7.68	19.8	n.a.	538.0	5.79	289.9	0.40	2.81
20210611_1-1_1530	6/11/21 15:30	stream	7.83	20.5	n.a.	525.0	5.85	292.8	0.43	3.12
20210614_1-1_1619	6/14/21 16:19	stream	7.62	20.3	n.a.	535.0	5.85	292.9	0.42	3.43
20210622_1-1_1234	6/22/21 12:34	stream	7.46	24.2	n.a.	530.0	5.35	267.9	0.39	2.29
20210624_1-1_1945	6/24/21 19:45	stream	8.04	26.9	n.a.	511.0	5.27	263.7	0.37	2.31
20210624_1-1_2046	6/24/21 20:46	stream	8.01	26.4	n.a.	500.0	5.62	281.2	0.28	1.94
20210624_1-1_2140	6/24/21 21:40	stream	8.05	25.4	n.a.	515.0	5.62	281.3	0.37	2.32
20210625_1-1_1525	6/25/21 15:25	stream	7.87	28.1	n.a.	530.0	5.83	291.6	0.38	1.84
20210626_1-1_1900	6/26/21 19:00	stream	n.d.	n.d.	n.a.	n.a.	4.89	244.7	0.38	2.05
20210627_1-1_1607	6/27/21 16:07	stream	8.07	27.0	n.a.	510.0	1.44	72.3	0.38	2.01
20210629_1-1_1735	6/29/21 17:35	stream	8.15	26.4	8.0	526.5	4.81	240.7	0.55	3.32
20210701_1-1_1015	7/1/21 10:15	stream	8.17	21.3	8.5	540.3	5.06	253.1	0.47	3.45
20210715_1-1_1245	7/15/21 12:45	stream	8.16	21.3	7.7	441.2	4.32	216.2	0.37	2.60
20210716_1-1_1537	7/16/21 15:37	stream	8.12	24.6	8.2	558.0	5.74	287.1	0.42	2.58

*n.a. indicates that the parameter was not determined

Table S13 continued, Hatley et al.

Sample ID	NO2- (mg/L)	Br- (mg/L)	NO3- (mg/L)	SO4-- (mg/L)	Na+ (mg/L)	NH4+ (mg/L)	K+ (mg/L)	Mg++ (mg/L)	Ca++ (mg/L)	Sr++ (mg/L)	NPOC (mg/L)	TN (mg/L)
20210415_1-1_1230	<0.71	<0.06	<0.59	27.67	4.19	<0.24	0.55	16.20	88.74	3.40	n.a.	n.a.
20210506_1-1_1533	< 0.71	<0.06	<0.59	31.02	4.35	<0.24	1.06	16.36	91.41	3.28	n.a.	n.a.
20210507_1-1_1321	< 0.71	<0.06	<0.59	31.20	4.12	<0.24	0.80	16.28	94.50	3.28	n.a.	n.a.
20210508_1-1_1312	< 0.71	<0.06	<0.59	30.88	4.50	<0.24	3.90	16.66	86.81	3.36	n.a.	n.a.
20210508_1-1_2148	< 0.71	<0.06	0.65	23.03	3.32	<0.24	2.17	10.80	58.51	2.16	5.81	<0.95
20210508_1-1_2240	< 0.71	<0.06	<0.59	29.20	4.06	<0.24	1.63	15.01	78.32	3.12	3.35	<0.95
20210508_1-1_2325	< 0.71	<0.06	<0.59	24.01	7.54	<0.24	29.14	12.25	62.35	2.48	3.43	<0.95
20210509_1-1_0010	< 0.71	<0.06	<0.59	23.31	9.15	<0.24	42.61	11.52	61.36	2.42	5.45	<0.95
20210509_1-1_0120	< 0.71	<0.06	<0.59	28.66	8.01	<0.24	30.80	14.29	69.54	2.94	5.12	<0.95
20210509_1-1_0241	< 0.71	<0.06	<0.59	31.81	5.56	<0.24	12.58	14.93	76.12	3.02	4.51	<0.95
20210509_1-1_0442	< 0.71	<0.06	<0.59	32.52	14.21	<0.24	69.65	15.77	82.22	3.21	3.85	<0.95
20210510_1-1_1010	< 0.71	<0.06	<0.59	33.24	4.25	<0.24	0.95	16.41	86.64	3.35	1.51	<0.95
20210512_1-1_1610	< 0.71	<0.06	<0.59	33.27	4.43	<0.24	1.18	16.59	86.04	3.41	1.70	<0.95
20210514_1-1_1738	< 0.71	<0.06	<0.59	34.03	5.84	<0.24	1.07	16.55	88.77	3.33	1.61	<0.95
20210522_1-1_1808	< 0.71	<0.06	<0.59	12.92	3.62	<0.24	1.38	14.82	87.16	3.39	1.61	<0.95
20210523_1-1_1842	< 0.71	<0.06	<0.59	12.99	4.01	<0.24	1.58	15.14	88.64	3.49	1.52	<0.95
20210524_1-1_1331	< 0.71	<0.06	0.60	13.51	3.57	<0.24	1.18	15.27	86.50	3.27	1.87	<0.95
20210526_1-1_1012	< 0.71	<0.06	<0.59	13.95	4.03	<0.24	0.80	15.80	87.72	2.92	1.60	<0.95
20210526_1-1_2041	< 0.71	<0.06	<0.59	14.74	3.96	<0.24	1.52	15.51	87.49	3.34	2.83	<0.95
20210526_1-1_2140	< 0.71	<0.06	<0.59	14.72	4.29	<0.24	1.79	15.38	88.48	3.52	2.93	<0.95
20210526_1-1_2300	< 0.71	<0.06	<0.59	14.78	3.74	<0.24	1.30	15.43	89.39	3.27	2.60	<0.95
20210527_1-1_0000	< 0.71	<0.06	<0.59	15.06	3.81	<0.24	1.32	15.56	88.11	3.64	2.62	<0.95
20210527_1-1_0100	< 0.71	<0.06	<0.59	14.74	3.69	<0.24	1.32	15.07	86.90	3.33	2.84	<0.95
20210527_1-1_0200	< 0.71	<0.06	0.68	13.95	3.67	<0.24	1.52	14.55	93.75	3.19	3.74	<0.95
20210527_1-1_0330	< 0.71	<0.06	<0.59	13.95	3.59	<0.24	1.42	14.94	85.03	3.21	3.24	<0.95
20210528_1-1_0929	< 0.71	<0.06	<0.59	13.32	3.62	<0.24	1.25	14.91	87.39	3.25	1.54	<0.95
20210531_1-1_1754	< 0.71	<0.06	<0.59	13.84	3.63	<0.24	1.30	15.21	88.68	3.41	3.29	17.32
20210601_1-1_1150	< 0.71	<0.06	<0.59	13.85	3.39	<0.24	1.22	15.70	88.34	3.46	2.86	21.70
20210608_1-1_1711	< 0.71	<0.06	<0.59	16.48	3.51	<0.24	1.10	16.28	88.87	3.23	2.39	<0.95
20210611_1-1_1332	< 0.71	<0.06	<0.59	18.12	3.58	<0.24	1.57	16.47	89.92	3.33	3.65	<0.95
20210611_1-1_1429	< 0.71	<0.06	<0.59	18.13	3.67	<0.24	1.47	16.41	88.55	3.52	2.89	<0.95
20210611_1-1_1530	< 0.71	<0.06	<0.59	18.42	3.49	<0.24	1.22	16.15	89.59	3.45	2.87	<0.95
20210614_1-1_1619	< 0.71	<0.06	<0.59	20.00	3.87	<0.24	1.31	16.79	87.28	3.55	2.84	<0.95
20210622_1-1_1234	< 0.71	<0.06	<0.59	29.91	4.14	<0.24	1.29	17.81	85.98	3.41	2.58	9.24
20210624_1-1_1945	< 0.71	<0.06	<0.59	31.18	4.09	<0.24	1.34	17.84	80.00	3.49	2.39	<0.95
20210624_1-1_2046	< 0.71	<0.06	<0.59	25.33	3.98	<0.24	1.56	16.85	76.82	3.21	3.91	<0.95
20210624_1-1_2140	< 0.71	<0.06	0.84	30.23	4.14	<0.24	1.56	17.42	77.22	3.47	3.63	<0.95
20210625_1-1_1525	< 0.71	<0.06	<0.59	31.53	4.10	<0.24	1.40	17.84	84.85	3.49	2.98	<0.95
20210626_1-1_1900	< 0.71	<0.06	<0.59	31.47	4.53	<0.24	1.50	17.79	80.95	3.57	2.88	<0.95
20210627_1-1_1607	< 0.71	<0.06	<0.59	31.94	4.21	<0.24	1.49	17.97	80.15	3.41	2.80	<0.95
20210629_1-1_1735	< 0.71	<0.06	<0.59	29.89	4.09	<0.24	1.74	17.41	83.18	3.43	2.68	1.99
20210701_1-1_1015	< 0.71	<0.06	<0.59	30.10	2.55	<0.24	1.08	11.39	54.41	2.35	2.56	<0.95
20210715_1-1_1245	< 0.71	<0.06	<0.59	19.35	2.98	<0.24	2.34	12.47	71.07	2.77	5.62	<0.95
20210716_1-1_1537	< 0.71	<0.06	<0.59	30.35	4.60	<0.24	1.35	18.18	89.89	3.74	2.08	<0.95

*n.a. indicates that the parameter was not determined

Table S13 continued, Hatley et al.

Sample ID	δD (per mil VSMOW)	$\delta^{18}O$ (per mil VSMOW)	Discharge (m ³ /s)
20210415_1-1_1230	n.d.	n.d.	0.007879
20210506_1-1_1533	-35	-5.5	0.001961
20210507_1-1_1321	-36	-5.6	0.001713
20210508_1-1_1312	-35	-5.6	0.001782
20210508_1-1_2148	-31	-5.1	0.001876
20210508_1-1_2240	-33	-5.4	0.002596
20210508_1-1_2325	-27	-4.5	0.003203
20210509_1-1_0010	-26	-4.4	0.005646
20210509_1-1_0120	-29	-4.8	0.006071
20210509_1-1_0241	-30	-4.9	0.005163
20210509_1-1_0442	-32	-5.1	0.004047
20210510_1-1_1010	-35	-5.6	0.002843
20210512_1-1_1610	-36	-5.7	0.001966
20210514_1-1_1738	-35	-5.5	0.001864
20210522_1-1_1808	-35	-5.5	0.042168
20210523_1-1_1842	-35	-5.7	0.035750
20210524_1-1_1331	-35	-5.7	0.032618
20210526_1-1_1012	-35	-5.7	0.028131
20210526_1-1_2041	-35	-5.7	0.027247
20210526_1-1_2140	-35	-5.7	0.027427
20210526_1-1_2300	-35	-5.7	0.027969
20210527_1-1_0000	-35	-5.7	0.029254
20210527_1-1_0100	-35	-5.6	0.041249
20210527_1-1_0200	-33	-5.4	0.041709
20210527_1-1_0330	-34	-5.5	0.075230
20210528_1-1_0929	-35	-5.6	0.037331
20210531_1-1_1754	-35	-5.6	0.036524
20210601_1-1_1150	-35	-5.5	0.032699
20210608_1-1_1711	-35	-5.6	0.016582
20210611_1-1_1332	-35	-5.6	0.012581
20210611_1-1_1429	-35	-5.5	0.012705
20210611_1-1_1530	-35	-5.6	0.012832
20210614_1-1_1619	-35	-5.6	0.009065
20210622_1-1_1234	-35	-5.5	0.001753
20210624_1-1_1945	-35	-5.5	0.002200
20210624_1-1_2046	-33	-5.3	0.002455
20210624_1-1_2140	-34	-5.5	0.001800
20210625_1-1_1525	-35	-5.6	0.002027
20210626_1-1_1900	-35	-5.6	0.002018
20210627_1-1_1607	-35	-5.5	0.001449
20210629_1-1_1735	-34	-5.4	0.001079
20210701_1-1_1015	n.a.	n.a.	0.001268
20210715_1-1_1245	-28	-4.9	0.017658
20210716_1-1_1537	-34	-5.5	0.003581

*n.a. indicates that the parameter was not determined