

APPENDIX 3-C: 2019 WATER QUALITY FIELD DATA

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
A25_EOP	2019-03-17 13:15	8.2	194.7	76.2	76.2	76.2
A25_EOP	2019-03-18	8.5	240	1079	1080	1079
A25_EOP	2019-03-19 17:14	8.6	274	707	704	707
A25_EOP	2019-03-20 19:08	8.5	279	126	126	126
A25_EOP	2019-03-21 17:25	8.3	267	106.7	106.9	106.7
A25_EOP	2019-03-22 10:35	8.3	261	79.6	79.2	79.6
A25_EOP	2019-03-23 14:05	8.1	260	69.4	69.2	69.4
A25_EOP	2019-03-24 15:06	8.2	700	63.6	62.9	63.6
A25_EOP	2019-03-25 13:11	8.1	253	36.9	36.6	36.9
A25_EOP	2019-03-27 13:59	8.0	252	17.3	17.4	17.3
A25_EOP	2019-04-24 12:22	8.7	343	15.6	15.9	15.6
A25_EOP	2019-04-25 14:20	8.5	381	31.8	32.8	31.8
A25_EOP	2019-05-01 1:00	9.0	290	55	55.1	55
A25-SP	2019-03-17 11:12	8.2	210	74	73.9	74
A25-SP	2019-03-26 13:28	8.0	269	32	30.7	32
A25-SP	2019-03-28 11:45	8.6	225	18.1	18.2	18.1
A25-SP	2019-03-29 11:15	7.5	187			
A25-SP	2019-03-30 12:20	8.1	182.1	10.5	10.4	10.5
A25-SP	2019-03-31 11:40	8.0	234	20.9	20.9	20.9
A25-SP	2019-03-31 11:50	8.0	234	20.9	20.9	20.9
A25-SP	2019-04-01 12:50	8.0	216	21	21.2	21
A25-SP	2019-04-02 13:21	8.1	218	23.5	23.6	23.5
A25-SP	2019-04-23 12:05	8.6	335	13.1	13.3	13.1
A25-SP	2019-04-28 11:30	9.0	301	64	64.6	64
A25-SP	2019-08-04 11:15	8.4	695	14	13.9	14
AC_E_HAIRPIN_DITCH	2019-01-26 13:33	7.5	1006	28	27.4	28
AC_E_HAIRPIN_DITCH	2019-01-27 14:45	7.3	1097	11.2	11.3	11.2
AC_E_HAIRPIN_DITCH	2019-01-29 12:51	7.7	1053	4.3	4.3	4.3
AC_E_HAIRPIN_DITCH	2019-01-31 16:12	7.8	1098	3	3.1	3
AC_E_HAIRPIN_DITCH	2019-02-01 13:17	7.9	1052	28.1	28.3	28.1
AC_E_HAIRPIN_DITCH	2019-03-15 14:05	9.4	484	OR		
AC_E_HAIRPIN_DITCH	2019-03-16 14:35	7.4	1396	14.2	14.3	14.2
AC_E_HAIRPIN_DITCH	2019-03-20 1:40	6.5	2100	1988	1980	1988
AC_E_HAIRPIN_DITCH	2019-03-21 10:30	7.2	678	15.2	15.1	15.2
AC_E_HAIRPIN_DITCH	2019-03-22 14:30	8.2	505	OR		
AC_E_HAIRPIN_DITCH	2019-03-23 10:44	7.5	1140			
AC_E_HAIRPIN_DITCH	2019-03-24 15:15	6.9	1254	2504	2475	2504
AC_E_HAIRPIN_DITCH	2019-03-25 15:30	6.9	2400	40	39.1	40
AC_E_HAIRPIN_DITCH	2019-03-26 10:55	6.8	2590	1	0.9	1
AC_E_HAIRPIN_DITCH	2019-03-27 11:40	6.7	2870	53	52.3	53
AC_E_HAIRPIN_DITCH	2019-03-28 10:00	7.6	1276	24.4	24.3	24.4
AC_E_HAIRPIN_DITCH	2019-03-29 13:55	7.3	2340	87.1	85.5	87.1
AC_E_HAIRPIN_DITCH	2019-03-30 9:15	8.0	1238	10.3	9.6	10.3
AC_E_HAIRPIN_DITCH	2019-03-31 9:25	7.8	1337	70.5	70.1	70.5
AC_E_HAIRPIN_DITCH	2019-04-01 9:35	7.8	1241	8.6	8.8	8.6
AC_E_HAIRPIN_DITCH	2019-04-03 8:45	8.2	1395	7.6	7.5	7.6
AC_E_HAIRPIN_DITCH	2019-04-04 9:05	8.1	1393	29.8	29.6	29.8
AC_E_HAIRPIN_DITCH	2019-04-05 12:10	8.1	1190	15.4	14.8	15.4
AC_E_HAIRPIN_DITCH	2019-04-06 8:50	8.2	1176	9.9	9.9	9.9
AC_E_HAIRPIN_DITCH	2019-04-07 9:38	8.1	1276	15.6	16.1	15.6
AC_E_HAIRPIN_DITCH	2019-04-08 10:50	7.7	1238	33.7	33.9	33.7
AC_E_HAIRPIN_DITCH	2019-04-09 9:13	7.9	1298	9.8	9.6	9.8
AC_E_HAIRPIN_DITCH	2019-04-10 9:10	8.2	1199	17.4	16.6	17.4
AC_E_HAIRPIN_DITCH	2019-04-11 8:50	8.1	2650	18	18.1	18
AC_E_HAIRPIN_DITCH	2019-04-12 13:20	8.0	1244	9.9	9.6	9.9
AC_E_HAIRPIN_DITCH	2019-04-13 8:51	7.8	1269	12	11.9	12
AC_E_HAIRPIN_DITCH	2019-04-15 9:20	8.0	1285	22.2	21.8	22.2
AC_E_HAIRPIN_DITCH	2019-04-15 9:40	7.8	1440	23.8	23.8	23.8
AC_E_HAIRPIN_DITCH	2019-04-16 15:45	7.9	704	19.5	19	19.5
AC_E_HAIRPIN_DITCH	2019-04-17 15:10	7.9	1191	19.7	19.7	19.7
AC_E_HAIRPIN_DITCH	2019-04-18 8:33	7.9	1153	7.9	8	7.9
AC_E_HAIRPIN_DITCH	2019-04-19 8:40	8.1	1347	6.6	6.6	6.6
AC_E_HAIRPIN_DITCH	2019-04-20 9:14	8.0	1014	4.5	4.7	4.5
AC_E_HAIRPIN_DITCH	2019-04-21 8:50	7.7	915	24.2	23.7	24.2

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
AC_E_HAIRPIN_DITCH	2019-04-22 9:20	8.1	1189	9	8.8	9
AC_E_HAIRPIN_DITCH	2019-04-23 8:56	8.3	1146	8.8	8.9	8.8
AC_E_HAIRPIN_DITCH	2019-04-24 9:00	8.4	1083	6.9	5.8	6.9
AC_E_HAIRPIN_DITCH	2019-04-25 8:20	8.2	1109	6.4	6.1	6.4
AC_E_HAIRPIN_DITCH	2019-04-26 9:45	8.1	1140	4.3	4.6	4.3
AC_E_HAIRPIN_DITCH	2019-04-27 10:45	7.7	1146	4.7	4.2	4.7
AC_E_HAIRPIN_DITCH	2019-04-28 8:45	7.9	1139	5.6	5.2	5.6
AC_E_HAIRPIN_DITCH	2019-04-29 9:00	8.0	1160	4.2	4.2	4.2
AC_E_HAIRPIN_DITCH	2019-05-01 9:55	7.9	1126	4	3.4	4
AC_E_HAIRPIN_DITCH	2019-05-02 9:50	7.8	1043	6.7	6.4	6.7
AC_E_HAIRPIN_DITCH	2019-05-03 14:35	7.1	1608	46.3	49.4	46.3
AC_E_HAIRPIN_DITCH	2019-05-04 13:04	7.5	1879	19.6	19.6	19.6
AC_E_HAIRPIN_DITCH	2019-05-05 15:20	7.5	1474	25	25.1	25
AC_E_HAIRPIN_DITCH	2019-05-06 8:55	7.9	1094	9.2	9	9.2
AC_E_HAIRPIN_DITCH	2019-05-07 8:55	7.8	1505	18.9	17.9	18.9
AC_E_HAIRPIN_DITCH	2019-05-08 9:18	7.5	1252	16.6	16.1	16.6
AC_E_HAIRPIN_DITCH	2019-05-08 9:28	7.9	1443	14.4	14.5	14.4
AC_E_HAIRPIN_DITCH	2019-05-09 9:18	7.5	1252	16.6	16.1	16.6
AC_E_HAIRPIN_DITCH	2019-05-10 10:53	7.6	1407	16.2	15.8	16.2
AC_E_HAIRPIN_DITCH	2019-05-13	7.4	1041	8.1	8.9	8.1
AC_E_HAIRPIN_DITCH	2019-05-14 9:21	7.4	1041	8.1	8.9	8.1
AC_E_HAIRPIN_DITCH	2019-05-15 9:21	7.8	7780	60	60	60
AC_E_HAIRPIN_DITCH	2019-05-16 9:47	7.6	1389	44.9	44.8	44.9
AC_E_HAIRPIN_DITCH	2019-05-17 12:56	7.6	1249	41	40.1	41
AC_E_HAIRPIN_DITCH	2019-05-19 12:27	6.7	1679	40	40.1	40
AC_E_HAIRPIN_DITCH	2019-05-20 10:08	7.8	1409	12.4	12.1	12.4
AC_E_HAIRPIN_DITCH	2019-05-21 9:49	7.2	1114	69.4	70.7	69.4
AC_E_HAIRPIN_DITCH	2019-05-23 10:22	7.5	1166	36.1	35.7	36.1
AC_E_HAIRPIN_DITCH	2019-05-24 8:34	7.0	1208	33.1	33.8	33.1
AC_E_HAIRPIN_DITCH	2019-05-25 10:09	7.7	1072	8.2	8.6	8.2
AC_E_HAIRPIN_DITCH	2019-05-26 10:08	8.0	1245	4.7	4.8	4.7
AC_E_HAIRPIN_DITCH	2019-05-27 9:20	7.4	894	2.4	2.3	2.4
AC_E_HAIRPIN_DITCH	2019-05-28 9:00	7.5	1101	59.4	60.5	59.4
AC_E_HAIRPIN_DITCH	2019-05-29 9:23	7.5	864	2.3	2.3	2.3
AC_E_HAIRPIN_DITCH	2019-05-30 10:00	7.5	885	4.2	3.5	4.2
AC_E_HAIRPIN_DITCH	2019-05-31 12:30	7.6	995	8.6	8.7	8.6
AC_E_HAIRPIN_DITCH	2019-06-01 9:28	7.5	909	22.3	22.4	22.3
AC_E_HAIRPIN_DITCH	2019-06-04 8:50	7.6	909	11.7	11.8	11.7
AC_E_HAIRPIN_DITCH	2019-06-05 9:13	8.0	1150	26.6	28.1	26.6
AC_E_HAIRPIN_DITCH	2019-06-06 9:58	7.9	1150	33.4	33.1	33.4
AC_E_HAIRPIN_DITCH	2019-06-07 9:59	8.0	1127	5	5.5	5
AC_E_HAIRPIN_DITCH	2019-06-09 8:39	7.6	859	6.1	6.3	6.1
AC_E_HAIRPIN_DITCH	2019-06-10 11:08	7.2	985	10.9	10.4	10.9
AC_E_HAIRPIN_DITCH	2019-06-11 9:08	7.4	1019	3.4	3.5	3.4
AC_E_HAIRPIN_DITCH	2019-06-13	7.6	1020	2.8	2.6	2.8
AC_E_HAIRPIN_DITCH	2019-06-13 9:34	7.6	1022	2.8	2.6	2.8
AC_E_HAIRPIN_DITCH	2019-06-14 3:00	7.7	836	11.6	11.6	11.6
AC_E_HAIRPIN_DITCH	2019-06-15 10:30	7.7	1098	20.7	20.2	20.7
AC_E_HAIRPIN_DITCH	2019-06-16 10:40	7.6	998	14.2	13.7	14.2
AC_E_HAIRPIN_DITCH	2019-06-17 10:15	7.4	916	825	822	825
AC_E_HAIRPIN_DITCH	2019-06-18 10:05	7.8	818	18.8	18.3	18.8
AC_E_HAIRPIN_DITCH	2019-06-18 10:06	7.8	818	18.8	18.3	18.8
AC_E_HAIRPIN_DITCH	2019-06-19 9:15	7.6	839	4.5	4.4	4.5
AC_E_HAIRPIN_DITCH	2019-06-21 9:15	7.7	858	2.2	2.3	2.2
AC_E_HAIRPIN_DITCH	2019-06-21 13:30	7.7	886	1.9	1.9	1.9
AC_E_HAIRPIN_DITCH	2019-06-22 9:05	7.6	1053	18.5	18.1	18.5
AC_E_HAIRPIN_DITCH	2019-06-23 9:15	7.6	833	2.5	2.4	2.5
AC_E_HAIRPIN_DITCH	2019-06-24 9:51	7.5	869	9	8.9	9
AC_E_HAIRPIN_DITCH	2019-06-25 9:59	7.6	1042	4.6	4.4	4.6
AC_E_HAIRPIN_DITCH	2019-06-26 10:07	7.6	1039	7.6	8	7.6
AC_E_HAIRPIN_DITCH	2019-06-27 9:56	7.6	1038	10.1	10.5	10.1
AC_E_HAIRPIN_DITCH	2019-06-28 14:26	7.7	10280	21.6	21.9	21.6
AC_E_HAIRPIN_DITCH	2019-06-29 12:15	7.6	1050	5.3	5	5.3
AC_E_HAIRPIN_DITCH	2019-06-30 10:27	7.5	1179	5.7	5.5	5.7

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
AC_E_HAIRPIN_DITCH	2019-07-01 16:24	6.8	4390	54	51	54
AC_E_HAIRPIN_DITCH	2019-07-02 10:15	7.0	5390	2116	2053	2116
AC_E_HAIRPIN_DITCH	2019-07-03 9:44	7.2	18200	6.5	6.3	6.5
AC_E_HAIRPIN_DITCH	2019-07-04 9:57	7.2	1443	69	67.8	69
AC_E_HAIRPIN_DITCH	2019-07-05 14:45	7.3	1412	6.3	6.3	6.3
AC_E_HAIRPIN_DITCH	2019-07-06 10:18	7.5		8.4	8.3	8.4
AC_E_HAIRPIN_DITCH	2019-07-07 9:32	7.5	1098	8.6	8.5	8.6
AC_E_HAIRPIN_DITCH	2019-07-08 9:50	7.5	1208	25.6	25.4	25.6
AC_E_HAIRPIN_DITCH	2019-07-10 16:00	7.8	1176	35	34.6	35
AC_E_HAIRPIN_DITCH	2019-07-11 15:40	7.6	977	14.9	14.7	14.9
AC_E_HAIRPIN_DITCH	2019-07-13 9:35	7.6	962	11.4	11.2	11.4
AC_E_HAIRPIN_DITCH	2019-07-14 10:25	7.6	795	10.1	10.1	10.1
AC_E_HAIRPIN_DITCH	2019-07-15 9:10	7.6	793	11.6	11.6	11.6
AC_E_HAIRPIN_DITCH	2019-07-16 12:00	7.7	921	16.7	16.8	16.7
AC_E_HAIRPIN_DITCH	2019-07-17 10:25	7.8	1093	14.8	14.7	14.8
AC_E_HAIRPIN_DITCH	2019-07-18 10:42	7.6	1014	48.5	48.4	48.5
AC_E_HAIRPIN_DITCH	2019-07-19 15:20	7.8	1054	16.8	16.6	16.8
AC_E_HAIRPIN_DITCH	2019-07-20 11:18	7.6	786	7.2	7.2	7.2
AC_E_HAIRPIN_DITCH	2019-07-21 10:00	7.8	1110	19.2	19.1	19.2
AC_E_HAIRPIN_DITCH	2019-07-22 9:28	7.8	1088	23.2	22.7	23.2
AC_E_HAIRPIN_DITCH	2019-07-23 10:28	7.6	964	12.5	11.6	12.5
AC_E_HAIRPIN_DITCH	2019-07-24 10:15	7.9	950	13.6	13.7	13.6
AC_E_HAIRPIN_DITCH	2019-07-25 9:45	7.6	1233	91.2	90.2	91.2
AC_E_HAIRPIN_DITCH	2019-07-26 12:55	7.7	792	23.5	22.9	23.5
AC_E_HAIRPIN_DITCH	2019-07-27 8:58	7.6	845	18.8	16.4	18.8
AC_E_HAIRPIN_DITCH	2019-07-28 8:40	7.8	918	22.9	22.3	22.9
AC_E_HAIRPIN_DITCH	2019-07-29 14:50	7.7	9410	19.7	18.8	19.7
AC_E_HAIRPIN_DITCH	2019-07-30 9:40	7.4	1084	8.4	8.5	8.4
AC_E_HAIRPIN_DITCH	2019-07-31 9:16	7.5	977	7.1	7	7.1
AC_E_HAIRPIN_DITCH	2019-08-01 9:30	7.5	967	8.6	8.2	8.6
AC_E_HAIRPIN_DITCH	2019-08-02 13:15	7.7	969	5.6	5.6	5.6
AC_E_HAIRPIN_DITCH	2019-08-03 10:11	7.7	1049	12.6	12.5	12.6
AC_E_HAIRPIN_DITCH	2019-08-04 9:30	7.6	1415	8.8	9	8.8
AC_E_HAIRPIN_DITCH	2019-08-05 8:57	7.6	998	8	7.9	8
AC_E_HAIRPIN_DITCH	2019-08-06 9:30	7.8	1008	11.7	11.1	11.7
AC_E_HAIRPIN_DITCH	2019-08-07 14:15	7.8	968	7	6.9	7
AC_E_HAIRPIN_DITCH	2019-08-08 9:15	7.7	857	12.4	12.3	12.4
AC_E_HAIRPIN_DITCH	2019-08-10 9:20	7.5	967	7	6.8	7
AC_E_HAIRPIN_DITCH	2019-08-11 9:02	7.5	971	3.8	3.1	3.8
AC_E_HAIRPIN_DITCH	2019-08-12 8:51	7.4	832	6.5	6.6	6.5
AC_E_HAIRPIN_DITCH	2019-08-13 10:26	7.7	982	5.4	4.8	5.4
AC_E_HAIRPIN_DITCH	2019-08-14 11:15	7.7	836	7.6	8	7.6
AC_E_HAIRPIN_DITCH	2019-08-15 12:00	8.6	1296	17.9	18.1	17.9
AC_E_HAIRPIN_DITCH	2019-08-16 6:56	7.6	881	14.9	15.4	14.9
AC_E_HAIRPIN_DITCH	2019-08-17 11:10	8.2	847	12.4	11	12.4
AC_E_HAIRPIN_DITCH	2019-08-18 12:01	8.0	1108	107	108	107
AC_E_HAIRPIN_DITCH	2019-08-19 11:06	7.9	1067	19	19.2	19
AC_E_HAIRPIN_DITCH	2019-08-20 11:35	4.6	3230	91	91	91
AC_E_HAIRPIN_DITCH	2019-08-21 9:30	7.4	1012	17.8	19.8	17.8
AC_E_HAIRPIN_DITCH	2019-08-23 13:10	7.7	937	18.5	18.7	18.5
AC_E_HAIRPIN_DITCH	2019-08-24 11:34	7.7	1115	27.9	28.2	27.9
AC_E_HAIRPIN_DITCH	2019-08-25 9:22	7.6	2920	16.2	15.5	16.2
AC_E_HAIRPIN_DITCH	2019-08-26 9:20	7.5	1483	64	64.2	64
AC_E_HAIRPIN_DITCH	2019-08-27 9:45	7.7	1192	21.4	21.6	21.4
AC_E_HAIRPIN_DITCH	2019-08-28 9:32	7.7	1889	12	11.8	12
AC_E_HAIRPIN_DITCH	2019-08-29 11:50	7.7	1122	10.9	10.5	10.9
AC_E_HAIRPIN_DITCH	2019-08-30 12:50	7.7	2600	12.1	11.7	12.1
AC_E_HAIRPIN_DITCH	2019-08-31 10:01	7.6	1663	74.7	74.2	74.7
AC_E_HAIRPIN_DITCH	2019-09-01 10:04	7.5	1304	48.1	48.5	48.1
AC_E_HAIRPIN_DITCH	2019-09-02 10:11	7.5	1320	68.1	66.5	68.1
AC_E_HAIRPIN_DITCH	2019-09-03 10:50	7.6	1175	32.3	34.3	32.3
AC_E_HAIRPIN_DITCH	2019-09-04 10:45	7.7	785	8.7	8.5	8.7
AC_E_HAIRPIN_DITCH	2019-09-05 10:35	7.8	3050	37.1	36.9	37.1
AC_E_HAIRPIN_DITCH	2019-09-06 11:10	7.8	4360	7.8	8.1	7.8

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
AC_E_HAIRPIN_DITCH	2019-09-07 10:55	7.7	2650	69.6	70.3	69.6
AC_E_HAIRPIN_DITCH	2019-09-09 11:20	7.7	1219	30.4	29.9	30.4
AC_E_HAIRPIN_DITCH	2019-09-10 9:30	7.8	1341	36.3	36.3	36.3
AC_E_HAIRPIN_DITCH	2019-09-11 9:50	7.8	940	3.4	3.3	3.4
AC_E_HAIRPIN_DITCH	2019-09-12 9:30	7.8	1184	74	73.4	74
AC_E_HAIRPIN_DITCH	2019-09-13 9:40	7.7	1195	27.6	26.9	27.6
AC_E_HAIRPIN_DITCH	2019-09-14 9:33	8.0	1084	46.7	46.5	46.7
AC_E_HAIRPIN_DITCH	2019-09-15 9:45	7.8	1196	32.4	32.2	32.4
AC_E_HAIRPIN_DITCH	2019-09-16 9:53	7.6	1747	31.7	31.6	31.7
AC_E_HAIRPIN_DITCH	2019-09-17 12:53	7.8	3760	17.3	17.1	17.3
AC_E_HAIRPIN_DITCH	2019-09-18 9:00	7.8	1472	108	109	108
AC_E_HAIRPIN_DITCH	2019-09-19 10:07	8.0	3790	12.1	12.1	12.1
AC_E_HAIRPIN_DITCH	2019-09-21 10:06	7.7	961	1.8	1.8	1.8
AC_E_HAIRPIN_DITCH	2019-09-22 9:00	7.6	842	5.3	5.4	5.3
AC_E_HAIRPIN_DITCH	2019-09-24 9:45	7.9	963	2.3	2.4	2.3
AC_E_HAIRPIN_DITCH	2019-09-25 9:00	7.9	791	3.5	3.8	3.5
AC_E_HAIRPIN_DITCH	2019-09-27 10:40	7.4	879	35.5	35.1	35.5
AC_E_HAIRPIN_DITCH	2019-09-28 10:00	7.5	793	4.8	4.6	4.8
AC_E_HAIRPIN_DITCH	2019-09-29 9:40	7.7	775	5.3	5.2	5.3
AC_E_HAIRPIN_DITCH	2019-09-30 8:35	7.4	807	13.2	11.4	13.2
AC_E_HAIRPIN_DITCH	2019-10-01 9:40	7.5	966	1.7	1.7	1.7
AC_E_HAIRPIN_DITCH	2019-10-02 10:12	7.6	973	3.9	3.9	3.9
AC_E_HAIRPIN_DITCH	2019-10-03 11:30	7.6	945	1.7	1.7	1.7
AC_E_HAIRPIN_DITCH	2019-10-04 9:50	7.9	1272	23.9	23.8	23.9
AC_E_HAIRPIN_DITCH	2019-10-05 10:35	7.5	966	3.8	3.8	3.8
AC_E_HAIRPIN_DITCH	2019-10-06 10:17	7.7	1000	4.4	4.4	4.4
AC_E_HAIRPIN_DITCH	2019-10-07 10:08	7.7	992	6.5	6.4	6.5
AC_E_HAIRPIN_DITCH	2019-10-08 10:48	7.8	1427	30.4	30.3	30.4
AC_E_HAIRPIN_DITCH	2019-10-09 15:30	8.0	788	4.7	4	4.7
AC_E_HAIRPIN_DITCH	2019-10-10 11:25	7.5	955	1.7	1.8	1.7
AC_E_HAIRPIN_DITCH	2019-10-11 9:30	8.0	1017	10.2	10	10.2
AC_E_HAIRPIN_DITCH	2019-10-12 10:06	7.4	948	2.9	3	2.9
AC_E_HAIRPIN_DITCH	2019-10-13 10:15	8.1	991	5	5	5
AC_E_HAIRPIN_DITCH	2019-10-14 9:35	8.0	2600	4.5	4.6	4.5
AC_E_HAIRPIN_DITCH	2019-10-16 10:10	6.7	782	4.4	4.5	4.4
AC_E_HAIRPIN_DITCH	2019-10-18 11:05	12.5	6450	56.8	57.9	56.8
AC_E_HAIRPIN_DITCH	2019-10-20 13:05	12.2	4360	20.6	20.8	20.6
AC_E_HAIRPIN_DITCH	2019-10-21 9:55	7.8	881	7.6	7.6	7.6
AC_E_HAIRPIN_DITCH	2019-10-22 10:10	7.6	931	4.9	5	4.9
AC_E_HAIRPIN_DITCH	2019-10-23 10:34	7.8	807	11.6	11.6	11.6
AC_E_HAIRPIN_DITCH	2019-10-24 13:23	7.6	776	1.4	1.3	1.4
AC_E_HAIRPIN_DITCH	2019-10-26 9:55	7.7	775	1.5	1.5	1.5
AC_E_HAIRPIN_DITCH	2019-10-27 10:02	8.0	2350	70.7	70	70.7
AC_E_HAIRPIN_DITCH	2019-10-28 9:36	8.4	819	46.9	46.9	46.9
AC_E_HAIRPIN_DITCH	2019-10-29 10:00	8.1	811	14.7	14.6	14.7
AC_E_HAIRPIN_DITCH	2019-10-30 10:10	7.4	752	14.7	14.9	14.7
AC_E_HAIRPIN_DITCH	2019-10-31 10:20	7.9	804	21	21	21
AC_E_HAIRPIN_DITCH	2019-11-01 10:45	7.7	912	6.8	6.9	6.8
AC_E_HAIRPIN_DITCH	2019-11-02 11:40	7.6	896	7.2	7.3	7.2
AC_E_HAIRPIN_DITCH	2019-11-03 11:45	7.6	924	9.5	9.6	9.5
AC_E_HAIRPIN_DITCH	2019-11-04 11:00	7.8	896	9.9	9.7	9.9
AC_E_HAIRPIN_DITCH	2019-11-06 9:35	8.2	1150	29.2	29	29.2
AC_E_HAIRPIN_DITCH	2019-11-07 10:15	8.2	855	20.8	20.9	20.8
AC_E_HAIRPIN_DITCH	2019-11-08 9:15	8.0	1139	34.3	33.9	34.3
AC_E_HAIRPIN_DITCH	2019-11-09 10:15	8.4	812	13.4	13.5	13.4
AC_E_HAIRPIN_DITCH	2019-11-10 9:58	8.0	853	8.7	8.9	8.7
AC_E_HAIRPIN_DITCH	2019-11-11 9:30	7.0	1002	4.8	4.6	4.8
AC_E_HAIRPIN_DITCH	2019-11-12 9:58	7.5	817	4.5	4.4	4.5
AC_E_HAIRPIN_DITCH	2019-11-13 9:30	8.2	829	19.1	18.9	19.1
AC_E_HAIRPIN_DITCH	2019-11-14 9:22	7.9	859	5.8	5.8	5.8
AC_E_HAIRPIN_DITCH	2019-11-15 9:35	8.0	920	8	8	8
AC_E_HAIRPIN_DITCH	2019-11-16 9:38	8.2	904	7.2	7.2	7.2
AC_E_HAIRPIN_DITCH	2019-11-17 10:54	7.9	829	18.4	18.3	18.4
AC_E_HAIRPIN_DITCH	2019-11-18 10:25	8.0	865	30.6	30.4	30.6

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
AC_E_HAIRPIN_DITCH	2019-11-19 11:12	8.0	863	15	14.8	15
AC_E_HAIRPIN_DITCH	2019-11-22 3:15	8.1	836	67.1	66.2	67.1
AC_E_HAIRPIN_DITCH	2019-11-23	7.9	825	14.7	14.5	14.7
AC_E_HAIRPIN_DITCH	2019-11-24 14:00	7.9	849	35.6	35.5	35.6
AC_E_HAIRPIN_DITCH	2019-11-25	8.2	849	24.2	24.4	24.2
AC_E_HAIRPIN_DITCH	2019-11-26 13:40	7.8	882	39.1	39.1	39.1
AC_E_HAIRPIN_DITCH	2019-11-27 13:40	8.0	884	45.9	45	45.9
AC_E_HAIRPIN_DITCH	2019-11-28 15:30	7.5	843	4	4	4
AC_E_HAIRPIN_DITCH	2019-11-29 16:05	7.8	910	40.5	40.3	40.5
AC_E_HAIRPIN_DITCH	2019-11-30 11:23	7.6	695	995	994	995
AC_E_HAIRPIN_DITCH	2019-12-01 11:10	7.2	7180	7.4	7.5	7.4
AC_E_HAIRPIN_DITCH	2019-12-02 10:28	7.6	853	8.6	8.6	8.6
AC_E_HAIRPIN_DITCH	2019-12-04 11:20	7.9	888	15.8	15.8	15.8
AC_E_HAIRPIN_DITCH	2019-12-05 11:55	8.0	884	20.5	20.6	20.5
AC_E_HAIRPIN_DITCH	2019-12-06 10:35	7.8	877	35.9	34.5	35.9
AC_E_HAIRPIN_DITCH	2019-12-07 10:20	7.8	842	3.2	3.2	3.2
AC_E_HAIRPIN_DITCH	2019-12-08 10:00	7.8	791	4	3.9	4
AC_E_HAIRPIN_DITCH	2019-12-09 9:43	7.9	834	3	3	3
AC_E_HAIRPIN_DITCH	2019-12-10 12:00	7.8	836	3.2	3	3.2
AC_E_HAIRPIN_DITCH	2019-12-11 12:35	7.8	821	2.7	2.7	2.7
AC_E_HAIRPIN_DITCH	2019-12-12 12:50	7.7	826	2	2	2
AC_E_HAIRPIN_DITCH	2019-12-13 16:00	7.7	786	3.7	3.8	3.7
AC_E_HAIRPIN_DITCH	2019-12-14 13:20	7.9	825	3.3	3.5	3.3
AC_E_HAIRPIN_DITCH	2019-12-15 15:50	8.0	807	5	4.9	5
AC_E_HAIRPIN_DITCH	2019-12-16 16:40	7.9	829	3.6	3.6	3.6
AC_E_HAIRPIN_DITCH	2019-12-17 11:13	7.9	820	2.4	2.5	2.4
AC_E_HAIRPIN_DITCH	2019-12-18 11:17	7.9	910	2	2	2
AC_E_HAIRPIN_DITCH	2019-12-19 11:10	7.6	854	37.7	37.2	37.7
AC_E_HAIRPIN_DITCH	2019-12-19 11:30	7.6	1840	2.3	2.2	2.3
AC_E_HAIRPIN_DITCH	2019-12-20 10:24	8.1	761	56.1	55.9	56.1
AC_E_HAIRPIN_DITCH	2019-12-21 10:17	7.9	875	30.2	29.9	30.2
AC_E_HAIRPIN_DITCH	2019-12-22 9:58	7.9	867	23.8	23.9	23.8
AC_E_HAIRPIN_DITCH	2019-12-23 11:05	8.2	871	29	28.8	29
AC_E_HAIRPIN_DITCH	2019-12-24 14:34	7.9	915	42.9	43	42.9
AC_E_HAIRPIN_DITCH	2019-12-25 12:30	7.8	897	44.9	44.4	44.9
AC_E_HAIRPIN_DITCH	2019-12-26 12:00	8.0	887	26.6	26.8	26.6
AC_E_HAIRPIN_DITCH	2019-12-27 14:00	7.8	866	37.9	38.2	37.9
AC_E_HAIRPIN_DITCH	2019-12-28 12:20	7.9	862	36.3	36.3	36.3
AC_E_HAIRPIN_DITCH	2019-12-29 12:10	8.1	869	26.5	26.5	26.5
AC_E_HAIRPIN_DITCH	2019-12-30 14:40	8.2	889	6.5	6.3	6.5
AC_E_HAIRPIN_DITCH	2019-12-31 14:15	8.0	841	27.6	26.5	27.6
AC_East_Conveyor	2019-01-14 13:08	7.8	1408	0.7	0.8	0.7
AC_East_Conveyor	2019-01-26 13:45	8.0	498	44.8	44.5	44.8
AC_East_Conveyor	2019-03-20 1:27	3.4	7400	2408	2417	2408
AC_East_Conveyor	2019-03-21 10:40	3.5	19500	OR		
AC_East_Conveyor	2019-03-22 14:30	5.3	7840	OR		
AC_East_Conveyor	2019-03-23 12:20	5.6	2980	69	70	69
AC_East_Conveyor	2019-03-24 14:45	8.3	1740	46.6	47	46.6
AC_East_Conveyor	2019-03-25 11:40	6.2	2970	74.1	73.9	74.1
AC_East_Conveyor	2019-03-26 11:15	7.0	2260	49.7	49.7	49.7
AC_East_Conveyor	2019-03-27 11:25	7.0	2250	28.1	27.7	28.1
AC_East_Conveyor	2019-03-28 10:20	7.6	1800	12.8	13	12.8
AC_East_Conveyor	2019-03-29 14:05	5.3	5700	93	93	93
AC_East_Conveyor	2019-03-30 9:35	7.8	1522	39.4	38.4	39.4
AC_East_Conveyor	2019-03-31 9:45	7.1	2660	78	77	78
AC_East_Conveyor	2019-04-01 9:50	7.2	2340	53.4	52.5	53.4
AC_East_Conveyor	2019-04-02 10:55	7.5	2870	73	74	73
AC_East_Conveyor	2019-04-03 9:00	8.0	1537	5.4	5.1	5.4
AC_East_Conveyor	2019-04-05 12:15	7.8	1552	13.4	10.3	13.4
AC_East_Conveyor	2019-04-06 9:01	8.0	1527	5.4	5.5	5.4
AC_East_Conveyor	2019-04-08 11:00	7.6	1646	4.8	4.6	4.8
AC_East_Conveyor	2019-04-09 9:29	7.7	1740	13.9	13.6	13.9
AC_East_Conveyor	2019-04-10 9:20	7.8	1644	12.4	11.8	12.4
AC_East_Conveyor	2019-04-11 9:00	7.7	2000	18.6	18.3	18.6

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
AC_East_Conveyor	2019-04-12 13:30	7.6	1775	21.6	22.4	21.6
AC_East_Conveyor	2019-04-13 9:00	7.6	1704	9.3	9.4	9.3
AC_East_Conveyor	2019-04-14 9:52	7.6	2240	20.4	25.4	20.4
AC_East_Conveyor	2019-04-15 9:35	7.6	1785	16.5	16	16.5
AC_East_Conveyor	2019-04-16 15:35	7.8	1568	6.8	6.9	6.8
AC_East_Conveyor	2019-04-17 15:00	7.8	1631	18.7	19	18.7
AC_East_Conveyor	2019-04-18 9:04	7.3	5080	22.4	22.5	22.4
AC_East_Conveyor	2019-04-19 8:40	7.8	1538	6.9	6.8	6.9
AC_East_Conveyor	2019-04-20 9:23	7.9	1624	19.5	19.5	19.5
AC_East_Conveyor	2019-04-21 9:00	7.9	1635	20.9	20.9	20.9
AC_East_Conveyor	2019-04-22 9:40	7.8	1645	8.3	8.3	8.3
AC_East_Conveyor	2019-04-23 9:05	7.8	1750	11.5	11.3	11.5
AC_East_Conveyor	2019-04-24 9:20	8.1	1703	9.6	8.6	9.6
AC_East_Conveyor	2019-04-26 9:55	8.0	1800	4.2	4.1	4.2
AC_East_Conveyor	2019-04-26 10:00	8.4	1310	35.6	35.8	35.6
AC_East_Conveyor	2019-04-27 10:55	7.7	1759	4	4	4
AC_East_Conveyor	2019-04-28 8:55	7.8	1855	7.1	6.6	7.1
AC_East_Conveyor	2019-04-30 10:40	7.9	1828	3.8	4	3.8
AC_East_Conveyor	2019-05-02 10:05	7.7	1682	11.8	11.6	11.8
AC_East_Conveyor	2019-05-03 14:55	7.8	1812	8.6	8.7	8.6
AC_East_Conveyor	2019-05-04 12:56	8.7	2190	5.8	5.8	5.8
AC_East_Conveyor	2019-05-05 15:11	7.9	2130	15.2	14	15.2
AC_East_Conveyor	2019-05-06 9:00	7.9	2140	15.6	15.8	15.6
AC_East_Conveyor	2019-05-07 9:12	8.0	2010	20	17	20
AC_East_Conveyor	2019-05-08 9:38	7.9	2110	12.4	12.9	12.4
AC_East_Conveyor	2019-05-09 9:28	7.7	2060	13.5	12.8	13.5
AC_East_Conveyor	2019-05-10 10:58	7.8	2120	27.5	27.4	27.5
AC_East_Conveyor	2019-05-13 9:32	7.8	2150	7	7.2	7
AC_East_Conveyor	2019-05-14 9:32	7.8	2150	7.2	7.2	7.2
AC_East_Conveyor	2019-05-15 9:35	8.0	2130	15.5	15.6	15.5
AC_East_Conveyor	2019-05-15 9:57	8.0	8020	13	12.1	13
AC_East_Conveyor	2019-05-17 13:03	8.0	2000	5.5	5.6	5.5
AC_East_Conveyor	2019-05-19 12:35	7.5	3830	10	12.8	10
AC_East_Conveyor	2019-05-20 10:14	7.9	1975	11.5	11.5	11.5
AC_East_Conveyor	2019-05-21 10:00	8.1	1765	6	6.3	6
AC_East_Conveyor	2019-05-23 10:33	8.1	1472	5.3	5.5	5.3
AC_East_Conveyor	2019-05-24 8:51	8.1	1237.2	5.2	4.9	5.2
AC_East_Conveyor	2019-05-25 10:25	8.1	1303	4.6	4.7	4.6
AC_East_Conveyor	2019-05-26 9:54	7.3	916	9.4	9.3	9.4
AC_East_Conveyor	2019-05-27 9:32	7.9	1223	4.9	4.9	4.9
AC_East_Conveyor	2019-05-28 9:10	7.9	1197	5.2	5.1	5.2
AC_East_Conveyor	2019-05-29 9:30	8.0	1298	6.5	6.4	6.5
AC_East_Conveyor	2019-05-30 10:15	7.9	1226	11.9	11.8	11.9
AC_East_Conveyor	2019-05-31 12:39	7.8	1109	6.8	5.8	6.8
AC_East_Conveyor	2019-06-01 9:38	8.0	1063	5	4.9	5
AC_East_Conveyor	2019-06-02 11:39	8.0	1235	4.2	4.1	4.2
AC_East_Conveyor	2019-06-03 11:58	8.1	1112	5.2	5	5.2
AC_East_Conveyor	2019-06-04 8:58	7.7	1073	12	12.6	12
AC_East_Conveyor	2019-06-05 9:21	8.0	1030	5	4.9	5
AC_East_Conveyor	2019-06-06 10:03	7.8	1255	10.4	10.3	10.4
AC_East_Conveyor	2019-06-07 10:09	8.0	1341	3.8	3.9	3.8
AC_East_Conveyor	2019-06-08 8:55	8.0	1062	3.7	3.4	3.7
AC_East_Conveyor	2019-06-09 8:55	8.0	959	3.8	3.6	3.8
AC_East_Conveyor	2019-06-10 11:31	7.9	1385	17.5	16.9	17.5
AC_East_Conveyor	2019-06-11 9:30	7.8	1189	4.4	4.1	4.4
AC_East_Conveyor	2019-06-13 9:45	7.7	1201	6.3	6	6.3
AC_East_Conveyor	2019-06-14 11:00	8.1	1112	7.6	7.7	7.6
AC_East_Conveyor	2019-06-15 10:35	8.0	1043	4.9	4.9	4.9
AC_East_Conveyor	2019-06-16 10:50	7.9	1072	6.9	6.9	6.9
AC_East_Conveyor	2019-06-17 10:25	7.8	1010	5.1	5.1	5.1
AC_East_Conveyor	2019-06-18 10:15	7.8	1554	13.1	12.9	13.1
AC_East_Conveyor	2019-06-19 9:20	7.7	1343	7.1	7.6	7.1
AC_East_Conveyor	2019-06-20 9:30	7.9	1046	4.4	4.5	4.4
AC_East_Conveyor	2019-06-21 13:40	8.1	1093	4.5	4.6	4.5

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
AC_East_Conveyor	2019-06-22 9:15	7.9	1048	3.6	3.6	3.6
AC_East_Conveyor	2019-06-23 9:27	7.9	969	3.4	3.4	3.4
AC_East_Conveyor	2019-06-24 9:58	7.7	1216	54.5	54.4	54.5
AC_East_Conveyor	2019-06-25 10:09	6.3	4420	OR		
AC_East_Conveyor	2019-06-26 10:16	7.4	1977	12.5	12.6	12.5
AC_East_Conveyor	2019-06-27 10:05	7.6	1899	12.1	12.6	12.1
AC_East_Conveyor	2019-06-28 14:01	7.7	1809	16.6	16.9	16.6
AC_East_Conveyor	2019-06-29 12:24	7.7	1956	4.4	4.3	4.4
AC_East_Conveyor	2019-06-30 10:45	5.9	418	96	97.6	96
AC_East_Conveyor	2019-07-01 15:45	5.2	1781	51.3	51.4	51.3
AC_East_Conveyor	2019-07-02 10:28	6.7	1897	10.2	10.2	10.2
AC_East_Conveyor	2019-07-03 9:55	6.3	17900	69	69	69
AC_East_Conveyor	2019-07-04	5.8	4920	OR		
AC_East_Conveyor	2019-07-05 14:29	7.5	1800	12.7	11.9	12.7
AC_East_Conveyor	2019-07-06 10:26	7.6	1689	22.7	24.7	22.7
AC_East_Conveyor	2019-07-07 9:40	7.6	1581	13.6	13.7	13.6
AC_East_Conveyor	2019-07-08 9:58	7.4	1606	19	18.4	19
AC_East_Conveyor	2019-07-10 16:06	8.0	1157	9.1	9	9.1
AC_East_Conveyor	2019-07-11 15:50	8.2	1169	9	9	9
AC_East_Conveyor	2019-07-12 14:45	8.1	1269	13	13.1	13
AC_East_Conveyor	2019-07-14 10:40	8.0	1132	15.6	15.6	15.6
AC_East_Conveyor	2019-07-15 9:21	8.1	1068	12.2	12.2	12.2
AC_East_Conveyor	2019-07-17 10:30	8.3	1004	7.9	7.8	7.9
AC_East_Conveyor	2019-07-19 15:28	8.5	949	13.8	13.7	13.8
AC_East_Conveyor	2019-07-20 11:28	8.2	1014	23.9	23.8	23.9
AC_East_Conveyor	2019-07-21 10:08	8.3	940	12.1	11.9	12.1
AC_East_Conveyor	2019-07-22 9:37	8.4	955	26.4	24.3	26.4
AC_East_Conveyor	2019-07-23 10:40	7.8	1107	26.4	26.5	26.4
AC_East_Conveyor	2019-07-24 10:22	8.3	973	12.9	12.5	12.9
AC_East_Conveyor	2019-07-25 9:55	8.2	1042	19.5	18.6	19.5
AC_East_Conveyor	2019-07-26 13:02	8.7	913	21.6	21.4	21.6
AC_East_Conveyor	2019-07-27 9:08	8.4	962	18.5	18.1	18.5
AC_East_Conveyor	2019-07-30 9:50	8.1	1215	13	13.1	13
AC_East_Conveyor	2019-08-05 9:06	8.2	1169	15.9	15.8	15.9
AC_East_Conveyor	2019-08-08 9:26	8.3	1216	19.1	19.1	19.1
AC_East_Conveyor	2019-08-12 10:45	8.2	978	8.4	8.2	8.4
AC_East_Conveyor	2019-08-13 10:33	8.3	985	23.1	22.8	23.1
AC_East_Conveyor	2019-08-14 11:20	8.5	957	34.3	34.3	34.3
AC_East_Conveyor	2019-08-15 12:06	8.6	957	21.2	18.3	21.2
AC_East_Conveyor	2019-08-16 7:01	8.3	1130	63.6	64.4	63.6
AC_East_Conveyor	2019-08-17 11:29	8.3	1200	41.4	39.2	41.4
AC_East_Conveyor	2019-08-19 11:15	8.0	1346	25.3	24.4	25.3
AC_East_Conveyor	2019-08-20 11:44	6.9	1772	12.3	13	12.3
AC_East_Conveyor	2019-08-21 9:35	8.1	1478	9.6	10.1	9.6
AC_East_Conveyor	2019-08-22 13:23	8.2	1322	36.4	36.5	36.4
AC_East_Conveyor	2019-08-23 13:15	8.1	1323	12.5	11.4	12.5
AC_East_Conveyor	2019-08-25 9:30	8.2	1349	9.9	9.5	9.9
AC_East_Conveyor	2019-08-26 9:26	7.6	1500	9.9	10	9.9
AC_SUMP_E_Culvert	2019-01-26 13:06	7.4	1299	13	13	13
AC_SUMP_E_Culvert	2019-04-25 8:38	8.5	1664	7.4	7.6	7.4
AC_W_TRENCH	2019-01-02 15:10	8.1	1611	1.4	1.5	1.4
AC_W_TRENCH	2019-01-10 14:12	7.3	1493	6.4	6.6	6.4
AC_W_TRENCH	2019-01-11 13:05	7.6	1636	26.3	26.6	26.3
AC_W_TRENCH	2019-01-12 13:10	7.9	1566	5.4	5.4	5.4
AC_W_TRENCH	2019-01-13 12:44	7.6	1496	7.8	7.8	7.8
AC_W_TRENCH	2019-01-14 12:57	8.1	1541	2.8	2.7	2.8
AC_W_TRENCH	2019-01-16 12:15	8.1	1239	4.2	4.2	4.2
AC_W_TRENCH	2019-01-20 13:18	8.1	1400			
AC_W_TRENCH	2019-01-21 14:28	8.0	1404			
AC_W_TRENCH	2019-01-25 12:58	7.3	1615	9.5	9.4	9.5
AC_W_TRENCH	2019-02-17 14:10	7.3	1560	12.4	12.5	12.4
AC_W_TRENCH	2019-03-11 14:26	8.4	1507	8.7	8.6	8.7
AC_W_TRENCH	2019-03-13 16:00	9.0	1244	87	87	87
AC_W_TRENCH	2019-03-14 15:35	8.4	1217	38.7	38.8	38.7



Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
AC_W_TRENCH	2019-03-18 15:15	8.0	2270	1030	1029	1030
AC_W_TRENCH	2019-03-20 1:15	9.0	2220	78.7	79.1	78.7
AC_W_TRENCH	2019-03-21 10:50	5.6	5600	OR		
AC_W_TRENCH	2019-03-22 14:40	6.3	7100	OR		
AC_W_TRENCH	2019-03-23 12:00	3.6	5340	6.6	6.7	6.6
AC_W_TRENCH	2019-03-24 14:55	7.1	1899	53.9	54	53.9
AC_W_TRENCH	2019-03-25 11:25	7.5	6020	OR		
AC_W_TRENCH	2019-03-26 10:50	6.7	5790	OR		
AC_W_TRENCH	2019-03-27 11:10	6.8	3040	OR		
AC_W_TRENCH	2019-03-28 9:50	6.9	5700	OR		
AC_W_TRENCH	2019-03-29 13:55	7.5	2030	47.3	47	47.3
AC_W_TRENCH	2019-03-30 9:55	8.0	7150	878	881	878
AC_W_TRENCH	2019-03-31 9:55	7.7	2040	19	18.7	19
AC_W_TRENCH	2019-04-01 10:10	7.8	2040	30.1	30.1	30.1
AC_W_TRENCH	2019-04-02 11:10	7.6	2680	23.2	23.8	23.2
AC_W_TRENCH	2019-04-03 9:10	8.3	2400	6.8	6.9	6.8
AC_W_TRENCH	2019-04-04 9:20	7.6	5560	15.5	15.4	15.5
AC_W_TRENCH	2019-04-05 12:22	8.0	10160	9.3	9.3	9.3
AC_W_TRENCH	2019-04-06 9:11	8.1	1886	5.6	5.7	5.6
AC_W_TRENCH	2019-04-07 9:46	8.0	2230	8.4	7.8	8.4
AC_W_TRENCH	2019-04-08 11:09	8.0	2770	29.2	28.7	29.2
AC_W_TRENCH	2019-04-09 9:42	8.0	2490	10.1	10.2	10.1
AC_W_TRENCH	2019-04-10 9:32	8.4	2790	8.2	8.2	8.2
AC_W_TRENCH	2019-04-11 9:17	8.3	2380	8	8.1	8
AC_W_TRENCH	2019-04-12 13:48	8.0	4430	49.9	49.7	49.9
AC_W_TRENCH	2019-04-13 9:25	7.2	7590	42.2	40.2	42.2
AC_W_TRENCH	2019-04-14 10:04	8.1	2450	8	7.9	8
AC_W_TRENCH	2019-04-15 9:45	8.1	2340	16.9	16.9	16.9
AC_W_TRENCH	2019-04-16 15:27	8.2	2940	30.4	30.9	30.4
AC_W_TRENCH	2019-04-17 14:48	8.4	2820	51.3	50.9	51.3
AC_W_TRENCH	2019-04-18 8:48	8.3	2090	10.6	10.6	10.6
AC_W_TRENCH	2019-04-19 9:04	7.3	5080	22.4	22.5	22.4
AC_W_TRENCH	2019-04-20 9:34	8.2	2650	1.4	1.4	1.4
AC_W_TRENCH	2019-04-21 9:12	7.9	3660	22.1	22.2	22.1
AC_W_TRENCH	2019-04-22 9:50	8.2	1826	69.4	62.6	69.4
AC_W_TRENCH	2019-04-23 9:16	8.0	4110	66.6	66.7	66.6
AC_W_TRENCH	2019-04-24 9:35	8.6	2270	8.9	8	8.9
AC_W_TRENCH	2019-04-25 8:51	8.6	2040	6.6	6.5	6.6
AC_W_TRENCH	2019-04-26 10:00	8.4	1310	35.6	35.8	35.6
AC_W_TRENCH	2019-04-27 11:00	8.3	1750	5	4.7	5
AC_W_TRENCH	2019-04-28 9:00	8.3	1995	4.2	4.5	4.2
AC_W_TRENCH	2019-04-30 10:45	8.2	2400	28.8	28.3	28.8
AC_W_TRENCH	2019-05-01 10:10	8.2	1959	21.9	21.9	21.9
AC_W_TRENCH	2019-05-03 15:00	8.0	2960	9.3	9.2	9.3
AC_W_TRENCH	2019-05-07 9:30	8.3	1492	7.1	6.6	7.1
AC_W_TRENCH	2019-05-08 10:05	7.8	1469	6.3	6.2	6.3
AC-E-GW-Sump	2019-09-01 10:15	8.2	1020	3.2	3	3.2
AC-E-GW-Sump	2019-10-10 11:55	8.2	1226	3.4	3.5	3.4
AC-E-GW-Sump	2019-11-06 14:25	8.3	3070	5	4.9	5
AC-E-Sump	2019-05-09 9:35	6.0	15080	120	120	120
AC-E-Sump	2019-05-24 9:02	6.4	2350	13.3	13.3	13.3
AC-E-Sump	2019-05-27 9:58	6.8	2000	20.2	19.9	20.2
AC-E-Sump	2019-05-28 9:35	7.7	1838	12.6	12.9	12.6
AC-E-Sump	2019-05-29 9:53	7.9	2170	7.8	8	7.8
AC-E-Sump	2019-05-30 10:50	7.8	2040	9.1	8.9	9.1
AC-E-Sump	2019-05-31 12:56	8.0	2200	6.5	6.6	6.5
AC-E-Sump	2019-06-01 9:56	7.9	2140	9.4	9.4	9.4
AC-E-Sump	2019-06-02 11:59	8.1	1987	5.1	4.4	5.1
AC-E-Sump	2019-06-03 12:11	8.1	1845	5.4	5.3	5.4
AC-E-Sump	2019-06-04 9:17	7.8	2170	12.3	11.8	12.3
AC-E-Sump	2019-06-05 9:45	7.9	2120	15.2	14.7	15.2
AC-E-Sump	2019-06-09 9:18	8.0	1850	13.5	13.3	13.5
AC-E-Sump	2019-06-10 11:53	7.8	3470	6.3	6	6.3
AC-E-Sump	2019-06-11 9:44	8.0	2210	9.6	9.7	9.6

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
AC-E-Sump	2019-06-13 10:08	8.2	2180	7.8	7.6	7.8
AC-E-Sump	2019-06-14 3:25	8.3	1913	4	4	4
AC-E-Sump	2019-06-15 10:55	8.3	8330	3.8	3.8	3.8
AC-E-Sump	2019-06-17 10:15	7.4	916	825	822	825
AC-E-Sump	2019-06-18 10:30	8.2	1903	6.3	6.3	6.3
AC-E-Sump	2019-06-19 9:45	8.3	1956	7.1	7	7.1
AC-E-Sump	2019-06-20 9:50	8.4	2070	5.6	5.6	5.6
AC-E-Sump	2019-06-21 14:02	8.4	1968	4.4	4.3	4.4
AC-E-Sump	2019-06-22	8.3	1796	6.2	6.2	6.2
AC-E-Sump	2019-06-23 9:45	8.4	1802	3.2	3.3	3.2
AC-E-Sump	2019-06-25 10:19	7.1	3680	48.4	48.2	48.4
AC-E-Sump	2019-06-26 10:34	7.8	3650	22.7	22.8	22.7
AC-E-Sump	2019-06-27 10:22	7.9	2080	21.1	20.9	21.1
AC-E-Sump	2019-06-28 14:20	8.0	4030	16.1	16.5	16.1
AC-E-Sump	2019-06-29 12:37	8.5	4260	8	9.1	8
AC-E-Sump	2019-06-30 11:04	8.2	4050	9	9	9
AC-E-Sump	2019-07-01 15:46	6.8	4570	22.3	22.4	22.3
AC-E-Sump	2019-07-02 10:53	7.0	5340	21.6	21.4	21.6
AC-E-Sump	2019-07-03 10:12	7.4	3970	14.8	15	14.8
AC-E-Sump	2019-07-05 14:20	7.8	1766	15.7	16.3	15.7
AC-E-Sump	2019-07-07 10:16	7.9	1971	17.6	17.6	17.6
AC-E-Sump	2019-07-08 10:16	7.9	1970	17.6	17.6	17.6
AC-E-Sump	2019-07-10 16:25	8.2	1902	12.7	12.7	12.7
AC-E-Sump	2019-07-11 10:25	8.2	1987	13.7	13.4	13.7
AC-E-Sump	2019-07-12 18:09	8.3	1777	10.6	10.6	10.6
AC-E-Sump	2019-07-13 10:15	8.3	1793	13.9	13.8	13.9
AC-E-Sump	2019-07-14 11:12	8.0	1421	58.8	58.8	58.8
AC-E-Sump	2019-07-15 9:38	8.1	1503	19.5	19.5	19.5
AC-E-Sump	2019-07-16 12:20	8.2	1528	17.5	17.7	17.5
AC-E-Sump	2019-07-17 10:48	8.3	1543	7.4	7.4	7.4
AC-E-Sump	2019-07-18 11:03	8.4	1482	10.1	10.2	10.1
AC-E-Sump	2019-07-19 15:37	8.4	1541	11.4	11.3	11.4
AC-E-Sump	2019-07-20 11:46	8.4	1504	9.9	9.9	9.9
AC-E-Sump	2019-07-21 10:25	8.3	1650	14.7	14.6	14.7
AC-E-Sump	2019-07-22 9:46	8.3	1552	13	12.4	13
AC-E-Sump	2019-07-23 10:55	8.3	1612	12.1	12.6	12.1
AC-E-Sump	2019-07-24 10:37	8.3	1497	13.4	13.8	13.4
AC-E-Sump	2019-07-25 10:15	8.2	1590	20.7	20.9	20.7
AC-E-Sump	2019-07-26 13:18	8.4	1610	45.7	45.2	45.7
AC-E-Sump	2019-07-27 9:24	8.4	1503	15.8	15	15.8
AC-E-Sump	2019-07-28 9:15	8.3	1840	24	24.1	24
AC-E-Sump	2019-07-29 14:35	8.6	1530	51.3	52.6	51.3
AC-E-Sump	2019-07-30 10:05	8.2	1856	11.8	11.7	11.8
AC-E-Sump	2019-07-31 9:37	8.2	1686	9.6	9.6	9.6
AC-E-Sump	2019-08-01 10:20	8.3	1710	9	9	9
AC-E-Sump	2019-08-02 13:45	8.4	1567	8.6	8.6	8.6
AC-E-Sump	2019-08-03 10:26	8.4	1495	7.7	7.7	7.7
AC-E-Sump	2019-08-04 9:36	8.2	1312	8.1	7.9	8.1
AC-E-Sump	2019-08-05 9:24	8.2	1308	8.5	8.5	8.5
AC-E-Sump	2019-08-06 9:45	8.4	1237	7.3	7.3	7.3
AC-E-Sump	2019-08-07 14:42	8.3	1373	6.6	6.6	6.6
AC-E-Sump	2019-08-08 9:45	8.3	1568	29.5	29.4	29.5
AC-E-Sump	2019-08-09 14:52	8.3	1635	41.9	42	41.9
AC-E-Sump	2019-08-10 9:39	8.2	1303	11.6	11.5	11.6
AC-E-Sump	2019-08-11 9:33	8.2	1211	73	73	73
AC-E-Sump	2019-08-12 11:11	8.2	1076	15.4	15	15.4
AC-E-Sump	2019-08-13 10:50	8.4	1118	15.6	15.6	15.6
AC-E-Sump	2019-08-14 11:37	8.3	1198	35.4	34.1	35.4
AC-E-Sump	2019-08-15 12:18	8.2	1145	10	10.2	10
AC-E-Sump	2019-08-16 7:14	8.1	1582	52.7	50.2	52.7
AC-E-Sump	2019-08-17 11:37	8.2	1560	86.6	84.5	86.6
AC-E-Sump	2019-08-18 12:17	6.8	2500	118	120	118
AC-E-Sump	2019-08-19 11:40	7.0	2120	2878	2816	2878
AC-E-Sump	2019-08-20 12:00	7.2	2830	44.8	43.4	44.8

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
AC-E-Sump	2019-08-21 9:48	7.9	1753	37.9	38.3	37.9
AC-E-Sump	2019-08-22 13:08	8.2	1638	45.5	44.8	45.5
AC-E-Sump	2019-08-24 11:50	8.2	1799	19.6	20.6	19.6
AC-E-Sump	2019-08-25 9:48	8.4	1067	13.2	12.8	13.2
AC-E-Sump	2019-08-26 9:38	8.2	10120	11.2	12.7	11.2
AC-E-Sump	2019-08-27 10:25	7.5	1208	7.3	7.2	7.3
AC-E-Sump	2019-08-28 10:02	8.1	1583	9.9	10	9.9
AC-E-Sump	2019-08-29 12:05	8.2	1121	8	7.9	8
AC-E-Sump	2019-08-30 13:05	8.3	1420	7.4	7	7.4
AC-E-Sump	2019-08-31 10:18	8.3	1384	3.8	3.7	3.8
AC-E-Sump	2019-09-01 15:52	8.4	1441			
AC-E-Sump	2019-09-02 10:30	8.4	1390	3.1	3.1	3.1
AC-E-Sump	2019-09-03 11:30	8.4	1348	7	5.7	7
AC-E-Sump	2019-09-04 11:05	8.3	1252	9	9.1	9
AC-E-Sump	2019-09-06 11:20	8.2	1136	34.7	37.8	34.7
AC-E-Sump	2019-09-07 11:10	8.3	1183	35.2	35.1	35.2
AC-E-Sump	2019-09-08 9:40	8.1	1449	21.5	21.4	21.5
AC-E-Sump	2019-09-09 11:30	8.2	1547	11.2	11.6	11.2
AC-E-Sump	2019-09-10 9:50	8.3	1479	14.7	14.9	14.7
AC-E-Sump	2019-09-11 10:00	8.3	1373	7.4	7.4	7.4
AC-E-Sump	2019-09-12 9:37	8.4	1311	7.3	7.3	7.3
AC-E-Sump	2019-09-13 9:47	8.4	1415.6	9.4	9.2	9.4
AC-E-Sump	2019-09-14 9:40	8.4	1387	8.9	8.9	8.9
AC-E-Sump	2019-09-15 10:02	8.2	1455	39.2	39.1	39.2
AC-E-Sump	2019-09-16 10:02	7.2	1752	47.9	47.8	47.9
AC-E-Sump	2019-09-17 13:00	7.7	2210	32.4	32.5	32.4
AC-E-Sump	2019-09-18 9:20	7.8	1556	36.4	36.5	36.4
AC-E-Sump	2019-09-19 10:25	8.1	2080	12	12	12
AC-E-Sump	2019-09-20 9:20	8.0	1306	31.9	32.2	31.9
AC-E-Sump	2019-09-21 10:21	8.3	1722	10.8	10.9	10.8
AC-E-Sump	2019-09-22 9:10	8.0	1139	12.5	12.3	12.5
AC-E-Sump	2019-09-23 10:10	8.2	1831	9.9	9.7	9.9
AC-E-Sump	2019-09-24 9:55	8.4	1924	23.4	23.3	23.4
AC-E-Sump	2019-09-25 9:10	7.8	1187	11.7	11.7	11.7
AC-E-Sump	2019-09-26 9:30	8.2	1260	19.1	18.9	19.1
AC-E-Sump	2019-09-27 10:45	7.8	1190	11.7	11.5	11.7
AC-E-Sump	2019-09-28 10:20	7.9	1213	16.2	17.5	16.2
AC-E-Sump	2019-09-29 9:50	8.1	1480	96.8	96.8	96.8
AC-E-Sump	2019-09-30 8:50	7.8	1095	14.5	13.3	14.5
AC-E-Sump	2019-10-01 10:20	8.0	1282	12.2	11.8	12.2
AC-E-Sump	2019-10-02 10:21	8.0	1353	9.9	9.6	9.9
AC-E-Sump	2019-10-03 11:47	8.2	1276	6.8	6.8	6.8
AC-E-Sump	2019-10-04 10:05	8.2	1320	5.8	5.7	5.8
AC-E-Sump	2019-10-05 10:45	8.2	1230	8.2	8	8.2
AC-E-Sump	2019-10-06 10:36	8.3	1475	8.1	8	8.1
AC-E-Sump	2019-10-07 10:18	8.3	2120	27.6	27.5	27.6
AC-E-Sump	2019-10-08 10:57	8.4	2460	15.4	15.4	15.4
AC-E-Sump	2019-10-09 16:00	8.3	1163	33.9	33.9	33.9
AC-E-Sump	2019-10-10 11:36	7.8	1795	10.9	10.8	10.9
AC-E-Sump	2019-10-11 9:50	8.2	1372	16.7	16.8	16.7
AC-E-Sump	2019-10-12 10:21	7.8	2440	6.6	6.7	6.6
AC-E-Sump	2019-10-13 10:35	8.2	1794	7.2	7.2	7.2
AC-E-Sump	2019-10-14 9:42	8.2	2210	4.3	4.4	4.3
AC-E-Sump	2019-10-15 12:00	7.3	1308	28.3	28.5	28.3
AC-E-Sump	2019-10-16 10:25	7.2	1132	9.7	9.7	9.7
AC-E-Sump	2019-10-18 11:35	8.2	1098	10.2	11.7	10.2
AC-E-Sump	2019-10-19 13:15	8.5	2100	45.9	44.9	45.9
AC-E-Sump	2019-10-20 12:50	8.1	1599	14	14.3	14
AC-E-Sump	2019-10-21 9:45	8.0	1498	OR		
AC-E-Sump	2019-10-22 10:20	7.8	2410	98	97	98
AC-E-Sump	2019-10-23 10:42	8.2	1829	11.7	11.7	11.7
AC-E-Sump	2019-10-24 13:32	8.0	2100	21.1	21.1	21.1
AC-E-Sump	2019-10-25 12:02	8.4	2300	64.1	64.1	64.1
AC-E-Sump	2019-10-26 10:05	8.3	2180	20.6	20.6	20.6

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
AC-E-Sump	2019-10-27 10:10	7.9	2400	31	31.1	31
AC-E-Sump	2019-10-28 9:42	8.1	2280	42	42.1	42
AC-E-Sump	2019-10-29 10:15	7.5	1991	88	90	88
AC-E-Sump	2019-10-30 10:15	7.2	1915	30.8	30.7	30.8
AC-E-Sump	2019-10-31 10:30	7.0	2040	64.2	64.2	64.2
AC-E-Sump	2019-11-01 11:05	7.2	2130	22.2	22.1	22.2
AC-E-Sump	2019-11-02 11:45	6.9	2420	27.2	27.2	27.2
AC-E-Sump	2019-11-03 11:55	6.4	2560	55.9	56	55.9
AC-E-Sump	2019-11-04 11:10	7.0	2220	120	124	120
AC-E-Sump	2019-11-05 12:50	7.2	2280	1336	1340	1336
AC-E-Sump	2019-11-09 10:30	6.4	3940	61.5	61.2	61.5
AC-E-Sump	2019-11-11 9:40	6.9	2540	5.9	6.1	5.9
AC-E-Sump	2019-11-13 9:37	6.6	2820	168	168	168
AC-E-Sump	2019-11-14 9:30	6.5	3100	69.3	69.8	69.3
AC-E-Sump	2019-11-21	7.8	823	12.6	12.7	12.6
AC-E-Sump	2019-11-22 3:20	7.6	1594	35.6	34.8	35.6
AC-W-Sump	2019-05-09 9:44	8.0	2150	14.3	14.4	14.3
AC-W-Sump	2019-05-10 11:18	7.9	2110	15.2	15.6	15.2
AC-W-Sump	2019-05-13 9:49	8.1	1402	21.1	20.9	21.1
AC-W-Sump	2019-05-14 9:49	8.1	1402	21.1	20.9	21.1
AC-W-Sump	2019-05-15 9:44	8.1	1281	15.6	15.8	15.6
AC-W-Sump	2019-05-16 10:10	8.1	1353	19.8	19.3	19.8
AC-W-Sump	2019-05-17 13:13	8.2	1338	6	6	6
AC-W-Sump	2019-05-21 10:21	8.2	1158	1.3	1.4	1.3
AC-W-Sump	2019-05-23 10:50	8.1	1151	2.7	2.6	2.7
AC-W-Sump	2019-05-24 9:17	8.1	1174	4.4	4.4	4.4
AC-W-Sump	2019-05-25 10:38	8.2	1167	1.3	1.2	1.3
AC-W-Sump	2019-05-26 10:25	8.0	1632	11.4	11.2	11.4
AC-W-Sump	2019-05-27 9:47	8.1	1260	1.4	1.2	1.4
AC-W-Sump	2019-05-28 9:25	8.1	1160	0.7	0.8	0.7
AC-W-Sump	2019-05-29 9:45	8.0	1395	7.6	7.8	7.6
AC-W-Sump	2019-05-30 10:45	8.2	1240	8.6	8.6	8.6
AC-W-Sump	2019-05-31 12:51	8.2	1235	8.7	8.5	8.7
AC-W-Sump	2019-06-01 9:52	8.0	1334	11.2	11.4	11.2
AC-W-Sump	2019-06-02 11:55	8.0	1929	6.6	6.3	6.6
AC-W-Sump	2019-06-03 12:07	7.9	1836	6.3	6.3	6.3
AC-W-Sump	2019-06-04 9:06	8.2	1656	48.3	46.2	48.3
AC-W-Sump	2019-06-05 9:35	7.9	1810	60	60	60
AC-W-Sump	2019-06-06 10:26	8.0	1491	71.5	70.7	71.5
AC-W-Sump	2019-06-07 10:22	8.1	1273	39.9	39.4	39.9
AC-W-Sump	2019-06-08 9:07	8.1	1205	67	65	67
AC-W-Sump	2019-06-09 9:07	8.0	1148	8	8	8
AC-W-Sump	2019-06-11 9:54	8.0	1322	2.3	2.3	2.3
AC-W-Sump	2019-06-13 10:00	7.6	2260	4.9	4.8	4.9
AC-W-Sump	2019-06-14 3:20	8.2	1674	20.5	20.7	20.5
AC-W-Sump	2019-06-15 10:45	8.2	1585	6.5	6.5	6.5
AC-W-Sump	2019-06-16 11:00	8.1	1642	19.6	19.7	19.6
AC-W-Sump	2019-06-17 10:35	8.2	1443	4.8	5	4.8
AC-W-Sump	2019-06-18 10:25	8.2	1203	8.4	8.5	8.4
AC-W-Sump	2019-06-19 9:35	8.1	1120	3	2.8	3
AC-W-Sump	2019-06-20	8.2	1155	22.3	22.1	22.3
AC-W-Sump	2019-06-21 13:55	8.1	1040	2.7	2.6	2.7
AC-W-Sump	2019-06-22 9:25	8.1	1030	2.9	2.9	2.9
AC-W-Sump	2019-06-23 9:35	8.2	1030	3.6	3.6	3.6
AC-W-Sump	2019-06-26 10:28	8.0	2110	26.4	26.1	26.4
AC-W-Sump	2019-06-27 10:17	8.2	1322	10.5	11.2	10.5
AC-W-Sump	2019-06-28 14:16	8.1	1281	19.7	19.3	19.7
AC-W-Sump	2019-06-29 12:36	8.2	1183	3.8	3.7	3.8
AC-W-Sump	2019-06-30 10:56	7.8	1689	13.8	14.7	13.8
AC-W-Sump	2019-07-01	7.1	3720	26.3	26.5	26.3
AC-W-Sump	2019-07-02 10:43	7.9	1983	8.9	9.1	8.9
AC-W-Sump	2019-07-03 10:07	7.6	1746	23.6	23.5	23.6
AC-W-Sump	2019-07-04 10:19	7.4	2030	26.2	24.6	26.2
AC-W-Sump	2019-07-05 14:37	8.0	1527	4.2	4.3	4.2

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
AC-W-Sump	2019-07-08 10:09	7.9	1398	9.5	10.4	9.5
AC-W-Sump	2019-07-10 16:18	8.1	1462	27.2	27.5	27.2
AC-W-Sump	2019-07-11 17:02	8.2	1280	14.4	14.6	14.4
AC-W-Sump	2019-07-12 18:02	8.3	1123	8.1	8.1	8.1
AC-W-Sump	2019-07-13 10:06	8.2	1248	10.7	10.7	10.7
AC-W-Sump	2019-07-14 11:00	8.2	1430	21	21	21
AC-W-Sump	2019-07-15 9:31	8.2	1347	15.4	15.1	15.4
AC-W-Sump	2019-07-16 12:15	8.2	1295	73.7	74	73.7
AC-W-Sump	2019-07-17 10:40	8.1	1489	32.4	32.7	32.4
AC-W-Sump	2019-07-20 11:40	8.1	1128	17.5	17.4	17.5
AC-W-Sump	2019-07-21 10:18	8.0	1177	8.6	8.8	8.6
AC-W-Sump	2019-07-22 9:55	8.1	1269	24.8	24.3	24.8
AC-W-Sump	2019-07-23 10:50	8.0	1323	10.2	11.3	10.2
AC-W-Sump	2019-07-24 10:30	7.7	1527	35.1	33.2	35.1
AC-W-Sump	2019-07-25 10:06	8.1	1070	28.7	28.8	28.7
AC-W-Sump	2019-07-26 13:12	8.3	1361	60.7	61.1	60.7
AC-W-Sump	2019-07-27 9:18	8.2	1325	13.3	12.8	13.3
AC-W-Sump	2019-07-28 9:06	8.1	1287	23.7	21.5	23.7
AC-W-Sump	2019-07-29 14:45	8.4	1500	42.7	38.3	42.7
AC-W-Sump	2019-07-31 9:30	8.1	1423	7.2	7.1	7.2
AC-W-Sump	2019-08-01 9:57	8.1	1537	10	9.9	10
AC-W-Sump	2019-08-02 13:38	8.2	1356	6.4	6.4	6.4
AC-W-Sump	2019-08-03 10:20	8.1	1988	35	35.2	35
AC-W-Sump	2019-08-04 9:44	8.1	1473	7.4	7.4	7.4
AC-W-Sump	2019-08-05 9:17	8.2	1417	7.4	7.3	7.4
AC-W-Sump	2019-08-06 9:40	8.1	1399	8.8	8.8	8.8
AC-W-Sump	2019-08-07 14:32	8.1	1488	7	7	7
AC-W-Sump	2019-08-08 9:37	8.1	1460	9.4	9.4	9.4
AC-W-Sump	2019-08-09 14:44	8.1	1597	12.1	12.1	12.1
AC-W-Sump	2019-08-10 9:30	8.0	1715	5.6	5.6	5.6
AC-W-Sump	2019-08-11 9:25	8.0	1473	3.3	3.3	3.3
AC-W-Sump	2019-08-12 10:58	8.2	1195	4.5	4.3	4.5
AC-W-Sump	2019-08-13 10:43	8.2	1371	17.6	17.7	17.6
AC-W-Sump	2019-08-14 11:30	8.2	1206	10.3	10.4	10.3
AC-W-Sump	2019-08-15 12:13	8.1	1156	8.2	8.1	8.2
AC-W-Sump	2019-08-16 7:09	7.8	1732	49.6	49.3	49.6
AC-W-Sump	2019-08-17 11:20	8.0	1927	34	33.9	34
AC-W-Sump	2019-08-19 11:28	6.7	3390	40.3	41.5	40.3
AC-W-Sump	2019-08-20 11:53	7.4	3290	9.9	10.2	9.9
AC-W-Sump	2019-08-21 9:42	8.2	1558	7.6	6.3	7.6
AC-W-Sump	2019-08-22 13:17	8.0	1955	19.8	18	19.8
AC-W-Sump	2019-08-23 13:25	8.0	1723	39.6	40.2	39.6
AC-W-Sump	2019-08-24 11:43	8.0	1682	11.1	10.4	11.1
AC-W-Sump	2019-08-25 9:42	7.8	2210	18.6	18.3	18.6
AC-W-Sump	2019-08-26 9:34	7.9	1790	21	20	21
AC-W-Sump	2019-08-27 10:02	8.0	1435	3.9	3.9	3.9
AC-W-Sump	2019-08-28 9:50	8.2	1662	4.6	4.5	4.6
AC-W-Sump	2019-08-30 12:58	8.3	1429	4.1	4	4.1
AC-W-Sump	2019-08-31 10:11	8.2	1309	4.1	4.1	4.1
AC-W-Sump	2019-09-01 16:03	8.2	1367	5.1	5.5	5.1
AC-W-Sump	2019-09-02 10:20	8.2	1266	4.2	4.2	4.2
AC-W-Sump	2019-09-03 11:22	8.2	1295	3.8	3.9	3.8
AC-W-Sump	2019-09-04 10:50	8.0	1596	41.7	41.7	41.7
AC-W-Sump	2019-09-06 11:13	8.3	1109	11.4	12.4	11.4
AC-W-Sump	2019-09-07 11:00	8.2	1164	6	6.1	6
AC-W-Sump	2019-09-08 9:35	8.0	1226	32	32.1	32
AC-W-Sump	2019-09-09 11:25	8.2	1309	6.4	6.6	6.4
AC-W-Sump	2019-09-14 9:55	8.3	1497	2.5	2.4	2.5
AC-W-Sump	2019-09-15 9:56	8.0	2370	11.1	11	11.1
AC-W-Sump	2019-09-18 9:10	7.8	2040	39.7	39.5	39.7
AC-W-Sump	2019-09-19 10:16	8.4	1843	2.3	2.3	2.3
AC-W-Sump	2019-09-20 9:10	8.3	1455	4.1	4.1	4.1
AC-W-Sump	2019-09-21 10:15	8.4	1711	1.6	1.7	1.6
AC-W-Sump	2019-09-24 9:50	8.4	1592	4.6	4.8	4.6

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
AC-W-Sump	2019-09-26 9:25	8.2	1405	23.7	23.9	23.7
AC-W-Sump	2019-09-28 10:10	7.8	1289	8.4	8.3	8.4
AC-W-Sump	2019-09-30 8:40	8.0	1402	5.2	5.7	5.2
AC-W-Sump	2019-10-01 10:00	8.1	1669	1.6	1.6	1.6
AC-W-Sump	2019-10-03 11:40	8.0	1549	1.6	1.5	1.6
AC-W-Sump	2019-10-04 9:58	8.0	1648	2.1	2	2.1
AC-W-Sump	2019-10-06 10:28	8.2	1653	2.6	2.6	2.6
AC-W-Sump	2019-10-09 15:45	8.1	1097	22.8	24.7	22.8
AC-W-Sump	2019-10-11 9:40	7.9	1311	13.2	12.8	13.2
AC-W-Sump	2019-10-13 10:25	8.3	1890	6.7	6.7	6.7
AC-W-Sump	2019-10-16 10:15	7.1	1286	5.3	5.1	5.3
AC-W-Sump	2019-10-17 12:10	8.0	1288	2.1	1.9	2.1
AC-W-Sump	2019-10-18 11:25	8.5	1192	1.3	1.3	1.3
AC-W-Sump	2019-10-19 13:25	7.5	1830	43.5	43.4	43.5
AC-W-Sump	2019-10-20 13:00	7.4	1516	13.7	13.7	13.7
AC-W-Sump	2019-10-29 13:15	8.4	1690	26.7	26.8	26.7
Adit-3	2019-06-13 14:18	8.1	7700	1169	1163	1169
Adit-3	2019-06-15 10:15	7.9	8350	60.8	60.3	60.8
ADIT-4	2019-01-01 14:00	8.4	3470	15.7	15.5	15.7
ADIT-4	2019-01-02 15:50	8.0	3670	14.8	14.9	14.8
ADIT-4	2019-01-03 15:45	8.0	3540	3	3.1	3
ADIT-4	2019-01-04 13:47	7.9	3510	2.2	2.2	2.2
ADIT-4	2019-01-05 14:45	7.9	3380	1.2	1.2	1.2
ADIT-4	2019-01-06 14:15	7.8	3460	1.3	1.3	1.3
ADIT-4	2019-01-07 12:41	7.8	3350	1.6	1.5	1.6
ADIT-4	2019-01-08 14:40	7.9	3560	1.4	1.2	1.4
ADIT-4	2019-01-09 14:44	8.1	3450	1.4	1.4	1.4
ADIT-4	2019-01-10 14:43	8.0	3520	1.1	1.2	1.1
ADIT-4	2019-01-11 14:33	8.2	3510	1.1	1.3	1.1
ADIT-4	2019-01-12 13:37	8.3	3850	1.6	1.6	1.6
ADIT-4	2019-01-13 13:30	8.6	3660	0.8	0.8	0.8
ADIT-4	2019-01-14 13:30	8.7	3660	0.7	0.8	0.7
ADIT-4	2019-01-15 13:58	9.4	3940	1.1	1.1	1.1
ADIT-4	2019-01-16 15:20	10.5	4200	16.1	16.2	16.1
ADIT-4	2019-01-17 15:30	10.8	201	3.9	3.8	3.9
ADIT-4	2019-01-18 14:40	11.4	48	3	3	3
ADIT-4	2019-01-19 15:50	10.5	43	21	21	21
ADIT-4	2019-01-20 14:15	11.7	4790	2.8	2.8	2.8
ADIT-4	2019-01-21 14:50	12.1	6220	3.3	2.9	3.3
ADIT-4	2019-01-22 14:40	12.7	6950	2.7	2.6	2.7
ADIT-4	2019-01-23 14:55	12.8	6610	2.6	2.7	2.6
ADIT-4	2019-01-24 15:38	11.7	4490	1.9	2	1.9
ADIT-4	2019-01-25 14:45	12.6	6780	2.7	2.8	2.7
ADIT-4	2019-01-27 16:20	5.0	2710	OR		
ADIT-4	2019-01-28 14:50	6.5	2270	1621	1478	1621
AK_Pond	2019-03-13 12:30	8.3	549	95.6	95.7	95.6
AK_Pond	2019-03-14 17:10	8.7	1183	78.9	79.1	78.9
AK_Pond	2019-03-15 11:15	8.6	1297	91.4	91.8	91.4
AK_Pond	2019-03-18 10:03	8.1	968	41	41.8	41
AK_Pond	2019-03-20 13:40	8.1	1063	18.1	18.1	18.1
AK_Pond	2019-03-25 14:10	8.5	307	14.7	15	14.7
AK_Pond	2019-03-26 12:30	8.6	239	5.4	5.4	5.4
AK_Pond	2019-03-27 14:00	8.2	359	11.9	11.3	11.9
AK_Pond	2019-03-28 11:40	8.5	405	9.7	9.6	9.7
AK_Pond	2019-03-29 14:40	8.0	2	12.2	11.5	12.2
AK_Pond	2019-04-04 11:52	8.5	719	3.6	3.5	3.6
AK_Pond	2019-04-06 11:16	8.4	723	45	44.6	45
AK_Pond	2019-04-07 11:52	8.6	739	8.5	8.4	8.5
AK_Pond	2019-04-08 13:27	8.6	795	23.4	23.2	23.4
AK_Pond	2019-04-09 11:32	8.7	828	22.2	22.1	22.2
AK_Pond	2019-04-10 11:51	8.7	840	25.4	25.5	25.4
AK_Pond	2019-04-11 12:49	8.6	866	17.5	17.5	17.5
AK_Pond	2019-07-02 13:05	11.2	1633	5.3	4.9	5.3
AK_Pond	2019-07-21 17:00	10.7	1129	7.4	7.3	7.4

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
AK_Pond	2019-07-23 8:50	9.5		17.9	19.7	17.9
AK_Pond	2019-07-24 8:35	8.1		11	11.1	11
AK_Pond	2019-07-25 7:30	9.9				
AK_Pond	2019-08-19 10:35	11.7	1067	35	34.9	35
AK_Pond	2019-08-20 13:10	10.3	929	34.4	34.8	34.4
AK_Pond	2019-08-25 10:45	6.9	927	12.3	12.4	12.3
AK_Pond	2019-08-26 12:06	6.8	939	15.3	15.1	15.3
AK_Pond	2019-08-27 12:25	7.3	924	9.3	9.3	9.3
AK_Pond	2019-08-28 12:00	7.7	932	8.3	8.4	8.3
AK_Pond	2019-09-17 11:50	9.5	838	693	693	693
AK_Pond	2019-09-20 13:44	9.6	849	58.5	58.6	58.5
AK_Pond	2019-09-21 11:45	9.2	1014	47.4	47.3	47.4
AK_Pond	2019-09-22 11:14	7.2	855	57.2	57	57.2
AK_Pond	2019-09-24 11:35	7.6	851	44.1	44.2	44.1
Area_20-21_W_Pond	2019-04-12 9:15	9.0	186	62.5	62.3	62.5
Area_30_EOP	2019-03-22 8:20	8.8	336	26.5	26.6	26.5
Area_30_EOP	2019-03-24 8:50	8.5	341	33.6	33.6	33.6
Area_30_EOP	2019-03-25 11:30	8.1	686	26	25.5	26
Area_30_EOP	2019-03-26 12:00	8.1	391	31.8	31.8	31.8
Area_30_EOP	2019-03-27 3:41	7.7	389	26	27.1	26
Area_30_EOP	2019-03-28 10:27	8.1	430	27.8	26.9	27.8
Area_30_EOP	2019-03-29 9:40	7.6	589	34.5	34.6	34.5
Area_30_EOP	2019-03-30 12:50	7.2	296	14.5	14.6	14.5
Area_30_EOP	2019-03-31 14:15	8.6	385	13	13	13
Area_30_EOP	2019-04-01 14:14	8.7	435	12.9	12.9	12.9
Area_30_EOP	2019-04-02 14:10	8.7	416	10.9	11	10.9
Area_30_EOP	2019-04-03 14:43	8.6	440	10.1	10.2	10.1
Area_30_EOP	2019-04-04 14:23	8.4	414	10.3	10.8	10.3
Area_30_EOP	2019-04-05 10:06	8.2	555	35.5	35.4	35.5
Area_30_EOP	2019-04-06 13:26	8.2	539	39.5	40.4	39.5
Area_30_EOP	2019-04-07 14:12	8.3	524	9.9	10	9.9
Area_30_EOP	2019-04-08 14:11	8.3	604	38.6	38.9	38.6
Area_30_EOP	2019-04-09 13:37	8.3	594	35.7	35.9	35.7
Area_30_EOP	2019-04-10 13:47	8.4	630	33	32.4	33
Area_30_EOP	2019-04-11 14:26	7.7	659	6.8	6.4	6.8
Area_30_EOP	2019-04-12 11:00	9.5	562	19.9	19.9	19.9
Area_30_EOP	2019-04-13 13:36	8.5	633	23.9	23.9	23.9
Area_30_EOP	2019-04-14 14:10	8.5	648	34.7	33.5	34.7
Area_30_EOP	2019-04-15 13:46	8.5	630	20.9	20.6	20.9
Area_30_EOP	2019-04-16 14:25	8.3	661	22.9	23	22.9
Area_30_EOP	2019-04-17 14:40	8.2	719	18.1	18.1	18.1
Area_30_EOP	2019-04-18 11:30	8.3	739	22	21	22
Area_30_EOP	2019-04-19 13:12	8.4	752	21	20.9	21
Area_30_EOP	2019-04-20 13:42	8.4	780	15.9	16	15.9
Area_30_EOP	2019-04-21 13:20	8.4	808	13	13.3	13
Area_30_EOP	2019-04-22 14:23	8.4	729	12.6	12.4	12.6
Area_30_EOP	2019-04-23 14:18	8.4	787	20.5	20.2	20.5
Area_30_EOP	2019-04-24 14:25	8.3	892	13.4	13.5	13.4
Area_30_EOP	2019-04-25 9:33	8.5	733	12.2	12.2	12.2
Area_30_EOP	2019-04-26 9:15	8.3	986	9.3	9.3	9.3
Area_30_EOP	2019-04-27 14:10	8.3	918	9.9	9.8	9.9
Area_30_EOP	2019-04-28 11:30	8.1	953	7.7	7.8	7.7
Area_30_EOP	2019-04-29 13:20	8.2	816	18.1	18.1	18.1
Area_30_EOP	2019-04-30 2:20	8.2	833	8.2	8.2	8.2
Area_30_EOP	2019-05-02 14:20	8.2	846	7.2	7.1	7.2
Area_30_EOP	2019-05-03 11:00	8.1	957	9.3	9.3	9.3
Area_30_EOP	2019-05-04 13:19	8.2	803	16	15.9	16
Area_30_EOP	2019-05-05 12:15	8.1	971	16.2	16.1	16.2
Area_30_EOP	2019-05-06 12:40	8.2	787	16	15.8	16
Area_30_EOP	2019-05-07 13:28	8.2	893	8.3	8.4	8.3
Area_30_EOP	2019-05-08 14:01	8.2	889	7.7	7.9	7.7
Area_30_EOP	2019-05-09 9:45	8.2	880	7.7	7.7	7.7
Area_30_EOP	2019-05-11 8:25	8.3	11900	8.4	8.1	8.4
Area_30_EOP	2019-05-13 9:30	8.1	935	5.8	5.7	5.8

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
Area_30_EOP	2019-05-14 9:45	8.1	981	4.5	4.4	4.5
Area_30_EOP	2019-05-15 13:49	8.4	1090	5.4	5.4	5.4
Area_30_EOP	2019-05-16 10:05	8.3	1014	4.6	4.6	4.6
Area_30_EOP	2019-05-17 10:36	8.1	1340	8.2	7.8	8.2
Area_30_EOP	2019-05-19 10:21	8.3	1046	13.5	13.6	13.5
Area_30_EOP	2019-05-20 9:33	8.0	1077	8.9	9.2	8.9
Area_30_EOP	2019-05-21 9:30	8.2	1191	4.4	4.4	4.4
Area_30_EOP	2019-05-23 9:20	7.9	1264	6.4	6	6.4
Area_30_EOP	2019-05-24 9:10	8.3	1240	7.4	6.9	7.4
Area_30_EOP	2019-05-25 9:30	8.2	1250	6.1	5.5	6.1
Area_30_EOP	2019-05-26 9:35	8.0	1256	5	5	5
Area_30_EOP	2019-05-27 9:15	8.1	1274	3.9	3.9	3.9
Area_30_EOP	2019-05-28 9:35	7.9	1289	3.5	3.6	3.5
Area_30_EOP	2019-05-29 12:15	8.2	1104	2.9	2.9	2.9
Area_30_EOP	2019-05-30 13:51	8.1	1131	2.7	2.8	2.7
Area_30_EOP	2019-05-31 9:30	7.8	1362	4	3.9	4
Area_30_EOP	2019-06-01 9:50	7.7	1398	4.1	4.1	4.1
Area_30_EOP	2019-06-02 9:45	8.0	1402	3.2	3.2	3.2
Area_30_EOP	2019-06-03 9:30	7.8	1464	2.9	2.9	2.9
Area_30_EOP	2019-06-04 9:35	6.5	1540	8.2	8.2	8.2
Area_30_EOP	2019-06-05 12:52	8.4	1178	9.3	9.6	9.3
Area_30_EOP	2019-06-06 13:35	8.4	1146	12.4	12.7	12.4
Area_30_EOP	2019-06-07 10:15	8.0	1491	9.3	9.4	9.3
Area_30_EOP	2019-06-08 8:55	8.0	1254	8.4	8.4	8.4
Area_30_EOP	2019-06-09 8:50	7.9	1060	4.7	4.7	4.7
Area_30_EOP	2019-06-10 9:10	8.0	1104	3.3	3.3	3.3
Area_30_EOP	2019-06-11 9:35	8.0	1113	4.4	4.3	4.4
Area_30_EOP	2019-06-13	7.8	1162	4.4	4.4	4.4
Area_30_EOP	2019-06-14 11:20	7.9	1150	3.7	3.7	3.7
Area_30_EOP	2019-06-16 10:10	7.8	1183	3.8	3.9	3.8
Area_30_EOP	2019-06-18 8:40	7.9	1121	4.9	4.9	4.9
Area_30_EOP	2019-06-18 8:45	7.9	1121	4.9	4.9	4.9
Area_30_EOP	2019-06-24 9:10	7.9	1466	17.3	17.1	17.3
Area_30_EOP	2019-06-25 9:15	8.0	854	14.7	15	14.7
Area_30_EOP	2019-06-26 9:35	7.8	918	9.6	11	9.6
Area_30_EOP	2019-06-27 9:20	7.8	989	40.8	36.8	40.8
Area_30_EOP	2019-06-28 6:35	8.6	1082	20.5	20.2	20.5
Area_30_EOP	2019-06-29 8:35	8.4	1004	2.9	2.8	2.9
Area_30_EOP	2019-06-30 9:35	7.8	720	13.9	14	13.9
Area_30_EOP	2019-07-01 16:51	7.4	691	17.1	17	17.1
Area_30_EOP	2019-07-02 9:15	7.7	831	7.4	7.3	7.4
Area_30_EOP	2019-07-03 9:10	7.6	1046	6	6.1	6
Area_30_EOP	2019-07-04 9:23	7.4	1057	4.5	4.6	4.5
Area_30_EOP	2019-07-05 9:15	7.4	17900	6.7	6.9	6.7
Area_30_EOP	2019-07-06 9:50	8.1	1214	4.4	4.1	4.4
Area_30_EOP	2019-07-07	7.8	1209	11.4	10.7	11.4
Area_30_EOP	2019-07-07 9:00	7.8	1209	11.4	10.7	11.4
Area_30_EOP	2019-07-08 9:20	7.4	1208	4.6	4.2	4.6
Area_30_EOP	2019-07-20 16:30	8.1	1256	7	7	7
Area_30_EOP	2019-07-21 9:35	7.8	1260	6.9	6.9	6.9
Area_30_EOP	2019-07-22 8:45	7.9	1277	5.5	5.5	5.5
Area_30_EOP	2019-07-23 9:30	7.8	1230	7.2	7.2	7.2
Area_30_EOP	2019-07-24 9:30	8.0	1242	8.4	8.4	8.4
Area_30_EOP	2019-07-25 9:05	8.3	1270	11.7	11.6	11.7
Area_30_EOP	2019-08-09 12:27	8.3	1084	13.6	13.5	13.6
Area_30_EOP	2019-08-18 11:30	8.4	702	68.6	68.4	68.6
Area_30_EOP	2019-08-20 9:05	8.4	977	9	9.6	9
Area_30_EOP	2019-09-16 9:30	8.0	1030	37.5	37.7	37.5
Area_30_EOP	2019-10-08 13:55	8.3	2360	5.4	5.4	5.4
Area_30_EOP	2019-10-24 12:05	8.5	1242	9.7	9.6	9.7
Area_30_EOP	2019-11-05 15:15	8.0	1561	7.6	7.5	7.6
Area_A_N_Ditch	2019-01-26 14:40	8.6	61.8	61	61	61
Area_A_N_Ditch	2019-02-22 16:30	8.1	780	16.7	16.8	16.7
Area_A_N_Ditch	2019-02-23 11:40	7.9	867	5.4	5.4	5.4



Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
Area_A_N_Ditch	2019-02-24 11:30	7.8	709	5.4	5.4	5.4
Area_A_N_Ditch	2019-02-25 11:55	8.1	820	7.7	7.8	7.7
Area_A_N_Ditch	2019-03-11 14:45	7.2	825	4	4	4
Area_A_N_Ditch	2019-03-19 13:15	8.7	428	OR		
Area_A_N_Ditch	2019-03-23 16:40	8.0	202	54.6	53.4	54.6
Area_A_N_Ditch	2019-03-25 15:10	8.3	130	43.8	38.3	43.8
Area_A_N_Ditch	2019-03-27 15:50	7.9	298	0.8	0.8	0.8
Area_A_N_Ditch	2019-03-28 13:25	8.2	200	18.2	18.2	18.2
Area_A_N_Ditch	2019-03-29 15:35	7.5	478	54.7	54.9	54.7
Area_A_N_Ditch	2019-03-30 1:00	7.5	362	45.9	46.1	45.9
Area_A_N_Ditch	2019-03-31 12:00	7.6	380	21.9	22	21.9
Area_A_N_Ditch	2019-04-01 13:38	7.4	548	50.6	50.6	50.6
Area_A_N_Ditch	2019-04-02 13:50	7.6	522	17.9	17.5	17.9
Area_A_N_Ditch	2019-04-03 14:25	7.4	5690	7.8	7.7	7.8
Area_A_N_Ditch	2019-04-04 13:25	7.5	680	8.5	9	8.5
Area_A_N_Ditch	2019-04-05 14:01	7.4	592	3.3	3.4	3.3
Area_A_N_Ditch	2019-04-06 12:50	7.6	692	11.9	11.9	11.9
Area_A_N_Ditch	2019-04-07 13:52	7.5	788	24.9	24.8	24.9
Area_A_N_Ditch	2019-04-08 10:32	7.6	589	7	6.9	7
Area_A_N_Ditch	2019-04-09 13:00	7.6	546	7	6.8	7
Area_A_N_Ditch	2019-04-10 13:13	7.6	657	6.8	6.6	6.8
Area_A_N_Ditch	2019-04-15 13:55	8.0	488	9.7	9.7	9.7
Area_A_N_Ditch	2019-04-16 15:55	7.4	394	7.5	7.3	7.5
Area_A_N_Ditch	2019-04-17 15:11	7.8	737	6.6	6.5	6.6
Area_A_N_Ditch	2019-04-18 11:42	7.9	685	11	11	11
Area_A_N_Ditch	2019-04-19 13:38	8.0	746	14.3	14.3	14.3
Area_A_N_Ditch	2019-04-22 14:16	7.8	777	8.4	8.2	8.4
Area_A_N_Ditch	2019-04-25 2:15	7.7	706	7	7.2	7
Area_A_N_Ditch	2019-05-07 12:56	7.4	862	11.3	11.1	11.3
Area_A_N_Ditch	2019-05-25 9:00	7.7	706	9.8	9.2	9.8
Area_A_N_Ditch	2019-05-26 15:00	7.1	712	10.1	9.5	10.1
Area_A_N_Ditch	2019-05-28 12:40	7.9	655	13.8	11.4	13.8
Area_A_N_Ditch	2019-07-11 10:00	7.4	768	9.8	9.6	9.8
Area_A_N_Ditch	2019-08-03 14:45	7.6	942	17	16.7	17
Area_A_N_Ditch	2019-09-01 12:20	7.4	719	12.2	12	12.2
Area_A_N_Ditch	2019-09-18 12:00	7.3	637	2.8	2.8	2.8
Area_A_N_Ditch	2019-10-03 17:30	7.9	783	8.7	8.8	8.7
Area_A_N_Ditch	2019-11-05 14:30	7.8	502	4.7	4.7	4.7
Area_A_N_Ditch	2019-12-05 10:30	7.1	586	1.8	1.9	1.8
Area_A_Topsoil_Sump	2019-01-26 14:45	7.6	178.3	11.8	11.8	11.8
CVC_BOILER	2019-01-17 15:35	11.3	2600	OR		
CVC_BT	2019-02-15 14:30	7.9	1336	15.7	15.8	15.7
CVC_BT	2019-02-20 10:50	6.8	1529	11	9.8	11
CVC_BT	2019-02-28 17:00	5.8	1534			
CVC_BT	2019-03-13 9:00	6.1	1515	6.4	6.3	6.4
CVC_BT	2019-03-13 9:30	6.1	1515	6.4	6.3	6.4
CVC_BT	2019-03-14 11:00	6.6	1460	5.4	4	5.4
CVC_BT	2019-03-15 10:20	6.4	2590	2.6	2.4	2.6
CVC_BT	2019-03-19 18:00	6.5	1630	4.4	4.4	4.4
CVC_BT	2019-03-21 15:30	6.5	1703	21	19.8	21
CVC_BT	2019-03-22 12:15	6.6	1360	13	12.9	13
CVC_BT	2019-04-05 9:40	7.3	1446	57	55	57
CVC_BT	2019-04-11 7:45	7.2	1382	8.8	8.5	8.8
CVC_BT	2019-04-12 9:30	6.9	1419	5.3	4.9	5.3
CVC_BT	2019-05-05 9:05	6.7	2110	18	16.9	18
CVC_BT	2019-11-24 17:35	6.6				
CVC_TRUCKS	2019-01-17 15:24	8.4	207	10.5	10	10.5
DOC_S_Sump	2019-01-01 13:15	7.9	1407	3.2	3	3.2
DOC_S_Sump	2019-01-09 14:05	8.2	1451	31.1	31.3	31.1
DOC_S_Sump	2019-01-19 15:15	8.5	1166	13.5	11.8	13.5
DOC_S_Sump	2019-02-04 14:26	8.4	1199	19	16.9	19
DOC_S_Sump	2019-02-06 12:55	8.7	1255	3.5	3.5	3.5
DOC_S_Sump	2019-02-17 15:05	8.4	1182	4.4	3.7	4.4
DOC_S_Sump	2019-02-20 15:40	8.4	1173	3.5	3.5	3.5

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
DOC_S_Sump	2019-02-26 14:20	9.1	1135	2.9	2.7	2.9
DOC_S_Sump	2019-03-10 15:35	8.4	970	2.6	2.6	2.6
DOC_S_Sump	2019-03-21 12:10	8.0	1046	2.3	2	2.3
DOC_S_Sump	2019-03-27 9:22	8.3	1178	2.2	2.3	2.2
DOC_S_Sump	2019-04-03 9:33	7.9		4.6	4.5	4.6
DOC_S_Sump	2019-04-10 10:45	8.4	1303	8.2	8.2	8.2
DOC_S_Sump	2019-04-17 9:42	8.3	1357	6.6	6.2	6.6
DOC_S_Sump	2019-04-24 9:20	8.5	1260	7.1	6.8	7.1
DOC_S_Sump	2019-05-08 11:25	8.2	1239	3.1	3.1	3.1
DOC_S_Sump	2019-05-15 14:20	8.4	1156	5	4.6	5
DOC_S_Sump	2019-06-04 12:40	8.4	1378	7.3	7.7	7.3
DOC_S_Sump	2019-06-20 13:20	8.3	1143	6	6	6
DOC_S_Sump	2019-06-28 10:05	8.0	1344	4.2	4.2	4.2
DOC_S_Sump	2019-07-08 10:30	8.8	1131	12	11.6	12
DOC_S_Sump	2019-07-10 12:25	8.1	1208	9.4	9.4	9.4
DOC_S_Sump	2019-07-16 15:40	8.1	1182	6.8	6.7	6.8
DOC_S_Sump	2019-07-24 14:15	8.1	1393	17.9	18.1	17.9
DOC_S_Sump	2019-07-30 12:55	8.0	1540	7.3	7.3	7.3
DOC_S_Sump	2019-08-16 10:10	8.1	1221	17.1	17.6	17.1
DOC_S_Sump	2019-09-11 13:00	8.4	1785	13.4	13.4	13.4
DOC_S_Sump	2019-09-21 9:30	8.0	1164	14.1	14.1	14.1
DOC_S_Sump	2019-11-07 11:55	8.1	1286	16.6	16.7	16.6
DOC_Upper_N_Sump	2019-01-01 13:45	7.6	5000	64.4	64	64.4
DOC_Upper_N_Sump	2019-01-09 14:25	7.9	3520	35.4	36.3	35.4
DOC_Upper_N_Sump	2019-02-17 14:43	7.4	9720	1.8	1.9	1.8
DOC_Upper_N_Sump	2019-02-20 15:15	7.5	10060	951	950	951
DOC_Upper_N_Sump	2019-03-02 14:30	7.6	7800	785	785	785
DOC_Upper_N_Sump	2019-03-10 15:45	7.0	7780	13.6	13.4	13.6
DOC_Upper_N_Sump	2019-03-21 11:50	8.1	4380	50	50.6	50
DOC_Upper_N_Sump	2019-03-27 9:36	7.8	4500	9	9	9
DOC_Upper_N_Sump	2019-04-03 9:38	8.3	4440	4.8	4.9	4.8
DOC_Upper_N_Sump	2019-04-04 9:45	8.2	4670	3.9	3.8	3.9
DOC_Upper_N_Sump	2019-04-10 10:20	8.6	1928	16.1	16.3	16.1
DOC_Upper_N_Sump	2019-04-17 9:52	7.5	862	8.2	8.4	8.2
DOC_Upper_N_Sump	2019-04-24 9:30	7.9	10420	43.1	42.7	43.1
DOC_Upper_N_Sump	2019-05-05 9:45	7.9	5040	4.6	4.6	4.6
DOC_Upper_N_Sump	2019-05-08 10:45	7.6	6860	4.2	4	4.2
DOC_Upper_N_Sump	2019-05-15 9:48	7.5	3040	23.9	24.1	23.9
DOC_Upper_N_Sump	2019-05-28 11:00	8.0	1570	3.3	3.3	3.3
DOC_Upper_N_Sump	2019-06-05 10:15	7.6	13080	2.3	2.3	2.3
DOC_Upper_N_Sump	2019-07-07 10:00	8.2	5580	12.6	12.5	12.6
DOC_Upper_N_Sump	2019-07-12 11:55	8.1	6510	9.9	9.8	9.9
DOC_Upper_N_Sump	2019-07-18 14:45	8.4	6820	11.8	11.6	11.8
DOC_Upper_N_Sump	2019-07-24 13:50	8.2	6340	17.9	17.8	17.9
DOC_Upper_N_Sump	2019-07-30 13:30	8.1	7690	9.3	9.3	9.3
DOC_Upper_N_Sump	2019-08-06 13:20	8.0	8120	9.1	9.2	9.1
DOC_Upper_N_Sump	2019-08-18 16:10	8.8	2640	80	79.8	80
DOC_Upper_N_Sump	2019-09-11 13:20	7.8	3890	7.5	7.4	7.5
DOC_Upper_N_Sump	2019-10-02 14:10	7.6	9660	2.3	2.4	2.3
DOP_BT_East	2019-03-13 13:30	9.8	4330	203	200	203
DOP_BT_East	2019-05-08 12:05	8.6	4290	50.6	50.1	50.6
DOP_BT_East	2019-05-16 11:10	8.5	4640	34.1	34.5	34.1
DOP_BT_East	2019-05-28 11:20	8.3	4890	6.5	6.6	6.5
DOP_BT_East	2019-06-05 11:00	8.3	7790	38.4	38.6	38.4
DOP_BT_East	2019-06-20 13:35	8.6	3110	58	58	58
DOP_BT_East	2019-06-27 14:45	8.5	6020	51	51	51
DOP_BT_East	2019-07-06 12:58	8.5	2220	1726	1708	1726
DOP_BT_East	2019-07-12 12:20	8.2	3870	37.6	37.8	37.6
DOP_BT_East	2019-07-19 13:50	8.1	3660	39.9	40	39.9
DOP_BT_East	2019-07-28 13:50	8.2	3600	16.8	16.9	16.8
DOP_BT_East	2019-07-30 13:50	10.0	4300	36.7	36.2	36.7
DOP_BT_East	2019-08-04 15:50	8.7	5140			
DOP_BT_East	2019-08-07 12:10	11.8	6790	4073	4061	4073
DOP_BT_East	2019-08-18 16:15	10.2	3680	OR		

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
DOP_BT_East	2019-09-01 12:50	8.6	4770	937	937	937
DOP_BT_East	2019-11-07 11:05	8.3	7360	13.9	13.8	13.9
DOP_BT_East	2019-12-02 14:05	8.4	3790	21.5	21.7	21.5
DOP_BT_West	2019-06-05 10:40	7.7	11750	12.4	12.5	12.4
DOP_BT_West	2019-06-15 13:50	7.9	6450	7.6	7.6	7.6
DOP_BT_West	2019-06-21 10:55	7.9	7550	10.8	10.8	10.8
DOP_BT_West	2019-06-27 14:55	8.0	12860	22.6	22	22.6
DOP_BT_West	2019-07-06 12:45	7.4	8280	27.4	27.8	27.4
DOP_BT_West	2019-07-18 15:05	7.5	8780	58.1	58.3	58.1
DOP_BT_West	2019-07-28 14:00		12800	11.1	10.4	11.1
DOP_BT_West	2019-08-01 13:15	8.2	11410	9.6	9.5	9.6
DOP_BT_West	2019-08-04 16:00	8.2	10470			
DOP_BT_West	2019-11-07 11:30	8.6	8050	46.9	47	46.9
DOP_BT_West	2019-12-02 14:25	8.6	2970	40.8	40.7	40.8
DTIP_BT_1	2019-01-05 15:08	8.4	668	1360	1357	1360
DTIP_BT_1	2019-01-12 14:25	8.7	490	1355	1377	1355
DTIP_BT_1	2019-01-15 14:25	8.7	526	2130	2130	2130
DTIP_BT_1	2019-02-23 16:20	8.7	281	14	13.9	14
DTIP_BT_1	2019-03-09 15:15	8.2	520	32.7	33.5	32.7
DTIP_BT_1	2019-03-12 10:45	8.9	571	950	948	950
DTIP_BT_1	2019-04-10 12:15	8.7	566	782	782	782
DTIP_BT_2	2019-03-13 11:40	8.6	408	18.4	18.4	18.4
DTIP_BT_2	2019-04-10 11:43	8.6	598	664	664	664
DTIP_BT_2	2019-05-28 11:35	8.1	7100	14.8	14.1	14.8
DTIP-DW	2019-01-05 15:00	5.3	3550	79.3	80.3	79.3
DTIP-DW	2019-01-12 14:05	6.8	3700	61.6	62	61.6
DTIP-DW	2019-01-15 14:15	7.2	3830	47.7	49.4	47.7
DTIP-DW	2019-01-29 14:44	4.8	3130	8.5	8.5	8.5
DTIP-DW	2019-03-23 11:05	8.2	1196	31.9	31.8	31.9
DTIP-DW	2019-03-29 10:03	7.6	246	139	140	139
DTIP-DW	2019-04-04 10:10	7.6	3240	54.3	54.2	54.3
DTIP-DW	2019-04-09 11:00	8.1	2180	29.5	29.4	29.5
DTIP-DW	2019-04-19 9:15	8.1	2100	103	102	103
DTIP-DW	2019-05-02 9:35	7.4	1522	18.5	18.5	18.5
DTIP-DW	2019-05-09 11:50	7.4	2200	5.4	5.4	5.4
DTIP-DW	2019-05-29 11:40	7.7	3700	47	46.7	47
DTIP-DW	2019-06-06 10:41	8.0	2530	92	95	92
DTIP-DW	2019-06-11 12:10	8.6	5480	1874	1873	1874
DTIP-DW	2019-06-20 14:10	8.1	4140	38	38.1	38
DTIP-DW	2019-06-28 11:28	8.3	3490	OR		
DTIP-DW	2019-07-07 11:30	8.3	1614	29.8	29.5	29.8
DTIP-DW	2019-07-10 13:35	8.2	1617	51	48	51
DTIP-DW	2019-07-16 16:05	8.2	1845	OR		
DTIP-DW	2019-07-27 12:35	8.4	1752	1287	1287	1287
DTIP-DW	2019-07-31 13:45	8.2	2100	83.8	84.9	83.8
DTIP-DW	2019-08-07 15:55	8.2	2060	1153	1143	1153
DTIP-DW	2019-08-19 14:25	8.2	1581	3855	3902	3855
DTIP-DW	2019-09-16 14:15	8.4	1474	800	799	800
L3-DC-DS	2019-03-21 16:55	8.1	188.3	621	621	621
L3-DC-DS	2019-03-22 9:55	8.0	138.5	12.5	12.5	12.5
L3-DC-DS	2019-03-23 13:15	8.1	150.3	51	47	51
L3-DC-DS	2019-03-24 14:00	8.1	157	47.3	46.9	47.3
L3-DC-DS	2019-03-25 12:10	8.0	165	30.6	30.7	30.6
L3-DC-DS	2019-03-26 12:15	8.1	172	32.4	31.6	32.4
L3-DC-DS	2019-03-27 12:40	8.2	176	55.5	56.5	55.5
L3-DC-DS	2019-03-28 11:02	8.2	242	64.2	63.7	64.2
L3-DC-DS	2019-03-29 11:40	7.5	209	70.1	69.8	70.1
L3-DC-DS	2019-03-30 11:30	8.6	222	37.6	40.9	37.6
L3-DC-DS	2019-03-31 11:20	8.2	222	28.2	27	28.2
L3-DC-DS	2019-04-01 11:45	8.2	237	28.1	28	28.1
L3-DC-DS	2019-04-02 12:34	8.2	247	19.7	19.4	19.7
L3-DC-DS	2019-04-03 11:54	8.2	263	16.2	16.3	16.2
L3-DC-DS	2019-04-04 12:42	8.3	258	15.7	16.2	15.7
L3-DC-DS	2019-04-05 12:43		276	18.1	18.3	18.1

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
L3-DC-DS	2019-04-06 13:06	8.2	290	15.6	15.6	15.6
L3-DC-DS	2019-04-07 13:08	8.2	357	9.8	9.8	9.8
L3-DC-DS	2019-04-09 14:03	8.2	329	12	11.9	12
L3-DC-DS	2019-04-10 15:20	8.2	318	12.5	12.9	12.5
L3-DC-DS	2019-04-11 15:57	8.3	418	15.8	15.5	15.8
L3-DC-DS	2019-04-12 14:20	8.2	354	14	13.9	14
L3-DC-DS	2019-04-13 12:40	8.2	387	11.8	11.3	11.8
L3-DC-DS	2019-04-14 12:55	8.2	398	13.1	11.9	13.1
L3-DC-DS	2019-04-15 12:39	8.2	465	13	13.1	13
L3-DC-DS	2019-04-16 13:14	8.2	499	8.6	8.5	8.6
L3-DC-DS	2019-04-17 13:22	8.1	507	8.4	8.2	8.4
L3-DC-DS	2019-04-18 13:34	8.2	508	8.7	8.4	8.7
L3-DC-DS	2019-04-19 11:59	8.1	534	10.3	10.4	10.3
L3-DC-DS	2019-04-20 11:47	8.2	562	9.2	8.4	9.2
L3-DC-DS	2019-08-18 17:30	8.2	1098	20.3	20.3	20.3
L3-DC-DS	2019-08-20 15:00	8.3	935	16.2	17.3	16.2
L3-DC-DS	2019-11-17 16:20	8.3	724	2240	2246	2240
L3-DC-US	2019-03-21 16:45	8.1	192.5	114	114	114
L3-DC-US	2019-03-22 9:50	8.1	138.8	14	14	14
L3-DC-US	2019-03-23 13:10	8.2	153.3	49	49.4	49
L3-DC-US	2019-03-24 13:50	8.2	153.7	52.7	51.2	52.7
L3-DC-US	2019-03-25 12:00	8.2	162	31.5	31.3	31.5
L3-DC-US	2019-03-26 12:00	8.2	172	31.7	31.7	31.7
L3-DC-US	2019-03-27 12:40	8.2	182	55.9	55.6	55.9
L3-DC-US	2019-03-28 11:05	8.1	200	46	42	46
L3-DC-US	2019-03-29 11:36	7.6	2110	63.5	64	63.5
L3-DC-US	2019-03-30 11:15	8.3	244	41.7	42.5	41.7
L3-DC-US	2019-03-31 11:15	8.3	220	29.8	29.7	29.8
L3-DC-US	2019-04-01 12:00	8.2	240	28.9	28.9	28.9
L3-DC-US	2019-04-02 12:28	8.2	250	17.2	17.1	17.2
L3-DC-US	2019-04-03 11:51	8.3	260	14.1	14.3	14.1
L3-DC-US	2019-04-04 12:38	8.4	261	14.7	14.7	14.7
L3-DC-US	2019-04-05 12:40	8.4	269	18.5	18.5	18.5
L3-DC-US	2019-04-06 13:10	8.2	294	18.2	18.1	18.2
L3-DC-US	2019-04-07 13:13	8.1	350	10	9.9	10
L3-DC-US	2019-04-08 13:39	8.1	324	12.4	12.3	12.4
L3-DC-US	2019-04-09 14:07	8.1	320	11.1	11	11.1
L3-DC-US	2019-04-10 15:30	8.3	322	12.8	12.8	12.8
L3-DC-US	2019-04-11 16:00	8.3	344	22	21	22
L3-DC-US	2019-04-12 14:15	8.2	375	15.4	14.7	15.4
L3-DC-US	2019-04-13 12:35	8.4	394	17.8	17.3	17.8
L3-DC-US	2019-04-14 12:50	8.1	403	28	26.7	28
L3-DC-US	2019-04-15 12:33	8.2	475	12.9	12.8	12.9
L3-DC-US	2019-04-16 13:10	8.2	192	8.7	8.8	8.7
L3-DC-US	2019-04-17 13:20	8.2	509	8.6	8.6	8.6
L3-DC-US	2019-04-18 13:29	8.3	508	8.7	8.8	8.7
L3-DC-US	2019-04-19 11:54	8.2	542	12.1	12.1	12.1
L3-DC-US	2019-04-20 11:42	8.3	581	13.9	13.6	13.9
L3-DC-US	2019-08-18 17:40	8.2	10890	23.1	23.5	23.1
L3-DC-US	2019-08-20 15:05	8.3	959	18.7	18.7	18.7
L3-DC-US	2019-11-17 16:40	8.1	897	OR		
L5_EP_IN	2019-03-19 15:05	7.8	945	OR		
L5_EP_IN	2019-04-12 15:55	7.8	1322	22.2	22	22.2
L5_EP_IN	2019-04-13 10:45	8.1	1274	33.1	33	33.1
L5_EP_IN	2019-04-14 10:30	8.0	1010	69.3	68.4	69.3
L5_EP_IN	2019-04-15 9:12	8.0	1202	18.6	18.4	18.6
L5_EP_IN	2019-04-16 9:45	8.0	1161	46.2	49.3	46.2
L5_EP_IN	2019-04-17 10:37	8.0	1147	36.8	35.2	36.8
L5_EP_IN	2019-04-18 9:22	8.1	1156	11.2	10.6	11.2
L5_EP_IN	2019-04-19 9:33	8.1	1190	10.1	10.2	10.1
L5_EP_IN	2019-04-21 9:44	8.1	1251	8	7.8	8
L5_EP_IN	2019-04-22 10:55	8.0	1258	12	11.9	12
L5_EP_IN	2019-04-23 10:00	8.2	1271	8.9	8.8	8.9
L5_EP_IN	2019-04-24 10:10	8.2	1297	6.5	6.4	6.5

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
L5_EP_IN	2019-05-02 10:20	8.0	1113	1075	1075	1075
L5_EP_IN	2019-05-03 13:48	8.3	1132	12	11.9	12
L5_EP_IN	2019-05-04 9:40	8.2	1070	47.6	47.3	47.6
L5_EP_IN	2019-05-05 11:12	8.2	1113	47.5	46.9	47.5
L5_EP_IN	2019-05-06 10:00	8.2	1214	47.5	47.8	47.5
L5_EP_IN	2019-05-08 13:13	8.0	926	20.1	21.1	20.1
L5_EP_IN	2019-05-09 12:40	8.0	807	OR		
L5_EP_IN	2019-05-13 12:10	8.2	722	48.8	52.1	48.8
L5_EP_IN	2019-05-14 11:15	8.2	672	39	42	39
L5_EP_IN	2019-05-15 12:50	8.2	556	44.5	47.9	44.5
L5_EP_IN	2019-05-16 13:00	8.1	805	87	87	87
L5_EP_IN	2019-05-19 9:47	8.3	586	22	22.7	22
L5_EP_IN	2019-05-20 12:46	9.0	1370	OR		
L5_EP_IN	2019-05-25 10:35	8.7	1740	32.1	29.8	32.1
L5_EP_IN	2019-05-28 12:50	8.1	1635	1703	1702	1703
L5_EP_IN	2019-05-30 9:35	8.6	1745	OR		
L5_EP_IN	2019-06-01 11:05	7.8	1293	71	70	71
L5_EP_IN	2019-06-02 11:20	8.3	1534	24.5	24.4	24.5
L5_EP_IN	2019-06-03 10:50	7.8	1582	8.3	8.3	8.3
L5_EP_IN	2019-06-04 11:20	8.3	1943			
L5_EP_IN	2019-06-05 11:50	7.3	1789	17.6	17.8	17.6
L5_EP_IN	2019-06-06 11:15	7.1	1621	9.3	9.4	9.3
L5_EP_IN	2019-06-07 11:30	8.1				
L5_EP_IN	2019-06-08 10:15	8.3	11740			
L5_EP_IN	2019-06-09 10:10	7.5	1456			
L5_EP_IN	2019-06-10 10:35	7.3	1327			
L5_EP_IN	2019-06-11 12:00	7.6	1288	5.8	5.8	5.8
L5_EP_IN	2019-06-13 12:15	7.2	1492	2.7	2.7	2.7
L5_EP_IN	2019-06-14 12:55	7.4	1305	46.5	46.6	46.5
L5_EP_IN	2019-06-16 13:55	7.3	1459	3.1	3.2	3.1
L5_EP_IN	2019-06-17 14:00	7.1	1360	3.6	3.7	3.6
L5_EP_IN	2019-06-24 10:35	8.6	1531			
L5_EP_IN	2019-06-25 13:25	7.6	3550	OR		
L5_EP_IN	2019-06-27 13:52	7.5	1620	10.2	10.2	10.2
L5_EP_IN	2019-06-28 10:35	8.3	1777	45.3	45.7	45.3
L5_EP_IN	2019-06-30 16:17	8.0	2910	971	966	971
L5_EP_IN	2019-07-01 11:25	8.7	1510	782	782	782
L5_EP_IN	2019-07-03 13:17	8.4	1050	18.5	18.1	18.5
L5_EP_IN	2019-07-05 11:15	8.6	995	13.2	13.6	13.2
L5_EP_IN	2019-07-06 13:35	8.2	1437	689	696	689
L5_EP_IN	2019-07-07 11:49	8.3	1454	774	745	774
L5_EP_IN	2019-07-08 12:10	7.8	1408	81.6	85.1	81.6
L5_EP_IN	2019-07-12 16:05	7.8	1476			
L5_EP_IN	2019-07-15 13:07	8.6	1403			
L5_EP_IN	2019-07-16 13:23	7.9	1396	52.5	53	52.5
L5_EP_IN	2019-07-17 15:04	7.9	1397	19	19.1	19
L5_EP_IN	2019-07-18 13:55	8.1	941	46.2	46.3	46.2
L5_EP_IN	2019-07-19 17:01	7.8	1397	12.3	12.4	12.3
L5_EP_IN	2019-07-20 15:10	7.9	1432	38	37.9	38
L5_EP_IN	2019-07-21 15:13	8.0	1356	11.5	11.3	11.5
L5_EP_IN	2019-07-22 13:04	8.0	1317	12.4	12.5	12.4
L5_EP_IN	2019-07-27 13:00	8.4	1342	24.5	24.3	24.5
L5_EP_IN	2019-07-28 13:10	7.7	1650	59.8	59.4	59.8
L5_EP_IN	2019-07-30 14:50	8.4	3280	95	95	95
L5_EP_IN	2019-07-31 13:03	7.6	1657	107.7	107.5	107.7
L5_EP_IN	2019-08-01 14:25	7.6	1693	11.3	11.3	11.3
L5_EP_IN	2019-08-02 15:03	8.0	2640	37.2	37.4	37.2
L5_EP_IN	2019-08-03 13:40	7.7	1975	25	25.2	25
L5_EP_IN	2019-08-04 15:11	7.6	1716	7.6	7.6	7.6
L5_EP_IN	2019-08-05 13:12	8.4	3240	58.1	58.2	58.1
L5_EP_IN	2019-08-06 14:10	8.4	2100	45.3	45.1	45.3
L5_EP_IN	2019-08-07 11:25	8.2	1844	9.9	9.8	9.9
L5_EP_IN	2019-08-08 14:50	8.3	1901	77.7	77.6	77.7
L5_EP_IN	2019-08-09 11:16	8.3	1884	37.7	37.8	37.7

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
L5_EP_IN	2019-08-10 13:50	8.2	2260	38.9	38.8	38.9
L5_EP_IN	2019-08-11 12:39	8.4	2530	30.8	31.1	30.8
L5_EP_IN	2019-08-12 9:45	8.1	1788	11.8	11.4	11.8
L5_EP_IN	2019-08-13 14:18	8.0	1379	10.2	10	10.2
L5_EP_IN	2019-08-14 9:56	8.1	1499	12.2	12.6	12.2
L5_EP_IN	2019-08-15 11:15	8.3	1603	65.7	66.3	65.7
L5_EP_IN	2019-08-16 12:00	8.3	1363	1161	1160	1161
L5_EP_IN	2019-08-17 14:20	8.2	1549	2800	2800	2800
L5_EP_IN	2019-08-18 15:25	8.3	1426	140	144	140
L5_EP_IN	2019-08-19 14:40	8.4	1473	84.3	83.7	84.3
L5_EP_IN	2019-08-20 13:45	8.4	1865	82	70	82
L5_EP_IN	2019-08-22 10:35	8.4	1362	88.7	86.6	88.7
L5_EP_IN	2019-08-25 12:52	8.2	1373	11.7	11.7	11.7
L5_EP_IN	2019-08-26 13:10	8.6	1216	8.4	8.4	8.4
L5_EP_IN	2019-08-27 14:27	8.0	1358	3.6	3.7	3.6
L5_EP_IN	2019-08-28 14:40	8.1	1282	3.1	3	3.1
L5_EP_IN	2019-08-29 15:15	8.1	1373	5.6	5.6	5.6
L5_EP_IN	2019-08-30 10:30	8.4	1538	17.1	16.4	17.1
L5_EP_IN	2019-08-31 12:38	8.1	1930	4.8	4.8	4.8
L5_EP_IN	2019-09-01 13:19	8.1	1939	2.3	2.3	2.3
L5_EP_IN	2019-09-02 12:19	8.1	1397	2.3	2.2	2.3
L5_EP_IN	2019-09-03 14:37	8.0	1367	3.6	3.6	3.6
L5_EP_IN	2019-09-04 14:58	9.2	1677	1574	1619	1574
L5_EP_IN	2019-09-05 13:20	10.1	2610	601	601	601
L5_EP_IN	2019-09-06 14:20	7.6	1528	31.3	30.8	31.3
L5_EP_IN	2019-09-07 13:40	7.4	1492	111	109	111
L5_EP_IN	2019-09-08 14:05	7.6	935	637	637	637
L5_EP_IN	2019-09-09 8:55	7.2	1387	24.9	24.9	24.9
L5_EP_IN	2019-09-10 13:16	8.3	1253	79.1	79	79.1
L5_EP_IN	2019-09-11 13:55	7.3	1535	56.7	56.8	56.7
L5_EP_IN	2019-09-12 12:23	7.4	1343	60	60	60
L5_EP_IN	2019-09-13 12:15	7.5	1507	22.8	22.8	22.8
L5_EP_IN	2019-09-14 12:47	8.1	1871	110	109	110
L5_EP_IN	2019-09-15 12:22	7.6	1605	145	149	145
L5_EP_IN	2019-09-16 13:30	8.2	1121	1780	1779	1780
L5_EP_IN	2019-09-17 11:00	7.6	1457	65.8	65.6	65.8
L5_EP_IN	2019-09-18 9:32	8.0	1865	70	70	70
L5_EP_IN	2019-09-19 10:30	7.5	1508	43.1	43.1	43.1
L5_EP_IN	2019-09-20 10:00	7.9	1698	33	33.1	33
L5_EP_IN	2019-09-21 10:20	7.5	1505	14.9	14.8	14.9
L5_EP_IN	2019-09-22 10:07	7.8	1844	9.6	9.6	9.6
L5_EP_IN	2019-09-23 10:45	7.0	1565	24.9	25	24.9
L5_EP_IN	2019-09-24 12:05	7.3	1543	13.2	13.7	13.2
L5_EP_IN	2019-09-25 12:45	7.3	1555	43.6	43.9	43.6
L5_EP_IN	2019-09-26 13:00	7.4	1571	1027	1028	1027
L5_EP_IN	2019-09-27 12:30	7.7	1525	42	41.7	42
L5_EP_IN	2019-09-28 13:30	7.7	1543	23.3	23.1	23.3
L5_EP_IN	2019-09-29 11:55	8.4	1557	16	16	16
L5_EP_IN	2019-09-30 10:05	8.4	1553	11.9	12.2	11.9
L5_EP_IN	2019-10-01 15:35	8.4	1850	11.5	11.8	11.5
L5_EP_IN	2019-10-02 14:50	8.4	1881	15.1	15.3	15.1
L5_EP_IN	2019-10-03 14:45	7.5	1965	16.8	16.9	16.8
L5_EP_IN	2019-10-04 12:35	7.9	1895	10.1	10.1	10.1
L5_EP_IN	2019-10-05 13:50	7.6	1666	14.1	14.1	14.1
L5_EP_IN	2019-10-06 13:50	7.7	2020	74.3	74.5	74.3
L5_EP_IN	2019-10-07 13:40	8.0	1826	76	76	76
L5_EP_IN	2019-10-08 10:00	7.6	1587	23.5	23.6	23.5
L5_EP_IN	2019-10-09 11:15	7.4	1923	14.1	14.1	14.1
L5_EP_IN	2019-10-10 1:15	8.0	1517	20.7	20.3	20.7
L5_EP_IN	2019-10-11 10:17	7.8	1908	7.1	7.1	7.1
L5_EP_IN	2019-10-12 10:45	8.3	1505	10.6	10.7	10.6
L5_EP_IN	2019-10-13 10:35	7.7	1946	16.4	16.4	16.4
L5_EP_IN	2019-10-14 10:10	8.2	1620	11.7	11.5	11.7
L5_EP_IN	2019-10-15 12:35	7.2	1620	8.2	8.4	8.2

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
L5_EP-IN	2019-10-16 13:45	7.0	1551	12.4	12.4	12.4
L5_EP-IN	2019-10-17 13:05	7.2	1340	10	9.6	10
L5_EP-IN	2019-10-18 14:25	7.4	1380	6.5	6	6.5
L5_EP-IN	2019-10-19 14:30	7.5	1362	101.5	101.5	101.5
L5_EP-IN	2019-10-20 14:10	7.9	1544	73.9	73.8	73.9
L5_EP-IN	2019-10-21 12:00	7.6	1494	120	120	120
L5_EP-IN	2019-10-22 16:45	7.5	1314	41.8	41.9	41.8
L5_EP-IN	2019-10-24 17:02	7.2	1234	50.7	51	50.7
L5_EP-IN	2019-10-25 16:42	7.7	1113	687	687	687
L5_EP-IN	2019-10-26 16:05	8.4	1297	22.3	22.4	22.3
L5_EP-IN	2019-10-27 14:50	7.2	1159	46.6	46.4	46.6
L5_EP-IN	2019-10-28 12:08	8.0	1668	14.2	14.2	14.2
L5_EP-IN	2019-10-29 12:25	7.6	1310	4.1	4	4.1
L5_EP-IN	2019-10-30 12:50	7.6	1331	4.9	4.8	4.9
L5_EP-IN	2019-10-31 13:30	7.7	1549	37.5	37.2	37.5
L5_EP-IN	2019-11-01 12:40	7.5	1435	10.3	10.1	10.3
L5_EP-IN	2019-11-03 15:10	7.4	2050	95.3	95.3	95.3
L5_EP-IN	2019-11-04 13:25	7.1	1455	12.3	12.3	12.3
L5_EP-IN	2019-11-05 10:25	7.6	1802	28.4	28.4	28.4
L5-Upper-EP-IN	2019-05-15 12:55	8.2	1057	4.7	4.7	4.7
L5-Upper-EP-IN	2019-06-19 14:10	7.2	1395			
L5-Upper-EP-IN	2019-06-20 14:30	7.8	1391	3390	3389	3390
L5-Upper-EP-IN	2019-07-23 14:15	8.5	1286	13.1	13.3	13.1
L5-Upper-EP-IN	2019-07-24 15:05	8.3	1560	62	62	62
L6-EOP	2019-03-28 9:30	8.6	1509	10.4	10.5	10.4
L6-EOP	2019-05-07 9:05	8.9	1587	3.4	3.4	3.4
L6-EOP	2019-09-05	8.3	1423	4.6	4.6	4.6
L6-EOP	2019-09-05 9:50	8.3	1423	4.6	4.6	4.6
L6-EOP	2019-12-18 10:45	8.5	1625	23.4	23.1	23.4
L6-W-N-Sump	2019-03-21 14:25	8.0	1233	63.7	64.5	63.7
L6-W-N-Sump	2019-03-22 15:40	7.7	1766	10.5	9.6	10.5
L6-W-N-Sump	2019-03-23 10:10	8.2	1786	4.3	4.4	4.3
L6-W-N-Sump	2019-03-24 11:18	8.0	2650	6.8	6.9	6.8
L6-W-N-Sump	2019-03-25 9:30	8.7	3590	OR		
LBCD_Trench	2019-02-22 12:30	8.5	683	7.6	7.6	7.6
LBCD-N-Sump	2019-08-21 12:40	8.2	2520	21.4	21.3	21.4
LBCD-N-Sump	2019-08-21 12:45	8.3	4590	44.8	44.8	44.8
LBCD-Out	2019-01-01 14:10	7.8	1087	2.4	2.5	2.4
LBCD-Out	2019-01-02 16:00	7.6	990	2.1	2.2	2.1
LBCD-Out	2019-01-04 13:00	8.2	1171	9.9	9.4	9.9
LBCD-Out	2019-01-05 15:00	8.2	1194	3.2	3	3.2
LBCD-Out	2019-01-06 15:00	8.1	543	2.5	2.5	2.5
LBCD-Out	2019-01-07 12:30	8.2	1121	1.9	1.7	1.9
LBCD-Out	2019-01-09 15:00	8.3	1119	6.7	6.7	6.7
LBCD-Out	2019-01-10 15:20	7.9	1131	4.2	4.1	4.2
LBCD-Out	2019-01-11 12:30	8.3	1100	3.7	4.7	3.7
LBCD-Out	2019-01-12 13:30	8.3	1123	3.3	3.3	3.3
LBCD-Out	2019-01-13 14:00	8.2	1124	2.6	2.6	2.6
LBCD-Out	2019-01-15 12:05	8.6	1158	1.5		1.5
LBCD-Out	2019-01-16	8.7	1068	1.6		1.6
LBCD-Out	2019-01-17 9:55	8.6	1104	1.9		1.9
LBCD-Out	2019-01-20 14:25	8.1	1065	3.3	3.4	3.3
LBCD-Out	2019-02-27 10:10	8.3	1353	0.6		0.6
LBCD-Out	2019-02-28 10:00	7.9	1343	1.1		1.1
LBCD-Out	2019-03-01 11:05	8.8	1241	0.6		0.6
LBCD-Out	2019-03-02 12:30	8.8	1268	0.9		0.9
LBCD-Out	2019-03-03 12:00	8.5	1256	0.7		0.7
LBCD-Out	2019-03-04 10:30	8.8	1286	0.6		0.6
LBCD-Out	2019-03-09 14:42	7.7	1041	19.6	20.4	19.6
LBCD-Sump	2019-05-14 12:25	8.3	684	1.2	1.2	1.2
LBCD-Sump	2019-05-16 12:00	8.3	641	55.8	55.4	55.8
LBCD-Sump	2019-05-17	8.4	492	45	53	45
LBCD-Sump	2019-05-19 9:31	8.4	525	11.6	11.5	11.6
LBCD-Sump	2019-05-20 12:29	8.2	538	1679	1667	1679

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
LBCD-Sump	2019-05-25 12:00	8.8	3040	OR		
LBCD-Sump	2019-05-26 1:26	8.2	1260			
LBCD-Sump	2019-05-27 1:00	8.4				
LBCD-Sump	2019-05-28 7:15	8.6				
LBCD-Sump	2019-05-29 7:30	8.4	2200	38.9	40.1	38.9
LBCD-Sump	2019-05-30 9:10	7.4	1842	724	723	724
LBCD-Sump	2019-05-31 10:35	8.1	1919	29.9	31.9	29.9
LBCD-Sump	2019-06-02 10:45	8.4				
LBCD-Sump	2019-06-03 10:20	7.6				
LBCD-Sump	2019-06-04 10:50	8.1	1912	733	732	733
LBCD-Sump	2019-06-06 18:50	7.3	1689			
LBCD-Sump	2019-06-07 11:10	8.2	1803	6.2	6.3	6.2
LBCD-Sump	2019-06-08 9:50	7.0	1895	21.4	21	21.4
LBCD-Sump	2019-06-09 9:45	7.2	1479	92	91	92
LBCD-Sump	2019-06-10 10:10	8.2	1318	4.6	4.6	4.6
LBCD-Sump	2019-06-13 10:40	7.0	1300	12.5	12.4	12.5
LBCD-Sump	2019-06-17 8:00	6.9	1440	12.6	12.4	12.6
LBCD-Sump	2019-06-18 16:25	8.4	1414	8.1	8.3	8.1
LBCD-Sump	2019-06-19 13:50	6.9	1426	3.1	3.1	3.1
LBCD-Sump	2019-06-21 15:17	8.3	1577	2642	2628	2642
LBCD-Sump	2019-06-22 13:15	8.2	1510	63	60	63
LBCD-Sump	2019-06-23 13:15	8.5	1882	3272	3262	3272
LBCD-Sump	2019-06-24 9:55	8.9	1582	OR		
LBCD-Sump	2019-06-25 13:07	8.8	1438	1688	1684	1688
LBCD-Sump	2019-06-26 14:40	8.2	3040	2058	2057	2058
LBCD-Sump	2019-06-27 13:32	8.2	1555	8.5	8.6	8.5
LBCD-Sump	2019-06-28 12:53	8.3	1699	27	27	27
LBCD-Sump	2019-06-29 9:55	8.6	1440	33.2	33.3	33.2
LBCD-Sump	2019-07-03 13:00	8.1	1790	1070	1071	1070
LBCD-Sump	2019-07-04 13:30	8.0	1502	7.3	7	7.3
LBCD-Sump	2019-07-05 13:05	8.1	1730	88	86.3	88
LBCD-Sump	2019-07-10 13:57	8.3	1479	13.5	13.6	13.5
LBCD-Sump	2019-07-11 17:15	7.8	1258	19.6	20.1	19.6
LBCD-Sump	2019-07-12 15:55	7.7	1449	11.1	11.1	11.1
LBCD-Sump	2019-07-13 13:53	7.2	1335	78.8	78.9	78.8
LBCD-Sump	2019-07-14 14:30	8.3	1273	15.1	15.4	15.1
LBCD-Sump	2019-07-15 12:45	8.4	1342	35.9	35	35.9
LBCD-Sump	2019-07-16 13:12	8.3	1355	31.6	32	31.6
LBCD-Sump	2019-07-17 14:41	8.7	1507	27.8	27.3	27.8
LBCD-Sump	2019-07-18 13:39	8.6	1391	12.6	12.5	12.6
LBCD-Sump	2019-07-19 16:50	7.3	1379	12.4	12.2	12.4
LBCD-Sump	2019-07-20 14:50	8.2	1352	25.7	25.6	25.7
LBCD-Sump	2019-07-21 14:55	8.2	1343	11.5	11.2	11.5
LBCD-Sump	2019-07-25 13:20	8.4	1387	20.6	20.3	20.6
LBCD-Sump	2019-07-26 12:35	8.5	1438	33	32.8	33
LBCD-Sump	2019-07-29 12:45	8.3	1609	11.3	11.6	11.3
LBCD-Sump	2019-07-30 14:20	9.4	1707	14.1	14	14.1
LBCD-Sump	2019-07-31 12:40	8.2	1817	8.5	8.5	8.5
LBCD-Sump	2019-08-01 13:35	8.2	1693	9.8	9.7	9.8
LBCD-Sump	2019-08-02 14:51	8.4	1706	8.5	8.5	8.5
LBCD-Sump	2019-08-03 13:17	8.2	1597	9.3	9.2	9.3
LBCD-Sump	2019-08-04 14:50	8.1	1635	7.7	7.7	7.7
LBCD-Sump	2019-08-05 12:42	8.3	1714	9.6	9.7	9.6
LBCD-Sump	2019-08-06 13:45	8.5	1982	13.7	13.7	13.7
LBCD-Sump	2019-08-07 11:56	8.6	1853	33.6	33.1	33.6
LBCD-Sump	2019-08-08 13:21	8.6	1891	34.5	34.5	34.5
LBCD-Sump	2019-08-09 11:59	8.4	1635	9.5	9.5	9.5
LBCD-Sump	2019-08-10 13:22	8.3	1692	14.3	14.3	14.3
LBCD-Sump	2019-08-11 12:18	8.2	1662	7.4	7.4	7.4
LBCD-Sump	2019-08-12 9:35	8.3	1849	18	18	18
LBCD-Sump	2019-08-14 10:35	8.1	1499	12.2	12.6	12.2
LBCD-Sump	2019-08-23 11:05	8.5	1359	46.5	46.4	46.5
LBCD-Sump	2019-08-24 6:50	8.3	1452	22.3	21.8	22.3
LBCD-Sump	2019-08-27 14:00	8.2	1352	6.2	6.2	6.2



Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
LBCD-Sump	2019-08-28 13:25	8.2	1291	3.3	3.3	3.3
LBCD-Sump	2019-08-29 14:50	8.3	1287	13.6	13.8	13.6
LBCD-Sump	2019-08-30 14:45	8.3	1216	5.1	5.1	5.1
LBCD-Sump	2019-08-31 12:23	8.3	1364	7.3	7.3	7.3
LBCD-Sump	2019-09-01 13:09	8.3	1362	4.3	4.3	4.3
LBCD-Sump	2019-09-02 12:16	8.3	1358	3.9	4	3.9
LBCD-Sump	2019-09-03 14:15	8.2	1114	3	3	3
LBCD-Sump	2019-09-04 14:05	9.6	1663	616	610	616
LBCD-Sump	2019-09-05 13:05	9.9	2340	156	159	156
LBCD-Sump	2019-09-06 14:00	8.4	1340	53.7	53.4	53.7
LBCD-Sump	2019-09-07 13:20	8.8	1438	1191	1182	1191
LBCD-Sump	2019-09-08 13:45	8.5	1387	51.3	51.3	51.3
LBCD-Sump	2019-09-09 9:30	8.5	1319	42	42	42
LBCD-Sump	2019-09-10 12:50	8.8	1815	1537	1541	1537
LBCD-Sump	2019-09-11 13:35	8.3	1069	131	129	131
LBCD-Sump	2019-09-12 12:01	8.7	1341	97	97	97
LBCD-Sump	2019-09-13 12:48	8.6	1315	43.1	43.2	43.1
LBCD-Sump	2019-09-14 12:27	8.8	1509	81.4	80.9	81.4
LBCD-Sump	2019-09-15 12:02	9.0	1597	1406	1406	1406
LBCD-Sump	2019-09-16 13:08	9.0	1093	1342	1340	1342
LBCD-Sump	2019-09-17 10:30	8.5	1542	92	92	92
LBCD-Sump	2019-09-18 9:12	8.7	1603	82.1	82.4	82.1
LBCD-Sump	2019-09-19 9:30	8.5	1387	42.5	43	42.5
LBCD-Sump	2019-09-20 9:36	8.6	1803	31.7	31.7	31.7
LBCD-Sump	2019-09-21 9:45	8.4	1622	10.7	10.8	10.7
LBCD-Sump	2019-09-22 9:38	8.5	1857	13.5	13.4	13.5
LBCD-Sump	2019-09-23 9:40	8.5	1484	17.9	17.6	17.9
LBCD-Sump	2019-09-24 11:50	8.3	1489	23.9	24	23.9
LBCD-Sump	2019-09-25 12:15	8.4	1427	624	624	624
LBCD-Sump	2019-09-26 12:00	8.4	1454	677	676	677
LBCD-Sump	2019-09-27 10:25	8.4	1498	52.3	52.3	52.3
LBCD-Sump	2019-09-28 13:10	8.5	1494	37.5	37.6	37.5
LBCD-Sump	2019-09-29 11:15	8.5	1788	26.3	26.4	26.3
LBCD-Sump	2019-09-30 9:55	8.4	1691	59.4	60.3	59.4
LBCD-Sump	2019-10-01 14:45	8.4	1816	11.5	11.4	11.5
LBCD-Sump	2019-10-02 14:30	8.5	1801	6.5	6.7	6.5
LBCD-Sump	2019-10-03 14:25	8.3	1845	12.4	12.4	12.4
LBCD-Sump	2019-10-04 12:18	8.6	1888	17.3	17.3	17.3
LBCD-Sump	2019-10-05 13:20	8.3	1641	41.5	41.7	41.5
LBCD-Sump	2019-10-06 13:21	8.4	1848	26.3	26.4	26.3
LBCD-Sump	2019-10-07 14:04	8.7	1784	82	83	82
LBCD-Sump	2019-10-08 11:25	8.2	1645	70.3	71	70.3
LBCD-Sump	2019-10-09 10:30	8.1	1775	9.6	9.6	9.6
LBCD-Sump	2019-10-10 12:45	8.7	1684	25	24.2	25
LBCD-Sump	2019-10-11 9:50	8.4	2030	17.9	18	17.9
LBCD-Sump	2019-10-12 9:30	8.9	1549	13.4	13.5	13.4
LBCD-Sump	2019-10-13 10:05	8.4	2130	7.9	7.9	7.9
LBCD-Sump	2019-10-14 11:20	8.7	1576	8.8	8.9	8.8
LBCD-Sump	2019-10-15 9:30	7.7	1598	11.2	11.4	11.2
LBCD-Sump	2019-10-16 13:15	7.6	1188	13.2	12.9	13.2
LBCD-Sump	2019-10-17 12:45	8.2	1347	11.8	11.8	11.8
LBCD-Sump	2019-10-18 14:00	8.4	1355	7.6	7.6	7.6
LBCD-Sump	2019-10-19 14:00	9.4	1090	684	683	684
LBCD-Sump	2019-10-20 13:45	8.7	1497	27.3	27.4	27.3
LBCD-Sump	2019-10-21 11:15	8.1	1628	120	121	120
LBCD-Sump	2019-10-22 16:10	8.5	1285	30	30	30
LBCD-Sump	2019-10-23 15:15	8.5	1437	14.3	14.4	14.3
LBCD-Sump	2019-10-24 16:45	8.8	1465	69	69	69
LBCD-Sump	2019-10-25 16:18	8.6	1199	118	119	118
LBCD-Sump	2019-10-26 15:35	8.5	1359	12.9	12.9	12.9
LBCD-Sump	2019-10-27 14:24	8.5	1339	18	17.9	18
LBCD-Sump	2019-11-02 14:45	6.9	4320	86.9	87.3	86.9
LBCD-Sump	2019-11-03 14:45	8.6	1842	80.5	80.5	80.5
LBCD-Sump	2019-11-04 13:10	8.3	1524	65.1	64.9	65.1

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
LBCD-Sump	2019-11-05 10:00	8.3	1767	12.5	12.4	12.5
LBCD-Sump	2019-11-06 10:40	8.0	1624	2.5	2.5	2.5
LBCD-Sump	2019-11-07 12:15	8.3	2230	9.1	9.1	9.1
LBCD-Sump	2019-11-08 11:15	8.4	739	0.7	0.7	0.7
LBCD-Sump	2019-11-09 10:35	7.5	917	1.1	1.1	1.1
LBCD-Sump	2019-11-10 11:45	7.9	760	0.8	0.8	0.8
LBCD-Sump	2019-11-11 9:12	8.4	940	1	1	1
LBCD-Sump	2019-11-12 13:05	8.3	723	0.7	0.7	0.7
LBCD-Sump	2019-11-13 13:15	8.3	721	0.6	0.6	0.6
LBCD-Sump	2019-11-14 13:13	8.2	724	0.7	0.7	0.7
LBCD-Sump	2019-11-15 12:40	8.5	4810	23.2	23.2	23.2
LBCD-Sump	2019-11-16 13:10	8.5	2820	6.7	6.6	6.7
LBCD-Sump	2019-11-17 10:11	8.5	3640	15.5	15.4	15.5
LBCD-Sump	2019-11-18 13:50	8.2	1015	1	1	1
LBCD-Sump	2019-11-19 15:00	8.3	1504	1.9	1.9	1.9
LBCD-Sump	2019-11-21 12:00	8.6	2090	12.6	12.6	12.6
LBCD-Sump	2019-11-22 10:05	4.6	1613	4.6	4.6	4.6
LBCD-Sump	2019-11-23 1:35	8.9	1868	30.8	30.7	30.8
LBCD-Sump	2019-11-24 16:05	8.8	2040	11.2	11.2	11.2
LBCD-Sump	2019-11-25 14:50	8.8	2750	51.2	51.2	51.2
LBCD-Sump	2019-11-26 5:20	8.3	1361	2.5	2.2	2.5
LBCD-Sump	2019-11-27 15:10	8.3	1389	2.3	2.3	2.3
LBCD-Sump	2019-11-28 17:30	7.7	1531	6.9	6.8	6.9
LBCD-Sump	2019-11-29 14:40	7.9	1726	7.1	6	7.1
LBCD-Sump	2019-11-30 14:30	8.3	1644	3	3.2	3
LBCD-Sump	2019-12-01 12:35	7.6	1659	3.5	3.5	3.5
LBCD-Sump	2019-12-02 14:51	8.6	1749	2.5	2.5	2.5
LBCD-Sump	2019-12-03 13:25	8.0	1571	1.4	1.4	1.4
LBCD-Sump	2019-12-04 14:25	8.0	1537	1.6	1.5	1.6
LBCD-Sump	2019-12-05 15:02	8.0	1058	1.4	1.4	1.4
LBCD-Sump	2019-12-06 14:50	8.0	1094	1.6	1.6	1.6
LBCD-Sump	2019-12-07 14:10	8.0	1101	1.4	1.5	1.4
LBCD-Sump	2019-12-08 12:55	8.0	1096	3	2.9	3
LBCD-Sump	2019-12-09 12:08	8.0	1095	1.9	1.9	1.9
LBCD-Sump	2019-12-10 12:50	7.8	1100	2.9	2.8	2.9
LBCD-Sump	2019-12-11 15:00	8.0	1135	2.3	2.3	2.3
LBCD-Sump	2019-12-12 14:30	8.0	800	2.4	2.4	2.4
LBCD-Sump	2019-12-13 16:20	8.0	1064	3	2.9	3
LBCD-Sump	2019-12-14 14:50	8.2	1076	9.5	9.5	9.5
LBCD-Sump	2019-12-15 14:30	8.0	1090	3.6	3.7	3.6
LBCD-Sump	2019-12-16 15:40	8.1	1033	2.4	2.3	2.4
LBCD-Sump	2019-12-17 14:40	8.2	1027	1.7	1.7	1.7
LBCD-Sump	2019-12-18 13:55	8.5	1032	3.6	3.7	3.6
LBCD-Sump	2019-12-19 13:50	8.0	1036	6.2	5.7	6.2
LBCD-Sump	2019-12-20 13:07	8.1	1022	1.8	1.7	1.8
LBCD-Sump	2019-12-21 15:03	8.3	1009	11.7	11.6	11.7
LBCD-Sump	2019-12-22 12:50	8.3	1005	2.8	2.9	2.8
LBCD-Sump	2019-12-23 11:45	8.2	981	1.4	1.4	1.4
LBCD-Sump	2019-12-24 16:40	8.3	985	2.5	2.8	2.5
LBCD-Sump	2019-12-25 16:20	8.3	997	4.4	5.6	4.4
LBCD-Sump	2019-12-26 14:30	8.3	974	8	8.1	8
LBCD-Sump	2019-12-27 15:30	8.3	918	5.3	5.3	5.3
LBCD-Sump	2019-12-28 15:00	8.4	912	3.6	3.7	3.6
LBCD-Sump	2019-12-29 15:30	8.3	988	7.1	7	7.1
LBCD-Sump	2019-12-30 16:30	8.3	1012	32	26.4	32
LBCD-Sump	2019-12-31 15:45	8.3	972	13.9	13.1	13.9
LBEX_Diversion	2019-01-27 17:20	7.5	520	OR		
LBEX_E_IN	2019-01-02 15:40	2.8	8420	95	95	95
LBEX_E_IN	2019-01-27 16:17	2.5				
LBEX-B1	2019-01-21 15:49	8.1	2220	26.1	26.2	26.1
LBEX-B1	2019-02-21 15:15	8.3	1482	8.3	8.3	8.3
LBEX-B1	2019-02-24 14:45	8.4	1444	26.1	26.3	26.1
LBEX-B1	2019-02-25 15:15	8.4	1533	11.9	12	11.9
LBEX-B1	2019-03-21 10:00	8.1	600	1747	1744	1747

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
LBEX-B1	2019-03-22 16:00	8.1	651	65.2	66.1	65.2
LBEX-B1	2019-03-23 12:45	8.2	598	1919	1899	1919
LBEX-B1	2019-03-24 13:15	8.2	614	81.2	81.4	81.2
LBEX-B1	2019-03-25 11:20	8.2	515	54.2	54.3	54.2
LBEX-B1	2019-03-26 11:31	8.2	136	646	645	646
LBEX-B1	2019-03-27 12:20	8.2	731	21.4	21	21.4
LBEX-B1	2019-03-28 11:00	8.6	1460	OR		
LBEX-B1	2019-03-29 10:20	8.3	928	9	9	9
LBEX-B1	2019-03-30 10:51	8.3	939	25.5	24	25.5
LBEX-B1	2019-03-31 11:00	8.2	370	606	607	606
LBEX-B1	2019-04-01 11:30	7.0	336	96.3	96.2	96.3
LBEX-B1	2019-04-02 11:33	8.4	908	30	29.9	30
LBEX-B1	2019-04-03 11:25	8.4	642	22.5	22.5	22.5
LBEX-B1	2019-04-04 12:11	8.5	997	12.4	12.3	12.4
LBEX-B1	2019-04-05 12:24	8.4	1108	12.1	12.1	12.1
LBEX-B1	2019-04-06 11:41	8.5	917	30.2	30.1	30.2
LBEX-B1	2019-04-07 12:03	8.3	1142	63	64	63
LBEX-B1	2019-04-08 12:40	8.4	1133	32.8	32.8	32.8
LBEX-B1	2019-04-09 13:15	8.4	1264	49.9	49.7	49.9
LBEX-B1	2019-04-12 5:55	8.4	1181	15.9	15.4	15.9
LBEX-B1	2019-04-13 12:15	8.4	1156	35.9	35.6	35.9
LBEX-B1	2019-04-14 11:40	8.2	1116	1438	1433	1438
LBEX-B1	2019-04-15 10:45	8.3	1114	67	69	67
LBEX-B1	2019-04-16 12:15	8.3	1164	84	91	84
LBEX-B1	2019-04-17 12:25	8.4	1261	94	93	94
LBEX-B1	2019-04-18 12:50	8.4	1277	65.5	64.4	65.5
LBEX-B1	2019-04-19 11:00	8.4	1402	33.8	36.7	33.8
LBEX-B1	2019-04-20 11:15	8.5	1331	49.8	49.8	49.8
LBEX-B1	2019-04-21 11:22	8.4	1335	64.3	64.7	64.3
LBEX-B1	2019-04-22 12:40	8.4	1353	635	632	635
LBEX-B1	2019-04-23 11:40	8.5	1137	74.8	74	74.8
LBEX-B1	2019-04-24 12:06	8.6	1390	15.4	15	15.4
LBEX-B1	2019-05-02 11:50	8.3	1352	6.2	5.7	6.2
LBEX-B1	2019-05-07 11:45	8.4	1273	41.8	41	41.8
LBEX-B1	2019-05-16 14:20	8.4	1482	16.9	16.5	16.9
LBEX-B1	2019-05-19 10:55	8.4	1098	24	23.6	24
LBEX-B1	2019-05-23 12:00	8.2	1918	11.7	11.7	11.7
LBEX-B1	2019-05-24 14:20	8.3	1740	9.6	9	9.6
LBEX-B1	2019-05-25 12:50	8.3	1710	12.4	13.2	12.4
LBEX-B1	2019-05-30 11:05	8.1	1877	6.5	6.3	6.5
LBEX-B1	2019-05-31 12:15	8.1	2100	21.3	20.8	21.3
LBEX-B1	2019-06-01 12:00	7.6	1945	40	40	40
LBEX-B1	2019-06-02 12:15	8.2	2090	OR		
LBEX-B1	2019-06-04 12:30	8.3	1821	15.1	15.1	15.1
LBEX-B1	2019-06-05 13:26	8.1	1620	51.5	51.6	51.5
LBEX-B1	2019-06-06 12:45	8.0	1945	11.3	11	11.3
LBEX-B1	2019-06-07 14:00	8.1	1741	14.8	14.4	14.8
LBEX-B1	2019-06-08 11:15	8.0	1867	8.2	8.2	8.2
LBEX-B1	2019-06-09 11:10	8.1	1615	19.7	19.6	19.7
LBEX-B1	2019-06-10 11:55	8.2	1600	20.6	20.1	20.6
LBEX-B1	2019-06-13 12:55	8.3	1601	46.3	46.6	46.3
LBEX-B1	2019-06-18 14:55	8.2	1666	18.7	18.2	18.7
LBEX-B1	2019-06-19 14:55	8.2	1787	6.9	6.9	6.9
LBEX-B1	2019-06-20 15:13	8.1	1710	17.1	17.4	17.1
LBEX-B1	2019-06-21 15:35	8.1	1731	10.4	10.4	10.4
LBEX-B1	2019-06-22 14:15	8.1	1710	6.2	6.2	6.2
LBEX-B1	2019-06-24 12:00	8.3	780	OR		
LBEX-B1	2019-06-26 13:40	8.1	1841	37	36.9	37
LBEX-B1	2019-06-27 14:37	8.1	1715	32.3	31.7	32.3
LBEX-B1	2019-06-28 12:43	8.2	1638	28.8	30.9	28.8
LBEX-B1	2019-06-29 11:30	8.3	1421	80.7	80.1	80.7
LBEX-B1	2019-07-02 16:17	8.0	3070	22	21.6	22
LBEX-B1	2019-07-03 13:45	8.0	2080	13.1	13.1	13.1
LBEX-B1	2019-07-04	8.0	2040	14.1	14	14.1

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
LBEX-B1	2019-07-05 12:55	8.0	2010	13.6	13.4	13.6
LBEX-B1	2019-07-06 14:42	8.3	1983	6.7	6.7	6.7
LBEX-B1	2019-07-07 13:15	8.4	1979	7.2	7.4	7.2
LBEX-B1	2019-07-08 12:30	8.5	1829	35.3	35.5	35.3
LBEX-B1	2019-07-10 15:35	8.2	1733	13.8	14	13.8
LBEX-B1	2019-07-11 14:05	8.1	1918	12.6	12.4	12.6
LBEX-B1	2019-07-12 16:15	8.1	1735	15.1	15	15.1
LBEX-B1	2019-07-13 14:55	8.2	1412	18.4	18.2	18.4
LBEX-B1	2019-07-14 15:20	8.1	1666	19.9	20.3	19.9
LBEX-B1	2019-07-15 13:50	8.2	1625	21.2	20.3	21.2
LBEX-B1	2019-07-17 15:46	8.1	1703	84	83.5	84
LBEX-B1	2019-07-18 14:31	8.1	1636	19.4	19.4	19.4
LBEX-B1	2019-07-20 15:50	7.9	1685	25.6	25.4	25.6
LBEX-B1	2019-07-21 15:51	8.0	1544	25.5	25.4	25.5
LBEX-B1	2019-07-22 13:44	8.1	1864	52.7	52.5	52.7
LBEX-B1	2019-07-23 14:40	8.1	1908	30.4	30.4	30.4
LBEX-B1	2019-07-24 15:40	8.4	1677	62.9	64.9	62.9
LBEX-B1	2019-07-25 14:15	8.2	1700	24.8	24.7	24.8
LBEX-B1	2019-07-26 12:30	8.3	1682	37.6	37.5	37.6
LBEX-B1	2019-07-27 13:30	8.2	1536	36	36.3	36
LBEX-B1	2019-07-28 13:25	8.1	1835	61.4	60.3	61.4
LBEX-B1	2019-07-29 12:35	8.1	1869	36.9	37.7	36.9
LBEX-B1	2019-07-30 15:20	8.1	1840	19	18.8	19
LBEX-B1	2019-07-31 13:35	8.2	1885	15.3	15.2	15.3
LBEX-B1	2019-08-01 14:05	8.2	1984	17.1	17.2	17.1
LBEX-B1	2019-08-02 15:15	8.3	1764	36.3	36.2	36.3
LBEX-B1	2019-08-03 14:13	8.1	2030	22	22.6	22
LBEX-B1	2019-08-05 13:50	8.0	2200	23.8	23.4	23.8
LBEX-B1	2019-08-06 14:50	8.3	1934	36.9	37	36.9
LBEX-B1	2019-08-07 10:48	8.2	2270	29.3	29.4	29.3
LBEX-B1	2019-08-08 15:28	8.1	2080	46.9	46.1	46.9
LBEX-B1	2019-08-10 14:02	8.1	1862	26.3	26.6	26.3
LBEX-B1	2019-08-11 12:53	8.1	1881	16.8	16.8	16.8
LBEX-B1	2019-08-12 9:55	8.2	1796	24.5	24.6	24.5
LBEX-B1	2019-08-13 14:31	8.3	1361	16.1	17.1	16.1
LBEX-B1	2019-08-14 9:40	8.2	2480	23.1	23	23.1
LBEX-B1	2019-08-27 15:20	8.2	1704	7.2	7.1	7.2
LBEX-B1	2019-09-01 13:51	8.2	1577	7.8	7.9	7.8
LBEX-B1	2019-09-02 12:45	8.2	1616	6.3	6.3	6.3
LBEX-B1	2019-09-03 15:15	8.2	1530	10	10.2	10
LBEX-B1	2019-09-05 13:50	8.2	1289	23.9	23.7	23.9
LBEX-B1	2019-09-10 13:55	8.2	1383	15.6	15.7	15.6
LBEX-B1	2019-09-11 14:34	8.3	1399	11.2	11.5	11.2
LBEX-B1	2019-09-13 11:58	8.3	1685	28.1	28.2	28.1
LBEX-B1	2019-09-14 13:24	8.2	1983	16.5	16.6	16.5
LBEX-B1	2019-09-15 12:56	8.2	1963	4.2	4.1	4.2
LBEX-B1	2019-09-18 10:30	8.4	1342	64.9	64.8	64.9
LBEX-B1	2019-09-19 12:30	8.2	1261	32.6	32.5	32.6
LBEX-B1	2019-09-20 11:06	8.3	1637	16.4	16.6	16.4
LBEX-B1	2019-09-21 12:00	8.2	1379	42.3	42.1	42.3
LBEX-B1	2019-09-23 11:30	8.2	1810	16.9	17.2	16.9
LBEX-B1	2019-09-25 13:25	8.2	1415	18.5	18.4	18.5
LBEX-B1	2019-09-26 13:30	8.2	1175	63.1	63	63.1
LBEX-B1	2019-09-28 14:10	8.6	1010	85.3	85.5	85.3
LBEX-B1	2019-09-29 12:25	8.5	1201	13.5	13.4	13.5
LBEX-B1	2019-10-01 17:10	8.2	1558	50.1	50.5	50.1
LBEX-B1	2019-10-02 15:45	8.1	1706	14.8	14.8	14.8
LBEX-B1	2019-10-03 15:26	8.0	2000	44.1	44.2	44.1
LBEX-B1	2019-10-05 15:05	8.5	1364	46.9	47.1	46.9
LBEX-B1	2019-10-06 14:47	8.4	1666	22.4	22.5	22.4
LBEX-B1	2019-10-09 12:42	8.1	1667	14.5	14.4	14.5
LBEX-B1	2019-10-14 11:30	8.8	1180	37.6	37.6	37.6
LBEX-B1	2019-10-15 13:25	7.7	1245	73.6	73.3	73.6
LBEX-B1	2019-10-17 13:40	8.3	1138	12.4	12.5	12.4

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
LBEX-B1	2019-10-18 15:10	8.3	1115	19.4	19.2	19.4
LBEX-B1	2019-10-24 17:45	8.4	1174	20.3	20.4	20.3
LBEX-B1	2019-10-26 17:10	8.1	1240	13.5	13.6	13.5
LBEX-B1	2019-10-27 15:28	8.4	1242	23.3	23.5	23.3
LBEX-B1	2019-10-28 12:45	8.7	1381	12.3	12.3	12.3
LBEX-B1	2019-10-29 13:00	8.5	1775	61	61.4	61
LBEX-B2	2019-03-02 15:06	7.6	1687	36.6	35.6	36.6
LBEX-SP	2019-01-21 15:00	10.0	4300	18.2	18.1	18.2
LBEX-SP	2019-01-25 14:55	12.4	5170	45.8	42.1	45.8
LBEX-SP	2019-01-27 16:30	6.6	4130	46.9	46.4	46.9
LBEX-SP	2019-01-31 11:05	7.6	5530	9.7	9.8	9.7
LBEX-SP	2019-02-13 14:20	12.0	6090	39	39	39
LBEX-SP	2019-02-17 15:27	12.2	5910	37.8	37.7	37.8
LBEX-SP	2019-02-19 15:30	11.9	5580	23.6	23.7	23.6
LBEX-SP	2019-02-20 12:55	12.1		18.8	18.9	18.8
LBEX-SP	2019-02-22 12:55	12.2	6180	5.1	5.2	5.1
LBEX-SP	2019-02-26 14:35	11.7	5250	4.6	4.5	4.6
LBEX-SP	2019-03-23 14:45	8.7	1487	55.6	55.5	55.6
LBEX-SP	2019-03-26 9:38	8.8	2540	12.9	12.9	12.9
LBEX-SP	2019-04-02 9:44	8.3	2260	9.7	9.7	9.7
LBEX-SP	2019-04-06 10:04	8.1	2380	2.9	2.9	2.9
LBEX-SP	2019-04-07 9:52	8.1	2500	3.4	3.5	3.4
LBEX-SP	2019-04-08 10:15	8.1	2510	6.2	6.3	6.2
LBEX-SP	2019-04-09 10:27	8.0	2780	4.9	4.8	4.9
LBEX-SP	2019-04-16 9:20	8.2	2840	4.6	4.4	4.6
LBEX-SP	2019-04-23 9:30	8.5	2850	10.4	10.2	10.4
LBEX-SP	2019-04-25 10:33	8.6	2890	8.6	8.6	8.6
LBEX-SP	2019-04-30 9:40	8.9	2620	4.4	4.4	4.4
LBEX-SP	2019-05-05 10:20	9.2	2640	9	9.1	9
LBEX-SP	2019-05-07 9:45	9.2	2610	7.2	7.3	7.2
LBEX-SP	2019-05-08 12:40	9.1	2680	9.3	9	9.3
LBEX-SP	2019-05-09 10:57	8.1	2850	8.6	8.6	8.6
LBEX-SP	2019-05-17 9:22	9.2	2330	8.9	8.8	8.9
LBEX-SP	2019-05-19 9:18	9.1	2660	6.5	6.6	6.5
LBEX-SP	2019-05-20 12:05	9.1	2660	5.3	5.3	5.3
LBEX-SP	2019-05-21 10:45	8.7	4580	6.7	6.7	6.7
LBEX-SP	2019-05-26 11:50	8.6	19600	12.6	13.3	12.6
LBEX-SP	2019-05-27 10:22	10.1	7720			
LBEX-SP	2019-07-02 14:35	7.9	4050	13.3	13.5	13.3
LBEX-SP	2019-07-06 13:22	8.4	2340	5.5	4.9	5.5
LBEX-SP	2019-07-07 10:32	8.5	2330	7.2	6.8	7.2
LBEX-SP	2019-07-08 10:50	8.6	2350	9.6	8.2	9.6
LBGC-0.01	2019-01-29 13:44	8.1	798	96.2	96.4	96.2
LBGC-0.60	2019-01-27 17:40	7.7	1546	36.3	36.7	36.3
LBGC-0.60	2019-01-28 15:25	7.7	592	98	103	98
LBGC-0.60	2019-01-29 13:34	7.7	781	69	70	69
LBGC-0.60	2019-03-13 12:45	8.0	421	OR		
LBGC-0.60	2019-03-14 16:10	8.2	1075	1032	1031	1032
LBGC-0.60	2019-03-15 9:30	8.1	1009	29.5	29.3	29.5
LBGC-0.60	2019-03-16 16:15	8.0	2920	95	96	95
LBGC-0.60	2019-03-17 14:45	7.8	1075	OR		
LBGC-0.60	2019-03-18 15:40	8.2	201	3253	3299	3253
LBGC-0.60	2019-03-19 16:15	8.6	420	OR		
LBGC-0.60	2019-03-20 2:30	7.6	444	OR		
LBGC-0.60	2019-03-21 13:45	8.1	327	OR		
LBGC-0.60	2019-03-22 12:15	7.8	333	OR		
LBGC-0.60	2019-03-23 12:25	8.2	234	OR		
LBGC-0.60	2019-03-24 13:01	8.2	600	OR		
LBGC-0.60	2019-03-25 11:19	8.1	258	OR		
LBGC-0.60	2019-03-26 11:17	8.2	247	OR		
LBGC-0.60	2019-03-27 12:17	8.1	267	OR		
LBGC-0.60	2019-03-29 11:14	8.1	272	OR		
LBGC-0.60	2019-03-30 10:35	8.2	300	OR		
LBGC-0.60	2019-03-31 10:59	8.1	336	OR		

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
LBGC-0.60	2019-04-01 11:12	8.0	2800	OR		
LBGC-0.60	2019-04-02 11:15	8.0	383	OR		
LBGC-0.60	2019-04-03 11:00	8.0	401	OR		
LBGC-0.60	2019-04-04 11:51	8.1	430	2420	2495	2420
LBGC-0.60	2019-04-05 10:15	7.9	476	3308	3380	3308
LBGC-0.60	2019-04-06 11:22	8.0	493	OR		
LBGC-0.60	2019-04-08 12:10	8.1	442	OR		
LBGC-0.60	2019-04-09 12:55	8.1	483	OR		
LBGC-0.60	2019-04-10 14:27	8.1	572	OR		
LBGC-0.60	2019-04-11 10:50	8.0	478	OR		
LBGC-0.60	2019-04-12 10:25	8.0	504	OR		
LBGC-0.60	2019-04-13 11:55	8.1	547	OR		
LBGC-0.60	2019-04-14 11:25	8.0	577	OR		
LBGC-0.60	2019-04-15 10:20	8.0	676			
LBGC-0.60	2019-04-16 11:12	8.1	609	OR		
LBGC-0.60	2019-04-17 12:04	7.1	686	OR		
LBGC-0.60	2019-04-18 10:29	7.9	779	OR		
LBGC-0.60	2019-04-19 10:40	8.1	782	OR		
LBGC-0.60	2019-04-20 10:48	8.1	822	OR		
LBGC-0.60	2019-04-21 10:59	8.0	894	OR		
LBGC-0.60	2019-04-22 12:12	8.1	941	OR		
LBGC-0.60	2019-04-23 11:10	8.1	1002	OR		
LBGC-0.60	2019-04-24 11:39	8.1	1062	OR		
LBGC-0.60	2019-04-25 12:00	8.1	1203	OR		
LBGC-0.60	2019-04-26 12:48	8.1	1237	OR		
LBGC-0.60	2019-04-27 12:06	8.0	1025	OR		
LBGC-0.60	2019-04-28 10:30	7.9	951	OR		
LBGC-0.60	2019-04-29 10:45	8.5	1054	OR		
LBGC-0.60	2019-04-30 11:45	8.0	1490	OR		
LBGC-0.60	2019-05-03 11:20	8.0	1573	OR		
LBGC-0.60	2019-05-07 11:32	8.0	842	OR		
LBGC-0.60	2019-07-07 12:59	8.6	1238	5.9	5.8	5.9
LBGC-0.60	2019-07-08 13:20	8.5	1417	17.6	17.2	17.6
LBGC-Debris-US	2019-05-08 14:17	8.1	1078	OR		
LBGC-Debris-US	2019-05-09 13:40	8.1	1249	OR		
LBGC-Debris-US	2019-05-11 11:00	8.1	1396	OR		
LBGC-Debris-US	2019-05-13 13:00	8.1	13400	OR		
LBGC-Debris-US	2019-05-14 12:05	8.0	204	OR		
LBGC-Debris-US	2019-05-15 14:25	8.2	2040	OR		
LBGC-Debris-US	2019-05-16 13:50	8.1	2000	OR		
LBGC-Debris-US	2019-05-17 11:11	8.2	1871	OR		
LBGC-Debris-US	2019-05-19 10:40	8.1	1764	OR		
LBGC-Debris-US	2019-05-20 13:45	8.2	1868	OR		
LBGC-Debris-US	2019-05-21 12:45	8.1	3530	OR		
LBGC-Debris-US	2019-05-23 11:30	8.1	2340	OR		
LBGC-Debris-US	2019-05-24 11:50	8.2	2350	OR		
LBGC-Debris-US	2019-05-25 12:30	8.8	3070	OR		
LBGC-Debris-US	2019-05-26 14:50	8.0	3680	OR		
LBGC-Debris-US	2019-05-27 12:10	8.2	3450	OR		
LBGC-Debris-US	2019-05-28 13:55	8.1	3440	OR		
LBGC-Debris-US	2019-05-29 11:25	8.1	3460	2625	2683	2625
LBGC-Debris-US	2019-05-30 10:45	8.1	2380	3018	2959	3018
LBGC-Debris-US	2019-05-31 12:00	8.2	3420	2564	2519	2564
LBGC-Debris-US	2019-06-01 11:45	8.3	3440	2531	2572	2531
LBGC-Debris-US	2019-06-02 12:00	8.2	3590	OR		
LBGC-Debris-US	2019-06-04 12:15	8.3	2190	3707	3689	3707
LBGC-Debris-US	2019-06-05 13:00	8.1	2240	OR		
LBGC-Debris-US	2019-06-06 12:08	8.2	2290	2325	2270	2325
LBGC-Debris-US	2019-06-07 13:00	8.2	2280	2815	2807	2815
LBGC-Debris-US	2019-06-08 11:00	8.1	2340	2243	2225	2243
LBGC-Debris-US	2019-06-09 10:55	8.0	2360	1433	1428	1433
LBGC-Debris-US	2019-06-10 11:35	8.3	1987	2354	2354	2354
LBGC-Debris-US	2019-06-15 7:30	8.4	1957	1813	1808	1813
LBGC-Debris-US	2019-06-17 7:45	8.3	2010	769	767	769

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
LBGC-Debris-US	2019-06-25 7:20	7.8	1966	37.1	38.1	37.1
LBGC-Debris-US	2019-06-26 7:15	8.0	1915	36.5	36.9	36.5
LBGC-Debris-US	2019-06-27 14:25	8.4	1866	29	30	29
LBGC-Debris-US	2019-06-28 11:11	8.3	1967	OR		
LBGC-Debris-US	2019-08-14 7:00	8.5	1506	840	842	840
LBGC-Debris-US	2019-08-15 7:05	8.4	1479	97	98	97
LBGC-Debris-US	2019-08-21 7:05	8.1	1834	OR		
LBGC-Debris-US	2019-08-24 6:45	8.4	1866	OR		
LBGC-Debris-US	2019-08-29 16:00	8.5	1638	2289	2276	2289
LBGC-Debris-US	2019-08-30 10:50	8.4	1807	3276	3252	3276
LBGC-Debris-US	2019-09-05 14:00	8.4	1802	980	981	980
LBGC-Debris-US	2019-09-06 14:45	8.5	1693	16.1	16	16.1
LBGC-Debris-US	2019-09-07 14:15	8.1	1619	75	74.9	75
LBGC-Debris-US	2019-09-19 12:05	8.4	1819	2656	2672	2656
LBGC-Debris-US	2019-09-20 10:55	8.7	2350	908	907	908
LBGC-Debris-US	2019-09-21 11:45	8.4	1769	1711	1718	1711
LBGC-Debris-US	2019-09-22 11:10	8.7	2300	64	64	64
LBGC-Debris-US	2019-09-23 11:05	8.4	1759	85	86	85
LBGC-Debris-US	2019-09-24 13:30	8.3	1940	873	872	873
LBGC-Debris-US	2019-09-25 13:10	8.3	1762	73.4	72.9	73.4
LBGC-Debris-US	2019-09-28 14:00	8.3	1325	121	122	121
LBGC-Debris-US	2019-09-29 12:10	8.3	2050	137	137	137
LBGC-Debris-US	2019-09-30 10:00	8.2	1867	652	652	652
LBGC-Debris-US	2019-10-02 15:30	8.4	2340	1315	1315	1315
LBGC-Debris-US	2019-10-04 13:15	8.5	2350	1965	1956	1965
LBGC-Debris-US	2019-10-05 14:40	8.4	2500	1232	1231	1232
LBGC-Debris-US	2019-10-06 14:30	8.3	2460	81.4	81.4	81.4
LBGC-Debris-US	2019-10-08 11:15	8.1	1916	30.6	30.7	30.6
LBGC-Debris-US	2019-10-09 12:30	7.9	2760	51	51	51
LBGC-Debris-US	2019-10-10 2:30	8.3	1706	124	124	124
LBGC-Debris-US	2019-10-14 11:10	8.5	1803	89	89.6	89
LBGC-Debris-US	2019-10-16 14:05	7.6	1858	107.8	107.9	107.8
LBGC-Debris-US	2019-10-17 13:30	8.2	1848	122	123	122
LBGC-Debris-US	2019-10-26 16:50	8.1	2300	OR		
LBGC-Debris-US	2019-11-18 15:00	7.9	2460	OR		
LBGC-OUT	2019-01-05 16:05	8.2	726	36.4	37.1	36.4
LBGC-OUT	2019-01-28 15:05	7.1	1174	92	90	92
LBGC-OUT	2019-03-13 14:20	8.0	403	3026	3024	3026
LBGC-OUT	2019-03-14 15:50	7.8	1190	1350	1350	1350
LBGC-OUT	2019-03-15 9:15	8.1	1100	51.4	51.6	51.4
LBGC-OUT	2019-03-16 16:00	7.6	2660	3215	3214	3215
LBGC-OUT	2019-03-17 14:30	7.4	2550	OR		
LBGC-OUT	2019-03-18 15:30	8.0	326	OR		
LBGC-OUT	2019-03-19 16:00	8.6	705	OR		
LBGC-OUT	2019-03-20 2:20	8.6	475	OR		
LBGC-OUT	2019-03-21 13:30	8.0	347	OR		
LBGC-OUT	2019-03-22 12:00	8.2	318	OR		
LBGC-OUT	2019-03-23 12:15	8.1	400	OR		
LBGC-OUT	2019-03-24 12:49	8.2	500	OR		
LBGC-OUT	2019-03-25 11:03	8.1	262	OR		
LBGC-OUT	2019-03-26 10:57	8.1	287	OR		
LBGC-OUT	2019-03-27 11:37	8.1	283	OR		
LBGC-OUT	2019-03-28 10:00	8.5	333	OR		
LBGC-OUT	2019-03-29 11:05	8.2	310	OR		
LBGC-OUT	2019-03-30 10:28	8.2	313	OR		
LBGC-OUT	2019-03-31 10:50	8.1	3270	OR		
LBGC-OUT	2019-04-01 11:05	8.1	331			
LBGC-OUT	2019-04-02 11:04	8.1	374	OR		
LBGC-OUT	2019-04-03 10:50	8.2	425	OR		
LBGC-OUT	2019-04-04 11:42	8.2	425	1956	1969	1956
LBGC-OUT	2019-04-05 10:05	8.2	452	2719	2717	2719
LBGC-OUT	2019-04-06 10:17	8.2	541	OR		
LBGC-OUT	2019-04-07 10:10	8.1	541	OR		
LBGC-OUT	2019-04-08 10:22	8.2	421	OR		

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
LBGC-OUT	2019-04-09 11:30	8.2	469	OR		
LBGC-OUT	2019-04-10 12:40	8.3	539	OR		
LBGC-OUT	2019-04-11 10:25	8.1	493	OR		
LBGC-OUT	2019-04-12 10:15	8.2	532	OR		
LBGC-OUT	2019-04-13 11:40	8.2	560	OR		
LBGC-OUT	2019-04-14 11:15	8.1	571	OR		
LBGC-OUT	2019-04-15 10:15	8.1	679	OR		
LBGC-OUT	2019-04-16 11:05	8.1	605	OR		
LBGC-OUT	2019-04-17 11:55	8.1	755	OR		
LBGC-OUT	2019-04-18 10:22	8.1	826	OR		
LBGC-OUT	2019-04-19 10:30	8.2	775	OR		
LBGC-OUT	2019-04-20 10:48	8.2	817	OR		
LBGC-OUT	2019-04-21 10:52	8.1	904	OR		
LBGC-OUT	2019-04-22 12:05	8.2	956	OR		
LBGC-OUT	2019-04-23 10:59	8.3	1050	OR		
LBGC-OUT	2019-04-24 11:28	8.2	1065	OR		
LBGC-OUT	2019-04-25 10:45	8.2	1178	OR		
LBGC-OUT	2019-04-26 12:00	8.3	1148	OR		
LBGC-OUT	2019-04-27 10:27	8.3	1068	OR		
LBGC-OUT	2019-04-28 8:53	8.2	1100	OR		
LBGC-OUT	2019-04-29 9:05	8.2	1050	OR		
LBGC-OUT	2019-04-30 10:15	8.3	1490	OR		
LBGC-OUT	2019-05-01 10:30	8.1	1174	OR		
LBGC-OUT	2019-05-02 9:45	7.9	1899	OR		
LBGC-OUT	2019-05-03 11:05	8.1	1506			
LBGC-OUT	2019-05-04 9:36	8.2	1468	OR		
LBGC-OUT	2019-05-05 10:45	8.2	1435	OR		
LBGC-OUT	2019-05-06 9:35	8.2	1455	OR		
LBGC-OUT	2019-05-07 9:58	8.1	904	OR		
LBGC-OUT	2019-05-08 13:00	8.2	1104	OR		
LBGC-OUT	2019-05-09 12:20	8.2	1285	OR		
LBGC-OUT	2019-05-11 9:40	8.2	1378	OR		
LBGC-OUT	2019-05-13 12:00	8.1	1895	OR		
LBGC-OUT	2019-05-14 10:50	8.2	2130	OR		
LBGC-OUT	2019-05-15 12:05	8.3	2100	70	72	70
LBGC-OUT	2019-05-16 13:40	8.3	2020	OR		
LBGC-OUT	2019-05-17 10:55	8.2	2000	1065	1064	1065
LBGC-OUT	2019-05-19 10:30	8.0	1917	1051	1051	1051
LBGC-OUT	2019-05-20 13:35	8.2	1992	1092	1092	1092
LBGC-OUT	2019-05-21 11:25	8.2	2510	2.6	2.6	2.6
LBGC-OUT	2019-05-23 10:35	8.2	2470	OR		
LBGC-OUT	2019-05-24 10:45	8.2	2410	OR		
LBGC-OUT	2019-05-25 11:30	8.3	2490	OR		
LBGC-OUT	2019-05-26 13:35	8.3	2500	OR		
LBGC-OUT	2019-05-27 10:35	8.2	2540			
LBGC-OUT	2019-05-28 12:40	8.2	2480	OR		
LBGC-OUT	2019-05-29 10:15	8.2	11700	OR		
LBGC-OUT	2019-05-30 9:25	8.1	2480	3251	3242	3251
LBGC-OUT	2019-05-31 11:05	8.2	2510	90	91	90
LBGC-OUT	2019-06-01 10:50	8.3	2470	78	75	78
LBGC-OUT	2019-06-02 11:05	8.3	2650	48.5	48.5	48.5
LBGC-OUT	2019-06-03 10:40	8.2	2650	55.5	55.5	55.5
LBGC-OUT	2019-06-04 11:05	8.2	2250	86	85	86
LBGC-OUT	2019-06-05 11:33	8.2	2340	54	54	54
LBGC-OUT	2019-06-06 11:03	8.2	2340	66	66	66
LBGC-OUT	2019-06-07 11:20	8.2	2370	100	101	100
LBGC-OUT	2019-06-08 10:05	8.1	2410	1325	1320	1325
LBGC-OUT	2019-06-09 10:05	8.0	2460	3425	3419	3425
LBGC-OUT	2019-06-10 10:25	8.4	2050	78.2	80.1	78.2
LBGC-OUT	2019-06-11 11:45	8.4	11800	33.2	33.2	33.2
LBGC-OUT	2019-06-13 12:30	8.3	2020	49.5	50.2	49.5
LBGC-OUT	2019-06-14 12:45	8.4	1970	56.3	56.3	56.3
LBGC-OUT	2019-06-15 14:05	8.4	1986	45.1	45.6	45.1
LBGC-OUT	2019-06-16 13:45	8.3	2070	17.9	17.6	17.9



Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
LBGC-OUT	2019-06-18 14:05	8.3	2130	1917	1920	1917
LBGC-OUT	2019-06-19 14:05	8.3	2100	21.9	22	21.9
LBGC-OUT	2019-06-20 14:25	8.4	2050	26.1	26.1	26.1
LBGC-OUT	2019-06-21 11:25	8.0	2450	11.8	11.9	11.8
LBGC-OUT	2019-06-22 13:30	8.3	2000	15	15.2	15
LBGC-OUT	2019-06-23 13:25	8.1	2060	878	878	878
LBGC-OUT	2019-06-24 10:10	8.4	1741	1259	1262	1259
LBGC-OUT	2019-06-25 13:18	8.1	3540	54.7	48.9	54.7
LBGC-OUT	2019-06-26 14:00	8.2	3890	34.7	35.7	34.7
LBGC-OUT	2019-06-27 13:45	8.3	1946	29.8	30	29.8
LBGC-OUT	2019-06-28 10:30	8.4	1984	2180	2189	2180
LBGC-OUT	2019-06-29 10:05	8.5	1838	97	96	97
LBGC-OUT	2019-06-30 15:40	8.3	3450	68.7	70	68.7
LBGC-OUT	2019-07-01 12:20	8.1	3520	OR		
LBGC-OUT	2019-07-02 15:59	8.4	3350	OR		
LBGC-OUT	2019-07-03 13:10	8.2	2170	1818	1819	1818
LBGC-OUT	2019-07-04 13:50	8.0	2210	21.3	21.9	21.3
LBGC-OUT	2019-07-05 11:10	7.9	3690	14.6	15.3	14.6
LBGC-OUT	2019-07-10 12:55	8.3	1825	33.1	33.3	33.1
LBGC-OUT	2019-07-11 13:20	8.3	1844	31.4	31	31.4
LBGC-OUT	2019-07-12 12:45	8.3	1866	27.5	27.4	27.5
LBGC-OUT	2019-07-13 14:05	8.3	1850	20.3	20.4	20.3
LBGC-OUT	2019-07-14 14:40	8.3	1969	23	23.1	23
LBGC-OUT	2019-07-15 13:00	8.4	1877	22.8	22.5	22.8
LBGC-OUT	2019-07-16 13:20	8.3	1803	OR		
LBGC-OUT	2019-07-17 14:57	8.4	1847	OR		
LBGC-OUT	2019-07-18 13:50	8.5	1791	OR		
LBGC-OUT	2019-07-19 13:10	8.3	1845	OR		
LBGC-OUT	2019-07-20 15:00	8.3	1904	30.8	30.7	30.8
LBGC-OUT	2019-07-21 15:05	8.2	1820	96	94.9	96
LBGC-OUT	2019-07-22 13:30	8.4	1645	675	676	675
LBGC-OUT	2019-07-23 14:10	8.4	1639	88	85	88
LBGC-OUT	2019-07-24 15:30	8.3	8330	OR		
LBGC-OUT	2019-07-25 14:00	8.1	1950	45.1	46.3	45.1
LBGC-OUT	2019-07-26 10:59	8.6	1614	27	28	27
LBGC-OUT	2019-07-27 12:55	8.6	1617	38	41	38
LBGC-OUT	2019-07-28 13:35		2210	29.2	29.4	29.2
LBGC-OUT	2019-07-29 11:05	8.4	1933	73.9	72.8	73.9
LBGC-OUT	2019-07-30 14:40	8.3	2150	53.4	53	53.4
LBGC-OUT	2019-07-31 12:55	8.4	2090	72.8	71.8	72.8
LBGC-OUT	2019-08-01 13:45	8.5	2130	52.9	53.2	52.9
LBGC-OUT	2019-08-02 10:45	8.3	2220	14	14.1	14
LBGC-OUT	2019-08-06 14:00	8.4	1976	66.3	67.2	66.3
LBGC-OUT	2019-08-07 15:47	8.4	1968	23.1	23.2	23.1
LBGC-OUT	2019-08-08 14:40	8.4	2150	78.3	77.9	78.3
LBGC-OUT	2019-08-09 11:10	8.4	2420	99.5	98.9	99.5
LBGC-OUT	2019-08-10 13:40	8.4	2060	15	15.1	15
LBGC-OUT	2019-08-11 12:30	8.3	2020	4.9	5	4.9
LBGC-OUT	2019-08-12 9:45	8.4	2020	6.8	6.7	6.8
LBGC-OUT	2019-08-14 10:05	8.2	1504	OR		
LBGC-OUT	2019-08-15 11:25	8.3	1440	10	11	10
LBGC-OUT	2019-08-16 11:25	8.2	1887	2014	2015	2014
LBGC-OUT	2019-08-17 14:15	8.3	2000	1531	1529	1531
LBGC-OUT	2019-08-18 14:55	8.2	1898	1760	1745	1760
LBGC-OUT	2019-08-19 14:35	8.2	2040	OR		
LBGC-OUT	2019-08-20 13:55	8.4	1882	37.3	36.5	37.3
LBGC-OUT	2019-08-21 12:30	8.4	1849	OR		
LBGC-OUT	2019-08-22 10:50	8.3	1667	67.9	66.9	67.9
LBGC-OUT	2019-08-23 10:55	8.3	1820	OR		
LBGC-OUT	2019-08-24 6:30	8.4	1866	OR		
LBGC-OUT	2019-08-25 13:00	8.6	1624	883	828	883
LBGC-OUT	2019-08-26 13:20	8.5	1730	79	80	79
LBGC-OUT	2019-08-27 14:17	8.4	1748	26.1	26.2	26.1
LBGC-OUT	2019-08-28 14:30	8.3	1740	45.9	45.6	45.9

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
LBGC-OUT	2019-08-29 15:05	8.5	1777	14.5	14	14.5
LBGC-OUT	2019-08-30 10:35	8.5	1803	21.4	21.5	21.4
LBGC-OUT	2019-09-04 14:55	8.4	1399	60.4	60.7	60.4
LBGC-OUT	2019-09-05 13:15	8.3	1931	6.1	6.2	6.1
LBGC-OUT	2019-09-06 14:10	8.3	1921	3.5	3.5	3.5
LBGC-OUT	2019-09-07 13:30	8.3	1379	79.3	79.5	79.3
LBGC-OUT	2019-09-08 13:45	8.4	891	18.3	18.3	18.3
LBGC-OUT	2019-09-09 9:20	8.4	2050	4.3	4.4	4.3
LBGC-OUT	2019-09-10 13:10	8.4	2090	4.8	4.9	4.8
LBGC-OUT	2019-09-11 13:50	8.5	2070	3.2	3.2	3.2
LBGC-OUT	2019-09-12 12:15	8.4	2030	3.8	3.9	3.8
LBGC-OUT	2019-09-13 12:08	8.6	1991	2.2	2.2	2.2
LBGC-OUT	2019-09-14 12:40	8.4	1967	3.2	3.2	3.2
LBGC-OUT	2019-09-15 12:12	8.4	1978	4.3	4.2	4.3
LBGC-OUT	2019-09-16 13:20	8.4	2190	49.5	49.8	49.5
LBGC-OUT	2019-09-17 10:50	8.4	2100	16.4	16.4	16.4
LBGC-OUT	2019-09-18 9:25	8.6	2540	8.8	8.8	8.8
LBGC-OUT	2019-09-19 9:50	8.5	1844	10.6	10.6	10.6
LBGC-OUT	2019-09-20 9:55	8.6	2420	3.6	3.6	3.6
LBGC-OUT	2019-09-21 10:00	8.4	1784	2.7	2.7	2.7
LBGC-OUT	2019-09-22 9:58	8.5	2350	2	2.1	2
LBGC-OUT	2019-09-23 9:55	8.4	1773	2.6	2.5	2.6
LBGC-OUT	2019-09-24 12:00	8.4	1817	2.3	2.2	2.3
LBGC-OUT	2019-09-25 12:25	8.4	1820	2.4	2.4	2.4
LBGC-OUT	2019-09-26 12:10	8.4	1386	43.7	43.6	43.7
LBGC-OUT	2019-09-27 12:40	8.2	1983	14.3	14.3	14.3
LBGC-OUT	2019-09-28 13:25	8.6	1963	5.7	5.8	5.7
LBGC-OUT	2019-09-29 11:30	8.7	1928	3.2	3.3	3.2
LBGC-OUT	2019-09-30 9:45	8.3	1925	2.9	2.8	2.9
LBGC-OUT	2019-10-01 16:15	8.4	2430	1.7	1.8	1.7
LBGC-OUT	2019-10-02 14:40	8.4	2420	2	2	2
LBGC-OUT	2019-10-03 14:35	8.4	2370	1.4	1.5	1.4
LBGC-OUT	2019-10-04 12:30	8.5	2360	1.6	1.6	1.6
LBGC-OUT	2019-10-05 13:35	8.6	2250	3.1	3.1	3.1
LBGC-OUT	2019-10-06 13:45	8.6	2400	3.4	3.4	3.4
LBGC-OUT	2019-10-07 13:50	8.2	1969	14.6	14.5	14.6
LBGC-OUT	2019-10-08 9:45	8.0	1891	3.2	3.4	3.2
LBGC-OUT	2019-10-09 11:05	8.0	2640	5.2	5.2	5.2
LBGC-OUT	2019-10-10 12:55	8.6	1927	4.4	4.4	4.4
LBGC-OUT	2019-10-11 10:10	8.2	2480	2	2	2
LBGC-OUT	2019-10-12 9:40	8.6	1578	1.3	1.3	1.3
LBGC-OUT	2019-10-13 10:30	8.3	2660	1.9	2	1.9
LBGC-OUT	2019-10-14 10:00	8.7	1765	2	1.9	2
LBGC-OUT	2019-10-15 12:30	7.7	1835	1.7	1.7	1.7
LBGC-OUT	2019-10-16 13:30	7.6	1746	1.9	2	1.9
LBGC-OUT	2019-10-17 13:00	8.3	1775	2.4	2.6	2.4
LBGC-OUT	2019-10-18 14:15	8.4	1784	1.5	1.5	1.5
LBGC-OUT	2019-10-19 14:15	8.6	1768	19	18.9	19
LBGC-OUT	2019-10-20 14:00	8.7	2000	9.6	9.7	9.6
LBGC-OUT	2019-10-21 11:45	8.6	2190	61.2	61.3	61.2
LBGC-OUT	2019-10-22 16:30	8.6	2330	44.6	45.3	44.6
LBGC-OUT	2019-10-23 15:25	8.7	2230	24.9	24.9	24.9
LBGC-OUT	2019-10-24 16:55	8.6	2300	35.9	35.6	35.9
LBGC-OUT	2019-10-25 16:30	8.5	2350	OR		
LBGC-OUT	2019-10-26 15:55	8.6	2290	41.1	41.2	41.1
LBGC-OUT	2019-10-27 14:40	8.6	2180	20.2	20.2	20.2
LBGC-OUT	2019-10-28 12:00	8.8	3310	19.1	19.2	19.1
LBGC-OUT	2019-10-30 12:45	8.3	2550	1.3	1.3	1.3
LBGC-OUT	2019-10-31 14:15	8.3	2000	17	17	17
LBGC-OUT	2019-11-01 12:30	8.4	2180	22.9	23	22.9
LBGC-OUT	2019-11-02 15:05	8.3	1875	14.8	14.8	14.8
LBGC-OUT	2019-11-03 15:00	8.5	2020	22	21.9	22
LBGC-OUT	2019-11-04 13:20	8.4	1444	46.7	46.5	46.7
LBGC-OUT	2019-11-05 10:10	8.2	3080	7.5	7.5	7.5

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
LBGC-OUT	2019-11-15 13:05	8.4	2740	2.3	2.3	2.3
LBGC-OUT	2019-11-16 13:50	8.4	2470	5	4.9	5
LBGC-OUT	2019-11-17 10:05	8.2	2790	58.3	58.4	58.3
LBGC-OUT	2019-11-18 14:05	8.4	2360	OR		
LBGC-OUT	2019-11-19	8.5	2430	71	71	71
LBGC-OUT	2019-11-21 12:15	8.5	1205	2288	2288	2288
LBGC-OUT	2019-11-22 10:55	8.3	924	2608	2222	2608
LBGC-OUT	2019-11-23 1:20	8.5	1422	100	100	100
LBGC-OUT	2019-11-24 12:45	8.6	1463	400		400
LBGC-OUT	2019-11-25 14:40	8.5	1540	955	955	955
LBGC-OUT	2019-11-26 5:10	8.2	1938	50.8	51	50.8
LBL3C-1.57	2019-03-17 13:29	7.0	1069	2856	2858	2856
LBL3C-1.57	2019-03-18 17:33		531	2775	2771	2775
LBL3C-1.57	2019-03-20 18:52	8.1	294	1525	1529	1525
LBL3C-1.57	2019-03-21 17:40	8.2	225	1907	1907	1907
LBL3C-1.57	2019-03-22 10:45	8.1	181.9	90	90.2	90
LBL3C-1.57	2019-03-23 14:20	8.0	206	2403	2372	2403
LBL3C-1.57	2019-03-24 15:00	7.6	212	1780	1762	1780
LBL3C-1.57	2019-03-25 13:15	8.0	205	0.1	0.1	0.1
LBL3C-1.57	2019-03-26 13:43	8.0	221	0.6	0.6	0.6
LBL3C-1.57	2019-03-27 13:43	8.0	223	875	869	875
LBL3C-1.57	2019-03-28 12:00	8.2	296	78	79	78
LBL3C-1.57	2019-03-29 10:45	8.1	319	113	112	113
LBL3C-1.57	2019-03-30 12:51	7.8	285	120	118	120
LBL3C-1.57	2019-03-31 11:35	7.9	2620	82	81	82
LBL3C-1.57	2019-04-01 12:55	7.9	318	0.1	0.1	0.1
LBL3C-1.57	2019-04-02 13:37	7.8	320	0.1	0.1	0.1
LBL3C-1.57	2019-04-04 13:40	7.8	377	73	72	73
LBL3C-1.57	2019-04-05 13:20	7.6	436	60.4	60.2	60.4
LBL3C-1.57	2019-04-06 12:30	7.6	515	83	82	83
LBL3C-1.57	2019-04-07 12:25	7.6	524	603	604	603
LBL3C-1.57	2019-04-08 13:00	7.8	455	1291	1290	1291
LBL3C-1.57	2019-04-09 13:40	8.2	400	1290	1286	1290
LBL3C-1.57	2019-04-10 14:50	7.8	486	126	126	126
LBL3C-1.57	2019-04-11 15:45	7.2	714	96	90	96
LBL3C-1.57	2019-04-12 14:00	7.6	525	78	75	78
LBL3C-1.57	2019-04-13 13:15	7.7	534	147	146	147
LBL3C-1.57	2019-04-14 12:30	7.5	594	831	823	831
LBL3C-1.57	2019-04-15 13:06	7.8	664	2546	2536	2546
LBL3C-1.57	2019-04-16 13:39	7.6	661	0.1	0.1	0.1
LBL3C-1.57	2019-04-17 13:59	7.9	449	63	62	63
LBL3C-1.57	2019-04-18 14:03	7.8	682	91	94	91
LBL3C-1.57	2019-04-19 12:22	7.8	4770	80.8	82.6	80.8
LBL3C-1.57	2019-04-20 12:59	7.4	714	68.2	68	68.2
LBL3C-1.57	2019-04-21 12:25	7.4	868	61.1	60.5	61.1
LBL3C-1.57	2019-04-22 13:50	7.5	954	0.1	0.1	0.1
LBL3C-1.57	2019-04-23 13:40	7.3	1043	92	90	92
LBL3C-1.57	2019-04-24 13:41	7.3	1170	40.2	38.5	40.2
LBL3C-1.57	2019-04-25 12:40	7.2	1373	72	71	72
LBL3C-1.57	2019-04-26 15:50	7.4	1371	37.3	37.4	37.3
LBL3C-1.57	2019-04-27 1:00	7.0	1327	25	24.7	25
LBL3C-1.57	2019-04-28 11:50	7.0	1271	54	53	54
LBL3C-1.57	2019-04-29 11:57	7.3	1290	24.8	24.6	24.8
LBL3C-1.57	2019-04-30 1:45	7.1	1507	16.6	16.4	16.6
LBL3C-1.57	2019-05-01 2:20	7.9	1493	16.4	16.5	16.4
LBL3C-1.57	2019-05-02 12:40	6.9	1527	20.5	20.5	20.5
LBL3C-1.57	2019-05-03 13:26	6.9	1201	20.8	20.7	20.8
LBL3C-1.57	2019-05-04 11:30	6.9	1432	1586	1573	1586
LBL3C-1.57	2019-05-05 12:40	6.9	1443	1570	1575	1570
LBL3C-1.57	2019-05-06 11:30	6.9	1198	30.1	30.2	30.1
LBL3C-1.57	2019-05-07 12:25	6.9	1231	1.8	1.8	1.8
LBL3C-1.57	2019-05-08 15:01	7.0	1306	71	74	71
LBL3C-1.57	2019-06-24 13:05	7.8	1283	OR		
LBL3C-2.19	2019-03-21 17:00	8.2	193.3	780	778	780

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
LBL3C-2.19	2019-03-22 10:00	8.0	140.1	13.4	13.5	13.4
LBL3C-2.19	2019-03-23 13:25	8.1	150.9	58.4	58.2	58.4
LBL3C-2.19	2019-03-24 14:10	8.0	160.5	65	64.1	65
LBL3C-2.19	2019-03-25 12:00	8.1	164	33.3	33.4	33.3
LBL3C-2.19	2019-03-26 12:36	8.0	176	34.5	34.2	34.5
LBL3C-2.19	2019-03-27 12:36	7.7	174	51.6	51.1	51.6
LBL3C-2.19	2019-03-28 11:10	8.1	203	75.7	76.4	75.7
LBL3C-2.19	2019-03-29 11:45	7.3	206	86	86.2	86
LBL3C-2.19	2019-03-30 11:44	8.2	223	41.4	43.3	41.4
LBL3C-2.19	2019-03-31 11:00	8.1	215	25	25	25
LBL3C-2.19	2019-04-01 11:40	8.0	233	27.5	27.3	27.5
LBL3C-2.19	2019-04-02 12:43	2.8	237	14.3	14.3	14.3
LBL3C-2.19	2019-04-03 12:04	7.5	3810	12.6	12.5	12.6
LBL3C-2.19	2019-04-04 12:52	8.3	261	16.2	16.3	16.2
LBL3C-2.19	2019-04-05 12:57	8.2	273	17.7	17.7	17.7
LBL3C-2.19	2019-04-06 12:58	8.2	291	14.3	14.2	14.3
LBL3C-2.19	2019-04-07 12:57	8.1	398	11.8	11.7	11.8
LBL3C-2.19	2019-04-08 13:28	8.2	336	14.6	14.3	14.6
LBL3C-2.19	2019-04-09 13:55	8.2	328	17.1	17.8	17.1
LBL3C-2.19	2019-04-10 15:08	8.1	324	16.3	16	16.3
LBL3C-2.19	2019-04-11 16:10	8.2	345	13.7	14	13.7
LBL3C-2.19	2019-04-12 14:30	8.2	358	13.4	13	13.4
LBL3C-2.19	2019-04-13 12:55	8.3	385	19.7	19.7	19.7
LBL3C-2.19	2019-04-14 13:05	8.1	399	11	10.8	11
LBL3C-2.19	2019-04-15 12:47	8.1	466	14	14	14
LBL3C-2.19	2019-04-16 13:26	8.1	503	9.6	9.5	9.6
LBL3C-2.19	2019-04-17 13:35	7.6	360	8.6	8.6	8.6
LBL3C-2.19	2019-04-18 13:41	8.2	505	9.1	8.8	9.1
LBL3C-2.19	2019-04-19 12:00	8.2	525	9.5	9.6	9.5
LBL3C-2.19	2019-04-20 12:02	8.2	571	8.7	9	8.7
LBL3C-2.19	2019-04-21 11:50	8.2	592	8.1	8	8.1
LBL3C-2.19	2019-04-22 13:02	8.3	613	6.9	6.9	6.9
LBL3C-2.19	2019-04-23 12:35	8.2	630	6.2	6.2	6.2
LBL3C-2.19	2019-04-24 13:20	8.3	661	5.8	5.8	5.8
LBL3C-2.19	2019-04-25 13:05	7.0	738	5.7	5.9	5.7
LBL3C-2.19	2019-04-26 16:15	8.4	693	9	9.1	9
LBL3C-2.19	2019-05-07 12:40	8.1	547	4.9	4.7	4.9
LBL3C-2.19	2019-05-08 15:22	8.1	822	6.3	5.7	6.3
LBL3C-2.19	2019-05-09 2:32	8.2	688	15.9	15.2	15.9
LBL3C-2.19	2019-05-11 12:25	8.3	756	9.2	9.2	9.2
LBL3C-3.32	2019-03-21 14:20	8.0	177.6	17.7	17.8	17.7
LBL3C-3.32	2019-03-22 9:10	8.1	135.6	10.2	10	10.2
LBL3C-3.32	2019-03-23 13:46	8.0	152.8	54.6	55	54.6
LBL3C-3.32	2019-03-24 14:50	8.2	160	51	52	51
LBL3C-3.32	2019-03-25 12:30	8.0	160	71.1	71.5	71.1
LBL3C-3.32	2019-03-26 13:02	8.1	167	0.1	0.1	0.1
LBL3C-3.32	2019-03-27 13:02	8.0	180	733	727	733
LBL3C-3.32	2019-03-28 11:20	8.5	182	82	83	82
LBL3C-3.32	2019-03-29 12:00	8.8	185	95	96	95
LBL3C-3.32	2019-03-30 12:14	8.0	207	42.7	42.6	42.7
LBL3C-3.32	2019-03-31 11:30	8.1	199.4	24.8	24.7	24.8
LBL3C-3.32	2019-04-01 12:15	8.0	222	22.8	22.7	22.8
LBL3C-3.32	2019-04-03 12:28	8.0	389	90	91	90
LBL3C-3.32	2019-04-04 13:10	8.2	221	14	13.5	14
LBL3C-3.32	2019-04-05 12:10	8.1	252	15.8	15.6	15.8
LBL3C-3.32	2019-04-06 12:05	8.3	302	49.1	48.6	49.1
LBL3C-3.32	2019-04-07 13:35	8.1	392	9.5	9.4	9.5
LBL3C-3.32	2019-04-08 14:01	8.2	320	14.7	14.9	14.7
LBL3C-3.32	2019-04-09 14:23	8.3	273	14.4	14.5	14.4
LBL3C-3.32	2019-04-11 16:35	8.2	306	14.7	14.4	14.7
LBL3C-3.32	2019-04-12 15:45	8.3	401	20.7	21	20.7
LBL3C-3.32	2019-04-13 13:40	8.2	344	18.7	17.1	18.7
LBL3C-3.32	2019-04-14 13:35	8.2	369	10.5	10.3	10.5
LBL3C-3.32	2019-04-15 12:12	8.3	468	17.7	17.5	17.7

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
LBL3C-3.32	2019-04-16 12:38	8.2	466	9.6	9.7	9.6
LBL3C-3.32	2019-04-17 13:03	8.2	460	11.6	12	11.6
LBL3C-3.32	2019-04-18 13:05	8.2	506	16.7	16.6	16.7
LBL3C-3.32	2019-04-19 11:35	8.2	530	12.7	12.8	12.7
LBL3C-3.32	2019-04-20 12:28	8.2	552	11.1	11.1	11.1
LBL3C-3.32	2019-04-21 12:19	8.2	567	7.3	7.3	7.3
LBL3C-3.32	2019-04-22 13:24	8.2	599	12	12	12
LBL3C-3.32	2019-04-23 13:00	8.2	631	26.3	26.8	26.3
LBL3C-3.32	2019-04-24 13:00	8.2	656	12.6	12	12.6
LBL3C-3.32	2019-04-25 13:55	8.1	754	9.4	9.5	9.4
LBL3C-3.32	2019-04-26 15:20	8.4	732	19.8	20.4	19.8
LBL3C-3.32	2019-04-27 1:50	8.0	688	14.5	14.7	14.5
LBL3C-3.32	2019-04-28 12:20	7.9	729	14.3	14.5	14.3
LBL3C-3.32	2019-04-29 12:17	8.2	719	15.6	15.5	15.6
LBL3C-3.32	2019-04-30 1:15	7.1	1507	16.6	16.4	16.6
LBL3C-3.32	2019-05-01 2:36	8.0	1098	7.4	7.4	7.4
LBL3C-3.32	2019-05-02 13:10	8.0	785	6	5.8	6
LBL3C-3.32	2019-05-03 12:50	7.9	792	6	6.1	6
LBL3C-3.32	2019-05-04 11:45	7.8	818	5.5	5.4	5.5
LBL3C-3.32	2019-05-05 13:00	7.7	820	5.5	5.5	5.5
LBL3C-3.32	2019-05-07 13:05	8.1	625	8.6	8.4	8.6
LBL3C-3.32	2019-05-08 16:05	8.0	768	8.1	8.2	8.1
PR-Dike	2019-03-26 10:15	8.2	585	25.1	25.6	25.1
R5a_E_NCD	2019-03-19 19:00	7.7	781	32	31.7	32
R5a_E_Sump	2019-03-23 11:40	7.5	990	763	743	763
R5a_E_Sump	2019-03-24 11:10	7.4	1063	28.7	28.9	28.7
R5a_E_Sump	2019-03-25 11:00	7.2	1053	58	58	58
R5a_E_Sump	2019-03-26 10:10	7.3	1143	21.1	19.2	21.1
R5a_E_Sump	2019-03-27 10:45	7.6	1174	10.4	10.1	10.4
R5a_E_Sump	2019-03-28 9:35	7.8	1215	13.2	12.8	13.2
R5a_E_Sump	2019-03-29 13:25	7.3	1162	6.6	6.3	6.6
R5a_E_Sump	2019-04-25 10:27	8.3	1031	11.3	11.6	11.3
R5a_E_Sump	2019-06-29 13:25	8.0	1051	20	19.9	20
R5a_E_Sump	2019-06-30 11:47	7.4	928	35.1	34.9	35.1
R5a_E_Sump	2019-07-01 14:58	8.1	795	54.1	54.5	54.1
R5a_W_NCD	2019-04-09 10:30	8.3	1045	82.7	83	82.7
R5B-EAST-SEEP	2019-05-02 12:40	6.3	1609	3.4	3.3	3.4
R6_W_Sump	2019-03-19 13:20	8.6	326	OR		
R6_W_Sump	2019-04-05 9:30	7.9	341	67.3	67.3	67.3
RBAA-001	2019-03-26 14:15	7.8	497	26.7	26.5	26.7
RBAC-SEEP	2019-01-26 13:00	7.8	1595	1.7	1.7	1.7
RBAC-SEEP	2019-03-14 12:10	7.4	1691	31.4	32.6	31.4
RBAC-SEEP	2019-03-29 8:45	7.6	1337	15.6	15.5	15.6
RBAC-SEEP	2019-05-02 9:20	7.6	1263	4.3	3.8	4.3
RBAC-SEEP	2019-08-03 9:55	8.0	1370	6.4	6.3	6.4
RBAC-SEEP	2019-09-01 9:40	7.5	957	5.6	5.4	5.6
RBAC-SEEP	2019-09-22 10:30	8.1	1316	9.7	9.8	9.7
RBAC-SEEP	2019-10-02 16:55	7.6	1239	5.8	5.7	5.8
RBAC-SUMP	2019-01-26 12:45	5.7	348	19.1	18.7	19.1
RBAC-SUMP	2019-02-28 15:30	7.3	2010	2.6	2.5	2.6
RBAC-SUMP	2019-03-29 9:00	7.2	1081	6.1	6.3	6.1
RBAC-SUMP	2019-05-02 9:05	8.1	1446	6.4	6.3	6.4
RBAC-SUMP	2019-06-18 9:50	8.0	1281	3.2	3.2	3.2
RBAC-SUMP	2019-06-18 10:55	8.0	1281	3.2	3.2	3.2
RBAC-SUMP	2019-08-03 9:45	8.1	1565	21.1	21	21.1
RBAC-SUMP	2019-09-19 10:00	8.0	1552	28.6	29	28.6
RBAC-SUMP	2019-09-22 10:35	6.7	3470	34	35	34
RBAC-SUMP	2019-10-02 17:05	7.9	1599	21.9	21.8	21.9
RBAC-SUMP	2019-11-06 13:35	7.9	1417	16.9	16.9	16.9
RBAC-SUMP	2019-11-23 15:20	8.8	803	8	8	8
RBAC-SUMP	2019-12-05 11:20	7.0	1826	32.7	32.6	32.7
RB-Core-Trench-Sump	2019-08-24 7:29	8.6	2090	1041	1021	1041
RB-Core-Trench-Sump	2019-08-26	9.4	1881	1002	1002	1002
RBDT-BT	2019-01-19 13:15	11.0	1142	OR		

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RBDT-BT	2019-02-16 13:50	9.6	1961	OR		
RBDT-BT	2019-03-23 16:20	9.9	1779	OR		
RBDT-BT	2019-04-04 15:02	9.6	2880	OR		
RBDT-BT	2019-04-05 15:02	9.6	2880	OR		
RBDT-BT	2019-05-09 11:50	10.7	19900	OR		
RBDT-BT	2019-06-13 14:45	9.2	7330	OR		
RBDT-BT	2019-07-06 12:40	9.5	2100	OR		
RBDT-NSP	2019-03-23 16:05	9.6	259	54.2	54.5	54.2
RBDT-NSP	2019-04-01 12:40	8.6	271	36	36	36
RBDT-NSP	2019-04-04 12:15	8.7	395	47.2	44.7	47.2
RBDT-NSP	2019-05-08 12:32	8.0	1150	107.4	107.3	107.4
RBDT-NSP	2019-06-03 9:44	8.3	1375	102	102	102
RBDT-NSP	2019-07-07 11:50	8.8	553	OR		
RBDT-TC	2019-01-19 13:05	9.6	1024	1288	1288	1288
RBDT-TC	2019-02-16 13:25	9.1	1110	721	714	721
RBDT-TC	2019-03-23 16:15	9.7	1988	OR		
RBDT-TC	2019-04-04 15:05	9.7	2120	OR		
RBDT-TC	2019-04-05 15:05	9.7	2120	OR		
RBDT-TC	2019-05-09 12:12	10.5	6700	OR		
RBDT-TC	2019-06-13 14:35	9.4	7730	OR		
RBDT-TC	2019-07-06 13:00	9.6	9470	OR		
RBDT-TPSA-CP	2019-03-20 14:00	10.1	1528	OR		
RB-MWTF_SLP	2019-01-01 13:15	7.3	1420	2.5	2.5	2.5
RB-MWTF_SLP	2019-01-02 14:17	7.7	1538	2.4	2.3	2.4
RB-MWTF_SLP	2019-01-03 15:02	7.9	1511	2.5	2.5	2.5
RB-MWTF_SLP	2019-01-04 13:20	7.7	1532	5.5	4.8	5.5
RB-MWTF_SLP	2019-01-05 14:20	7.5	1587	2.4	2.4	2.4
RB-MWTF_SLP	2019-01-06 13:35	7.2	1457	4.8	4.9	4.8
RB-MWTF_SLP	2019-01-07 12:15	7.5	1357	2.8	2.8	2.8
RB-MWTF_SLP	2019-01-08 14:02	7.3	1414	2	2	2
RB-MWTF_SLP	2019-01-09 13:05	7.2	1436	1.8	1.8	1.8
RB-MWTF_SLP	2019-01-10 13:29	6.8	1423	1.9	1.9	1.9
RB-MWTF_SLP	2019-01-11 12:54	7.0	1347	1.3	1.3	1.3
RB-MWTF_SLP	2019-01-12 12:58	7.3	1351	2.4	2.5	2.4
RB-MWTF_SLP	2019-01-13 12:35	7.6	1304	1.6	1.4	1.6
RB-MWTF_SLP	2019-01-14 12:45	7.6	1228	1.5	1.6	1.5
RB-MWTF_SLP	2019-01-15 13:05	7.6	11850	1.9	2.1	1.9
RB-MWTF_SLP	2019-01-16 13:45	8.1	1550	1.5	1.5	1.5
RB-MWTF_SLP	2019-01-17 1:05	8.0	219	1.6	1.6	1.6
RB-MWTF_SLP	2019-01-18 12:30	7.6	989	1.9	2	1.9
RB-MWTF_SLP	2019-01-19 14:32	7.4	1300	2.3	2.8	2.3
RB-MWTF_SLP	2019-01-20 13:30	7.7	1040	3.6	3.8	3.6
RB-MWTF_SLP	2019-01-21 14:25	7.6	1206	3	3	3
RB-MWTF_SLP	2019-01-22 14:07	7.4	1168	4.3	4.3	4.3
RB-MWTF_SLP	2019-01-23 14:20	7.6	1166	5	5	5
RB-MWTF_SLP	2019-01-24 14:55	7.5	1464	3.4	3.3	3.4
RB-MWTF_SLP	2019-01-25 12:21	7.5	1828	2.7	2.7	2.7
RB-MWTF_SLP	2019-01-26 16:50	7.5	2210	2.8	2.6	2.8
RB-MWTF_SLP	2019-01-27 14:33	7.7	1966	2.3	2.3	2.3
RB-MWTF_SLP	2019-01-28 13:35	7.8	1585	2.9	3	2.9
RB-MWTF_SLP	2019-01-29 12:35	7.8	1425	2.2	2.3	2.2
RB-MWTF_SLP	2019-01-30 14:17	7.8	1283	3.9	3.8	3.9
RB-MWTF_SLP	2019-01-31 13:53	7.9	1227	3.8	3.8	3.8
RB-MWTF_SLP	2019-02-01 12:49	8.5	1191	4.3	4.3	4.3
RB-MWTF_SLP	2019-02-02 15:00	7.6	1360	6.4	6.3	6.4
RB-MWTF_SLP	2019-02-03 12:10	7.5	1152	4	4.1	4
RB-MWTF_SLP	2019-02-04 13:45	7.3	1235	8.4	7.7	8.4
RB-MWTF_SLP	2019-02-05 11:40	8.1	1050	6.2	6.3	6.2
RB-MWTF_SLP	2019-02-06 15:05	7.7	1237	7.2	7.2	7.2
RB-MWTF_SLP	2019-02-07 12:20	7.8	1145	7.3	7.5	7.3
RB-MWTF_SLP	2019-02-08 15:00	7.9	1155	7.5	7.4	7.5
RB-MWTF_SLP	2019-02-09 14:20	8.5	505	6.5	6.5	6.5
RB-MWTF_SLP	2019-02-10 13:15	7.4	948	7	7	7
RB-MWTF_SLP	2019-02-11 15:05	7.8	1100	11.1	11.2	11.1

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RB-MWTF_SLP	2019-02-12 11:55	7.7	1080	12.8	12.9	12.8
RB-MWTF_SLP	2019-02-13 13:39	8.0	1775	13.7	13.7	13.7
RB-MWTF_SLP	2019-02-14 13:43	7.8	2080	14.8	14.7	14.8
RB-MWTF_SLP	2019-02-15 13:26	8.4	1989	12.8	13.3	12.8
RB-MWTF_SLP	2019-02-16 15:20	8.2	1975	21.5	21.5	21.5
RB-MWTF_SLP	2019-02-17 14:05	8.2	1558	9.7	9.6	9.7
RB-MWTF_SLP	2019-02-18 12:28	7.6	1358	5.4	5.4	5.4
RB-MWTF_SLP	2019-02-19 14:35	7.7	1279	3.9	4	3.9
RB-MWTF_SLP	2019-02-20 12:25	7.5	1260	3.1	3.2	3.1
RB-MWTF_SLP	2019-02-21 12:50	7.7	1227	3.3	3.2	3.3
RB-MWTF_SLP	2019-02-22 12:15	9.2	1240	4.6	4.7	4.6
RB-MWTF_SLP	2019-02-23 14:00	7.8	1192	5.1	5.2	5.1
RB-MWTF_SLP	2019-02-24 14:05	7.8	1272	4	3.9	4
RB-MWTF_SLP	2019-02-26 13:00	6.5	1035	10	10	10
RB-MWTF_SLP	2019-02-27 12:25	7.1	742	10.4	10	10.4
RB-MWTF_SLP	2019-02-28 13:10	6.4	500	10.5	11.1	10.5
RB-MWTF_SLP	2019-03-10 14:33	9.6	1533	8.2	8	8.2
RB-MWTF_SLP	2019-03-11 14:09	7.6	1520	3.6	3.6	3.6
RB-MWTF_SLP	2019-03-12 12:55	7.2	1667	10.1	10.1	10.1
RB-MWTF_SLP	2019-03-13 15:15	7.7	1956	71.8	72.2	71.8
RB-MWTF_SLP	2019-03-14 14:32	7.6	1852	48.6	48.7	48.6
RB-MWTF_SLP	2019-03-15 13:03	7.2	1727	16.5	16.6	16.5
RB-MWTF_SLP	2019-03-15 13:30	7.4	1064	15.6	15.5	15.6
RB-MWTF_SLP	2019-03-16 14:10	7.8	1451	22.4	22.4	22.4
RB-MWTF_SLP	2019-03-17 14:35	7.7	1442	15.9	16.1	15.9
RB-MWTF_SLP	2019-03-18 14:21	7.4	1583	7.5	7.5	7.5
RB-MWTF_SLP	2019-03-19 11:33	6.8	1588	3.4	3.2	3.4
RB-MWTF_SLP	2019-03-20 10:45	8.3	1086	5.5	6.1	5.5
RB-MWTF_SLP	2019-03-21 10:59	6.8	1112	40.1	40.1	40.1
RB-MWTF_SLP	2019-03-22 14:25	7.3	1040	OR		
RB-MWTF_SLP	2019-03-24 12:00	7.1	1095	9.4	9.3	9.4
RB-MWTF_SLP	2019-03-25 11:05	7.9	1075	20.7	20.1	20.7
RB-MWTF_SLP	2019-03-26 10:20	8.3	1207	11.4	11.3	11.4
RB-MWTF_SLP	2019-03-27 11:00	7.7	1220	5.9	5.8	5.9
RB-MWTF_SLP	2019-03-28 9:45	7.7	1240	8.4	7.5	8.4
RB-MWTF_SLP	2019-03-31 10:10	7.8	1176	7.8	6.9	7.8
RB-MWTF_SLP	2019-04-01 10:25	7.6	1159	3.8	3.8	3.8
RB-MWTF_SLP	2019-04-02 11:35	7.9	1284	4.9	4.9	4.9
RB-MWTF_SLP	2019-04-03 9:20	8.5	1532	3.2	2.7	3.2
RB-MWTF_SLP	2019-04-04 9:35	8.3	687	4	3.8	4
RB-MWTF_SLP	2019-04-05 12:25	8.6	1627	803	801	803
RB-MWTF_SLP	2019-04-06 9:19	8.6	1555	3.8	3.6	3.8
RB-MWTF_SLP	2019-04-07 9:55	7.6	1342	2.2	2.2	2.2
RB-MWTF_SLP	2019-04-08 11:17	8.0	1237	2.3	2.2	2.3
RB-MWTF_SLP	2019-04-09 9:51	8.2	1275	2.6	2.3	2.6
RB-MWTF_SLP	2019-04-10 9:45	7.6	1381	1.4	1.3	1.4
RB-MWTF_SLP	2019-04-11	7.8	1257	1.7	1.6	1.7
RB-MWTF_SLP	2019-04-12 13:55	8.2	1214	2.5	2.2	2.5
RB-MWTF_SLP	2019-04-13 9:10	8.0	1256	2.4	2.3	2.4
RB-MWTF_SLP	2019-04-14 10:10	8.2	1279	3.8	3.5	3.8
RB-MWTF_SLP	2019-04-15 9:55	8.0	907	4.4	4.4	4.4
RB-MWTF_SLP	2019-04-16 15:20	8.1	1130	4.9	4.5	4.9
RB-MWTF_SLP	2019-04-17 14:38	7.9	1164	8.4	8.4	8.4
RB-MWTF_SLP	2019-04-18 8:59	7.7	1161	28.7	26.9	28.7
RB-MWTF_SLP	2019-04-19 9:12	7.6	1124	2	2	2
RB-MWTF_SLP	2019-04-20 9:40	8.1	1183	2.5	2.4	2.5
RB-MWTF_SLP	2019-04-21 9:21	7.9	1193	2.2	2.2	2.2
RB-MWTF_SLP	2019-04-22 9:55	7.9	1167	4.6	4.3	4.6
RB-MWTF_SLP	2019-04-23 9:23	7.9	1194	2.2	2.2	2.2
RB-MWTF_SLP	2019-04-24 9:55	7.9	1200	2.4	2.3	2.4
RB-MWTF_SLP	2019-04-25 9:04	7.7	1231	2.4	2	2.4
RB-MWTF_SLP	2019-04-26 10:08	8.2	1390	1.8	1.7	1.8
RB-MWTF_SLP	2019-04-27 11:11	8.0	1442	3.4	3.5	3.4
RB-MWTF_SLP	2019-04-28 9:20	8.2	1445	1.5	1.4	1.5

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RB-MWTF_SLP	2019-04-29 9:30	8.1	1489	1.7	1.8	1.7
RB-MWTF_SLP	2019-04-30 10:55	7.8	1483	2.5	2.3	2.5
RB-MWTF_SLP	2019-05-01 10:30	7.7	1544	3.2	3.3	3.2
RB-MWTF_SLP	2019-05-02 10:40	7.6	1632	3.6	3.3	3.6
RB-MWTF_SLP	2019-05-03 15:15	7.5	1788	5	4.7	5
RB-MWTF_SLP	2019-05-04 11:59	7.8	1767	3	3	3
RB-MWTF_SLP	2019-05-05 14:37	7.4	1776	2.6	2.5	2.6
RB-MWTF_SLP	2019-05-06 9:40	7.3	1791	1.8	1.9	1.8
RB-MWTF_SLP	2019-05-07 9:52	6.3	1737	2.5	2.4	2.5
RB-MWTF_SLP	2019-05-08 10:16	7.4	1617	1.3	1.3	1.3
RB-MWTF_SLP	2019-05-09 9:55	7.6	1570	2.3	2.4	2.3
RB-MWTF_SLP	2019-05-10 11:18	7.6	1716	3.2	3	3.2
RB-MWTF_SLP	2019-05-13 10:00	7.5	1830	1.8	2	1.8
RB-MWTF_SLP	2019-05-14 10:01	7.5	1812	1.8	1.8	1.8
RB-MWTF_SLP	2019-05-15 9:56	7.3	2000	4.7	4.9	4.7
RB-MWTF_SLP	2019-05-16 10:23	7.4	1989	3.5	3.4	3.5
RB-MWTF_SLP	2019-05-17 13:24	7.5	1946	4.7	4.6	4.7
RB-MWTF_SLP	2019-05-19 12:45	7.4	1838	11.3	12.3	11.3
RB-MWTF_SLP	2019-05-20 10:26	7.2	1849	5.3	5.2	5.3
RB-MWTF_SLP	2019-05-21 10:32	7.2	1580	1.2	1.2	1.2
RB-MWTF_SLP	2019-05-23 11:01	7.5	1491	0.9	0.8	0.9
RB-MWTF_SLP	2019-05-24 9:39	7.6	1467	0.9	0.9	0.9
RB-MWTF_SLP	2019-05-25 7:44	7.4	1455	1	1	1
RB-MWTF_SLP	2019-05-26 11:06	7.2	1421	0.8	0.7	0.8
RB-MWTF_SLP	2019-05-27 10:15	7.4	1404	0.7	0.4	0.7
RB-MWTF_SLP	2019-05-28 9:40	7.4	1417	0.5	0.6	0.5
RB-MWTF_SLP	2019-05-29 9:59	7.7	1417	1	1	1
RB-MWTF_SLP	2019-05-30 10:59	7.6	1427	3.1	3.1	3.1
RB-MWTF_SLP	2019-05-31 13:04	7.7	1420	1.9	1.7	1.9
RB-MWTF_SLP	2019-06-01 10:05	7.8	1352	1.2	1.4	1.2
RB-MWTF_SLP	2019-06-02 11:27	7.8	1366	1.1	1.2	1.1
RB-MWTF_SLP	2019-06-03 11:43	7.6	1354	1.2	1.2	1.2
RB-MWTF_SLP	2019-06-04 9:28	7.8	1349	2.8	3	2.8
RB-MWTF_SLP	2019-06-05 10:02	7.5	1251	2.2	2.1	2.2
RB-MWTF_SLP	2019-06-06 10:36	7.2	1333	4.7	4.3	4.7
RB-MWTF_SLP	2019-06-07 10:31	7.5	1342	2.2	2.3	2.2
RB-MWTF_SLP	2019-06-08 9:21	7.4	1330	5.7	5.6	5.7
RB-MWTF_SLP	2019-06-09 9:24	7.6	1309	1.8	1.9	1.8
RB-MWTF_SLP	2019-06-10 12:15	7.4	1502	2.8	2.8	2.8
RB-MWTF_SLP	2019-06-11 10:05	7.5	1478	1.8	1.8	1.8
RB-MWTF_SLP	2019-06-13 10:21	8.3	1536	3.2	3.1	3.2
RB-MWTF_SLP	2019-06-14 3:35	7.8	1267	7	6.9	7
RB-MWTF_SLP	2019-06-15 11:05	7.9	1284	8.8	10	8.8
RB-MWTF_SLP	2019-06-17 10:50	7.0	1262	2.5	2.5	2.5
RB-MWTF_SLP	2019-06-20 8:35	7.4	1379	1.3	1.3	1.3
RB-MWTF_SLP	2019-06-20 9:55	9.7	1270	1.7	1.6	1.7
RB-MWTF_SLP	2019-06-21	7.4	1379	1.3	1.3	1.3
RB-MWTF_SLP	2019-06-22 9:40	7.5	1253	1.5	1.5	1.5
RB-MWTF_SLP	2019-06-23 9:52	7.6	1248	1.1	1.2	1.1
RB-MWTF_SLP	2019-06-24 10:12	7.4	1362	19.2	19	19.2
RB-MWTF_SLP	2019-06-25 10:25	7.2	1437	7.5	6.6	7.5
RB-MWTF_SLP	2019-06-26 10:42	7.3	1489	5.8	4.9	5.8
RB-MWTF_SLP	2019-06-27 10:28	7.4	1509	3.2	3.1	3.2
RB-MWTF_SLP	2019-06-28 13:50	7.6	1456	6	6.1	6
RB-MWTF_SLP	2019-06-29 12:58	7.6	1458	1.9	2	1.9
RB-MWTF_SLP	2019-06-30 11:15	7.1	1473	1.6	1.7	1.6
RB-MWTF_SLP	2019-07-01 15:30	7.4	1571	1.8	1.7	1.8
RB-MWTF_SLP	2019-07-02 11:15	7.3	1853	2.5	2.1	2.5
RB-MWTF_SLP	2019-07-03 10:20	6.9	3270	3.8	3.9	3.8
RB-MWTF_SLP	2019-07-04 10:33	6.9	3330	2.6	2.7	2.6
RB-MWTF_SLP	2019-07-05 14:05	7.4	3310	1.8	1.8	1.8
RB-MWTF_SLP	2019-07-06 10:43	7.5	3330	1.2	1.2	1.2
RB-MWTF_SLP	2019-07-07 10:05	8.0	3320	1.5	1.3	1.5
RB-MWTF_SLP	2019-07-08 10:20	7.6	2280	2.3	2.4	2.3



Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RB-MWTF_SLP	2019-07-10 9:50	8.3	2030	5.8	5.8	5.8
RB-MWTF_SLP	2019-07-11 16:10	7.6	1835	6.1	6.1	6.1
RB-MWTF_SLP	2019-07-12 14:57	7.7	1831	6.3	6.3	6.3
RB-MWTF_SLP	2019-07-13 10:22	7.8	1811	5	5	5
RB-MWTF_SLP	2019-07-14 11:23	7.7	1868	7.2	7.2	7.2
RB-MWTF_SLP	2019-07-15 9:46	7.6	1907	6.8	6.7	6.8
RB-MWTF_SLP	2019-07-16 12:24	8.3	2030	7.5	7.2	7.5
RB-MWTF_SLP	2019-07-17 10:56	8.0	2020	3.7	3.8	3.7
RB-MWTF_SLP	2019-07-18 11:11	8.1	2010	5.3	5.2	5.3
RB-MWTF_SLP	2019-07-19 15:51	8.2	1837	5.5	5.4	5.5
RB-MWTF_SLP	2019-07-20 11:54	7.6	1845	6.3	6.3	6.3
RB-MWTF_SLP	2019-07-21 10:33	8.0	1937	6.3	6.3	6.3
RB-MWTF_SLP	2019-07-22 10:05	7.6	1900	7.4	8.6	7.4
RB-MWTF_SLP	2019-07-23 11:02	7.3	1916	6.2	6	6.2
RB-MWTF_SLP	2019-07-24 10:45	8.6	1778	5.8	5.7	5.8
RB-MWTF_SLP	2019-07-25 10:20	7.8	1906	7.2	6.9	7.2
RB-MWTF_SLP	2019-07-26 13:25	7.8	1520	13.9	13.8	13.9
RB-MWTF_SLP	2019-07-27 9:30	7.7	1448	13.5	12.7	13.5
RB-MWTF_SLP	2019-07-28 9:20	8.7	1982	5.3	5.3	5.3
RB-MWTF_SLP	2019-07-29 13:50	7.6	1720	7	6.9	7
RB-MWTF_SLP	2019-07-30 10:20	7.7	1934	6.2	6.2	6.2
RB-MWTF_SLP	2019-07-31 9:45	7.8	1803	5	5	5
RB-MWTF_SLP	2019-08-01 10:34	7.8	1744	4.6	4.6	4.6
RB-MWTF_SLP	2019-08-02 13:55	7.9	1815	4.8	4.8	4.8
RB-MWTF_SLP	2019-08-03 10:38	8.0	1787	4.7	4.7	4.7
RB-MWTF_SLP	2019-08-04 9:53	8.0	1798	5.6	5.6	5.6
RB-MWTF_SLP	2019-08-05 9:32	7.9	2010	4.9	5	4.9
RB-MWTF_SLP	2019-08-06 10:00	7.7	2470	4.4	4.4	4.4
RB-MWTF_SLP	2019-08-07 14:50	7.5	2510	3.7	3.8	3.7
RB-MWTF_SLP	2019-08-08 10:06	6.8	2720	3.4	3.5	3.4
RB-MWTF_SLP	2019-08-09 15:01	7.2	2590	4.6	4.6	4.6
RB-MWTF_SLP	2019-08-10 9:50	8.2	2400	3.6	3.7	3.6
RB-MWTF_SLP	2019-08-11 9:40	7.2	2180	3.9	3.8	3.9
RB-MWTF_SLP	2019-08-12 11:30	7.2	1605	3.5	3.3	3.5
RB-MWTF_SLP	2019-08-13 11:00	7.2	1498	5.6	5.1	5.6
RB-MWTF_SLP	2019-08-14 11:45	7.7	1491	7.8	8	7.8
RB-MWTF_SLP	2019-08-15 12:26	7.9	1454	6.5	7.6	6.5
RB-MWTF_SLP	2019-08-16 6:30	8.7	1389	5.1	5.1	5.1
RB-MWTF_SLP	2019-08-17 11:45	7.4	1654	9.1	8.1	9.1
RB-MWTF_SLP	2019-08-18 12:25	7.4	1797	31.6	32.4	31.6
RB-MWTF_SLP	2019-08-19 11:45	7.5	1792	49.3	48.6	49.3
RB-MWTF_SLP	2019-08-20 12:05	7.5	1986	3	3	3
RB-MWTF_SLP	2019-08-21 9:55	7.9	2110	2.4	2.5	2.4
RB-MWTF_SLP	2019-08-22 13:03	7.9	2130	2.4	2.4	2.4
RB-MWTF_SLP	2019-08-23 13:30	7.9	2120	2.2	2.1	2.2
RB-MWTF_SLP	2019-08-24 11:59	8.4	2200	6.5	6.4	6.5
RB-MWTF_SLP	2019-08-25 9:57	8.0	2150	3.6	3.5	3.6
RB-MWTF_SLP	2019-08-26 9:04	7.7	2140	3.9	3.7	3.9
RB-MWTF_SLP	2019-08-27 10:40	8.7	2150	2.4	2.4	2.4
RB-MWTF_SLP	2019-08-28 10:15	8.0	2080	1.4	1.4	1.4
RB-MWTF_SLP	2019-09-12 10:13	7.8	1901	1.7	1.7	1.7
RB-MWTF_SLP	2019-09-13 9:54	8.1	1856	1.4	1.4	1.4
RB-MWTF_SLP	2019-09-14 10:20	8.0	1952	1.8	1.8	1.8
RB-MWTF_SLP	2019-09-15 10:10	7.9	1943	1.5	1.5	1.5
RB-MWTF_SLP	2019-09-16 10:17	7.5	1905	2.9	2.9	2.9
RB-MWTF_SLP	2019-09-17 13:08	7.7	1976	1.9	1.8	1.9
RB-MWTF_SLP	2019-09-18 9:30	7.1	1601	1.6	1.7	1.6
RB-MWTF_SLP	2019-09-19 10:33	7.6	2170	1.4	1.4	1.4
RB-MWTF_SLP	2019-09-20 9:25	7.6	1797	2.1	2.1	2.1
RB-MWTF_SLP	2019-09-21 10:30	7.8	2230	1	1.1	1
RB-MWTF_SLP	2019-09-22 9:15	7.9	1865	2	2.1	2
RB-MWTF_SLP	2019-09-23 10:13	7.4	1989	1.5	1.5	1.5
RB-MWTF_SLP	2019-09-24 10:00	8.6	2350	2.3	2.4	2.3
RB-MWTF_SLP	2019-09-25 9:12	8.1	2120	1.5	1.4	1.5

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RB-MWTF_SLP	2019-09-26 9:40	8.2	2220	2.6	2.6	2.6
RB-MWTF_SLP	2019-09-27 10:50	7.9	2090	2.1	2.3	2.1
RB-MWTF_SLP	2019-09-28 10:25	8.0	1836	1.9	1.7	1.9
RB-MWTF_SLP	2019-09-29 10:00	8.2	1771	4.2	4.1	4.2
RB-MWTF_SLP	2019-09-30 8:55	7.7	1792	2.5	2.1	2.5
RB-MWTF_SLP	2019-10-01 10:33	8.1	2440	1.5	1.5	1.5
RB-MWTF_SLP	2019-10-02 10:30	7.9	2610	1.6	1.6	1.6
RB-MWTF_SLP	2019-10-03 11:55	8.2	2400	1.9	1.8	1.9
RB-MWTF_SLP	2019-10-04 10:13	8.1	1774	2.5	2.5	2.5
RB-MWTF_SLP	2019-10-07 10:30	8.4	2030	4.4	4.4	4.4
RB-MWTF_SLP	2019-10-11 9:55	8.5	1681	4.5	4.6	4.5
RB-MWTF_SLP	2019-10-13 10:45	8.4	1497	3.3	3.3	3.3
RB-MWTF_SLP	2019-10-14 9:50	8.0	1786	2.2	2.2	2.2
RB-MWTF_SLP	2019-10-15 11:45	7.3	1561	5.6	5.3	5.6
RB-MWTF_SLP	2019-10-16 10:40	7.2	1615	2.6	2.6	2.6
RB-MWTF_SLP	2019-10-17 11:45	7.7	1634	3.7	3.6	3.7
RB-MWTF_SLP	2019-10-18 11:45	7.8	1650	2.4	2.4	2.4
RB-MWTF_SLP	2019-10-19 11:15	8.6	1644	5.9	5.9	5.9
RB-MWTF_SLP	2019-10-20 12:20	7.7	1824	3.7	3.5	3.7
RB-MWTF_SLP	2019-10-21 9:20	7.9	1966	3.5	3.5	3.5
RB-MWTF_SLP	2019-10-22 10:35	9.9	1846	4.2	4.2	4.2
RB-MWTF_SLP	2019-10-23 10:55	7.6	2060	2.2	2.2	2.2
RB-MWTF_SLP	2019-10-24 13:50	7.8	2100	2	2	2
RB-MWTF_SLP	2019-10-25 12:12	8.1	2150	4.3	4.3	4.3
RB-MWTF_SLP	2019-10-26 10:18	7.9	2120	2.4	2.4	2.4
RB-MWTF_SLP	2019-10-27 10:18	8.2	2230	2	2	2
RB-MWTF_SLP	2019-10-28 9:50	8.2	2260	3.8	3.8	3.8
RB-MWTF_SLP	2019-10-29 10:25	7.9	2210	3.1	3.2	3.1
RB-MWTF_SLP	2019-10-30 10:25	7.6	2140	2.6	2.6	2.6
RB-MWTF_SLP	2019-10-31 10:50	7.8	2250	1.6	1.6	1.6
RB-MWTF_SLP	2019-11-01 11:10	8.4	2290	2.7	2.7	2.7
RB-MWTF_SLP	2019-11-02 11:55	8.1	2170	2.3	2.4	2.3
RB-MWTF_SLP	2019-11-03 12:00	8.3	1925	3.4	3.4	3.4
RB-MWTF_SLP	2019-11-04 11:20	8.0	1973	6	6	6
RB-MWTF_SLP	2019-11-05 13:00	8.0	1716	6.7	6.6	6.7
RB-MWTF_SLP	2019-11-06 9:52	7.8	2160	9	9	9
RB-MWTF_SLP	2019-11-07 10:30	8.3	1842	6.2	6.7	6.2
RB-MWTF_SLP	2019-11-08 9:35	8.0	1817	5.6	5.7	5.6
RB-MWTF_SLP	2019-11-09 11:45	7.5	1550	5.7	5.6	5.7
RB-MWTF_SLP	2019-11-10 10:20	7.6	1863	5.2	5.2	5.2
RB-MWTF_SLP	2019-11-11 9:45	7.3	1655	5	5	5
RB-MWTF_SLP	2019-11-12 10:13	7.1	1206	8.4	8.4	8.4
RB-MWTF_SLP	2019-11-15 9:55	7.6	1416	5.8	5.8	5.8
RB-MWTF_SLP	2019-11-16 10:06	8.7	1741	1.7	1.8	1.7
RB-MWTF_SLP	2019-11-17 11:10	7.5	1784	1.4	1.4	1.4
RB-MWTF_SLP	2019-11-18 10:40	7.5	1857	3.6	3.6	3.6
RB-MWTF_SLP	2019-11-20 10:10	6.9	1924	4.3	4.3	4.3
RB-MWTF_SLP	2019-11-21	7.6	229	3.1	3.1	3.1
RB-MWTF_SLP	2019-11-22 2:35	7.2	2480	2.3	2.3	2.3
RB-MWTF_SLP	2019-11-23 12:00	8.2	1413	1.6	1.6	1.6
RB-MWTF_SLP	2019-11-24 15:40	7.6	3080	1.5	1.5	1.5
RB-MWTF_SLP	2019-11-25 16:50	7.9	2750	1.7	1.7	1.7
RB-MWTF_SLP	2019-11-26 14:00	7.5	981	1.5	1.5	1.5
RB-MWTF_SLP	2019-11-27 12:00	7.9	3300	1.7	1.7	1.7
RB-MWTF_SLP	2019-11-28 13:45	7.6	3540	3.4	3	3.4
RB-MWTF_SLP	2019-11-29 12:05	7.6	3530	2.7	2.6	2.7
RB-MWTF_SLP	2019-11-30 11:35	7.9	3030	4.2	4.2	4.2
RB-MWTF_SLP	2019-12-01 11:20	7.2	3290	1.9	1.9	1.9
RB-MWTF_SLP	2019-12-02 10:40	7.9	3080	1.7	1.7	1.7
RB-MWTF_SLP	2019-12-03 10:26	8.0	2850	1.5	1.5	1.5
RB-MWTF_SLP	2019-12-04 11:37	7.4	2800	2.5	2.4	2.5
RB-MWTF_SLP	2019-12-08 10:12	7.4	2820	1.6	1.6	1.6
RB-MWTF_SLP	2019-12-09 9:55	7.2	2770	1.4	1.4	1.4
RB-MWTF_SLP	2019-12-10 10:50	7.2	2700	2.7	2.6	2.7

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RB-MWTF_SLP	2019-12-13 15:45	8.3	2430	2.9	2.9	2.9
RB-MWTF_SLP	2019-12-15 11:10	7.5	2170	2.7	2.6	2.7
RB-MWTF_SLP	2019-12-16 17:30	8.1	1931	2.4	2.4	2.4
RB-MWTF_SLP	2019-12-17 11:30	7.9	1854	1.6	1.6	1.6
RB-MWTF_SLP	2019-12-19 11:30	7.6	1840	2.3	2.2	2.3
RB-MWTF_SLP	2019-12-20 10:35	7.8	1774	2.9	3	2.9
RB-MWTF_SLP	2019-12-21 10:30	7.6	1719	2.5	2.5	2.5
RB-MWTF_SLP	2019-12-23 11:00	7.9	1838	2.6	2.6	2.6
RB-MWTF_SLP	2019-12-24 15:15	8.9	1826	3.2	3.2	3.2
RB-MWTF_SLP	2019-12-25 12:40	7.4	1762	2.4	2.4	2.4
RB-MWTF_SLP	2019-12-26 12:10	8.1	1795	4.5	4.6	4.5
RB-MWTF_SLP	2019-12-27 14:15	7.6	1936	4.5	4.7	4.5
RB-MWTF_SLP	2019-12-28 12:30	7.5	1824	3.4	2.9	3.4
RB-MWTF_SLP	2019-12-29 12:20	7.6	1743	1.6	1.5	1.6
RB-R5B-ACDC	2019-01-01 13:10	7.6	1034	3	2.9	3
RB-R5B-ACDC	2019-01-02 14:08	8.2	1157	10.2	9.7	10.2
RB-R5B-ACDC	2019-01-03 15:09	8.5	1077	5.3	5.3	5.3
RB-R5B-ACDC	2019-01-04 13:15	8.3	1024	5.9	6.2	5.9
RB-R5B-ACDC	2019-01-05 14:15	8.3	999	9.8	9.9	9.8
RB-R5B-ACDC	2019-01-06 13:39	8.3	1083	11.3	11.2	11.3
RB-R5B-ACDC	2019-01-07 12:10	8.5	965	3.1	3.2	3.1
RB-R5B-ACDC	2019-01-08 13:58	8.4	1172	5.7	5.7	5.7
RB-R5B-ACDC	2019-01-09 13:00	8.3	1105	5.6	5.6	5.6
RB-R5B-ACDC	2019-01-10 13:25	8.3	1031	6.4	6.3	6.4
RB-R5B-ACDC	2019-01-11 12:50	8.2	1006	5.7	5.6	5.7
RB-R5B-ACDC	2019-01-12 12:54	8.0	1046	5.5	5.8	5.5
RB-R5B-ACDC	2019-01-13 12:31	8.2	1033	6.3	6.4	6.3
RB-R5B-ACDC	2019-01-14 12:40	8.3	1046	4.4	4.4	4.4
RB-R5B-ACDC	2019-01-15 13:03	8.4	1032	11.2	11.7	11.2
RB-R5B-ACDC	2019-01-16 13:40	8.2	764	7.7	8	7.7
RB-R5B-ACDC	2019-01-17 12:55	8.0	206	8	7.2	8
RB-R5B-ACDC	2019-01-18 12:20	8.5	1056	5.4	5.5	5.4
RB-R5B-ACDC	2019-01-19 14:30	8.4	1043	7.8	7.7	7.8
RB-R5B-ACDC	2019-01-20 13:25	8.3	916	11.1	11.2	11.1
RB-R5B-ACDC	2019-01-21 14:20	8.2	1019	13.8	13.8	13.8
RB-R5B-ACDC	2019-01-22 14:02	8.3	1021	8.6	8.5	8.6
RB-R5B-ACDC	2019-01-23 14:15	8.6	1032	8.3	8	8.3
RB-R5B-ACDC	2019-01-24 14:50	8.6	1032	6.1	6.1	6.1
RB-R5B-ACDC	2019-01-25 12:18	8.3	1042	6	5.9	6
RB-R5B-ACDC	2019-01-26 17:00	8.0	823	66.5	67.2	66.5
RB-R5B-ACDC	2019-01-27 14:27	8.2	935	64.7	64.8	64.7
RB-R5B-ACDC	2019-01-28 13:32	8.2	956	74.1	73.8	74.1
RB-R5B-ACDC	2019-01-29 12:30	8.2	936	6.8	6.6	6.8
RB-R5B-ACDC	2019-01-30 14:12	8.1	927	3	2.6	3
RB-R5B-ACDC	2019-01-31 13:55	8.1	959	4.1	4	4.1
RB-R5B-ACDC	2019-02-01 12:47	8.2	1147	26.2	26.1	26.2
RB-R5B-ACDC	2019-02-02 14:55	8.0	1090	26.8	27	26.8
RB-R5B-ACDC	2019-02-03 12:14	8.1	997	19.1	20.9	19.1
RB-R5B-ACDC	2019-02-04 13:48	8.0	1012	10.8	10.8	10.8
RB-R5B-ACDC	2019-02-05 11:40	8.1	1050	11.7	12.5	11.7
RB-R5B-ACDC	2019-02-06 15:05	8.4	1047	11.1	11.3	11.1
RB-R5B-ACDC	2019-02-07 12:20	8.4	1028	11.5	10.7	11.5
RB-R5B-ACDC	2019-02-08 12:35	8.6	1055	5.3	5.6	5.3
RB-R5B-ACDC	2019-02-09 14:15	8.1	1047	10.2	10.3	10.2
RB-R5B-ACDC	2019-02-10 13:05	8.4	1113	6.8	6.9	6.8
RB-R5B-ACDC	2019-02-11 15:00	7.5	932	7.5	7.4	7.5
RB-R5B-ACDC	2019-02-12 11:50	8.2	1045	7.5	7.4	7.5
RB-R5B-ACDC	2019-02-13 13:33	8.4	1041	3.8	3.7	3.8
RB-R5B-ACDC	2019-02-14 13:36	8.3	1160	3.1	3.1	3.1
RB-R5B-ACDC	2019-02-15 13:21	8.5	1055	3.3	3.4	3.3
RB-R5B-ACDC	2019-02-16 15:15	8.2	1035	3.2	3.5	3.2
RB-R5B-ACDC	2019-02-17 14:00	8.3	1072	2.7	2.6	2.7
RB-R5B-ACDC	2019-02-19 14:30	8.5	1243	9.4	9.2	9.4
RB-R5B-ACDC	2019-02-20 12:20	8.3	1061	2.6	2.6	2.6

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RB-R5B-ACDC	2019-02-21 12:45	8.3	1011	3	3	3
RB-R5B-ACDC	2019-02-22 12:10	8.4	1021	3.9	3.9	3.9
RB-R5B-ACDC	2019-02-23 13:50	8.5	1059	3.5	3.4	3.5
RB-R5B-ACDC	2019-02-24 14:00	8.5	1038	4.3	4.3	4.3
RB-R5B-ACDC	2019-02-25 12:15	8.7	962	2.3	2.4	2.3
RB-R5B-ACDC	2019-02-26 12:55	8.6	1007	2.8	2.7	2.8
RB-R5B-ACDC	2019-02-27 12:25	8.5	966	3	3	3
RB-R5B-ACDC	2019-02-28 13:05	8.6	1050	3.6	3.6	3.6
RB-R5B-ACDC	2019-03-01 12:30	8.2	1038	3.4	3.5	3.4
RB-R5B-ACDC	2019-03-02 14:10	8.3	995	2.8	2.7	2.8
RB-R5B-ACDC	2019-03-04 15:35	7.8	778	3.8	3.4	3.8
RB-R5B-ACDC	2019-03-05 14:30	8.3	1003	6.6	6.6	6.6
RB-R5B-ACDC	2019-03-06 15:30	8.2	1014	4.1	3.7	4.1
RB-R5B-ACDC	2019-03-07 16:25	8.2	998	3.2	3.2	3.2
RB-R5B-ACDC	2019-03-08 13:30	7.4	1104	755	748	755
RB-R5B-ACDC	2019-03-09 13:29	8.3	991	4.8	4.7	4.8
RB-R5B-ACDC	2019-03-10 14:28	8.4	900	3.1	3	3.1
RB-R5B-ACDC	2019-03-11 14:05	8.4	929	99	99	99
RB-R5B-ACDC	2019-03-12 12:50	8.4	1013	88	88	88
RB-R5B-ACDC	2019-03-13 15:10	8.3	1539	63.2	63	63.2
RB-R5B-ACDC	2019-03-14 14:28	8.2	1571	81.1	81	81.1
RB-R5B-ACDC	2019-03-15 13:10	8.0	1376	67.8	66.6	67.8
RB-R5B-ACDC	2019-03-15 13:25	8.2	869	85.3	84.3	85.3
RB-R5B-ACDC	2019-03-16 14:00	7.6	1597	79.9	80.1	79.9
RB-R5B-ACDC	2019-03-17 16:30	5.9	1237	1815	1791	1815
RB-R5B-ACDC	2019-03-18 14:25	7.2	1356	OR		
RB-R5B-ACDC	2019-03-19 11:32	6.5	2080	1922	1933	1922
RB-R5B-ACDC	2019-03-20 10:40	7.7	1279	60	62.1	60
RB-R5B-ACDC	2019-03-21 10:54	6.5	2200	OR		
RB-R5B-ACDC	2019-03-22 14:50	7.1	9260	OR		
RB-R5B-ACDC	2019-03-23 11:50	7.5	1373	91	90	91
RB-R5B-ACDC	2019-03-24 11:45	6.4	5070	4043	3923	4043
RB-R5B-ACDC	2019-03-25 11:20	7.7	1797	102	99	102
RB-R5B-ACDC	2019-03-26 10:35	7.2	3020	863	798	863
RB-R5B-ACDC	2019-03-27 11:05	7.5	2440	77.2	75.7	77.2
RB-R5B-ACDC	2019-03-28 9:40	7.9	1538	125	119	125
RB-R5B-ACDC	2019-03-29 13:40	7.9	1816	107	106	107
RB-R5B-ACDC	2019-03-30 10:05	8.0	1639	76.3	75	76.3
RB-R5B-ACDC	2019-03-31 10:20	8.0	1385	79.9	73.4	79.9
RB-R5B-ACDC	2019-04-01 10:30	7.9	1276	36.1	35.7	36.1
RB-R5B-ACDC	2019-04-02 11:40	7.8	1462	20.8	20.9	20.8
RB-R5B-ACDC	2019-04-03 9:30	8.1	1373	14.7	15	14.7
RB-R5B-ACDC	2019-04-04 9:45	8.1	1378	10.1	10.2	10.1
RB-R5B-ACDC	2019-04-05 12:36	8.2	1311	12	12.2	12
RB-R5B-ACDC	2019-04-06 9:23	8.1	1298	50.4	48.7	50.4
RB-R5B-ACDC	2019-04-07 10:02	8.0	1212	2010	1988	2010
RB-R5B-ACDC	2019-04-08 11:23	7.9	1459	1232	966	1232
RB-R5B-ACDC	2019-04-09 10:00	8.0	1545	2536	2465	2536
RB-R5B-ACDC	2019-04-10 9:50	8.0	1504	2286	2224	2286
RB-R5B-ACDC	2019-04-11 9:30	7.9	1587	1620	1479	1620
RB-R5B-ACDC	2019-04-12 14:00	7.8	1388	OR		
RB-R5B-ACDC	2019-04-13 9:15	8.0	1453	1247	1205	1247
RB-R5B-ACDC	2019-04-14 10:20	8.1	1435	1928	1897	1928
RB-R5B-ACDC	2019-04-15 10:00	7.2	1500	1587	1589	1587
RB-R5B-ACDC	2019-04-16 15:10	8.2	1363	65	71	65
RB-R5B-ACDC	2019-04-17 14:30	8.2	1354	1089	1088	1089
RB-R5B-ACDC	2019-04-18 8:54	8.3	1305	3239	3233	3239
RB-R5B-ACDC	2019-04-19 9:15	7.9	1224	OR		
RB-R5B-ACDC	2019-04-20 9:45	7.9	1146	1290	1272	1290
RB-R5B-ACDC	2019-04-21 9:25	7.9	1166	1291	1255	1291
RB-R5B-ACDC	2019-04-22 9:59	8.0	1363	871	868	871
RB-R5B-ACDC	2019-04-23 9:45	8.2	1185	45	45	45
RB-R5B-ACDC	2019-04-24 10:05	8.2	1144	11.4	10.8	11.4
RB-R5B-ACDC	2019-04-25 9:25	8.2	1120	9.1	8.9	9.1

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RB-R5B-ACDC	2019-04-26 10:07	8.3	1560	1.8	1.6	1.8
RB-R5B-ACDC	2019-04-27 11:15	8.0	1171	11.2	11.9	11.2
RB-R5B-ACDC	2019-04-28 9:25	8.0	1163	9	9	9
RB-R5B-ACDC	2019-04-29 9:35	8.0	1165	7.4	6.9	7.4
RB-R5B-ACDC	2019-04-30 10:58	8.0	1169	8.5	9.1	8.5
RB-R5B-ACDC	2019-05-01 10:40	8.0	1127	5.3	5	5.3
RB-R5B-ACDC	2019-05-02 10:50	7.9	1130	4.7	4.7	4.7
RB-R5B-ACDC	2019-05-03 15:20	7.9	1387	16	14.4	16
RB-R5B-ACDC	2019-05-04 11:55	8.3	1485	15.6	15.7	15.6
RB-R5B-ACDC	2019-05-05 14:34	8.2	1524	2	2	2
RB-R5B-ACDC	2019-05-07 9:55	7.3	1661	3.7	3.7	3.7
RB-R5B-ACDC	2019-05-08 10:27	7.8	1682	16.1	14.2	16.1
RB-R5B-ACDC	2019-05-09 10:00	7.7	1760	5	5.5	5
RB-R5B-ACDC	2019-05-19 12:53	8.1	1584	12.5	11.9	12.5
RB-R5B-ACDC	2019-06-24 10:16	7.7	499	2159	1981	2159
RB-R5B-ACDC	2019-06-25 10:39	8.0	3630	37	37	37
RB-R5B-ACDC	2019-06-26 10:45	8.1	3440	9.1	9.5	9.1
RB-R5B-ACDC	2019-06-28 13:55	8.2	732	30.7	32.3	30.7
RB-R5B-ACDC	2019-06-29 12:55	8.4	287	99	106	99
RB-R5B-ACDC	2019-06-30 11:20	8.3	1342	22.3	22.4	22.3
RB-R5B-ACDC	2019-07-01 15:38	7.9	1745	43	40.4	43
RB-R5B-ACDC	2019-07-02 11:08	8.3	1374	54.8	58.2	54.8
RB-R5B-ACDC	2019-07-03 10:30	7.9	1193	32.6	32.3	32.6
RB-R5B-ACDC	2019-07-04 10:40	7.8	1151	12.7	12.3	12.7
RB-R5B-ACDC	2019-07-05 14:00	8.1	1083	19.7	18.8	19.7
RB-R5B-ACDC	2019-07-06 10:40	8.1	1082	15.1	15.2	15.1
RB-R5B-ACDC	2019-07-07 10:00	8.2	1080	14.5	14.5	14.5
RB-R5B-ACDC	2019-07-08 10:25	8.0	1160	27.2	27.8	27.2
RB-R5B-ACDC	2019-07-10 16:33	8.4	890	729	726	729
RB-R5B-ACDC	2019-07-11 16:20	8.1	847	1113	1095	1113
RB-R5B-ACDC	2019-07-12 15:15	8.3	832	37	37	37
RB-R5B-ACDC	2019-07-13 10:28	8.3	830	45	41	45
RB-R5B-ACDC	2019-07-14 11:28	8.3	963	46.3	46.1	46.3
RB-R5B-ACDC	2019-07-15 9:51	8.3	861	71.6	70.7	71.6
RB-R5B-ACDC	2019-07-16 12:26	8.2	918	176	173	176
RB-R5B-ACDC	2019-07-17 11:00	8.3	947	8.1	8.1	8.1
RB-R5B-ACDC	2019-07-18 11:15	8.3	905	9	9	9
RB-R5B-ACDC	2019-07-19 15:56	8.3	938	25.3	24.7	25.3
RB-R5B-ACDC	2019-07-20 12:03	8.2	878	6.4	6.4	6.4
RB-R5B-ACDC	2019-07-21 10:37	8.2	886	7.8	7.8	7.8
RB-R5B-ACDC	2019-07-22 10:09	8.3	823	6	5.9	6
RB-R5B-ACDC	2019-07-23 11:06	8.2	898	7.6	7.3	7.6
RB-R5B-ACDC	2019-07-24 10:48	8.5	1470	18	17.6	18
RB-R5B-ACDC	2019-07-25 10:30	8.4	933	26.7	26.1	26.7
RB-R5B-ACDC	2019-07-26 13:28	8.4	892	10.5	10.3	10.5
RB-R5B-ACDC	2019-07-27 9:39	8.5	915	13.2	13	13.2
RB-R5B-ACDC	2019-07-28 9:25	8.5	1059	5.7	5.6	5.7
RB-R5B-ACDC	2019-07-29 13:55	8.3	1109	6.9	6.6	6.9
RB-R5B-ACDC	2019-07-30 10:30	8.3	1870	42.6	42	42.6
RB-R5B-ACDC	2019-07-31 9:50	8.3	1122	6.5	6.5	6.5
RB-R5B-ACDC	2019-08-01 10:39	8.4	1094	5.4	5.4	5.4
RB-R5B-ACDC	2019-08-02 8:50	8.2	1218	5.5	5.4	5.5
RB-R5B-ACDC	2019-08-03 10:42	8.4	1093	6.1	6	6.1
RB-R5B-ACDC	2019-08-04 9:58	8.0	1130	5.5	5.5	5.5
RB-R5B-ACDC	2019-08-05 9:37	8.3	1085	6.5	6.8	6.5
RB-R5B-ACDC	2019-08-06 10:11	8.4	1087	8.4	8.2	8.4
RB-R5B-ACDC	2019-08-07 14:53	8.3	1097	5.5	5.4	5.5
RB-R5B-ACDC	2019-08-08 10:10	8.1	1075	7.5	7.4	7.5
RB-R5B-ACDC	2019-08-09 15:08	8.2	1285	7.9	8	7.9
RB-R5B-ACDC	2019-08-10 9:54	8.2	1072	4.2	4.2	4.2
RB-R5B-ACDC	2019-08-11 9:46	8.2	1128	4.3	4.4	4.3
RB-R5B-ACDC	2019-08-12 11:43	8.4	890	3.8	3.8	3.8
RB-R5B-ACDC	2019-08-13 11:10	8.4	889	4.1	4.2	4.1
RB-R5B-ACDC	2019-08-14 11:50	8.3	893	5.6	5.5	5.6

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RB-R5B-ACDC	2019-08-15 12:29	8.3	895	8.6	8.5	8.6
RB-R5B-ACDC	2019-08-16 6:35	8.3	1398	4.1	3.8	4.1
RB-R5B-ACDC	2019-08-18 12:28	7.2	1143	116	117	116
RB-R5B-ACDC	2019-08-19 11:50	7.6	1468	85.7	86.6	85.7
RB-R5B-ACDC	2019-08-20 12:16	8.6	1165	6.5	6.2	6.5
RB-R5B-ACDC	2019-08-21 9:57	8.3	1126	2.3	2.3	2.3
RB-R5B-ACDC	2019-08-22 13:00	8.4	1085	3	2.9	3
RB-R5B-ACDC	2019-08-23 13:32	8.3	1071	3.2	3.2	3.2
RB-R5B-ACDC	2019-08-24 12:02	8.4	1040	4.1	4	4.1
RB-R5B-ACDC	2019-08-25 10:00	8.4	1107	4	3.8	4
RB-R5B-ACDC	2019-08-26 9:50	8.3	1158	18.7	18.5	18.7
RB-R5B-ACDC	2019-08-27 10:53	8.4	956	5.7	5.6	5.7
RB-R5B-ACDC	2019-08-28 10:22	8.4	1161	2.2	2.2	2.2
RB-R5B-ACDC	2019-08-29 12:15	8.4	930	2.3	2.3	2.3
RB-R5B-ACDC	2019-08-30 13:28	8.4	904	2.4	2.4	2.4
RB-R5B-ACDC	2019-08-31 10:34	8.4	867	24	23.5	24
RB-R5B-ACDC	2019-09-01 10:40	8.3	937	1.4	1.4	1.4
RB-R5B-ACDC	2019-09-02 10:35	8.3	916	2	2.1	2
RB-R5B-ACDC	2019-09-03 11:36	8.4	1114	4.1	4.2	4.1
RB-R5B-ACDC	2019-09-04 11:15	8.4	580	88.2	88.6	88.2
RB-R5B-ACDC	2019-09-05 10:50	8.3	904	1.5	1.6	1.5
RB-R5B-ACDC	2019-09-06 11:30	8.3	896	1.1	1.1	1.1
RB-R5B-ACDC	2019-09-07 11:20	8.3	875	6.4	6.1	6.4
RB-R5B-ACDC	2019-09-08 9:55	8.4	1043	4.2	4.4	4.2
RB-R5B-ACDC	2019-09-09 11:00	8.3	935	8.6	8.9	8.6
RB-R5B-ACDC	2019-09-10 10:40	8.5	1021	7.6	7.8	7.6
RB-R5B-ACDC	2019-09-11 11:00	8.5	880	2	2	2
RB-R5B-ACDC	2019-09-12 10:17	8.4	942	3.5	3.3	3.5
RB-R5B-ACDC	2019-09-13 10:00	8.5	1824	14.4	15.1	14.4
RB-R5B-ACDC	2019-09-14 10:25	8.4	1318	6.3	6.2	6.3
RB-R5B-ACDC	2019-09-15 10:14	8.3	1706	12.6	12.7	12.6
RB-R5B-ACDC	2019-09-16 10:25	8.0	1286	28.2	28.1	28.2
RB-R5B-ACDC	2019-09-17 13:13	8.4	1280	24	25	24
RB-R5B-ACDC	2019-09-18 12:45	8.5	996	17.1	17.4	17.1
RB-R5B-ACDC	2019-09-19 10:40	8.4	1182	20.4	21.2	20.4
RB-R5B-ACDC	2019-09-20 9:30	8.4	946	17.9	17.9	17.9
RB-R5B-ACDC	2019-09-21 10:34	8.4	1145	17.8	17.3	17.8
RB-R5B-ACDC	2019-09-22 9:20	8.3	957	61.1	62.6	61.1
RB-R5B-ACDC	2019-09-23 10:16	8.5	1038	9.8	9.9	9.8
RB-R5B-ACDC	2019-09-24 10:05	8.5	2180	8.8	8.9	8.8
RB-R5B-ACDC	2019-09-25 9:15	8.2	976	1.9	2.1	1.9
RB-R5B-ACDC	2019-09-26 9:50	8.3	839	46.7	45.3	46.7
RB-R5B-ACDC	2019-09-27 10:55	8.0	970	1.9	1.8	1.9
RB-R5B-ACDC	2019-09-28 10:30	8.1	980	1.9	1.6	1.9
RB-R5B-ACDC	2019-09-29 10:05	8.2	1069	3	3	3
RB-R5B-ACDC	2019-09-30 9:00	7.9	1462	11	10.8	11
RB-R5B-ACDC	2019-10-01 10:45	8.2	1122	3.2	3.2	3.2
RB-R5B-ACDC	2019-10-02 10:34	8.3	1129	2	1.9	2
RB-R5B-ACDC	2019-10-03 11:58	8.3	1132	1.8	1.8	1.8
RB-R5B-ACDC	2019-10-04 10:18	8.4	1102	1.8	1.7	1.8
RB-R5B-ACDC	2019-10-05 10:56	8.3	1101	2.8	2.7	2.8
RB-R5B-ACDC	2019-10-06 10:50	8.3	1145	1.6	1.6	1.6
RB-R5B-ACDC	2019-10-07 10:37	8.4	1137	6.7	6.6	6.7
RB-R5B-ACDC	2019-10-08 11:06	8.3	1146	18.3	17.9	18.3
RB-R5B-ACDC	2019-10-09 16:15	8.4	938	29.3	29.4	29.3
RB-R5B-ACDC	2019-10-10 12:30	8.3	1089	41.3	40.3	41.3
RB-R5B-ACDC	2019-10-11 10:00	8.4	944	26.7	26.5	26.7
RB-R5B-ACDC	2019-10-12 10:32	8.2	1123	10	9.9	10
RB-R5B-ACDC	2019-10-13 10:50	8.4	940	41.8	42.2	41.8
RB-R5B-ACDC	2019-10-14 9:57	8.3	1127	2.7	2.7	2.7
RB-R5B-ACDC	2019-10-15 11:50	7.5	1075	7	7	7
RB-R5B-ACDC	2019-10-16 10:45	7.5	949	6.8	7.3	6.8
RB-R5B-ACDC	2019-10-17 11:55	8.2	906	39.5	39.3	39.5
RB-R5B-ACDC	2019-10-18 11:50	8.4	902	4.4	4.3	4.4
RB-R5B-ACDC	2019-10-19 11:20	7.9	1128	97.2	98.1	97.2

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RB-R5B-ACDC	2019-10-20 12:25	8.4	1045	56.1	56.4	56.1
RB-R5B-ACDC	2019-10-21 9:30	8.3	1178	70	72.6	70
RB-R5B-ACDC	2019-10-22 10:45	8.5	1060	48.8	48.6	48.8
RB-R5B-ACDC	2019-10-23 11:00	8.5	1027	17.5	17.3	17.5
RB-R5B-ACDC	2019-10-24 13:55	8.6	1026	2.4	2.4	2.4
RB-R5B-ACDC	2019-10-25 12:20	7.8	1275	OR		
RB-R5B-ACDC	2019-10-26 10:25	8.4	1173	27.7	27.2	27.7
RB-R5B-ACDC	2019-10-27 10:25	8.6	1080	31.6	31.6	31.6
RB-R5B-ACDC	2019-10-28 9:55	8.9	1068	42.7	42.4	42.7
RB-R5B-ACDC	2019-10-29 10:35	8.7	1080	27.5	27.2	27.5
RB-R5B-ACDC	2019-10-30 10:30	8.2	1099	62	61.7	62
RB-R5B-ACDC	2019-10-31 10:55	8.3	982	23.3	23.3	23.3
RB-R5B-ACDC	2019-11-01 11:15	8.3	1075	66.1	65	66.1
RB-R5B-ACDC	2019-11-02 12:00	8.3	1022	47.8	47.2	47.8
RB-R5B-ACDC	2019-11-03 12:10	8.2	975	42.5	42.8	42.5
RB-R5B-ACDC	2019-11-04 11:30	8.2	1017	50	50.1	50
RB-R5B-ACDC	2019-11-05 12:55	8.2	1003	30.4	30.3	30.4
RB-R5B-ACDC	2019-11-06 10:00	8.4	1330	17.5	17.3	17.5
RB-R5B-ACDC	2019-11-07 10:35	8.4	935	36.1	36.1	36.1
RB-R5B-ACDC	2019-11-08 9:40	8.2	1224	59	58.7	59
RB-R5B-ACDC	2019-11-09 11:50	8.4	775	49.8	49.3	49.8
RB-R5B-ACDC	2019-11-12 10:16	8.2	982	28.7	28.8	28.7
RB-R5B-ACDC	2019-11-13 9:48	8.5	963	49.9	50.1	49.9
RB-R5B-ACDC	2019-11-14 9:42	8.2	979	7.3	7.2	7.3
RB-R5B-ACDC	2019-11-15 10:00	8.2	946	8.6	8.6	8.6
RB-R5B-ACDC	2019-11-16 10:15	8.3	934	27.1	26.9	27.1
RB-R5B-ACDC	2019-11-17 11:15	8.2	814	44.2	44.4	44.2
RB-R5B-ACDC	2019-11-18 10:45	8.3	1072	36.9	36.8	36.9
RB-R5B-ACDC	2019-11-19 11:36	8.4	980	27.3	26.3	27.3
RB-R5B-ACDC	2019-11-20 10:15	8.5	1021	13.7	12.2	13.7
RB-R5B-ACDC	2019-11-21	8.5	989	9.1	8.8	9.1
RB-R5B-ACDC	2019-11-22 2:45	8.5	895	17.4	17.1	17.4
RB-R5B-ACDC	2019-11-23 11:55	8.4	1013	66.1	65.6	66.1
RB-R5B-ACDC	2019-11-24 15:45	8.4	982	18.3	18.3	18.3
RB-R5B-ACDC	2019-11-25 17:00	8.5	958	17.9	17.8	17.9
RB-R5B-ACDC	2019-11-26 1:55	8.3	955	19.2	19.1	19.2
RB-R5B-ACDC	2019-11-27 12:10	8.1	976	21.9	21.3	21.9
RB-R5B-ACDC	2019-11-28 13:35	8.7	1016	5.8	5.5	5.8
RB-R5B-ACDC	2019-11-29 12:10	8.1	815	21.9	21.6	21.9
RB-R5B-ACDC	2019-11-30 11:45	8.4	999	51	50	51
RB-R5B-ACDC	2019-12-01 11:25	7.8	993	5.7	5.6	5.7
RB-R5B-ACDC	2019-12-02 10:55	8.4	985	5.8	5.7	5.8
RB-R5B-ACDC	2019-12-03 10:40	8.2	1040	4.8	4.9	4.8
RB-R5B-ACDC	2019-12-04 11:42	8.4	995	8.2	8.4	8.2
RB-R5B-ACDC	2019-12-05 12:10	8.3	977	7.1	7	7.1
RB-R5B-ACDC	2019-12-06 10:46	8.3	990	23.1	22.9	23.1
RB-R5B-ACDC	2019-12-07 10:41	8.3	981	8	7.9	8
RB-R5B-ACDC	2019-12-10 10:55	7.8	1006	10.3	10	10.3
RB-R5B-ACDC	2019-12-11 12:45	8.1	967	4.4	4.4	4.4
RB-R5B-ACDC	2019-12-12 11:15	7.7	1018	5.4	5.4	5.4
RB-R5B-ACDC	2019-12-13 15:50	8.1	1005	11.1	10.9	11.1
RB-R5B-ACDC	2019-12-14 13:40	8.0	1006	8.3	8.1	8.3
RB-R5B-ACDC	2019-12-15 11:15	8.2	1026	9.1	9	9.1
RB-R5B-ACDC	2019-12-16 17:35	8.0	996	5.4	5.4	5.4
RB-R5B-ACDC	2019-12-17 11:34	8.1	995	3	3	3
RB-R5B-ACDC	2019-12-18 11:28	8.2	991	12.1	12	12.1
RB-R5B-ACDC	2019-12-19 11:20	8.0	975	27.8	27.8	27.8
RB-R5B-ACDC	2019-12-20 10:42	8.1	985	15.5	15.5	15.5
RB-R5B-ACDC	2019-12-21 10:36	8.0	1001	11	10.9	11
RB-R5B-ACDC	2019-12-22 10:15	8.0	1007	8.3	8.1	8.3
RB-R5B-ACDC	2019-12-23 10:45	8.4	987	20.3	20.6	20.3
RB-R5B-ACDC	2019-12-24 15:12	8.0	924	13.8	14.1	13.8
RB-R5B-ACDC	2019-12-25 12:35	8.2	955	10.5	10.8	10.5
RB-R5B-ACDC	2019-12-26 12:15	8.0	986	7.6	7.5	7.6
RB-R5B-ACDC	2019-12-27 14:20	7.9	972	9.6	10.2	9.6

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RB-R5B-ACDC	2019-12-28 12:35	8.1	908	13.2	13.1	13.2
RB-R5B-ACDC	2019-12-29 12:25	8.4	1027	7	7	7
RB-R5B-ACDC	2019-12-30 14:50	8.2	948	13.2	12.1	13.2
RB-R5B-ACDC	2019-12-31 14:25	8.4	951	9.5	12.1	9.5
RB-R5b-ACDC-LP	2019-02-18 12:23	8.2	1042	4.3	4.6	4.3
RCC_Elliptical_Hopper	2019-03-23 10:20	11.8	576	8.8	8.6	8.8
RCC_NE_SUMP	2019-01-19 13:35	9.6	1560	79.2	79.4	79.2
RCC_NE_SUMP	2019-02-09 13:50	9.6	1053	73.8	73.8	73.8
RCC_NE_SUMP	2019-02-10 13:20	9.4	1140	81.3	81.3	81.3
RCC_NE_SUMP	2019-02-15 12:30	9.5	1285	83	82.8	83
RCC_NE_SUMP	2019-02-17 13:05	10.3	1156	1658	1658	1658
RCC_NE_SUMP	2019-02-18 14:47	9.7	1166	80	80	80
RCC_NE_SUMP	2019-02-19 14:15	9.5	1243	1663	1655	1663
RCC_NE_SUMP	2019-02-20 11:45	9.4	1355	677	675	677
RCC_NE_SUMP	2019-02-21 12:15	9.5	1308	85.1	85.2	85.1
RCC_NE_SUMP	2019-02-22 11:40	9.5	1330	94	93.9	94
RCC_NE_SUMP	2019-02-23 12:55	9.9	1291	91	91	91
RCC_NE_SUMP	2019-02-24 12:35	10.0	1196	118	119	118
RCC_NE_SUMP	2019-02-25 16:00	9.7	1289	3891	3874	3891
RCC_NE_SUMP	2019-02-26 11:55	9.4	1191	733	732	733
RCC_NE_SUMP	2019-02-27 11:40	9.5	1304	714	709	714
RCC_NE_SUMP	2019-02-28 12:25	9.7	1258	819	818	819
RCC_NE_SUMP	2019-03-01 12:04	9.6	1408	907	904	907
RCC_NE_SUMP	2019-03-02 12:35	9.2	1099	101	101	101
RCC_NE_SUMP	2019-03-03 14:20	9.1	1407	92	93	92
RCC_NE_SUMP	2019-03-04 16:05	9.0	1207	104.3	104.2	104.3
RCC_NE_SUMP	2019-03-05 13:20	9.3	1047	104.1	104	104.1
RCC_NE_SUMP	2019-03-06 14:34	9.4	1004	79	80	79
RCC_NE_SUMP	2019-03-07 15:15	9.8	1014	89	89	89
RCC_NE_SUMP	2019-03-08 12:35	9.4	996	82	82	82
RCC_NE_SUMP	2019-03-09 12:42	10.0	949	89.4	87.7	89.4
RCC_NE_SUMP	2019-03-10 13:26	9.2	1053	1240	1246	1240
RCC_NE_SUMP	2019-03-11 13:20	9.1	1064	2084	2081	2084
RCC_NE_SUMP	2019-03-13 12:50	9.6	2200	OR		
RCC_NE_SUMP	2019-03-14 17:20	8.4	1252	OR		
RCC_NE_SUMP	2019-03-15 11:30	9.7	1999	OR		
RCC_NE_SUMP	2019-03-16 13:20	9.8	1924	OR		
RCC_NE_SUMP	2019-03-17 12:05	9.7	1793	OR		
RCC_NE_SUMP	2019-03-18 10:21	9.9	1885	OR		
RCC_NE_SUMP	2019-03-19 12:45	9.8	1773	OR		
RCC_NE_SUMP	2019-03-20 1:06	12.1	1508	659	658	659
RCC_NE_SUMP	2019-03-21 12:00	9.7	927	1267	1270	1267
RCC_NE_SUMP	2019-03-22 15:00	10.9	901	805	797	805
RCC_NE_SUMP	2019-03-23 14:25	10.4	1717	OR		
RCC_NE_SUMP	2019-03-24 12:45	9.6	1605	OR		
RCC_NE_SUMP	2019-03-25 13:45	9.2	1518	85	85	85
RCC_NE_SUMP	2019-03-27 14:35	8.6	1469	113	111	113
RCC_NE_SUMP	2019-03-29 15:05	8.1	1601	68.6	72.2	68.6
RCC_NE_SUMP	2019-04-04 12:31	8.4	1374	23.2	22.7	23.2
RCC_NE_SUMP	2019-04-07 12:09	9.2	2660	2703	2707	2703
RCC_NE_SUMP	2019-04-15 13:00	9.1	1242	57.9	57.6	57.9
RCC_NE_SUMP	2019-04-16 11:15	9.0	1395	63	63	63
RCC_NE_SUMP	2019-04-17 11:16	9.0	1254	42.8	42.6	42.8
RCC_NE_SUMP	2019-04-18 10:40	8.8	1000	43.4	43.4	43.4
RCC_NE_SUMP	2019-04-19 12:00	8.9	600	56	57	56
RCC_NE_SUMP	2019-04-20 12:00	8.8		OR		
RCC_NE_SUMP	2019-04-21 12:08	9.0	1094	46	45.9	46
RCC_NE_SUMP	2019-04-22 12:40	8.9	1238	2416	2363	2416
RCC_NE_SUMP	2019-04-23 12:00	8.9	1039	33.9	34.2	33.9
RCC_NE_SUMP	2019-04-24 14:05	9.0	1037	41	41	41
RCC_NE_SUMP	2019-04-25 7:30	8.5	1125	61.6	64.2	61.6
RCC_NE_SUMP	2019-04-26 10:53	7.4	1159	32.4	32.6	32.4
RCC_NE_SUMP	2019-04-27 12:50	8.2	1517	20.8	20.7	20.8
RCC_NE_SUMP	2019-04-28 12:35	8.2	1404	59.8	59.6	59.8
RCC_NE_SUMP	2019-04-29 11:35	8.6	1280	49.4	49.4	49.4



Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RCC_NE_SUMP	2019-04-30 12:40	8.8	1213	57.5	57.1	57.5
RCC_NE_SUMP	2019-05-01 12:55	8.9	1421	90.5	90.6	90.5
RCC_NE_SUMP	2019-05-02 13:50	7.9	1381	29.2	29.9	29.2
RCC_NE_SUMP	2019-05-03 13:35	8.6	1255	75.8	75.5	75.8
RCC_NE_SUMP	2019-05-04 11:00	7.8	1071	52.9	53.5	52.9
RCC_NE_SUMP	2019-05-05 13:28	7.0	1277	18.1	18.1	18.1
RCC_NE_SUMP	2019-05-07 11:58	8.4	1036	45.8	45.9	45.8
RCC_NE_SUMP	2019-05-08 12:57	7.6	1139	36.9	37.5	36.9
RCC_NE_SUMP	2019-05-09 12:36	9.2	9240	71.1	71.8	71.1
RCC_NE_SUMP	2019-05-10 13:25	8.7	895	60	60.8	60
RCC_NE_SUMP	2019-05-13 12:10	8.4	957	52.3	52	52.3
RCC_NE_SUMP	2019-05-14 12:10	8.4	957	52.3	52	52.3
RCC_NE_SUMP	2019-05-15 11:56			50.1	49.8	50.1
RCC_NE_SUMP	2019-05-16 12:50	6.9	961	47.5	48.1	47.5
RCC_NE_SUMP	2019-05-17 14:28	8.5	870	23.4	23.5	23.4
RCC_NE_SUMP	2019-05-20 12:11	8.6	968	59.3	59.3	59.3
RCC_NE_SUMP	2019-05-21 12:37	9.3	547	82	79	82
RCC_NE_SUMP	2019-05-23 12:28	7.3	658	666	669	666
RCC_NE_SUMP	2019-05-24 11:22	7.4	632	69	66.8	69
RCC_NE_SUMP	2019-05-25 12:15	7.8	700	50.5	47.4	50.5
RCC_NE_SUMP	2019-05-26 13:58	7.4	659	44.1	41.7	44.1
RCC_NE_SUMP	2019-05-27 12:12	9.2	584	74.3	76.3	74.3
RCC_NE_SUMP	2019-05-28 10:45	7.3	594	38.2	37.3	38.2
RCC_NE_SUMP	2019-05-29 13:29	7.5				
RCC_NE_SUMP	2019-05-30 11:58	7.7	746	36.2	36.6	36.2
RCC_NE_SUMP	2019-06-01 10:58	7.4	703	53.1	53.9	53.1
RCC_NE_SUMP	2019-06-02 10:07	7.2	781	32.5	32.6	32.5
RCC_NE_SUMP	2019-06-03 9:59	8.0	752	34.1	33.8	34.1
RCC_NE_SUMP	2019-06-04 11:20	8.0	896	31.1	31.3	31.1
RCC_NE_SUMP	2019-06-05 11:45	8.5	966	26.9	26.9	26.9
RCC_NE_SUMP	2019-06-06 12:49	8.6	1016	21.4	21.4	21.4
RCC_NE_SUMP	2019-06-07 13:57	7.1	734	27.6	27.4	27.6
RCC_NE_SUMP	2019-06-08 10:59	8.3	671	24.3	23.9	24.3
RCC_NE_SUMP	2019-06-09 11:09	8.5	665	25.2	25.5	25.2
RCC_NE_SUMP	2019-06-11 11:55	8.4	779	21.8	21.5	21.8
RCC_NE_SUMP	2019-06-13 11:10	9.1	1119	45.1	45.8	45.1
RCC_NE_SUMP	2019-06-13 11:50	8.4	678	26.7	25.8	26.7
RCC_NE_SUMP	2019-06-14 4:32	7.2	764	43	45	43
RCC_NE_SUMP	2019-06-15 12:25	7.6	749	28.9	28.9	28.9
RCC_NE_SUMP	2019-06-16 12:35	7.4	654	26.4	26.3	26.4
RCC_NE_SUMP	2019-06-17 12:10	8.2	56	28.3	28.2	28.3
RCC_NE_SUMP	2019-06-18 12:00	7.3	968	24.4	24.6	24.4
RCC_NE_SUMP	2019-06-20 11:10	7.5	973	15.2	15.2	15.2
RCC_NE_SUMP	2019-06-21 14:50	8.2	1017	39.1	39.3	39.1
RCC_NE_SUMP	2019-06-22 10:55	8.6	884	33.4	33.4	33.4
RCC_NE_SUMP	2019-06-23 11:00	7.7	681	26.2	25.8	26.2
RCC_NE_SUMP	2019-06-25 11:54	8.8	851	54	54	54
RCC_NE_SUMP	2019-06-27 12:36	7.3	952	30.4	30.8	30.4
RCC_NE_SUMP	2019-06-28 13:08	8.6	1111	73	73	73
RCC_NE_SUMP	2019-06-29 16:07	9.2	867	OR		
RCC_NE_SUMP	2019-06-30 13:28	8.5	1150	784	791	784
RCC_NE_SUMP	2019-07-02 12:35	8.1	1094	702	704	702
RCC_NE_SUMP	2019-07-03 11:59	8.8	1553	898	898	898
RCC_NE_SUMP	2019-07-04 12:20	6.8	1381	38.2	38.1	38.2
RCC_NE_SUMP	2019-07-05 13:20	8.2	986	53.4	52.9	53.4
RCC_NE_SUMP	2019-07-06 12:28	8.0	1985	56	56	56
RCC_NE_SUMP	2019-07-07 11:30	8.6	1592	52.4	51.8	52.4
RCC_NE_SUMP	2019-07-08 12:02	7.4	1256	93.7	92.9	93.7
RCC_NE_SUMP	2019-07-10 17:05	7.4	584	39.5	38.3	39.5
RCC_NE_SUMP	2019-07-12 16:38	8.9	769	65	63.5	65
RCC_NE_SUMP	2019-07-13 12:00	8.2	872	46.6	46.4	46.6
RCC_NE_SUMP	2019-07-14 12:30	8.2	767	59.5	59.1	59.5
RCC_NE_SUMP	2019-07-16 12:35	8.8	1450	53	54	53
RCC_NE_SUMP	2019-07-17 12:30	8.4	818	40.1	40	40.1
RCC_NE_SUMP	2019-07-18 12:10	8.3	865	45.2	44.8	45.2

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RCC_NE_SUMP	2019-07-19 16:37	9.0	954	65.2	64.6	65.2
RCC_NE_SUMP	2019-07-20 13:07	8.5	957	54	53	54
RCC_NE_SUMP	2019-07-21 11:36	9.0	979	51.9	51.9	51.9
RCC_NE_SUMP	2019-07-23 13:05	7.2	1056	35.7	35.8	35.7
RCC_NE_SUMP	2019-07-24 12:11	7.6	1091	32.3	32.3	32.3
RCC_NE_SUMP	2019-07-25 12:20	8.6	1383	32.7	32.3	32.7
RCC_NE_SUMP	2019-07-26 14:15	8.9	987	31.3	31	31.3
RCC_NE_SUMP	2019-07-27 11:10	7.7	880	71.9	72.4	71.9
RCC_NE_SUMP	2019-07-28 11:20	6.9	1106	47.8	47.8	47.8
RCC_NE_SUMP	2019-07-31 10:50	8.1	856	21.4	21.4	21.4
RCC_NE_SUMP	2019-08-01 11:31	7.4	906	31.5	31.3	31.5
RCC_NE_SUMP	2019-08-02 14:28	8.1	1207	38.2	38.3	38.2
RCC_NE_SUMP	2019-08-03 11:35	8.9	1496	41.9	42	41.9
RCC_NE_SUMP	2019-08-04 12:57	8.8	1029	20.5	20.4	20.5
RCC_NE_SUMP	2019-08-05 11:07	7.5	1202	25.3	25	25.3
RCC_NE_SUMP	2019-08-06 11:10	7.9	1264	66.6	66.7	66.6
RCC_NE_SUMP	2019-08-08 11:31	8.1	1067	60.3	60.2	60.3
RCC_NE_SUMP	2019-08-10 11:27	7.5	1266	48.4	48.3	48.4
RCC_NE_SUMP	2019-08-11 11:15	8.1	1058	37.4	37.7	37.4
RCC_NE_SUMP	2019-08-12 13:50	8.3	928	102	101	102
RCC_NE_SUMP	2019-08-13 13:20	9.1	859	19.9	20.3	19.9
RCC_NE_SUMP	2019-08-14	8.0	494	41.2	41.6	41.2
RCC_NE_SUMP	2019-08-14 13:43	7.5	355	46	46	46
RCC_NE_SUMP	2019-08-16 14:30	8.8	884	172	173	172
RCC_NE_SUMP	2019-08-17 13:30	7.8	1031	75	76	75
RCC_NE_SUMP	2019-08-18 14:45	8.2	999	859	857	859
RCC_NE_SUMP	2019-08-19 13:50	8.9	1199	174	174	174
RCC_NE_SUMP	2019-08-20 13:00	8.0	1253	102	103	102
RCC_NE_SUMP	2019-08-21 13:00	8.3	1235	162	154	162
RCC_NE_SUMP	2019-08-23 15:20	8.7	1693	111	120	111
RCC_NE_SUMP	2019-08-24 12:55	7.0	1146	97.1	99.7	97.1
RCC_NE_SUMP	2019-08-25 13:20	7.4	1308	106	103	106
RCC_NE_SUMP	2019-08-26 11:56	7.2	1028	72.5	72.3	72.5
RCC_NE_SUMP	2019-08-27 12:05	6.9	1424	24.7	24.8	24.7
RCC_NE_SUMP	2019-08-30 14:08	7.5	1236	53.1	54.2	53.1
RCC_NE_SUMP	2019-08-31 11:11	7.1	1224	23.8	23.9	23.8
RCC_NE_SUMP	2019-09-01 11:16	7.1	1087	43	43.1	43
RCC_NE_SUMP	2019-09-02 11:05	7.1	925	21.8	21.7	21.8
RCC_NE_SUMP	2019-09-03 12:40	8.2	875	24.8	24.8	24.8
RCC_NE_SUMP	2019-09-04 12:45	7.4	811	113	113	113
RCC_NE_SUMP	2019-09-05 11:45	8.3	658	30.7	29	30.7
RCC_NE_SUMP	2019-09-06 12:30	7.5	678	48.2	48	48.2
RCC_NE_SUMP	2019-09-09 11:45	7.6	779	82.4	81	82.4
RCC_NE_SUMP	2019-09-11 11:30	7.0	571	82	81	82
RCC_NE_SUMP	2019-09-14 11:16	8.4	704	111	112	111
RCC_NE_SUMP	2019-09-16 11:35	8.0	850	2835	2838	2835
RCC_NE_SUMP	2019-09-18 11:40	7.8	1287	640	640	640
RCC_NE_SUMP	2019-09-21 11:30	9.8	1271	45.9	45.7	45.9
RCC_NE_SUMP	2019-09-22 10:45	7.2	1018	117	117	117
RCC_NE_SUMP	2019-09-23 11:13	7.6	946	48.3	48.3	48.3
RCC_NE_SUMP	2019-09-24 11:30	8.8	919	78	78	78
RCC_NE_SUMP	2019-09-27 10:05	8.4	809	191	189	191
RCC_NE_SUMP	2019-09-29 11:05	8.4	918	46.9	47	46.9
RCC_NE_SUMP	2019-10-01 13:35	9.4	1202	814	813	814
RCC_NE_SUMP	2019-10-02 12:30	8.3	896	42.2	42.2	42.2
RCC_NE_SUMP	2019-10-03 13:15	7.9	853	52.1	52	52.1
RCC_NE_SUMP	2019-10-04 11:35	9.0	1228	84	84	84
RCC_NE_SUMP	2019-10-05 12:30	8.9	1589	73.3	73.4	73.3
RCC_NE_SUMP	2019-10-06 12:29	7.4	1584	50.6	50.7	50.6
RCC_NE_SUMP	2019-10-07 14:54	7.6	1616	81.8	81.9	81.8
RCC_NE_SUMP	2019-10-08 12:35	7.6	1432	53	53	53
RCC_NE_SUMP	2019-10-09 13:40	7.4	1122	83.3	82.7	83.3
RCC_NE_SUMP	2019-10-10 13:35	9.0	1443	100.6	100.5	100.6
RCC_NE_SUMP	2019-10-11 13:15	9.0	1152	68.8	68.7	68.8
RCC_NE_SUMP	2019-10-13 12:45	9.7	861	89	88.9	89

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RCC_NE_SUMP	2019-10-14 11:10	9.2	1086	OR		
RCC_NE_SUMP	2019-10-15 13:35	8.1	448	708		708
RCC_NE_SUMP	2019-10-16 13:00	8.0	1079	99.1	99.1	99.1
RCC_NE_SUMP	2019-10-17 9:40	6.6	1002	29.6	30	29.6
RCC_NE_SUMP	2019-10-18 15:30	8.5	742	50.4	50.1	50.4
RCC_NE_SUMP	2019-10-19 10:45	9.4	741	2137	2138	2137
RCC_NE_SUMP	2019-10-20 13:30	9.9	1064	3406	3409	3406
RCC_NE_SUMP	2019-10-21 8:55	9.9	835	1645	1626	1645
RCC_NE_SUMP	2019-10-22 14:40	7.6	804	2327	2324	2327
RCC_NE_SUMP	2019-10-23 12:55	7.6	1112	648	649	648
RCC_NE_SUMP	2019-10-24 15:48	9.1	1291	619	619	619
RCC_NE_SUMP	2019-10-25 15:15	9.1	666	OR		
RCC_NE_SUMP	2019-10-26 14:45	9.3	999	1306	1305	1306
RCC_NE_SUMP	2019-10-27 12:05	9.4	1240	1253	1253	1253
RCC_NE_SUMP	2019-10-28 11:05	9.8	742	45.8	45.7	45.8
RCC_NE_SUMP	2019-10-29 11:15	9.7	1154	78.6	78.7	78.6
RCC_NE_SUMP	2019-10-30 13:30	9.4	1405	51.5	51.8	51.5
RCC_NE_SUMP	2019-10-31 12:20	7.2	838	72.4	72.4	72.4
RCC_NE_SUMP	2019-11-01 12:00	8.0	1043	103.7	103.4	103.7
RCC_NE_SUMP	2019-11-02 16:00	8.9	1225	208	208	208
RCC_NE_SUMP	2019-11-03 13:10	8.7	1120	163	163	163
RCC_NE_SUMP	2019-11-06 11:45	8.7	1619	142	142	142
RCC_NE_SUMP	2019-11-08 11:00	8.2	956	15.4	15.2	15.4
RCC_NE_SUMP	2019-11-10 14:48	8.1	1099	16.4	16.4	16.4
RCC_NE_SUMP	2019-11-12 11:59	8.1	690	8.5	8.5	8.5
RCC_NE_SUMP	2019-11-13 11:55	8.3	685	13	13	13
RCC_NE_SUMP	2019-11-14 12:10	8.1	695	8.3	8.3	8.3
RCC_NE_SUMP	2019-11-15 11:35	8.0	697	15.4	15	15.4
RCC_NE_SUMP	2019-11-16 11:55	9.0	1077	28.3	28.3	28.3
RCC_NE_SUMP	2019-11-17 12:32	9.7	1168	74.6	74.2	74.6
RCC_NE_SUMP	2019-11-18 12:30	10.3	899	220	220	220
RCC_NE_SUMP	2019-11-19 13:30	9.5	929	645	644	645
RCC_NE_SUMP	2019-11-21 15:00	8.0	1087	25.1	25.5	25.1
RCC_NE_SUMP	2019-11-22 2:15	7.2	1003	8.4	8.4	8.4
RCC_NE_SUMP	2019-11-23 15:00	10.0	900	150	150	150
RCC_NE_SUMP	2019-11-24 15:55	9.7	1126	400		400
RCC_NE_SUMP	2019-11-25	8.2	785	780	783	780
RCC_NE_SUMP	2019-11-26 4:00	9.2	698	6.8	6.6	6.8
RCC_NE_SUMP	2019-11-27 10:50	8.2	704	3.8	3.7	3.8
RCC_NE_SUMP	2019-11-28 13:10	7.9	893	16.4	16.2	16.4
RCC_NE_SUMP	2019-11-29 14:55	7.0	981	721	721	721
RCC_NE_SUMP	2019-11-30 13:25	6.9	1328	17.9	17.8	17.9
RCC_NE_SUMP	2019-12-01 12:00	9.8	1579	45	45	45
RCC_NE_SUMP	2019-12-02 12:42	8.1	990	1579	1576	1579
RCC_NE_SUMP	2019-12-03 12:15	9.6	1028	139	137	139
RCC_NE_SUMP	2019-12-04 13:30	7.8	1003	67.2	67.2	67.2
RCC_NE_SUMP	2019-12-05 13:55	9.8	1260	68.9	68.9	68.9
RCC_NE_SUMP	2019-12-06 12:21	7.9	794	35.7	35.3	35.7
RCC_NE_SUMP	2019-12-07 12:32	8.1	825	11.8	11.7	11.8
RCC_NE_SUMP	2019-12-08 11:50	9.2	1551	62.1	61.5	62.1
RCC_NE_SUMP	2019-12-09 11:25	8.0	1422	38.4	38.1	38.4
RCC_NE_SUMP	2019-12-10 12:30	8.1	1028	37.4	37.3	37.4
RCC_NE_SUMP	2019-12-11 11:45	8.3	1190	25.4	24.9	25.4
RCC_NE_SUMP	2019-12-12 13:25	7.4	1570	19	18.9	19
RCC_NE_SUMP	2019-12-13 13:00	7.1	1109	19.1	19.2	19.1
RCC_NE_SUMP	2019-12-14 11:00	7.2	1281	27.3	27.3	27.3
RCC_NE_SUMP	2019-12-15 12:15	7.4	1190	38.6	38.5	38.6
RCC_NE_SUMP	2019-12-16 15:55	7.2	1222	32.6	32.5	32.6
RCC_NE_SUMP	2019-12-17 13:34	8.0	768	25.8	25.7	25.8
RCC_NE_SUMP	2019-12-18 12:55	8.7	1183	1.9	1.9	1.9
RCC_NE_SUMP	2019-12-19 12:50	8.6	1171	14.6	14.5	14.6
RCC_NE_SUMP	2019-12-21 13:40	9.2	1258	16.7	16.5	16.7
RCC_NE_SUMP	2019-12-22 11:52	8.7	1054	20	20.1	20
RCC_NE_SUMP	2019-12-23 9:30	9.5	1339	18.7	18.6	18.7
RCC_NE_SUMP	2019-12-24 16:20	9.2	1569	28.6	28.7	28.6

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RCC_NE_SUMP	2019-12-25 15:20	9.1	1432	28.3	28.9	28.3
RCC_NE_SUMP	2019-12-26 13:50	7.3	1400	21.9	21.6	21.9
RCC_NE_SUMP	2019-12-27 15:10	7.5	1799	18.8	18.3	18.8
RCC_NE_SUMP	2019-12-28 14:05	8.9	1302	36.1	36.4	36.1
RCC_NE_SUMP	2019-12-29 14:10	8.8	1446	21.9	21.9	21.9
RCC_NE_SUMP	2019-12-30 16:00	7.6	1353	23.1	22.9	23.1
RCC_NE_SUMP	2019-12-31 15:20	7.6	1287	18.6	17.3	18.6
RCC_Plant_5_Sump	2019-03-23 10:15	10.8	235	19.8	18.2	19.8
RCC_Spillway_E_Sump	2019-03-07 14:30	9.4	1059	OR		
RCC_Spillway_E_Sump	2019-04-26 7:14	10.1	1446	OR		
RCC_Spillway_E_Sump	2019-04-30 13:00	9.6	1697	1412	1416	1412
RCC_Spillway_E_Sump	2019-05-11 7:25	11.2	1942	113	111	113
RCC_Spillway_E_Sump	2019-05-16 7:28	11.3	1892	OR		
RCC_Spillway_W_Sump	2019-03-07 14:35	9.4	1000	72.6	72.6	72.6
RCC_Spillway_W_Sump	2019-04-05 13:00	10.0	1655	640	641	640
RCC_Spillway_W_Sump	2019-04-11 7:00	10.1	1918	OR		
RCC_Spillway_W_Sump	2019-04-21 7:31	10.0	2430	OR		
RCC_Spillway_W_Sump	2019-04-24 7:22	12.2	2000	57	57.5	57
RCC-Mid-Powerhouse	2019-01-16 14:15	10.2	1654			
RCC-Mid-Powerhouse	2019-01-16 14:20	8.7	1609			
RCC-Mid-Powerhouse	2019-01-16 14:30	9.8	1090			
RCC-Mid-Powerhouse	2019-02-28 14:55	10.0	1343	104	104	104
RCC-Mid-Powerhouse	2019-03-23 14:20	9.6	1960	OR		
RCC-Mid-Powerhouse	2019-04-08 9:20	8.7	1563	153	153	153
RCC-Mid-Powerhouse	2019-06-17 12:20	9.2	667	37.8	37.5	37.8
RCC-Mid-Powerhouse	2019-07-28 11:30	8.9	1195	47.4	48.9	47.4
RCC-Mid-Powerhouse	2019-08-05 10:50	9.4	4750	51.6	51.8	51.6
RCC-Sunken-BT	2019-05-15 12:32	11.8	4150	4.4	4.6	4.4
RCC-Sunken-BT	2019-05-28 11:45	12.2	2750	7.9	7.8	7.9
RCC-Sunken-BT	2019-06-13 13:25	8.5	13250	16.8	16.8	16.8
RCC-Sunken-BT	2019-06-27 13:25	12.8	7760	34.4	31.8	34.4
RCC-Sunken-BT	2019-07-24 13:05	10.9	1456	1351	1342	1351
RCC-Sunken-BT	2019-08-17 10:45	12.4	2600	30	28.4	30
RCC-W-Sump	2019-03-21 11:37	8.6	1230	16.7	16.1	16.7
RCC-W-Sump	2019-03-22 10:00	9.7	1307	32.6	32.1	32.6
RCC-W-Sump	2019-03-23 14:00	9.2	1380	10.5	9.4	10.5
RCC-W-Sump	2019-03-24 12:15	9.0	1271	18.9	18.4	18.9
RCC-W-Sump	2019-03-25 12:15	7.4	1900	59	62	59
RCC-W-Sump	2019-03-26 11:30	7.5	1900	1015	998	1015
RCC-W-Sump	2019-03-27 11:50	7.5	2070	36.8	36	36.8
RCC-W-Sump	2019-03-28 10:30	8.0	2070	3.6	3.6	3.6
RCC-W-Sump	2019-03-29 9:50	8.1	1967	19.5	19.4	19.5
RCC-W-Sump	2019-04-30 12:10	8.4	2090	3	3.1	3
RCC-W-Sump	2019-05-31 10:30	8.3	1150	38	38.7	38
RCC-W-Sump	2019-06-29 16:16	8.7	576	1807	1811	1807
RSEM-L5E-EOP	2019-03-15 8:35	8.4	495	13.9	13.8	13.9
RSEM-L5E-EOP	2019-03-16 15:10	8.0	878	14.2	14.2	14.2
RSEM-L5E-EOP	2019-03-17 13:45	8.1	946	11.7	11.7	11.7
RSEM-L5E-EOP	2019-03-18 14:30	8.2	656	27	27.1	27
RSEM-L5E-EOP	2019-03-19	7.7	993	45	42	45
RSEM-L5E-EOP	2019-03-20 2:00	7.7	671	62.8	63	62.8
RSEM-L5E-EOP	2019-03-21 12:50	8.0	550	35.8	35.7	35.8
RSEM-L5E-EOP	2019-03-22 11:45	8.3	658	31.1	27.7	31.1
RSEM-L5E-EOP	2019-03-23 11:25	8.1	517	10.2	10.2	10.2
RSEM-L5E-EOP	2019-03-24 12:07	8.2	573	54.7	54.5	54.7
RSEM-L5E-EOP	2019-03-25 10:20	8.0	558	33.1	32.9	33.1
RSEM-L5E-EOP	2019-03-26 10:13	8.2	585	25.1	25.6	25.1
RSEM-L5E-EOP	2019-03-27 10:53	8.2	600	25.4	25.6	25.4
RSEM-L5E-EOP	2019-03-28 9:40	8.2	624	4.1	4.1	4.1
RSEM-L5E-EOP	2019-03-29 10:27	8.1	618	11.2	12.6	11.2
RSEM-L5E-EOP	2019-03-30 9:54	8.1	631	10.6	10.6	10.6
RSEM-L5E-EOP	2019-03-31 9:57	8.1	6340	10.3	10.4	10.3
RSEM-L5E-EOP	2019-04-01 10:16	8.2	607	33.5	33.9	33.5
RSEM-L5E-EOP	2019-04-02 10:28	8.1	496	36.4	36.5	36.4
RSEM-L5E-EOP	2019-04-03 8:50	8.2	5910	29.9	32.7	29.9

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-L5E-EOP	2019-04-04 11:05	8.2	482	29.7	29.7	29.7
RSEM-L5E-EOP	2019-04-05 9:19	8.2	660	5.9	5.9	5.9
RSEM-L5E-EOP	2019-04-06 10:35	8.2	493	14.2	14.3	14.2
RSEM-L5E-EOP	2019-04-07 10:35	8.2	548	29.7	28.8	29.7
RSEM-L5E-EOP	2019-04-08 10:45	8.2	524	45.7	46.7	45.7
RSEM-L5E-EOP	2019-04-09 12:05	8.3	638	68.6	69.9	68.6
RSEM-L5E-EOP	2019-04-10 13:25	8.4	545	13.6	13.2	13.6
RSEM-L5E-EOP	2019-04-11 10:00	8.4	643	14.9	15	14.9
RSEM-L5E-EOP	2019-04-12 9:55	8.3	702	16.8	16.3	16.8
RSEM-L5E-EOP	2019-04-13 11:25	8.1	1008	24.1	23.1	24.1
RSEM-L5E-EOP	2019-04-14 10:40	8.0	1076	18.8	17.9	18.8
RSEM-L5E-EOP	2019-04-15 11:25	8.1	1094	11.9	12.4	11.9
RSEM-L5E-EOP	2019-04-16 10:12	8.2	1161	6	6	6
RSEM-L5E-EOP	2019-04-17 10:55	8.1	1154	6.8	6.7	6.8
RSEM-L5E-EOP	2019-04-18 9:38	8.2	1145	6.5	6.2	6.5
RSEM-L5E-EOP	2019-04-19 9:48	8.2	1160	5.2	5.4	5.2
RSEM-L5E-EOP	2019-04-20 9:50	8.3	11590	3.4	3.3	3.4
RSEM-L5E-EOP	2019-04-21 10:15	8.3	1165	3.5	3.4	3.5
RSEM-L5E-EOP	2019-04-22 11:18	8.3	11640	3.5	3.4	3.5
RSEM-L5E-EOP	2019-04-23 10:25	8.2	1172	3.2	3.2	3.2
RSEM-L5E-EOP	2019-04-24 10:28	8.4	3260	3.4	3.3	3.4
RSEM-L5E-EOP	2019-04-25 10:57	8.4	1340	43	42.6	43
RSEM-L5E-EOP	2019-04-26 12:07	8.5	1200	14.8	14	14.8
RSEM-L5E-EOP	2019-04-27 10:50	8.3	1097	6.2	6.2	6.2
RSEM-L5E-EOP	2019-04-28 9:14	8.4	1084	9.4	9.6	9.4
RSEM-L5E-EOP	2019-04-29 9:30	8.3	1114	9.4	9.5	9.4
RSEM-L5E-EOP	2019-04-29 10:00	8.6	616	7	6.8	7
RSEM-L5E-EOP	2019-04-30 10:24	8.3	1127	12.6	12.1	12.6
RSEM-L5E-EOP	2019-05-01 11:00	8.3	1147	5.3	5.3	5.3
RSEM-L5E-EOP	2019-05-02 10:45	8.2	1159	6.1	6.2	6.1
RSEM-L5E-EOP	2019-05-03 10:00	8.3	1147	12.3	12.1	12.3
RSEM-L5E-EOP	2019-05-05 11:20	8.3	988	11.1	11.1	11.1
RSEM-L5E-EOP	2019-05-06 10:15	8.3	1010	10.9	10.8	10.9
RSEM-L5E-EOP	2019-05-07 10:35	8.4	1033	5.6	5.6	5.6
RSEM-L5E-EOP	2019-05-08 13:30	8.4	1051	4.9	4.8	4.9
RSEM-L5E-EOP	2019-05-09 13:00	8.4	1056	12.5	12.3	12.5
RSEM-L5E-EOP	2019-05-11 10:00	8.4	1045	18.6	18.3	18.6
RSEM-L5E-EOP	2019-05-13 12:35	8.4	990	5.6	5.6	5.6
RSEM-L5E-EOP	2019-05-14 11:35	8.5	1016	7.5	7.7	7.5
RSEM-L5E-EOP	2019-05-16 13:15	8.5	954	7.3	7.4	7.3
RSEM-L5E-EOP	2019-05-17 10:15	8.5	964	4.4	4.3	4.4
RSEM-L5E-EOP	2019-05-19 10:00	8.5	972	4.3	4.2	4.3
RSEM-L5E-EOP	2019-05-20 13:00	8.5	974	7.7	6.5	7.7
RSEM-L5E-EOP	2019-05-21 11:45	8.3	1265	7	6.8	7
RSEM-L5E-EOP	2019-05-23 11:00	8.4		11.3	11.7	11.3
RSEM-L5E-EOP	2019-05-24 11:10	8.4	1290	10.2	9.4	10.2
RSEM-L5E-EOP	2019-05-25 10:45	8.3	1320	6.1	6.8	6.1
RSEM-L5E-EOP	2019-05-26 14:00	8.3	1349	5.7	5.7	5.7
RSEM-L5E-EOP	2019-05-27 11:00	8.3	1377	5.5	5	5.5
RSEM-L5E-EOP	2019-05-28 13:10	8.3	1408	8.1	8	8.1
RSEM-L5E-EOP	2019-05-29 10:40	8.2	1312	4.3	4.1	4.3
RSEM-L5E-EOP	2019-05-30 9:55	8.2	1443	5.1	5	5.1
RSEM-L5E-EOP	2019-05-31 11:25	8.2	1474	5.2	5.4	5.2
RSEM-L5E-EOP	2019-06-01 11:25	8.2	1502	6.4	6.3	6.4
RSEM-L5E-EOP	2019-06-02 11:35	8.3	1544	5.8	5.9	5.8
RSEM-L5E-EOP	2019-06-03 11:05	8.2	1548	8.6	8.6	8.6
RSEM-L5E-EOP	2019-06-04 11:40	8.3	1560	6.5	6.5	6.5
RSEM-L5E-EOP	2019-06-05 12:00	8.1	1575	6.4	6.4	6.4
RSEM-L5E-EOP	2019-06-06 11:25	8.1	1579	8.6	8.7	8.6
RSEM-L5E-EOP	2019-06-07 12:35	8.1	1607	6.1	5.6	6.1
RSEM-L5E-EOP	2019-06-08 10:30	8.1	1643	10	9.8	10
RSEM-L5E-EOP	2019-06-09 10:25	8.0	1660	6.4	6.4	6.4
RSEM-L5E-EOP	2019-06-10 10:55	8.4	1458	9.9	10.1	9.9
RSEM-L5E-EOP	2019-06-11 12:00	8.4	1451	4	4	4
RSEM-L5E-EOP	2019-06-13 11:20	8.2	1450	5.4	5.4	5.4

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-L5E-EOP	2019-06-14 14:15	8.4	2040	3.8	3.9	3.8
RSEM-L5E-EOP	2019-06-16 14:30	8.4	1472	3.9	3.8	3.9
RSEM-L5E-EOP	2019-06-17 14:20	8.3	1351	5.7	5.6	5.7
RSEM-L5E-EOP	2019-06-18 14:25	8.4	1490	9.7	9.5	9.7
RSEM-L5E-EOP	2019-06-19 14:25	8.3	1573	6.6	6.9	6.6
RSEM-L5E-EOP	2019-06-21 11:45	8.4	1501	5.6	5.6	5.6
RSEM-L5E-EOP	2019-06-22 13:50	8.3	1522	5	5.2	5
RSEM-L5E-EOP	2019-06-23 13:45	8.3	1490	12.9	13	12.9
RSEM-L5E-EOP	2019-06-24 10:50	8.4	1485	12.9	12.8	12.9
RSEM-L5E-EOP	2019-06-25 13:30	8.2	1681	27.8	27.1	27.8
RSEM-L5E-EOP	2019-06-26 14:15	8.3	1677	13.3	14.1	13.3
RSEM-L5E-EOP	2019-06-27 13:56	8.2	1695	10.4	10.6	10.4
RSEM-L5E-EOP	2019-06-28 10:40	8.4	1713	21.4	22.2	21.4
RSEM-L5E-EOP	2019-06-29 10:30	8.5	1403	8.1	8	8.1
RSEM-L5E-EOP	2019-06-30 15:15	8.1	1777	7.9	8	7.9
RSEM-L5E-EOP	2019-07-01 11:50	8.2	1657	27.5	27.7	27.5
RSEM-L5E-EOP	2019-07-02 15:30	8.2	1648	9.6	10	9.6
RSEM-L5E-EOP	2019-07-03 13:22	8.1	1630	12.1	12.1	12.1
RSEM-L5E-EOP	2019-07-04 14:00	8.1	1625	10.1	10.6	10.1
RSEM-L5E-EOP	2019-07-05 11:25	8.1	1634	13.6	12.8	13.6
RSEM-L5E-EOP	2019-07-06 13:50		1303	9.4	10.3	9.4
RSEM-L5E-EOP	2019-07-08 12:30	8.5	1315	11.1	12.1	11.1
RSEM-L5E-EOP	2019-07-10 13:05	8.4	1333	10	10	10
RSEM-L5E-EOP	2019-07-11 13:35	8.3	1363	12.4	12.7	12.4
RSEM-L5E-EOP	2019-07-12 13:00	8.4	1371	11.9	11.9	11.9
RSEM-L5E-EOP	2019-07-13 14:30	8.3	1371	12	11.9	12
RSEM-L5E-EOP	2019-07-14 14:55	8.4	1386	15.2	15.2	15.2
RSEM-L5E-EOP	2019-07-15 13:25	8.4	1405	13.8	13.8	13.8
RSEM-L5E-EOP	2019-07-16 13:33	8.3	1372	20.7	21.1	20.7
RSEM-L5E-EOP	2019-07-17 15:15	8.4	1367	13.4	13.3	13.4
RSEM-L5E-EOP	2019-07-18 14:10	8.4	1399	14	13.8	14
RSEM-L5E-EOP	2019-07-19 13:25	8.3	1396	14	14.1	14
RSEM-L5E-EOP	2019-07-20 15:25	8.4	1413	11.7	11.7	11.7
RSEM-L5E-EOP	2019-07-21 15:25	8.3	1429	13.9	14.1	13.9
RSEM-L5E-EOP	2019-07-22 13:11	8.3	1440	9.8	9.9	9.8
RSEM-L5E-EOP	2019-07-23 14:20	8.4	1485	20.3	19.3	20.3
RSEM-L5E-EOP	2019-07-24 15:15	8.4	1478	13.2	13.2	13.2
RSEM-L5E-EOP	2019-07-25 13:40	8.5	1480	16.6	16.8	16.6
RSEM-L5E-EOP	2019-07-26 10:40	8.4	1492	14.5	14.6	14.5
RSEM-L5E-EOP	2019-07-27 13:10	8.5	1482	46.3	44.4	46.3
RSEM-L5E-EOP	2019-07-28 12:45	8.4	1768	8.6	8.6	8.6
RSEM-L5E-EOP	2019-07-29 10:35	8.3	1700	8.1	8.1	8.1
RSEM-L5E-EOP	2019-07-30 15:00	8.3	1965	9.2	9.2	9.2
RSEM-L5E-EOP	2019-07-31 13:15	8.4	1810	7.2	7.1	7.2
RSEM-L5E-EOP	2019-08-01 14:40	8.3	1926	9.8	9.7	9.8
RSEM-L5E-EOP	2019-08-02 11:00	8.2	2080	4.8	4.8	4.8
RSEM-L5E-EOP	2019-08-03 13:50	8.2	2250	6.2	6.1	6.2
RSEM-L5E-EOP	2019-08-04 15:25	8.2	2240	6.6	6.6	6.6
RSEM-L5E-EOP	2019-08-05 13:25	8.3	2270	6	6	6
RSEM-L5E-EOP	2019-08-06 14:25	8.3	2330	4.6	4.6	4.6
RSEM-L5E-EOP	2019-08-07 11:37	8.3	2550	4.8	4.7	4.8
RSEM-L5E-EOP	2019-08-08 15:05	8.3	2530	5.6	5.6	5.6
RSEM-L5E-EOP	2019-08-09 11:30	8.3	2600	4.6	4.6	4.6
RSEM-L5E-EOP	2019-08-16 11:40	8.3	1919	17.2	16.7	17.2
RSEM-L5E-EOP	2019-08-18 15:15	8.4	1595	38	40.7	38
RSEM-L5E-EOP	2019-08-19 14:50	8.2	1487	8.9	8.9	8.9
RSEM-L5E-EOP	2019-08-21 12:15	8.4	1470	7.6	7.2	7.6
RSEM-L5E-EOP	2019-08-22 10:05	8.2	1567	28.6	28.6	28.6
RSEM-L5E-EOP	2019-08-23 10:45	8.5	1582	6.9	6.1	6.9
RSEM-L5E-EOP	2019-08-24 6:15	8.4	1701	3.1	3.2	3.1
RSEM-L5E-EOP	2019-08-25 12:40	8.6	1741	4.1	4.4	4.1
RSEM-L5E-EOP	2019-08-26 13:00	8.4	1216	4.2	4.2	4.2
RSEM-L5E-EOP	2019-08-27 14:40	8.4	1839	2.9	2.9	2.9
RSEM-L5E-EOP	2019-08-28 14:55	8.5	1865	1.5	1.5	1.5
RSEM-L5E-EOP	2019-08-29 15:30	8.5	2040	3.1	3	3.1

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-L5E-EOP	2019-08-30 10:20	8.5	1856	1.8	1.8	1.8
RSEM-L5E-EOP	2019-08-31 13:00	8.5	1869	1.6	1.6	1.6
RSEM-L5E-EOP	2019-09-01 13:30	8.5	1823	1.8	1.8	1.8
RSEM-L5E-EOP	2019-09-02 12:30	8.6	1823	1.6	1.6	1.6
RSEM-L5E-EOP	2019-09-03 15:00	8.5	2020	1.5	1.6	1.5
RSEM-L5E-EOP	2019-09-04 15:00	8.7	1697	3.6	3.6	3.6
RSEM-L5E-EOP	2019-09-05 13:35	8.6	1772	1.6	1.7	1.6
RSEM-L5E-EOP	2019-09-06 14:30	8.6	1767	2.1	2.1	2.1
RSEM-L5E-EOP	2019-09-07 13:45	8.5	1724	2	2	2
RSEM-L5E-EOP	2019-09-08 14:15	8.6	1744	3.2	3.3	3.2
RSEM-L5E-EOP	2019-09-09 9:00	8.4	1879	1.6	1.6	1.6
RSEM-L5E-EOP	2019-09-10 13:30	8.6	1708	2.4	2.5	2.4
RSEM-L5E-EOP	2019-09-11 14:10	8.7	1807	2.5	2.6	2.5
RSEM-L5E-EOP	2019-09-12 12:35	8.8	1768	3.3	3.2	3.3
RSEM-L5E-EOP	2019-09-13 12:30	8.1	1756	2	1.9	2
RSEM-L5E-EOP	2019-09-14 13:00	8.6	1732	3.6	3.5	3.6
RSEM-L5E-EOP	2019-09-15 12:35	8.4	1726	2.9	2.8	2.9
RSEM-L5E-EOP	2019-09-16 13:50	7.9	1391	18.4	18	18.4
RSEM-L5E-EOP	2019-09-17 11:15	7.4	866	11.2	11.5	11.2
RSEM-L5E-EOP	2019-09-18 9:50	7.8	1787	3.9	3.9	3.9
RSEM-L5E-EOP	2019-09-19 10:50	8.4	1330	2.7	2.7	2.7
RSEM-L5E-EOP	2019-09-20 10:20	7.8	1759	2.2	2.2	2.2
RSEM-L5E-EOP	2019-09-21 10:30	7.6	1324	2.4	2.4	2.4
RSEM-L5E-EOP	2019-09-22 10:30	7.7	1737	1.7	1.7	1.7
RSEM-L5E-EOP	2019-09-23 10:15	8.5	1313	2.9	2.9	2.9
RSEM-L5E-EOP	2019-09-24 12:10	7.8	866	1.7	1.6	1.7
RSEM-L5E-EOP	2019-09-25 12:50	7.6	1303	3.7	3.7	3.7
RSEM-L5E-EOP	2019-09-26 12:35	8.5	1283	2.8	2.8	2.8
RSEM-L5E-EOP	2019-09-27 10:55	8.6	1268	9.4	9.6	9.4
RSEM-L5E-EOP	2019-09-28 11:35	7.9	1279	2.7	2.7	2.7
RSEM-L5E-EOP	2019-09-29 11:35	8.1	1252	2.8	2.8	2.8
RSEM-L5E-EOP	2019-09-30 10:25	8.0	1306	2.1	2.1	2.1
RSEM-L5E-EOP	2019-10-01 15:50	8.0	1718	4.3	4.4	4.3
RSEM-L5E-EOP	2019-10-02 15:00	7.9	1714	2.8	2.6	2.8
RSEM-L5E-EOP	2019-10-03 14:55	7.5	1698	2.6	2.6	2.6
RSEM-L5E-EOP	2019-10-04 12:50	7.6	1715	1.8	1.5	1.8
RSEM-L5E-EOP	2019-10-05 14:00	8.1	1711	2	1.9	2
RSEM-L5E-EOP	2019-10-06 14:05	8.2	1729	2.9	2.9	2.9
RSEM-L5E-EOP	2019-10-07 13:20	8.1	1737	3	3	3
RSEM-L5E-EOP	2019-10-08 10:30	7.6	1312	3.3	3.2	3.3
RSEM-L5E-EOP	2019-10-09 11:40	7.3	1799	3.2	3.2	3.2
RSEM-L5E-EOP	2019-10-10 1:30	7.6	1291	3.5	3.6	3.5
RSEM-L5E-EOP	2019-10-11 10:55	7.8	1830	2.4	2.4	2.4
RSEM-L5E-EOP	2019-10-12 11:10	7.8	1333	2	2.1	2
RSEM-L5E-EOP	2019-10-13 11:00	7.4	1808	2.3	2.3	2.3
RSEM-L5E-EOP	2019-10-14 10:20	7.6	1342	1.5	1.6	1.5
RSEM-L5E-EOP	2019-10-15 11:20	7.1	1355	2.6	2.5	2.6
RSEM-L5E-EOP	2019-10-16 10:40	6.9	1345	1.8	1.7	1.8
RSEM-L5E-EOP	2019-10-17 10:20	7.3	1342	1.7	1.8	1.7
RSEM-L5E-EOP	2019-10-18 11:05	7.4	1282	2.2	2.1	2.2
RSEM-L5E-EOP	2019-10-19 10:30	7.6	1324	3	3	3
RSEM-L5E-EOP	2019-10-20 12:50	7.7	1324	2.3	2.2	2.3
RSEM-L5E-EOP	2019-10-21 10:00	7.7	1328	3.6	3.6	3.6
RSEM-L5E-EOP	2019-10-22 17:00	8.4	1425	4.6	4.6	4.6
RSEM-L5E-EOP	2019-10-23 15:45	7.8	1440	3.3	3.3	3.3
RSEM-L5E-EOP	2019-10-24 17:15	7.6	1350	2.7	2.7	2.7
RSEM-L5E-EOP	2019-10-25 17:00	7.9	1424	16.4	16.5	16.4
RSEM-L5E-EOP	2019-10-26 16:15	7.5	1450	8	8	8
RSEM-L5E-EOP	2019-10-27 15:05	7.5	1426	5.5	5.6	5.5
RSEM-L5E-EOP	2019-10-28 12:20	8.0	1432	4.6	4.6	4.6
RSEM-L5E-EOP	2019-10-29 12:40	8.1	1352	3.6	3.6	3.6
RSEM-L5E-EOP	2019-10-30 12:55	7.2	1338	3.5	3.5	3.5
RSEM-L5E-EOP	2019-10-31 13:40	6.9	1367	3.4	3.4	3.4
RSEM-L5E-EOP	2019-11-01 12:50	6.9	1357	2.7	2.7	2.7
RSEM-L5E-EOP	2019-11-02 15:00	7.0	1338	2.5	2.4	2.5

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-L5E-EOP	2019-11-03 15:15	7.1	1372	2.5	2.4	2.5
RSEM-L5E-EOP	2019-11-04 13:30	7.0	1337	1.9	1.9	1.9
RSEM-L5E-EOP	2019-11-05 10:45	7.3	1822	1.8	1.8	1.8
RSEM-L5E-EOP	2019-11-06 12:00	7.5	1446	1.7	1.8	1.7
RSEM-L5E-EOP	2019-11-07 13:00	7.7	1939	1.6	1.7	1.6
RSEM-L5E-EOP	2019-11-08 12:00	8.0	1481	1.3	1.3	1.3
RSEM-L5E-EOP	2019-11-09 11:30	7.6	1231	1.7	1.7	1.7
RSEM-L5E-EOP	2019-11-10 12:40	7.9	1439	1.3	1.3	1.3
RSEM-L5E-EOP	2019-11-11 10:00	8.4	1743	1.7	1.7	1.7
RSEM-L5E-EOP	2019-11-12 13:30	8.2	1432	1.6	1.6	1.6
RSEM-L5E-EOP	2019-11-13 14:05	8.1	1435	1.4	1.4	1.4
RSEM-L5E-EOP	2019-11-14 13:35	7.8	1435	1.3	1.3	1.3
RSEM-L5E-EOP	2019-11-15 13:25	7.6	1440	1.5	1.5	1.5
RSEM-L5E-EOP	2019-11-16 14:05	7.7	1562	1.4	1.4	1.4
RSEM-L5E-EOP	2019-11-17 9:30	7.3	1616	1.2	1.2	1.2
RSEM-L5E-EOP	2019-11-18 14:35	7.9	1781	7.2	7.3	7.2
RSEM-L5E-EOP	2019-11-19 15:35	7.2	1705	6.5	6.5	6.5
RSEM-L5E-EOP	2019-11-20 11:40	7.9	1755	7.1	7.1	7.1
RSEM-L5E-EOP	2019-11-21 11:40	7.2	1881	8.8	8.5	8.8
RSEM-L5E-EOP	2019-11-22 10:20	7.4	1846	2.8	2.8	2.8
RSEM-L5E-EOP	2019-11-23 11:15	7.8	1788	2	2	2
RSEM-L5-EP-WP-IN	2019-05-07 10:15	8.2	992	26.8	26.2	26.8
RSEM-L5-EP-WP-IN	2019-05-11 12:55	8.4	555	29.2	27.6	29.2
RSEM-L5E-SP	2019-03-12 15:25	8.4	209	734	728	734
RSEM-L5E-SP	2019-03-13 12:10	8.5	401	46.9	47.1	46.9
RSEM-L5E-SP	2019-03-14 12:30	8.4	421	14.9	14.9	14.9
RSEM-L5E-SP	2019-04-01 10:30	8.1	593	34.1	34.5	34.1
RSEM-L5E-SP	2019-11-24 12:10	7.6	1895	2.5	2.6	2.5
RSEM-L5E-SP	2019-11-25 14:30	7.1	1943	6.4	6.8	6.4
RSEM-L5E-SP	2019-11-26 5:00	7.8	2400	5.1	5.3	5.1
RSEM-L5E-SP	2019-11-27 15:00	7.8	2150	3.1	3.1	3.1
RSEM-L5E-SP	2019-11-29 12:45	8.0	2340	4.2	4.1	4.2
RSEM-L5E-SP	2019-11-30 15:00	7.7	2400	3.9	4	3.9
RSEM-L5E-SP	2019-12-02 15:20	8.4	2570	9.6	9.6	9.6
RSEM-L5E-SP	2019-12-03 14:25	8.0	2500	3.2	3.2	3.2
RSEM-L5W-EOP	2019-03-18 14:40	8.0	430	55	55.2	55
RSEM-L5W-EOP	2019-03-18 14:40	8.2	656	27	27.1	27
RSEM-L5W-EOP	2019-03-19	8.3	796	31.5	31.3	31.5
RSEM-L5W-EOP	2019-03-20 2:05	7.8	548	20.3	20	20.3
RSEM-L5W-EOP	2019-03-22 11:45	7.9	634	14.5	15	14.5
RSEM-L5W-EOP	2019-03-23 11:30	8.1	578	9.9	10	9.9
RSEM-L5W-EOP	2019-03-24 12:14	8.0	591	7.4	7.5	7.4
RSEM-L5W-EOP	2019-03-25 10:29	8.0	607	8.5	8.4	8.5
RSEM-L5W-EOP	2019-03-26 10:21	8.0	597	5.6	5.6	5.6
RSEM-L5W-EOP	2019-03-27 11:03	7.9	600	5.1	5.2	5.1
RSEM-L5W-EOP	2019-03-28 9:50	8.5	285	4.5	5	4.5
RSEM-L5W-EOP	2019-04-07 10:42	7.9	776	7.6	7.3	7.6
RSEM-L5W-EOP	2019-04-08 11:10	7.8	817	14.7	14.5	14.7
RSEM-L5W-EOP	2019-04-09 12:20	7.8	899	15.9	15.9	15.9
RSEM-L5W-EOP	2019-04-10 13:40	7.8	920	2.9	3	2.9
RSEM-L5W-EOP	2019-04-16 10:17	8.4	709	3.6	3.8	3.6
RSEM-L5W-EOP	2019-06-20 14:45	8.4	1591	13.3	13.6	13.3
RSEM-L5W-SP	2019-01-01 14:30	8.0	899	1.6	1.6	1.6
RSEM-L5W-SP	2019-01-08 15:10	8.2	969	7.4	7.6	7.4
RSEM-L5W-SP	2019-03-12 15:15	8.4	448	28.6	28.5	28.6
RSEM-L5W-SP	2019-03-14 12:45	7.8	1288	99	99	99
RSEM-L5W-SP	2019-03-15 9:00	8.2	737	125	125	125
RSEM-L5W-SP	2019-03-16 15:20	8.1	417	82.7	81.9	82.7
RSEM-L5W-SP	2019-03-17 14:00	8.4	440	50.1	50.2	50.1
RSEM-L5W-SP	2019-03-21 13:00	8.2	528	13.3	13.2	13.3
RSEM-L5W-SP	2019-03-29 10:39	8.1	221	13.2	13.3	13.2
RSEM-L5W-SP	2019-03-30 10:15	8.2	1000	6.5	6.4	6.5
RSEM-L5W-SP	2019-03-31 10:31	8.7	590	10	10	10
RSEM-L5W-SP	2019-04-01 10:36	8.1	588	6.8	7	6.8
RSEM-L5W-SP	2019-04-02 10:39	8.1	562	7.6	7.6	7.6



Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-L5W-SP	2019-04-03 9:05	8.1	614	10.3	9.7	10.3
RSEM-L5W-SP	2019-04-04 11:12	8.1	669	11.9	11.6	11.9
RSEM-L5W-SP	2019-04-05 9:31	8.1	491	16.6	17.1	16.6
RSEM-L5W-SP	2019-04-06 10:55	8.1	661	5.2	5.5	5.2
RSEM-L5W-SP	2019-04-08 11:49	8.0	660	15.3	15	15.3
RSEM-L5W-SP	2019-04-11 10:10	8.3	642	9.7	9.6	9.7
RSEM-L5W-SP	2019-04-12 9:40	8.3	656	8.7	8.8	8.7
RSEM-L5W-SP	2019-04-13 11:05	8.4	637	9.7	8.7	9.7
RSEM-L5W-SP	2019-04-14 11:00	8.2	598	6.1	6.2	6.1
RSEM-L5W-SP	2019-04-15 9:35	8.3	706	4.6	4.6	4.6
RSEM-L5W-SP	2019-04-17 11:05	7.0	705	12.8	11.9	12.8
RSEM-L5W-SP	2019-04-18 9:44	8.5	694	11.6	11.1	11.6
RSEM-L5W-SP	2019-04-19 9:58	8.5	702	5.7	5.7	5.7
RSEM-L5W-SP	2019-04-20 10:00	8.6	695	5.1	5.2	5.1
RSEM-L5W-SP	2019-04-21 10:25	8.5	699	3.3	3.2	3.3
RSEM-L5W-SP	2019-04-22 11:25	8.5	693	4.2	4	4.2
RSEM-L5W-SP	2019-04-23 10:31	8.6	693	5.4	5.6	5.4
RSEM-L5W-SP	2019-04-24 10:38	8.7	690	6.5	6.4	6.5
RSEM-L5W-SP	2019-04-25 11:15	8.7	758	8	8	8
RSEM-L5W-SP	2019-04-26 12:25	8.8	696	9.4	9.3	9.4
RSEM-L5W-SP	2019-04-27 11:24	8.6	641	5.6	5.6	5.6
RSEM-L5W-SP	2019-04-28 9:45	8.6	615	4.2	4.5	4.2
RSEM-L5W-SP	2019-04-30 11:13	8.6	603	5.4	4.9	5.4
RSEM-L5W-SP	2019-05-01 11:35	8.2	750	5	5	5
RSEM-L5W-SP	2019-05-02 11:10	9.6	604	4.8	5.1	4.8
RSEM-L5W-SP	2019-05-03 10:30	8.6	1102	11.8	11.9	11.8
RSEM-L5W-SP	2019-05-16 13:30	8.4	1225	3.3	3.1	3.3
RSEM-L5W-SP	2019-05-20 13:06	8.5	981	9.8	9.2	9.8
RSEM-L5W-SP	2019-05-21 12:35	8.4	1398	4.2	4.2	4.2
RSEM-L5W-SP	2019-05-25 11:15	8.3	1360	4.5	4.4	4.5
RSEM-L5W-SP	2019-05-27 11:45	8.2	1337	12.9	12.5	12.9
RSEM-L5W-SP	2019-06-03 11:15	8.3	1466	17.5	17.5	17.5
RSEM-L5W-SP	2019-06-05 12:35	8.0	1596	6.8	7.2	6.8
RSEM-L5W-SP	2019-06-13	8.4	1359	5.8	5.6	5.8
RSEM-L5W-SP	2019-06-14 2:00	8.4	1355	8.8	9.5	8.8
RSEM-L5W-SP	2019-06-16 14:55	8.4	1345	13.4	13.7	13.4
RSEM-L5W-SP	2019-06-29 10:50	8.3	1032	47.8	47.5	47.8
RSEM-L5W-SP	2019-06-30 15:20	8.2	1078	9.1	8.9	9.1
RSEM-L5W-SP	2019-07-01 11:40	8.0	989	28.4	28.5	28.4
RSEM-L5W-SP	2019-07-02 15:20	8.4	1030	7.1	7	7.1
RSEM-L5W-SP	2019-07-17 15:30	8.4	799	27	27.1	27
RSEM-L5W-SP	2019-07-22 13:25	8.6	1396	20.9	20.8	20.9
RSEM-L6-SP	2019-03-19 16:30	9.4	2020	89.5	89.4	89.5
RSEM-L6-SP	2019-03-21 11:30	9.2	935	30.7	30.8	30.7
RSEM-L6-SP	2019-03-22 11:15	8.8	1457	11.7	11.7	11.7
RSEM-L6-SP	2019-03-23 9:55	8.9	1317	7.8	7.9	7.8
RSEM-L6-SP	2019-03-24 11:18	8.8	3300	5.4	5.3	5.4
RSEM-L6-SP	2019-03-25 9:43	8.7	1356	11.8	11.7	11.8
RSEM-L6-SP	2019-03-26 9:17	8.9	1300	8.2	8.2	8.2
RSEM-L6-SP	2019-03-27 10:19	8.7	1385	9.2	9.4	9.2
RSEM-L6-SP	2019-03-29 9:13	8.7	1470	6.3	6.3	6.3
RSEM-L6-SP	2019-03-30 9:21	8.6	1478	4.8	4.6	4.8
RSEM-L6-SP	2019-03-31 9:20	8.6	1526	3.9	3.9	3.9
RSEM-L6-SP	2019-04-01 9:29	8.4	1498	2.8	2.8	2.8
RSEM-L6-SP	2019-04-02 9:24	9.0	1526	2.4	2.4	2.4
RSEM-L6-SP	2019-04-03 10:28	8.6	1464	2.3	2.3	2.3
RSEM-L6-SP	2019-04-04 9:00	8.6	1562	2.1	2.1	2.1
RSEM-L6-SP	2019-04-05 8:44	8.6	1544	3	3	3
RSEM-L6-SP	2019-04-06 9:32	8.6	1588	2	2	2
RSEM-L6-SP	2019-04-07 9:30	8.5	1272	2.7	2.4	2.7
RSEM-L6-SP	2019-04-08 9:40	8.5	1638	3.2	3.2	3.2
RSEM-L6-SP	2019-04-09 10:00	8.5	1645	2.2	2.3	2.2
RSEM-L6-SP	2019-04-10 9:50	8.5	1646	2.4	2.3	2.4
RSEM-L6-SP	2019-04-11 9:15	8.4	1534	2.2	2.2	2.2
RSEM-L6-SP	2019-04-12 9:20	8.5	1504	2.8	2.7	2.8

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-L6-SP	2019-04-13 10:00	8.7	1562	1.9	1.9	1.9
RSEM-L6-SP	2019-04-14 9:45	8.4	1557	1.8	1.8	1.8
RSEM-L6-SP	2019-04-15 8:40	8.5	1682	3.2	3	3.2
RSEM-L6-SP	2019-04-16 8:50	8.6	1709	2.3	2.3	2.3
RSEM-L6-SP	2019-04-17 9:12	8.4	1707	2.2	2.3	2.2
RSEM-L6-SP	2019-04-18 8:38	8.4	1745	3.2	3.1	3.2
RSEM-L6-SP	2019-04-19 8:35	8.5	1707	5.9	5.8	5.9
RSEM-L6-SP	2019-04-21 9:00	8.6	1719	3.8	3.9	3.8
RSEM-L6-SP	2019-04-22 10:02	8.8	1698	3.4	3.2	3.4
RSEM-L6-SP	2019-04-23 8:59	8.6	1683	5.3	5	5.3
RSEM-L6-SP	2019-04-25 10:00	8.7	1567	3.4	3.4	3.4
RSEM-L6-SP	2019-04-26 11:44	8.7	1676	2.6	2.6	2.6
RSEM-L6-SP	2019-04-27 9:57	8.6	1570	3.2	3	3.2
RSEM-L6-SP	2019-04-28 8:21	8.8	1564	4.2	4.4	4.2
RSEM-L6-SP	2019-04-29 8:30	8.7	1567	3.9	3.9	3.9
RSEM-L6-SP	2019-04-30 9:00	8.8	1510	3.6	3.3	3.6
RSEM-L6-SP	2019-05-01 9:40	8.8		4.3	4.4	4.3
RSEM-L6-SP	2019-05-02 8:45	8.8	1544	7.6	6.8	7.6
RSEM-L6-SP	2019-05-03 9:00	8.8	1147	7.9	8	7.9
RSEM-L6-SP	2019-05-04 8:20	8.8	1157	7.9	7.9	7.9
RSEM-L6-SP	2019-05-05 9:15	8.6	1546	5.5	5.6	5.5
RSEM-L6-SP	2019-05-06 8:38	8.5	1546	5.5	5.6	5.5
RSEM-L6-SP	2019-05-08 10:00	8.8	1598	3.9	3.9	3.9
RSEM-L6-SP	2019-05-09 10:28	8.8	1595	3.9	3.9	3.9
RSEM-L6-SP	2019-05-11 9:05	8.8	1578	4.1	4.2	4.1
RSEM-L6-SP	2019-05-13 10:30	8.8	1581	3.9	3.9	3.9
RSEM-L6-SP	2019-05-14 10:30	8.8	1599	2	2.6	2
RSEM-L6-SP	2019-05-15 9:30	8.8	1606	2.7	2.7	2.7
RSEM-L6-SP	2019-05-16 10:45	8.8	1452	2.9	2.9	2.9
RSEM-L6-SP	2019-05-17 9:00	9.2	1497	2.6	2.6	2.6
RSEM-L6-SP	2019-05-19 8:45	8.9	1477	2.5	2.5	2.5
RSEM-L6-SP	2019-05-20 11:30	8.9	1464	1.9	2	1.9
RSEM-L6-SP	2019-05-21 18:15	8.6	1865	3.5	3.5	3.5
RSEM-L6-SP	2019-05-23 9:55	8.5	1870	4.1	4	4.1
RSEM-L6-SP	2019-05-24 9:45	8.7	1875	5.7	5.8	5.7
RSEM-L6-SP	2019-05-25 10:15	8.7	1880	5.7	5.7	5.7
RSEM-L6-SP	2019-05-26 11:20	8.4	1899	7.1	7.3	7.1
RSEM-L6-SP	2019-05-27 10:10	8.6	1901	4.8	4.8	4.8
RSEM-L6-SP	2019-05-28 10:30	8.4	1910	4.8	4.9	4.8
RSEM-L6-SP	2019-05-29 9:00	8.3	1920	5.3	5.2	5.3
RSEM-L6-SP	2019-05-30 8:40	8.3	1919	5	4.9	5
RSEM-L6-SP	2019-05-31 10:10	8.3	1942	5.7	5.7	5.7
RSEM-L6-SP	2019-06-01 10:30	8.3	1790	5.4	5.6	5.4
RSEM-L6-SP	2019-06-02 10:25	8.4	1972	6	6	6
RSEM-L6-SP	2019-06-03 9:55	8.3	1836	6	6	6
RSEM-L6-SP	2019-06-04 10:15	7.4	1989	6.2	6.3	6.2
RSEM-L6-SP	2019-06-05 9:15	8.3	2000	6.8	6.8	6.8
RSEM-L6-SP	2019-06-06 9:50	8.2	2000	8	8	8
RSEM-L6-SP	2019-06-07 10:45	8.1	2010	7.3	7.3	7.3
RSEM-L6-SP	2019-06-08 9:25	8.1	2020	7.9	7.9	7.9
RSEM-L6-SP	2019-06-09 9:20	8.1	2030	7.1	7.2	7.1
RSEM-L6-SP	2019-06-10 9:45	8.3	1700	6.4	7	6.4
RSEM-L6-SP	2019-06-11 9:35	8.3	1637	6.7	6.7	6.7
RSEM-L6-SP	2019-06-14 12:25	8.4	1563	6.5	6.4	6.5
RSEM-L6-SP	2019-06-15 13:25	8.4	1743	5.4	5.4	5.4
RSEM-L6-SP	2019-06-16 15:15	8.5	1770	4.9	4.9	4.9
RSEM-L6-SP	2019-06-17 13:35	8.5	1757	4.6	4.6	4.6
RSEM-L6-SP	2019-06-18 13:45	8.6	1778	5.7	5.8	5.7
RSEM-L6-SP	2019-06-22 12:50	8.5	1820	3.1	3	3.1
RSEM-L6-SP	2019-06-23 12:50	8.6	1804	3.4	3.3	3.4
RSEM-L6-SP	2019-06-24 9:20	8.4	1771	4.1	4.1	4.1
RSEM-L6-SP	2019-06-25 12:45	8.5	1869	6.8	6.9	6.8
RSEM-L6-SP	2019-06-26 13:10	8.4	1876	5.2	5	5.2
RSEM-L6-SP	2019-06-27 13:12	8.3	1898	4.5	4.5	4.5
RSEM-L6-SP	2019-06-28 9:45	8.4	1895	4.5	4.6	4.5

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-L6-SP	2019-06-29 9:30	8.5	1685	3.6	3.5	3.6
RSEM-L6-SP	2019-06-30 14:40	8.4	1829	6	5.9	6
RSEM-L6-SP	2019-07-01 12:45	8.4	1754	11.2	11.3	11.2
RSEM-L6-SP	2019-07-02 14:15	8.4	1757	7.4	7.4	7.4
RSEM-L6-SP	2019-07-03 12:39	8.2	1780	6.3	6.4	6.3
RSEM-L6-SP	2019-07-04 13:00	8.1	1742	4.9	5	4.9
RSEM-L6-SP	2019-07-05 10:50	8.1	1768	5.5	5.6	5.5
RSEM-L6-SP	2019-07-06 12:10	8.4	1467	5.7	5.5	5.7
RSEM-L6-SP	2019-07-07 9:28	8.6	1459	5	5.1	5
RSEM-L6-SP	2019-07-08 19:00	8.6	1465	6.2	6	6.2
RSEM-L6-SP	2019-07-10 12:00	8.4	1601	9.6	9.5	9.6
RSEM-L6-SP	2019-07-11 13:00	8.3	1611	10.4	10.4	10.4
RSEM-L6-SP	2019-07-12 11:30	8.4	1490	12.4	12.1	12.4
RSEM-L6-SP	2019-07-13 13:25	8.4	1612	10.4	10.4	10.4
RSEM-L6-SP	2019-07-14 14:00	8.4	1625	12.5	12.5	12.5
RSEM-L6-SP	2019-07-15 12:20	8.4	1627	12.2	12.2	12.2
RSEM-L6-SP	2019-07-16 12:50	8.5	1507	20.9	20.5	20.9
RSEM-L6-SP	2019-07-17 14:20	8.4	1502	10.2	10.2	10.2
RSEM-L6-SP	2019-07-18 13:20	8.5	1626	11.3	11.3	11.3
RSEM-L6-SP	2019-07-19 12:48	8.4	1617	11.9	12	11.9
RSEM-L6-SP	2019-07-20 14:30	8.3	1637	10.5	10.6	10.5
RSEM-L6-SP	2019-07-21 14:30	8.3	1664	13.2	13.1	13.2
RSEM-L6-SP	2019-07-22 12:35	8.3	1500	11.8	12	11.8
RSEM-L6-SP	2019-07-23 13:50			12.4	12.4	12.4
RSEM-L6-SP	2019-07-24 12:35	8.3	1550	18	17.6	18
RSEM-L6-SP	2019-07-25 13:00	8.5	1537	10.3	10.2	10.3
RSEM-L6-SP	2019-07-26 10:20	8.5	1536	13.1	12.7	13.1
RSEM-L6-SP	2019-07-27 12:15	8.5	1537	17.6	17.2	17.6
RSEM-L6-SP	2019-07-28 12:30	8.4	1836	7	7.1	7
RSEM-L6-SP	2019-07-29 10:15	8.3	1800	9.3	9.9	9.3
RSEM-L6-SP	2019-07-30 12:35	8.4	2040	9.2	9.2	9.2
RSEM-L6-SP	2019-07-31 12:15	8.4	2050	7.6	7.6	7.6
RSEM-L6-SP	2019-08-01 12:50	8.4	1931	8.3	8.2	8.3
RSEM-L6-SP	2019-08-02 10:25	8.4	1911	7.8	7.8	7.8
RSEM-L6-SP	2019-08-03 12:55	8.3	2090	8.5	8.4	8.5
RSEM-L6-SP	2019-08-04 14:30	8.4	2100	8.6	8.6	8.6
RSEM-L6-SP	2019-08-05 12:17	8.4	2070	7	7	7
RSEM-L6-SP	2019-08-06 12:45	8.3	2060	6.6	6.6	6.6
RSEM-L6-SP	2019-08-07 13:02	8.3	1886	7.6	7.6	7.6
RSEM-L6-SP	2019-08-08 13:03	8.3	1900	6.4	6.5	6.4
RSEM-L6-SP	2019-08-09 14:09	8.4	1901	9.5	9.4	9.5
RSEM-L6-SP	2019-08-10 12:55	8.3	1888	6.8	6.8	6.8
RSEM-L6-SP	2019-08-11 12:05	8.4	1908	6.8	6.8	6.8
RSEM-L6-SP	2019-08-12 8:55	8.3	1900	2.9	2.8	2.9
RSEM-L6-SP	2019-08-14 10:45	8.6	1681	11.2	11.2	11.2
RSEM-L6-SP	2019-08-20 13:20	8.8	1283	9.1	8.9	9.1
RSEM-L6-SP	2019-08-27 13:35	8.3	1430	5.9	5.8	5.9
RSEM-L6-SP	2019-09-03 14:00	8.3	1412	3.3	3.3	3.3
RSEM-L6-SP	2019-11-23 14:00	8.7	1099	3.3	3.4	3.3
RSEM-L6-SP	2019-12-16 15:20	8.1	1630	5.6	5.6	5.6
RSEM-R5a-A-EOP	2019-03-18 10:45	8.2	317	OR		
RSEM-R5a-A-EOP	2019-03-19 17:01	8.3	357	2093	2151	2093
RSEM-R5a-A-EOP	2019-03-20 9:30	8.5	404	117.1	107.3	117.1
RSEM-R5a-A-EOP	2019-03-20 14:35	8.6	368	2003	2004	2003
RSEM-R5a-A-EOP	2019-03-21 2:10	8.7	642	67.3	68.1	67.3
RSEM-R5a-A-EOP	2019-03-21 9:40	8.2	583	68.2	69.4	68.2
RSEM-R5a-A-SP	2019-03-14 15:00	8.6	323	2190	2190	2190
RSEM-R5a-A-SP	2019-03-22 8:45	8.6	332	108.1	108.7	108.1
RSEM-R5a-A-SP	2019-03-22 17:05	8.4	280	115	115	115
RSEM-R5a-A-SP	2019-03-23 11:00	8.4	367	89.6	90.5	89.6
RSEM-R5a-A-SP	2019-03-23 16:50	8.6	309	136	136	136
RSEM-R5a-A-SP	2019-03-24 9:55	8.4	321	105.9	106	105.9
RSEM-R5a-A-SP	2019-03-24 15:52	8.3	312	119	119	119
RSEM-R5a-A-SP	2019-03-25 9:35	7.5	398	70	71	70
RSEM-R5a-A-SP	2019-03-25 13:56	8.1	301	102.9	103	102.9

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R5A-A-SP	2019-03-26 9:15	8.0	394	86.3	86.7	86.3
RSEM-R5A-A-SP	2019-03-26 14:26	8.1	317	80.7	80.1	80.7
RSEM-R5A-A-SP	2019-03-27 14:57	8.3	321	93.2	93.2	93.2
RSEM-R5A-A-SP	2019-03-28 8:50	8.4	407	87.4	91.5	87.4
RSEM-R5A-A-SP	2019-03-28 12:30	8.3	340	84.8	85	84.8
RSEM-R5A-A-SP	2019-04-03 1:30	8.5	490	767	768	767
RSEM-R5A-A-SP	2019-04-10 14:20	8.6	513	78	77	78
RSEM-R5A-A-SP	2019-04-11 9:48	8.5	531	77.5	77.8	77.5
RSEM-R5A-A-SP	2019-04-12 8:58	8.4	531	63.5	64	63.5
RSEM-R5A-A-SP	2019-04-13 9:58	8.1	532	68.9	68.8	68.9
RSEM-R5A-A-SP	2019-04-14 10:44	8.5	510	55.9	56	55.9
RSEM-R5A-A-SP	2019-04-15 10:15	8.1	474	46.8	47.2	46.8
RSEM-R5A-A-SP	2019-04-16 13:31	8.6	476	40.3	40.4	40.3
RSEM-R5A-A-SP	2019-04-17 12:30	8.5	475	40.4	40.5	40.4
RSEM-R5A-A-SP	2019-04-18 9:15	8.3	2010	46.6	46.5	46.6
RSEM-R5A-A-SP	2019-06-27 11:20	8.1	592	1128	1127	1128
RSEM-R5A-A-SP	2019-06-28 11:40	8.5	562	251	239	251
RSEM-R5A-A-SP	2019-06-29 11:55	8.5	572	237	237	237
RSEM-R5A-B-EOP	2019-03-19 17:05	8.3	305	789	788	789
RSEM-R5A-B-EOP	2019-03-20 9:45	7.7	913	105.6	105.9	105.6
RSEM-R5A-B-EOP	2019-03-21 2:15	8.0	1026	71.4	72	71.4
RSEM-R5A-B-EOP	2019-03-21 9:45	8.2	1586	77.1	79.1	77.1
RSEM-R5A-B-SP	2019-03-18 11:00	8.2	87.1	115	115	115
RSEM-R5A-B-SP	2019-03-20 14:40	8.2	239	125	125	125
RSEM-R5A-B-SP	2019-03-22 8:55	8.3	313	97.4	98.8	97.4
RSEM-R5A-B-SP	2019-03-22 17:10	8.5	354	109.2	109.4	109.2
RSEM-R5A-B-SP	2019-03-23 11:05	8.2	349	81.4	82.5	81.4
RSEM-R5A-B-SP	2019-03-23 16:55	8.4	306	98.7	99.2	98.7
RSEM-R5A-B-SP	2019-03-24 10:00	8.2	315	55.4	55.1	55.4
RSEM-R5A-B-SP	2019-03-24 16:08	8.3	372	141	141	141
RSEM-R5A-B-SP	2019-03-25 9:41	7.5	446	84.4	85.7	84.4
RSEM-R5A-B-SP	2019-03-25 14:11	8.1	363	56.6	56.6	56.6
RSEM-R5A-B-SP	2019-03-26 9:20	7.9	516	43.6	43.6	43.6
RSEM-R5A-B-SP	2019-03-26 14:37	8.6	746	695	696	695
RSEM-R5A-B-SP	2019-03-27 9:30	8.7	1045	0.1	0.1	0.1
RSEM-R5A-B-SP	2019-03-27 15:11	8.7	1049	981	981	981
RSEM-R5A-B-SP	2019-03-28 8:55	8.4	1126	67.9	69.4	67.9
RSEM-R5A-B-SP	2019-03-28 12:45	8.2	1216	92.6	93	92.6
RSEM-R5A-B-SP	2019-04-03 1:40	9.0	2460	83	83	83
RSEM-R5A-B-SP	2019-04-06 9:38	9.8	2170	91	91	91
RSEM-R5A-B-SP	2019-04-07 10:13	9.8	2420	101	102	101
RSEM-R5A-B-SP	2019-04-08 11:36	9.4	2290	691	690	691
RSEM-R5A-B-SP	2019-04-09 10:12	9.4	2300	125	125	125
RSEM-R5A-B-SP	2019-04-10 10:05	9.6	2310	864	863	864
RSEM-R5A-B-SP	2019-04-11 10:00	9.4	2280	616	616	616
RSEM-R5A-B-SP	2019-04-12 9:11	9.2	2250	124	124	124
RSEM-R5A-B-SP	2019-04-13 10:10		2060	130	131	130
RSEM-R5A-B-SP	2019-04-14 10:58	8.8	2140	1.1	1.1	1.1
RSEM-R5A-B-SP	2019-04-15 10:30	8.6	1875	0.1	0.1	0.1
RSEM-R5A-B-SP	2019-04-16 13:45	8.8	2120	930	929	930
RSEM-R5A-B-SP	2019-04-17 12:45	8.6	2110	1299	1298	1299
RSEM-R5A-B-SP	2019-04-18 9:25	8.4	2010	917	919	917
RSEM-R5A-B-SP	2019-06-27 11:15	8.1	681	2194	2198	2194
RSEM-R5A-B-SP	2019-06-28 11:50	8.5	503	1313	1311	1313
RSEM-R5A-B-SP	2019-06-29 12:15	8.4	511	653	653	653
RSEM-R5A-C-EOP	2019-03-19 17:10	8.5	289	91.5	82.9	91.5
RSEM-R5A-C-EOP	2019-03-20 15:00	8.6	649	1850	1827	1850
RSEM-R5A-C-EOP	2019-03-21 2:45	8.2	639	42.7	43	42.7
RSEM-R5A-C-EOP	2019-03-21 9:50	8.2	654	84.2	84.4	84.2
RSEM-R5A-C-SP	2019-03-20 10:15	7.9	358	60.5	61.3	60.5
RSEM-R5A-C-SP	2019-03-22 9:15	8.8	828	26.9	27.3	26.9
RSEM-R5A-C-SP	2019-03-22 17:25	8.3	664	24.1	24.2	24.1
RSEM-R5A-C-SP	2019-03-23 11:15	8.0	807	22	21.8	22
RSEM-R5A-C-SP	2019-03-23 17:15	8.2	700	55.8	55.6	55.8
RSEM-R5A-C-SP	2019-03-24 10:10	8.1	725	16.3	16.3	16.3

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R5A-C-SP	2019-03-24 16:05	8.2	1035	53.2	52.9	53.2
RSEM-R5A-C-SP	2019-03-25 9:50	7.7	1435	37	37.5	37
RSEM-R5A-C-SP	2019-03-25 14:35	8.1	1438	27.1	26.9	27.1
RSEM-R5A-C-SP	2019-03-26 9:25	8.0	1907	23.8	23.8	23.8
RSEM-R5A-C-SP	2019-03-26 14:25	8.2	1600	63.6	66.3	63.6
RSEM-R5A-C-SP	2019-03-27 9:45	8.3	2070	32.5	32.3	32.5
RSEM-R5A-C-SP	2019-03-27 15:41	8.2	210	43.4	42.7	43.4
RSEM-R5A-C-SP	2019-03-28 9:05	8.3	2360	14.3	14.5	14.3
RSEM-R5A-C-SP	2019-03-28 12:15	8.2	346	20.7	20.8	20.7
RSEM-R5A-C-SP	2019-04-03 13:35	8.6	3800	42.6	42.8	42.6
RSEM-R5A-C-SP	2019-04-10 15:01	8.9	436	51.9	52.4	51.9
RSEM-R5A-C-SP	2019-04-11 10:19	9.8	2940	82.5	81.4	82.5
RSEM-R5A-C-SP	2019-04-12 9:34	8.5	2920	25.9	26	25.9
RSEM-R5A-C-SP	2019-04-13 10:28	8.5	2280	43.2	43.2	43.2
RSEM-R5A-C-SP	2019-04-14 11:22	8.6	2800	43.2	43.6	43.2
RSEM-R5A-C-SP	2019-04-15 10:45	8.7	2320	52.1	52.4	52.1
RSEM-R5A-C-SP	2019-04-16 14:15	8.8	2470	2866	2860	2866
RSEM-R5A-C-SP	2019-04-17 13:20	8.7	2450	84.7	86.1	84.7
RSEM-R5A-C-SP	2019-04-18 9:45	8.5	2146	62.4	62.3	62.4
RSEM-R5A-C-SP	2019-06-27 11:01	8.1	1771	26.1	28.1	26.1
RSEM-R5A-C-SP	2019-06-28 12:20	8.5	1543	25.4	25.5	25.4
RSEM-R5A-C-SP	2019-06-29 12:40	9.0	1619	100.1	100.1	100.1
RSEM-R5A-D-SP	2019-03-19 17:15	8.3	104	75.3	78.4	75.3
RSEM-R5A-D-SP	2019-03-20 10:05	8.7	119	83.1	82.1	83.1
RSEM-R5A-D-SP	2019-03-20 15:15	8.1	100.7	91.8	91.8	91.8
RSEM-R5A-D-SP	2019-03-21 2:30	8.4	145	49.8	51.7	49.8
RSEM-R5A-D-SP	2019-03-21 10:00	8.3	142	51.4	47.3	51.4
RSEM-R5A-D-SP	2019-03-22 9:25	8.2	215	75.5	74.8	75.5
RSEM-R5A-D-SP	2019-03-22 17:30	8.2	154.4	78.7	79.3	78.7
RSEM-R5A-D-SP	2019-03-23 11:15	8.0	220	59	60.2	59
RSEM-R5A-D-SP	2019-03-23 17:25	8.2	152.9	73.5	73.6	73.5
RSEM-R5A-D-SP	2019-03-24 10:15	8.0	164.7	68.7	68.7	68.7
RSEM-R5A-D-SP	2019-03-24 16:15	8.0	202	81.7	82.6	81.7
RSEM-R5A-D-SP	2019-03-25 10:00	7.7	212	78.5	77.1	78.5
RSEM-R5A-D-SP	2019-03-25 14:47	8.0	1172	0.7	0.7	0.7
RSEM-R5A-D-SP	2019-03-26 9:40	8.0	226	54.8	55.1	54.8
RSEM-R5A-D-SP	2019-03-26 14:50	8.0	251	62.8	65.8	62.8
RSEM-R5A-D-SP	2019-03-27 9:55	8.2	252	50.2	50.4	50.2
RSEM-R5A-D-SP	2019-03-27 15:56	8.1	216	56.8	57.3	56.8
RSEM-R5A-D-SP	2019-03-28 1:00	8.3	298	48	49	48
RSEM-R5A-D-SP	2019-03-28 9:10	8.4	287	50.5	50.5	50.5
RSEM-R5A-D-SP	2019-04-03 13:41	8.0	654	2.6	2.6	2.6
RSEM-R5A-D-SP	2019-04-10 15:15	8.7	893	13.2	13	13.2
RSEM-R5A-D-SP	2019-04-11 10:29	9.6	954	6.5	6.4	6.5
RSEM-R5A-D-SP	2019-04-12 9:45	8.3	966	7.7	7.6	7.7
RSEM-R5A-D-SP	2019-04-13 10:40	8.4	1000	13.5	12.9	13.5
RSEM-R5A-D-SP	2019-04-14 11:34	8.4	1013	7	6.9	7
RSEM-R5A-D-SP	2019-04-15 11:00	8.4	829	7.6	7.3	7.6
RSEM-R5A-D-SP	2019-04-16 14:20	8.5	985	3.6	3.6	3.6
RSEM-R5A-D-SP	2019-04-17 13:35	8.5	1039	2.4	2.3	2.4
RSEM-R5A-D-SP	2019-04-18 9:55	8.3	1109	2.9	2.9	2.9
RSEM-R5A-D-SP	2019-06-27 10:57	8.1	1631	9.7	9.6	9.7
RSEM-R5A-D-SP	2019-06-28 13:37	8.2	1697	11.8	10.2	11.8
RSEM-R5A-NCD	2019-04-10 13:15	8.0	304	141	140	141
RSEM-R5A-SP	2019-03-27 9:25	8.3	407	94.5	95.8	94.5
RSEM-R5A-SP	2019-06-13 10:20	8.3	1743	6.9	6.9	6.9
RSEM-R5A-SP	2019-06-20 10:50	8.6	1385	2.8	2.8	2.8
RSEM-R5B-EOP	2019-01-01 12:55	8.0	1194	3.2	3.1	3.2
RSEM-R5B-EOP	2019-01-02 13:30	8.2	1363	1.5	1.5	1.5
RSEM-R5B-EOP	2019-01-03 14:50	8.4	1263	1.7	1.7	1.7
RSEM-R5B-EOP	2019-01-04 13:02	8.3	1408	1.6	1.6	1.6
RSEM-R5B-EOP	2019-01-05 13:48	8.2	1445	1.4	1.3	1.4
RSEM-R5B-EOP	2019-01-06 13:00	8.2	1420	1.4	1.4	1.4
RSEM-R5B-EOP	2019-01-07 11:25	8.3	1369	1.6	1.6	1.6
RSEM-R5B-EOP	2019-01-08 12:55	8.3	1444	1.4	1.5	1.4

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R5B-EOP	2019-01-09 12:20	8.2	1434	1.3	1.3	1.3
RSEM-R5B-EOP	2019-01-10 12:30	7.9	1300	1.2	1.2	1.2
RSEM-R5B-EOP	2019-01-11 9:32	8.0	1402	1.3	1.3	1.3
RSEM-R5B-EOP	2019-01-12 12:10	8.1	1400	0.9	0.9	0.9
RSEM-R5B-EOP	2019-01-13 12:05	8.0	1352	1.2	1.2	1.2
RSEM-R5B-EOP	2019-01-14 12:04	8.1	1341	1	1	1
RSEM-R5B-EOP	2019-01-15 12:20	8.3	1278	1.3	1.2	1.3
RSEM-R5B-EOP	2019-01-16 12:50	8.1	921	1.2	1.2	1.2
RSEM-R5B-EOP	2019-01-17 12:20	8.4	606	1.8	1.6	1.8
RSEM-R5B-EOP	2019-01-18 12:00	8.1	1200	0.9	0.9	0.9
RSEM-R5B-EOP	2019-01-19 13:50	8.3	1262	0.9	0.9	0.9
RSEM-R5B-EOP	2019-01-20	8.2	1133	1.3	1.2	1.3
RSEM-R5B-EOP	2019-01-21 14:06	8.2	1219	1.3	1.3	1.3
RSEM-R5B-EOP	2019-01-22 13:25	8.2	1264	1.3	1.4	1.3
RSEM-R5B-EOP	2019-01-23 13:55	8.4	1128	1.8	1.8	1.8
RSEM-R5B-EOP	2019-01-24 14:30	8.3	1234	1.9	1.9	1.9
RSEM-R5B-EOP	2019-01-25 11:57	8.2	1271	1.4	1.4	1.4
RSEM-R5B-EOP	2019-01-26 16:50	8.1	1329	1.2	1.2	1.2
RSEM-R5B-EOP	2019-01-27 14:03	8.0	1435	1.4	1.4	1.4
RSEM-R5B-EOP	2019-01-28 12:55	8.0	1650	2.2	2.2	2.2
RSEM-R5B-EOP	2019-01-29 12:00	8.2	1660	1.6	1.6	1.6
RSEM-R5B-EOP	2019-01-30 13:50	8.1	1624	2.2	2.2	2.2
RSEM-R5B-EOP	2019-01-31 13:15	8.2	1483	1.7	1.7	1.7
RSEM-R5B-EOP	2019-02-01 12:20	8.4	1275	2.2	2.2	2.2
RSEM-R5B-EOP	2019-02-02 13:21	8.3	1329	1.9	1.8	1.9
RSEM-R5B-EOP	2019-02-03 11:55	8.0	1552	1.8	1.8	1.8
RSEM-R5B-EOP	2019-02-04 13:22	7.9	1915	2.9	2.8	2.9
RSEM-R5B-EOP	2019-02-05 11:15	8.0	1220	1.7	1.8	1.7
RSEM-R5B-EOP	2019-02-06 14:15	8.5	1021	1.1	1.2	1.1
RSEM-R5B-EOP	2019-02-07 12:00	8.7	658	1.6	1.1	1.6
RSEM-R5B-EOP	2019-02-08 12:00	8.3	1398	2.4	2.4	2.4
RSEM-R5B-EOP	2019-02-09	8.2	1209	2.1	2.1	2.1
RSEM-R5B-EOP	2019-02-10 12:45	8.5	1190	2.6	2.6	2.6
RSEM-R5B-EOP	2019-02-11 14:40	8.3	1100	2.7	2.6	2.7
RSEM-R5B-EOP	2019-02-12 11:15	7.7	1183	2.6	2.6	2.6
RSEM-R5B-EOP	2019-02-13 12:45	8.1	1280	3.1	3.1	3.1
RSEM-R5B-EOP	2019-02-14 12:38	8.3	1519	4	4.1	4
RSEM-R5B-EOP	2019-02-15 13:00	8.3	1860	4.6	4.5	4.6
RSEM-R5B-EOP	2019-02-16 14:27	8.4	1868	11.3	11.4	11.3
RSEM-R5B-EOP	2019-02-17 13:25	8.5	1890	8.3	8.2	8.3
RSEM-R5B-EOP	2019-02-18 12:00	8.3	1586	2.9	2.9	2.9
RSEM-R5B-EOP	2019-02-19 12:30	8.2	1400	2.3	2.3	2.3
RSEM-R5B-EOP	2019-02-20 12:00	8.4	1414	2.7	2.7	2.7
RSEM-R5B-EOP	2019-02-21 12:30	8.3	1206	1.6	1.6	1.6
RSEM-R5B-EOP	2019-02-22 11:50	8.5	1152	1.6	1.6	1.6
RSEM-R5B-EOP	2019-02-23 13:30	8.7	1147	2.6	2.5	2.6
RSEM-R5B-EOP	2019-02-24 13:40	8.3	1198	2.6	2.5	2.6
RSEM-R5B-EOP	2019-02-25 12:30	8.9	1347	5.5	5.5	5.5
RSEM-R5B-EOP	2019-02-26 12:20	9.0	1340	7.2	7.1	7.2
RSEM-R5B-EOP	2019-02-27 11:50	8.1	1304	8.4	8.3	8.4
RSEM-R5B-EOP	2019-02-28 12:40	8.2	1001	5.8	5.8	5.8
RSEM-R5B-EOP	2019-03-01 12:15	7.9	1030	3.2	3.1	3.2
RSEM-R5B-EOP	2019-03-02 12:40	8.0	739	3.6	3.6	3.6
RSEM-R5B-EOP	2019-03-03 14:25	8.0	1102	4.7	4.6	4.7
RSEM-R5B-EOP	2019-03-08 13:03	7.5	1149	2.2	2.2	2.2
RSEM-R5B-EOP	2019-03-09 13:00	8.3	1028	0.9	0.8	0.9
RSEM-R5B-EOP	2019-03-10 13:45	8.1	1139	6.1	6	6.1
RSEM-R5B-EOP	2019-03-11 13:44	8.8	1483	6.6	6.6	6.6
RSEM-R5B-EOP	2019-03-12 12:25	8.5	1442	3.4	3.4	3.4
RSEM-R5B-EOP	2019-03-13 13:15	8.0	2450	37	37	37
RSEM-R5B-EOP	2019-03-14 13:15	8.2	1647	34.9	35.7	34.9
RSEM-R5B-EOP	2019-03-15 11:55	8.2	1623	45.4	44.8	45.4
RSEM-R5B-EOP	2019-03-16 13:30	8.2	1309	56.6	56.7	56.6
RSEM-R5B-EOP	2019-03-17 16:00	8.3	815	1544	1545	1544
RSEM-R5B-EOP	2019-03-18 10:40	8.4	1138	80.3	81	80.3

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R5B-EOP	2019-03-19 12:00	8.8	1600	26.6	26.6	26.6
RSEM-R5B-EOP	2019-03-20 11:20	8.5	833	58	60	58
RSEM-R5B-EOP	2019-03-21 11:20	8.0	834	67.2	67	67.2
RSEM-R5B-EOP	2019-03-21 14:00	8.4	464	65.3	65.4	65.3
RSEM-R5B-EOP	2019-03-22 9:50	8.3	541	66.1	69.1	66.1
RSEM-R5B-EOP	2019-03-23 13:15	8.2	518	96.7	96.2	96.7
RSEM-R5B-EOP	2019-03-24 14:00	8.4	464	65.3	65.4	65.3
RSEM-R5B-EOP	2019-03-25 12:45	7.8	588	34.6	35.1	34.6
RSEM-R5B-EOP	2019-03-26 11:50	7.8	964	21.6	19.7	21.6
RSEM-R5B-EOP	2019-03-27 12:20	7.7	933	29.7	29.4	29.7
RSEM-R5B-EOP	2019-03-28 11:00	8.2	866	21	21	21
RSEM-R5B-EOP	2019-03-29 10:10	8.4	586	31.3	31.4	31.3
RSEM-R5B-EOP	2019-03-30 11:25	8.3	497	30.1	30.4	30.1
RSEM-R5B-EOP	2019-03-31 11:50	7.9	629	18.4	19.3	18.4
RSEM-R5B-EOP	2019-04-01 11:55	8.2	859	14	13.7	14
RSEM-R5B-EOP	2019-04-02 13:05	8.1	985	14	13.3	14
RSEM-R5B-EOP	2019-04-03 11:00	8.2	1032	11.2	12	11.2
RSEM-R5B-EOP	2019-04-04 11:04	8.2	1181	8.2	8	8.2
RSEM-R5B-EOP	2019-04-05 9:04	7.4	1425	6.2	6.3	6.2
RSEM-R5B-EOP	2019-04-06 10:46	8.2	1444	6.6	6.7	6.6
RSEM-R5B-EOP	2019-04-07 11:14	8.2	1352	5.9	5.8	5.9
RSEM-R5B-EOP	2019-04-08 13:03	8.1	1213	8.9	9	8.9
RSEM-R5B-EOP	2019-04-09 10:55	8.4	1201	4.3	4.4	4.3
RSEM-R5B-EOP	2019-04-10 11:16	8.4	1196	6.1	6.1	6.1
RSEM-R5B-EOP	2019-04-11 11:36	8.4	1257	5.9	6.3	5.9
RSEM-R5B-EOP	2019-04-12 10:12	8.3	1170	9.9	10.4	9.9
RSEM-R5B-EOP	2019-04-13 11:30	8.3	633	8	8.1	8
RSEM-R5B-EOP	2019-04-14 12:25	8.5	1183	7.1	7	7.1
RSEM-R5B-EOP	2019-04-15 12:00	8.4	1047	9.1	8.8	9.1
RSEM-R5B-EOP	2019-04-16 12:23	8.4	1141	8.6	8.9	8.6
RSEM-R5B-EOP	2019-04-17 11:35	8.5	1143	6.6	6.6	6.6
RSEM-R5B-EOP	2019-04-18 10:25	8.6	1067	5.5	5.6	5.5
RSEM-R5B-EOP	2019-04-19 11:05	8.7	1099	5	4.8	5
RSEM-R5B-EOP	2019-04-20 11:26	8.8	8770	5.6	5.5	5.6
RSEM-R5B-EOP	2019-04-21 10:50	8.7	1169	6.2	6	6.2
RSEM-R5B-EOP	2019-04-22 11:38	8.6	1117	8.5	8.1	8.5
RSEM-R5B-EOP	2019-04-23 11:11	8.8	1190	5.3	5.4	5.3
RSEM-R5B-EOP	2019-04-24 13:20	8.7	1190	7.1	7	7.1
RSEM-R5B-EOP	2019-04-25 11:40	8.6	1193	4.8	4.5	4.8
RSEM-R5B-EOP	2019-04-26 10:25	8.7	1355	4.8	4.8	4.8
RSEM-R5B-EOP	2019-04-27 12:00	8.5	1373	3.6	3.5	3.6
RSEM-R5B-EOP	2019-04-28 10:30	8.5	1346	3.6	3.8	3.6
RSEM-R5B-EOP	2019-04-29 10:30	8.5	1354	3.5	3.5	3.5
RSEM-R5B-EOP	2019-04-30 11:40	8.6	1352	3.7	3.1	3.7
RSEM-R5B-EOP	2019-05-01 11:40	8.6	1347	3	3	3
RSEM-R5B-EOP	2019-05-02 12:10	8.5	1434	3.8	3.8	3.8
RSEM-R5B-EOP	2019-05-03 10:10	8.6	1419	4.2	4.1	4.2
RSEM-R5B-EOP	2019-05-04 11:15	8.6	1695	6.3	6.7	6.3
RSEM-R5B-EOP	2019-05-05 14:00	8.6	1579	5.6	5.5	5.6
RSEM-R5B-EOP	2019-05-06 10:48	8.8	8810	3.9	3.8	3.9
RSEM-R5B-EOP	2019-05-07 10:50	8.8	1601	4	4	4
RSEM-R5B-EOP	2019-05-08 11:05	9.0	1608	3.2	3.2	3.2
RSEM-R5B-EOP	2019-05-09 11:07	8.5	1674	5.1	5	5.1
RSEM-R5B-EOP	2019-05-11 7:57	7.7	1670	6.2	5.7	6.2
RSEM-R5B-EOP	2019-05-13 11:12	8.4	1717	3.2	3.2	3.2
RSEM-R5B-EOP	2019-05-13 11:15	7.6	1501	2.2	2.2	2.2
RSEM-R5B-EOP	2019-05-14 11:12	8.4	1717	3.2	3.2	3.2
RSEM-R5B-EOP	2019-05-15	8.6	2000	3.8	3.9	3.8
RSEM-R5B-EOP	2019-05-16 11:32	8.6	1905	4.9	4.8	4.9
RSEM-R5B-EOP	2019-05-17 9:45	8.4	1852	5.5	5.2	5.5
RSEM-R5B-EOP	2019-05-19 8:46	7.6	1839	8.5	8.4	8.5
RSEM-R5B-EOP	2019-05-20 11:24	8.6	1757	7.8	7.8	7.8
RSEM-R5B-EOP	2019-05-21 11:30	9.0	1551	6.2	6.2	6.2
RSEM-R5B-EOP	2019-05-23 11:45	7.8	1541	2.8	2.6	2.8
RSEM-R5B-EOP	2019-05-24 10:40	8.6	1528	2.5	2.4	2.5

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R5B-EOP	2019-05-25 7:30	8.8	1520	1.8	1.7	1.8
RSEM-R5B-EOP	2019-05-25 10:30	8.8				
RSEM-R5B-EOP	2019-05-26 1:30	8.9	1506	1.8	1.9	1.8
RSEM-R5B-EOP	2019-05-27 11:43	8.5	1512	2	1.8	2
RSEM-R5B-EOP	2019-05-28 10:30	8.4	1490	1.3	1.2	1.3
RSEM-R5B-EOP	2019-05-29 10:50	8.5	1493	2.4	2.5	2.4
RSEM-R5B-EOP	2019-05-30 12:59	7.9	1472	3	3	3
RSEM-R5B-EOP	2019-05-31 9:15	8.0	1520	4	4.2	4
RSEM-R5B-EOP	2019-06-01 7:35	9.1	1509	1.6	1.5	1.6
RSEM-R5B-EOP	2019-06-01 10:43	9.0				
RSEM-R5B-EOP	2019-06-02 10:19	7.6	1489	1.4	1.3	1.4
RSEM-R5B-EOP	2019-06-03 10:30	8.1	1469	2.6	2.7	2.6
RSEM-R5B-EOP	2019-06-04 10:25	8.2	1440	2.4	2.3	2.4
RSEM-R5B-EOP	2019-06-05 10:53	7.9	1353	2.2	2.2	2.2
RSEM-R5B-EOP	2019-06-06 11:24	7.6	1308	2.8	2.6	2.8
RSEM-R5B-EOP	2019-06-07 11:46	7.9	1221	2.4	2.4	2.4
RSEM-R5B-EOP	2019-06-08 10:22	7.9	1238	2.2	2.1	2.2
RSEM-R5B-EOP	2019-06-09 10:28	8.3	1224	2	2.3	2
RSEM-R5B-EOP	2019-06-10 13:15	8.2	1467	3.4	3.2	3.4
RSEM-R5B-EOP	2019-06-11 11:15	7.7	1470	1.8	1.7	1.8
RSEM-R5B-EOP	2019-06-13 11:15	7.6	1501	2.2	2.2	2.2
RSEM-R5B-EOP	2019-06-14 4:16	9.0	1267	5.1	5.3	5.1
RSEM-R5B-EOP	2019-06-22 10:30	7.8	1350	1.8	1.8	1.8
RSEM-R5B-EOP	2019-06-23 10:40	8.2	1324	1.6	1.6	1.6
RSEM-R5B-EOP	2019-06-24 12:05	8.3	1364	8.7	8.3	8.7
RSEM-R5B-EOP	2019-06-25 11:15	7.9	1320	26.7	26.8	26.7
RSEM-R5B-EOP	2019-06-26 11:50	8.1	1378	11	10.9	11
RSEM-R5B-EOP	2019-06-27 12:05	8.6	1356	19.2	19.2	19.2
RSEM-R5B-EOP	2019-06-28 9:15	8.1	1392	4.4	4.3	4.4
RSEM-R5B-EOP	2019-06-29 13:30	8.3	1402	7	6.9	7
RSEM-R5B-EOP	2019-06-30 11:55	7.4	1252	16.5	16.2	16.5
RSEM-R5B-EOP	2019-07-02 11:58	7.4	1138	12.2	12.4	12.2
RSEM-R5B-EOP	2019-07-03 11:20	7.7	1371	9.4	10	9.4
RSEM-R5B-EOP	2019-07-04 11:30	8.2	1691	5.2	5.3	5.2
RSEM-R5B-EOP	2019-07-06 12:00	7.7	2080	6.3	6.1	6.3
RSEM-R5B-EOP	2019-07-07 10:50	8.8	3170	5.2	5.3	5.2
RSEM-R5B-EOP	2019-07-08 11:30	7.7	2120	6.1	6.2	6.1
RSEM-R5B-EOP	2019-07-10 10:15	7.4	1738	8	7.9	8
RSEM-R5B-EOP	2019-07-11 10:50	7.8	1881	7.7	7.7	7.7
RSEM-R5B-EOP	2019-07-12 9:50	7.9	1907	7.1	7.2	7.1
RSEM-R5B-EOP	2019-07-13 11:05	7.7	1766	9.5	9.4	9.5
RSEM-R5B-EOP	2019-07-14 12:10	8.2	1863	8.3	8.2	8.3
RSEM-R5B-EOP	2019-07-15 10:25	8.0	1950	7.5	7.5	7.5
RSEM-R5B-EOP	2019-07-16 10:26	7.7	1886	13	12.9	13
RSEM-R5B-EOP	2019-07-17 12:10	7.7	1723	5.3	5.3	5.3
RSEM-R5B-EOP	2019-07-18 11:50	7.4	1857	7.5	7.5	7.5
RSEM-R5B-EOP	2019-07-19 11:16	8.2	1845	7.1	7.1	7.1
RSEM-R5B-EOP	2019-07-20 12:45	7.8	1759	9.7	9.5	9.7
RSEM-R5B-EOP	2019-07-21 11:15	8.4	1695	8.2	8.1	8.2
RSEM-R5B-EOP	2019-07-22 10:56	8.7	1557	5.5	5.6	5.5
RSEM-R5B-EOP	2019-07-23 12:00	8.7	1600	6.2	6.2	6.2
RSEM-R5B-EOP	2019-07-24 11:30	8.6	1581	5.9	6.2	5.9
RSEM-R5B-EOP	2019-07-25 11:40	8.1	1495	10	10.6	10
RSEM-R5B-EOP	2019-07-26 9:00	8.0	1492	13.7	13.5	13.7
RSEM-R5B-EOP	2019-07-27 10:30	8.4	1420	12.8	12.9	12.8
RSEM-R5B-EOP	2019-07-28 10:30	7.5	1630	7	7	7
RSEM-R5B-EOP	2019-07-29 9:20	7.5	1600	5.6	5.6	5.6
RSEM-R5B-EOP	2019-07-30 11:00	8.0	1737	8.2	8.2	8.2
RSEM-R5B-EOP	2019-07-31 10:20	7.9	1589	7	7	7
RSEM-R5B-EOP	2019-08-01 11:10	7.8	1602	5.5	5.5	5.5
RSEM-R5B-EOP	2019-08-02 9:10	7.7	1643	5.6	5.6	5.6
RSEM-R5B-EOP	2019-08-03 11:13	7.7	1783	5.3	5.3	5.3
RSEM-R5B-EOP	2019-08-04 12:35	7.7	1755	6	5.9	6
RSEM-R5B-EOP	2019-08-05 10:10	7.6	1736	5.5	5.4	5.5
RSEM-R5B-EOP	2019-08-06 10:40	7.7	1728	5	5	5



Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R5B-EOP	2019-08-07 15:22	7.9	1619	5	5.1	5
RSEM-R5B-EOP	2019-08-08 11:05	7.8	1657	4.8	4.8	4.8
RSEM-R5B-EOP	2019-08-09 10:00	8.4	1812	6	5.9	6
RSEM-R5B-EOP	2019-08-10 10:45	7.8	1880	4.9	4.9	4.9
RSEM-R5B-EOP	2019-08-11 10:30	7.6	1915	4.8	4.9	4.8
RSEM-R5B-EOP	2019-08-12 13:20	8.7	1469	3.9	3.8	3.9
RSEM-R5B-EOP	2019-08-13 12:20	7.9	1408	3.4	3.7	3.4
RSEM-R5B-EOP	2019-08-14 12:55	8.3	1498	7.2	7.3	7.2
RSEM-R5B-EOP	2019-08-15 9:30	8.2	1536	18.4	18.7	18.4
RSEM-R5B-EOP	2019-08-16 9:30	8.3	1218	21.8	21.7	21.8
RSEM-R5B-EOP	2019-08-17 12:45	8.6	1159	9	9.2	9
RSEM-R5B-EOP	2019-08-18 16:35	8.4	1257	43	46	43
RSEM-R5B-EOP	2019-08-19 12:55	8.3	1254	7.7	7.6	7.7
RSEM-R5B-EOP	2019-08-21 10:45	8.5	1583	6.8	7.1	6.8
RSEM-R5B-EOP	2019-08-23 9:05	8.4	1903	5.2	4.6	5.2
RSEM-R5B-EOP	2019-08-24 10:20	8.6	1933	6.6	6.7	6.6
RSEM-R5B-EOP	2019-08-25 11:15	8.5	1881	3.9	3.9	3.9
RSEM-R5B-EOP	2019-08-26 10:55	8.6	1903	4.9	4.8	4.9
RSEM-R5B-EOP	2019-08-27 11:25	8.6	1844	4.8	4.8	4.8
RSEM-R5B-EOP	2019-08-28 11:17	8.6	1858	3.8	3.8	3.8
RSEM-R5B-EOP	2019-09-03 12:05	8.0	1863	1.2	1.2	1.2
RSEM-R5B-EOP	2019-09-04 11:45	8.4	1817	2.1	2	2.1
RSEM-R5B-EOP	2019-09-05 11:10	8.5	1500	1.7	1.8	1.7
RSEM-R5B-EOP	2019-09-06 12:00	8.3	1835	0.9	0.9	0.9
RSEM-R5B-EOP	2019-09-07 11:30	8.3	1846	1.6	1.7	1.6
RSEM-R5B-EOP	2019-09-08 11:15	8.3	1865	1.9	1.8	1.9
RSEM-R5B-EOP	2019-09-09 10:45	8.2	1879	2.1	2	2.1
RSEM-R5B-EOP	2019-09-10 11:00	8.3	1951	2.3	2.2	2.3
RSEM-R5B-EOP	2019-09-11 10:40	8.3	1805	2.4	2.4	2.4
RSEM-R5B-EOP	2019-09-16 11:15	8.5	1611	11.2	11.4	11.2
RSEM-R5B-EOP	2019-09-17 13:45	8.6	1756	7	6.8	7
RSEM-R5B-EOP	2019-09-18 10:30	8.4	1470	3.2	3.1	3.2
RSEM-R5B-EOP	2019-09-19 11:20	8.6	1694	2.4	2.3	2.4
RSEM-R5B-EOP	2019-09-20 10:30	8.5	1544	2.7	2.6	2.7
RSEM-R5B-EOP	2019-09-21 11:05	8.6	1889	4.5	4.6	4.5
RSEM-R5B-EOP	2019-09-22 9:30	7.3	1579	6.5	6.6	6.5
RSEM-R5B-EOP	2019-09-23 10:50	8.6	1988	4.2	4.3	4.2
RSEM-R5B-EOP	2019-09-24 10:20	8.6	1704	2.4	2.4	2.4
RSEM-R5B-EOP	2019-09-25 9:30	8.6	1763	3.3	3.5	3.3
RSEM-R5B-EOP	2019-09-26 9:55	8.6	1759	7.2	7.1	7.2
RSEM-R5B-EOP	2019-09-27 11:00	8.4	1735	3.7	3.6	3.7
RSEM-R5B-EOP	2019-09-28 10:45	8.5	1775	3.3	3.2	3.3
RSEM-R5B-EOP	2019-09-29 11:00	8.4	1728	3.7	3.6	3.7
RSEM-R5B-EOP	2019-09-30 9:10	7.8	1722	3.8	3.8	3.8
RSEM-R5B-EOP	2019-10-01 12:55	8.1	2120	6.8	6.8	6.8
RSEM-R5B-EOP	2019-10-02 11:30	8.0	2160	3.7	3.7	3.7
RSEM-R5B-EOP	2019-10-03 12:45	8.1	2250	2.4	2.4	2.4
RSEM-R5B-EOP	2019-10-04 11:10	8.5	2410	1.8	1.8	1.8
RSEM-R5B-EOP	2019-10-05 11:55	8.6	2290	2.2	2.2	2.2
RSEM-R5B-EOP	2019-10-06 11:50	8.6	2240	2	2	2
RSEM-R5B-EOP	2019-10-07 12:25	8.6	2180	3.7	3.7	3.7
RSEM-R5B-EOP	2019-10-08 11:55	8.6	2010	4	3.9	4
RSEM-R5B-EOP	2019-10-09 17:10	7.8	1650	2.2	2.2	2.2
RSEM-R5B-EOP	2019-10-11 10:20	9.0	1622	1.5	1.4	1.5
RSEM-R5B-EOP	2019-10-13 11:15	8.9	1571	1.5	1.5	1.5
RSEM-R5B-EOP	2019-10-14 10:45	8.0	1814	2.2	2.1	2.2
RSEM-R5B-EOP	2019-10-15 10:30	7.1	1434	2.1	2.1	2.1
RSEM-R5B-EOP	2019-10-16 11:15	7.4	1408	1.7	1.8	1.7
RSEM-R5B-EOP	2019-10-17 10:55	8.2	1398	2.4	2.5	2.4
RSEM-R5B-EOP	2019-10-18 13:00	8.6	1438	1.6	1.6	1.6
RSEM-R5B-EOP	2019-10-19 11:00	8.2	1389	5.2	5.3	5.2
RSEM-R5B-EOP	2019-10-20 12:00	8.0	1450	7.8	8.2	7.8
RSEM-R5B-EOP	2019-10-21 10:00	8.1	1473	7.3	7.2	7.3
RSEM-R5B-EOP	2019-10-22 13:45	7.9	1692	10.2	10.3	10.2
RSEM-R5B-EOP	2019-10-23 12:15	8.6	1797	6	5.9	6

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R5B-EOP	2019-10-24 15:00	8.5	1877	4.1	4	4.1
RSEM-R5B-EOP	2019-10-25 14:35	8.0	1925	29.4	29.3	29.4
RSEM-R5B-EOP	2019-10-26 12:20	8.0	1896	9.3	9.4	9.3
RSEM-R5B-EOP	2019-10-27 11:25	8.1	1852	4.5	4.6	4.5
RSEM-R5B-EOP	2019-10-28 10:35	8.4	2010	3.3	3.2	3.3
RSEM-R5B-EOP	2019-10-29 11:00	8.5	1982	2.5	2.5	2.5
RSEM-R5B-EOP	2019-10-30 11:00	7.9	2000	2.5	2.5	2.5
RSEM-R5B-EOP	2019-11-01 11:30	7.9	1995	4.1	4.1	4.1
RSEM-R5B-EOP	2019-11-02 12:50	7.9	2020	4.1	4.1	4.1
RSEM-R5B-EOP	2019-11-03 12:40	7.9	2040	3.7	3.7	3.7
RSEM-R5B-EOP	2019-11-04 11:50	7.7	1983	4.1	4.1	4.1
RSEM-R5B-EOP	2019-11-05 13:30	7.5	1856	3.8	3.8	3.8
RSEM-R5B-EOP	2019-11-06 11:00	8.0	2450	3.6	3.6	3.6
RSEM-R5B-EOP	2019-11-07 11:30	7.7	1879	3.4	3.4	3.4
RSEM-R5B-EOP	2019-11-08 10:35	8.1	2340	4.6	4.6	4.6
RSEM-R5B-EOP	2019-11-09 13:30	8.6	1799	4.1	4.2	4.1
RSEM-R5B-EOP	2019-11-10 11:20	8.7	2190	3.2	3.2	3.2
RSEM-R5B-EOP	2019-11-11 10:30	7.9	1628	3.6	3.6	3.6
RSEM-R5B-EOP	2019-11-12 11:30	8.4	1703	3.5	3.4	3.5
RSEM-R5B-EOP	2019-11-13 11:15	8.5	1647	4	4	4
RSEM-R5B-EOP	2019-11-14 11:15	8.2	1619	2.5	2.5	2.5
RSEM-R5B-EOP	2019-11-15 11:00	8.2	1582	3.5	3.5	3.5
RSEM-R5B-EOP	2019-11-16 11:20	8.2	1284	2.8	2.9	2.8
RSEM-R5B-EOP	2019-11-17 12:10	8.3	1334	2	2.1	2
RSEM-R5B-EOP	2019-11-18 11:50	8.4	352	6.9	6.9	6.9
RSEM-R5B-EOP	2019-11-19 13:00	8.4	1390	6.7	6.7	6.7
RSEM-R5B-EOP	2019-11-20 11:00	8.4	1525	5.9	6	5.9
RSEM-R5B-EOP	2019-11-21 11:00	8.4	1380	4.6	4.6	4.6
RSEM-R5B-EOP	2019-11-23 11:10	8.5	1427	3.2	3.2	3.2
RSEM-R5B-EOP	2019-11-24 14:25	8.5	1395	4.2	4.1	4.2
RSEM-R5B-EOP	2019-11-25 16:10	8.5	1535	4.9	4.9	4.9
RSEM-R5B-EOP	2019-11-26 3:10	8.2	1810	3.7	3.7	3.7
RSEM-R5B-EOP	2019-11-27 14:10	8.3	1915	3	3.1	3
RSEM-R5B-EOP	2019-11-28 14:10	8.4	2050	3.4	3.4	3.4
RSEM-R5B-EOP	2019-11-29 11:40	8.4	2170	2.3	2.3	2.3
RSEM-R5B-EOP	2019-11-30 12:55	8.4	2230	3.4	3.4	3.4
RSEM-R5B-EOP	2019-12-01 13:50	8.2	2430	3.2	3.2	3.2
RSEM-R5B-EOP	2019-12-02 12:05	8.5	2700	3	2.9	3
RSEM-R5B-EOP	2019-12-03 11:25	8.1	2610	2.7	3	2.7
RSEM-R5B-EOP	2019-12-04 12:40	7.7	2660	2.9	2.8	2.9
RSEM-R5B-EOP	2019-12-05 13:25	8.4	2700	2.6	2.6	2.6
RSEM-R5B-EOP	2019-12-06 11:45	8.2	2730	2.3	2.4	2.3
RSEM-R5B-EOP	2019-12-07 11:50	8.2	2720	2.1	2.1	2.1
RSEM-R5B-EOP	2019-12-08 11:15	8.1	2410	2.3	2.3	2.3
RSEM-R5B-EOP	2019-12-09 10:45	8.1	2440	1.8	1.8	1.8
RSEM-R5B-EOP	2019-12-10 11:20	7.8	2360	3.3	3.3	3.3
RSEM-R5B-EOP	2019-12-11 13:40	7.9	2310	2.2	2.2	2.2
RSEM-R5B-EOP	2019-12-12 11:50	8.1	2340	2.9	2.9	2.9
RSEM-R5B-EOP	2019-12-13 14:00	8.0	2220	3.3	3.3	3.3
RSEM-R5B-EOP	2019-12-14	8.1	2170	2.9	3	2.9
RSEM-R5B-EOP	2019-12-15 11:50	8.1	2110	3.1	3.2	3.1
RSEM-R5B-EOP	2019-12-16 17:10	8.0	1924	3	2.9	3
RSEM-R5B-EOP	2019-12-17 12:50	8.1	2030	1.9	2	1.9
RSEM-R5B-EOP	2019-12-18 12:20	8.1	1842	2.6	2.5	2.6
RSEM-R5B-EOP	2019-12-19 12:20	8.0	1789	2	2	2
RSEM-R5B-EOP	2019-12-20 11:40	8.1	1665	2.2	2.2	2.2
RSEM-R5B-EOP	2019-12-21 12:45	8.1	1754	2.2	2.3	2.2
RSEM-R5B-EOP	2019-12-22 11:10	8.2	1716	2.2	2.3	2.2
RSEM-R5B-EOP	2019-12-23 10:00	8.3	1383	2.3	2.2	2.3
RSEM-R5B-EOP	2019-12-24 10:15	8.1	1495	1.8	1.9	1.8
RSEM-R5B-EOP	2019-12-25 14:25	8.0	1467	1.6	1.7	1.6
RSEM-R5B-EOP	2019-12-26 12:50	8.1	1451	1.5	1.5	1.5
RSEM-R5B-EOP	2019-12-27 11:00	8.0	1420	1	1	1
RSEM-R5B-EOP	2019-12-28 13:30	8.0	1450	1.4	1.2	1.4
RSEM-R5B-EOP	2019-12-29 13:30	8.1	1419	1.1	1.1	1.1

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R5B-EOP	2019-12-30 10:30	8.2	1448	1.1	1.1	1.1
RSEM-R5B-EOP	2019-12-31 10:30	8.0	1420	1.7	1.6	1.7
RSEM-R5B-SP	2019-03-04 15:20	8.0	1011	3.6	3.5	3.6
RSEM-R5B-SP	2019-03-05 13:40	8.1	1113	3.5	3.4	3.5
RSEM-R5B-SP	2019-03-06 15:10	8.3	1014	3	2.9	3
RSEM-R5B-SP	2019-03-07 15:45	8.0	1163	1.7	1.8	1.7
RSEM-R5B-SP	2019-03-13 13:15	8.0	2450	37	37	37
RSEM-R5B-SP	2019-03-16 13:40	8.9	787	30.5	30.5	30.5
RSEM-R5B-SP	2019-03-30 10:10	8.0	1639	76.3	75	76.3
RSEM-R5B-SP	2019-05-25 7:35	8.4	1430	2	2.6	2
RSEM-R5B-SP	2019-06-13 7:20	7.8				
RSEM-R5B-SP	2019-06-14 9:20	7.5	1230	1.8	1.8	1.8
RSEM-R5B-SP	2019-06-16 12:10	7.6	1356	1.8	1.8	1.8
RSEM-R5B-SP	2019-06-17 11:45	7.3	1355	1.6	1.6	1.6
RSEM-R5B-SP	2019-06-18 11:25	8.2	1373	1.9	1.8	1.9
RSEM-R5B-SP	2019-06-19 10:45	7.7	1381	1.8	1.8	1.8
RSEM-R5B-SP	2019-06-21 9:00	8.2	1375	2.4	2.4	2.4
RSEM-R5B-SP	2019-08-20 11:00	8.3	1424	6.4	6	6.4
RSEM-R5B-SP	2019-08-22 11:50	8.5	1896	7.3	7	7.3
RSEM-R5B-SP	2019-09-14 10:56	8.6	1717	6.7	6.8	6.7
RSEM-R5B-SP	2019-09-15 10:41	8.5	1734	5.1	5.1	5.1
RSEM-R5B-SP	2019-09-27 4:35	8.6	3700	3.8	3.8	3.8
RSEM-R5B-SP	2019-10-10 13:10	8.4	2030	2.9	2.9	2.9
RSEM-R5B-SP	2019-10-12 11:25	8.3	1986	2.3	2.3	2.3
RSEM-R5B-W	2019-03-13 14:25	8.7	555	769	768	769
RSEM-R5B-W	2019-03-16 13:50		473	943	944	943
RSEM-R5B-W	2019-03-17 16:20	8.7	343	OR		
RSEM-R5B-W	2019-03-18 13:42	7.2	725	OR		
RSEM-R5B-W	2019-03-19 19:10	7.7	801	OR		
RSEM-R5B-W	2019-03-20 11:45	8.1	512	OR		
RSEM-R5B-W	2019-03-21 11:20	8.0	834	OR		
RSEM-R5B-W	2019-03-22 14:55	7.7	505	OR		
RSEM-R5B-W	2019-03-23 13:40	8.2	563	OR		
RSEM-R5B-W	2019-03-24 14:15	8.2	404	1.9	1.9	1.9
RSEM-R5B-W	2019-03-25 13:20	8.0	650	3615	3612	3615
RSEM-R5B-W	2019-03-26 12:15	8.0	813	2134	2136	2134
RSEM-R5B-W	2019-03-27 13:10	7.8	616	OR		
RSEM-R5B-W	2019-03-28 11:15	8.0	934	87	85.5	87
RSEM-R5B-W	2019-03-29 14:25	7.2	630	2336	2353	2336
RSEM-R5B-W	2019-03-30 11:20	8.2	966	48.1	47.7	48.1
RSEM-R5B-W	2019-03-31 11:25	8.1	986	1082	1081	1082
RSEM-R5B-W	2019-04-01 11:40	8.4	920	133	133	133
RSEM-R5B-W	2019-04-01 11:44	8.4	920	133	133	133
RSEM-R5B-W	2019-04-02 12:45	8.0	919	1817	1814	1817
RSEM-R5B-W	2019-04-03 10:15	8.4	1042	59.8	60.6	59.8
RSEM-R5B-W	2019-04-04 10:42	8.2	1104	29.9	29.9	29.9
RSEM-R5B-W	2019-04-05 13:36	8.2	1051	7.7	7.5	7.7
RSEM-R5B-W	2019-04-06 10:15	8.4	1009	24.9	25.3	24.9
RSEM-R5B-W	2019-04-07 10:53	8.5	1064	102.4	100.9	102.4
RSEM-R5B-W	2019-04-08 12:38	8.0	879	2152	2150	2152
RSEM-R5B-W	2019-04-10 11:00	8.5	1015	83.7	84.2	83.7
RSEM-R5B-W	2019-04-11 11:09	8.4	1079	36.6	36.9	36.6
RSEM-R5B-W	2019-04-12 14:10	8.5	1003	55.4	55.3	55.4
RSEM-R5B-W	2019-04-13 11:15	8.5	1037	25.4	25.3	25.4
RSEM-R5B-W	2019-04-14 12:09	8.6	1053	10	9.8	10
RSEM-R5B-W	2019-04-15 11:50	8.5	925	43.2	43.2	43.2
RSEM-R5B-W	2019-04-16 13:27	8.7	903	5.6	5.2	5.6
RSEM-R5B-W	2019-04-17 12:17	8.6	946	4.6	4.7	4.6
RSEM-R5B-W	2019-04-18 10:15	8.6	986	6.2	5.6	6.2
RSEM-R5B-W	2019-04-19 11:00	8.6	984	5.8	6	5.8
RSEM-R5B-W	2019-04-20 11:06	8.6	999	18.1	16.5	18.1
RSEM-R5B-W	2019-04-21 10:35	8.6	1050	9.1	9.5	9.1
RSEM-R5B-W	2019-04-22 11:25	8.5	911	17	16.3	17
RSEM-R5B-W	2019-04-23 10:54	8.5	1006	4.8	5.3	4.8
RSEM-R5B-W	2019-04-24 12:59	8.6	1012	10.6	9.3	10.6

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R5B-W	2019-04-25 10:48	8.5	1123	8.9	8	8.9
RSEM-R5B-W	2019-04-26 10:37	8.2	1250	5.8	5.2	5.8
RSEM-R5B-W	2019-04-29 10:55	8.3	1197	15.4	14.6	15.4
RSEM-R5B-W	2019-04-30 11:58	8.4	1142	3.4	3.6	3.4
RSEM-R5B-W	2019-05-03 13:45	8.4	1137	30.3	30.5	30.3
RSEM-R5B-W	2019-05-04 11:36	8.6	1182	6.7	6.7	6.7
RSEM-R5B-W	2019-05-05 14:13	8.6	1107	7.4	7.2	7.4
RSEM-R5B-W	2019-05-06 10:33	8.5	1185	4.1	4.3	4.1
RSEM-R5B-W	2019-05-07 10:35	8.3	1165	4.4	4.4	4.4
RSEM-R5B-W	2019-05-08 10:55	8.4	1160	13	12.9	13
RSEM-R5B-W	2019-05-09 10:45	8.4	1216	5.8	5.8	5.8
RSEM-R5B-W	2019-05-10 13:13	8.2	8170	14.5	15.2	14.5
RSEM-R5B-W	2019-05-13 11:00	8.3	1291	8.6	8.6	8.6
RSEM-R5B-W	2019-05-14 11:00	8.3	1291	8.7	8.6	8.7
RSEM-R5B-W	2019-05-16 11:20	8.3	1343	5.7	5.7	5.7
RSEM-R5B-W	2019-05-20 11:07	8.2	1250	7	6.8	7
RSEM-R5B-W	2019-06-24 12:35	8.4	975	OR		
RSEM-R5B-W	2019-06-25 11:45	8.4	1903	64.5	63.7	64.5
RSEM-R5B-W	2019-06-29 13:50	8.4	788	OR		
RSEM-R5B-W	2019-07-19 16:26	8.4	1149	23.1	23.2	23.1
RSEM-R5B-W	2019-08-08 10:56	8.2	1874	66.9	67.1	66.9
RSEM-R5B-W	2019-08-16 10:07	8.4	1413	59.6	59.5	59.6
RSEM-R5B-W	2019-08-17 13:18	8.3	1353	7	6.8	7
RSEM-R5B-W	2019-08-18 16:55	8.2	1257	OR		
RSEM-R5B-W	2019-08-19 13:32	8.6	1408	66.9	66.5	66.9
RSEM-R5B-W	2019-08-21 11:16	8.5	1264	6.8	7.1	6.8
RSEM-R5B-W	2019-08-23 9:30	8.5	1127	74.5	67.2	74.5
RSEM-R5B-W	2019-08-24 10:40	8.6	1226	5.9	5.8	5.9
RSEM-R5B-W	2019-09-10 10:28	8.4	1371	18.5	18	18.5
RSEM-R5B-W	2019-09-16 11:00	8.5	1160	42.7	42.7	42.7
RSEM-R5B-W	2019-09-19 11:08	8.8	1426	12.8	12.7	12.8
RSEM-R5B-W	2019-09-20 14:30	8.6	1075	9.4	9.6	9.4
RSEM-R5B-W	2019-10-07 11:57	8.5	1612	55	55.1	55
RSEM-R5B-W	2019-10-22 13:25	8.6	1152	2360	2360	2360
RSEM-R5B-W	2019-10-23 11:45	8.6	1251	45	44.9	45
RSEM-R5B-W	2019-10-24 14:35	8.7	1251	19	19.1	19
RSEM-R5B-W	2019-10-25 14:00	8.5	923	OR		
RSEM-R5B-W	2019-10-26 12:00	8.5	1175	121	122	121
RSEM-R5B-W	2019-10-27 10:58	8.7	1311	57.2	57.1	57.2
RSEM-R5B-W	2019-11-17 11:52	8.4	1287	8	7.9	8
RSEM-R5B-W	2019-11-18 11:24	8.4	855	59.7	59.4	59.7
RSEM-R6E-EOP	2019-03-14 16:17	8.7	976	18.4	18.4	18.4
RSEM-R6E-EOP	2019-03-15 10:30	9.0	587	18.1	18.2	18.1
RSEM-R6E-EOP	2019-03-16 12:55	7.3	852	19	19	19
RSEM-R6E-EOP	2019-03-17 11:25	7.3	907	16.6	16.5	16.6
RSEM-R6E-EOP	2019-03-18 12:11	8.2	1213	30.7	30.5	30.7
RSEM-R6E-EOP	2019-03-19 13:30	8.6	802	25.9	26.5	25.9
RSEM-R6E-EOP	2019-03-20 12:00	8.9	612	13.3	12.9	13.3
RSEM-R6E-EOP	2019-03-21 12:10	7.5	620	29	27.1	29
RSEM-R6E-EOP	2019-03-22 10:40	8.2	605	12.2	12.3	12.2
RSEM-R6E-EOP	2019-03-23 15:10	8.2	653	17.4	17.5	17.4
RSEM-R6E-EOP	2019-03-24 13:15	8.2	694	13.7	13.6	13.7
RSEM-R6E-EOP	2019-03-25 14:40	8.1	636	16.7	16.8	16.7
RSEM-R6E-EOP	2019-03-26 13:20	8.1	643	12.6	12.6	12.6
RSEM-R6E-EOP	2019-03-27 15:15	8.2	636	14.1	14.1	14.1
RSEM-R6E-EOP	2019-03-28 12:30	8.1	734	8.2	8.1	8.2
RSEM-R6E-EOP	2019-03-29 9:30	8.1	718	7.4	7.1	7.4
RSEM-R6E-EOP	2019-03-30 12:45	8.3	726	7.6	7.8	7.6
RSEM-R6E-EOP	2019-03-31 12:50	8.1	729	9.5	9.6	9.5
RSEM-R6E-EOP	2019-04-01 13:25	8.3	4600	7.1	7.2	7.1
RSEM-R6E-EOP	2019-04-02 9:45	8.3	669	7	7	7
RSEM-R6E-EOP	2019-04-03 12:25	8.3	707	9.3	9.8	9.3
RSEM-R6E-EOP	2019-04-04 12:56	8.3	720	7.8	7.8	7.8
RSEM-R6E-EOP	2019-04-05	7.8	730	5.4	5.4	5.4
RSEM-R6E-EOP	2019-04-06 12:10	8.3	4300	56.4	56.6	56.4

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6E-EOP	2019-04-07 13:10	8.5	478	51.5	51.3	51.5
RSEM-R6E-EOP	2019-04-08 9:55	8.0	614	27.5	27.8	27.5
RSEM-R6E-EOP	2019-04-09 12:19	8.3	596	20.7	20.9	20.7
RSEM-R6E-EOP	2019-04-10 12:45	8.4	634	18.1	17.9	18.1
RSEM-R6E-EOP	2019-04-11 13:33	8.4	626	28.3	28.1	28.3
RSEM-R6E-EOP	2019-04-12 10:47	8.3	622	16.7	16.7	16.7
RSEM-R6E-EOP	2019-04-13 12:28	8.4	613	34.6	34.4	34.6
RSEM-R6E-EOP	2019-04-14 13:21	8.7	636	11.3	11.2	11.3
RSEM-R6E-EOP	2019-04-15 14:15	8.7	548	8.2	8.8	8.2
RSEM-R6E-EOP	2019-04-16 9:45	8.8	612	6.5	6.8	6.5
RSEM-R6E-EOP	2019-04-17 10:25	8.6	616	6.4	6.4	6.4
RSEM-R6E-EOP	2019-04-18 11:15	8.7	589	7.4	7.8	7.4
RSEM-R6E-EOP	2019-04-19 12:46	8.4	606	9.3	9.4	9.3
RSEM-R6E-EOP	2019-04-20 12:23	8.6	613	8.6	8.5	8.6
RSEM-R6E-EOP	2019-04-21 11:30	8.6	611	6	5.9	6
RSEM-R6E-EOP	2019-04-23 12:35	8.7	624	7.5	7.2	7.5
RSEM-R6E-EOP	2019-04-24 14:19	8.6	605	9	8.2	9
RSEM-R6E-EOP	2019-04-25 12:30	8.7	614	10.5	10.5	10.5
RSEM-R6E-EOP	2019-04-26 11:05	8.6	757	7.5	7.4	7.5
RSEM-R6E-EOP	2019-04-27 13:15	8.5	680	5.9	6	5.9
RSEM-R6E-EOP	2019-04-28 13:00	8.5	702	5.9	6.2	5.9
RSEM-R6E-EOP	2019-04-29 12:00	8.5	708	5.3	5.4	5.3
RSEM-R6E-EOP	2019-04-30 14:05	8.4	731	5.9	6.1	5.9
RSEM-R6E-EOP	2019-05-01 13:20	8.6	730	4.5	4.5	4.5
RSEM-R6E-EOP	2019-05-02 14:10	8.5	753	6	6.1	6
RSEM-R6E-EOP	2019-05-03 9:35	8.6	767	5.8	6.3	5.8
RSEM-R6E-EOP	2019-05-04 9:55	8.6	825	5.4	5.4	5.4
RSEM-R6E-EOP	2019-05-05 12:50	8.6	843	5.7	5.9	5.7
RSEM-R6E-EOP	2019-05-06	8.8	844	4.6	4.6	4.6
RSEM-R6E-EOP	2019-05-07 12:26	8.6	819	5.2	5.6	5.2
RSEM-R6E-EOP	2019-05-08 13:19	8.5	813	4.7	4.7	4.7
RSEM-R6E-EOP	2019-05-09 12:54	7.8	863	7.8	7.8	7.8
RSEM-R6E-EOP	2019-05-10 9:30	7.8	865	4.9	4.6	4.9
RSEM-R6E-EOP	2019-05-13 12:32	8.3	821	6	6.1	6
RSEM-R6E-EOP	2019-05-14 12:32	8.3	821	6	6.1	6
RSEM-R6E-EOP	2019-05-15 13:10	8.6	922	9.2	9.1	9.2
RSEM-R6E-EOP	2019-05-17 9:21	8.3	940	9.1	9.5	9.1
RSEM-R6E-EOP	2019-05-19 9:34	8.4	931	14.9	14.7	14.9
RSEM-R6E-EOP	2019-05-20 12:49	8.5	935	19.9	18.9	19.9
RSEM-R6E-EOP	2019-05-21 13:00	8.7	815	11.1	11.4	11.1
RSEM-R6E-EOP	2019-05-23 12:40	8.2	817	8.1	8	8.1
RSEM-R6E-EOP	2019-05-24 11:50	8.4	8120	7.6	7.7	7.6
RSEM-R6E-EOP	2019-06-08 11:43	8.0	809	6.6	6.8	6.6
RSEM-R6E-EOP	2019-06-09 11:41	8.7	795	9.8	10.1	9.8
RSEM-R6E-EOP	2019-06-14 10:00	8.9	728	7	7.7	7
RSEM-R6E-EOP	2019-06-15 12:50	8.9	732	7	7	7
RSEM-R6E-EOP	2019-06-16 13:05	9.0	789	5.3	5.2	5.3
RSEM-R6E-EOP	2019-06-24 12:52	8.3	1202	44	44	44
RSEM-R6E-EOP	2019-06-25 12:20	8.2	1314	20.2	20	20.2
RSEM-R6E-EOP	2019-06-26 12:56	8.0	1345	10.6	10.2	10.6
RSEM-R6E-EOP	2019-06-27 13:00	7.9	1355	8.1	8.3	8.1
RSEM-R6E-EOP	2019-06-28 6:53	8.2	1367	6.3	6	6.3
RSEM-R6E-EOP	2019-06-29 14:30	8.1		48.9	49.6	48.9
RSEM-R6E-EOP	2019-06-30 14:00	8.1	1456	8.6	8.3	8.6
RSEM-R6E-EOP	2019-07-01 13:35	8.1	1362	10.2	10.3	10.2
RSEM-R6E-EOP	2019-07-02 13:30	8.6	1356	7.6	7	7.6
RSEM-R6E-EOP	2019-07-03 12:25	8.2	1029.9	12.6	12.6	12.6
RSEM-R6E-EOP	2019-07-04 12:50	8.0	1246	8.2	8.4	8.2
RSEM-R6E-EOP	2019-07-05 10:37	8.0	1203	6.6	7.3	6.6
RSEM-R6E-EOP	2019-07-06 13:35	8.5	1159	9.4	9	9.4
RSEM-R6E-EOP	2019-07-07 8:55	7.4	911	3.9	3.8	3.9
RSEM-R6E-EOP	2019-07-08 9:20	8.0	877	4.3	4	4.3
RSEM-R6E-EOP	2019-07-10 11:05	7.8	909	8.7	8.7	8.7
RSEM-R6E-EOP	2019-07-11 12:35	7.4	890	7.2	7.2	7.2
RSEM-R6E-EOP	2019-07-12 11:05	7.6	870	7.8	7.7	7.8

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6E-EOP	2019-07-13 13:05	8.3	849	7.7	7.7	7.7
RSEM-R6E-EOP	2019-07-14 13:30	8.2	830	10.2	10.1	10.2
RSEM-R6E-EOP	2019-07-15 11:55	8.6	830	8.3	8.3	8.3
RSEM-R6E-EOP	2019-07-16 11:35	8.6	765	8.7	8.7	8.7
RSEM-R6E-EOP	2019-07-17 13:40	8.4	808	4	4.1	4
RSEM-R6E-EOP	2019-07-18 13:05	8.6	789	7.1	7	7.1
RSEM-R6E-EOP	2019-07-19 12:30	8.3	838	7.4	7.4	7.4
RSEM-R6E-EOP	2019-07-20 14:05	7.4	872	12.8	12.8	12.8
RSEM-R6E-EOP	2019-07-21 14:00	7.6	889	8.8	8.7	8.8
RSEM-R6E-EOP	2019-07-22 12:25	7.6	795	10.4	10.4	10.4
RSEM-R6E-EOP	2019-07-23 13:35	7.5	819	7.9	8	7.9
RSEM-R6E-EOP	2019-07-24 12:40	8.3	810	8.7	9.5	8.7
RSEM-R6E-EOP	2019-07-25 12:45	7.8	902	10.9	10.3	10.9
RSEM-R6E-EOP	2019-07-26 9:55	8.0	927	9.6	9.9	9.6
RSEM-R6E-EOP	2019-07-27 11:45	7.7	926	13.4	13.5	13.4
RSEM-R6E-EOP	2019-07-28 12:10	7.5	1196	10.3	9.9	10.3
RSEM-R6E-EOP	2019-07-29 9:20	7.6	1200	10.1	10.9	10.1
RSEM-R6E-EOP	2019-07-30 12:20	7.5	1310	13.4	13.5	13.4
RSEM-R6E-EOP	2019-07-31 11:55	7.5	1304	16.8	16.8	16.8
RSEM-R6E-EOP	2019-08-01 12:20	7.6	1299	14.2	14.2	14.2
RSEM-R6E-EOP	2019-08-02 10:20	7.7	1293	14.2	14.2	14.2
RSEM-R6E-EOP	2019-08-03 12:35	7.6	1288	14.6	14.6	14.6
RSEM-R6E-EOP	2019-08-04 14:00	7.6	1293	12.7	12.3	12.7
RSEM-R6E-EOP	2019-08-05 12:10	7.6	1267	11.3	11.3	11.3
RSEM-R6E-EOP	2019-08-06 12:25	7.5	1258	12.3	12.4	12.3
RSEM-R6E-EOP	2019-08-07 13:55	7.5	1242	10.1	10	10.1
RSEM-R6E-EOP	2019-08-08 12:45	7.7	1300	10.2	10.1	10.2
RSEM-R6E-EOP	2019-08-09 10:50	7.7	1493	13.3	13.1	13.3
RSEM-R6E-EOP	2019-08-10 12:40	7.5	1517	11.7	11.6	11.7
RSEM-R6E-EOP	2019-08-11 11:50	7.7	1501	5.9	6	5.9
RSEM-R6E-EOP	2019-08-12 14:35	8.1	1106	9.9	9.6	9.9
RSEM-R6E-EOP	2019-08-13 14:05	7.7	1100	11.5	11.1	11.5
RSEM-R6E-EOP	2019-08-14 14:45	8.3	1091	9.3	9.2	9.3
RSEM-R6E-EOP	2019-08-15 10:30	8.0	1603	8.9	9	8.9
RSEM-R6E-EOP	2019-08-16 10:45	8.1	1888	20.4	19.8	20.4
RSEM-R6E-EOP	2019-08-17 10:25	8.3	1285	14.9	14.7	14.9
RSEM-R6E-EOP	2019-08-18 14:15	8.2	1304	15.4	15.2	15.4
RSEM-R6E-EOP	2019-08-19 10:05	8.2	1341	13.7	14.1	13.7
RSEM-R6E-EOP	2019-08-20 10:30	8.3	1234	11.6	11.7	11.6
RSEM-R6E-EOP	2019-08-21 11:45	8.3	1209	7.6	7.2	7.6
RSEM-R6E-EOP	2019-08-22 11:10	8.4	1213	15.2	15.2	15.2
RSEM-R6E-EOP	2019-08-23 10:00	8.4	1158	9.9	8.9	9.9
RSEM-R6E-EOP	2019-08-24 11:20	8.3	1113	8.6	8.4	8.6
RSEM-R6E-EOP	2019-08-25 12:20	8.4	1113	8	8.1	8
RSEM-R6E-EOP	2019-08-26 12:35	7.8	1083	9	9	9
RSEM-R6E-EOP	2019-08-27 13:20	8.2	1113	4.6	4.8	4.6
RSEM-R6E-EOP	2019-08-28 12:35	8.2	1104	3.8	3.7	3.8
RSEM-R6E-EOP	2019-08-29 14:10	8.3	1074	3.5	3.5	3.5
RSEM-R6E-EOP	2019-08-30 9:45	8.3	1032	4.3	4.4	4.3
RSEM-R6E-EOP	2019-08-31 11:45	8.3	918	3.4	3.4	3.4
RSEM-R6E-EOP	2019-09-01 11:45	8.3	888	3.2	3	3.2
RSEM-R6E-EOP	2019-09-02 11:50	8.0	861	2.9	2.9	2.9
RSEM-R6E-EOP	2019-09-03 13:05	8.3	840	2.9	2.8	2.9
RSEM-R6E-EOP	2019-09-04 13:15	8.3	877	2.7	2.7	2.7
RSEM-R6E-EOP	2019-09-05 12:30	8.4	777	4.2	4.2	4.2
RSEM-R6E-EOP	2019-09-06 13:15	8.4	758	3.2	3.2	3.2
RSEM-R6E-EOP	2019-09-07 12:10	8.4	743	3.3	3.5	3.3
RSEM-R6E-EOP	2019-09-08 13:00	8.4	359	4.5	4.5	4.5
RSEM-R6E-EOP	2019-09-09 9:45	8.3	887	4.1	4.3	4.1
RSEM-R6E-EOP	2019-09-10 12:25	8.3	948	3.3	3.2	3.3
RSEM-R6E-EOP	2019-09-11 12:10	8.4	945	3.2	3.2	3.2
RSEM-R6E-EOP	2019-09-12 11:05	8.6	928	3.4	3.4	3.4
RSEM-R6E-EOP	2019-09-13 10:55	8.5	906	4	3.8	4
RSEM-R6E-EOP	2019-09-14 11:45	8.4	895	5.5	5.4	5.5
RSEM-R6E-EOP	2019-09-15 11:20	8.2	876	5	5	5

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6E-EOP	2019-09-16 12:35	8.3	878	24.3	24.2	24.3
RSEM-R6E-EOP	2019-09-17 14:40	8.4	1079	11.1	11.2	11.1
RSEM-R6E-EOP	2019-09-18 11:00	8.2	889	9	8.7	9
RSEM-R6E-EOP	2019-09-19 12:05	8.6	1081	6.4	6.4	6.4
RSEM-R6E-EOP	2019-09-20 11:00	8.4	808	7.2	7	7.2
RSEM-R6E-EOP	2019-09-20 15:45	8.5	805	6.8	6.9	6.8
RSEM-R6E-EOP	2019-09-21 12:10	8.4	986	11.4	11.6	11.4
RSEM-R6E-EOP	2019-09-22 11:45	8.2	810	11.2	11	11.2
RSEM-R6E-EOP	2019-09-23 11:40	8.6	1070	7.4	7.4	7.4
RSEM-R6E-EOP	2019-09-24 11:00	8.5	813	7.5	7.4	7.5
RSEM-R6E-EOP	2019-09-25 11:45	8.4	808	6.8	6.8	6.8
RSEM-R6E-EOP	2019-09-26 10:10	8.5	800	7.8	7.7	7.8
RSEM-R6E-EOP	2019-09-27 11:45	8.3	800	8.2	8.1	8.2
RSEM-R6E-EOP	2019-09-28 12:10	8.5	814	7.3	7.4	7.3
RSEM-R6E-EOP	2019-09-29 10:20	8.5	831	6.1	6.1	6.1
RSEM-R6E-EOP	2019-09-30 9:15	8.2	828	5	4.9	5
RSEM-R6E-EOP	2019-10-01 14:15	8.5	1071	5.2	5.2	5.2
RSEM-R6E-EOP	2019-10-02 13:25	8.5	1062	4.4	4.3	4.4
RSEM-R6E-EOP	2019-10-03 14:05	8.4	1048	3.6	3.6	3.6
RSEM-R6E-EOP	2019-10-04 11:55	8.6	1051	4.6	4.5	4.6
RSEM-R6E-EOP	2019-10-05 13:00	8.5	1041	5.3	5.4	5.3
RSEM-R6E-EOP	2019-10-06 13:00	8.3	1046	4.9	4.9	4.9
RSEM-R6E-EOP	2019-10-07 14:35	8.5	1051	5.3	5.3	5.3
RSEM-R6E-EOP	2019-10-08 13:20	8.4	1055	7.4	7.5	7.4
RSEM-R6E-EOP	2019-10-09 1:30	8.3	789	5.3	5.2	5.3
RSEM-R6E-EOP	2019-10-09 13:30	8.3	789	5.2	5.2	5.2
RSEM-R6E-EOP	2019-10-10 14:30	8.4	1075	4.4	4.4	4.4
RSEM-R6E-EOP	2019-10-11 11:20	8.5	810	3.6	3.6	3.6
RSEM-R6E-EOP	2019-10-12 12:40	8.3	1084	5.6	5.5	5.6
RSEM-R6E-EOP	2019-10-13 11:40	8.7	825	4.2	4.2	4.2
RSEM-R6E-EOP	2019-10-14 11:40	7.8	1106	7.1	7.1	7.1
RSEM-R6E-EOP	2019-10-15 10:15	8.5	838	9.6	9.6	9.6
RSEM-R6E-EOP	2019-10-16 12:00	7.4	833	16.2	15.8	16.2
RSEM-R6E-EOP	2019-10-17 12:30	8.2	713	25.6	25.6	25.6
RSEM-R6E-EOP	2019-10-19 12:45	8.4	659	15.8	15.9	15.8
RSEM-R6E-EOP	2019-10-25 15:50	8.2	844	12.9	12.8	12.9
RSEM-R6E-EOP	2019-10-26 15:10	8.5	877	11.3	11.4	11.3
RSEM-R6E-EOP	2019-10-27 12:45	8.2	895	20.2	20	20.2
RSEM-R6E-EOP	2019-10-28 11:35	8.2	826	11.4	11.3	11.4
RSEM-R6E-EOP	2019-10-29 11:40	8.4	869	7.9	7.9	7.9
RSEM-R6E-EOP	2019-10-30 12:10	8.0	846	6.7	6.8	6.7
RSEM-R6E-EOP	2019-10-31 12:55	8.0	835	7.7	7.7	7.7
RSEM-R6E-EOP	2019-11-01 12:15	8.3	802	14.1	14	14.1
RSEM-R6E-EOP	2019-11-02 14:00	8.4	779	39	39	39
RSEM-R6E-EOP	2019-11-04 12:50	8.0	1247	10.9	10.9	10.9
RSEM-R6E-EOP	2019-11-05 13:55	8.1	1066	7.9	7.9	7.9
RSEM-R6E-EOP	2019-11-06 12:50	8.3	1312	7.2	7	7.2
RSEM-R6E-EOP	2019-11-07 12:30	8.6	1009	5.4	5.4	5.4
RSEM-R6E-EOP	2019-11-08 11:35	8.5	1385	5.8	5.8	5.8
RSEM-R6E-EOP	2019-11-09 14:00	8.4	1082	4.6	4.6	4.6
RSEM-R6E-EOP	2019-11-10 12:15	8.5	1269	4.1	4.1	4.1
RSEM-R6E-EOP	2019-11-11 10:50	8.6	1060	3.4	3.4	3.4
RSEM-R6E-EOP	2019-11-12 12:35	8.6	1136	3.4	3.4	3.4
RSEM-R6E-EOP	2019-11-13 12:40	8.6	1116	2.8	2.8	2.8
RSEM-R6E-EOP	2019-11-14 12:45	8.3	1125	2.7	2.7	2.7
RSEM-R6E-EOP	2019-11-15 12:15	8.4	1011	2.6	2.5	2.6
RSEM-R6E-EOP	2019-11-16 12:45	8.3	1003	2.6	2.7	2.6
RSEM-R6E-EOP	2019-11-17 13:15	8.3	993	2.2	2.2	2.2
RSEM-R6E-EOP	2019-11-18 13:25	8.4	1177	10.4	10.1	10.4
RSEM-R6E-EOP	2019-11-19 14:30	8.5	1118	11.9	12.1	11.9
RSEM-R6E-EOP	2019-11-20 11:40	8.6	1115	8.6	8.5	8.6
RSEM-R6E-EOP	2019-11-21 15:15	8.5	1123	6.9	6.9	6.9
RSEM-R6E-EOP	2019-11-22 11:20	8.5	1127	6.6	6.6	6.6
RSEM-R6E-EOP	2019-11-23 14:30	8.5	1091	5.4	5.4	5.4
RSEM-R6E-EOP	2019-11-24 13:10	8.3	1079	6.4	6.4	6.4

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6E-EOP	2019-11-25 15:10	8.5	1054	4.8	4.8	4.8
RSEM-R6E-EOP	2019-11-26 13:00	7.4	1063	5	5	5
RSEM-R6E-EOP	2019-11-27 13:00	8.4	1046	9.5	9.4	9.5
RSEM-R6E-EOP	2019-11-28 11:15	8.0	1071	13.6	13.6	13.6
RSEM-R6E-EOP	2019-11-29 11:10	8.6	1066	8.8	8.9	8.8
RSEM-R6E-EOP	2019-11-30 14:05	8.2	1088	9.3	9.3	9.3
RSEM-R6E-EOP	2019-12-01 10:25	7.8	1142	9.3	9.1	9.3
RSEM-R6E-EOP	2019-12-02 13:30	8.6	1214	9.5	9.4	9.5
RSEM-R6E-EOP	2019-12-03 12:55	8.3	1221	8.8	8.9	8.8
RSEM-R6E-EOP	2019-12-04 14:05	8.2	1172	8.9	8.9	8.9
RSEM-R6E-EOP	2019-12-05 14:35	8.4	1221	6.8	6.7	6.8
RSEM-R6E-EOP	2019-12-06 13:05	8.4	1244	6.4	6.4	6.4
RSEM-R6E-EOP	2019-12-07 13:05	8.3	1230	7.3	7.2	7.3
RSEM-R6E-EOP	2019-12-08 12:30	8.2	1130	8	8	8
RSEM-R6E-EOP	2019-12-09 11:50	8.3	1261	7.6	7.7	7.6
RSEM-R6E-EOP	2019-12-10 10:10	7.9	1122	8.7	8.6	8.7
RSEM-R6E-EOP	2019-12-11 12:10	8.0	1184	6.3	6.3	6.3
RSEM-R6E-EOP	2019-12-12 13:20	8.0	1168	5.7	5.7	5.7
RSEM-R6E-EOP	2019-12-13 12:30	8.1	1142	9.3	9.4	9.3
RSEM-R6E-EOP	2019-12-14 12:50	8.0	1140	5.3	5.3	5.3
RSEM-R6E-EOP	2019-12-15 15:10	8.1	1121	5.9	5.9	5.9
RSEM-R6E-EOP	2019-12-16 14:40	7.9	1094	6.1	6.1	6.1
RSEM-R6E-EOP	2019-12-17 14:10	8.0	1162	4.2	4.2	4.2
RSEM-R6E-EOP	2019-12-18 13:30	7.9	1098	5.8	5.8	5.8
RSEM-R6E-EOP	2019-12-19 13:20	8.1	1069	6	5.8	6
RSEM-R6E-EOP	2019-12-20 12:50	8.1	1160	5.3	5.3	5.3
RSEM-R6E-EOP	2019-12-21 14:25	8.0	1148	5.9	5.9	5.9
RSEM-R6E-EOP	2019-12-22 12:20	8.2	1139	4.8	4.8	4.8
RSEM-R6E-EOP	2019-12-23 9:20	8.2	1033	6	5.9	6
RSEM-R6E-EOP	2019-12-24 9:50	7.8	1041	3.8	4	3.8
RSEM-R6E-EOP	2019-12-25 16:00	8.1	992	2.9	2.9	2.9
RSEM-R6E-EOP	2019-12-26 14:00	8.2	1029	2.9	2.9	2.9
RSEM-R6E-EOP	2019-12-27 10:30	8.0	1027	2.5	2.5	2.5
RSEM-R6E-EOP	2019-12-28 14:30	8.2	1102	5.1	4.6	5.1
RSEM-R6E-EOP	2019-12-29 14:30	8.0	1084	5.1	5	5.1
RSEM-R6E-EOP	2019-12-30 9:50	8.0	1142	4	4	4
RSEM-R6E-EOP	2019-12-31 15:20	7.6	1287	18.6	17.3	18.6
RSEM-R6-EP-US(SBIAR)	2019-01-19 11:40	8.3	780			
RSEM-R6-EP-US-SD	2019-01-02 12:00	8.1	624	18.6	17.2	18.6
RSEM-R6-EP-US-SD	2019-01-16 10:50	8.4	760	3.6	3.9	3.6
RSEM-R6-EP-US-SD	2019-01-16 14:30	7.0	2900			
RSEM-R6-EP-US-SD	2019-01-26 13:25	8.3	347	66.3	66.3	66.3
RSEM-R6-EP-US-SD	2019-01-27 12:04	8.6	443	44.3	44.5	44.3
RSEM-R6-EP-US-SD	2019-01-30 12:35	8.0	838	11.6	10.9	11.6
RSEM-R6-EP-US-SD	2019-02-09 12:50	8.2	992	1.5	1.3	1.5
RSEM-R6-EP-US-SD	2019-02-12 12:22	8.4	747	3.6	3.6	3.6
RSEM-R6-EP-US-SD	2019-02-13 11:20	8.2	860	3	3.1	3
RSEM-R6-EP-US-SD	2019-02-14 11:25	8.1	808	1.9	2.4	1.9
RSEM-R6-EP-US-SD	2019-02-15 10:30	8.2	791	5.8	5.8	5.8
RSEM-R6-EP-US-SD	2019-02-16 12:13	8.0	819	4.6	4.6	4.6
RSEM-R6-EP-US-SD	2019-02-17 11:39	8.0	799	3	3.6	3
RSEM-R6-EP-US-SD	2019-02-18 13:05	8.4	730	1.5	1.4	1.5
RSEM-R6-EP-US-SD	2019-02-27 11:00	8.5	765	2.6	2.7	2.6
RSEM-R6-EP-US-SD	2019-03-01 11:20	7.5	817	2.5	2.2	2.5
RSEM-R6-EP-US-SD	2019-03-02 11:40	8.3	840	1.6	1.6	1.6
RSEM-R6-EP-US-SD	2019-03-04 16:40	7.7	989	4.5	4.4	4.5
RSEM-R6-EP-US-SD	2019-03-05 11:55	7.8	881	1.2	1.2	1.2
RSEM-R6-EP-US-SD	2019-03-11 12:05	8.4	1603	40.6	40.5	40.6
RSEM-R6-EP-US-SD	2019-03-13 10:55	8.7	1170	71.2	70.1	71.2
RSEM-R6-EP-US-SD	2019-03-14 15:58	9.3	945	1892	1890	1892
RSEM-R6-EP-US-SD	2019-03-15	9.4	484	OR		
RSEM-R6-EP-US-SD	2019-03-16 12:45	7.3	377	43.3	43.5	43.3
RSEM-R6-EP-US-SD	2019-03-17 11:20	7.7	670	25	24.9	25
RSEM-R6-EP-US-SD	2019-03-18 9:48	7.6	709	29.7	29.9	29.7
RSEM-R6-EP-US-SD	2019-03-19 16:33	8.1	537	3478	3371	3478



Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6-EP-US-SD	2019-03-21 12:35	7.7	519	852	851	852
RSEM-R6-EP-US-SD	2019-03-22 14:15	8.3	689	1385	1332	1385
RSEM-R6-EP-US-SD	2019-03-23 16:20	8.2	712	749	737	749
RSEM-R6-EP-US-SD	2019-03-24 15:45	7.9	785	OR		
RSEM-R6-EP-US-SD	2019-03-25 14:50	8.1	696	1233	1182	1233
RSEM-R6-EP-US-SD	2019-03-26 14:00	8.2	793	95	93	95
RSEM-R6-EP-US-SD	2019-03-27 15:35	8.2	749	72	64	72
RSEM-R6-EP-US-SD	2019-03-28 13:15	8.2	711	88	87	88
RSEM-R6-EP-US-SD	2019-03-29 15:20	8.2	1232	730	713	730
RSEM-R6-EP-US-SD	2019-03-30 1:15	8.3	734	84	80	84
RSEM-R6-EP-US-SD	2019-03-31 13:25	8.2	883	51.3	48.7	51.3
RSEM-R6-EP-US-SD	2019-04-01 14:05	8.3	776	69	68	69
RSEM-R6-EP-US-SD	2019-04-02 10:15	8.3	908	0.2	0.1	0.2
RSEM-R6-EP-US-SD	2019-04-03 12:45	8.5	900	18.5	17.8	18.5
RSEM-R6-EP-US-SD	2019-04-05 13:44	8.2	330	97.5	97.1	97.5
RSEM-R6-EP-US-SD	2019-04-06 12:40	8.9	301	103	104	103
RSEM-R6-EP-US-SD	2019-04-07 13:32	8.5	354	96	97	96
RSEM-R6-EP-US-SD	2019-04-08 10:25	8.4	838	3.7	3.3	3.7
RSEM-R6-EP-US-SD	2019-04-09 12:45	8.6	852	54.4	53.8	54.4
RSEM-R6-EP-US-SD	2019-04-10 13:02	8.5	863	38	37.6	38
RSEM-R6-EP-US-SD	2019-04-11 14:00	8.4	900	22.4	22.4	22.4
RSEM-R6-EP-US-SD	2019-04-14 13:47	8.5	937	56.6	56.8	56.6
RSEM-R6-EP-US-SD	2019-04-15 13:35	8.4	986	46.3	45.9	46.3
RSEM-R6-EP-US-SD	2019-04-16 9:29	8.5	1014	6.5	6.6	6.5
RSEM-R6-EP-US-SD	2019-04-17 10:15	8.5	941	22.8	20.9	22.8
RSEM-R6-EP-US-SD	2019-04-18 11:30	8.5	866	657	657	657
RSEM-R6-EP-US-SD	2019-04-19 13:12	8.5	876	82.2	82.9	82.2
RSEM-R6-EP-US-SD	2019-04-20 13:00	8.5	888	30.2	30	30.2
RSEM-R6-EP-US-SD	2019-04-21 13:10	8.5	924	14	13.4	14
RSEM-R6-EP-US-SD	2019-04-22 14:43	8.5	846	25.8	25.6	25.8
RSEM-R6-EP-US-SD	2019-04-23 13:39	8.5	826	34.5	33.9	34.5
RSEM-R6-EP-US-SD	2019-04-24 14:54	8.7	866	9.8	9.4	9.8
RSEM-R6-EP-US-SD	2019-04-25 1:55	8.2	1065	30.2	30.1	30.2
RSEM-R6-EP-US-SD	2019-04-27 13:40	8.4	1030	6.7	6.7	6.7
RSEM-R6-EP-US-SD	2019-04-28 13:10	8.3	1111	9.7	9.5	9.7
RSEM-R6-EP-US-SD	2019-04-29 12:25	8.3	1052	2.9	2.9	2.9
RSEM-R6-EP-US-SD	2019-04-30 14:30	8.3	1000	8	8.1	8
RSEM-R6-EP-US-SD	2019-05-01 13:40	8.3	973	2.9	2.8	2.9
RSEM-R6-EP-US-SD	2019-05-02 14:35	8.3	950	3.4	3.3	3.4
RSEM-R6-EP-US-SD	2019-05-03 14:00	8.3	1436	85	86	85
RSEM-R6-EP-US-SD	2019-05-04 9:28	8.6	1293	5.5	5.4	5.5
RSEM-R6-EP-US-SD	2019-05-05 12:40	8.4	1049	4.8	4.8	4.8
RSEM-R6-EP-US-SD	2019-05-06 12:53	8.5	10870	6.3	5.8	6.3
RSEM-R6-EP-US-SD	2019-05-07 12:46	8.3	1044	3.9	4	3.9
RSEM-R6-EP-US-SD	2019-05-09 13:32	8.1	1017	2.8	2.5	2.8
RSEM-R6-EP-US-SD	2019-05-10 13:40	8.2	981	27.9	27.7	27.9
RSEM-R6-EP-US-SD	2019-05-13 13:00	8.3	973	3.3	3.1	3.3
RSEM-R6-EP-US-SD	2019-05-14 13:00	8.3	973	3.1	3.3	3.1
RSEM-R6-EP-US-SD	2019-05-15 13:26	8.5	998	4.6	4.6	4.6
RSEM-R6-EP-US-SD	2019-05-16 13:45	8.3	975	3.1	3	3.1
RSEM-R6-EP-US-SD	2019-05-17 14:50	8.4	982	5.1	4.8	5.1
RSEM-R6-EP-US-SD	2019-05-19 14:25	8.4	1063	11.9	11.6	11.9
RSEM-R6-EP-US-SD	2019-05-20 13:19	8.4	993	7.4	7	7.4
RSEM-R6-EP-US-SD	2019-05-21 13:41	8.4	809	2.6	2.5	2.6
RSEM-R6-EP-US-SD	2019-05-24 12:20	8.4	790	2.2	1.9	2.2
RSEM-R6-EP-US-SD	2019-05-25 13:13	8.4	778	1.7	1.6	1.7
RSEM-R6-EP-US-SD	2019-05-26 14:50	8.4	741	1.6	1.6	1.6
RSEM-R6-EP-US-SD	2019-05-27 13:00	8.4	740	1.7	1.8	1.7
RSEM-R6-EP-US-SD	2019-05-28 12:30	8.6	728	2.7	2.5	2.7
RSEM-R6-EP-US-SD	2019-05-29 11:42	8.4	730	2	1.9	2
RSEM-R6-EP-US-SD	2019-05-31 14:28	8.4	731	2.7	2.8	2.7
RSEM-R6-EP-US-SD	2019-06-01 11:37	8.2	746	2.2	2	2.2
RSEM-R6-EP-US-SD	2019-06-02 12:36	8.4	756	1.8	1.6	1.8
RSEM-R6-EP-US-SD	2019-06-03 12:20	8.4	757	3	3.2	3
RSEM-R6-EP-US-SD	2019-06-04 12:28	8.4	1040	9.4	9.5	9.4

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6-EP-US-SD	2019-06-06 12:59	8.5	881	6.7	6.4	6.7
RSEM-R6-EP-US-SD	2019-06-07 14:05	8.5	846	5.5	5.1	5.5
RSEM-R6-EP-US-SD	2019-06-08 12:03	8.5	798	2.5	2.3	2.5
RSEM-R6-EP-US-SD	2019-06-09 12:05	8.5	748	2.9	2.7	2.9
RSEM-R6-EP-US-SD	2019-06-10 14:55	8.1	858	5.7	4.2	5.7
RSEM-R6-EP-US-SD	2019-06-11 13:23	8.3	845	4.8	3.8	4.8
RSEM-R6-EP-US-SD	2019-06-13 14:13	8.5	800	5.4	5.6	5.4
RSEM-R6-EP-US-SD	2019-06-14 4:50	8.4	7050	2.8	2.9	2.8
RSEM-R6-EP-US-SD	2019-06-16 15:25	8.5	665	3.2	3.4	3.2
RSEM-R6-EP-US-SD	2019-06-17 14:30	8.5	673	3.5	3.3	3.5
RSEM-R6-EP-US-SD	2019-06-18 13:25	8.6	675	3.4	3.2	3.4
RSEM-R6-EP-US-SD	2019-06-19 15:15	8.6	676	2	2	2
RSEM-R6-EP-US-SD	2019-06-22 14:35	8.7	645	6.5	6.6	6.5
RSEM-R6-EP-US-SD	2019-06-23 14:30	8.0	1943	OR		
RSEM-R6-EP-US-SD	2019-06-24 13:20	8.6	1886	OR		
RSEM-R6-EP-US-SD	2019-06-25 13:56	8.3	1466	1236	1235	1236
RSEM-R6-EP-US-SD	2019-06-26 14:58	8.2	1414	OR		
RSEM-R6-EP-US-SD	2019-06-27 15:15	8.2	1459	38	38	38
RSEM-R6-EP-US-SD	2019-06-29 16:18	7.9	1209	2276	2213	2276
RSEM-R6-EP-US-SD	2019-06-30 16:48	8.1	1384	1627	1581	1627
RSEM-R6-EP-US-SD	2019-07-01 14:30	7.9	1104	31.8	31.8	31.8
RSEM-R6-EP-US-SD	2019-07-02 14:00	8.3	1203	19.9	19.1	19.9
RSEM-R6-EP-US-SD	2019-07-03 14:15	8.1	1176	18	17.8	18
RSEM-R6-EP-US-SD	2019-07-04 14:50	8.1	1134	61.3	61.3	61.3
RSEM-R6-EP-US-SD	2019-07-06 14:15	8.3	1026	10.2	10.5	10.2
RSEM-R6-EP-US-SD	2019-07-07 12:15	8.3	969	5.2	5.4	5.2
RSEM-R6-EP-US-SD	2019-07-08 12:15	8.0	1280	82.9	81.9	82.9
RSEM-R6-EP-US-SD	2019-07-10 17:15	8.3	794	11.6	11.6	11.6
RSEM-R6-EP-US-SD	2019-07-11 17:28	8.4	742	9.2	9.1	9.2
RSEM-R6-EP-US-SD	2019-07-12 16:50	8.5	693	7.9	8	7.9
RSEM-R6-EP-US-SD	2019-07-13 15:07	8.5	671	9.3	9.2	9.3
RSEM-R6-EP-US-SD	2019-07-14 15:38	8.6	661	8	8	8
RSEM-R6-EP-US-SD	2019-07-15 14:05	8.5	662	7.5	7.5	7.5
RSEM-R6-EP-US-SD	2019-07-16 16:32	8.4	677	4.5	4.6	4.5
RSEM-R6-EP-US-SD	2019-07-17 16:10	6.4	4080	1326	1325	1326
RSEM-R6-EP-US-SD	2019-07-19 8:00	7.6	10420	OR		
RSEM-R6-EP-US-SD	2019-07-20 16:03	8.4	750	15.8	15	15.8
RSEM-R6-EP-US-SD	2019-07-23 15:02	8.4	754	15.2	15.8	15.2
RSEM-R6-EP-US-SD	2019-07-24 15:55	7.8	5730	OR		
RSEM-R6-EP-US-SD	2019-07-25 14:50	8.4	870	27.1	27.1	27.1
RSEM-R6-EP-US-SD	2019-07-26 14:30	8.6	788	27.3	27.1	27.3
RSEM-R6-EP-US-SD	2019-07-27 14:00	8.3		OR		
RSEM-R6-EP-US-SD	2019-07-29 15:25	8.7	1513	30.1	30.4	30.1
RSEM-R6-EP-US-SD	2019-07-30 15:35	8.4	940	18.8	18.1	18.8
RSEM-R6-EP-US-SD	2019-07-31 14:40	8.4	959	20.4	19.9	20.4
RSEM-R6-EP-US-SD	2019-08-01 15:06	8.4	911	11	10.5	11
RSEM-R6-EP-US-SD	2019-08-02 15:30	8.5	914	7.4	7.4	7.4
RSEM-R6-EP-US-SD	2019-08-03 14:26	8.4	884	8.9	8.8	8.9
RSEM-R6-EP-US-SD	2019-08-04 16:35	8.4	857	8.6	8.5	8.6
RSEM-R6-EP-US-SD	2019-08-05 14:12	8.4	911	9.6	9.5	9.6
RSEM-R6-EP-US-SD	2019-08-06 15:09	8.5	959	7.7	7.7	7.7
RSEM-R6-EP-US-SD	2019-08-07 14:15	8.5	1006	6	6	6
RSEM-R6-EP-US-SD	2019-08-08 16:02	8.5	1238	43.2	42.1	43.2
RSEM-R6-EP-US-SD	2019-08-09 14:25	8.3	1298	20.7	20.5	20.7
RSEM-R6-EP-US-SD	2019-08-10 14:18	8.4	1099	16.3	15.8	16.3
RSEM-R6-EP-US-SD	2019-08-11 13:10	8.4	1063	17.2	17.1	17.2
RSEM-R6-EP-US-SD	2019-08-12 15:00	8.4	804	9.3	9	9.3
RSEM-R6-EP-US-SD	2019-08-14 14:55	8.4	793	10.3	10.4	10.3
RSEM-R6-EP-US-SD	2019-08-16 14:45	8.3	1017	32.4	31.4	32.4
RSEM-R6-EP-US-SD	2019-08-18 17:05	8.2	1254	OR		
RSEM-R6-EP-US-SD	2019-08-20 14:02	8.5	1110	OR		
RSEM-R6-EP-US-SD	2019-08-22 13:50	8.5	1020	28.4	28.2	28.4
RSEM-R6-EP-US-SD	2019-08-24 11:30	8.4	1010	58.9	60	58.9
RSEM-R6-EP-US-SD	2019-08-25 13:10	8.6	873	20.1	20.3	20.1
RSEM-R6-EP-US-SD	2019-08-27 15:35	8.4	811	19	18.6	19

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6-EP-US-SD	2019-08-28 15:21	8.4	881	5.9	5.9	5.9
RSEM-R6-EP-US-SD	2019-08-29 16:20	8.4	795	7.7	7.6	7.7
RSEM-R6-EP-US-SD	2019-08-30 14:31	8.4	747	6.2	6.4	6.2
RSEM-R6-EP-US-SD	2019-08-31 12:11	8.4	752	4	4	4
RSEM-R6-EP-US-SD	2019-09-01 12:10	8.4	739	2.6	2.6	2.6
RSEM-R6-EP-US-SD	2019-09-02 12:15	8.4	732	2.5	2.5	2.5
RSEM-R6-EP-US-SD	2019-09-03 10:30	8.4	749	2	2	2
RSEM-R6-EP-US-SD	2019-09-04 17:00	8.4	818	7.1	7.2	7.1
RSEM-R6-EP-US-SD	2019-09-05 14:30	8.4	726	2.4	2.4	2.4
RSEM-R6-EP-US-SD	2019-09-06 10:45	8.4	742	2.1	2.1	2.1
RSEM-R6-EP-US-SD	2019-09-08 9:00	8.5	983	23.9	24.4	23.9
RSEM-R6-EP-US-SD	2019-09-09 12:05	8.4	918	10.7	10.4	10.7
RSEM-R6-EP-US-SD	2019-09-10 9:13	8.5	959	85.3	85.2	85.3
RSEM-R6-EP-US-SD	2019-09-11 9:37	8.5	916	5	4.9	5
RSEM-R6-EP-US-SD	2019-09-12 9:16	8.6	896	4.9	5.1	4.9
RSEM-R6-EP-US-SD	2019-09-13 9:31	8.6	856	3.2	3.3	3.2
RSEM-R6-EP-US-SD	2019-09-14 9:20	8.6	821	4.6	4.5	4.6
RSEM-R6-EP-US-SD	2019-09-15 9:26	8.3	828	5.1	5.1	5.1
RSEM-R6-EP-US-SD	2019-09-16 8:58	8.4	966	46.1	44.2	46.1
RSEM-R6-EP-US-SD	2019-09-17 12:42	8.6	1102	16.3	16.1	16.3
RSEM-R6-EP-US-SD	2019-09-18 8:50	8.4	195	7.2	7.1	7.2
RSEM-R6-EP-US-SD	2019-09-19 9:35	8.4	1082	10.1	10.1	10.1
RSEM-R6-EP-US-SD	2019-09-20 8:50	8.4	878	7.4	7.3	7.4
RSEM-R6-EP-US-SD	2019-09-20 16:00	8.5	812	7.3	7.2	7.3
RSEM-R6-EP-US-SD	2019-09-21 9:55	8.4	983	5.7	5.1	5.7
RSEM-R6-EP-US-SD	2019-09-22 8:50	8.4	841	9.3	9.1	9.3
RSEM-R6-EP-US-SD	2019-09-23 9:57	8.5	863	4.9	4.9	4.9
RSEM-R6-EP-US-SD	2019-09-24 9:30	8.6	968	3.9	4	3.9
RSEM-R6-EP-US-SD	2019-09-25 8:50	8.4	794	2.6	2.6	2.6
RSEM-R6-EP-US-SD	2019-09-26 9:05	8.4	1326	OR		
RSEM-R6-EP-US-SD	2019-09-27 10:30	7.4	862	29	30.5	29
RSEM-R6-EP-US-SD	2019-09-28 9:50	7.7	1096	5.8	6.5	5.8
RSEM-R6-EP-US-SD	2019-09-29 9:25	8.7	857	4.6	4.7	4.6
RSEM-R6-EP-US-SD	2019-09-30 8:30	7.6	926	4.5	4	4.5
RSEM-R6-EP-US-SD	2019-10-01 9:27	8.1	999	2.7	2.7	2.7
RSEM-R6-EP-US-SD	2019-10-02 13:00	8.2	960	3.1	3	3.1
RSEM-R6-EP-US-SD	2019-10-03 11:05	8.2	1042	3.4	3.4	3.4
RSEM-R6-EP-US-SD	2019-10-04 9:38	8.2	1073	16	15.8	16
RSEM-R6-EP-US-SD	2019-10-05 10:18	8.3	985	5	5	5
RSEM-R6-EP-US-SD	2019-10-06 10:02	8.4	1043	10	9.4	10
RSEM-R6-EP-US-SD	2019-10-07 9:48	8.1	1231	11.8	11.8	11.8
RSEM-R6-EP-US-SD	2019-10-08 10:30	8.5	1069	22.3	22.2	22.3
RSEM-R6-EP-US-SD	2019-10-09 10:30	8.3	909	14.1	14.3	14.1
RSEM-R6-EP-US-SD	2019-10-10 11:06	8.4	1025	8	7.9	8
RSEM-R6-EP-US-SD	2019-10-11 9:20	8.1	924	13.7	13.8	13.7
RSEM-R6-EP-US-SD	2019-10-12 9:55	8.1	1050	8.4	8.4	8.4
RSEM-R6-EP-US-SD	2019-10-13 10:00	8.7	852	9.5	9.6	9.5
RSEM-R6-EP-US-SD	2019-10-14 9:22	8.4	1006	3.8	3.7	3.8
RSEM-R6-EP-US-SD	2019-10-15 9:35	8.9	913	725	735	725
RSEM-R6-EP-US-SD	2019-10-16 10:05	7.6	605	7.6	7.6	7.6
RSEM-R6-EP-US-SD	2019-10-17 9:40	7.0	719	11.1	11	11.1
RSEM-R6-EP-US-SD	2019-10-18 10:30	8.5	584	4	3.9	4
RSEM-R6-EP-US-SD	2019-10-19 10:05	8.3	735	773	775	773
RSEM-R6-EP-US-SD	2019-10-20 11:30	8.6	755	88.5	89.1	88.5
RSEM-R6-EP-US-SD	2019-10-21 8:40	8.6	720	25.1	23.4	25.1
RSEM-R6-EP-US-SD	2019-10-22 9:55	7.7	769	121	119	121
RSEM-R6-EP-US-SD	2019-10-23 10:20	8.6	750	6.6	6.2	6.6
RSEM-R6-EP-US-SD	2019-10-24 10:20	8.4	748	8	7.6	8
RSEM-R6-EP-US-SD	2019-10-25 9:33	8.4	893	OR		
RSEM-R6-EP-US-SD	2019-10-26 9:43	8.6	807	17.2	17.4	17.2
RSEM-R6-EP-US-SD	2019-10-27 9:50	8.4	888	19.4	19.3	19.4
RSEM-R6-EP-US-SD	2019-10-28 0:16	8.7	744	9.6	9.4	9.6
RSEM-R6-EP-US-SD	2019-10-29 9:45	8.6	751	24.8	23.8	24.8
RSEM-R6-EP-US-SD	2019-10-30 10:00	8.3	782	28.7	29.3	28.7
RSEM-R6-EP-US-SD	2019-10-31 10:10	8.2	782	8.4	8.2	8.4

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6-EP-US-SD	2019-11-01 17:00	8.5	808	92.8	92.8	92.8
RSEM-R6-EP-US-SD	2019-11-02 11:30	8.0	703	30.1	30.4	30.1
RSEM-R6-EP-US-SD	2019-11-03 11:30	7.6	950	13.3	14	13.3
RSEM-R6-EP-US-SD	2019-11-04 10:45	7.8	784	29.3	29.1	29.3
RSEM-R6-EP-US-SD	2019-11-05 12:35	8.0	1016	12.4	12.3	12.4
RSEM-R6-EP-US-SD	2019-11-06 13:12	8.6	1409	10.9	10.9	10.9
RSEM-R6-EP-US-SD	2019-11-07 10:00	8.3	934	93.5	94.2	93.5
RSEM-R6-EP-US-SD	2019-11-08 9:00	8.5	1041	14	14	14
RSEM-R6-EP-US-SD	2019-11-09 9:45	8.6	766	23.4	24.1	23.4
RSEM-R6-EP-US-SD	2019-11-13 9:15	8.4	811	6.8	6.7	6.8
RSEM-R6-EP-US-SD	2019-11-14 9:07	8.0	847	3.8	3.9	3.8
RSEM-R6-EP-US-SD	2019-11-15 9:25	8.0	823	2	2	2
RSEM-R6-EP-US-SD	2019-11-16 9:10	8.3	841	2.6	2.7	2.6
RSEM-R6-EP-US-SD	2019-11-17 10:30	8.4	814	4.5	4.6	4.5
RSEM-R6-EP-US-SD	2019-11-18 10:08	8.2	1135	57.3	57.3	57.3
RSEM-R6-EP-US-SD	2019-11-19 10:45	8.7	1215	71.9	71.6	71.9
RSEM-R6-EP-US-SD	2019-11-20 9:30	8.2	959	13.4	11.6	13.4
RSEM-R6-EP-US-SD	2019-11-21 12:30	8.7	888	65.8	65.9	65.8
RSEM-R6-EP-US-SD	2019-11-22 11:45	8.7	900	13.2	13.2	13.2
RSEM-R6-EP-US-SD	2019-11-23 2:40	8.5	952	6.9	6.7	6.9
RSEM-R6-EP-US-SD	2019-11-24 13:25	8.7	920	4.3	4.3	4.3
RSEM-R6-EP-US-SD	2019-11-25 15:20	8.5	882	22.4	22.2	22.4
RSEM-R6-EP-US-SD	2019-11-26	8.7	1088	55.4	59.6	55.4
RSEM-R6-EP-US-SD	2019-11-27 13:30	7.8	929	12	11.9	12
RSEM-R6-EP-US-SD	2019-11-28 11:40	8.6	989	14.2	13.4	14.2
RSEM-R6-EP-US-SD	2019-11-29 15:15	8.4	1039	13.2	13.1	13.2
RSEM-R6-EP-US-SD	2019-12-01 11:00	8.0	1169	6.4	6.4	6.4
RSEM-R6-EP-US-SD	2019-12-03 10:05	7.9	874	12.3	12.1	12.3
RSEM-R6-EP-US-SD	2019-12-05 10:20	8.2	861	18.9	18.8	18.9
RSEM-R6-EP-US-SD	2019-12-06 10:17	8.1	906	18.6	18.1	18.6
RSEM-R6-EP-US-SD	2019-12-09 9:25	8.1	915	7.1	7.1	7.1
RSEM-R6-EP-US-SD	2019-12-10 12:40	8.1	867	11.7	11.6	11.7
RSEM-R6-EP-US-SD	2019-12-11 12:20	8.2	871	16.1	16.2	16.1
RSEM-R6-EP-US-SD	2019-12-12 13:50	8.1	884	43.6	42.7	43.6
RSEM-R6-EP-US-SD	2019-12-13 11:35	9.1	1806	102.6	101.4	102.6
RSEM-R6-EP-US-SD	2019-12-14 13:10	7.9	1092	73.1	72.1	73.1
RSEM-R6-EP-US-SD	2019-12-15 15:25	7.8	1160	49.3	49.1	49.3
RSEM-R6-EP-US-SD	2019-12-16 15:00	7.6	933	50.7	50.5	50.7
RSEM-R6-EP-US-SD	2019-12-17 10:55	7.9	1025	36	35.9	36
RSEM-R6-EP-US-SD	2019-12-18 11:00	8.4	917	13	12.8	13
RSEM-R6-EP-US-SD	2019-12-19 10:45	8.1	1161	21.2	21.2	21.2
RSEM-R6-EP-US-SD	2019-12-20 10:05	8.7	1204	34.8	34.6	34.8
RSEM-R6-EP-US-SD	2019-12-23 9:00	9.1	1100	52.4	52.5	52.4
RSEM-R6-EP-US-SD	2019-12-24 13:20	8.3	1516	54.7	54.8	54.7
RSEM-R6-EP-US-SD	2019-12-25 10:50	8.4	1774	38.8	30	38.8
RSEM-R6-EP-US-SD	2019-12-26 10:40	8.1	2200	10	9.4	10
RSEM-R6-EP-US-SD	2019-12-27 12:45	8.1	1116	62.8	63	62.8
RSEM-R6-EP-US-SD	2019-12-28 10:00	8.7	952	10.4	10.5	10.4
RSEM-R6-EP-US-SD	2019-12-29 11:00	8.2	896	2.3	1.9	2.3
RSEM-R6-EP-US-SD	2019-12-30 12:40	8.3	889	6.5	6.3	6.5
RSEM-R6-EP-US-SD	2019-12-31 13:00	8.4	974	8.4	7.9	8.4
RSEM-R6E-SP	2019-01-01 12:40	7.8	1153	1	1	1
RSEM-R6E-SP	2019-01-02 12:20	7.8	1093	2.3	2.2	2.3
RSEM-R6E-SP	2019-01-03 13:45	8.0	1034	1.2	1.2	1.2
RSEM-R6E-SP	2019-01-04 12:45	8.0	1034	13.1	12.5	13.1
RSEM-R6E-SP	2019-01-05 13:15	8.0	1067	1	1.1	1
RSEM-R6E-SP	2019-01-06 12:00	8.0	1014	2	2	2
RSEM-R6E-SP	2019-01-07 10:30	8.1	1071	1.4	1.4	1.4
RSEM-R6E-SP	2019-01-08 11:30	8.1	1051	1.4	1.3	1.4
RSEM-R6E-SP	2019-01-09 11:20	8.1	1014	3	2.9	3
RSEM-R6E-SP	2019-01-10 11:30	7.5	1047	1.5	1.5	1.5
RSEM-R6E-SP	2019-01-11 12:20	7.9	772	2	1.8	2
RSEM-R6E-SP	2019-01-12 10:55	8.0	1046	6.2	6.3	6.2
RSEM-R6E-SP	2019-01-13 11:00	8.0	1042	2.8	3.3	2.8
RSEM-R6E-SP	2019-01-14 11:25	8.0	950	0.9	0.9	0.9

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6E-SP	2019-01-15 11:35	7.8	1030	1	1.2	1
RSEM-R6E-SP	2019-01-16 11:40	8.0	1106	3.8	3.7	3.8
RSEM-R6E-SP	2019-01-17 11:15	7.8	1265	3.1	3.1	3.1
RSEM-R6E-SP	2019-01-18 10:30	7.8	1343	3	3	3
RSEM-R6E-SP	2019-01-19 12:25	7.9	1410	1.4	1.4	1.4
RSEM-R6E-SP	2019-01-20 11:39	8.0	1328	2.3	2.3	2.3
RSEM-R6E-SP	2019-01-21 13:20	7.9	1429	0.9	0.9	0.9
RSEM-R6E-SP	2019-01-22 12:15	7.8	1444	3.5	3.6	3.5
RSEM-R6E-SP	2019-01-23 12:15	7.9	1486	1.7	1.6	1.7
RSEM-R6E-SP	2019-01-24 13:35	8.0	1265	6.6	6.8	6.6
RSEM-R6E-SP	2019-01-25 11:00	9.0	256	6.3	5.9	6.3
RSEM-R6E-SP	2019-01-26 16:00	8.2	786	3.7	4	3.7
RSEM-R6E-SP	2019-01-27 13:10	8.5	394	20	20.1	20
RSEM-R6E-SP	2019-01-28 12:15	8.2	456	40.1	40.1	40.1
RSEM-R6E-SP	2019-01-29 11:35	8.3	486	10	10	10
RSEM-R6E-SP	2019-01-30 13:00	8.2	491	10.9	10.6	10.9
RSEM-R6E-SP	2019-01-31 12:25	8.0	515	7.5	7.3	7.5
RSEM-R6E-SP	2019-02-01 11:15	8.4	555	7	6.9	7
RSEM-R6E-SP	2019-02-02 12:00	8.0	599	6.8	6.8	6.8
RSEM-R6E-SP	2019-02-03 11:30	8.0	639	5.5	5.4	5.5
RSEM-R6E-SP	2019-02-04 12:30	7.9	707	5.1	4.9	5.1
RSEM-R6E-SP	2019-02-05 10:30	8.0	711	4.5	4.6	4.5
RSEM-R6E-SP	2019-02-06 13:25	8.2	845	4.2	4.1	4.2
RSEM-R6E-SP	2019-02-07 11:00	8.2	907	3.6	3.4	3.6
RSEM-R6E-SP	2019-02-08 11:00	8.3	1000	2.9	2.9	2.9
RSEM-R6E-SP	2019-02-09 13:00	7.9	1049	2.8	2.9	2.8
RSEM-R6E-SP	2019-02-10 13:30	8.0	1100	2.9	3.2	2.9
RSEM-R6E-SP	2019-02-11 13:55	8.1	1163	3	2.3	3
RSEM-R6E-SP	2019-02-12 13:17	8.0	1121	2	1.9	2
RSEM-R6E-SP	2019-02-13 11:35	8.0	1221	1.5	1.5	1.5
RSEM-R6E-SP	2019-02-14 11:37	8.0	1302	1.3	1.3	1.3
RSEM-R6E-SP	2019-02-15 11:25	8.0	1321	1.3	1.3	1.3
RSEM-R6E-SP	2019-02-16 12:30	7.8	1376	1.2	1.2	1.2
RSEM-R6E-SP	2019-02-17 12:17	7.8	1385	3.2	3.3	3.2
RSEM-R6E-SP	2019-02-18 13:25	7.7	1534	19.6	23.3	19.6
RSEM-R6E-SP	2019-02-19 11:30	7.7	1488	12.7	12.8	12.7
RSEM-R6E-SP	2019-02-20 11:20	7.8	1520	1.9	1.9	1.9
RSEM-R6E-SP	2019-02-21 10:45	7.8	1506	9.9	9.6	9.9
RSEM-R6E-SP	2019-02-22 11:10	7.5	1560	8.4	8.4	8.4
RSEM-R6E-SP	2019-02-23 12:10	7.9	1520	7.4	7.5	7.4
RSEM-R6E-SP	2019-02-24 12:00	8.0	1609	5.7	5.8	5.7
RSEM-R6E-SP	2019-02-25 12:55	7.9	1576	7.9	7.9	7.9
RSEM-R6E-SP	2019-02-26 11:15	8.0	1590	10.4	10.4	10.4
RSEM-R6E-SP	2019-02-27 11:10	8.0	1607	12.3	12.1	12.3
RSEM-R6E-SP	2019-02-28 11:45	8.0	1409	8.4	8.4	8.4
RSEM-R6E-SP	2019-03-01 11:35	7.7	1684	17.1	16.7	17.1
RSEM-R6E-SP	2019-03-02 11:50	7.7	1501	4	4	4
RSEM-R6E-SP	2019-03-03 13:45	7.7	1600	6.8	7.1	6.8
RSEM-R6E-SP	2019-03-04 16:15	7.6	1567	4	4	4
RSEM-R6E-SP	2019-03-05 12:25	7.4	1818	4	4.2	4
RSEM-R6E-SP	2019-03-06 13:15	7.6	1844	3.2	3.3	3.2
RSEM-R6E-SP	2019-03-07 13:15	7.6	1871	3.6	3.5	3.6
RSEM-R6E-SP	2019-03-08 11:57	7.5	1188	3.3	3.4	3.3
RSEM-R6E-SP	2019-03-09 11:47	7.4	1828	3.5	3.4	3.5
RSEM-R6E-SP	2019-03-10 12:15	7.5	1963	3.9	3.6	3.9
RSEM-R6E-SP	2019-03-11 12:30	7.6	1328	8.2	8.2	8.2
RSEM-R6E-SP	2019-03-12 11:15	8.3	220	25.3	25.2	25.3
RSEM-R6E-SP	2019-03-13 11:18	8.2	553	33	32.7	33
RSEM-R6E-SP	2019-03-15 11:00	9.0	581	17.6	17.6	17.6
RSEM-R6E-SP	2019-04-22 12:55	8.6	591	10.4	9.8	10.4
RSEM-R6E-SP	2019-05-25 12:35	8.1	811	7.8	7.5	7.8
RSEM-R6E-SP	2019-05-26 14:25	8.4	808	6.9	6.8	6.9
RSEM-R6E-SP	2019-05-28 11:10	8.4	802	6.6	7	6.6
RSEM-R6E-SP	2019-05-29 11:32	8.5	791	7.5	7.6	7.5
RSEM-R6E-SP	2019-05-30 12:37	8.4	793	6.5	6.5	6.5

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6E-SP	2019-05-31 10:15	8.4	791	6.9	6.8	6.9
RSEM-R6E-SP	2019-06-01 11:22	8.5	784	11.8	11.9	11.8
RSEM-R6E-SP	2019-06-02 9:43	8.6	776	10.6	10.6	10.6
RSEM-R6E-SP	2019-06-03 9:25	8.4	714	10.6	10.6	10.6
RSEM-R6E-SP	2019-06-04 11:50	8.6	822	7.6	7.4	7.6
RSEM-R6E-SP	2019-06-05 12:15	8.6	817	5.4	5.2	5.4
RSEM-R6E-SP	2019-06-06 12:34	8.6	816	6	6	6
RSEM-R6E-SP	2019-06-07 12:30	8.7	828	4.9	5.1	4.9
RSEM-R6E-SP	2019-06-10 14:05	8.4	928	9.3	9.3	9.3
RSEM-R6E-SP	2019-06-11 12:25	8.6	918	8.4	8.2	8.4
RSEM-R6E-SP	2019-06-13 12:20	8.8	804	7.7	7.6	7.7
RSEM-R6E-SP	2019-06-17 14:50	7.4	778	5.4	5.3	5.4
RSEM-R6E-SP	2019-06-18 12:25	8.0	781	7.3	7.4	7.3
RSEM-R6E-SP	2019-06-19 11:55	8.8	775	7.9	7.9	7.9
RSEM-R6E-SP	2019-06-20 11:45	8.9	779	8.3	8.3	8.3
RSEM-R6E-SP	2019-06-21 9:25	7.6	792	8	7.9	8
RSEM-R6E-SP	2019-06-22 11:15	7.1	793	6.5	6.5	6.5
RSEM-R6E-SP	2019-06-23 11:20	8.2	786	6.9	6.8	6.9
RSEM-R6E-SP	2019-09-20 15:00	8.5	825	6.6	6.7	6.6
RSEM-R6E-SP	2019-09-27 5:00	8.4	819	9.4	9.6	9.4
RSEM-R6E-SP	2019-10-20 10:45	8.5	777	30.1	30.2	30.1
RSEM-R6E-SP	2019-10-22 15:25	8.6	752	15.7	15.8	15.7
RSEM-R6E-SP	2019-10-23 13:30	8.6	762	7	7	7
RSEM-R6E-SP	2019-10-24 16:25	8.4	772	11.8	11.8	11.8
RSEM-R6E-SP	2019-11-03 14:00	7.6	1623	14.9	14.8	14.9
RSEM-R6E-SP	2019-11-03 17:00	7.1	1600	12.3	12.3	12.3
RSEM-R6E-SP-US	2019-01-04 12:15	8.0	1031	2907	2927	2907
RSEM-R6E-SP-US	2019-01-09 11:01	8.1	865	60.2	59.8	60.2
RSEM-R6E-SP-US	2019-01-13 10:40	8.0	799	23.3	22.5	23.3
RSEM-R6E-SP-US	2019-02-19 11:15	7.7	707	2.3	2.2	2.3
RSEM-R6E-SP-US	2019-02-20 11:15	8.3	636	1.9	1.9	1.9
RSEM-R6E-SP-US	2019-02-23 12:00	8.4	867	5.4	5.4	5.4
RSEM-R6E-SP-US	2019-02-24 11:45	8.4	852	1.7	1.7	1.7
RSEM-R6E-SP-US	2019-02-25 15:50	8.7	860	6.6	6.1	6.6
RSEM-R6E-SP-US	2019-02-26 10:55	8.7	878	2.5	2.4	2.5
RSEM-R6E-SP-US	2019-02-28 11:40	8.8	793	4.8	3.1	4.8
RSEM-R6E-SP-US	2019-03-03 13:30	8.2	910	4.6	4.6	4.6
RSEM-R6E-SP-US	2019-03-12 9:35	8.4	719	29.8	30.5	29.8
RSEM-R6E-SP-US	2019-03-20 1:50	7.6	478	1.7	1.7	1.7
RSEM-R6E-SP-US	2019-04-04 13:15	8.5	876	18.7	18.2	18.7
RSEM-R6E-SP-US	2019-04-14 13:00	8.2	1270	OR		
RSEM-R6E-SP-US	2019-06-20 15:30	8.6	715	6.9	6.5	6.9
RSEM-R6E-SP-US	2019-07-02 15:00	8.1	3210	58	60	58
RSEM-R6E-SP-US	2019-08-19 7:44	8.1	1311	OR		
RSEM-R6E-SP-US	2019-09-07 10:45	8.3	836	6.4	6.3	6.4
RSEM-R6-SP	2019-05-13 12:32	8.3	821	6	6.1	6
RSEM-R6-SP	2019-05-27 12:30	8.4	8110	6.9	6.7	6.9
RSEM-R6-SP	2019-06-19 13:25	8.4	1784	4.4	4.5	4.4
RSEM-R6-SP	2019-06-20 12:55	8.6	1791	4.1	4.1	4.1
RSEM-R6-SP	2019-06-21 10:35	8.5	1814	3.7	3.7	3.7
RSEM-R6-SP	2019-06-21 15:45	8.6	702	9.4	9.7	9.4
RSEM-R6W-EOP	2019-01-27 12:40	8.5	1675	14.2	14.3	14.2
RSEM-R6W-EOP	2019-01-28 11:55	8.2	1656	19.9	20	19.9
RSEM-R6W-EOP	2019-01-29 11:22	8.0	1586	13.6	13.5	13.6
RSEM-R6W-EOP	2019-01-29 15:44	8.2	1460	14.8	14.8	14.8
RSEM-R6W-EOP	2019-03-26 13:40	8.5	858	82.4	82.6	82.4
RSEM-R6W-EOP	2019-03-27 15:05	8.3	1046	32.6	33.3	32.6
RSEM-R6W-EOP	2019-03-28 12:45	7.9	1058	19.3	19.4	19.3
RSEM-R6W-EOP	2019-03-29 9:40	7.9	1090	15.1	15.1	15.1
RSEM-R6W-EOP	2019-03-30 12:55	7.8	1170	5.4	5.4	5.4
RSEM-R6W-EOP	2019-03-31 13:05	7.7	1131	8	7.8	8
RSEM-R6W-EOP	2019-04-01 13:40	7.8	1251	4.8	4.8	4.8
RSEM-R6W-EOP	2019-04-02 9:55	7.9	1288	7.8	7.8	7.8
RSEM-R6W-EOP	2019-04-03 12:35	8.0	1315	8.4	8.6	8.4
RSEM-R6W-EOP	2019-04-04 13:08	8.0	1314	8	7.8	8

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6W-EOP	2019-04-05 9:37	7.7	1379	9.2	9.4	9.2
RSEM-R6W-EOP	2019-04-06 12:20	8.1	1319	11.6	11.7	11.6
RSEM-R6W-EOP	2019-04-07 13:21	8.4	1405	7	7.1	7
RSEM-R6W-EOP	2019-04-08 10:05	8.3	1601	6.2	6.3	6.2
RSEM-R6W-EOP	2019-04-09 12:33	8.3	1612	8.3	8.2	8.3
RSEM-R6W-EOP	2019-04-10 12:36	8.3	1616	8.6	8.5	8.6
RSEM-R6W-EOP	2019-04-11 13:42	8.2	1536	15.6	16	15.6
RSEM-R6W-EOP	2019-04-12 10:56	8.3	1478	12.6	12.6	12.6
RSEM-R6W-EOP	2019-04-13 12:48	8.4	1401	10.2	9.9	10.2
RSEM-R6W-EOP	2019-04-14 13:30	8.5	1384	8.1	8	8.1
RSEM-R6W-EOP	2019-04-15 14:30	8.5	1199	5.9	5.9	5.9
RSEM-R6W-EOP	2019-04-16 10:00	8.5	131.3	4.8	4.8	4.8
RSEM-R6W-EOP	2019-04-26 11:20	8.7	1437	11.2	11.2	11.2
RSEM-R6W-EOP	2019-04-27 13:00	8.4	1302	6.3	6.4	6.3
RSEM-R6W-EOP	2019-04-28 12:45	8.4	1288	5.6	5.7	5.6
RSEM-R6W-EOP	2019-04-29	8.4	1280	5.8	5.5	5.8
RSEM-R6W-EOP	2019-04-30 14:15	8.4	1296	10	10	10
RSEM-R6W-EOP	2019-05-01 13:10	8.6	1291	8	7.7	8
RSEM-R6W-EOP	2019-05-02 14:00	8.4	1300	5.7	5.6	5.7
RSEM-R6W-EOP	2019-05-03 9:25	8.5	1365	6	6	6
RSEM-R6W-EOP	2019-05-04 9:40	8.6	1428	9.4	9.4	9.4
RSEM-R6W-EOP	2019-05-05 13:00	8.6	1414	9.4	9.5	9.4
RSEM-R6W-EOP	2019-05-06 12:28	8.6	1282	8.6	8.6	8.6
RSEM-R6W-EOP	2019-05-07 12:15	8.4	1268	8.2	8	8.2
RSEM-R6W-EOP	2019-05-08 13:28	8.4	1179	13.2	12.8	13.2
RSEM-R6W-EOP	2019-05-09 13:04	8.1	1206	12	12.8	12
RSEM-R6W-EOP	2019-05-10 9:42	8.2	1165	9.4	9	9.4
RSEM-R6W-EOP	2019-05-13 12:45	8.6	1236	8.5	8.5	8.5
RSEM-R6W-EOP	2019-05-14 12:45	8.6	1236	8.5	8.5	8.5
RSEM-R6W-EOP	2019-05-15 13:02	8.6	1050	16	15.9	16
RSEM-R6W-EOP	2019-05-16 13:14	8.0	1086	20	20.1	20
RSEM-R6W-EOP	2019-05-17 9:11	8.2	1155	14.9	14.9	14.9
RSEM-R6W-EOP	2019-05-19 9:23	8.3	1050	13.8	13.6	13.8
RSEM-R6W-EOP	2019-05-20 13:00	8.6	942	29.6	29.1	29.6
RSEM-R6W-EOP	2019-05-21 13:05	8.7	767	15.2	15.2	15.2
RSEM-R6W-EOP	2019-05-23 12:50	8.5	715	13.4	13.6	13.4
RSEM-R6W-EOP	2019-05-24 11:45	8.1	710	17	16.7	17
RSEM-R6W-EOP	2019-05-25 12:50	8.1	690	14.7	14.9	14.7
RSEM-R6W-EOP	2019-05-26 14:35	8.4	685	11.5	11.6	11.5
RSEM-R6W-EOP	2019-05-27 12:40	7.9	689	11	10.8	11
RSEM-R6W-EOP	2019-05-28 11:25	7.9	682	9.1	9.2	9.1
RSEM-R6W-EOP	2019-05-29 11:20	8.0	682	9.7	10	9.7
RSEM-R6W-EOP	2019-05-30 12:24	8.1	660	9.4	9.5	9.4
RSEM-R6W-EOP	2019-05-31 10:05	8.0	659	9.5	9.5	9.5
RSEM-R6W-EOP	2019-06-01 11:09	8.1	654	8	8.7	8
RSEM-R6W-EOP	2019-06-02 9:30	8.2	691	8.8	8.8	8.8
RSEM-R6W-EOP	2019-06-03 9:12	8.2	734	11	11.1	11
RSEM-R6W-EOP	2019-06-04 12:15	8.3	698	15.3	14.7	15.3
RSEM-R6W-EOP	2019-06-05 12:03	8.3	714	13.2	13.4	13.2
RSEM-R6W-EOP	2019-06-06 12:22	8.2	747	9.3	9.2	9.3
RSEM-R6W-EOP	2019-06-07 12:22	8.3	780	8.3	9.1	8.3
RSEM-R6W-EOP	2019-06-08 11:34	8.4	769	11.7	11.4	11.7
RSEM-R6W-EOP	2019-06-09 11:30	8.4	740	12.1	11.6	12.1
RSEM-R6W-EOP	2019-06-10 14:15	8.1	8560	9.3	9.3	9.3
RSEM-R6W-EOP	2019-06-11 12:35	8.3	895	8.6	8.2	8.6
RSEM-R6W-EOP	2019-06-13 12:30	8.5	804	7.7	7.6	7.7
RSEM-R6W-EOP	2019-06-14 10:20	8.6	678	5.6	5.6	5.6
RSEM-R6W-EOP	2019-06-15 12:40	8.5	730	6.4	6.4	6.4
RSEM-R6W-EOP	2019-06-16 12:45	8.5	685	4.9	4.9	4.9
RSEM-R6W-EOP	2019-06-17 13:10	8.5	737	4.6	4.6	4.6
RSEM-R6W-EOP	2019-06-18 12:55	8.5	742	8	7.9	8
RSEM-R6W-EOP	2019-06-19 12:25	8.5	758	6.4	6.4	6.4
RSEM-R6W-EOP	2019-06-20 12:15	8.5	807	7	7.1	7
RSEM-R6W-EOP	2019-06-22 12:00	8.4	838	5.5	5.6	5.5
RSEM-R6W-EOP	2019-06-23 12:00	8.5	844	4.8	4.8	4.8

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6W-EOP	2019-06-24 13:01	8.4	902	24.2	24.3	24.2
RSEM-R6W-EOP	2019-06-25 12:30	8.4	935	23.2	23.3	23.2
RSEM-R6W-EOP	2019-06-26 12:45	8.3	985	24.7	24.3	24.7
RSEM-R6W-EOP	2019-06-27 12:50	8.3	976	15.5	15.6	15.5
RSEM-R6W-EOP	2019-06-28 7:03	8.4	961	14.7	15.1	14.7
RSEM-R6W-EOP	2019-06-29 14:40	8.3	960	20.8	20.9	20.8
RSEM-R6W-EOP	2019-06-30 14:12	8.3	979	29.3	29.4	29.3
RSEM-R6W-EOP	2019-07-01 13:45	8.4	9730	47.3	47.7	47.3
RSEM-R6W-EOP	2019-07-02 13:40	8.5	996	80.7	80.5	80.7
RSEM-R6W-EOP	2019-07-03 12:15	8.2	1048	64	63.7	64
RSEM-R6W-EOP	2019-07-04 12:40	7.8	1126	37.1	37	37.1
RSEM-R6W-EOP	2019-07-05 10:27	7.9	1148	31.8	31.2	31.8
RSEM-R6W-EOP	2019-07-06 13:24	8.4	1223	29.8	28.7	29.8
RSEM-R6W-EOP	2019-07-07 9:05	8.4	950	14.7	13.1	14.7
RSEM-R6W-EOP	2019-07-08 9:30	8.4	985	15.5	15.7	15.5
RSEM-R6W-EOP	2019-07-10 11:35	8.2	1129	20.9	20.9	20.9
RSEM-R6W-EOP	2019-07-11 11:55	8.2	1115	18.5	18.2	18.5
RSEM-R6W-EOP	2019-07-12 10:30	8.3	1086	16.1	16.1	16.1
RSEM-R6W-EOP	2019-07-13 12:30	8.4	1068	15.8	16.3	15.8
RSEM-R6W-EOP	2019-07-14 13:00	8.4	1056	16.3	16.2	16.3
RSEM-R6W-EOP	2019-07-15 11:20	8.4	1026	14.4	14.3	14.4
RSEM-R6W-EOP	2019-07-16 11:05	8.4	1015	12.5	12.4	12.5
RSEM-R6W-EOP	2019-07-17 13:00	8.5	1011	9.8	9.8	9.8
RSEM-R6W-EOP	2019-07-18 12:35	8.5	999	13.4	13.3	13.4
RSEM-R6W-EOP	2019-07-19 12:00	8.4	1007	12.7	12.6	12.7
RSEM-R6W-EOP	2019-07-20 13:35	8.5	1004	14.1	14	14.1
RSEM-R6W-EOP	2019-07-21 12:00	8.5	1007	16.6	16.2	16.6
RSEM-R6W-EOP	2019-07-22 12:09	8.5	927	15.8	16.6	15.8
RSEM-R6W-EOP	2019-07-23 13:25	8.4	962	12.2	12.3	12.2
RSEM-R6W-EOP	2019-07-24 12:30	8.4	969	14.8	15.2	14.8
RSEM-R6W-EOP	2019-07-25 12:35	8.6	999	16.8	16.5	16.8
RSEM-R6W-EOP	2019-07-26 9:42	8.6	1040	17.1	17.2	17.1
RSEM-R6W-EOP	2019-07-27 11:30	8.5	1006	25.6	25.8	25.6
RSEM-R6W-EOP	2019-07-28 12:00	8.7	1200	20	20.2	20
RSEM-R6W-EOP	2019-07-29 8:40	8.7	1191	16	16	16
RSEM-R6W-EOP	2019-07-30 11:50	8.4	1288	18.6	18.4	18.6
RSEM-R6W-EOP	2019-07-31 11:20	8.5	1262	13.6	13.7	13.6
RSEM-R6W-EOP	2019-08-01 12:00	8.4	1242	11.4	11.4	11.4
RSEM-R6W-EOP	2019-08-02 9:50	8.4	1207	12.3	12.2	12.3
RSEM-R6W-EOP	2019-08-03 12:05	8.4	1210	8.9	9	8.9
RSEM-R6W-EOP	2019-08-04 13:30	8.6	1224	9.4	9.3	9.4
RSEM-R6W-EOP	2019-08-05 11:40	8.6	1227	6.8	6.8	6.8
RSEM-R6W-EOP	2019-08-06 11:55	8.5	1224	8.2	8.1	8.2
RSEM-R6W-EOP	2019-08-07 13:25	8.5	1239	11.7	11.7	11.7
RSEM-R6W-EOP	2019-08-08 12:15	8.4	1233.1	6.6	6.6	6.6
RSEM-R6W-EOP	2019-08-09 10:40	8.5	1229	8.6	8.7	8.6
RSEM-R6W-EOP	2019-08-10 12:30	8.4	1253	9.7	9.8	9.7
RSEM-R6W-EOP	2019-08-11 11:40	8.4	1259	5.7	5.7	5.7
RSEM-R6W-EOP	2019-08-12 14:45	8.6	931	9.8	9.6	9.8
RSEM-R6W-EOP	2019-08-13 13:55	8.5	940	13.1	13	13.1
RSEM-R6W-EOP	2019-08-14 14:35	8.6	1031	21.3	20.9	21.3
RSEM-R6W-EOP	2019-08-15 10:20	8.3	936	16.2	16.4	16.2
RSEM-R6W-EOP	2019-08-16 10:35	8.4	908	52	52	52
RSEM-R6W-EOP	2019-08-17 10:10	8.5	907	66	65	66
RSEM-R6W-EOP	2019-08-18 14:05	8.2	912	94	94	94
RSEM-R6W-EOP	2019-08-23 9:55	8.4	1008	31.9	32.4	31.9
RSEM-R6W-EOP	2019-08-24 11:10	8.2	1042	29.5	30.2	29.5
RSEM-R6W-EOP	2019-08-25 12:10	8.4	1078	25.4	25.2	25.4
RSEM-R6W-EOP	2019-08-26 12:25	8.0	1047	23.3	23.4	23.3
RSEM-R6W-EOP	2019-08-27 12:50	8.2	1138	14.3	14.3	14.3
RSEM-R6W-EOP	2019-08-28 13:05	8.2	1125	12.5	12.5	12.5
RSEM-R6W-EOP	2019-08-29 14:40	8.2	1142	11.1	11.1	11.1
RSEM-R6W-EOP	2019-08-30 10:15	8.3	1142	11.4	11.4	11.4
RSEM-R6W-EOP	2019-08-31 12:15	8.2	990	10.2	10.2	10.2
RSEM-R6W-EOP	2019-09-01 12:15	8.1	1063	8.4	8.6	8.4



Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6W-EOP	2019-09-02 11:40	8.2	1044	7.7	7.7	7.7
RSEM-R6W-EOP	2019-09-03 13:15	8.1	1055	8.6	8.5	8.6
RSEM-R6W-EOP	2019-09-04 13:50	8.2	1004	7.4	7.4	7.4
RSEM-R6W-EOP	2019-09-05 12:50	8.1	988	8.7	8.7	8.7
RSEM-R6W-EOP	2019-09-06 13:40	8.2	949	7.3	7.4	7.3
RSEM-R6W-EOP	2019-09-07 12:40	8.0	924	8.7	8.7	8.7
RSEM-R6W-EOP	2019-09-08 13:40	8.2	870	19	19	19
RSEM-R6W-EOP	2019-09-09 10:20	8.1	833	20.6	20.6	20.6
RSEM-R6W-EOP	2019-09-10 11:55	8.0	956	17.9	17.9	17.9
RSEM-R6W-EOP	2019-09-11 12:40	8.3	806	16.9	16.9	16.9
RSEM-R6W-EOP	2019-09-12 11:35	8.3	837	16.8	16.8	16.8
RSEM-R6W-EOP	2019-09-13 13:05	8.4	833	16.1	16.1	16.1
RSEM-R6W-EOP	2019-09-14 12:15	8.2	834	19.4	19.5	19.4
RSEM-R6W-EOP	2019-09-15 11:50	8.2	836	18.7	18.6	18.7
RSEM-R6W-EOP	2019-09-16 13:05	8.2	804	109.3	109.3	109.3
RSEM-R6W-EOP	2019-09-20 11:10	8.4	780	37.3	37.4	37.3
RSEM-R6-WP-IN	2019-01-03 15:26	7.3	1470	72.4	72.8	72.4
RSEM-R6-WP-IN	2019-01-21 13:48	8.7	1528	24.7	24.9	24.7
RSEM-R6-WP-IN	2019-01-23 13:38	8.8	1536	39.5	40.2	39.5
RSEM-R6-WP-IN	2019-01-27 13:36	7.4	1259	99.5	99.5	99.5
RSEM-R6-WP-IN	2019-01-28 12:40	7.5	1339	78	78	78
RSEM-R6-WP-IN	2019-01-29 15:24	9.0	1417	67.5	67.4	67.5
RSEM-R6-WP-IN	2019-02-07 11:40	9.8	1164	51.7	51.7	51.7
RSEM-R6-WP-IN	2019-02-20 11:45	9.4	1355	675	673	675
RSEM-R6-WP-IN	2019-03-26 12:50	7.8	1503	OR		
RSEM-R6-WP-IN	2019-03-28 11:45	7.8	1458	29.7	29.4	29.7
RSEM-R6-WP-IN	2019-03-30 12:20	8.1	1575	79.4	83	79.4
RSEM-R6-WP-IN	2019-04-02 9:10	8.9	1395	49.4	49.2	49.4
RSEM-R6-WP-IN	2019-04-03 12:10	8.2	1381	58.1	58.1	58.1
RSEM-R6-WP-IN	2019-04-05 14:03	8.6	1347	6.1	6	6.1
RSEM-R6-WP-IN	2019-04-06 11:52	8.6	1320	3.9	3.9	3.9
RSEM-R6-WP-IN	2019-04-07 12:41	9.0	2040	643	644	643
RSEM-R6-WP-IN	2019-04-08 8:51	7.3	1395	2.4	2.4	2.4
RSEM-R6-WP-IN	2019-04-09 11:52	7.6	1278	2.7	2.7	2.7
RSEM-R6-WP-IN	2019-04-10 12:05	7.5	1252	4.2	4.2	4.2
RSEM-R6-WP-IN	2019-04-11 13:03	8.4	1314	1230	1230	1230
RSEM-R6-WP-IN	2019-04-12 14:52	8.9	1289	1120	1119	1120
RSEM-R6-WP-IN	2019-04-13 12:04	8.9	1312	OR		
RSEM-R6-WP-IN	2019-04-15 13:15	7.6	1018	37.8	37.7	37.8
RSEM-R6-WP-IN	2019-05-06 12:27	8.4	1072	57	58	57
RSEM-R6-WP-IN	2019-05-19 13:52	9.2	711	37	36	37
RSEM-R6-WP-IN	2019-05-31 13:51	7.5	611	36.6	36.2	36.6
RSEM-R6-WP-IN	2019-06-10 13:55	8.1	290	27.3	26.8	27.3
RSEM-R6-WP-IN	2019-06-20 11:20	7.6	960			
RSEM-R6-WP-IN	2019-06-24 12:46	8.9	1063	OR		
RSEM-R6-WP-IN	2019-07-11 11:20	8.0	983	126	129	126
RSEM-R6-WP-IN	2019-07-15 10:50	8.4	689	29.5	29.2	29.5
RSEM-R6-WP-IN	2019-07-17 12:36	8.7	856	32.9	32.9	32.9
RSEM-R6-WP-IN	2019-07-22 11:47	8.0	1261	31.1	30.5	31.1
RSEM-R6-WP-IN	2019-07-30 17:25	8.7	930	50.8	50.2	50.8
RSEM-R6-WP-IN	2019-08-05 11:15	8.0	1186	21.9	21.9	21.9
RSEM-R6-WP-IN	2019-08-08 11:46	8.2	1057	58	58.3	58
RSEM-R6-WP-IN	2019-08-09 15:50	7.6	1336	83.9	83.8	83.9
RSEM-R6-WP-IN	2019-08-10 11:39	7.6	1166	62.1	62.2	62.1
RSEM-R6-WP-IN	2019-08-28 11:50	7.7	1331	31	30.9	31
RSEM-R6-WP-IN	2019-08-29 13:27	7.6	1305	28.9	30.3	28.9
RSEM-R6-WP-IN	2019-09-07 11:45	8.5	735	1233	1235	1233
RSEM-R6-WP-IN	2019-09-08 11:55	7.8	743	1732	1732	1732
RSEM-R6-WP-IN	2019-09-10 11:23	8.2	681	96.5	96.4	96.5
RSEM-R6-WP-IN	2019-09-12 10:35	9.2	857	93.8	93.9	93.8
RSEM-R6-WP-IN	2019-09-13 10:35	7.5	855	109	109.4	109
RSEM-R6-WP-IN	2019-09-15 10:55	7.8	695	86.4	86.5	86.4
RSEM-R6-WP-IN	2019-09-21 15:35	8.9	1003	3359	3357	3359
RSEM-R6-WP-IN	2019-09-25 11:00	7.5	955	40.5	40.3	40.5
RSEM-R6-WP-IN	2019-09-26 10:00	8.0	895	40.4	41.5	40.4

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6-WP-IN	2019-09-26 11:05	8.2	886	56.4	57.6	56.4
RSEM-R6-WP-IN	2019-09-28 12:40	7.9	774	1.1	1.1	1.1
RSEM-R6-WP-IN	2019-09-30 11:05	8.9	1127	3583	3609	3583
RSEM-R6W-SP	2019-01-01 12:30	8.7	1653	16.5	16	16.5
RSEM-R6W-SP	2019-01-02 12:30	8.7	1594	16.5	16.6	16.5
RSEM-R6W-SP	2019-01-03 13:50	8.5	1450	13.5	13.5	13.5
RSEM-R6W-SP	2019-01-04 12:40	8.3	1459	13	13.1	13
RSEM-R6W-SP	2019-01-05 13:20	8.4	1401	11.7	10.5	11.7
RSEM-R6W-SP	2019-01-06 11:55	8.2	1291	9.3	9.4	9.3
RSEM-R6W-SP	2019-01-07 10:45	8.1	1681	8	7.8	8
RSEM-R6W-SP	2019-01-08 11:40	8.1	1242	7.7	7.7	7.7
RSEM-R6W-SP	2019-01-09 11:30	8.2	1679	7.9	7.9	7.9
RSEM-R6W-SP	2019-01-10 11:40	7.7	1657	6.8	6.8	6.8
RSEM-R6W-SP	2019-01-11 12:35	8.0	1630	10.7	11	10.7
RSEM-R6W-SP	2019-01-12 11:25	8.0	1690	10	10	10
RSEM-R6W-SP	2019-01-13 11:25	8.1	1676	14.2	14.2	14.2
RSEM-R6W-SP	2019-01-14 11:40	8.1	1631	16.8	16.9	16.8
RSEM-R6W-SP	2019-01-15 11:38	8.1	1372	8.6	7.9	8.6
RSEM-R6W-SP	2019-01-16 11:50	8.5	1496	35.6	35.5	35.6
RSEM-R6W-SP	2019-01-17 11:40	8.4	1140	19.3	19.3	19.3
RSEM-R6W-SP	2019-01-18 10:45	8.4	1669	20	20.1	20
RSEM-R6W-SP	2019-01-19 12:30	8.4	1604	24.8	25	24.8
RSEM-R6W-SP	2019-01-20 11:25	8.6	1262	32.9	33.9	32.9
RSEM-R6W-SP	2019-01-21 13:05	8.3	1672	20.6	20.9	20.6
RSEM-R6W-SP	2019-01-22 12:40	8.5	1684	19.2	19.1	19.2
RSEM-R6W-SP	2019-01-23 12:40	8.6	1638	17.9	18	17.9
RSEM-R6W-SP	2019-01-24 13:25	8.7	1079	17.8	17.8	17.8
RSEM-R6W-SP	2019-01-25 11:18	8.6	1429	17.4	17.4	17.4
RSEM-R6W-SP	2019-01-26 15:45	8.5	1574	16.1	16.6	16.1
RSEM-R6W-SP	2019-01-30 13:10	8.3	1228	12.2	12.2	12.2
RSEM-R6W-SP	2019-01-31 12:30	8.3	1356	5.2	5.2	5.2
RSEM-R6W-SP	2019-02-01 11:35	8.1	1438	6.5	6.2	6.5
RSEM-R6W-SP	2019-02-02 12:25	7.9	1417	5.1	5.2	5.1
RSEM-R6W-SP	2019-02-03 11:21	8.0	1697	6.8	6.7	6.8
RSEM-R6W-SP	2019-02-04 12:35	7.8	1667	5.5	5.5	5.5
RSEM-R6W-SP	2019-02-05 10:50	8.1	1557	4.4	4.4	4.4
RSEM-R6W-SP	2019-02-06 13:15	8.6	1672	3.1	3.1	3.1
RSEM-R6W-SP	2019-02-07 11:20	8.5	1574.4	2.3	2.3	2.3
RSEM-R6W-SP	2019-02-08 11:25	8.6	1565	1.9	2	1.9
RSEM-R6W-SP	2019-02-09 13:15	8.3	1680	2.2	2.1	2.2
RSEM-R6W-SP	2019-02-10 13:40	8.2	1716	1.9	1.8	1.9
RSEM-R6W-SP	2019-02-11 14:15	8.2	1700	1.7	1.6	1.7
RSEM-R6W-SP	2019-02-12 12:57	8.2	1503	1.7	1.8	1.7
RSEM-R6W-SP	2019-02-13 12:00	8.2	1724	1.7	1.7	1.7
RSEM-R6W-SP	2019-02-14 12:00	8.2	1669	1.8	1.8	1.8
RSEM-R6W-SP	2019-02-15 11:50	8.3	1768	2.5	2.5	2.5
RSEM-R6W-SP	2019-02-16 12:50	8.0	1763	2.4	2.4	2.4
RSEM-R6W-SP	2019-02-17 11:53	8.1	1722	2.2	2.2	2.2
RSEM-R6W-SP	2019-02-18 14:08	8.0	1848	2.2	2.2	2.2
RSEM-R6W-SP	2019-02-19 11:50	8.0	1756	1.8	1.9	1.8
RSEM-R6W-SP	2019-02-20 11:30	8.0	1754	1.7	1.7	1.7
RSEM-R6W-SP	2019-02-21 11:10	8.1	1781	1.9	1.9	1.9
RSEM-R6W-SP	2019-02-22 11:25	8.0	1850	1.6	1.7	1.6
RSEM-R6W-SP	2019-02-23 12:25	8.2	1794	9.8	9.6	9.8
RSEM-R6W-SP	2019-02-24 12:15	8.3	1930	1.9	1.7	1.9
RSEM-R6W-SP	2019-02-25 13:05	8.3	1833	7.9	7.9	7.9
RSEM-R6W-SP	2019-02-26 11:30	8.2	1726	1.8	1.8	1.8
RSEM-R6W-SP	2019-02-27 11:20	8.1	1829	1.7	1.5	1.7
RSEM-R6W-SP	2019-02-28 12:00	8.3	1838	1.7	1.7	1.7
RSEM-R6W-SP	2019-03-01 11:50	8.0	1917	1.6	1.6	1.6
RSEM-R6W-SP	2019-03-02 12:05	8.0	807	1.6	1.6	1.6
RSEM-R6W-SP	2019-03-03 13:55	8.0	1862	1.8	1.8	1.8
RSEM-R6W-SP	2019-03-04 16:30	7.5	1703	4	4.1	4
RSEM-R6W-SP	2019-03-05 12:44	7.9	1822	2.3	2.2	2.3
RSEM-R6W-SP	2019-03-06 13:35	7.9	1976	25.9	25.8	25.9

Appendix 3-C: 2019 Water Quality Field Data

Station	Collect Date/Time	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	uS/cm	NTU	NTU	NTU
RSEM-R6W-SP	2019-03-07 13:35	7.9	1872	11.7	11.6	11.7
RSEM-R6W-SP	2019-03-08 11:47	7.8	1982	2.4	2.1	2.4
RSEM-R6W-SP	2019-03-09 11:50	7.8	1800	1.5	1.5	1.5
RSEM-R6W-SP	2019-03-10 12:25	7.8	1929	1.4	1.5	1.4
RSEM-R6W-SP	2019-03-11 12:30	7.8	1732	2.1	2.1	2.1
RSEM-R6W-SP	2019-03-12 11:25	7.9	2050	2	2	2
RSEM-R6W-SP	2019-03-13 11:40	7.8	3330	3.6	3.7	3.6
RSEM-R6W-SP	2019-03-14 16:40	7.9	3390	3	2.9	3
RSEM-R6W-SP	2019-03-15 11:35	7.9	1840	6.7	6.6	6.7
RSEM-R6W-SP	2019-03-16 13:05	7.8	1484	37.2	37.8	37.2
RSEM-R6W-SP	2019-03-17 11:40	8.1	1214	23.1	22.3	23.1
RSEM-R6W-SP	2019-03-18 11:53	8.2	1213	61.6	61.7	61.6
RSEM-R6W-SP	2019-03-19 13:35	8.6	1075	72.3	72.1	72.3
RSEM-R6W-SP	2019-03-20 12:20	8.5	780	53.1	53.4	53.1
RSEM-R6W-SP	2019-03-21 12:30	8.1	718	50.1	52.1	50.1
RSEM-R6W-SP	2019-03-22 10:15	8.5	616	27.5	26.1	27.5
RSEM-R6W-SP	2019-03-23 15:00	8.4	637	35.1	35.1	35.1
RSEM-R6W-SP	2019-03-24 13:00	8.4	713	70.9	72.7	70.9
RSEM-R6W-SP	2019-03-25 14:25	8.3	628	66.1	65.4	66.1
RSEM-R6W-SP	2019-04-17 10:48	8.4	1304	5	4.6	5
RSEM-R6W-SP	2019-04-18 10:55	8.4	1210	4.5	4.4	4.5
RSEM-R6W-SP	2019-04-19 12:20	8.5	1060	7.2	7.2	7.2
RSEM-R6W-SP	2019-04-20 12:40	8.6	1211	11.6	11.3	11.6
RSEM-R6W-SP	2019-04-21 11:50	8.6	1181	4.3	4.4	4.3
RSEM-R6W-SP	2019-04-22	8.6	1193	5.8	5.7	5.8
RSEM-R6W-SP	2019-04-23 12:55	8.7	1176	5	5.1	5
RSEM-R6W-SP	2019-04-24 14:40	8.8	1075	12.4	11.4	12.4
RSEM-R6W-SP	2019-04-25 1:20	8.7	1164	5.6	5.8	5.6
RSEM-R6W-SP	2019-05-15 12:45	9.3	438	43	43.9	43
RSEM-R6W-SP	2019-08-16 12:30	8.2	875	80.6	80.5	80.6
RSEM-R6W-SP	2019-08-19 10:20	8.6	901	13.7	14.1	13.7
RSEM-R6W-SP	2019-08-20 10:00	8.5	928	74.7	74.9	74.7
RSEM-R6W-SP	2019-08-21 11:00	8.6	933	51.5	50.9	51.5
RSEM-R6W-SP	2019-08-22 11:20	8.5	962	36.5	36.6	36.5
RSEM-R6W-SP	2019-09-17 14:20	8.4	899	68.1	68.2	68.1
RSEM-R6W-SP	2019-09-22 11:25	8.0	830	38.4	38.7	38.4
RSEM-R6W-SP	2019-09-26 11:00	8.2	876	35.4	35.3	35.4
RSEM-R6W-SP	2019-09-27 11:30	8.4	886	27.5	27.4	27.5
RSEM-R6W-SP	2019-10-03 13:45	8.1	1088	11.3	11.2	11.3
RSEM-R6W-SP	2019-10-11 13:00	8.6	906	26.1	25.4	26.1
RSEM-R6W-SP	2019-11-13 12:25	8.6	1200	4.4	4.5	4.4
RSEM-R6W-SP	2019-11-15 11:55	8.4	1186	7.3	7.2	7.3
RSEM-R6W-SP	2019-11-17 12:50	8.5	672	12.6	12.7	12.6
RSEM-R6W-SP	2019-11-18 13:10	8.6	421	7.1	7.1	7.1
RSEM-R6W-SP	2019-11-23 15:20	8.8	803	8	8	8
RSEM-R6W-SP	2019-11-25 15:00	8.8	879	15.4	15.4	15.4
U/S_L5_Expansion	2019-01-23 14:00			3	3.1	3
U/S_L5_Expansion	2019-01-24			3.6	3.7	3.6
U/S_L5_Expansion	2019-01-25 14:30			2.2	2.2	2.2
U/S_L5_Expansion	2019-01-26 15:00			1.3	1.5	1.3
U/S_L5_Expansion	2019-01-27 15:00			2.4	2.1	2.4
U/S_L5_Expansion	2019-01-29 13:50			2.4	2.2	2.4
U/S_L5_Expansion	2019-01-30 15:00			2.4	2.4	2.4
U/S_L5_Expansion	2019-01-31 15:15			2.2	2.2	2.2
U/S_L5_Expansion	2019-02-15 9:45	8.6	245	1.8	2.2	1.8
U/S_L5_Expansion	2019-02-16 9:00	8.5	248	2.2	2.3	2.2
U/S_L5_Expansion	2019-02-17 8:45	8.5	238	2.3	2.2	2.3
U/S_L5_Expansion	2019-02-18 14:30	8.7	215	2.2	2.2	2.2
U/S_L5_Expansion	2019-02-19 13:30	8.8	212	2.6	2.1	2.6
U/S_L5_Expansion	2019-02-20 14:15	8.6	220	2.4	2.4	2.4
U/S_L5_Expansion	2019-02-22 14:00	8.6	222	3.1	3.3	3.1
U/S_L5_Expansion	2019-02-26 10:30	8.8	224	4.6		4.6
U/S_L5_Expansion	2019-02-27 10:30	8.7	220	2.8		2.8
U/S_L5_Expansion	2019-02-28 10:20	8.7	224	2.2		2.2

APPENDIX 3-D: 2019 WATER QUALITY FIELD BLANK DATA

Appendix 3-D: 2019 Water Quality Field Blank Data

Stn.Code	Collect Date/Time	Sample No.	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
			pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	1/1/2019 15:30	VA5884	5.17	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	1/5/2019 16:30	VB1446	4.82	<2.0	0.12	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	2.1	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	1/9/2019 12:20	VB6786	5.18	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	1/13/2019 12:05	VC0279	4.96	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	1/16/2019 12:50	VC6538	4.66	<2.0	0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	1/20/2019 11:39	VC9575	6.23	<2.0	0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	1/23/2019 12:40	VD3815	6.05	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	0.0031
FIELDBLANK	1/26/2019 16:50	VD7169	5.72	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	1/27/2019 16:30	VD8615	5.24	<2.0	0.29	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	0.0042
FIELDBLANK	1/30/2019 13:00	VE2164	5.69	<2.0	0.13	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	2/2/2019 13:21	VE5322	4.81	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	2/5/2019 10:30	VE6874	5.91	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	2/8/2019 11:00	VF1453	5.62	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	2/12/2019 11:15	VF6494	5.55	<2.0	0.13	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	2/14/2019 12:38	VF9050	5.31	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	2/16/2019 14:27	VF9497	4.66	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	2/19/2019 12:30	VG0988	5.15	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	2/21/2019 10:45	VG4540	6.04	<2.0	0.12	<10	<4.0	<0.50	0.81	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	2/24/2019 13:40	VG8612	6.22	<2.0	<0.10	<10	<4.0	<0.50	<0.50	1.2	<1.0	1.5	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	2/26/2019 12:20	VH0048	4.72	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	2/28/2019 12:40	VH4368	4.86	<2.0	0.12	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/2/2019 14:30	VH8131	4.58	<2.0	0.11	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/5/2019 13:40	VI2222	4.58	<2.0	0.13	<10	<21	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/7/2019 15:45	VI4426	6.22	<2.0	0.14	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/10/2019 13:45	VI6959	5.54	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/12/2019 12:25	VI8445	6.51	<2.0	0.10	<10	<4.0	<0.50	<0.50	2.0	<1.0	2.5	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/14/2019 13:15	VJ4048	4.95	<2.0	0.19	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/15/2019 11:00	VJ4028	4.88	<2.0	0.14	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/18/2019 10:40	VJ6965	5.44	<2.0	<0.10	<10	4.8	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/19/2019 13:30	VK0931	5.36	<2.0	0.14	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/21/2019 11:15	VK3821	5.43	<2.0	0.19	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	1.3	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/23/2019 13:15	VK6015	5.90	<2.0	0.14	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/24/2019 13:15	VK5944	5.70	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/25/2019 12:45	VK7796	5.81	<2.0	0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	1.1	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/26/2019 13:20	VK9083	5.05	<2.0	0.15	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/27/2019 12:20	VL1980	5.18	<2.0	0.24	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	3/30/2019 11:25	VL6531	5.40	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	4/1/2019 13:50	VL8114	5.09	<2.0	0.14	<10	<16	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	4/2/2019 13:05	VL9877	5.92	<2.0	0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	4/4/2019 11:04	VM3410	4.81	<2.0	0.17	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	4/4/2019 11:05	VM3426	4.77	<2.0	0.13	16	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	4/6/2019 10:46	VM5383	4.95	<2.0	<0.10	20	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	4/7/2019 11:14	VM5354	4.92	<2.0	0.12	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	4/9/2019 10:55	VM8368	4.75	<2.0	0.14	12	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015				









Appendix 3-D: 2019 Water Quality Field Blank Data

Stn.Code	Collect Date/Time	Sample No.	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
			pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	5/1/2019 12:00	VP6529	5.66	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/2/2019 12:25	VP8693	4.74	<2.0	0.15	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/3/2019 10:25	VP8775	4.80	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/4/2019 9:40	VQ1567	4.61	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/5/2019 12:40	VQ1604	4.62	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/6/2019 10:48	VQ3924	5.30	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/7/2019 10:50	VQ4253	5.36	<2.0	0.11	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/8/2019 11:05	VQ9186	4.98	<2.0	0.14	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/8/2019 13:30	VQ8330	5.11	<2.0	0.14	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	0.031	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/9/2019 11:07	VQ8348	4.46	<2.0	0.14	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/10/2019 7:57	VQ9646	5.08	<2.0	0.11	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/11/2019 11:29	VR2466	4.94	<2.0	0.13	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	0.0030
FIELDBLANK	5/12/2019 11:13	VR2429	5.40	<2.0	0.15	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/13/2019 11:12	VR4431	4.85	<2.0	0.13	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/14/2019 11:35	VR6837	4.84	<2.0	0.15	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/15/2019 11:17	VR8786	5.57	<2.0	0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	0.0043
FIELDBLANK	5/15/2019 13:25	VR8911	5.16	<2.0	0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	5/16/2019 11:32	VS0878	5.63	<2.0	0.11	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	0.0058
FIELDBLANK	5/17/2019 9:05	VS0929	5.79	<2.0	0.14	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	0.0038
FIELDBLANK	5/18/2019 10:10	VS1844	5.07	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	5/19/2019 8:55	VS3040	5.09	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	5/20/2019 11:45	VS3034	5.50	<2.0	0.14	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.52	<0.020	<0.010	1.3	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	5/22/2019 12:30	VS7477	6.30	<2.0	<0.10	<10	<4.0	<0.50	<0.50	2.0	<1.0	2.4	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	5/24/2019 11:30	VS9239	5.48	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	0.027	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	5/25/2019 11:05	VT2668	5.58	<2.0	0.11	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	0.023	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	5/26/2019 14:20	VT2645	5.60	<2.0	0.12	22	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.55	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	5/27/2019 11:30	VT4239	5.89	<2.0	0.18	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	5/28/2019 13:35	VT7640	5.42	<2.0	0.12	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	5/29/2019 11:00	VT7344	5.14	<2.0	0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	5/30/2019 10:05	VU0228	5.43	<2.0	0.13	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	5/31/2019 11:35	VU2498	5.35	<2.0	0.13	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	1.45	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	6/1/2019 11:57	VU3340	5.10	<2.0	0.10	<10	<4.0	6.85	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	6/2/2019 10:19	VU6015	5.39	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.66	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	6/3/2019 10:30	VU5986	5.64	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	6/4/2019 10:25	VU7699	5.58	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	6/5/2019 10:53	VV4615	4.87	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	0.014	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	6/6/2019 11:24	VV6694	5.27	<2.0	0.12	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	6/7/2019 11:46	VV6769	5.17	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	6/8/2019 10:22	VV9721	5.16	<2.0	0.12	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	6/9/2019 10:28	VV9805	5.12	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	6/10/2019 11:05	VW2550	5.68	<2.0	0.13	<10	<4.0	<0.50	<0.50	1.1	<1.0	1.4	<1.0	<1.0	0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	6/11/2019 12:35	VW5007	5.39	<2.0	0.11	14	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	6/12/2019 14:15	VW8064	5.28	<2.0	0.13	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	1.01	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	6/13/2019 11:25	VW9977	5.45	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<	







Appendix 3-D: 2019 Water Quality Field Blank Data

Stn.Code	Collect Date/Time	Sample No.	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
			pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	7/1/2019 10:45	WA1412	5.00	<2.0	0.13	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/2/2019 9:30	WA3428	5.01	<2.0	0.13	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/3/2019 11:20	WA5873	5.04	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/4/2019 11:30	WA7976	5.82	<2.0	0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/5/2019	WA8008	5.83	<2.0	0.12	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/6/2019 12:00	WB1460	4.93	<2.0	0.15	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/7/2019 10:50	WB1495	4.89	<2.0	0.11	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/8/2019 11:30	WB4631	5.01	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/9/2019 13:32	WB6316	5.83	<2.0	0.11	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/10/2019 11:30	WB8322	5.70	<2.0	0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/11/2019 12:20	WC0496	5.02	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/12/2019 10:55	WC0453	4.92	<2.0	0.13	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/13/2019 12:55	WC4351	4.99	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	0.026	<0.010	<1.0	0.019	<0.0020	<0.0020	<0.0020	<0.0050
FIELDBLANK	7/14/2019 13:20	WC4187	4.88	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	0.041	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/15/2019 11:45	WC7553	5.87	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/16/2019 11:25	WC9631	5.12	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/17/2019 13:20	WD1675	5.06	<2.0	0.12	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/18/2019 12:55	WD4013	5.01	<2.0	0.13	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/19/2019 12:20	WD4023	5.02	<2.0	0.16	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/20/2019 13:55	WD7111	5.23	<2.0	0.12	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/21/2019 14:12	WD7085	5.24	<2.0	0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/22/2019 10:56	WD8941	5.13	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/23/2019 12:00	WE1022	5.20	<2.0	0.17	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/24/2019 11:30	WE3032	5.06	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.98	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/25/2019 11:40	WE4837	5.00	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.85	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/26/2019 9:00	WE4703	5.03	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.74	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/27/2019 10:30	WE7072	5.20	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/28/2019 10:30	WE7119	5.21	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.93	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/29/2019 9:40	WE7138	5.20	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.54	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/30/2019 15:10	WF2081	5.19	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	1.23	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	7/31/2019 11:40	WF4365	5.11	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	8/1/2019 12:35	WF6261	5.01	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	0.87	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	8/2/2019 10:10	WF6284	5.02	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	8/3/2019 12:25	WF7648	4.99	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	8/4/2019 13:50	WF7663	5.32	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	8/5/2019 12:00	WF9953	5.07	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	8/6/2019 12:15	WG2807	5.01	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	8/7/2019 13:55	WG4500	5.14	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	8/8/2019 12:35	WG6506	5.08	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	0.99	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	8/9/2019 10:20	WG6543	5.08	<2.0	<0.10	<17	2.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	8/10/2019 11:05	WH0274	5.27	<2.0	0.11	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.66	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	8/11/2019 10:50	WH0298	5.23	<2.0	0.11	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.58	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	8/12/2019 13:00	WH2476	5.32	<2.0	<0.10	18	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0050
FIELDBLANK	8/13/2019 12:20	WH4520	5.25	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.010	<1.0					









Appendix 3-D: 2019 Water Quality Field Blank Data

Stn.Code	Collect Date/Time	Sample No.	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
			pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	8/31/2019 12:05	WK4120	5.02	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.69	<0.050	<0.010	0.97	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/1/2019 12:05	WK4244	5.03	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.79	<0.050	<0.010	0.59	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/2/2019 12:10	WK6470	4.84	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	0.020	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/3/2019 13:10	WK8384	4.93	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.56	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	0.0034
FIELDBLANK	9/4/2019 13:40	WL0772	4.75	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	0.95	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/5/2019 12:40	WL2427	4.80	<2.0	0.18	16	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/6/2019 13:30	WL3944	5.04	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	0.96	<0.015	<0.0050	0.022	0.022	<0.0030
FIELDBLANK	9/7/2019 12:30	WL4974	4.83	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	0.016	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/8/2019 13:25	WL5050	4.83	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	1.4	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/9/2019 10:10	WL7026	5.07	<2.0	<0.10	10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	1.3	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/10/2019 12:15	WL9317	4.72	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.97	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/11/2019 12:30	WM1915	4.89	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	0.0038
FIELDBLANK	9/12/2019 11:25	WM1923	4.81	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/13/2019 11:15	WM4308	4.73	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/14/2019 12:05	WM7484	4.82	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/15/2019 11:40	WM7504	4.79	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	1.3	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/16/2019 12:55	WN0360	4.69	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/17/2019 9:50	WN3116	4.83	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/18/2019 10:10	WN2834	5.14	<2.0	<0.10	14	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	0.64	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/20/2019 10:40	WN7543	5.43	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/21/2019 10:55	WO1829	4.78	<2.0	<0.10	<10	<4.0	<0.50		<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	0.99	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/22/2019 10:50	WO1893	4.76	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/23/2019 10:35	WO4849	4.85	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/24/2019 11:20	WO4822	4.84	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/25/2019 12:10	WO6411	4.78	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/26/2019 10:30	WP1626	4.77	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	0.70	<0.015	<0.0050	<0.020	<0.020	0.0059
FIELDBLANK	9/27/2019 11:05	WP3486	4.76	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/28/2019 12:20	WP3455	4.77	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/29/2019 10:30	WP5514	4.81	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/30/2019 12:00	WP5293	4.84	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	0.027	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	10/1/2019 13:15	WP9960	4.62	<2.0	<0.10	12	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	0.020	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	10/2/2019 11:50	WQ2275	4.88	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	0.56	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	10/3/2019 13:05	WQ4505	4.77	<2.0	<0.10	12	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	10/4/2019 11:30	WQ4428	4.86	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	0.83	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	10/5/2019 12:15	WQ7325	5.39	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.52	<0.050	<0.010	<0.50	<0.015	<0.0030	<0.0030	<0.0042	<0.0030
FIELDBLANK	10/6/2019 12:10	WQ7681	4.28	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0030	<0.0030	<0.0042	<0.0030
FIELDBLANK	10/7/2019 12:45	WQ9660	5.21	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.0030	<0.0030	<0.0042	<0.0030
FIELDBLANK	10/8/2019 10:50	WR2887	5.18	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	0.020	<0.0030	0.0039	<0.0042	<0.0030
FIELDBLANK	10/9/2019 12:00	WR5597	5.42	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.010	<0.010	<0.014	0.0030
FIELDBLANK	10/10/2019 13:50	WR7643	5.46	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.010	<0.010	<0.014	<0.0030
FIELDBLANK	10/11/2019 11:10	WR7610	5.22	<2.0	0.36	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.010	<0.010	<0.014	<0.0030
FIELDBLANK	10/12/2019 10:00	WR9653	4.80	<2.0	<0.10	<10	<4.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.54	<0.050	<0.010	<0.50	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	10/13/2019 11:20	WS2566	5.18	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.010	<0.010	<0.014	<0.0030
FIELDBLANK	10/14/2019 10:40	WS2628	5.07	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	&									

















## APPENDIX 3-E: WATER QUALITY QA/QC PROGRAM



## TECHNICAL MEMORANDUM

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**To: Kael Hanak, Caroline Walmsley; PRHP**  
**From: Meghan Goertzen, Neil Mallen**  
**Subject: Surface Water Quality QA/QC Program**  
**ARD/ML Management and Monitoring**  
**Site C Clean Energy Project**

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**Date: 16 May 2018**

**Project #: A416-1**

The purpose of this Memorandum is to document the Quality Assurance / Quality Control (QA/QC) Program that is employed by Lorax Environmental Services Ltd. (Lorax) on behalf of Peace River Hydro Partners (PRHP) for the Main Civil Works Contract for the Site C Clean Energy Project. The QA/QC program has been developed and implemented for surface water quality monitoring within the construction site. It is intended to validate monitoring data, and to identify potential deficiencies of the monitoring program.

The integrity of the water quality sampling program, and analytical measurements of samples collected within it, are evaluated using various QA/QC practices. It is recommended that these practices include collection of quality control samples (blanks and replicates) and the establishment of data quality objectives for sample results (with specific objectives for dissolved vs. total metal concentrations, and sample hold times). Recommended QA/QC components are presented in further detail below.

The results of the QA/QC Program are documented in quarterly and annual metal leaching and acid rock drainage (ARD/ML) monitoring reports that are prepared by Lorax for submission to PRHP. Reporting includes the number of field blanks and replicates collected, as well as the proportion of these samples as compared with the total number of water quality samples obtained. General industry practice suggests one QA/QC sample (*e.g.*, a blank or duplicate) should be obtained for every 10 water quality samples obtained (or 10%) as part of the monitoring program. The report also includes an analysis and interpretation of samples in which a dissolved metal concentration exceeds the total concentration, and documents exceedance of hold times recommended by the analytical laboratory, as well as certain practical limitations with respect to hold times.

### **1. Blanks**

Blank water quality samples are comprised of analyte-free reagent water and are used to assess sample contamination (as recommended by Clark, 2013). Field blanks are used to detect potential contamination resulting from the sample collection method, handling, filtration, preservation, and exposure to the environment. Blank samples are typically collected by having the environmental monitor pour de-ionized (DI) water into clean sample bottles in the same environment in which

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actual samples are collected, and then processing the blank at the laboratory in the same manner as other samples.

## 2. Replicates

Replicates are independent samples collected as close as possible from the same location and at the same time as the original to characterize environmental variability and the precision of the entire sampling and analytical process (as per Clark, 2013). For the purpose of this Memorandum, originals and duplicates are considered paired replicates collected from the same location sequentially in time.

The BC Field Sampling Manual (Clark, 2013) provides the following acceptability criteria for field duplicates:

*It should be expected that the Relative Percent Difference (RPD) is somewhat greater than that for laboratory duplicates. If one of a set of duplicate values is at or greater than five times the Method Detection Limit, then RPD values >20% indicate a possible problem, and > 50% indicate a definite problem, most likely either contamination or lack of sample representativeness.*

Any duplicate samples for which the RPD is greater than 20% and greater than 50% are reported. In addition, duplicates that had parameters with RPDs greater than 50%, in which the parameter value was greater than five-times the RDL in at least one of the sample duplicates, are reported in a separate table.

## 3. Total versus Dissolved Metals

For the purpose of this QA/QC program, a dissolved metal concentration that is higher than the corresponding total metal concentration is considered to be an indication of potential sample contamination or analytical error. Total and dissolved metals data for samples collected at all water quality monitoring stations in each quarter are compared. The dissolved metal concentration is flagged as a potential QA/QC issue if the concentration is >20% higher than the corresponding total metal value in the same sample. Variability of less than 20% is excluded because it is within the analytical margin of error.

Dissolved and total metal pairs are included in this analysis if the dissolved value is greater than five-times its reported detection limit (RDL), similar to guidance presented in the BC Field Sampling Manual (Clark 2013) for acceptability criteria for duplicate sample. This is more conservative than the industry convention which limits the analysis to parameter pairs where *both* total and dissolved values are greater than five-times RDL.

#### 4. Sample Hold Time

Sample hold time is the length of time between collection of a water sample and its analysis at the laboratory. Recommended sample hold times are summarized in Table 4-1 below. In general, transport of samples from the Project site to the designated laboratory (Maxxam) depot in Fort St John typically occur on the same day as sample collection. Samples are then transported to the Maxxam laboratory, located in Burnaby B.C., which typically receives the samples the same evening or the following day.

Based on guidance from Maxxam, parameters with the shortest hold-times (three days or less) include ammonia (if unpreserved), nitrate / nitrite, pH, and turbidity. Results for these parameters may be associated with higher uncertainty if the hold times are exceeded.

**Table 4-1:  
Recommended water quality sample hold times (Source: Maxxam Analytics)**

<b>Analytical Parameter</b>	<b>Hold Time</b>
Alkalinity	14 Days
Ammonia	28 Days
Ammonia, Un-Preserved	3 Days
Bromide	28 Days
Chloride	28 Days
Chromium VI - Dissolved	30 Days
Chromium VI - Total	30 Days
Conductivity	28 Days
Dissolved Organic Carbon (DOC)	28 Days
Fluoride	28 Days
Metals – Dissolved	180 Days
Metals – Total	180 Days
Nitrate/Nitrite	3 Days
pH	15 Minutes
Phosphorus – Total	28 Days
Solids - TDS	7 Days
Solids – TSS	7 Days
Sulphate	28 Days
Total Organic Carbon (TOC)	28 Days
Total Nitrogen (TN)	28 Days
Turbidity	3 Days

As of May 2017, hold time exceedances have been flagged by Maxxam and reported in each sample's Certificate of Analysis (CoA) as a laboratory comment. All comments are entered into PRHP's EQWIN database during data import; hold times are reviewed on a weekly basis by Lorax as part of the weekly ARD report, and recommendations for improvement are provided as necessary.

## 5. Closure

We trust that this technical memorandum addresses your current needs. Please contact us should you have any questions.

Respectively Submitted,  
**Lorax Environmental Services Ltd.**

*Original Signed by:*

**Meghan Goertzen, M.Sc., R.P.Bio.**  
Environmental Toxicologist

*Original Signed by:*

**Neil Mallen, M.Sc., EP, PMP**  
Senior Environmental Scientist

## *Appendix B*

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# Site C Clean Energy Project

## PAG Contact RSEM pond Monitoring: Peace River Surface Water Quality and Pond Toxicity 2019 Annual Report



Prepared for:

**BC Hydro**  
900-1111 West Georgia St.  
Vancouver, BC V6E 4M3

March 2, 2020

Prepared by:

**Ecofish Research Ltd.**



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For inquiries contact: Technical lead [documentcontrol@ecofishresearch.com](mailto:documentcontrol@ecofishresearch.com) 250-334-3042

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**Certification:** *stamped version on file*

**Senior Reviewers:**

Kevin Ganshorn, M.Sc., R.P.Bio. No. 2448  
Biologist

Jayson Kurtz, B.Sc., R.P.Bio. No. 1081  
Project Manager

**Technical leads:**

Tetje Jensma, M.Sc., P.Chem.  
Environmental Chemist

Dan Durston, M.Sc.  
Environmental Biologist/Data Analyst

**Disclaimer:**

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## EXECUTIVE SUMMARY

Ecofish Research Ltd. (Ecofish) was retained by BC Hydro to conduct surface water quality monitoring for the Site C Clean Energy Project (the “Project”). The scope of monitoring is specific to relocated surplus excavated material (RSEM) sediment ponds containing water that has come into contact with potentially acid generating (PAG) material.

This report summarizes the monitoring results for the 2019 calendar year<sup>1</sup>. During this period, there was planned discharge from RSEM ponds R5b, R6, L5, and L6 to the Peace River, and brief unplanned discharge from three of the RSEM R5a ponds. RSEM R5a is normally managed to prevent discharge into the Peace River; as necessary, water is pumped between ponds or trucked from RSEM R5a to RSEM R5b to prevent discharge. RSEM L6 is typically managed to avoid passive discharge into the Peace River; pumped discharge occurred on one occasion in 2019 to empty the pond.

Monitoring included acute toxicity testing of RSEM pond water as well as surface water quality monitoring in the Peace River as it relates to discharge from PAG contact RSEM sediment ponds. RSEM pond toxicity and Peace River surface water quality monitoring are requirements of the Acid Rock Drainage and Metal Leachate (ARD ML) Management Plan<sup>2</sup> included as Appendix E of the Construction Environmental Management Plan (CEMP, BC Hydro 2016). The monitoring program was designed to evaluate: 1) RSEM pond water acute toxicity and 2) pond discharge for compliance with BC water quality guidelines (WQG) for the protection of aquatic life at the downstream edge of the 100 m long initial dilution zone (IDZ) in the Peace River. A summary of each monitoring component is provided below.

### ***RSEM Pond Acute Toxicity***

Acute toxicity of RSEM pond water was monitored before initial pond discharge, and at regular intervals thereafter depending on discharge frequency and toxicity results. Acute toxicity was evaluated using a standard laboratory assay (Rainbow Trout 96 hour LC50 test) performed on water samples collected directly from the outflow (when discharging) or the pond (when not discharging).

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<sup>1</sup> In addition to this annual report, detailed monthly reports were issued that summarized the current RSEM status, monthly and cumulative monitoring results, and upcoming monitoring requirements. Additional reports are prepared for discharge compliance exceedances when required; this was not required in 2019. Annual and monthly reports were also prepared for the 2017 and 2018 monitoring periods.

<sup>2</sup> Other requirements of the CEMP, including RSEM in-pond water quality monitoring and mitigation implementation, are the responsibility of the project’s Main Civil Works contractor, Peace River Hydro Partners (PRHP); these other requirements are reported on separately by PRHP and/or their Qualified Professional consultants and therefore are not included in this report.

The sample schedule for RSEM pond toxicity testing as outlined in the CEMP<sup>3</sup> (BC Hydro 2016) was revised as of February 27, 2019 due to the acceptance by regulators of an alternate testing program proposed by Shelley *et al.* (2018) on that date (CWR 2019). The new toxicity testing program for PAG containing RSEM sediment ponds consists of two components: routine bi-monthly monitoring and targeted monitoring.

In 2019 a total of 48 toxicity samples were collected and all the tests passed (>100% v/v). Four samples were collected from each of RSEM R5a-A, R5a-B, and R5a-C and three samples were collected from RSEM R5a-D. Six samples were collected from the RSEM R5b, seven from RSEM R6W, six from RSEM R6E, four from RSEM L5W, five from RSEM L5E and five from RSEM L6.

### ***RSEM Discharge/Peace River Surface Water Quality Monitoring***

The ARD ML Management Plan (BC Hydro 2016) stipulates water quality criteria (i.e., BC WQG for the protection of aquatic life) at the IDZ location 100 m downstream of each RSEM discharge location. To evaluate compliance, a full suite of water quality parameters (including physical parameters, nutrients, anions, total metals and dissolved metals) were measured *in-situ* and/or sampled for laboratory analysis. Sampling was conducted on monthly and 5 in 30-day sampling schedules (5 sets of samples over a 30 day period during both turbid and clear flow conditions). Sampling was conducted at IDZ sites 100 m downstream of discharging RSEM ponds, as well as at upstream (upstream of all Site C construction influences), immediate background (just upstream of RSEM discharge points), and far-field downstream locations.

BC WQG were occasionally exceeded at all sites due to naturally occurring Peace River conditions in 2019, however, there were no exceedances of BC WQG measured at IDZ sites that were attributable to discharge of water from RSEM sediment ponds. The range in water quality parameter concentrations measured in 2019 were similar to those measured in 2017 and 2018, and were within historical water quality data ranges observed in the Peace River.

The RSEM ponds have EOP limits for total suspended solids (TSS), and the continuous turbidity gauges installed on the left and right bank of the Peace River upstream of the confluence with the Moberly River are used to inform the project's Main Civil Works contractor, Peace River Hydro Partners (PRHP), of the Peace River background TSS twice daily via automated email as per Section 2.1 in BC Hydro (2017). In order to estimate the background Peace River TSS that are provided in the automated emails, Ecofish has developed TSS:turbidity relationships over the course of monitoring which are used to estimate TSS concentrations from the turbidity data logged by the monitoring stations. Continued development of the TSS relationship is documented in this annual report, however background TSS data are reported by PRHP and are not included in this report.

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<sup>3</sup> The previous sampling schedule consisted of three biweekly samplings after pond construction, periods without discharge in excess of 30 days, and after test failures. Ponds passing this biweekly sampling were then sampled on a monthly schedule for one year, followed by a quarterly schedule.

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## 1. INTRODUCTION

Ecofish Research Ltd. (Ecofish) was retained by BC Hydro to conduct sediment pond discharge surface water quality monitoring and to conduct acute toxicity monitoring for the Site C Clean Energy Project (the “Project”, Map 1) as it relates to five sediment ponds at relocated surplus excavated material (RSEM) areas containing potentially acid generating (PAG) material and/or PAG contact water potentially discharging to the Peace River.

The Project construction works include management of excavated PAG shale bedrock. The excavated shale bedrock is placed in up to five PAG contact RSEM areas (RSEM R5a, R5b, R6, L5, L6) over the construction period (Map 1). Surface runoff from these RSEM areas and water from PAG excavation sites is directed into the associated PAG contact RSEM sediment ponds (henceforth referred to as RSEM ponds), and water in these ponds is discharged to the Peace River.

An Acid Rock Drainage and Metal Leachate (ARD ML) Management Plan is included as Appendix E of the Construction Environmental Management Plan (CEMP, BC Hydro 2016) for the Project. Section 7.2 of the ARD ML Management Plan specifies compliance requirements related to the RSEM ponds. Ecofish’s scope of work is to conduct the monitoring and reporting associated with compliance requirements for acute toxicity (Section 7.2.1 of the ARD ML Management Plan) and for Peace River water quality downstream of each RSEM (Section 7.2.3 of the ARD ML Management Plan). Other requirements of the CEMP, including RSEM in-pond water quality monitoring and mitigation implementation, are the responsibility of the project’s Main Civil Works contractor, Peace River Hydro Partners (PRHP); these other requirements are reported on separately by PRHP and/or their Qualified Professional consultants and therefore are not included in this report.

In late 2016 construction of the RSEM R5b pond was completed and in 2017 two additional ponds were constructed: RSEM R5a and RSEM R6 (Table 1). Construction of the RSEM L5 pond was completed in December 2018 and construction of the RSEM L6 pond was completed in March 2019. In 2019, the RSEM R5b, RSEM R6, and RSEM L5 ponds discharged water to the Peace River. The RSEM R5a ponds are managed to avoid discharge to the Peace River<sup>4</sup>. RSEM L6 is managed to avoid un-controlled passive discharge to the Peace River and a controlled discharge to the Peace River occurred on one occasion in 2019 (September 5, 2019).

This report fulfils the annual reporting requirement outlined in Section 7.5 of the ARD ML Management Plan (BC Hydro 2016) for the associated monitoring conducted by Ecofish (RSEM pond toxicity testing and Peace River water quality sampling) on behalf of BC Hydro in 2019.

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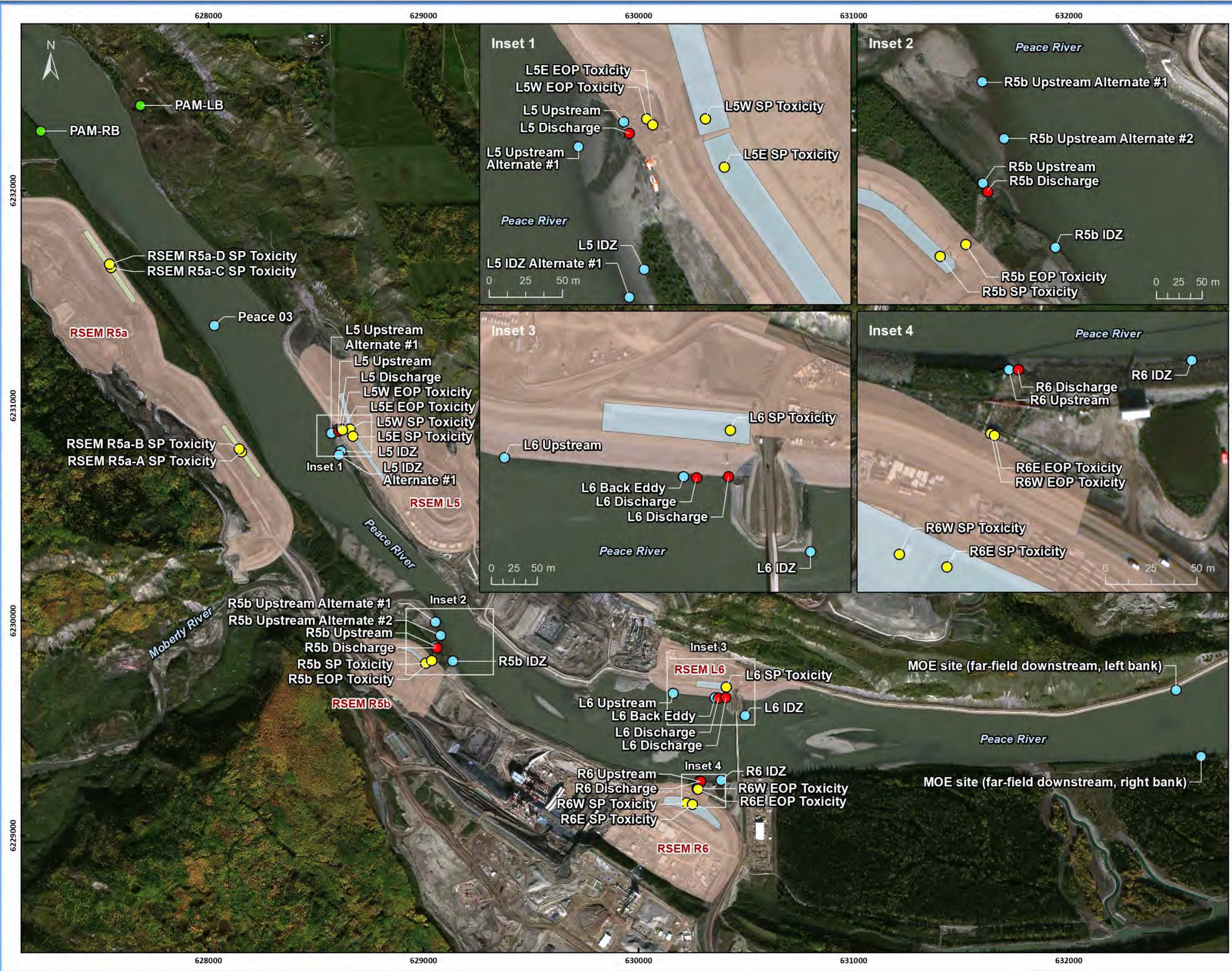
<sup>4</sup> Water from the RSEM R5a ponds is normally pumped between the four R5a ponds or trucked to the RSEM R5b pond as required to avoid discharge into the Peace River. Unplanned discharge commenced from R5a-A on March 18, 2019 and from R5a-B and R5a-C on March 19, 2019; discharge from these three cells ended on March 22. There was no discharge from R5a-D in March 2019.

**Table 1. PAG contact RSEM pond construction and discharge history as of the end of 2019.**

<b>RSEM Pond</b>	<b>Pond Construction Completed</b>	<b>Discharge to the Peace River Commenced</b>
R5a <sup>1</sup>	July 2017	No planned discharge
R5b	November 2016	January 2017
R6	March 2017	April 2017
L5	December 2018	March 2019
L6 <sup>2</sup>	March 2019	September 2019

<sup>1</sup>Water from the four RSEM R5a ponds is managed to avoid discharge to the Peace River by pumping water between the R5a ponds or trucking water to the RSEM R5b pond, as required. Unplanned discharge to the Peace River from R5a-A on began on March 18, 2019 and from R5a-B and R5a-C it began on March 19, 2019; discharge from these three cells ended on March 22. There was no discharge from R5a-D to the Peace

<sup>2</sup>Water from RSEM L6 was pumped into the Peace River on one occasion (commencing on September 5, 2019).



**SITE C CLEAN ENERGY PROJECT**  
**PAG Contact RSEM Sediment Ponds and Water Quality Monitoring Locations**

- Legend**
- Pond toxicity sampling collected in the sediment pond (SP) or from the end of pipe (EOP)
  - Peace River Water Quality Monitoring
  - RSEM Sediment Pond Discharge Point
  - Continuous Turbidity Gauge
- Sediment Ponds**
- RSEM Pond constructed and discharge has commenced
  - RSEM Pond constructed but discharge is not anticipated
  - RSEM Pond catchment area



**MAP SHOULD NOT BE USED FOR LEGAL OR NAVIGATIONAL PURPOSES**

0 75 150 300 450 600 750 Meters  
 Scale: 1:17,000

NO.	DATE	REVISION	BY
1	2020-02-13	1200_RSEM_WQ_3480_20200211	
2			
3			
4			
5			

Date Saved: 2020-02-13  
 Coordinate System: NAD 1983 UTM Zone 10N



## 2. BACKGROUND

### 2.1. RSEM Pond Acute Toxicity

The acute toxicity (Rainbow Trout 96 hour LC50) monitoring program is designed to confirm that water discharged from the PAG contact RSEM ponds is not acutely toxic to aquatic life at the point of discharge into the Peace River (as per Section 7.1 of ARD ML Management Plan, BC Hydro 2016). Therefore, prior to discharge into the Peace River, and for the duration of discharge into the Peace River, acute toxicity testing is required for each RSEM pond.

The acute toxicity monitoring program is described in Section 7.3.1 of the ARD ML Management Plan, BC Hydro 2016). On February 27, 2019 a bi-monthly acute toxicity sampling approach was adopted (Shelley *et al.* 2018), and the sampling schedule specified in BC Hydro (2016) switched to a bi-monthly schedule for all RSEM ponds (i.e., RSEM R5a, RSEM R5b, RSEM R6, RSEM L5 and RSEM L6). Prior to February 27, 2019, the acute toxicity testing sampling schedule occurred in three stages, as described in Table 2.

The current toxicity monitoring approach specifies that regular samples be collected from each PAG contact RSEM sediment pond every two months if there is sufficient water to collect a sample (Shelley *et al.* 2018). This will demonstrate regulatory compliance over a range of operating conditions and provide data to confirm or revise the testing program. In the event of an acute toxicity test failure under this monitoring program, an additional sample(s) will be collected to confirm pond water quality returns to non-toxic conditions (Shelley *et al.* 2018). An initial sample will be collected 96 hours after the failed sample; if that sample also fails, additional samples will be collected every 96 hours until a sample passes. After a test passes, routine acute toxicity testing will resume at a bi-monthly frequency from the sample date of the passed test (Shelley *et al.* 2018). Additional targeted acute toxicity testing is also conducted if pond pH drops below 6.5 for more than one hour, which is more conservative than the lower end of pipe discharge limit of 6.0 (Shelley *et al.* 2018).

A toxicity test “passes” (i.e., the pond water is not acutely toxic) if the result of the test is  $\geq 50\%$  survival in undiluted pond water. Detailed monthly reports were issued for each month of 2019 which provide results for RSEM pond acute toxicity testing. If a toxicity test fails, results are communicated directly to BC Hydro and PRHP as soon as results were available. A high-level summary of the methods and results of the RSEM pond acute toxicity monitoring conducted in 2019 are provided herein and data summary tables are provided in Appendix A.

**Table 2. 96 hour LC50 Rainbow Trout acute toxicity sampling frequency for each RSEM pond, applicable up to February 27, 2019.**

Frequency <sup>1</sup>	Sampling Requirements <sup>2</sup>
Bi-weekly	3 consecutive passes prior to moving to monthly sampling
Monthly	12 consecutive passes (one year) prior to moving to quarterly sampling
Quarterly	Sampling will be conducted quarterly (every 3 months) for the duration of the construction phase

<sup>1</sup> The sampling frequency will revert back to bi-weekly sampling in the event that a test failure occurs (results are positive for acute toxicity), or the RSEM pond has not discharged for a period of 30 days.

<sup>2</sup> >100% (v/v) for the 96 hr LC 50 toxicity test indicates the test passed.

## 2.2. Peace River Water Quality

The compliance requirements for the monitoring program for Peace River water quality downstream of each RSEM pond are described in Section 7.2.3 of the ARD ML Management Plan (BC Hydro 2016). A compliance requirement includes defining and approving water quality monitoring sites in the Peace River. Compliance requirements also include confirming that the Peace River samples are in fact sampling within the RSEM ponds' discharge plume area, and confirming discharge plume dynamics under a range of river flows and discharge rates in order to confirm plume modeling predictions. For RSEM R5b and RSEM R6, these compliance requirements were met in 2017 and 2018 as summarized in Ganshorn *et al.* (2018) and Ganshorn *et al.* (2019a), and additional work with respect to these compliance requirements was not required in 2019 as there was no change in discharge locations. In 2019, the work to meet these requirements commenced for RSEM L5 with sampling being done on three occasions. During the three sampling events, Peace River flow was approximately 750 m<sup>3</sup>/s, 600 m<sup>3</sup>/s, and 520 m<sup>3</sup>/s with corresponding L5 discharges of 1.70 L/s, 1.68 L/s, and 2.09 L/s. The current L5 ponds will be flooded once river diversion takes place in September 2020. However, if there are relatively high L5 pond discharges (e.g., an order of magnitude greater than what has been sampled) in 2020 prior to river diversion, additional work will be planned to confirm L5 discharge plume dynamics. In 2019, RSEM L6 was pumped into the Peace River on one date only (September 5, 2019). Discharge plume characterization in the RSEM L6 IDZ was completed on this date. The methods and detailed results of the characterization study are presented in Ganshorn *et al.* (2019b) and summarized in this annual report. Should L6 begin to discharge on a regular basis in 2020, additional sampling will be conducted to confirm discharge plume dynamics under a range of river flows and discharge rates.

No work with respect to these compliance requirements for RSEM R5a is anticipated as this pond is designed not to discharge, and there are operational mitigations in place to prevent unintentional discharge to the Peace River.

Water quality monitoring within the RSEM ponds is monitored daily by PRHP. Pond data for the appropriate dates are included for reference in this report in the time series graphs of each water quality parameter (Appendix B, Appendix C, Appendix D, and Appendix E).

It is a compliance requirement (for PRHP), to meet end of end-of-pipe (EOP) discharge limits for total suspended solids (TSS) in water that discharges to the Peace River from the RSEM ponds. PRHP reports on compliance with respect to EOP limits, and Ecofish provides PRHP with background Peace River TSS data to inform the TSS EOP limit twice a day via automated email. The background TSS data are derived from continuous turbidity data collected at two background real time monitoring stations in the Peace River, and Ecofish is responsible for developing and maintaining the TSS:turbidity relationships for these stations.

It is also a compliance requirement that during discharge from RSEM ponds, water quality at the initial dilution zone (IDZ) monitoring locations 100 m downstream of the RSEM discharge points shall meet the Peace River IDZ Limits (i.e., BC Water Quality Guidelines (BC WQG)) as specified in Table 2 of the ARD ML Management Plan (BC Hydro 2016). Compliance with this requirement is assessed using a sampling program which is described in Section 7.3.4 of the ARD ML Management Plan. In summary, the program requires sampling only during periods of RSEM discharge and includes three sampling schedules: daily, monthly, and 5 in 30-day sampling (five evenly spaced sampling events over 30 days performed twice per year, once during clear flow and once during turbid flow).

Detailed monthly reports were issued for each month of 2019<sup>5</sup> which provide water quality data summary tables, figures, and sampling details to meet the monthly reporting requirement outlined in Section 7.5.3 of the ARD ML Management Plan (BC Hydro 2016). In accordance with Section 7.3.4 of the ARD ML Management Plan, exceedance reports are issued immediately (i.e., within 24 hours of receipt of *in situ* or laboratory analytical results) if exceedances of the Peace River IDZ limits are identified in any IDZ sample, provided the cause of the exceedance was attributable to discharge from a RSEM pond. A high-level summary of the methods and results of the Peace River and RSEM IDZ surface water quality conducted in 2019 are provided herein.

### 3. METHODS

#### 3.1. RSEM Pond Acute Toxicity

Four sterile 10 L plastic carboys are provided by ALS Environmental for each acute toxicity test. Carboys are filled with pond water either obtained directly from the outflow pipe when a RSEM pond is discharging or collected from the pond close to the outflow pipe location if there is no discharge from the RSEM pond. Sampling procedures, chain of custody, and QA/QC follow the guidelines of the British Columbia Field Sampling Manual (Clark 2002).

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<sup>5</sup> Annual and monthly reports were also prepared for 2017 and 2018.

The acute toxicity testing is performed by Nautilus Environmental in Burnaby (under subcontract to ALS Environmental). Sample carboys are delivered to ALS in Fort St. John shortly after sampling (on the same day) and the samples are shipped to Nautilus Environmental in Burnaby following standard chain of custody and within acceptable hold times.

#### 3.1.1. RSEM R5a

Construction of the permanent RSEM R5a was completed mid-July 2017 with a pond design consisting of four individual cells (A, B, C, and D). Since completion, the RSEM R5a ponds have been managed to avoid discharge from the ponds to the Peace River. In 2019, all four cells were sampled on a bi-monthly sampling schedule; if the water level was too low or the pond was frozen to the bottom, toxicity samples were not collected, and sampling was postponed until sufficient water was available.

#### 3.1.2. RSEM R5b

Acute toxicity sampling of RSEM R5b pond water commenced on November 30, 2016. In 2019, acute toxicity samples were collected from RSEM R5b on a bi-monthly basis.

#### 3.1.3. RSEM R6

RSEM R6 pond has two basins (RSEM R6E and RSEM R6W) divided by a berm, and acute toxicity samples are collected from each basin provided there is sufficient water for sample collection. Acute toxicity sampling began in March 2017 for R6W and in April 2017 for R6E. In 2019 RSEM R6 toxicity samples were collected on a bi-monthly sampling schedule provided sufficient water was present to allow sample collection.

#### 3.1.4. RSEM L5

There are two RSEM L5 ponds divided by a berm (RSEM L5E and RSEM L5W), and construction of the two ponds was completed in December 2018. In 2019, RSEM L5E and L5W commenced discharge in March and toxicity samples were collected on a bi-monthly sampling schedule commencing in March, provided sufficient water was present to allow sample collection.

#### 3.1.5. RSEM L6

Construction of the RSEM L6 pond was completed in 2019. Bi-monthly toxicity sample collection in RSEM L6 commenced in March 2019 provided sufficient water was present to allow sample collection.

#### 3.1.6. Acute Toxicity Test Failure Notification and Evaluation

In the event that the toxicity sample is determined to be acutely toxic, the  $LC_{50}$  (i.e., the concentration at which there is mortality in 50% (v/v) of the fish) is estimated and reported by Nautilus based on the toxicity results at serial dilutions of the pond water sample. Data are provided in tabular format as % Survival of Rainbow Trout for serial dilutions (% v/v) of the RSEM Pond Water. Nautilus provides the final laboratory report to ALS at which point the final report is automatically emailed to Ecofish and PRHP.

Although it is not a requirement of the CEMP (BC Hydro 2016) to collect water quality samples from the Peace River in conjunction with acute toxicity sampling, sampling schedules can overlap and in some cases acute toxicity sampling is done in conjunction with water quality sampling in the Peace River. If an acute toxicity test failure occurs, and corresponding water quality samples were collected in the Peace River (upstream of the discharge, at the compliance point 100 m downstream of the discharge and the far-field monitoring sites), data are reviewed to evaluate any effects of the discharge in the Peace River.

If an acute toxicity test failure occurs and water quality sampling was not performed in the Peace River on the date of the toxicity test failure, the potential effects of the discharge on the water quality in the IDZ can be modelled using the site-specific mixing model developed for the RSEM IDZs (Ganshorn *et al.* 2017). The background water quality (general parameters, metals) in the Peace River required for modelling is estimated based on historical data during similar environmental conditions (seasonal flow and turbidity), and the pond water quality is provided by PRHP, who collect water quality samples daily from the RSEM sediment ponds provided there is sufficient water for sample collection.

### 3.2. Peace River Water Quality

#### 3.2.1. RSEM Pond Discharge Plume Characterization

Monitoring of RSEM pond discharge plumes within the IDZ is conducted to characterize dilution under a variety of pond discharge and Peace River flows. IDZ characterization relies on measurements of *in-situ* specific conductivity, as conductivity in the RSEM ponds is reliably higher (approximately seven fold greater) than the Peace River, allowing use of this parameter as a natural tracer to map the discharge plume. *In-situ* specific conductivity measurements are recorded in the Peace River at different depths (typically 15 and 30 cm below the surface), distances from shore, and distances upstream and downstream from pond discharge points. This work is considered to be complete for the R5b and R6 RSEM sediment ponds (Ganshorn *et al.* 2017).

At moderate and high Peace River flows, discharge from the RSEM L5 ponds directly enters the main flow of the Peace River. However, at low Peace River flows, discharge from the ponds enters a small semi-isolated shallow pocket of water that forms on a gravel bar on the bed of the Peace River. This pocket of water has no upstream surface connectivity with the Peace River, but does have downstream surface connectivity with the main flow of the Peace River. Under these conditions, the discharge point is considered to be the location where the pocket of water on the gravel bar connects with the main Peace River flow and the upstream control site is located upstream of where the pocket of water flows in the main Peace River flow. IDZ characterization work in the RSEM L5 IDZ was completed in 2019, and the methods and results will be documented in an upcoming monthly report.

Discharge plume characterization in the RSEM L6 IDZ was completed during discharge on September 5, 2019. The detailed methods of the characterization study are presented in Ganshorn *et al.* (2019b).

### 3.2.2. Peace River and RSEM IDZ Surface Water Quality Sampling

The following sections describe the methods used to monitor water quality in the Peace River as it relates to discharge from the PAG contact RSEM sediment ponds.

#### 3.2.2.1. Monthly and 5 in 30-day Surface Water Quality Sampling

Monthly and 5 in 30-day water quality sampling (five evenly spaced sampling events over 30 days performed twice per year, once during clear flow and once during turbid flow) were conducted during periods of RSEM pond discharge in 2019 (Table 3). Sampling consists of collecting measurements in the field with *in-situ* water quality meters, and collection of water quality samples for laboratory analysis. *In-situ* and laboratory sampling procedures, chain of custody procedures, and QA/QC procedures adhered to the guidelines of the British Columbia Field Sampling Manual (Clark 2002). In addition, data screening and management followed the QA/QC procedures outlined in Section 3.2.3. Typically, triplicate readings were collected for *in-situ* data and a duplicate lab sample was collected at one site on each sampling date. Field blanks and travel blanks were also collected on each sampling date.

The full suite of laboratory parameters as specified in Section 7.3.2 of the ARD ML Management Plan (BC Hydro 2016) (physical parameters, nutrients, anions, total metals and dissolved metals) were sampled monthly when the RSEM ponds were discharging. The same parameters were also sampled for the 5 in 30-day sampling, and wherever possible, monthly sampling was used to also fulfil one or more of the 5 in 30-day sampling requirements. These parameters are consistent with those being measured by PRHP in the RSEM ponds. Peace River monthly and 5 in 30-day sampling was coordinated with the daily RSEM pond sampling done by PRHP such that samples were collected at approximately the same time, and during periods of pond discharge to the river.

The following monthly and 5 in 30-day sampling site locations were sampled in the Peace River to monitor discharge from each of the RSEM R5b, RSEM R6, RSEM L5 and RSEM L6 ponds: a control site upstream of the Site C instream works in the Peace River (Peace 03), two far-field locations downstream of the construction footprint on the right bank and left bank of the Peace River (MOE far-field downstream sites), and for each RSEM pond an additional upstream site located 5 m upstream of the discharge point and an initial dilution zone (IDZ) monitoring site located at the edge of the IDZ (100 m downstream of the discharge point) (Table 5, Map 1).

The RSEM R5b and RSEM L5 background sites 5 m upstream of the discharge were initially specified by KCB and SNCL (2016a, 2016b). However, field verification identified that these sites were not always appropriate for background data collection depending on mixing conditions at the point of discharge to the Peace River, which varies with Peace River flow. Therefore, the RSEM R5b 5 m upstream site, and the RSEM L5 5 m upstream site, are occasionally relocated to an alternate site as required to capture representative background conditions in the Peace River (Table 5, Map 1).

*In-situ* measurements and laboratory samples were collected 10 to 15 cm below the surface of the water to avoid surface contamination from airborne particulate and approximately 1 m from shore, except

for at the Peace 03 site. Samples were collected mid-channel at the Peace 03 site to provide upstream Peace River background data upstream of the confluence of the Moberly River and the Peace River.

Monthly sampling is conducted during months where discharge occurs from each pond (Table 3). In 2019 monthly sampling during discharge was completed for all 12 months for RSEM R5b, and for 11 out of 12 months for RSEM R6 (the pond was frozen in February 2019). In 2019 monthly sampling commenced in March for RSEM L5 and was completed in all subsequent months with the exception of December; RSEM L5 did not contain enough water to discharge in December 2019 (Table 3). L6 only discharged to the Peace River on one day in 2019 and sampling in the Peace River was done on this day. The 5 in 30-day sampling for RSEM R5b, RSEM R6, and RSEM L5 was completed during turbid flows from April 15, 2019 to May 13, 2019 and during clear flows from October 1 to 29, 2019. On April 22, 2019, RSEM R6 was not discharging therefore only four sampling dates were used for the 5 in 30 day turbid flow period for this pond (Table 3).

Detailed monthly reports were issued for each month of 2019; these reports provide water quality data summary tables, figures, and sampling details to meet the monthly reporting requirement outlined in Section 7.5.3 of the ARD ML Management Plan (BC Hydro 2016). For the purpose of this annual report, a table of summary statistics (average, minimum, maximum and standard deviation) is provided for each sample site that considers all of the data collected at that site in 2019. Replicate samples and *in-situ* measurements (duplicates and triplicates) were averaged prior to calculating the summary statistics. Parameters with a concentration below the method detection limit (MDL) were assumed to have a concentration equal to the MDL for calculation of the summary statistics.

In the 2019 annual summary statistics tables, the annual average, minimum, and maximum values for each parameter were screened against the applicable short-term maximum BC WQG for the protection of aquatic life (MOE 2019, Appendix A). The annual average values for each parameter were also screened against the applicable long-term BC WQG (MOE 2019, Appendix A). The 5 in 30 day monitoring results were screened against the applicable long-term 5 in 30 day BC WQG in the May and November 2019 monthly reports.

A number of water quality parameters have BC WQG that are calculated based on an equation (denoted by “EQ” in the summary tables) that depends on the value of another parameter (e.g., pH, hardness (as CaCO<sub>3</sub>), dissolved organic carbon (DOC), chloride). These guidelines can be calculated based on the water chemistry associated with each sampling site/date or the guidelines can be calculated using the annual average water chemistry. To apply the short-term BC WQG, the annual minimum and maximum values are screened against the short-term BC WQG calculated based on the site chemistry as measured on each site/date that is associated with the minimum or maximum values. In addition, the total number of short-term BC WQG exceedances considering all sites and sampling dates over the 2019 monitoring period is provided in the summary tables.

To apply the long-term BC WQGs, when the guideline is an equation, the annual average parameter values are screened against the long-term BC WQG calculated using the average pH, hardness, DOC or chloride values based on all data collected at a sampling site in 2019. In the summary statistics

tables, blue shading indicates an exceedance of the short-term maximum BC WQG, and yellow shading indicates an exceedance of the long-term BC WQG.

In August 2019, the BC Ministry of Environment & Climate Change Strategy (BC MOE) issued new copper (Cu) water quality guidelines (WQG) for the protection of aquatic life in freshwater. The updated guidelines are applicable to dissolved copper (D-Cu) while the previous BC WQG were applicable to total copper (T-Cu). Additionally, the new Cu guidelines require input of water temperature, dissolved organic carbon, pH and water hardness into a Biotic Ligand Model using the BC BLM software provided by the BC MOE (MOE 2019). The 2019 summary tables apply the current copper guidelines only. However, the figures provide illustrative guidelines for both T-Cu and D-Cu. The input chemistry values used in the BLM software for calculating the D-Cu guideline were chosen to be conservative based on the 2019 summary statistics for each input parameter.

Illustrative time series figures depicting monthly and 5 in 30-day data collected at each sampling site for each parameter sampled in 2019 were completed for each of RSEM R5b, RSEM R6, RSEM L5 and RSEM L6. RSEM pond water quality results (sampled by PRHP, analyzed by Bureau Veritas, formerly Maxxam Analytics) were also included for each sampling date in the time series figures. Parameters with a concentration below the MDL were assumed to have a concentration equal to the MDL for the purpose of generating the figures. It should be noted that for some of the parameters, the MDL used for the pond water quality analysis was different than the MDL used for the Peace River water quality analysis as two different laboratories are used for these analyses (pond water quality analyses contracted by PRHP to Bureau Veritas, whereas Peace River water quality analyses contracted by Ecofish on behalf of BC Hydro to ALS Environmental).



**Table 3. 2019 monthly and 5 in 30-day water quality sampling dates and Peace River background TSS (clear/turbid/very turbid).**

Month (2019)	Date	Sampling Type	Pond	Background Clear/Turbid Flow at each RSEM Pond Upstream Site <sup>1,2</sup>	Background Clear/Turbid Flow at Peace River Upstream <sup>3</sup> (PAM-LB and PAM-RB)
Jan	20-Jan	Monthly	RSEM R5b	Clear	Clear
	29-Jan	Monthly	RSEM R6	Clear	Clear
Feb	28-Feb	Monthly	RSEM R5b	Clear	Clear
Mar	28-Mar	Monthly	RSEM L5	Turbid	Clear
			RSEM R5b	Turbid	
			RSEM R6	Clear	
Apr	15-Apr	Monthly/ 5 in 30 d	RSEM L5	Very Turbid	Very Turbid
			RSEM R5b	Very Turbid	
			RSEM R6	Very Turbid	
	22-Apr	5 in 30 d	RSEM L5	Very Turbid	Very Turbid
			RSEM R5b	Very Turbid	
	29-Apr	5 in 30 d	RSEM L5	Turbid	Turbid
			RSEM R5b	Very Turbid	
			RSEM R6	Turbid	
May	6-May	5 in 30 d	RSEM L5	Clear	Turbid
			RSEM R5b RSEM R6	Very Turbid Turbid	
	13-May	5 in 30 d	RSEM L5 RSEM R5b RSEM R6	Very Turbid Very Turbid Very Turbid	Very Turbid
Jun	12-Jun	Monthly	RSEM L5	Clear	Clear
			RSEM R5b	Turbid	
			RSEM R6	Turbid	
Jul	16-Jul	Monthly	RSEM L5	Clear	Clear
			RSEM R5b	Clear	
			RSEM R6	Clear	
Aug	18-Aug	Monthly	RSEM L5	Turbid	Turbid
			RSEM R5b	Turbid	
			RSEM R6	Turbid	
Sep	20-Sep	Monthly	RSEM L5	Clear	Clear
			RSEM R5b	Clear	
			RSEM R6	Clear	

<sup>1</sup> Clear flow: TSS ≤ 25 mg/L; Turbid flow: TSS > 25 mg/L and ≤ 100 mg/L; Very Turbid Flow TSS > 100 mg/L.

<sup>2</sup> RSEM L5 upstream (LBPR-4.50), RSEM R5b upstream (RBPR-5.65, 5.69 and 5.70), R6 upstream (RBPR-7.05) TSS is obtained from ALS laboratory data for each sampling date.

<sup>3</sup> Peace River upstream background TSS is obtained from the daily average turbidity recorded from continuous turbidity gauges installed at PAM-LB and PAM-RB and the site specific TSS:Turbidity relationship.

Table 3. Continued.

Month (2019)	Date	Sampling Type	Pond	Background Clear/Turbid Flow at each RSEM Pond Upstream Site <sup>1,2</sup>	Background Clear/Turbid Flow at Peace River Upstream <sup>3</sup> (PAM-LB and PAM-RB)
Oct	1-Oct	5 in 30 d	RSEM L5	Clear	Clear
			RSEM R5b	Clear	
			RSEM R6	Clear	
	8-Oct	5 in 30 d	RSEM L5	Clear	Clear
			RSEM R5b	Clear	
RSEM R6			Clear		
16-Oct	Monthly/ 5 in 30 d	RSEM L5	Clear	Clear	
		RSEM R5b	Clear		
		RSEM R6	Turbid		
22-Oct	5 in 30 d	RSEM L5	Clear	Clear	
		RSEM R5b	Clear		
		RSEM R6	Clear		
29-Oct	5 in 30 d	RSEM L5	Clear	Clear	
		RSEM R5b	Clear		
		RSEM R6	Clear		
Nov	21-Nov	Monthly	RSEM L5	Clear	Clear
			RSEM R5b	Clear	
			RSEM R6	Clear	
Dec	12-Dec	Monthly	RSEM R5b	Clear	Clear
			RSEM R6	Clear	

<sup>1</sup> Clear flow: TSS ≤ 25 mg/L; Turbid flow: TSS > 25 mg/L and ≤ 100 mg/L; Very Turbid Flow TSS > 100 mg/L.

<sup>2</sup> RSEM L5 upstream (LBPR-4.50), RSEM R5b upstream (RBPR-5.65,5.69 and 5.70), R6 upstream (RBPR-7.05) TSS is obtained from ALS laboratory data for each sampling date.

<sup>3</sup> Peace River upstream background TSS is obtained from the daily average turbidity recorded from continuous turbidity gauges installed at PAM-LB and PAM-RB and the site specific TSS:Turbidity relationship.

### 3.2.2.2. Peace River Background TSS

The RSEM ponds have EOP limits for TSS, and the continuous turbidity gauges installed on the left and right bank of the Peace River upstream of the confluence with the Moberly River (PAM-LB and PAM-RB respectively, Map 1) are used to inform PRHP of the Peace River background TSS twice daily via automated email as per Section 2.1 in BC Hydro (2017). After both gauges have transmitted data logged at 06:00 MST, the average of all of the turbidity data collected over the previous 12 hours from both the left and right bank PAM turbidity gauges is used to estimate the Peace River background TSS, which is automatically emailed to PRHP, BC Hydro, and Ecofish personnel. Similarly, this is done for the previous 12 hours after both gauges have transmitted data logged at 18:00 MST.

In order to estimate the background Peace River TSS that are provided in the automated emails, TSS:turbidity relationships developed over the course of monitoring are used to estimate TSS concentrations from the turbidity data logged by the monitoring stations. Note that background TSS data are reported by PRHP and are not included in this report.

This relationship between TSS and turbidity is dynamic and depends upon a variety of factors, including snowmelt and precipitation driven changes in the relative contributions of various sediment sources, as well as hydrology related changes in the sediment carrying capacity of the Peace River (MOE 2019). As such, a site-specific TSS:turbidity relationship has been developed for the Peace River over a range of flow and turbidity conditions and this relationship is updated regularly with additional *in-situ* turbidity measurements and laboratory analysed TSS samples to ensure the relationship reflects current conditions.

In 2019, a total of 72 water samples were collected from April to October 29, 2019 in the Peace River for laboratory analysis of TSS. These samples were collected across six monitoring sites where continuous turbidity loggers are present.

These lab-analyzed TSS data (and 52 additional samples from 2017 and 2018) were paired with turbidity data from the real stations to determine the TSS:turbidity ratio of each paired sample. The TSS:turbidity ratios of these individual samples were then plotted over time to identify whether shifts in the relationship had occurred. For each period identified, data from within that period are combined and analyzed to determine the appropriate relationship. The analysis of this TSS:turbidity ratio consists of using either a linear model with site specific interactions (if Tukey post hoc tests shows that this ratio differs amongst sites) or if there is no clear evidence of site-specific interactions, then a single common linear relationship is used.

#### 3.2.2.3. BC WQG Exceedance Evaluation and Exceedance Notifications

To determine if an exceedance of the BC WQG (short-term maximum and long-term average) observed at the Peace River IDZ monitoring sites is related to the RSEM pond discharge, or alternately, is naturally occurring, the following steps are taken upon collection of *in-situ* data and upon receipt of laboratory data:

1. The RSEM pond discharge logs (kept by PRHP) are reviewed; if there is no discharge corresponding to the exceedance (including discharge residence time), it is assumed that the exceedance was naturally occurring.
2. The IDZ monitoring result is compared to the Peace River upstream location data (i.e., RSEM R5b upstream, RSEM R6 upstream, RSEM L5 upstream, RSEM L6 upstream).
3. The IDZ monitoring result is compared to the RSEM pond data (pond data are provided by PRHP/Bureau Veritas (formerly Maxxam Analytics)).
4. If the IDZ monitoring result is higher than the RSEM pond data, then it is assumed that the exceedance was naturally occurring.
5. If the IDZ monitoring result is lower than the RSEM pond data, and the pond data exceeds the Peace River upstream data, then it is assumed that the exceedance was attributed to the RSEM pond and in accordance with the ARD ML Management Plan

requirements (BC Hydro 2016), an Exceedance Notification memorandum is issued to BC Hydro within 24 hours:

- a. Prior to composing the Exceedance Notification memorandum, BC Hydro will be notified immediately following identification of the exceedance.
- b. In the Exceedance Notification memorandum, the data are evaluated in the context of the corresponding water quality monitoring results for the Peace 03 upstream site, the two far-field downstream sites, as well as historical water quality data for the Peace River (Golder 2012, Ganshorn *et al.* 2018, Ganshorn *et al.* 2019a).
- c. The Exceedance Notification memorandum is distributed by BC Hydro to one or more representatives of each of the following parties: the Project's Independent Environmental Monitor (EDI Environmental Dynamics Inc.), BC Government (Ministry of Environment and Office of the Comptroller of Water Rights), PRHP, and PRHP's ARD Qualified Professional (Lorax Environmental).
- d. Exceedance Notification summary tables including the distribution list, are also provided as required in the applicable monthly report that Ecofish prepares for BC Hydro.

### 3.2.3. QA/QC

To ensure accurate and reliable results, all data collection and analyses undergo rigorous QA/QC. *In-situ* measurements are recorded in triplicate for each parameter. *In-situ* meters are maintained and calibrated as per manufacturer's guidelines; repair and calibration data are recorded and stored in a detailed log. QA/QC replicates (duplicates/triplicates), travel blanks, and field blanks are included in water quality sampling for laboratory analysis as required based on sampling frequency. Laboratory sample analysis is completed by ALS Environmental<sup>6</sup>, an accredited analytical laboratory with an ISO 9001:2008 and Canadian Association for Laboratory Accreditation certification. All samples are transported under standard chain of custody procedures and comprehensive QC checks are completed by the laboratory with every analysis.

Data are entered into EcoDAT, our proprietary data management system, where comprehensive manual and automated QA/QC procedures are implemented. Sample data and QA/QC results are evaluated based on the BC Guidelines for Interpreting Water Quality Data (RISC 1998) and British Columbia Field Sampling Manual (Clark 2002).

The following overall QA/QC objectives were established for the program:

- % QA/QC samples (e.g., replicates, field blanks and travel blanks) collected should be at least 10% of the overall sampling program (Clark 2002).

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<sup>6</sup> RSEM pond water quality data provided by PRHP were analyzed by Bureau Veritas (formerly Maxxam Analytics) using their own analysis and QA/QC protocols.

- Field and travel blanks detections (value greater than the ALS method detection limit (MDL)) should not exceed 5% of all parameter results, not including pH which is detectable in both samples and blanks.
- Precision between duplicates is expected to meet the Clark (2002) guideline, unless variability between replicates is a natural occurrence (e.g., during highly turbid flow TSS, metals and turbidity may be highly variable or mixing between the Moberly River and Peace River flows may cause variability):
  - Relative percent deviation (RPD) between duplicates should be <20%;
  - This metric is only calculated if at least one of the replicates was >5 x MDL.
- Precision between triplicates is expected to meet the RISC (1998) guideline, unless variability between replicates is a natural occurrence (e.g., during highly turbid flow TSS, metals and turbidity may be highly variable or mixing between the Moberly River and Peace River flows may cause variability):
  - Relative standard deviation (RSD) between triplicates should be <18%;
  - This metric is only calculated if at least one of the replicates was >5 x MDL.
- The cation - anion balance (%) should be <10% for samples that include the necessary major anions and cations for this calculation. The total anion sum and cation sum are expected to be within 10% of each other (ALS 2017).
- Considering the paired dissolved and total metals parameters, the dissolved metals (D-metals) concentration should be <1.2 \* the total metals (T-metals) concentration. This metric was calculated if the D-metal concentration was at least 5 x >MDL.

Additional QA/QC checks and procedures in 2019 included:

- Review of field data sheets, QA/QC of *in-situ* and toxicity data manually entered into EcoDAT;
- Review of electronically uploaded ALS Environmental laboratory data;
- Review of laboratory hold time exceedances and sample qualifiers, the hold time for pH is 15 minutes and therefore exceedance of this hold time is unavoidable for all field samples; and
- Review of *in-situ* measurements and corresponding laboratory results for pH, turbidity and specific conductivity. Data are evaluated to ensure that they are comparable. It is expected that these values will vary due to differences in analytical methods and precision between *in-situ* meters and laboratory instruments. This comparison is therefore completed by a Qualified Professional, and is largely qualitative ensuring that values measured in the field and in the lab are within reasonable agreement.

Laboratory hold time exceedances, sample qualifiers, field and travel blank results, and precision between replicates were reviewed by a Qualified Professional for QA/QC issues that may affect interpretation of the data presented in each of the 2019 monthly sampling reports. Duplicate laboratory results were provided individually in the monthly report summary tables for each sampling date for transparency; and error bars were included in the illustrative figures where duplicate data were available.

## 4. RESULTS

### 4.1. RSEM Pond Acute Toxicity

The RSEM pond acute toxicity testing (Rainbow Trout 96-hour LC50) summary results tables are provided in Appendix A. Sampling results for each constructed RSEM pond are summarized below. The sampling schedule transitioned to bi-monthly sampling at each pond, as per Shelley *et al.* 2019 in March 2019.

#### 4.1.1. RSEM R5a

In 2019, all 15 samples collected from the four RSEM R5a ponds (four from cells A, B and C and three from cell D) passed the acute toxicity test.

#### 4.1.2. RSEM R5b

In 2019, all six samples collected from the RSEM R5b pond passed the acute toxicity test.

#### 4.1.3. RSEM R6

In 2019, all 13 samples collected from the two RSEM R6 ponds (seven samples from RSEM R6W and six from RSEM R6E) passed the acute toxicity test.

#### 4.1.4. RSEM L5

In 2019, all nine samples collected from the two RSEM L5 ponds (four samples from RSEM L5W and five from RSEM L5E) passed the acute toxicity test.

#### 4.1.5. RSEM L6

In 2019, all five samples collected from the RSEM L6 pond passed the acute toxicity test.

#### 4.1.6. Acute Toxicity Test Failure Notification and Evaluation

In 2019, there were no acute toxicity test failures (Appendix A).

### 4.2. Peace River Water Quality

#### 4.2.1. RSEM Pond Discharge Plume Characterization

IDZ characterization work for the RSEM L5 pond commenced in 2019. Further IDZ characterization monitoring will be ongoing in 2020 to sample dilution of the discharge under additional Peace River flows and pond discharge scenarios. The results will be evaluated on an ongoing basis in 2020 to determine if there is a need for additional IDZ characterization and to consider whether changes to the plume sampling locations (sampling depth and distance from shore are warranted). No changes to sampling site locations are recommended at this time.

The results and conclusions of the RSEM L6 study (September 2019) are provided in detail in Ganshorn *et al.* 2019b; a brief summary of key results is provided below. The *in-situ* specific conductivity measurements in the Peace River upstream and within the RSEM L6 IDZ demonstrate the following:

1. The water from L6 enters the Peace River at two discrete locations.
2. The L6 Upstream site is located sufficiently upstream of any back eddy effects on water quality such that water quality is not influenced by the discharged L6 pond water.
3. The water discharged from the RSEM L6 sediment pond to the Peace River initially moves upstream (~80 to 100 m) and outwards (to ~20 m from the wetted edge) towards the thalweg of the Peace River from the points of discharge.
4. Specific conductivity data indicate that the influence of L6 RSEM sediment pond discharge on Peace River water quality dissipates to the extent that the discharge is generally no longer detectable where the back eddy flow enters the main Peace River flow under the moderate and high flow conditions in the Peace River observed on September 5, 2019.
5. Provincial guidance on IDZs provides targets for the size of an IDZ, and specifies that the IDZ should not be greater than 25% of the stream width, and may extend up to 100 m from the point of discharge. The data collected on September 5, 2019 demonstrates that L6 pond water is not detectable past 100 m from the discharge point, and only extends to about 5% of the stream width at the discharge location (extends ~20 m out into channel, channel is 380 m wide).

The conclusion of the study confirmed that the upstream and IDZ sites sampled during the IDZ characterization be used for future monitoring of discharged water from the RSEM L6 sediment pond.

#### 4.2.2. Peace River and RSEM IDZ Surface Water Quality Sampling

##### 4.2.2.1. Monthly and 5 in 30-day Surface Water Quality Sampling

Annual *in-situ* and laboratory water quality data summary tables based on data collected for monthly and 5 in 30-day sampling in 2019 are provided in Appendix A; separate tables are provided for each sampling site (Peace 03, RSEM R5b upstream, RSEM R5b IDZ, RSEM R6 upstream, RSEM R6 IDZ, RSEM L5 upstream, RSEM L5 IDZ and two far-field downstream sites). Annual average, median, minimum, maximum, and standard deviation for each parameter are provided in the tables. RSEM L6 upstream, back eddy and IDZ sites were sampled on one date (September 5) in 2019, during a planned discharge event (Ganshorn *et al.* 2019b). RSEM L6 data summary tables are provided in Appendix A. Data, with the exception of RSEM L6, were screened against the long-term and short-term BC WQG for the protection of aquatic life, and exceedances are highlighted in the summary tables. Exceedances are discussed in Section 4.2.2.3. RSEM L6 data were only screened against the short-term BC WQG because this pond only discharged to the Peace River on one day in 2019.

Annual time series bar plots for each water quality parameter based on data collected for monthly and 5 in 30-day sampling in 2019 are provided for RSEM R5b in Appendix B, for RSEM R6 in Appendix C, for RSEM L5 in Appendix D and for RSEM L6 in Appendix E. Applicable BC WQG and Site C EOP limits for each parameter are shown in the figures along with the corresponding RSEM pond water quality data (from PRHP) for each monthly and 5 in 30-day sampling date. These figures illustrate patterns in Peace River and RSEM pond water quality over the course of 2019.

#### 4.2.2.2. Peace River Background TSS

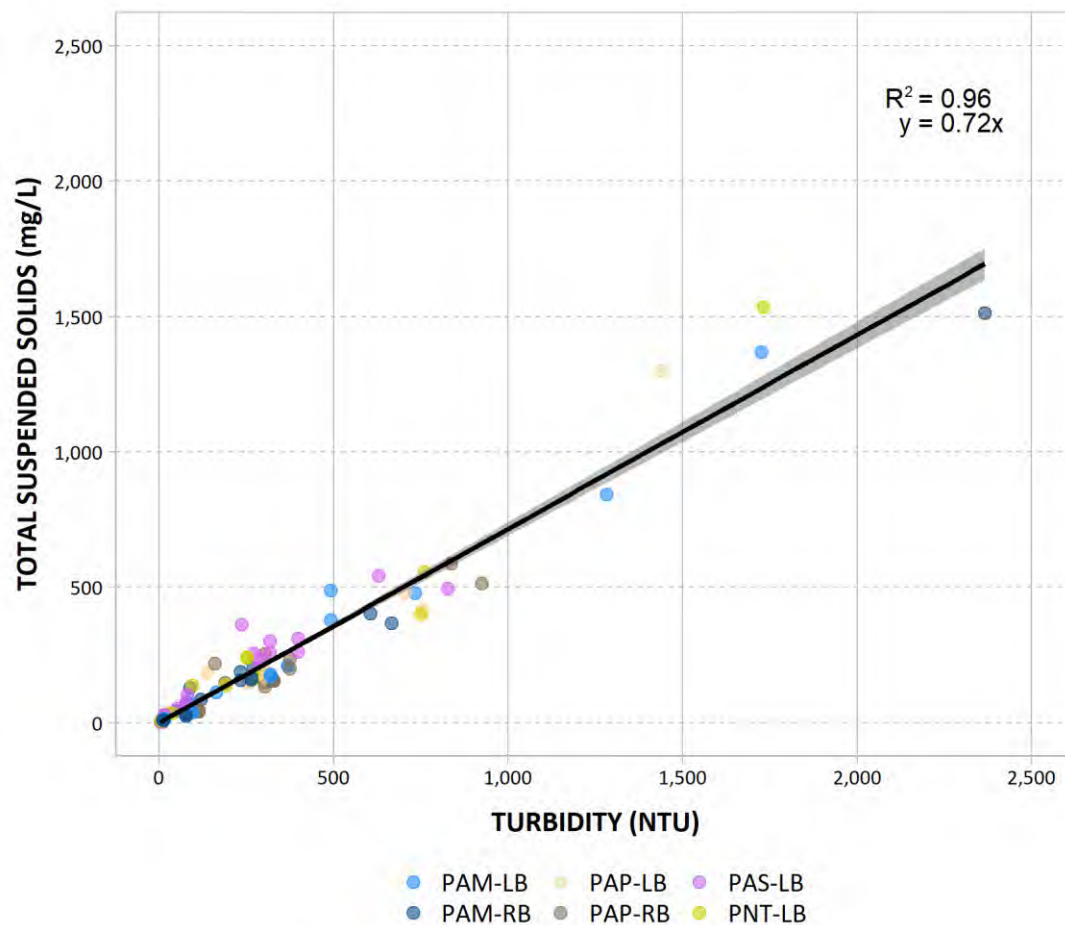
The RSEM ponds have EOP limits for TSS, and the continuous turbidity gauges installed on the left and right bank of the Peace River upstream of the confluence with the Moberly River (PAM-LB and PAM-RB respectively, (Map 1) are used to inform PRHP of the Peace River background TSS twice daily via automated email as per Section 2.1 in BC Hydro (2017). In order to do this, TSS:turbidity relationships developed over the course of monitoring are used to estimate TSS concentrations from the continuous turbidity data loggers. The TSS:turbidity relationship of 0.73:1 used in 2018 and the first half of 2019 was developed based on data collected from December 15, 2017 to November 1, 2018. The rationale for this relationship is summarized below and documented in detail in the 2018 annual report (Ganshorn *et al.* 2019a). Note that background TSS data are reported by PRHP and are not included in this report.

In total 124 samples collected over 18 dates including 48 samples from 10 dates in 2018 were used to develop the TSS:turbidity relationship. These data encompassed a wide range of turbidity (4 NTU to 2,365 NTU) and TSS (3 mg/L to 1,535 mg/L) observations. These data were analyzed using a linear model that allowed site specific interactions in order to determine whether the TSS:turbidity relationship differed across sites. These results found that the TSS:turbidity relationship varied from 0.61 to 0.81:1 across the six sites. Tukey post hoc tests found that the relationship at sites on the right bank of the Peace River was significantly lower than at sites on the left bank. However, given the overall similarity of these relationships, and the high leverage of a single value at PAM-RB, the decision was made to continue with a single combined relationship for the Peace River until stronger evidence of site-specific differences is available.

Proceeding with a linear model common to all sites in the Peace River including data from 2019, a combined TSS:turbidity relationship of 0.72:1 was found (i.e.,  $TSS = 0.72 * Turbidity$ ). This relationship has good agreement amongst the data ( $R^2 = 0.96$ ) (Figure 1), and was very similar to the prior TSS:turbidity relationship of 0.73:1 ( $R^2 = 0.97$ ). The new relationship of 0.72 was implemented beginning on July 26, 2019 to estimate of TSS from turbidity.



Figure 1. Combined relationship for TSS:turbidity in the Peace River for 2018 and 2019. Shaded areas are 95% confidence intervals.



#### 4.2.2.3. BC WQG Exceedances

In the monitoring conducted in 2019, there were no observations of exceedances in the Peace River of the BC WQG for the protection of aquatic life that were related to discharge of water from the RSEM ponds. Similar to 2017 (Ganshorn *et al.* 2018), 2018 (Ganshorn *et al.* 2019a) and baseline monitoring (Golder 2012), there were natural exceedances in the Peace River of the BC WQG for the protection of aquatic life. Natural exceedances occurred predominantly during the freshet period (April to the end of June), and were observed at all sample sites (with the exception of RSEM L6 where no exceedances were observed on the single sampling date in September 2019), and were most often associated with elevated concentrations of suspended sediment in the Peace River. The BC WQG exceedances shown on the tables in Appendix A and on the graphs shown in Appendix B, Appendix C, and Appendix D are all naturally occurring exceedances.

#### 4.2.3. QA/QC

Overall QA/QC objectives were met in 2019. All QA/QC issues were reviewed and no data were excluded due to QA/QC failures in 2019.

The results of the QA/QC checks and procedures completed in 2019 are provided in summary tables in Appendix F. The number of QA/QC laboratory samples (20 replicates, 21 field blanks, and 20 travel blanks) comprised 27% of the overall sampling program based on the total number of monthly and 5 in 30-day samples collected in 2019 (61/227 samples). The number of QA/QC *in-situ* measurements is 66% (2/3) based on the triplicate measurement for each parameter. Overall, sampling in 2019 has surpassed the QA/QC objective of at least 10% QA/QC effort.

The 2019 field blank and travel blank results were non-detectable (below the MDL) for 98.9% of the data (18/3038) set thereby meeting the QA/QC objective of >95% non-detectable results for field and travel blanks (Appendix F).

On occasion, hold times were exceeded for D-orthophosphate, nitrite, nitrate, turbidity, and TSS in 2019 due to field sampling logistics, shipping delays, ALS backlog, and ALS equipment issues. Where hold times were exceeded, results were reviewed to ensure parameter values were consistent with previous sampling results, and no data were flagged in 2019 due to hold time exceedances. All hold time exceedances which occurred in 2019 are summarized in Appendix F, with the exception of pH which has a hold time of only 15 minutes (laboratory analysis within this time frame is not practical).

Elevated variability between duplicate laboratory samples (RPD > 20%) and triplicate *in-situ* measurements (RSD > 18%) was observed on a number of occasions for TSS, TDS, turbidity, total phosphorus, organic carbon, hardness, and total and dissolved metals, during turbid and clear flow conditions. Variability in excess of the QA/QC objective thresholds occurred on 70 of 1,711 occasions (4.1%) for duplicate samples and 3 of 498 occasions (0.6%) for *in-situ* samples (Appendix F). These results are thought to reflect real heterogeneity in the Peace River. No substantial effect on data quality is expected.

The cation-anion balance was less than 10% in all samples. The majority of dissolved/total metal parameter pairs (99.8% or 10,763 out of a total of 10,786 parameter pairs), met the QA/QC objective: the concentration of D-metals was <1.2 \* the concentration of T-metals (data summary is provided in Appendix F).

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## APPENDICES

## Appendix A. Site C PAG Contact RSEM Surface Water Quality Monitoring Data Tables

**Table 4.** Peace River continuous turbidity gauge site description and coordinates, data from gauges were used to estimate background TSS concentrations in the Peace River commencing in September 2017.

Site Name <sup>1</sup>	Description	UTM Coordinates (Zone 10V)	
		Easting (m)	Northing (m)
PAM-LB	Continuous turbidity gauge installed in the Peace River above Moberly River - Left Bank	627,684	6,232,396
PAM-RB	Continuous turbidity gauge installed in the Peace River above Moberly River - Right Bank	627,221	6,232,276

**Table 5. Peace River water quality monitoring site descriptions and coordinates, 2019.**

Site Name <sup>1</sup>	Site Common Name	Description	UTM Coordinates (Zone 10V)	
			Easting (m)	Northing (m)
PR-3.88	Peace 03	In the Peace River upstream of the confluence with the Moberly River.	628,027	6,231,374
LBPR-4.50	L5 Upstream	In the Peace River, 5m upstream of the L5 discharge channel.	628,602	6,230,890
LBPR-4.50ALT	L5 Upstream Alternate #1	In the Peace River, located instream perpendicular to the primary monitoring site (LBPR-4.50), sampled during low flow.	628,571	6,230,873
LBPR-4.60	L5 IDZ	In the Peace River, 100m downstream of the L5 discharge channel.	628,616	6,230,789
LBPR-4.60ALT	L5 IDZ Alternate #1	In the Peace River, located instream perpendicular to primary monitoring site (LBPR-4.60), sampled during low flow in the Peace River.	628,606	6,230,770
RBPR-5.65	R5b Upstream Alternate #1	In Peace River, downstream of the Moberly River confluence with the Peace River. Alternate R5b upstream sample location was sampled as water was shallow at the primary monitoring site (RBPR-5.70).	629,101	6,229,966
RBPR-5.69	R5b Upstream Alternate #2	In Peace River, downstream of the Moberly River confluence with the Peace River. Alternate R5b upstream location was sampled to avoid ice cover at the primary monitoring site (RBPR-5.70).	629,079	6,229,932
RBPR-5.70	R5b Upstream	In Peace River, downstream of the Moberly River confluence with the Peace River, 5m upstream of the R5b discharge channel.	629,056	6,229,883
RBPR-5.81	R5b IDZ	In the Peace River, 100m downstream of R5b discharge channel.	629,135	6,229,813
RBPR-7.05	R6 Upstream	In the Peace River, 5m upstream of the R6 discharge channel.	630,283	6,229,254
RBPR-7.15	R6 IDZ	In the Peace River, 100m downstream of the R6 discharge channel.	630,383	6,229,259
LBPR-6.83	L6 Upstream	In the Peace River, ~250 m upstream of the L6 discharge channel. Site is located more than 5 m upstream of the point of discharge due to the presence of a large back eddy.	630,160	6,229,663
LBPR-7.01	L6 Back eddy	In the Peace River, ~ 10 m upstream of the L6 discharge channel in the back eddy.	630,356	6,229,642
LBPR-7.21	L6 IDZ	In the Peace River 100 m downstream of the location where the back eddy flow joins the main Peace River flow.	630,495	6,229,560
LBPR-9.34	MOE far-field downstream left bank	In the Peace River, downstream of the project.	632,498	6,229,678
RBPR-9.34	MOE far-field downstream right bank	In the Peace River, downstream of the project.	632,614	6,229,369

<sup>1</sup> Site names follow a river chainage convention. The numbers in the site name indicate the distance (in km) downstream of the W.A.C. Bennett Dam less 100 km. River chainages at each site are measured perpendicular to the Peace River center line, obtained from the BC government GIS data set.

Table 6. RSEM R5a pond toxicity sampling results, 2019.

Year	Date	Site <sup>1</sup>	Sampling Schedule	96 hr LC50 % (v/v)
2019	18-Mar	RSEMR5aA-EOPTOX <sup>2</sup>	Single Event	>100
		RSEMR5aB-SPTOX	Single Event	>100
		RSEMR5aC-SPTOX	Single Event	>100
		RSEMR5aD-SPTOX	Single Event	>100
	30-Jul	RSEMR5aA-SPTOX	Bi-monthly <sup>3</sup>	>100
	31-Jul	RSEMR5aB-SPTOX	Bi-monthly	>100
		RSEMR5aC-SPTOX	Bi-monthly	>100
		RSEMR5aD-SPTOX	Bi-monthly	>100
	11-Sep	RSEMR5aA-SPTOX	Bi-monthly	>100
		RSEMR5aB-SPTOX	Bi-monthly	>100
		RSEMR5aC-SPTOX	Bi-monthly	>100
	16-Sep	RSEMR5aD-SPTOX	Bi-monthly	>100
	14-Nov	RSEMR5aA-SPTOX	Bi-monthly	>100
		RSEMR5aB-SPTOX	Bi-monthly	>100
		RSEMR5aC-SPTOX	Bi-monthly	>100
		RSEMR5aD	Bi-monthly	-

Note >100% (v/v) indicates toxicity test passed.

<sup>1</sup> The acute toxicity sample is collected from the RSEM pond if the pond is not discharging (indicated by SP in the site name), or collected from the outflow of the discharge pipe if the pond is discharging (indicated by EOP (end of pipe) in the site name).

<sup>2</sup> RSEM R5aA was collected at the end of pipe (EOP). The discharge was onto the frozen riparian cut area, no channel was observed. The discharge flow was moving west to the silt fence and trickled into the Peace River over snow and frozen vegetation.

<sup>3</sup> Bi-monthly pond toxicity sampling schedule is in effect as of February 27, 2019 (CWR 2019). RSEM R5a is not expected to discharge under normal operating conditions, however to meet the requirements of the RSEM R5a Discharge Pumping Plan (Appendix C of PRHP 2019), bi-monthly sampling commenced in July 2019. If the pond does not contain enough water the sampling will be postponed until sufficient water is available (indicated by a dash).



Table 7. RSEM R5b pond toxicity sampling results, 2019.

Year	Date	Site <sup>1</sup>	Sampling Schedule	96 hr LC50 % (v/v) [95% CI]
2019	20-Jan	RSEMR5B-EOPTOX	Quarterly	>100
	20-Mar	RSEMR5B-EOPTOX	<sup>2</sup> Bi-monthly	>100
	14-May	RSEMR5B-EOPTOX	Bi-monthly	>100
	15-Jul	RSEMR5B-EOPTOX	Bi-monthly	>100
	11-Sep	RSEMR5B-EOPTOX	Bi-monthly	>100
	14-Nov	RSEMR5B-EOPTOX	Bi-monthly	>100

Note >100% (v/v) indicates toxicity test passed.

<sup>1</sup> The acute toxicity sample is collected from the RSEM pond if the pond is not discharging (indicated by SP in the site name), or collected from the outflow of the discharge pipe if the pond is discharging (indicated by EOP (end of pipe) in the site name).

<sup>2</sup> Bi-monthly pond toxicity sampling schedule is in effect as of February 27, 2019 (CWR 2019). If the pond does not contain enough water the sampling will be postponed until sufficient water is available.

**Table 8. RSEM R6 pond toxicity sampling results, 2019.**

Year	Date	Site <sup>1</sup>	Sampling Schedule	96 hr. LC50 % (v/v)
2019	21-Jan	RSEMR6W-SPTOX	<sup>2</sup> First bi-weekly	>100
		RSEMR6E-SPTOX	<sup>2</sup> First bi-weekly	>100
	29-Jan	RSEMR6W-EOPTOX	<sup>3</sup> Opportunistic testing	>100
	13-Mar	RSEMR6W-SPTOX	<sup>4</sup> Bi-monthly	>100
		RSEMR6E-SPTOX	Bi-monthly	>100
	14-May	RSEMR6W-EOPTOX	Bi-monthly	>100
		RSEMR6E-EOPTOX	Bi-monthly	>100
	15-Jul	RSEMR6W-EOPTOX	Bi-monthly	>100
		RSEMR6E-EOPTOX	Bi-monthly	>100
	16-Sep	RSEMR6W-EOPTOX	Bi-monthly	>100
		RSEMR6E-EOPTOX	Bi-monthly	>100
	19-Nov	RSEMR6W-SPTOX	Bi-monthly	>100
		RSEMR6E-EOPTOX	Bi-monthly	>100

Note >100% (v/v) indicates toxicity test passed.

Scheduled collection dates assume toxicity test results will continue to be >100% (v/v).

<sup>1</sup> The acute toxicity sample is collected from the RSEM pond if the pond is not discharging (indicated by SP in the site name), or collected from the outflow of the discharge pipe if the pond is discharging (indicated by EOP (end of pipe) in the site name).

<sup>2</sup> Sampling reverted to bi-weekly due to 30 days without discharge.

<sup>3</sup> Additional sampling was performed as a precautionary measure due to a possible EOP exceedance in the RSEM R6W pond water. Thereafter it was determined that no EOP exceedance occurred on this date.

<sup>4</sup> Bi-monthly pond toxicity sampling schedule is in effect as of February 27, 2019 (CWR 2019). If the pond does not contain enough water the sampling will be postponed until sufficient water is available.

**Table 9. RSEM L5 pond toxicity sampling results, 2019.**

Year	Date	Site <sup>1</sup>	Sampling Schedule	96 hr LC50 % (v/v)
2019	13-Mar	RSEML5W-SPTOX	<sup>2</sup> Bi-monthly	>100
		RSEML5E-SPTOX	Bi-monthly	>100
	14-May	RSEML5W-SPTOX	Bi-monthly	>100
		RSEML5E-EOPTOX	Bi-monthly	>100
	15-Jul	RSEML5W-SPTOX	Bi-monthly	>100
		RSEML5E-EOPTOX	Bi-monthly	>100
	16-Sep	RSEML5W-SPTOX	Bi-monthly	>100
		RSEML5E-EOPTOX	Bi-monthly	>100
	19-Nov	RSEML5W	Bi-monthly	-
		RSEML5E-SPTOX	Bi-monthly	>100

Note >100% (v/v) indicates toxicity test passed.

<sup>1</sup> The acute toxicity sample is collected from the RSEM pond if the pond is not discharging (indicated by SP in the site name), or collected from the outflow of the discharge pipe if the pond is discharging (indicated by EOP (end of pipe) in the site name).

<sup>2</sup> Bi-monthly pond toxicity sampling schedule is in effect as of February 27, 2019 (CWR 2019). If the pond does not contain enough water the sampling will be postponed until sufficient water is available (indicated by a dash).

Dash indicates that toxicity sampling was not completed due to lack of water in the pond. Sample will be collected once a sufficient volume of water is available in the pond.

**Table 10. RSEM L6 pond toxicity sampling results, 2019.**

Year	Date	Site <sup>1</sup>	Sampling Schedule	96 hr LC50 % (v/v)
2019	28-Mar	RSEML6-SPTOX	Bi-monthly	>100
	14-May	RSEML6-SPTOX	Bi-monthly	>100
	15-Jul	RSEML6-SPTOX	Bi-monthly	>100
	4-Sep	RSEML6-SPTOX	Bi-monthly	>100
	19-Nov	RSEML6-SPTOX	Bi-monthly	>100

Note >100% (v/v) indicates toxicity test passed.

<sup>1</sup> The acute toxicity sample is collected from the RSEM pond if the pond is not discharging (indicated by SP in the site name), or collected from the outflow of the discharge pipe if the pond is discharging (indicated by EOP (end of pipe) in the site name).

**Table 11. 2019 annual data summary statistics for lab and *in-situ* sampling (physical tests, anions and nutrients) collected at the PR-3.88 site (Peace 03).**

Parameters (mg/L)	MDL	PEACE 03/PR-3.88							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		Date: 2019	n.	n<MDL	Avg.	Median	Min.	Max.		S.D.	WQG <sup>2</sup>
<b>Organic Carbon</b>											
Dissolved Organic Carbon	0.5	23	0	3.48	2.48	2.35	7.38	1.32			0
Total Organic Carbon	0.5	23	0	4.47	2.81	2.44	12	2.43			0
<b>Physical Tests</b>											
Sp. Conductivity (lab, µS/cm)	2	23	0	211	206	188	235	14			0
Sp. Conductivity (In Situ, µS/cm)		60	0	206	224	144	244	26			0
Hardness (as CaCO <sub>3</sub> )	0.5	23	0	109	112	95.3	124	7.8			0
Total Dissolved Solids	13/20	23	0	141	132	106	182	22			0
Total Suspended Solids	1.0/2.0/3.0	23	0	45.5	16.3	2.7	172	58.81			0
Turbidity (In Situ, NTU)		60	0	27.1	11.7	1.49	119	37.75			0
Turbidity (lab, NTU)	0.1	23	0	43.9	12.4	1.03	183	60.41			0
pH (In Situ, pH units)		60	0	8.02	8.07	7.78	8.32	0.13		6.5 to 9.0	0
pH (lab, pH units)	0.1	23	0	8.17	8.17	8.03	8.33	0.07		6.5 to 9.0	0
<b>Anions and Nutrients</b>											
Alkalinity, Total (as CaCO <sub>3</sub> )	1	23	0	95.2	97.8	85.5	108	8.1			0
Ammonia, Total (as N)	0.005	23	13	0.00693	0.005	0.005	0.0132	0.0028	0.102	0.68	0
Bromide (Br)	0.05	23	23	0.05	0.05	0.05	0.05	0			0
Chloride (Cl)	0.5	23	23	0.5	0.5	0.5	0.5		150	600	0
Fluoride (F)	0.02	23	0	0.0484	0.047	0.039	0.068	0.007		EQ	0
Nitrate (as N)	0.005	23	0	0.0597	0.0471	0.0308	0.0904	0.0155	3	32	0
Nitrite (as N)	0.001	23	22	0.00101	0.001	0.001	0.0012	0	0.02	0.06	0
Orthophosphate-Dissolved (as P)	0.001	23	17	0.00133	0.001	0.001	0.0042	0.0008			0
Sulfate (SO <sub>4</sub> )	0.3	23	0	18.4	20.1	14.3	22.2	2.7	309		0
Total Phosphorus (P)	0.0020/0.020	23	0	0.0516	0.0189	0.0039	0.182	0.0617			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 12. 2019 annual data summary statistics for total metals collected at the PR-3.88 site (Peace 03).**

Parameters (mg/L)	MDL	PEACE 03/PR-3.88							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		Date: 2019	n.	n<MDL	Avg.	Median	Min.	Max.		S.D.	WQG <sup>2</sup>
<b>Total Metals</b>											
Aluminum (Al)	0.003	23	0	0.803	0.226	0.0352	2.76	0.948			0
Antimony (Sb)	0.0001	23	12	0.000144	0.0001	0.0001	0.00028	0.00006			0
Arsenic (As)	0.0001	23	0	0.00075	0.00039	0.0002	0.00231	0.00071		0.005	0
Barium (Ba)	0.0001	23	0	0.0617	0.0475	0.0332	0.138	0.0311	1		0
Beryllium (Be)	0.00002	23	14	0.0000527	0.00002	0.00002	0.000179	0.000053	0.00013		0
Bismuth (Bi)	0.00005	23	23	0.00005	0.00005	0.00005	0.00005	0.00005			0
Boron (B)	0.01	23	22	0.0101	0.01	0.01	0.012	0		1.2	0
Cadmium (Cd)	0.000005	23	0	0.0000923	0.0000392	0.0000124	0.000276	0.0000951			0
Calcium (Ca)	0.05	23	0	31.7	30.3	27.2	37.3	3.2			0
Chromium (Cr)	0.0001	23	0	0.00148	0.00052	0.00017	0.00479	0.00164			0
Cobalt (Co)	0.0001	23	8	0.000617	0.00019	0.0001	0.00211	0.00075	0.004	0.11	0
Copper (Cu)	0.0005	23	0	0.0025	0.00108	0.00065	0.00683	0.00224			0
Iron (Fe)	0.01	23	0	1.35	0.39	0.047	4.85	1.765		1	8
Lead (Pb)	0.00005	23	3	0.000719	0.000229	0.00005	0.00265	0.00093	0.0069	EQ	0
Lithium (Li)	0.001	23	0	0.00277	0.0021	0.0011	0.0056	0.0015			0
Magnesium (Mg)	0.1	23	0	7.98	7.97	6.31	10	1.12			0
Manganese (Mn)	0.0001	23	0	0.0246	0.00938	0.00216	0.0887	0.02961	1.0846	EQ	0
Mercury (Hg)	0.0000050/ 0.000025/ 0.000050	23	20	0.0000143	0.000012	0.000005	0.00005	0.000016	0.00002		0
Molybdenum (Mo)	0.00005	23	0	0.00112	0.00171	0.000782	0.00171	0.000274	1	2	0
Nickel (Ni)	0.0005	23	0	0.00292	0.0014	0.00072	0.00829	0.00279	0.1020		0
Phosphorus (P)	0.05	23	15	0.08	0.05	0.05	0.222	0.053			0
Potassium (K)	0.1	23	0	0.812	0.53	0.44	1.61	0.4			0
Selenium (Se)	0.00005	23	0	0.000399	0.000474	0.000257	0.00062	0.000104	0.002		0
Silicon (Si)	0.1	23	0	3.31	2.39	2.18	6.1	1.36			0
Silver (Ag)	0.00001	23	15	0.0000199	0.00001	0.00001	0.000059	0.000017	0.0015	EQ	0
Sodium (Na)	0.05	23	0	1.78	1.56	1.28	2.45	0.36			0
Strontium (Sr)	0.0002	23	0	0.126	0.14	0.104	0.147	0.013			0
Sulfur (S)	0.5	23	0	6.54	6.73	4.75	8.08	1.01			0
Thallium (Tl)	0.00001	23	12	0.0000291	0.000013	0.00001	0.000091	0.000029			0
Tin (Sn)	0.0001	23	22	0.0001	0.0001	0.0001	0.00011	0			0
Titanium (Ti)	0.00030- 0.0042	23	4	0.0129	0.00399	0.00081	0.0378	0.01263			0
Uranium (U)	0.00001	23	0	0.000575	0.000507	0.000458	0.00077	0.0001	0.0085		0
Vanadium (V)	0.0005	23	2	0.00341	0.0012	0.0005	0.0117	0.0037			0
Zinc (Zn)	0.003	23	12	0.00846	0.003	0.003	0.0272	0.0084	0.0218	EQ	0
Zirconium (Zr)	0.00030/ 0.00060	23	22	0.000318	0.0003	0.0003	0.0006	0.0001			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 13. 2019 annual data summary statistics for dissolved metals collected at the PR-3.88 site (Peace 03).**

Parameters (mg/L)	MDL	PEACE 03/PR-3.88							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		Date: 2019	n.	n<MDL	Avg.	Median	Min.	Max.		S.D.	WQG <sup>2</sup>
<b>Dissolved Metals</b>											
Aluminum (Al)	0.001	23	0	0.0133	0.0064	0.0026	0.0297	0.0103	0.05	0.1	0
Antimony (Sb)	0.0001	23	22	0.000101	0.0001	0.0001	0.00012	0			0
Arsenic (As)	0.0001	23	0	0.000227	0.00019	0.00018	0.00029	0.00003			0
Barium (Ba)	0.0001	23	0	0.0407	0.0437	0.0314	0.0502	0.0054			0
Beryllium (Be)	0.00002	23	23	0.00002	0.00002	0.00002	0.00002				0
Bismuth (Bi)	0.00005	23	23	0.00005	0.00005	0.00005	0.00005				0
Boron (B)	0.01	23	23	0.01	0.01	0.01	0.01	0			0
Cadmium (Cd)	0.000005	23	0	0.0000132	0.0000219	0.0000065	0.0000219	0.0000042	0.00023	EQ	0
Calcium (Ca)	0.05	23	0	30.8	32.6	26.7	35.2	2.2			0
Chromium (Cr)	0.0001	23	17	0.000109	0.0001	0.0001	0.00017	0.00002			0
Cobalt (Co)	0.0001	23	19	0.000104	0.0001	0.0001	0.00014	0.00001			0
Copper (Cu)	0.0002	23	0	0.000837	0.0006	0.00052	0.00149	0.00028	0.0012	EQ	0
Iron (Fe)	0.01	23	7	0.0293	0.012	0.01	0.081	0.023		0.35	0
Lead (Pb)	0.00005	23	19	0.0000513	0.00005	0.00005	0.000061	0.000003			0
Lithium (Li)	0.001	23	1	0.00193	0.002	0.001	0.0029	0.0006			0
Magnesium (Mg)	0.1	23	0	7.67	7.56	6.47	8.74	0.65			0
Manganese (Mn)	0.0001	23	0	0.00276	0.00286	0.00044	0.0101	0.00306			0
Mercury (Hg)	0.000005	23	23	0.000005	0.000005	0.000005	0.000005				0
Molybdenum (Mo)	0.00005	23	0	0.00106	0.00173	0.00075	0.00173	0.00026			0
Nickel (Ni)	0.0005	23	0	0.000969	0.00082	0.00058	0.00185	0.00038			0
Phosphorus (P)	0.05	23	23	0.05	0.05	0.05	0.05	0			0
Potassium (K)	0.1	23	0	0.564	0.46	0.43	0.82	0.12			0
Selenium (Se)	0.00005	23	0	0.000389	0.000383	0.00021	0.000539	0.000087			0
Silicon (Si)	0.05	23	0	2.09	2.04	1.97	2.24	0.07			0
Silver (Ag)	0.00001	23	23	0.00001	0.00001	0.00001	0.00001				0
Sodium (Na)	0.05	23	0	1.77	1.34	1.34	2.32	0.33			0
Strontium (Sr)	0.0002	23	0	0.123	0.13	0.106	0.142	0.01			0
Sulfur (S)	0.5	23	0	6.25	6.35	4.67	7.75	0.96			0
Thallium (Tl)	0.00001	23	23	0.00001	0.00001	0.00001	0.00001				0
Tin (Sn)	0.0001	23	20	0.000109	0.0001	0.0001	0.00025	0.00003			0
Titanium (Ti)	0.0003	23	7	0.00122	0.00041	0.0003	0.00347	0.00116			0
Uranium (U)	0.00001	23	0	0.000513	0.000517	0.000434	0.000584	0.000035			0
Vanadium (V)	0.0005	23	23	0.0005	0.0005	0.0005	0.0005	0			0
Zinc (Zn)	0.001	23	22	0.00103	0.001	0.001	0.0018	0.0002			0
Zirconium (Zr)	0.0003	23	23	0.0003	0.0003	0.0003	0.0003				0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 14. 2019 annual data summary statistics for lab and *in-situ* sampling (physical tests, anions and nutrients) collected at the RSEM R5b upstream sites (RBPR-5.65, RBPR-5.69 and RBPR 5.70).**

Parameters (mg/L)	MDL	RSEM R5b Upstream/RBPR-5.65/RBPR-5.69/RBPR5.70							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG <sup>2</sup>	# Exc
<b>Date: 2019</b>											
<b>Organic Carbon</b>											
Dissolved Organic Carbon	0.5	20	0	5.68	5.57	2.47	10.3	2.22			0
Total Organic Carbon	0.5	20	0	7.05	6.16	2.81	19.9	4.01			0
<b>Physical Tests</b>											
Sp. Conductivity (lab, µS/cm)		57	0	226	230	127	315	39			0
Sp. Conductivity (In Situ, µS/cm)	2	20	0	226	215	192	283	23			0
Hardness (as CaCO <sub>3</sub> )	0.5	20	0	120	123	94.7	152	14.1			0
Total Dissolved Solids	13/20	20	0	161	141	113	305	46			0
Total Suspended Solids	1.0/2.0/3.0/5.0	20	0	103	16.1	4.8	651	178.77			0
Turbidity (In Situ, NTU)		57	0	72	9.53	1.67	410	114.77			0
Turbidity (lab, NTU)	0.1	20	0	94.9	10.5	3.12	622	173.95			0
pH (In Situ, pH units)		57	0	7.95	8.37	7.29	8.38	0.24		6.5 to 9.0	0
pH (lab, pH units)	0.1	20	0	8.17	8.04	7.81	8.33	0.12		6.5 to 9.0	0
<b>Anions and Nutrients</b>											
Alkalinity, Total (as CaCO <sub>3</sub> )	1	20	0	113	111	84.7	152	15			0
Ammonia, Total (as N)	0.005	20	9	0.00769	0.0056	0.005	0.0193	0.0043	0.102	0.68	0
Anion Sum		20	0	2.57	2.45	1.99	3.42	0.31			0
Bromide (Br)	0.05	20	20	0.05	0.05	0.05	0.05	0			0
Chloride (Cl)	0.5	20	12	0.561	0.5	0.5	0.77	0.1	150	600	0
Fluoride (F)	0.02	20	0	0.0654	0.0745	0.038	0.087	0.014		EQ	0
Nitrate (as N)	0.005	20	1	0.0556	0.0076	0.005	0.141	0.038	3	32	0
Nitrite (as N)	0.001	20	19	0.00102	0.001	0.001	0.0013	0.0001	0.02	0.06	0
Orthophosphate-Dissolved (as P)	0.001	20	13	0.0017	0.001	0.001	0.0085	0.0019			0
Sulfate (SO <sub>4</sub> )	0.3	20	0	14.1	11.3	11.3	17.4	1.8	309		0
Total Phosphorus (P)	0.0020/0.020	20	0	0.101	0.0192	0.0097	0.601	0.1594			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.



**Table 15. 2019 annual data summary statistics for total metals collected at the RSEM R5b upstream sites (RBPR-5.65, RBPR-5.69 and RBPR 5.70).**

Parameters (mg/L)	MDL	RSEM R5b IDZ/RBPR-5.81						BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.		S.D.	WQG <sup>2</sup>
<b>Total Metals</b>										
Aluminum (Al)	0.003	20	0	1.34	0.27	0.0778	7.29	2.0516		0
Antimony (Sb)	0.0001	20	5	0.00016	0.00011	0.0001	0.0004	0.0001		0
Arsenic (As)	0.0001	20	0	0.00116	0.00034	0.00023	0.00551	0.00151	0.005	1
Barium (Ba)	0.0001	20	0	0.139	0.117	0.0354	0.341	0.0835	1	0
Beryllium (Be)	0.00002	20	10	0.0000917	0.00002	0.00002	0.000488	0.000134	0.00013	0
Bismuth (Bi)	0.00005	20	17	0.0000596	0.00005	0.00005	0.000161	0.000027		0
Boron (B)	0.01	20	17	0.0107	0.01	0.01	0.015	0.002	1.2	0
Cadmium (Cd)	0.000005	20	0	0.000125	0.0000305	0.0000213	0.000666	0.0001773		0
Calcium (Ca)	0.05	20	0	35.2	30.4	26.7	50.8	5.9		0
Chromium (Cr)	0.0001	20	0	0.00246	0.00051	0.00023	0.0138	0.00376		0
Cobalt (Co)	0.0001	20	2	0.00117	0.00018	0.0001	0.00717	0.0019	0.004	0.11
Copper (Cu)	0.0005	20	0	0.0042	0.0013	0.00084	0.021	0.00539		0
Iron (Fe)	0.01	20	0	2.68	0.411	0.109	16.3	4.431	1	7
Lead (Pb)	0.00005	20	0	0.00151	0.000226	0.000071	0.00934	0.002528	EQ	EQ
Lithium (Li)	0.001	20	0	0.00442	0.00305	0.0014	0.0138	0.0032		0
Magnesium (Mg)	0.1	20	0	9.29	8.29	6.35	13.3	1.75		0
Manganese (Mn)	0.0001	20	0	0.052	0.0153	0.00417	0.286	0.07327	EQ	EQ
Mercury (Hg)	0.0000050/ 0.000025/ 0.000050	20	18	0.0000126	0.000005	0.000005	0.00005	0.000015	0.00002	
Molybdenum (Mo)	0.00005	20	0	0.00074	0.000596	0.000454	0.000983	0.000143	1	2
Nickel (Ni)	0.0005	20	0	0.00509	0.00171	0.00083	0.0257	0.00664	EQ	
Phosphorus (P)	0.05	20	12	0.124	0.05	0.05	0.587	0.149		0
Potassium (K)	0.1	20	0	1.18	0.7	0.47	3.48	0.83		0
Selenium (Se)	0.00005	20	0	0.000332	0.000243	0.000153	0.000755	0.000142	0.002	
Silicon (Si)	0.1	20	0	3.83	2.11	1.95	12.3	2.9		0
Silver (Ag)	0.00001	20	13	0.0000343	0.00001	0.00001	0.000187	0.000049	EQ	EQ
Sodium (Na)	0.05	20	0	2.22	2.02	1.36	3.84	0.57		0
Strontium (Sr)	0.0002	20	0	0.108	0.0938	0.0921	0.153	0.0137		0
Sulfur (S)	0.5	20	0	5.03	3.65	3.61	6.41	0.85		0
Thallium (Tl)	0.00001	20	11	0.0000408	0.00001	0.00001	0.000206	0.000056		0
Tin (Sn)	0.0001	20	19	0.000103	0.0001	0.0001	0.00016	0.00001		0
Titanium (Ti)	0.00030- 0.0048	20	5	0.0134	0.00614	0.0018	0.0454	0.0133		0
Uranium (U)	0.00001	20	0	0.000498	0.000308	0.000304	0.00114	0.000196	0.0085	
Vanadium (V)	0.0005	20	0	0.00503	0.00119	0.00057	0.0258	0.00729		0
Zinc (Zn)	0.003	20	8	0.0142	0.003	0.003	0.0763	0.0204	EQ	EQ
Zirconium (Zr)	0.0003	20	17	0.000313	0.0003	0.0003	0.00042	0.00004		0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 16. 2019 annual data summary statistics for dissolved metals collected at the RSEM R5b upstream sites (RBPR-5.65, RBPR-5.69 and RBPR-5.70).**

Parameters (mg/L)	MDL	RSEM R5b IDZ/RBPR-5.81						BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum		
		n.	n<MDL	Avg.	Median	Min.	Max.		S.D.	WQG <sup>2</sup>	# Exc
<b>Dissolved Metals</b>											
Aluminum (Al)	0.001	20	0	0.0132	0.0121	0.0049	0.0315	0.0066	0.05	0.1	0
Antimony (Sb)	0.0001	20	17	0.000102	0.0001	0.0001	0.00012	0.00001			0
Arsenic (As)	0.0001	20	0	0.000258	0.00024	0.00017	0.00039	0.00005			0
Barium (Ba)	0.0001	20	0	0.0946	0.122	0.0343	0.159	0.0344			0
Beryllium (Be)	0.00002	20	20	0.00002	0.00002	0.00002	0.00002				0
Bismuth (Bi)	0.00005	20	20	0.00005	0.00005	0.00005	0.00005	0			0
Boron (B)	0.01	20	20	0.01	0.01	0.01	0.01	0			0
Cadmium (Cd)	0.000005	20	0	0.0000133	0.000009	0.000007	0.0000236	0.0000044	0.00023	EQ	0
Calcium (Ca)	0.05	20	0	33.2	34.2	27.2	41	3.6			0
Chromium (Cr)	0.0001	20	15	0.000107	0.0001	0.0001	0.00017	0.00002			0
Cobalt (Co)	0.0001	20	14	0.000114	0.0001	0.0001	0.00022	0.00003			0
Copper (Cu)	0.0002	20	0	0.00111	0.000905	0.00062	0.00201	0.00042	EQ	EQ	0
Iron (Fe)	0.01	20	1	0.068	0.0645	0.01	0.135	0.037		0.35	0
Lead (Pb)	0.00005	20	13	0.0000579	0.00005	0.00005	0.000086	0.000013			0
Lithium (Li)	0.001	20	0	0.00274	0.0031	0.0012	0.0038	0.0007			0
Magnesium (Mg)	0.1	20	0	8.85	9.1	6.47	12	1.34			0
Manganese (Mn)	0.0001	20	0	0.00693	0.00524	0.0008	0.0225	0.0054			0
Mercury (Hg)	0.000005	20	19	5.01E-06	0.000005	0.000005	0.0000052	0			0
Molybdenum (Mo)	0.00005	20	0	0.000699	0.000617	0.000465	0.000972	0.00015			0
Nickel (Ni)	0.0005	20	0	0.00135	0.00123	0.00059	0.00203	0.00041			0
Phosphorus (P)	0.05	20	20	0.05	0.05	0.05	0.05	0			0
Potassium (K)	0.1	20	0	0.847	0.635	0.42	1.95	0.4			0
Selenium (Se)	0.00005	20	0	0.000294	0.000283	0.000201	0.000413	0.000057			0
Silicon (Si)	0.05	20	0	1.87	1.56	1.54	2.16	0.2			0
Silver (Ag)	0.00001	20	20	0.00001	0.00001	0.00001	0.00001				0
Sodium (Na)	0.05	20	0	2.22	1.96	1.38	3.56	0.57			0
Strontium (Sr)	0.0002	20	0	0.102	0.096	0.0845	0.12	0.0102			0
Sulfur (S)	0.5	20	0	4.91	3.97	3.47	6.03	0.75			0
Thallium (Tl)	0.00001	20	20	0.00001	0.00001	0.00001	0.00001				0
Tin (Sn)	0.0001	20	20	0.0001	0.0001	0.0001	0.0001	0			0
Titanium (Ti)	0.0003	20	2	0.00138	0.00102	0.0003	0.00323	0.00099			0
Uranium (U)	0.00001	20	0	0.000392	0.000281	0.000271	0.000494	0.000064			0
Vanadium (V)	0.0005	20	20	0.0005	0.0005	0.0005	0.0005	0			0
Zinc (Zn)	0.001	20	20	0.001	0.001	0.001	0.001	0			0
Zirconium (Zr)	0.0003	20	19	0.000302	0.0003	0.0003	0.00033	0.00001			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 17. 2019 annual data summary statistics for lab and *in-situ* sampling (physical tests, anions and nutrients) collected at the RSEM R5b IDZ site (RBPR-5.81).**

Parameters (mg/L)	MDL	RSEM R5b IDZ/RBPR-5.81							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG <sup>2</sup>	# Exc
<b>Date: 2019</b>											
<b>Organic Carbon</b>											
Dissolved Organic Carbon	0.5	22	0	6.01	4.67	2.79	10.4	2.15			0
Total Organic Carbon	0.5	22	0	7.41	5.42	3.69	21	3.86			0
<b>Physical Tests</b>											
Sp. Conductivity (lab, µS/cm)	2	22	0	232	216	192	275	18			0
Sp. Conductivity (In Situ, µS/cm)		57	0	235	239	144	283	31			0
Hardness (as CaCO <sub>3</sub> )	0.5	22	0	121	114	107	148	10			0
Temperature (In Situ, °C)		57	0	6.01	15.2	0.3	15.2	4.8			0
Total Dissolved Solids	13/20	22	0	166	138	115	300	40			0
Total Suspended Solids	1.0/2.0/3.0/5.0/6.0	22	0	116	38.9	5.7	663	189.38			0
Turbidity (In Situ, NTU)		57	0	77.4	11.7	3.27	491	124.45			0
Turbidity (lab, NTU)	0.1	22	0	111	28.4	3.75	631	182.51			0
pH (In Situ, pH units)		57	0	7.98	8.09	7.46	8.44	0.22		6.5 to 9.0	0
pH (lab, pH units)	0.1	22	0	8.2	8.26	8.01	8.32	0.07		6.5 to 9.0	0
<b>Anions and Nutrients</b>											
Alkalinity, Total (as CaCO <sub>3</sub> )	1	22	0	114	106	93.9	135	9.6			0
Ammonia, Total (as N)	0.005	22	9	0.00889	0.0059	0.005	0.0239	0.0056	0.102	0.68	0
Bromide (Br)	0.05	22	22	0.05	0.05	0.05	0.05	0			0
Chloride (Cl)	0.5	22	6	0.635	0.595	0.5	1	0.15	150	600	0
Fluoride (F)	0.02	22	0	0.0661	0.063	0.044	0.085	0.01		EQ	0
Nitrate (as N)	0.005	22	0	0.0616	0.038	0.0066	0.153	0.0432	3	32	0
Nitrite (as N)	0.001	22	19	0.00104	0.001	0.001	0.0017	0.0002	0.02	0.06	0
Orthophosphate-Dissolved (as P)	0.001	22	17	0.00169	0.001	0.001	0.0091	0.0019			0
Sulfate (SO <sub>4</sub> )	0.3	22	0	15	17.6	11.6	23.2	2.6	309		0
Total Phosphorus (P)	0.0020/0.020	22	0	0.11	0.0368	0.01	0.595	0.165			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 18. 2019 annual data summary statistics for total metals collected at the RSEM R5b IDZ site (RBPR-5.81).**

Parameters (mg/L)	MDL	RSEM R5b IDZ/RBPR-5.81						BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		Date: 2019	n.	n<MDL	Avg.	Median	Min.		Max.	S.D.
<b>Total Metals</b>										
Aluminum (Al)	0.003	22	0	1.58	0.686	0.112	8.23	2.215		0
Antimony (Sb)	0.0001	22	7	0.000172	0.000135	0.0001	0.00041	0.0001		0
Arsenic (As)	0.0001	22	0	0.00134	0.00065	0.00027	0.00607	0.00164	0.005	1
Barium (Ba)	0.0001	22	0	0.151	0.107	0.0577	0.362	0.0837	1	0
Beryllium (Be)	0.00002	22	9	0.000108	0.0000445	0.00002	0.000553	0.00015	0.00013	0
Bismuth (Bi)	0.00005	22	18	0.0000619	0.00005	0.00005	0.000176	0.00003		0
Boron (B)	0.01	22	17	0.011	0.01	0.01	0.017	0.002	1.2	0
Cadmium (Cd)	0.000005	22	0	0.000136	0.000051	0.0000212	0.000671	0.0001827		0
Calcium (Ca)	0.05	22	0	35.7	30.5	30.1	50.6	4.8		0
Chromium (Cr)	0.0001	22	0	0.00285	0.00124	0.00027	0.0149	0.00399		0
Cobalt (Co)	0.0001	22	0	0.00135	0.00046	0.00012	0.00746	0.00202	0.004	0.11
Copper (Cu)	0.0005	22	0	0.00477	0.00209	0.00093	0.0221	0.00575		0
Iron (Fe)	0.01	22	0	3.16	1.09	0.238	17.8	4.817	1	9
Lead (Pb)	0.00005	22	0	0.00172	0.000567	0.000128	0.0101	0.002695	0.00737	EQ
Lithium (Li)	0.001	22	0	0.00504	0.0036	0.0017	0.0157	0.0035		0
Magnesium (Mg)	0.1	22	0	9.65	8.47	6.79	13.3	1.63		0
Manganese (Mn)	0.0001	22	0	0.0597	0.0258	0.00862	0.306	0.07845	1.1374	EQ
Mercury (Hg)	50/0.000025/0	22	18	0.000015	0.0000131	0.000005	0.000056	0.000017	0.00002	0
Molybdenum (Mo)	0.00005	22	0	0.000772	0.000889	0.000492	0.00116	0.000178	1	2
Nickel (Ni)	0.0005	22	0	0.00583	0.0026	0.00119	0.0271	0.00712	0.11048	0
Phosphorus (P)	0.05	22	13	0.14	0.054	0.05	0.609	0.166		0
Potassium (K)	0.1	22	0	1.29	0.835	0.58	3.73	0.85		0
Selenium (Se)	0.00005	22	0	0.000369	0.000346	0.000216	0.000779	0.000152	0.002	0
Silicon (Si)	0.1	22	0	4.11	2.9	1.8	13.9	3.17		0
Silver (Ag)	0.00001	22	13	0.0000389	0.0000145	0.00001	0.000213	0.000055	0.0015	EQ
Sodium (Na)	0.05	22	0	2.76	2.61	1.78	3.9	0.53		0
Strontium (Sr)	0.0002	22	0	0.108	0.107	0.0852	0.153	0.0148		0
Sulfur (S)	0.5	22	0	5.35	6.03	3.87	8.19	1.05		0
Thallium (Tl)	0.00001	22	9	0.0000451	0.0000235	0.00001	0.00022	0.00006		0
Tin (Sn)	0.0001	22	18	0.000126	0.0001	0.0001	0.00042	0.00008		0
Titanium (Ti)	0.030/0.0048/0	22	2	0.0168	0.0105	0.00234	0.0511	0.01599		0
Uranium (U)	0.00001	22	0	0.000508	0.000391	0.00027	0.00121	0.00021	0.0085	0
Vanadium (V)	0.0005	22	0	0.00586	0.0027	0.00063	0.0287	0.00778		0
Zinc (Zn)	0.003	22	9	0.0163	0.0056	0.003	0.0835	0.0222	0.03075	EQ
Zirconium (Zr)	0.0003	22	15	0.000345	0.0003	0.0003	0.00087	0.00012		0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 19. 2019 annual data summary statistics for dissolved metals collected at the RSEM R5b IDZ site (RBPR-5.81).**

Parameters (mg/L)	MDL	RSEM R5b IDZ/RBPR-5.81						BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum		
		n.	n<MDL	Avg.	Median	Min.	Max.		S.D.	WQG <sup>2</sup>	# Exc
<b>Dissolved Metals</b>											
Aluminum (Al)	0.001	22	0	0.0127	0.0119	0.0054	0.0331	0.0065	0.05	0.1	0
Antimony (Sb)	0.0001	22	19	0.000102	0.0001	0.0001	0.00012	0.00001			0
Arsenic (As)	0.0001	22	0	0.000262	0.00025	0.00017	0.00038	0.00005			0
Barium (Ba)	0.0001	22	0	0.099	0.0976	0.0533	0.149	0.0264			0
Beryllium (Be)	0.00002	22	22	0.00002	0.00002	0.00002	0.00002				0
Bismuth (Bi)	0.00005	22	22	0.00005	0.00005	0.00005	0.00005				0
Boron (B)	0.01	22	22	0.01	0.01	0.01	0.01	0			0
Cadmium (Cd)	0.000005	22	0	0.0000126	0.0000115	0.0000067	0.0000233	0.0000043	0.00024	EQ	0
Calcium (Ca)	0.05	22	0	33.3	32	30.1	40.3	2.6			0
Chromium (Cr)	0.0001	22	16	0.000107	0.0001	0.0001	0.00015	0.00001			0
Cobalt (Co)	0.0001	22	16	0.000113	0.0001	0.0001	0.0002	0			0
Copper (Cu)	0.0002	22	0	0.00117	0.000925	0.0006	0.00211	0.00042	0.0012	EQ	0
Iron (Fe)	0.01	22	0	0.0713	0.0545	0.012	0.12	0.03		0.35	0
Lead (Pb)	0.00005	22	14	0.0000565	0.0000505	0.00005	0.000083	0.000011			0
Lithium (Li)	0.001	22	0	0.00302	0.0032	0.0016	0.0037	0.0006			0
Magnesium (Mg)	0.1	22	0	9.08	8.28	7.53	11.6	0.98			0
Manganese (Mn)	0.0001	22	0	0.00803	0.00571	0.00214	0.0182	0.00414			0
Mercury (Hg)	0.000005	22	21	5.07E-06	5.75E-06	0.000005	0.0000065	0.0000003			0
Molybdenum (Mo)	0.00005	22	0	0.000711	0.000895	0.000478	0.00114	0.00017			0
Nickel (Ni)	0.0005	22	0	0.00143	0.00122	0.00084	0.00209	0.00036			0
Phosphorus (P)	0.05	22	22	0.05	0.05	0.05	0.05	0			0
Potassium (K)	0.1	22	0	0.885	0.615	0.52	1.78	0.37			0
Selenium (Se)	0.00005	22	0	0.000307	0.000358	0.000195	0.000472	0.000065			0
Silicon (Si)	0.05	22	0	1.88	1.81	1.47	2.17	0.22			0
Silver (Ag)	0.00001	22	22	0.00001	0.00001	0.00001	0.00001				0
Sodium (Na)	0.05	22	0	2.81	2.85	1.76	3.94	0.55			0
Strontium (Sr)	0.0002	22	0	0.101	0.103	0.0859	0.121	0.0104			0
Sulfur (S)	0.5	22	0	5.14	6.17	3.69	8.32	1.05			0
Thallium (Tl)	0.00001	22	22	0.00001	0.00001	0.00001	0.00001				0
Tin (Sn)	0.0001	22	22	0.0001	0.0001	0.0001	0.0001				0
Titanium (Ti)	0.00030/ 0.00090	22	3	0.00135	0.00113	0.0003	0.0033	0.0009			0
Uranium (U)	0.00001	22	0	0.000383	0.000375	0.000244	0.000476	0.000067			0
Vanadium (V)	0.0005	22	22	0.0005	0.0005	0.0005	0.0005	0			0
Zinc (Zn)	0.001	22	22	0.001	0.001	0.001	0.001	0			0
Zirconium (Zr)	0.0003	22	21	0.000301	0.0003	0.0003	0.00032	0			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 20. 2019 annual data summary statistics for lab and *in-situ* sampling (physical tests, anions and nutrients) collected at the RSEM R6 upstream site (RBPR-7.05).**

Parameters (mg/L)	MDL	RSEM R6 Upstream/RBPR-7.05							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG <sup>2</sup>	# Exc
<b>Date: 2019</b>											
<b>Organic Carbon</b>											
Dissolved Organic Carbon	0.5	19	0	3.67	3.91	2.43	6.97	1.31			0
Total Organic Carbon	0.5	19	0	4.49	5.49	2.47	9.35	2.13			0
<b>Physical Tests</b>											
Sp. Conductivity (lab, µS/cm)	2	19	0	212	231	193	233	13			0
Sp. Conductivity (In Situ, µS/cm)		51	0	215	226	159	241	19			0
Hardness (as CaCO <sub>3</sub> )	0.5	19	0	109	117	94.9	120	6.9			0
Total Dissolved Solids	13/20	19	0	140	156	117	204	23			0
Total Suspended Solids	1.0/2.0/3.0	19	0	44.3	68	4.5	212	62.41			0
Turbidity (In Situ, NTU)		51	0	30.8	54.3	1.81	156	46.54			0
Turbidity (lab, NTU)	0.1	19	0	40.6	72	1.52	215	64.7			0
pH (In Situ, pH units)		51	0	7.96	7.94	7.44	8.4	0.21		6.5 to 9.0	0
pH (lab, pH units)	0.1	19	0	8.17	8.26	7.84	8.33	0.1		6.5 to 9.0	0
<b>Anions and Nutrients</b>											
Alkalinity, Total (as CaCO <sub>3</sub> )	1	19	0	96.6	108	86.1	108	7.2			0
Ammonia, Total (as N)	0.005	19	8	0.0063	0.0064	0.005	0.0118	0.0021	0.102	0.68	0
Bromide (Br)	0.05	19	19	0.05	0.05	0.05	0.05	0			0
Chloride (Cl)	0.5	19	19	0.5	0.5	0.5	0.5		150	600	0
Fluoride (F)	0.02	19	0	0.0496	0.055	0.038	0.066	0.008		EQ	0
Nitrate (as N)	0.005	19	0	0.0596	0.0413	0.025	0.106	0.02	3	32	0
Nitrite (as N)	0.001	19	18	0.00102	0.0013	0.001	0.0013	0.0001	0.02	0.06	0
Orthophosphate (as P)	0.001	19	16	0.00114	0.001	0.001	0.0025	0.0004			0
Sulfate (SO <sub>4</sub> )	0.3	19	0	17.6	20.6	14.1	21.1	2.1	309		0
Total Phosphorus (P)	0.0020/0.020	19	0	0.0465	0.0861	0.0027	0.226	0.0607			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 21. 2019 annual data summary statistics for total metals collected at the RSEM R6 upstream site (RBPR-7.05).**

Parameters (mg/L)	MDL	RSEM R6 Upstream/RBPR-7.05							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		Date: 2019	n.	n<MDL	Avg.	Median	Min.	Max.		S.D.	WQG <sup>2</sup>
<b>Total Metals</b>											
Aluminum (Al)	0.003	19	0	0.665	0.337	0.0402	3.21	0.9276			0
Antimony (Sb)	0.0001	19	10	0.000131	0.00011	0.0001	0.0003	0.0001			0
Arsenic (As)	0.0001	19	0	0.000661	0.00054	0.00022	0.00261	0.00069		0.005	0
Barium (Ba)	0.0001	19	0	0.0663	0.0754	0.0345	0.167	0.0354	1		0
Beryllium (Be)	0.00002	19	11	0.0000463	0.000034	0.00002	0.000189	0.000052	0.0001		0
Bismuth (Bi)	0.00005	19	18	0.0000504	0.00005	0.00005	0.000057	0.000002			0
Boron (B)	0.01	19	18	0.0101	0.01	0.01	0.011	0		1.2	0
Cadmium (Cd)	0.000005	19	0	0.0000791	0.000133	0.0000137	0.000291	0.0000811			0
Calcium (Ca)	0.05	19	0	31.8	35.4	27.4	39.6	3			0
Chromium (Cr)	0.0001	19	0	0.00131	0.00058	0.00015	0.00581	0.00164			0
Cobalt (Co)	0.0001	19	6	0.000528	0.00045	0.0001	0.00261	0.00074	0.004	0.11	0
Copper (Cu)	0.0005	19	0	0.00229	0.00235	0.00063	0.00826	0.00219			0
Iron (Fe)	0.01	19	0	1.13	0.562	0.049	5.69	1.726		1	5
Lead (Pb)	0.00005	19	1	0.000656	0.000635	0.00005	0.0034	0.00098	0.0069	EQ	0
Lithium (Li)	0.001	19	0	0.00268	0.0031	0.0013	0.006	0.0014			0
Magnesium (Mg)	0.1	19	0	7.88	9.19	6.52	9.45	0.99			0
Manganese (Mn)	0.0001	19	0	0.0221	0.0272	0.00186	0.11	0.02926	1.0846	EQ	0
Mercury (Hg)	0.0000050/ 0.000025/ 0.000050	19	16	0.0000108	0.000025	0.000005	0.00005	0.000012	0.00002		0
Molybdenum (Mo)	0.00005	19	0	0.00106	0.000997	0.000754	0.00214	0.000293	1	2	0
Nickel (Ni)	0.0005	19	0	0.00262	0.00235	0.00074	0.0099	0.00272	0.1020		0
Phosphorus (P)	0.05	19	13	0.0744	0.079	0.05	0.225	0.054			0
Potassium (K)	0.1	19	0	0.764	0.62	0.45	1.8	0.4			0
Selenium (Se)	0.00005	19	0	0.000386	0.000368	0.000278	0.000594	0.000075	0.002		0
Silicon (Si)	0.1	19	0	3.02	2.39	2.19	6.58	1.3			0
Silver (Ag)	0.00001	19	14	0.0000182	0.00001	0.00001	0.000073	0.000019	0.0015	EQ	0
Sodium (Na)	0.05	19	0	1.76	2.12	1.39	2.22	0.29			0
Strontium (Sr)	0.0002	19	0	0.121	0.137	0.106	0.151	0.013			0
Sulfur (S)	0.5	19	0	6.23	6.98	4.74	8.12	0.85			0
Thallium (Tl)	0.00001	19	11	0.0000241	0.000014	0.00001	0.000104	0.000027			0
Tin (Sn)	0.0001	19	16	0.000139	0.0001	0.0001	0.00049	0.00011			0
Titanium (Ti)	0.00030- 0.0057	19	2	0.00938	0.00738	0.00091	0.0303	0.00874			0
Uranium (U)	0.00001	19	0	0.000551	0.000599	0.000457	0.000816	0.000087	0.0085		0
Vanadium (V)	0.0005	19	1	0.00285	0.00185	0.0005	0.0133	0.0036			0
Zinc (Zn)	0.003	19	10	0.00833	0.0057	0.003	0.0483	0.0118	0.0218	EQ	0
Zirconium (Zr)	0.0003	19	19	0.0003	0.0003	0.0003	0.0003				0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 22. 2019 annual data summary statistics for dissolved metals collected at the RSEM R6 upstream site (RBPR-7.05).**

Parameters (mg/L)	MDL	RSEM R6 Upstream/RBPR-7.05							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		Date: 2019	n.	n<MDL	Avg.	Median	Min.	Max.		S.D.	WQG <sup>2</sup>
<b>Dissolved Metals</b>											
Aluminum (Al)	0.001	19	0	0.0127	0.0286	0.0032	0.0287	0.0086	0.05	0.1	0
Antimony (Sb)	0.0001	19	19	0.0001	0.0001	0.0001	0.0001	0			0
Arsenic (As)	0.0001	19	0	0.000225	0.00025	0.00017	0.00031	0.00004			0
Barium (Ba)	0.0001	19	0	0.0476	0.0516	0.0366	0.0582	0.0076			0
Beryllium (Be)	0.00002	19	19	0.00002	0.00002	0.00002	0.00002				0
Bismuth (Bi)	0.00005	19	19	0.00005	0.00005	0.00005	0.00005	0			0
Boron (B)	0.01	19	19	0.01	0.01	0.01	0.01	0			0
Cadmium (Cd)	0.000005	19	0	0.0000127	0.0000135	0.0000072	0.0000221	0.0000042	0.00023	EQ	0
Calcium (Ca)	0.05	19	0	30.9	33.5	26	33.7	2.1			0
Chromium (Cr)	0.0001	19	12	0.00011	0.0001	0.0001	0.00016	0.00002			0
Cobalt (Co)	0.0001	19	17	0.000102	0.0001	0.0001	0.00012	0.00001			0
Copper (Cu)	0.0002	19	0	0.000861	0.00091	0.0006	0.00151	0.00026	0.0012	EQ	0
Iron (Fe)	0.01	19	3	0.0321	0.05	0.01	0.08	0.02		0.35	0
Lead (Pb)	0.00005	19	15	0.0000516	0.00005	0.00005	0.000066	0.000004			0
Lithium (Li)	0.001	19	0	0.00201	0.0027	0.0013	0.0029	0.0005			0
Magnesium (Mg)	0.1	19	0	7.7	8	6.99	8.79	0.56			0
Manganese (Mn)	0.0001	19	0	0.00249	0.00204	0.00062	0.00948	0.00224			0
Mercury (Hg)	0.000005	19	19	0.000005	0.000005	0.000005	0.000005				0
Molybdenum (Mo)	0.00005	19	0	0.00099	0.00115	0.000812	0.00127	0.000143			0
Nickel (Ni)	0.0005	19	1	0.000973	0.00124	0.0005	0.00185	0.00037			0
Phosphorus (P)	0.05	19	19	0.05	0.05	0.05	0.05	0			0
Potassium (K)	0.1	19	0	0.578	0.54	0.44	0.97	0.14			0
Selenium (Se)	0.00005	19	0	0.000361	0.000434	0.000264	0.000515	0.000074			0
Silicon (Si)	0.05	19	0	2.05	2.02	1.92	2.21	0.07			0
Silver (Ag)	0.00001	19	19	0.00001	0.00001	0.00001	0.00001				0
Sodium (Na)	0.05	19	0	1.78	2.1	1.37	2.24	0.3			0
Strontium (Sr)	0.0002	19	0	0.118	0.126	0.104	0.137	0.009			0
Sulfur (S)	0.5	19	0	6.01	7.15	4.68	7.61	0.85			0
Thallium (Tl)	0.00001	19	19	0.00001	0.00001	0.00001	0.00001				0
Tin (Sn)	0.0001	19	17	0.000106	0.0001	0.0001	0.00019	0.00002			0
Titanium (Ti)	0.0003	19	8	0.00116	0.00225	0.0003	0.0032	0.0011			0
Uranium (U)	0.00001	19	0	0.000494	0.00053	0.000433	0.000564	0.000029			0
Vanadium (V)	0.0005	19	19	0.0005	0.0005	0.0005	0.0005	0			0
Zinc (Zn)	0.001	19	19	0.001	0.001	0.001	0.001	0			0
Zirconium (Zr)	0.0003	19	18	0.000301	0.0003	0.0003	0.00032	0			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.



**Table 23. 2019 annual data summary statistics for lab and *in-situ* sampling (physical tests, anions and nutrients) collected at the RSEM R6 IDZ site (RBPR-7.15).**

Parameters (mg/L) Date: 2019	MDL	RSEM R6 IDZ/RBPR-7.15							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG <sup>2</sup>	# Exc
<b>Organic Carbon</b>											
Dissolved Organic Carbon	0.5	19	0	3.47	3.91	2.36	6.94	1.26			0
Total Organic Carbon	0.5	19	0	4.33	5.4	2.62	10.4	2.32			0
<b>Physical Tests</b>											
Sp. Conductivity (lab, µS/cm)	2	19	0	213	244	194	244	15			0
Sp. Conductivity (In Situ, µS/cm)		51	0	226	239	126	264	30			0
Hardness (as CaCO <sub>3</sub> )	0.5	19	0	109	119	95.8	121	7.6			0
Total Dissolved Solids	13/20	19	0	140	160	116	207	24			0
Total Suspended Solids	1.0/2.0/3.0	19	0	41.3	59.6	2.7	236	70.14			0
Turbidity (In Situ, NTU)		51	0	28.3	40.9	1.61	157	45.41			0
Turbidity (lab, NTU)	0.1	19	0	36.8	66.4	1.3	217	65.82			0
pH (In Situ, pH units)		51	0	8.17	8.02	7.82	8.62	0.2		6.5 to 9.0	0
pH (lab, pH units)	0.1	19	0	8.17	8.26	7.95	8.31	0.08		6.5 to 9.0	0
<b>Anions and Nutrients</b>											
Alkalinity, Total (as CaCO <sub>3</sub> )	1	19	0	96.7	109	86.9	109	7.9			0
Ammonia, Total (as N)	0.005	19	10	0.0068	0.0064	0.005	0.014	0.003	0.102	0.68	0
Bromide (Br)	0.05	19	19	0.05	0.05	0.05	0.05	0			0
Chloride (Cl)	0.5	19	11	0.664	2.36	0.5	2.36	0.44	150	600	0
Fluoride (F)	0.02	19	0	0.0507	0.057	0.04	0.072	0.008		EQ	0
Nitrate (as N)	0.005	19	0	0.0614	0.0524	0.027	0.0933	0.0172	3	32	0
Nitrite (as N)	0.001	19	18	0.00105	0.002	0.001	0.002	0	0.02	EQ	0
Orthophosphate-Dissolved (as P)	0.001	19	16	0.00124	0.001	0.001	0.0033	0.0006			0
Sulfate (SO <sub>4</sub> )	0.3	19	0	17.6	22.1	14.2	22.1	2.3	309		0
Total Phosphorus (P)	0.0020/0.020	19	0	0.044	0.0749	0.0049	0.271	0.0682			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 24. 2019 annual data summary statistics for total metals collected at the RSEM R6 IDZ site (RBPR-7.15).**

Parameters (mg/L) Date: 2019	MDL	RSEM R6 IDZ/RBPR-7.15						BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n. n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG <sup>2</sup>	# Exc
<b>Total Metals</b>										
Aluminum (Al)	0.003	19 0	0.651	0.248	0.0404	3.98	1.101			0
Antimony (Sb)	0.0001	19 10	0.000131	0.00011	0.0001	0.00032	0.00007			0
Arsenic (As)	0.0001	19 0	0.000663	0.00053	0.00023	0.00306	0.00082		0.005	0
Barium (Ba)	0.0001	19 0	0.0652	0.0693	0.0346	0.171	0.0396	1		0
Beryllium (Be)	0.00002	19 12	0.0000455	0.000023	0.00002	0.000222	0.000059	0.00013		0
Bismuth (Bi)	0.00005	19 18	0.0000511	0.00005	0.00005	0.000071	0.000005			0
Boron (B)	0.01	19 18	0.0101	0.01	0.01	0.012	0		1.2	0
Cadmium (Cd)	0.00005	19 0	0.0000748	0.00012	0.000017	0.000357	0.000095			0
Calcium (Ca)	0.05	19 0	31.4	36.9	26.7	39.2	3.2			0
Chromium (Cr)	0.0001	19 0	0.00127	0.00053	0.00017	0.00724	0.00193			0
Cobalt (Co)	0.0001	19 6	0.000523	0.0004	0.0001	0.00329	0.00087	0.004	0.11	0
Copper (Cu)	0.0005	19 0	0.00227	0.00194	0.00065	0.0102	0.00256			0
Iron (Fe)	0.01	19 0	1.13	0.465	0.059	7.74	2.103		1	4
Lead (Pb)	0.00005	19 2	0.000627	0.00052	0.00005	0.00422	0.00111	0.00686	EQ	0
Lithium (Li)	0.001	19 0	0.00262	0.0033	0.0013	0.007	0.0016			0
Magnesium (Mg)	0.1	19 0	7.86	9.26	6.52	10.2	1.1			0
Manganese (Mn)	0.0001	19 0	0.0219	0.0246	0.00212	0.135	0.03401	1.0846	EQ	0
Mercury (Hg)	0.0000050/0.000025/0.000050	19 16	9.83E-06	0.000025	0.000005	0.00005	0.000012	0.00002		0
Molybdenum (Mo)	0.00005	19 0	0.00108	0.00111	0.000795	0.00143	0.000184	1	2	0
Nickel (Ni)	0.0005	19 0	0.00255	0.0022	0.00075	0.0122	0.00315	0.10205		0
Phosphorus (P)	0.05	19 14	0.0755	0.069	0.05	0.267	0.064			0
Potassium (K)	0.1	19 0	0.778	0.67	0.46	2.15	0.46			0
Selenium (Se)	0.00005	19 0	0.000372	0.000419	0.000229	0.000602	0.000094	0.002		0
Silicon (Si)	0.1	19 0	3.04	2.31	2.2	7.76	1.56			0
Silver (Ag)	0.00001	19 14	0.0000184	0.00001	0.00001	0.000086	0.000021	0.0015	EQ	0
Sodium (Na)	0.05	19 0	2.08	2.85	1.47	2.85	0.39			0
Strontium (Sr)	0.0002	19 0	0.123	0.152	0.105	0.152	0.014			0
Sulfur (S)	0.5	19 0	6.34	8	4.84	8.05	0.81			0
Thallium (Tl)	0.00001	19 12	0.0000243	0.000011	0.00001	0.000121	0.000033			0
Tin (Sn)	0.0001	19 18	0.000103	0.0001	0.0001	0.00015	0.00001			0
Titanium (Ti)	0.00030-0.0042	19 3	0.00907	0.00417	0.00094	0.0438	0.01117			0
Uranium (U)	0.00001	19 0	0.000549	0.000583	0.000453	0.000919	0.000106	0.0085		0
Vanadium (V)	0.0005	19 2	0.00281	0.00163	0.0005	0.0153	0.0042			0
Zinc (Zn)	0.003	19 11	0.00734	0.0047	0.003	0.0373	0.0099	0.02175	EQ	0
Zirconium (Zr)	0.0003	19 18	0.000439	0.0003	0.0003	0.00294	0.00061			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 25. 2019 annual data summary statistics for dissolved metals collected at the RSEM R6 IDZ site (RBPR-7.15).**

Parameters (mg/L) Date: 2019	MDL	RSEM R6 IDZ/RBPR-7.15							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n. n<MDL	Avg.	Median	Min.	Max.	S.D.	WQG <sup>2</sup>		# Exc	
<b>Dissolved Metals</b>											
Aluminum (Al)	0.001	19 0	0.012	0.0278	0.0039	0.0323	0.0092	0.05	0.1	0	
Antimony (Sb)	0.0001	19 18	0.000101	0.0001	0.0001	0.00011	0			0	
Arsenic (As)	0.0001	19 0	0.000231	0.00027	0.00017	0.00033	0.00004			0	
Barium (Ba)	0.0001	19 0	0.0475		0.0375	0.057	0.0075			0	
Beryllium (Be)	0.00002	19 19	0.00002	0.00002	0.00002	0.00002				0	
Bismuth (Bi)	0.00005	19 19	0.00005	0.00005	0.00005	0.00005	0			0	
Boron (B)	0.01	19 19	0.01	0.01	0.01	0.01	0			0	
Cadmium (Cd)	0.00005	19 0	0.0000138	0.0000151	0.0000074	0.0000423	0.0000078	0.00023	EQ	0	
Calcium (Ca)	0.05	19 0	30.9	33.6	26.5	34.2	2.3			0	
Chromium (Cr)	0.0001	19 11	0.000122	0.00012	0.0001	0.00031	0.00005			0	
Cobalt (Co)	0.0001	19 17	0.000103	0.0001	0.0001	0.00014	0.00001			0	
Copper (Cu)	0.0002	19 0	0.000873	0.00097	0.0006	0.00166	0.00028	0.0012	EQ	0	
Iron (Fe)	0.01	19 4	0.0291	0.053	0.01	0.084	0.024		0.35	0	
Lead (Pb)	0.00005	19 16	0.0000518	0.00005	0.00005	0.000067	0.000005			0	
Lithium (Li)	0.001	19 0	0.002	0.0029	0.0013	0.0029	0.0005			0	
Magnesium (Mg)	0.1	19 0	7.73	8.43	6.77	8.72	0.56			0	
Manganese (Mn)	0.0001	19 0	0.00282	0.00197	0.00053	0.00997	0.00294			0	
Mercury (Hg)	0.000005	19 19	0.000005	0.000005	0.000005	0.000005				0	
Molybdenum (Mo)	0.00005	19 0	0.00106	0.00133	0.000787	0.0014	0.000197			0	
Nickel (Ni)	0.0005	19 0	0.000959	0.00135	0.00051	0.00189	0.00036			0	
Phosphorus (P)	0.05	19 19	0.05	0.05	0.05	0.05	0			0	
Potassium (K)	0.1	19 0	0.589	0.64	0.44	0.95	0.13			0	
Selenium (Se)	0.00005	19 0	0.000356	0.000484	0.000259	0.000507	0.00007			0	
Silicon (Si)	0.05	19 0	2.06	2.05	1.97	2.22	0.06			0	
Silver (Ag)	0.00001	19 19	0.00001	0.00001	0.00001	0.00001				0	
Sodium (Na)	0.05	19 0	2.11	2.89	1.49	2.89	0.39			0	
Strontium (Sr)	0.0002	19 0	0.12	0.137	0.103	0.137	0.01			0	
Sulfur (S)	0.5	19 0	5.92	7.61	4.29	7.61	0.94			0	
Thallium (Tl)	0.00001	19 19	0.00001	0.00001	0.00001	0.00001				0	
Tin (Sn)	0.0001	19 18	0.000101	0.0001	0.0001	0.00012	0			0	
Titanium (Ti)	0.0003	19 7	0.0011	0.00238	0.0003	0.00417	0.00121			0	
Uranium (U)	0.00001	19 0	0.000491	0.000567	0.000367	0.000567	0.000046			0	
Vanadium (V)	0.0005	19 19	0.0005	0.0005	0.0005	0.0005	0			0	
Zinc (Zn)	0.001	19 19	0.001	0.001	0.001	0.001	0			0	
Zirconium (Zr)	0.0003	19 19	0.0003	0.0003	0.0003	0.0003				0	

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 26. 2019 annual data summary statistics for lab and *in-situ* sampling (physical tests, anions and nutrients) collected at the RSEM L5 upstream control site (LBPR-4.50/LBPR-4.50ALT).**

Parameters (mg/L) Date: 2019	MDL	RSEM L5 Upstream/LBPR-4.50/LBPR-4.50ALT							BC Long-Term	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.	WQG <sup>1</sup>	WQG <sup>2</sup>	# Exc
<b>Organic Carbon</b>											
Dissolved Organic Carbon	0.5	18	0	3.83	3.57	2.5	7.19	1.34			0
Total Organic Carbon	0.5	18	0	4.71	4.53	2.91	9.6	2.24			0
<b>Physical Tests</b>											
Sp. Conductivity (lab, µS/cm)		48	0	242	244	165	291	27			0
Sp. Conductivity (In Situ, µS/cm)		42	0	165	184	106	194	25			0
Hardness (as CaCO <sub>3</sub> )	0.5	18	0	121	124	100	135	10.6			0
Total Dissolved Solids	13/20	18	0	165	155	122	209	23			0
Total Suspended Solids	1.0/2.0/3.0/4.0	18	0	45.7	49.8	5.6	246	63.48			0
Turbidity (In Situ, NTU)		48	0	37.4	39.3	2.56	184	49.64			0
Turbidity (lab, NTU)	0.1	18	0	46.5	48.2	4.26	223	66.83			0
pH (In Situ, pH units)		48	0	8.01	8.05	7.72	8.37	0.15		6.5 to 9.0	0
pH (lab, pH units)	0.1	18	0	8.19	8.3	8.08	8.34	0.08		6.5 to 9.0	0
<b>Anions and Nutrients</b>											
Alkalinity, Total (as CaCO <sub>3</sub> )	1	18	0	102	109	89.1	112	7.7			0
Ammonia, Total (as N)	0.005	18	8	0.00882	0.0059	0.005	0.0312	0.0065	0.102	0.68	0
Bromide (Br)	0.05	18	18	0.05	0.05	0.05	0.05	0			0
Chloride (Cl)	0.5	18	9	0.656	0.5	0.5	1.25	0.24	150	600	0
Fluoride (F)	0.02	18	0	0.0553	0.0595	0.042	0.074	0.008		EQ	0
Nitrate (as N)	0.005	18	0	0.0615	0.0351	0.0239	0.0977	0.0199	3	32	0
Nitrite (as N)	0.001	18	18	0.001	0.001	0.001	0.001	0	0.02	0.06	0
Orthophosphate-Dissolved (as P)	0.001	18	14	0.00142	0.001	0.001	0.0057	0.0011			0
Sulfate (SO <sub>4</sub> )	0.3	18	0	29.7	25.8	16.3	46.9	9.5	309		0
Total Phosphorus (P)	0.0020/0.020	18	0	0.0534	0.0585	0.01	0.246	0.065			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 27. 2019 annual data summary statistics for total metals collected at the RSEM L5 upstream control site (LBPR-4.50/LBPR-4.50ALT).**

Parameters (mg/L)	MDL	RSEM L5 Upstream/LBPR-4.50/LBPR-4.50ALT						BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		Date: 2019	n.	n<MDL	Avg.	Median	Min.		Max.	S.D.
<b>Total Metals</b>										
Aluminum (Al)	0.003	18	0	0.814	0.604	0.101	3.77	1.011		0
Antimony (Sb)	0.0001	18	5	0.000143	0.000135	0.0001	0.00031	0.00006		0
Arsenic (As)	0.0001	18	0	0.000778	0.000655	0.00026	0.00296	0.00077	0.005	0
Barium (Ba)	0.0001	18	0	0.0682	0.0672	0.0397	0.161	0.0333	1	0
Beryllium (Be)	0.00002	18	9	0.0000544	0.0000455	0.00002	0.00024	0.00006	0.00013	0
Bismuth (Bi)	0.00005	18	17	0.0000511	0.00005	0.00005	0.00007	0		0
Boron (B)	0.01	18	17	0.0101	0.01	0.01	0.011	0	1.2	0
Cadmium (Cd)	0.000005	18	0	0.0000953	0.000103	0.0000255	0.000329	0.0000892		0
Calcium (Ca)	0.05	18	0	34.7	34.1	29	39.8	3.5		0
Chromium (Cr)	0.0001	18	0	0.00154	0.00108	0.00026	0.00663	0.00176		0
Cobalt (Co)	0.0001	18	1	0.000669	0.000575	0.0001	0.00321	0.00085	0.004	0
Copper (Cu)	0.0005	18	0	0.00277	0.00225	0.00095	0.00993	0.00252		0
Iron (Fe)	0.01	18	0	1.42	0.976	0.152	7.3	1.968		8
Lead (Pb)	0.00005	18	0	0.000771	0.000624	0.000103	0.00409	0.001075	0.0074	EQ
Lithium (Li)	0.001	18	0	0.00318	0.00335	0.0015	0.007	0.0014		0
Magnesium (Mg)	0.1	18	0	8.97	8.98	6.97	11.2	1.08		0
Manganese (Mn)	0.0001	18	0	0.0271	0.0244	0.00591	0.123	0.03097	1.1374	EQ
Mercury (Hg)	0.0000050/ 0.000025/ 0.000050	18	14	0.0000134	0.000023	0.000005	0.00005	0.000015	0.00002	0
Molybdenum (Mo)	0.00005	18	0	0.00123	0.00122	0.000944	0.00265	0.000382	1	2
Nickel (Ni)	0.0005	18	0	0.00323	0.00279	0.00103	0.012	0.00306	0.1105	0
Phosphorus (P)	0.05	18	13	0.0775	0.073	0.05	0.231	0.057		0
Potassium (K)	0.1	18	0	0.898	0.72	0.49	2.11	0.46		0
Selenium (Se)	0.00005	18	0	0.000463	0.000477	0.000334	0.000674	0.00009	0.002	0
Silicon (Si)	0.1	18	0	3.28	2.92	2.21	7.67	1.5		0
Silver (Ag)	0.00001	18	13	0.0000192	0.00001	0.00001	0.000085	0.000021	0.0015	EQ
Sodium (Na)	0.05	18	0	3.07	2.48	1.6	5.01	1.1		0
Strontium (Sr)	0.0002	18	0	0.139	0.144	0.116	0.155	0.012		0
Sulfur (S)	0.5	18	0	10.2	9.06	5.12	16.3	3.3		0
Thallium (Tl)	0.00001	18	7	0.0000289	0.0000245	0.00001	0.000125	0.000033		0
Tin (Sn)	0.0001	18	16	0.000111	0.0001	0.0001	0.00021	0.00003		0
Titanium (Ti)	0.00030- 0.0042	18	2	0.0127	0.0111	0.00231	0.0428	0.01154		0
Uranium (U)	0.00001	18	0	0.000678	0.000628	0.00048	0.000972	0.000131	0.0085	0
Vanadium (V)	0.0005	18	0	0.0034	0.00269	0.00071	0.0141	0.00387		0
Zinc (Zn)	0.003	18	6	0.00853	0.0071	0.003	0.0356	0.0095	0.03075	EQ
Zirconium (Zr)	0.0003	18	18	0.0003	0.0003	0.0003	0.0003			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 28. 2019 annual data summary statistics for dissolved metals collected at the RSEM L5 upstream control site (LBPR-4.50/LBPR-4.50ALT).**

Parameters (mg/L)	MDL	RSEM L5 Upstream/LBPR-4.50/LBPR-4.50ALT							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG <sup>2</sup>	# Exc
<b>Dissolved Metals</b>											
Aluminum (Al)	0.001	18	0	0.0205	0.0362	0.0076	0.0534	0.0116	0.05	0.1	0
Antimony (Sb)	0.0001	18	17	0.000101	0.0001	0.0001	0.00011	0			0
Arsenic (As)	0.0001	18	0	0.000234	0.00026	0.00018	0.00034	0.00005			0
Barium (Ba)	0.0001	18	0	0.0447	0.0482	0.0346	0.0511	0.0043			0
Beryllium (Be)	0.00002	18	18	0.00002	0.00002	0.00002	0.00002				0
Bismuth (Bi)	0.00005	18	18	0.00005	0.00005	0.00005	0.00005	0			0
Boron (B)	0.01	18	18	0.01	0.01	0.01	0.01	0			0
Cadmium (Cd)	0.000005	18	0	0.0000147	0.0000162	0.0000066	0.0000255	0.0000052	0.00024	EQ	0
Calcium (Ca)	0.05	18	0	33.9	35.1	27.7	38.4	3.2			0
Chromium (Cr)	0.0001	18	12	0.000108	0.0001	0.0001	0.00014	0.00001			0
Cobalt (Co)	0.0001	18	12	0.000119	0.000135	0.0001	0.00019	0.00003			0
Copper (Cu)	0.0002	18	0	0.000887	0.00093	0.00063	0.00163	0.00028	0.0012	EQ	0
Iron (Fe)	0.01	18	1	0.0349	0.041	0.01	0.082	0.023		0.35	0
Lead (Pb)	0.00005	18	15	0.0000514	0.00005	0.00005	0.000062	0.000004			0
Lithium (Li)	0.001	18	0	0.00238	0.00285	0.0015	0.0032	0.0005			0
Magnesium (Mg)	0.1	18	0	8.68	8.84	7.33	9.62	0.75			0
Manganese (Mn)	0.0001	18	0	0.00552	0.00337	0.00101	0.0146	0.00419			0
Mercury (Hg)	0.000005	18	18	0.000005	0.000005	0.000005	0.000005				0
Molybdenum (Mo)	0.00005	18	0	0.00123	0.00139	0.000865	0.00359	0.000615			0
Nickel (Ni)	0.0005	18	0	0.00119	0.00138	0.00058	0.00207	0.00043			0
Phosphorus (P)	0.05	18	18	0.05	0.05	0.05	0.05	0			0
Potassium (K)	0.1	18	0	0.661	0.56	0.46	1.02	0.17			0
Selenium (Se)	0.00005	18	0	0.000444	0.000541	0.000303	0.000616	0.000086			0
Silicon (Si)	0.05	18	0	2.08	1.99	1.97	2.18	0.06			0
Silver (Ag)	0.00001	18	18	0.00001	0.00001	0.00001	0.00001				0
Sodium (Na)	0.05	18	0	3.17	2.71	1.6	5.01	1.15			0
Strontium (Sr)	0.0002	18	0	0.133	0.141	0.11	0.154	0.011			0
Sulfur (S)	0.5	18	0	9.99	8.86	5.31	15.5	3.1			0
Thallium (Tl)	0.00001	18	18	0.00001	0.00001	0.00001	0.00001				0
Tin (Sn)	0.0001	18	18	0.0001	0.0001	0.0001	0.0001	0			0
Titanium (Ti)	0.00030-0.00090	18	4	0.00138	0.00156	0.0003	0.00439	0.00122			0
Uranium (U)	0.00001	18	0	0.000608	0.000587	0.000449	0.000754	0.000074			0
Vanadium (V)	0.0005	18	18	0.0005	0.0005	0.0005	0.0005	0			0
Zinc (Zn)	0.001	18	18	0.001	0.001	0.001	0.001	0			0
Zirconium (Zr)	0.0003	18	17	0.000302	0.0003	0.0003	0.00033	0.00001			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 29. 2019 annual data summary statistics for lab and (organic carbon, physical tests, anions and nutrients) collected at the RSEM L5 IDZ site (LBPR-4.60/LBPR-4.60ALT).**

Parameters (mg/L)	MDL	RSEM L5 IDZ/LBPR-4.60/LBPR-4.60ALT							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG <sup>2</sup>	# Exc
<b>Date: 2019</b>											
<b>Organic Carbon</b>											
Dissolved Organic Carbon	0.5	18	0	3.79	3.55	2.5	6.69	1.36			0
Total Organic Carbon	0.5	18	0	4.69	4.55	2.86	8.8	2.16			0
<b>Physical Tests</b>											
Hardness (as CaCO <sub>3</sub> )	0.5	18	0	126	125	101	159	18			0
Sp. Conductivity (lab, µS/cm)	2	18	0	257	248	207	351	45			0
Sp. Conductivity (In Situ, µS/cm)		48	0	255	242	125	359	53			0
Total Dissolved Solids	13/20	18	0	177	167	123	265	40			0
Total Suspended Solids	1.0/2.0/3.0	18	0	49.2	46.3	6.9	272	68.31			0
Turbidity (In Situ, NTU)		48	0	36.8	38.5	3.2	182	48.35			0
Turbidity (lab, NTU)	0.1	18	0	51.3	47.6	3.76	225	68.77			0
pH (In Situ, pH units)		48	0	8.12	8.05	7.83	8.34	0.13		6.5 to 9.0	0
pH (lab, pH units)	0.1	18	0	8.21	8.31	8.09	8.34	0.08		6.5 to 9.0	0
<b>Anions and Nutrients</b>											
Alkalinity, Total (as CaCO <sub>3</sub> )	1	18	0	103	110	89.1	115	8.3			0
Ammonia, Total (as N)	0.005	18	8	0.00934	0.0056	0.005	0.0308	0.0068	0.102	0.68	0
Bromide (Br)	0.05	18	18	0.05	0.05	0.05	0.05	0			0
Chloride (Cl)	0.5	18	6	0.821	0.525	0.5	2.29	0.56	150	600	0
Fluoride (F)	0.02	18	0	0.0553	0.056	0.041	0.073	0.008		EQ	0
Nitrate (as N)	0.005	18	0	0.0587	0.0391	0.0246	0.0905	0.019	3	32	0
Nitrite (as N)	0.001	18	16	0.00101	0.001	0.001	0.0011	0	0.02	EQ	0
Orthophosphate-Dissolved (as P)	0.001	18	13	0.00142	0.00105	0.001	0.0054	0.0011			0
Sulfate (SO <sub>4</sub> )	0.3	18	0	34.4	26.8	16.6	77	18.9	309		0
Total Phosphorus (P)	0.0020/0.020	18	0	0.0583	0.061	0.0114	0.242	0.0658			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 30. 2019 annual data summary statistics for total metals collected at the RSEM L5 IDZ site (LBPR-4.60/LBPR-4.60ALT).**

Parameters (mg/L)	MDL	RSEM L5 IDZ/LBPR-4.60/LBPR-4.60ALT							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG <sup>2</sup>	# Exc
<b>Total Metals</b>											
Aluminum (Al)	0.003	18	0	0.876	0.77	0.107	3.68	1.052			0
Antimony (Sb)	0.0001	18	4	0.00015	0.00014	0.0001	0.00031	0.00007			0
Arsenic (As)	0.0001	18	0	0.000847	0.000655	0.00027	0.00298	0.00083		0.005	0
Barium (Ba)	0.0001	18	0	0.0729	0.0688	0.0398	0.159	0.0391	1		0
Beryllium (Be)	0.00002	18	9	0.0000593	0.0000535	0.00002	0.000229	0.000064	0.00013		0
Bismuth (Bi)	0.00005	18	17	0.000051	0.00005	0.00005	0.000068	0.000004			0
Boron (B)	0.01	18	16	0.0103	0.01	0.01	0.013	0.001		1.2	0
Cadmium (Cd)	0.000005	18	0	0.000101	0.000102	0.0000318	0.000327	0.0000941			0
Calcium (Ca)	0.05	18	0	36.8	35.9	27.7	54.5	7.1			0
Chromium (Cr)	0.0001	18	0	0.00162	0.00131	0.00024	0.00661	0.00185			0
Cobalt (Co)	0.0001	18	0	0.00072	0.000585	0.00012	0.00317	0.00087	0.004	0.11	0
Copper (Cu)	0.0005	18	0	0.00275	0.00232	0.0009	0.00988	0.00259			0
Iron (Fe)	0.01	18	0	1.57	1.08	0.18	7.33	2.07		1	7
Lead (Pb)	0.00005	18	0	0.000833	0.000621	0.000109	0.00401	0.001103	0.0076	EQ	0
Lithium (Li)	0.001	18	0	0.00333	0.0035	0.0016	0.0069	0.0016			0
Magnesium (Mg)	0.1	18	0	9.25	9.5	6.99	13.4	1.7			0
Manganese (Mn)	0.0001	18	0	0.0286	0.025	0.00643	0.125	0.03217	1.1594	EQ	0
Mercury (Hg)	0.0000050/ 0.000025/ 0.000050	18	17	0.0000126	0.000015	0.000005	0.00005	0.000015	0.00002		0
Molybdenum (Mo)	0.00005	18	0	0.00117	0.00133	0.000889	0.00142	0.00018	1	2	0
Nickel (Ni)	0.0005	18	0	0.00338	0.00293	0.0011	0.0119	0.0032	0.1139		0
Phosphorus (P)	0.05	18	12	0.082	0.062	0.05	0.238	0.061			0
Potassium (K)	0.1	18	0	0.936	0.78	0.49	2.05	0.49			0
Selenium (Se)	0.00005	18	0	0.000473	0.000516	0.000297	0.000708	0.000124	0.002		0
Silicon (Si)	0.1	18	0	3.36	3.29	2.19	7.43	1.56			0
Silver (Ag)	0.00001	18	10	0.0000215	0.0000125	0.00001	0.000083	0.000022	0.0015	EQ	0
Sodium (Na)	0.05	18	0	3.6	2.64	1.67	8.71	1.98			0
Strontium (Sr)	0.0002	18	0	0.144	0.152	0.109	0.199	0.022			0
Sulfur (S)	0.5	18	0	12.1	9.76	5.25	31.9	6.94			0
Thallium (Tl)	0.00001	18	8	0.0000314	0.000025	0.00001	0.000122	0.000034			0
Tin (Sn)	0.0001	18	14	0.000124	0.000105	0.0001	0.00035	0.00007			0
Titanium (Ti)	0.00030- 0.0066	18	3	0.0122	0.0161	0.00207	0.0398	0.01066			0
Uranium (U)	0.00001	18	0	0.000715	0.000664	0.000474	0.00121	0.000202	0.0085		0
Vanadium (V)	0.0005	18	0	0.0037	0.00324	0.00074	0.0138	0.00409			0
Zinc (Zn)	0.003	18	8	0.00928	0.0071	0.003	0.0352	0.0102	0.0345	EQ	0
Zirconium (Zr)	0.0003	18	16	0.000303	0.000325	0.0003	0.00035	0.00001			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.



**Table 31. 2019 annual data summary statistics for dissolved metals collected at the RSEM L5 IDZ site (LBPR-4.60/LBPR-4.60ALT).**

Parameters (mg/L)	MDL	RSEM L5 IDZ/LBPR-4.60/LBPR-4.60ALT							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG <sup>2</sup>	# Exc
<b>Dissolved Metals</b>											
Aluminum (Al)	0.001	18	0	0.0192	0.034	0.0078	0.0528	0.0116	0.05	0.1	0
Antimony (Sb)	0.0001	18	16	0.000101	0.0001	0.0001	0.00011	0			0
Arsenic (As)	0.0001	18	0	0.000231	0.00026	0.00017	0.00029	0.00004			0
Barium (Ba)	0.0001	18	0	0.0469	0.0481	0.035	0.0637	0.008			0
Beryllium (Be)	0.00002	18	18	0.00002	0.00002	0.00002	0.00002	0.00002			0
Bismuth (Bi)	0.00005	18	18	0.00005	0.00005	0.00005	0.00005	0			0
Boron (B)	0.01	18	18	0.01	0.01	0.01	0.01	0			0
Cadmium (Cd)	0.000005	18	0	0.000015	0.0000157	0.0000102	0.0000242	0.0000044	0.00025	EQ	0
Calcium (Ca)	0.05	18	0	35.6	35.3	27.8	45.5	5.4			0
Chromium (Cr)	0.0001	18	13	0.000111	0.0001	0.0001	0.00016	0.00002			0
Cobalt (Co)	0.0001	18	12	0.000117	0.000135	0.0001	0.00017	0.00003			0
Copper (Cu)	0.0002	18	0	0.000923	0.000875	0.00063	0.00163	0.00032	0.0012	EQ	0
Iron (Fe)	0.01	18	1	0.0338	0.043	0.01	0.071	0.022		0.35	0
Lead (Pb)	0.00005	18	16	0.0000508	0.00005	0.00005	0.000061	0.000003			0
Lithium (Li)	0.001	18	0	0.00248	0.00295	0.0015	0.0035	0.0006			0
Magnesium (Mg)	0.1	18	0	8.96	8.94	7.18	11.1	1.15			0
Manganese (Mn)	0.0001	18	0	0.00505	0.00408	0.00146	0.0141	0.00388			0
Mercury (Hg)	0.000005	18	17	5.08E-06	0.0000057	0.000005	0.0000064	0.0000003			0
Molybdenum (Mo)	0.00005	18	0	0.00111	0.00137	0.000872	0.00143	0.000185			0
Nickel (Ni)	0.0005	18	0	0.00118	0.00137	0.0006	0.00189	0.00044			0
Phosphorus (P)	0.05	18	18	0.05	0.05	0.05	0.05	0			0
Potassium (K)	0.1	18	0	0.675	0.555	0.45	1.05	0.19			0
Selenium (Se)	0.00005	18	0	0.000458	0.000525	0.000309	0.000667	0.0001			0
Silicon (Si)	0.05	18	0	2.06	2.03	1.9	2.16	0.06			0
Silver (Ag)	0.00001	18	18	0.00001	0.00001	0.00001	0.00001	0.00001			0
Sodium (Na)	0.05	18	0	3.58	2.81	1.74	7.61	1.85			0
Strontium (Sr)	0.0002	18	0	0.138	0.141	0.114	0.164	0.016			0
Sulfur (S)	0.5	18	0	11.3	9.17	5.46	24.5	5.39			0
Thallium (Tl)	0.00001	18	18	0.00001	0.00001	0.00001	0.00001	0.00001			0
Tin (Sn)	0.0001	18	18	0.0001	0.0001	0.0001	0.0001	0			0
Titanium (Ti)	0.00030/ 0.00060	18	4	0.00136	0.00151	0.0003	0.00359	0.00117			0
Uranium (U)	0.00001	18	0	0.000628	0.000595	0.000453	0.000833	0.000113			0
Vanadium (V)	0.0005	18	18	0.0005	0.0005	0.0005	0.0005	0			0
Zinc (Zn)	0.001	18	18	0.001	0.001	0.001	0.001	0			0
Zirconium (Zr)	0.0003	18	16	0.000316	0.0003	0.0003	0.00056	0.00006			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 32. 2019 annual data summary statistics for lab and *in-situ* sampling (physical tests, anions and nutrients) collected at the MOE far-field downstream right bank site (RBPR-9.34).**

Parameters (mg/L)	MDL	RBPR-9.34							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG <sup>2</sup>	# Exc
<b>Organic / Inorganic Carbon</b>											
Dissolved Organic Carbon	0.5	22	0	3.59	3.45	2.27	7.18	1.37			0
Total Organic Carbon	0.5	22	0	4.28	3.55	2.37	8.89	2.08			0
<b>Physical Tests</b>											
Sp. Conductivity (lab, µS/cm)	2	22	0	209	219	189	236	14			0
Sp. Conductivity (In Situ, µS/cm)		60	0	213	217	161	242	18			0
Hardness (as CaCO <sub>3</sub> )	0.5	22	0	108	114	96.1	120	7.6			0
Total Dissolved Solids	13/20	22	0	135	130	112	189	23			0
Total Suspended Solids	1.0/2.0/3.0	22	0	43.3	23.7	4.5	227	67.73			0
Turbidity (In Situ, NTU)		60	0	31.7	14.2	1.75	154	47.3			0
Turbidity (lab, NTU)	0.1	22	0	38.7	16.8	1.34	195	62.72			0
pH (In Situ, pH units)		60	0	7.99	8.02	7.46	8.36	0.19		6.5 to 9.0	0
pH (lab, pH units)	0.1	22	0	8.17	8.3	7.92	8.34	0.1		6.5 to 9.0	0
<b>Anions and Nutrients</b>											
Alkalinity, Total (as CaCO <sub>3</sub> )	1	22	0	94.3	100	86.2	108	7			0
Ammonia, Total (as N)	0.005	22	14	0.00664	0.00785	0.005	0.015	0.003	0.102	0.68	0
Bromide (Br)	0.05	22	22	0.05	0.05	0.05	0.05	0			0
Chloride (Cl)	0.5	22	20	0.518	0.5	0.5	0.76	0.06	150	600	0
Fluoride (F)	0.02	22	0	0.0495	0.052	0.039	0.07	0.008		EQ	0
Nitrate (as N)	0.005	22	0	0.0604	0.0349	0.0217	0.103	0.0203	3	32	0
Nitrite (as N)	0.001	22	22	0.001	0.001	0.001	0.001	0	0.02	0.06	0
Orthophosphate-Dissolved (as P)	0.001	22	18	0.00112	0.001	0.001	0.0027	0.0004			0
Sulfate (SO <sub>4</sub> )	0.3	22	0	17.3	18.9	14.2	21.2	2.3	309		0
Total Phosphorus (P)	0.0020/0.020	22	0	0.045	0.0263	0.0055	0.212	0.0622			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 33. 2019 annual data summary statistics for total metals collected at the MOE far-field downstream right bank site (RBPR-9.34).**

Parameters (mg/L) Date: 2019	MDL	RBPR-9.34							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG <sup>2</sup>	# Exc
<b>Total Metals</b>											
Aluminum (Al)	0.003	22	0	0.684	0.371	0.0486	3.16	0.9705			0
Antimony (Sb)	0.0001	22	13	0.000133	0.000115	0.0001	0.00029	0.00006			0
Arsenic (As)	0.0001	22	0	0.00068	0.00043	0.00023	0.00253	0.00073		0.005	0
Barium (Ba)	0.0001	22	0	0.0638	0.0631	0.0344	0.166	0.0356	1		0
Beryllium (Be)	0.00002	22	14	0.0000493	0.000025	0.00002	0.0002	0.00006	0.00013		0
Bismuth (Bi)	0.00005	22	21	0.0000502	0.00005	0.00005	0.000054	0.000001			0
Boron (B)	0.01	22	21	0.01	0.01	0.01	0.011	0		1.2	0
Cadmium (Cd)	0.0000050/ 0.000040	22	1	0.0000766	0.0000444	0.0000143	0.000298	0.0000894			0
Calcium (Ca)	0.05	22	0	31.1	31.6	26.9	38.2	3.1			0
Chromium (Cr)	0.0001	22	0	0.00129	0.00074	0.00019	0.00561	0.00169			0
Cobalt (Co)	0.0001	22	8	0.000545	0.00026	0.0001	0.00258	0.00079	0.004	0.11	0
Copper (Cu)	0.0005	22	0	0.00224	0.00136	0.00068	0.00819	0.00235			0
Iron (Fe)	0.01	22	0	1.2	0.577	0.062	5.9	1.852		1	6
Lead (Pb)	0.00005	22	2	0.000651	0.000309	0.00005	0.00329	0.00101	0.00682	EQ	0
Lithium (Li)	0.001	22	0	0.00258	0.0025	0.0011	0.0064	0.0016			0
Magnesium (Mg)	0.1	22	0	7.84	8.37	6.48	9.98	1.06			0
Manganese (Mn)	0.0001	22	0	0.022	0.0123	0.00277	0.103	0.03063	1.0802	EQ	0
Mercury (Hg)	0.0000050/ 0.000025/ 0.000050	22	16	0.0000111	0.0000122	0.000005	0.00005	0.000013	0.00002		0
Molybdenum (Mo)	0.00005	22	0	0.00101	0.0011	0.000789	0.00138	0.00016	1	2	0
Nickel (Ni)	0.0005	22	0	0.00264	0.00174	0.0008	0.00993	0.00292	0.1013		0
Phosphorus (P)	0.05	22	16	0.0725	0.05	0.05	0.204	0.049			0
Potassium (K)	0.1	22	0	0.765	0.63	0.45	1.91	0.43			0
Selenium (Se)	0.00005	22	0	0.000361	0.000399	0.000199	0.000579	0.00001	0.002		0
Silicon (Si)	0.1	22	0	3.07	2.61	2.21	6.72	1.37			0
Silver (Ag)	0.00001	22	16	0.0000191	0.00001	0.00001	0.000069	0.000019	0.0015	EQ	0
Sodium (Na)	0.05	22	0	1.77	1.69	1.31	2.57	0.35			0
Strontium (Sr)	0.0002	22	0	0.12	0.127	0.101	0.142	0.012			0
Sulfur (S)	0.5	22	0	6.09	6.65	4.92	7.8	0.86			0
Thallium (Tl)	0.00001	22	13	0.0000258	0.000017	0.00001	0.000101	0.000029			0
Tin (Sn)	0.0001	22	18	0.00013	0.0001	0.0001	0.00036	0.00008			0
Titanium (Ti)	0.00030-0.0045	22	4	0.00978	0.00645	0.0012	0.0359	0.0106			0
Uranium (U)	0.00001	22	0	0.000535	0.000495	0.000459	0.00081	0.000089	0.0085		0
Vanadium (V)	0.0005	22	2	0.00293	0.00169	0.0005	0.0125	0.0038			0
Zinc (Zn)	0.003	22	11	0.00799	0.00635	0.003	0.0304	0.0088	0.021	EQ	0
Zirconium (Zr)	0.0003	22	22	0.0003	0.0003	0.0003	0.0003				0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 34. 2019 annual data summary statistics for dissolved metals collected at the MOE far-field downstream right bank site (RBPR-9.34).**

Parameters (mg/L)	MDL	RBPR-9.34							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		Date: 2019	n.	n<MDL	Avg.	Median	Min.	Max.		S.D.	WQG <sup>2</sup>
<b>Dissolved Metals</b>											
Aluminum (Al)	0.001	22	0	0.0117	0.00935	0.0031	0.0326	0.0092	0.05	0.1	0
Antimony (Sb)	0.0001	22	22	0.0001	0.0001	0.0001	0.0001				0
Arsenic (As)	0.0001	22	0	0.00023	0.000235	0.00017	0.00033	0.00004			0
Barium (Ba)	0.0001	22	0	0.0458	0.0566	0.0341	0.0576	0.0081			0
Beryllium (Be)	0.00002	22	22	0.00002	0.00002	0.00002	0.00002				0
Bismuth (Bi)	0.00005	22	22	0.00005	0.00005	0.00005	0.00005				0
Boron (B)	0.01	22	22	0.01	0.01	0.01	0.01	0			0
Cadmium (Cd)	0.000005	22	0	0.0000124	0.0000115	0.0000065	0.0000215	0.0000043	0.00022	EQ	0
Calcium (Ca)	0.05	22	0	30.6	32.3	26.9	33.9	2.2			0
Chromium (Cr)	0.0001	22	18	0.000108	0.0001	0.0001	0.00017	0.00002			0
Cobalt (Co)	0.0001	22	19	0.000105	0.0001	0.0001	0.00015	0.00001			0
Copper (Cu)	0.0002	22	0	0.000848	0.00073	0.00054	0.0016	0.00027	0.0012	EQ	0
Iron (Fe)	0.01	22	6	0.03	0.0225	0.01	0.089	0.025		0.35	0
Lead (Pb)	0.00005	22	19	0.0000519	0.00005	0.00005	0.000069	0.000005			0
Lithium (Li)	0.001	22	0	0.0019	0.00235	0.0011	0.0029	0.0006			0
Magnesium (Mg)	0.1	22	0	7.63	8.09	6.62	8.75	0.58			0
Manganese (Mn)	0.0001	22	0	0.00259	0.00176	0.00057	0.0107	0.0028			0
Mercury (Hg)	0.000005	22	22	0.000005	0.000005	0.000005	0.000005				0
Molybdenum (Mo)	0.00005	22	0	0.000967	0.00117	0.000798	0.00127	0.000145			0
Nickel (Ni)	0.0005	22	1	0.00095	0.000915	0.0005	0.00188	0.00039			0
Phosphorus (P)	0.05	22	22	0.05	0.05	0.05	0.05	0			0
Potassium (K)	0.1	22	0	0.576	0.51	0.45	0.94	0.14			0
Selenium (Se)	0.00005	22	0	0.00035	0.000391	0.000267	0.000469	0.000063			0
Silicon (Si)	0.05	22	0	2.06	1.98	1.93	2.21	0.09			0
Silver (Ag)	0.00001	22	22	0.00001	0.00001	0.00001	0.00001				0
Sodium (Na)	0.05	22	0	1.79	1.74	1.36	2.46	0.34			0
Strontium (Sr)	0.0002	22	0	0.118	0.126	0.105	0.135	0.009			0
Sulfur (S)	0.5	22	0	5.89	6.55	4.74	7.67	0.91			0
Thallium (Tl)	0.00001	22	22	0.00001	0.00001	0.00001	0.00001				0
Tin (Sn)	0.0001	22	21	0.000101	0.0001	0.0001	0.00013	0.00001			0
Titanium (Ti)	0.0003	22	9	0.00109	0.00071	0.0003	0.00429	0.0012			0
Uranium (U)	0.00001	22	0	0.0005	0.000482	0.000445	0.000582	0.000038			0
Vanadium (V)	0.0005	22	22	0.0005	0.0005	0.0005	0.0005	0			0
Zinc (Zn)	0.001	22	22	0.001	0.001	0.001	0.001	0			0
Zirconium (Zr)	0.0003	22	20	0.000304	0.0003	0.0003	0.00036	0.00001			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 35. 2019 annual data summary statistics for lab and *in-situ* sampling (physical tests, anions and nutrients) collected at the MOE far-field downstream right bank site (LBPR-9.34).**

Parameters (mg/L)	MDL	LBPR-9.34							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG <sup>2</sup>	# Exc
<b>Date: 2019</b>											
<b>Organic Carbon</b>											
Dissolved Organic Carbon	0.5	22	0	3.51	3.14	2.24	6.95	1.37			0
Total Organic Carbon	0.5	22	0	4.24	3.66	2.45	9.63	2.14			0
<b>Physical Tests</b>											
Sp. Conductivity (In Situ, µS/cm)		60	0	223	223	179	249	20			0
Sp. Conductivity (lab, µS/cm)	2	22	0	213	230	191	239	13			0
Hardness (as CaCO <sub>3</sub> )	0.5	22	0	109	121	97.3	122	7.6			0
Total Dissolved Solids	13/20	22	0	139	149	112	203	24			0
Total Suspended Solids	1.0/2.0/3.0	22	0	57.4	19.9	9.3	222	61.77			0
Turbidity (In Situ, NTU)		60	0	29.9	14.7	2.43	141	42.06			0
Turbidity (lab, NTU)	0.1	22	0	39.3	15.9	1.47	219	65.45			0
pH (In Situ, pH units)		60	0	8	8.12	7.26	8.5	0.26		6.5 to 9.0	0
pH (lab, pH units)	0.1	22	0	8.16	8.28	7.93	8.3	0.1		6.5 to 9.0	0
<b>Anions and Nutrients</b>											
Alkalinity, Total (as CaCO <sub>3</sub> )	1	22	0	95.4	109	87.1	109	7.7			0
Ammonia, Total (as N)	0.005	22	12	0.00706	0.005	0.005	0.0247	0.0045	0.102	0.68	0
Bromide (Br)	0.05	22	22	0.05	0.05	0.05	0.05	0			0
Chloride (Cl)	0.5	22	20	0.507	0.5	0.5	0.6	0	150	600	0
Fluoride (F)	0.02	22	0	0.0511	0.056	0.039	0.066	0.008		EQ	0
Nitrate (as N)	0.005	22	0	0.0574	0.0271	0.0252	0.093	0.0198	3	32	0
Nitrite (as N)	0.001	22	20	0.00114	0.001	0.001	0.0031	0.0005	0.02	0.06	0
Orthophosphate-Dissolved (as P)	0.001	22	17	0.00127	0.00115	0.001	0.0038	0.0007			0
Sulfate (SO <sub>4</sub> )	0.3	22	0	18.5	22.2	15.1	22.3	2.5	309		0
Total Phosphorus (P)	0.0020/0.020	22	0	0.0545	0.0264	0.0085	0.247	0.065			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the “# Exc” column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 36. 2019 annual data summary statistics for total metals collected at the MOE far-field downstream right bank site (LBPR-9.34).**

Parameters (mg/L)	MDL	LBPR-9.34							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		Date: 2019	n.	n<MDL	Avg.	Median	Min.	Max.		S.D.	WQG <sup>2</sup>
<b>Total Metals</b>											
Aluminum (Al)	0.003	22	0	0.718	0.569	0.0392	3.13	0.9217			0
Antimony (Sb)	0.0001	22	10	0.000135	0.00012	0.0001	0.0003	0.0001			0
Arsenic (As)	0.0001	22	0	0.000731	0.000555	0.00024	0.00263	0.00071		0.005	0
Barium (Ba)	0.0001	22	0	0.0648	0.0633	0.0347	0.164	0.035	1		0
Beryllium (Be)	0.00002	22	10	0.0000483	0.0000275	0.00002	0.000187	0.000056	0.00013		0
Bismuth (Bi)	0.00005	22	21	0.0000505	0.00005	0.00005	0.00006	0		1.2	0
Boron (B)	0.01	22	21	0.01	0.01	0.01	0.011	0			0
Cadmium (Cd)	0.000005	22	0	0.000091	0.00005	0.0000225	0.000327	0.0000915			0
Calcium (Ca)	0.05	22	0	32	32.6	27.8	39.2	3.2			0
Chromium (Cr)	0.0001	22	0	0.00139	0.00116	0.00016	0.00563	0.00163			0
Cobalt (Co)	0.0001	22	5	0.000606	0.00029	0.0001	0.0025	0.0008	0.004	0.11	0
Copper (Cu)	0.0005	22	0	0.00262	0.00162	0.0008	0.00807	0.00235			0
Iron (Fe)	0.01	22	0	1.3	0.669	0.049	5.74	1.784		1	8
Lead (Pb)	0.00005	22	1	0.000711	0.000392	0.00005	0.00331	0.00099	0.0069	EQ	0
Lithium (Li)	0.001	22	0	0.00266	0.00285	0.0012	0.0062	0.0015			0
Magnesium (Mg)	0.1	22	0	8.03	9.06	6.29	10.4	1.11			0
Manganese (Mn)	0.0001	22	0	0.025	0.0122	0.00332	0.105	0.03001	1.0846	EQ	0
Mercury (Hg)	0.0000050/ 0.000025/ 0.000050	22	18	0.0000136	0.0000183	0.000005	0.00005	0.000015	0.00002		0
Molybdenum (Mo)	0.00005	22	0	0.00113	0.00133	0.000831	0.00216	0.000286	1	2	0
Nickel (Ni)	0.0005	22	0	0.00312	0.00188	0.00082	0.00972	0.00301	0.1020		0
Phosphorus (P)	0.05	22	12	0.0773	0.061	0.05	0.235	0.056			0
Potassium (K)	0.1	22	0	0.786	0.705	0.46	1.76	0.41			0
Selenium (Se)	0.00005	22	0	0.000406	0.000511	0.000288	0.000587	0.000088	0.002		0
Silicon (Si)	0.1	22	0	3.18	3.11	2.25	6.74	1.32			0
Silver (Ag)	0.00001	22	15	0.0000185	0.00001	0.00001	0.000071	0.00002	0.0015	EQ	0
Sodium (Na)	0.05	22	0	1.79	1.83	1.28	2.41	0.34			0
Strontium (Sr)	0.0002	22	0	0.126	0.144	0.103	0.149	0.014			0
Sulfur (S)	0.5	22	0	6.67	8.33	5.26	8.43	0.98			0
Thallium (Tl)	0.00001	22	8	0.0000261	0.0000195	0.00001	0.000108	0.000029			0
Tin (Sn)	0.0001	22	19	0.000119	0.00028	0.0001	0.00046	0.00008			0
Titanium (Ti)	0.00030- 0.0084	22	4	0.0107	0.0112	0.0011	0.0378	0.0101			0
Uranium (U)	0.00001	22	0	0.000569	0.000569	0.000462	0.000805	0.000086	0.0085		0
Vanadium (V)	0.0005	22	1	0.00316	0.00244	0.0005	0.0135	0.0036			0
Zinc (Zn)	0.003	22	8	0.00836	0.00425	0.003	0.0371	0.01	0.0218	EQ	0
Zirconium (Zr)	0.0003	22	21	0.000301	0.000315	0.0003	0.00033	0.00001			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 37. 2019 annual data summary statistics for dissolved metals collected at the MOE far-field downstream right bank site (LBPR-9.34).**

Parameters (mg/L)	MDL	LBPR-9.34							BC Long-Term WQG <sup>1</sup>	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG <sup>2</sup>	# Exc
<b>Dissolved Metals</b>											
Aluminum (Al)	0.001	22	0	0.0131	0.0113	0.0038	0.0318	0.0096	0.05	0.1	0
Antimony (Sb)	0.0001	22	22	0.0001	0.0001	0.0001	0.0001				0
Arsenic (As)	0.0001	22	0	0.000229	0.000245	0.00018	0.00029	0.00004			0
Barium (Ba)	0.0001	22	0	0.0428	0.0518	0.0334	0.0523	0.0059			0
Beryllium (Be)	0.00002	22	22	0.00002	0.00002	0.00002	0.00002				0
Bismuth (Bi)	0.00005	22	22	0.00005	0.00005	0.00005	0.00005				0
Boron (B)	0.01	22	22	0.01	0.01	0.01	0.01	0			0
Cadmium (Cd)	0.000005	22	0	0.0000132	9.95E-06	0.0000062	0.0000396	0.0000074	0.00023	EQ	0
Calcium (Ca)	0.05	22	0	30.8	33.8	27.4	34.4	2.2			0
Chromium (Cr)	0.0001	22	16	0.000113	0.0001	0.0001	0.00026	0.00004			0
Cobalt (Co)	0.0001	22	19	0.000105	0.0001	0.0001	0.00014	0.00001			0
Copper (Cu)	0.0002	22	0	0.00084	0.00072	0.00053	0.00168	0.00028	0.0012	EQ	0
Iron (Fe)	0.01	22	6	0.0279	0.0175	0.01	0.092	0.024		0.35	0
Lead (Pb)	0.00005	22	19	0.0000609	0.00005	0.00005	0.000263	0.000045			0
Lithium (Li)	0.001	22	0	0.00195	0.00265	0.0011	0.0029	0.0006			0
Magnesium (Mg)	0.1	22	0	7.79	8.76	6.84	8.8	0.61			0
Manganese (Mn)	0.0001	22	0	0.0028	0.00127	0.0005	0.00994	0.00286			0
Mercury (Hg)	0.000005	22	21	0.000005	5.05E-06	0.000005	0.0000051	0			0
Molybdenum (Mo)	0.00005	22	0	0.00106	0.00136	0.00078	0.0014	0.00019			0
Nickel (Ni)	0.0005	22	0	0.000978	0.000925	0.00055	0.00193	0.00036			0
Phosphorus (P)	0.05	22	22	0.05	0.05	0.05	0.05	0			0
Potassium (K)	0.1	22	0	0.575	0.52	0.45	0.91	0.15			0
Selenium (Se)	0.00005	22	0	0.000373	0.000474	0.000258	0.000498	0.00007			0
Silicon (Si)	0.05	22	0	2.07	1.99	1.94	2.23	0.08			0
Silver (Ag)	0.00001	22	22	0.00001	0.00001	0.00001	0.00001				0
Sodium (Na)	0.05	22	0	1.82	2.08	1.42	2.4	0.33			0
Strontium (Sr)	0.0002	22	0	0.123	0.141	0.104	0.141	0.011			0
Sulfur (S)	0.5	22	0	6.31	7.98	4.78	8.04	0.96			0
Thallium (Tl)	0.00001	22	22	0.00001	0.00001	0.00001	0.00001				0
Tin (Sn)	0.0001	22	21	0.000106	0.0001	0.0001	0.00023	0.00003			0
Titanium (Ti)	0.0003	22	7	0.00109	0.00064	0.0003	0.00348	0.00111			0
Uranium (U)	0.00001	22	0	0.00051	0.000532	0.000449	0.000603	0.000035			0
Vanadium (V)	0.0005	22	22	0.0005	0.0005	0.0005	0.0005	0			0
Zinc (Zn)	0.001	22	21	0.00102	0.001	0.001	0.0015	0.0001			0
Zirconium (Zr)	0.0003	22	20	0.000302	0.0003	0.0003	0.00033	0.00001			0

<sup>1</sup> Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

<sup>2</sup> The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

Yellow shading indicates an exceedance of the long-term BC WQG, and blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the detection limit are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

BC WQG exceedances were not related to RSEM Pond discharge unless otherwise indicated.

**Table 38. 2019, Physical tests, anions and nutrients for RSEM L6 sites on September 5 sampled during planned RSEM L6 pond dewatering into the Peace River.**

Site	L6 Upstream/ LBPR-6.83			L6 Back Eddy/ LBPR-7.01			RSEM-L6- EOP	L6 IDZ/ LBPR-7.21			BC Max WQG	EOP Limit
	A	B	C	A	B	C	A	A	B	C		
<b>Date: September 5, 2019</b>												
<b>Physical Tests (mg/L)</b>												
Hardness (as CaCO <sub>3</sub> )	114			117			401	115				
Sp. Conductivity (In Situ, µS/cm)	213.4	213.8	214.9	261.4	231.9	293.1		214.9	214.7	214.7		
Sp. Conductivity (lab, µS/cm)	218			281			1500	220				
Total Dissolved Solids	134			165			1100	121				
Total Suspended Solids	94.2			57.4			5.2	22.7				EQ
Turbidity (In Situ, NTU)	10.42	10.33	10.27	13.71	11.50	14.21		9.20	9.28	9.09		
Turbidity (lab, NTU)	4.72			8.12			2.5	5.49				
pH (In Situ, pH units)	8.38	8.37	8.34	8.16	8.15	8.13		8.38	8.38	8.40	6.5-9.0	6.0-9.0
pH (lab, pH units)	8.32			8.27			7.31	8.28			6.5-9.0	6.0-9.0
<b>Anions and Nutrients (mg/L)</b>												
Alkalinity, Total (as CaCO <sub>3</sub> )	96.7			97.5			67	97.9				
Ammonia, Total (as N)	<0.0050			<0.0050			0.074	<0.0050			0.68	
Anion Sum (meq/L)	2.33			2.97				2.36				
Bromide (Br)	<0.050			<0.050			1	<0.050				
Cation - Anion Balance	0.7			-7.9				0.4				
Cation Sum (meq/L)	2.36			2.53				2.38				
Chloride (Cl)	<0.50			3.00			58	<0.50			600	
Orthophosphate (as P)	<0.0010			<0.0010			0.0033	<0.0010				
Fluoride (F)	0.054			0.073				0.051			EQ	
Nitrate (as N)	0.0420			0.0596			0.469	0.0436			32	
Nitrite (as N)	<0.0010			<0.0010			0.0109	<0.0010			EQ	
Sulfate (SO <sub>4</sub> )	18.8			44.5			570	19.3				
Total Phosphorus (P)	0.0200			0.0506				0.0198				
<b>Organic Carbon (mg/L)</b>												
Dissolved Organic Carbon	2.75			2.83			3.8	2.69				
Total Organic Carbon	3.57			3.27			3.1	3.45				

Yellow shading indicates an exceedance of short term (maximum) BC WQG in the Peace River sampling sites or exceedance of the Site C End of Pipe (EOP) Limits in the RSEM pond data (EOP limits are provided in Table 2, Appendix E (Rev 4) of the CEMP).  
EQ indicates that the applicable guideline is an equation as per MOE (2019). The EOP limit for TSS is calculated by PRHP based on upstream TSS data collected at turbidity gauges PAM-LB and PAM-RB. The TSS data are emailed twice daily to PRHP.



**Table 39. 2019, total metal concentrations for the RSEM L6 sites on September 5 sampled during planned RSEM L6 pond dewatering into the Peace River.**

Site	L6 Upstream/ LBPR-6.83	L6 Back Eddy/ LBPR-7.01	RSEM-L6- EOP	L6 IDZ/ LBPR-7.21	BC Max WQG	EOP Limit
Date: September 5, 2019	A	A	A	A		
<b>Total Metals (mg/L)</b>						
Aluminum (Al)-Total	0.294	0.526	0.114	0.263		
Antimony (Sb)-Total	<0.00010	0.00017	0.0014	0.00010		
Arsenic (As)-Total	0.00042	0.00061	0.00067	0.00039	0.005	
Barium (Ba)-Total	0.0530	0.0707	0.0648	0.0502		
Beryllium (Be)-Total	<0.000020	0.000041	0.0001	<0.000020		
Bismuth (Bi)-Total	<0.000050	<0.000050	0.001	<0.000050		
Boron (B)-Total	<0.010	<0.010	0.181	<0.010	1.2	
Cadmium (Cd)-Total	0.0000410	0.0000867	0.000024	0.0000386		0.00029
Calcium (Ca)-Total	31.3	34.2	97.9	32.2		
Chromium (Cr)-Total	0.00056	0.00104	0.0012	0.00051		
Cobalt (Co)-Total	0.00023	0.00048	0.0002	0.00021	0.11	0.55
Copper (Cu)-Total	0.00120	0.00195	0.00146	0.00275		0.011
Iron (Fe)-Total	0.447	0.899	0.135	0.394	1	
Lead (Pb)-Total	0.000249	0.000548	0.0002	0.000257	EQ	
Lithium (Li)-Total	0.0022	0.0028	0.0344	0.0022		
Magnesium (Mg)-Total	7.95	8.95	37.9	8.23		
Manganese (Mn)-Total	0.0111	0.0211	0.0043	0.0104	EQ	
Mercury (Hg)-Total	<0.0000050	<0.0000050	0.000002	<0.0000050		
Molybdenum (Mo)-Total	0.00121	0.00141	0.0236	0.00122	2	
Nickel (Ni)-Total	0.00153	0.00219	0.0015	0.00148		
Phosphorus (P)-Total	<0.050	0.057		<0.050		
Potassium (K)-Total	0.54	0.69	5.9	0.54		
Selenium (Se)-Total	0.000450	0.000545	0.00848	0.000409		
Silicon (Si)-Total	2.42	2.76	0.534	2.44		
Silver (Ag)-Total	<0.000010	0.000012	0.00002	<0.000010	EQ	
Sodium (Na)-Total	1.74	3.70	169	1.90		
Strontium (Sr)-Total	0.130	0.140	0.508	0.129		
Sulfur (S)-Total	6.88	9.12	198	7.09		
Thallium (Tl)-Total	0.000011	0.000022	0.000016	0.000010		
Tin (Sn)-Total	<0.00010	<0.00010	0.005	<0.00010		
Titanium (Ti)-Total	0.00527	0.0110	0.005	0.00494		
Uranium (U)-Total	0.000547	0.000603	0.00498	0.000542		
Vanadium (V)-Total	0.00156	0.00279	0.005	0.00148		
Zinc (Zn)-Total	0.0034	0.0059	0.005	0.0037	EQ	0.033
Zirconium (Zr)-Total	<0.00030	<0.00030	0.0001	<0.00030		

Yellow shading indicates an exceedance of short term (maximum) BC WQG in the Peace River sampling sites or exceedance of the Site C End of Pipe (EOP) Limits in the RSEM pond data (EOP limits are provided in Table 2, Appendix E (Rev 4) of the CEMP). EQ indicates that the applicable guideline is an equation as per MOE (2019).

**Table 40. 2019, dissolved metal concentrations for the RSEM L6 sites on September 5 sampled during planned RSEM L6 pond dewatering into the Peace River.**

Site	L6 Upstream/ LBPR-6.83	L6 Back Eddy/ LBPR-7.01	RSEM-L6- EOP	L6 IDZ/ LBPR-7.21	BC Max WQG	EOP Limit
Date: September 5, 2019	A	A	A	A		
<b>Dissolved Metals (mg/L)</b>						
Aluminum (Al)-Dissolved	0.0094	0.0100	0.0161	0.0089	EQ	
Antimony (Sb)-Dissolved	<0.00010	<0.00010	0.00143	<0.00010		
Arsenic (As)-Dissolved	0.00022	0.00022	0.00058	0.00022		
Barium (Ba)-Dissolved	0.0465	0.0469	0.0596	0.0448		
Beryllium (Be)-Dissolved	<0.000020	<0.000020	0.0001	<0.000020		
Bismuth (Bi)-Dissolved	<0.000050	<0.000050	0.001	<0.000050		
Boron (B)-Dissolved	<0.010	<0.010	0.176	<0.010		
Cadmium (Cd)-Dissolved	0.0000094	0.0000103	0.000023	0.0000112	EQ	
Calcium (Ca)-Dissolved	32.1	33.1	97.1	32.6		
Chromium (Cr)-Dissolved	<0.00010	<0.00010	0.001	<0.00010		
Cobalt (Co)-Dissolved	<0.00010	<0.00010	0.0002	<0.00010		
Copper (Cu)-Dissolved	0.00062	0.00077	0.00117	0.00064	EQ	
Iron (Fe)-Dissolved	0.010	0.012	0.01	0.010	0.35	
Lead (Pb)-Dissolved	<0.000050	<0.000050	0.0002	<0.000050		
Lithium (Li)-Dissolved	0.0019	0.0023	0.033	0.0019		
Magnesium (Mg)-Dissolved	8.18	8.48	38.5	8.03		
Manganese (Mn)-Dissolved	0.00117	0.00078	0.001	0.00143		
Mercury (Hg)-Dissolved	<0.0000050	<0.0000050	0.000002	<0.0000050		
Molybdenum (Mo)-Dissolved	0.00129	0.00147	0.0224	0.00128		
Nickel (Ni)-Dissolved	0.00087	0.00088	0.0012	0.00082		
Phosphorus (P)-Dissolved	<0.050	<0.050		<0.050		
Potassium (K)-Dissolved	0.47	0.55	6.07	0.45		
Selenium (Se)-Dissolved	0.000409	0.000553	0.00858	0.000460		
Silicon (Si)-Dissolved	2.09	2.02	0.343	2.02		
Silver (Ag)-Dissolved	<0.000010	<0.000010	0.00002	<0.000010		
Sodium (Na)-Dissolved	1.78	3.88	167	1.85		
Strontium (Sr)-Dissolved	0.130	0.137	0.521	0.131		
Sulfur (S)-Dissolved	6.67	8.71	206	6.85		
Thallium (Tl)-Dissolved	<0.000010	<0.000010	0.000014	<0.000010		
Tin (Sn)-Dissolved	<0.00010	<0.00010	0.005	<0.00010		
Titanium (Ti)-Dissolved	0.00037	0.00043	0.005	0.00031		
Uranium (U)-Dissolved	0.000529	0.000573	0.00505	0.000529		
Vanadium (V)-Dissolved	<0.00050	<0.00050	0.005	<0.00050		
Zinc (Zn)-Dissolved	<0.0010	<0.0010	0.005	<0.0010		
Zirconium (Zr)-Dissolved	<0.00030	<0.00030	0.0001	<0.00030		

Yellow shading indicates an exceedance of short term (maximum) BC WQG in the Peace River sampling sites or exceedance of the Site C End of Pipe (EOP) Limits in the RSEM pond data (EOP limits are provided in Table 2, Appendix E (Rev 4) of the CEMP).

EQ indicates that the applicable guideline is an equation as per MOE (2019).

**Appendix B. Site C PAG Contact RSEM Surface Water Quality Monitoring Time Series Plots  
– R5b Monthly and 5 in 30-day Data.**

Figure 2. 2019 Peace River (*in situ*) and RSEM R5b pond (lab) specific conductivity.

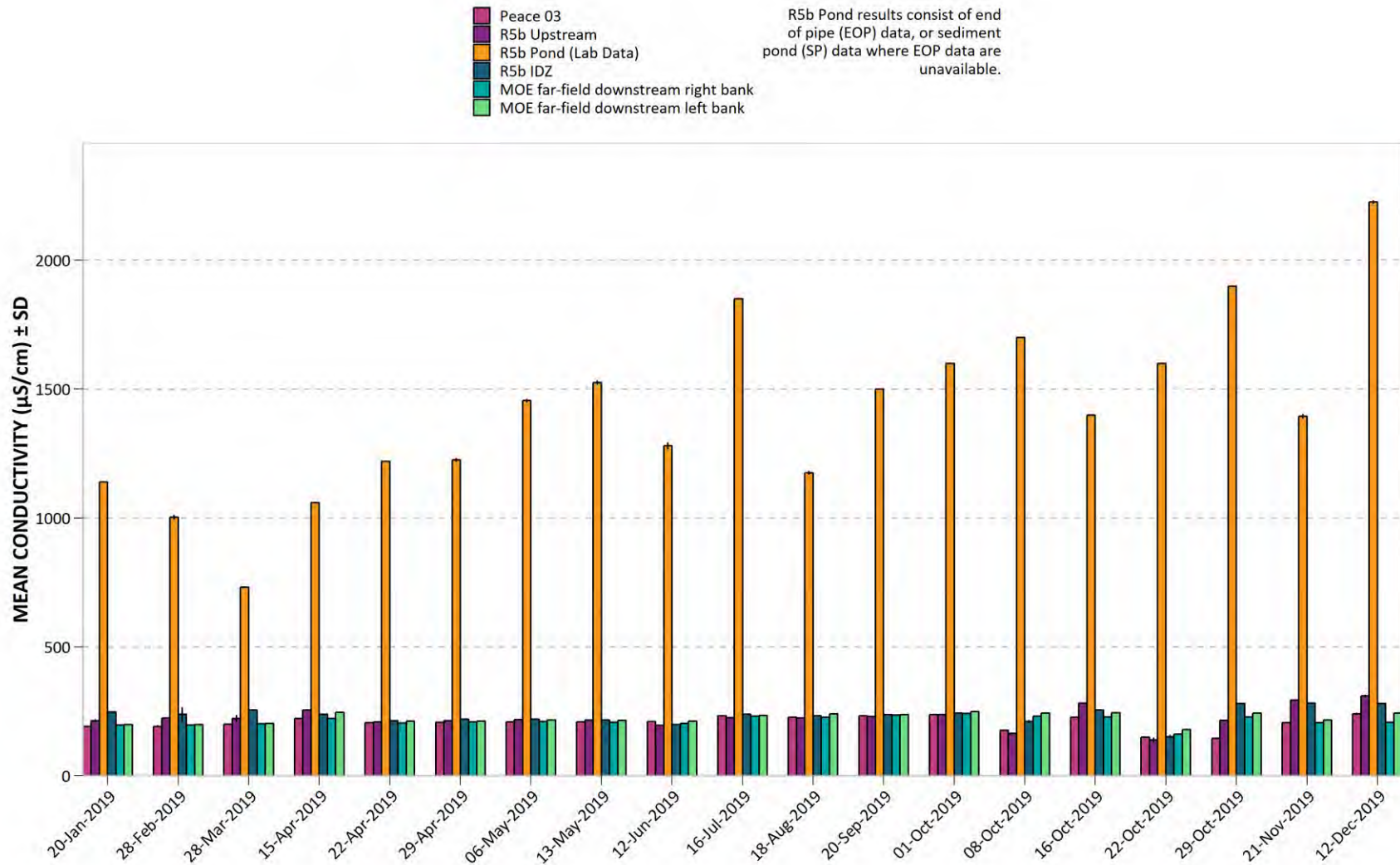


Figure 3. 2019 Peace River and RSEM R5b pond lab specific conductivity.

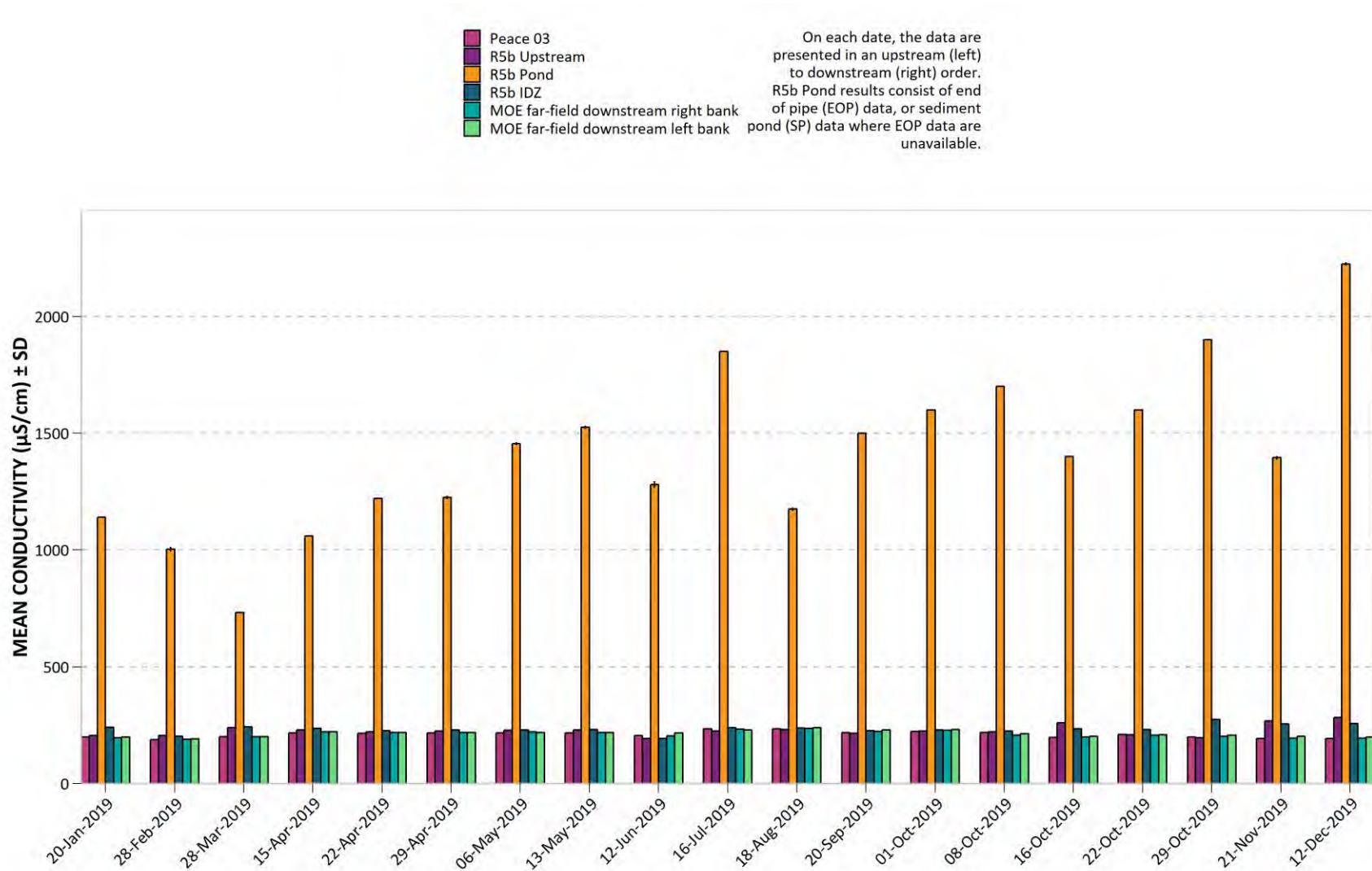


Figure 4. 2019 Peace River and RSEM R5b pond hardness (as CaCO<sub>3</sub>).

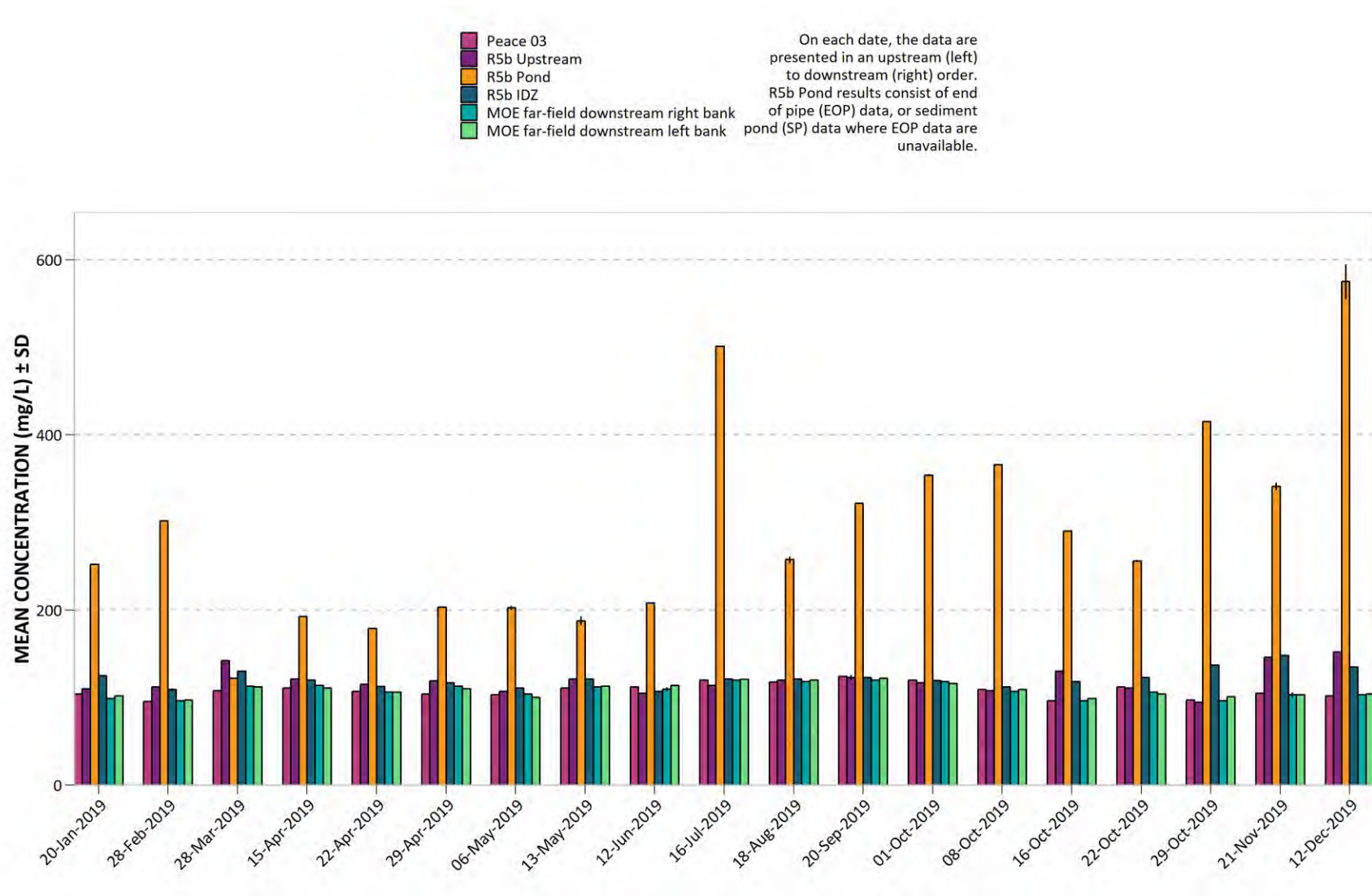


Figure 5. 2019 Peace River and RSEM R5b pond total dissolved solids (TDS).

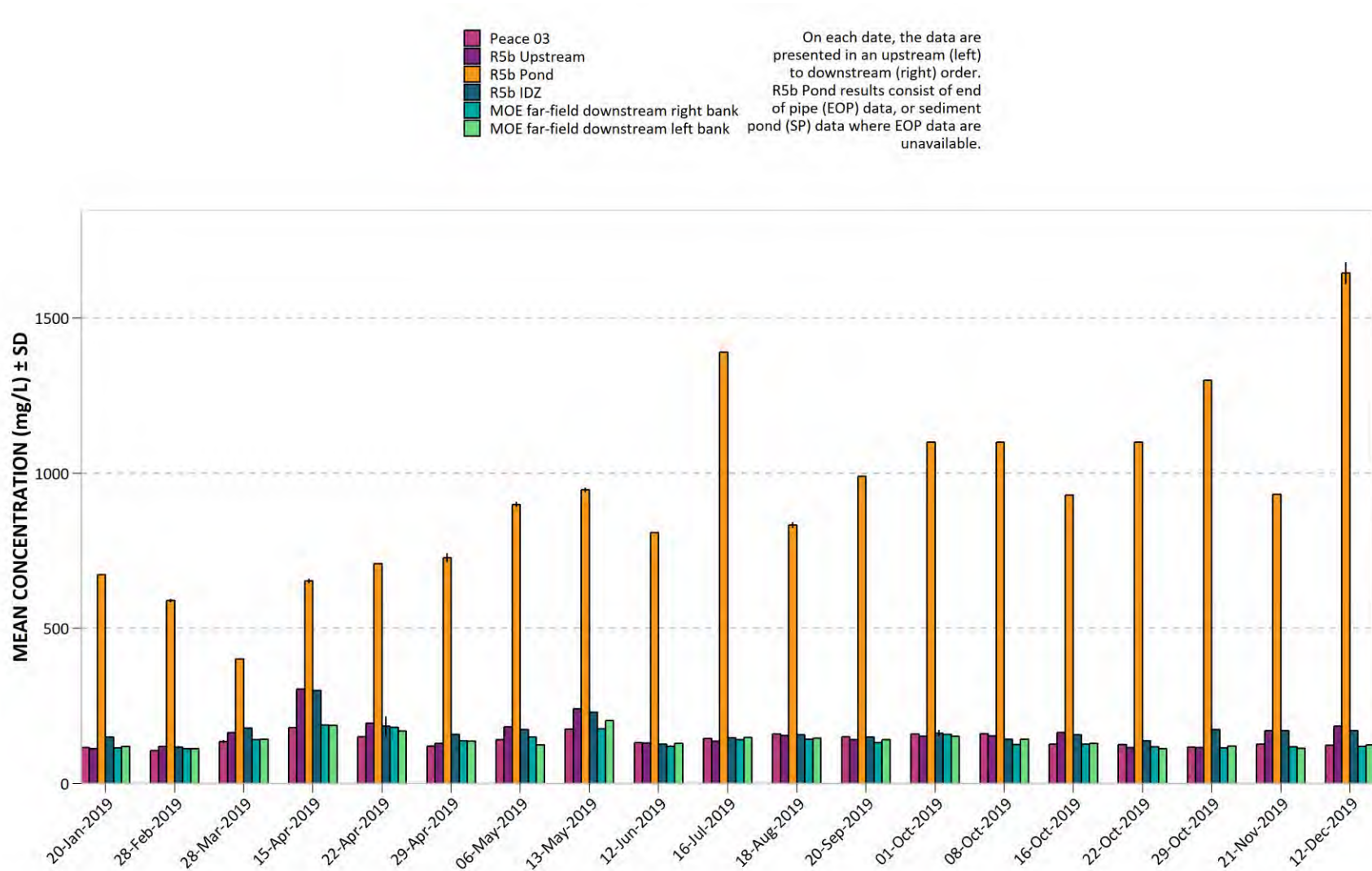


Figure 6. 2019 Peace River and RSEM R5b pond total suspended solids (TSS).

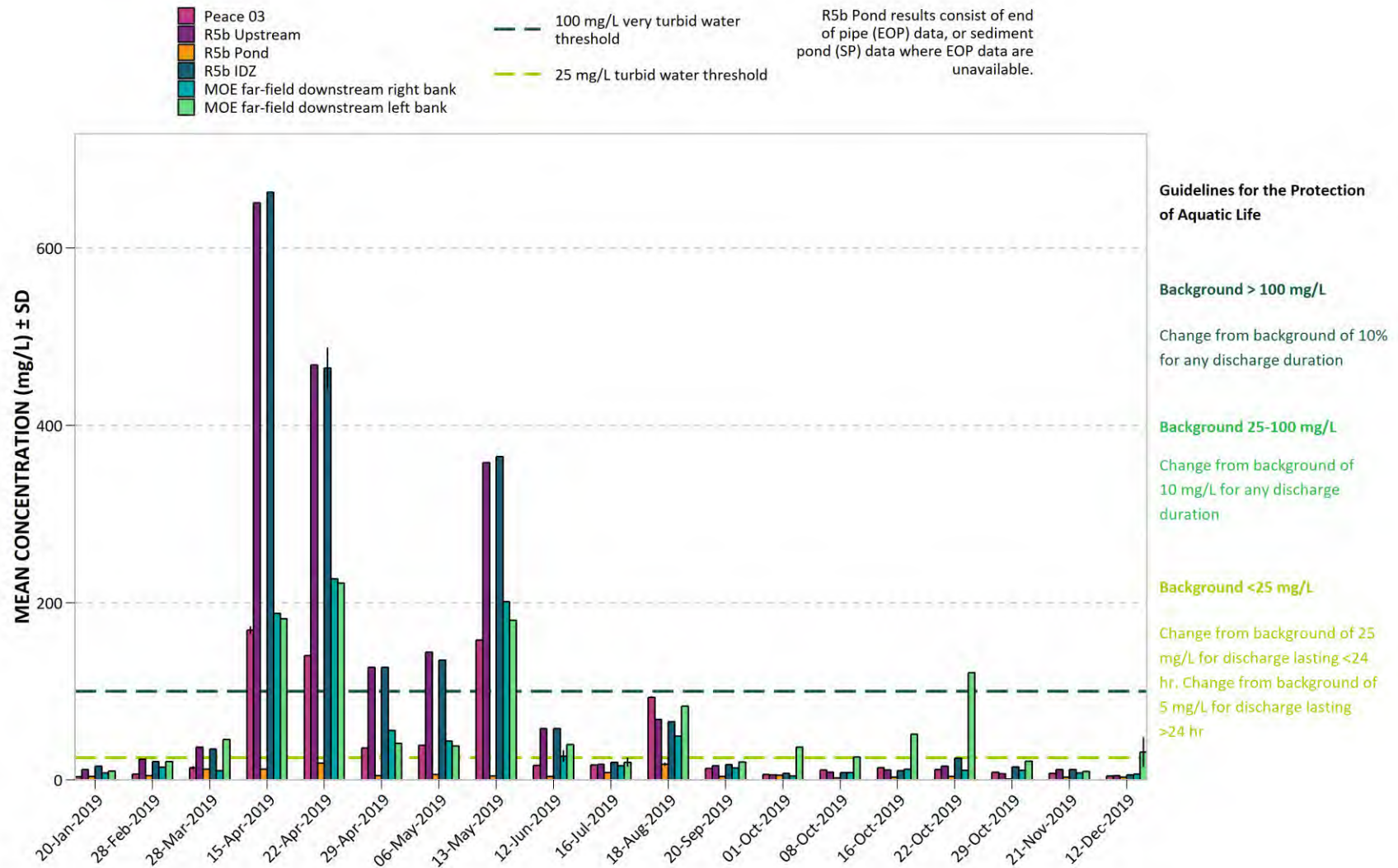




Figure 7. 2019 Peace River (*in-situ*) RSEM R5b pond (lab) turbidity.

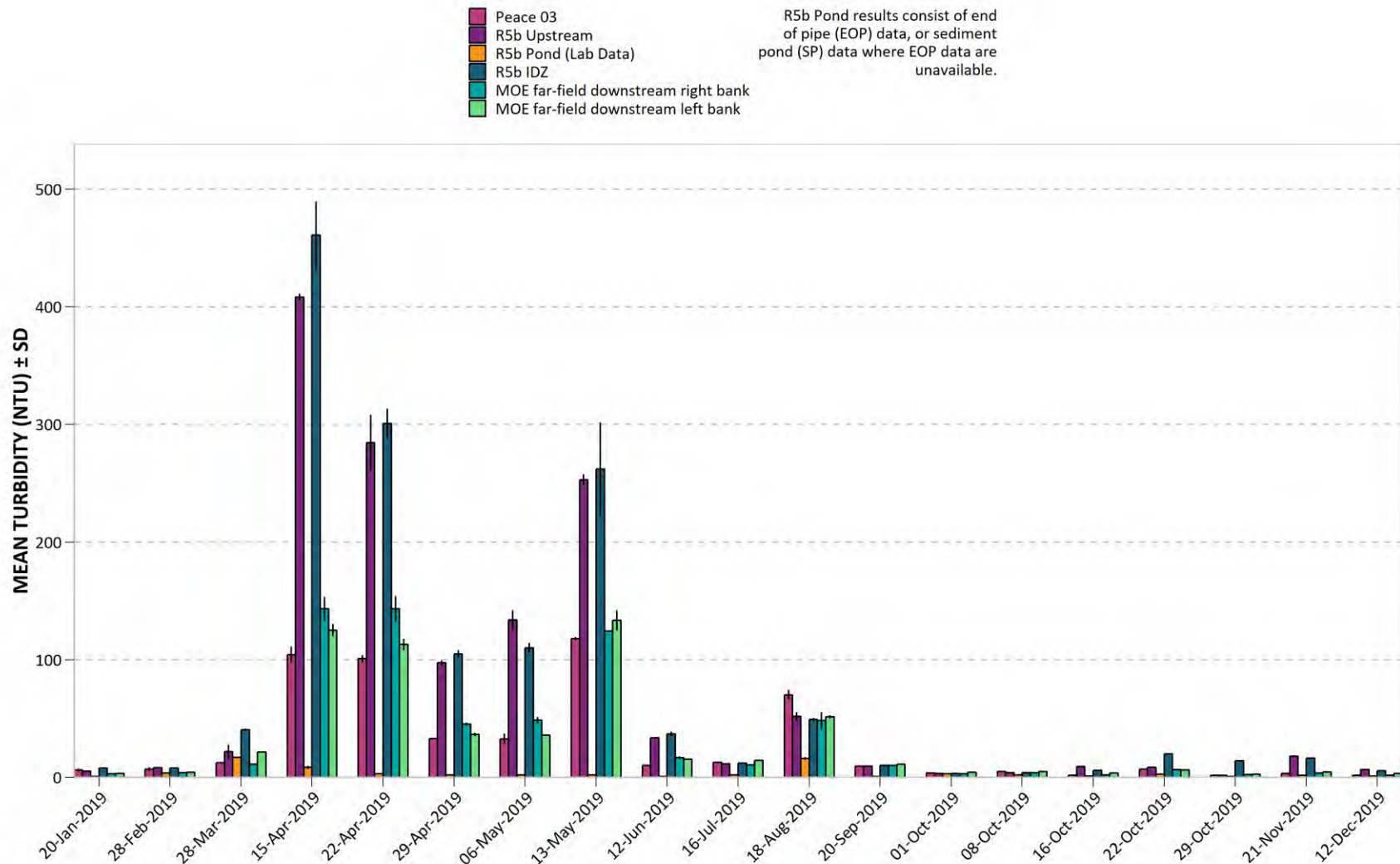


Figure 8. 2019 Peace River (*in-situ*) and RSEM R5b pond (lab) pH.

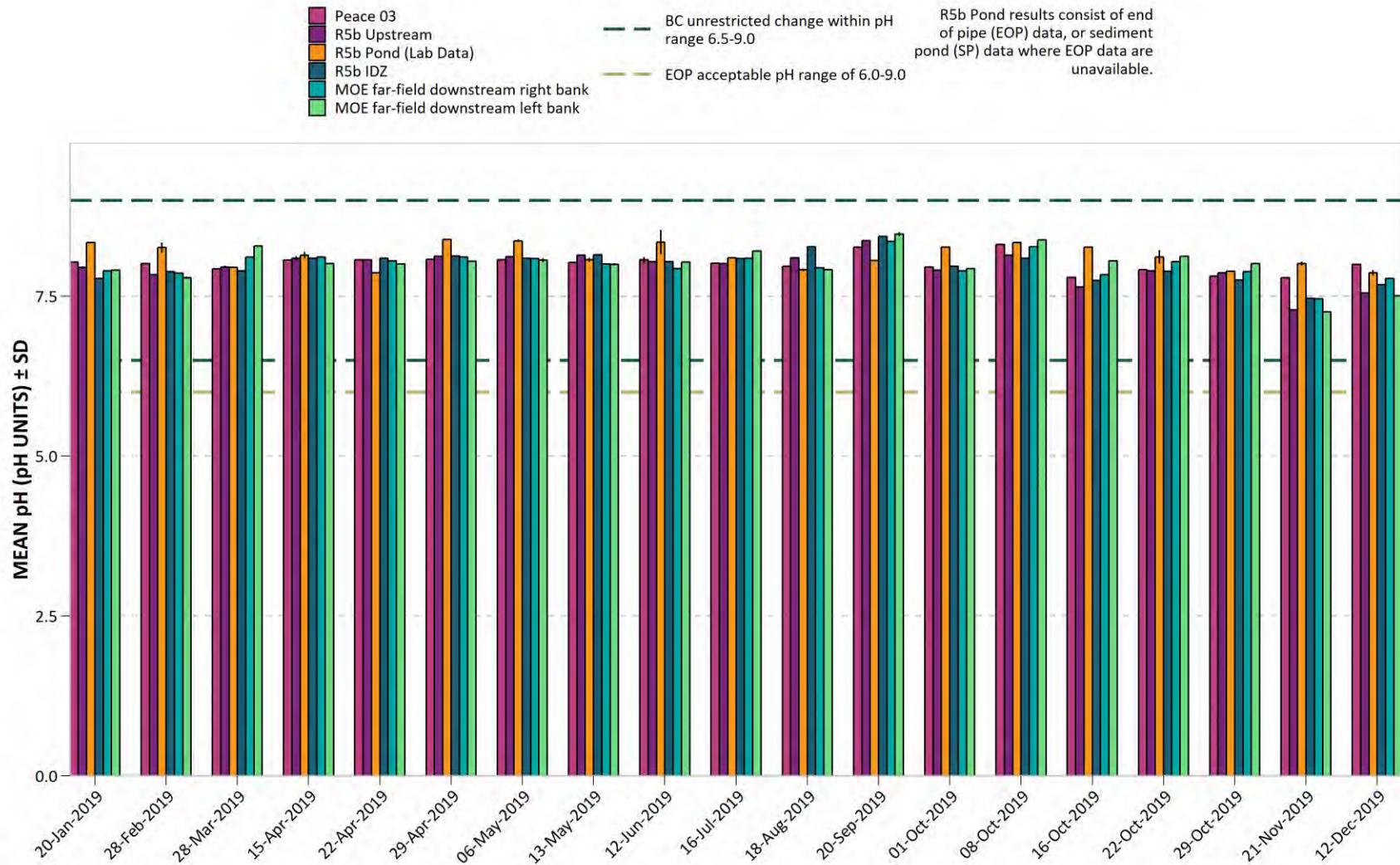


Figure 9. 2019 Peace River and RSEM R5b pond lab pH.

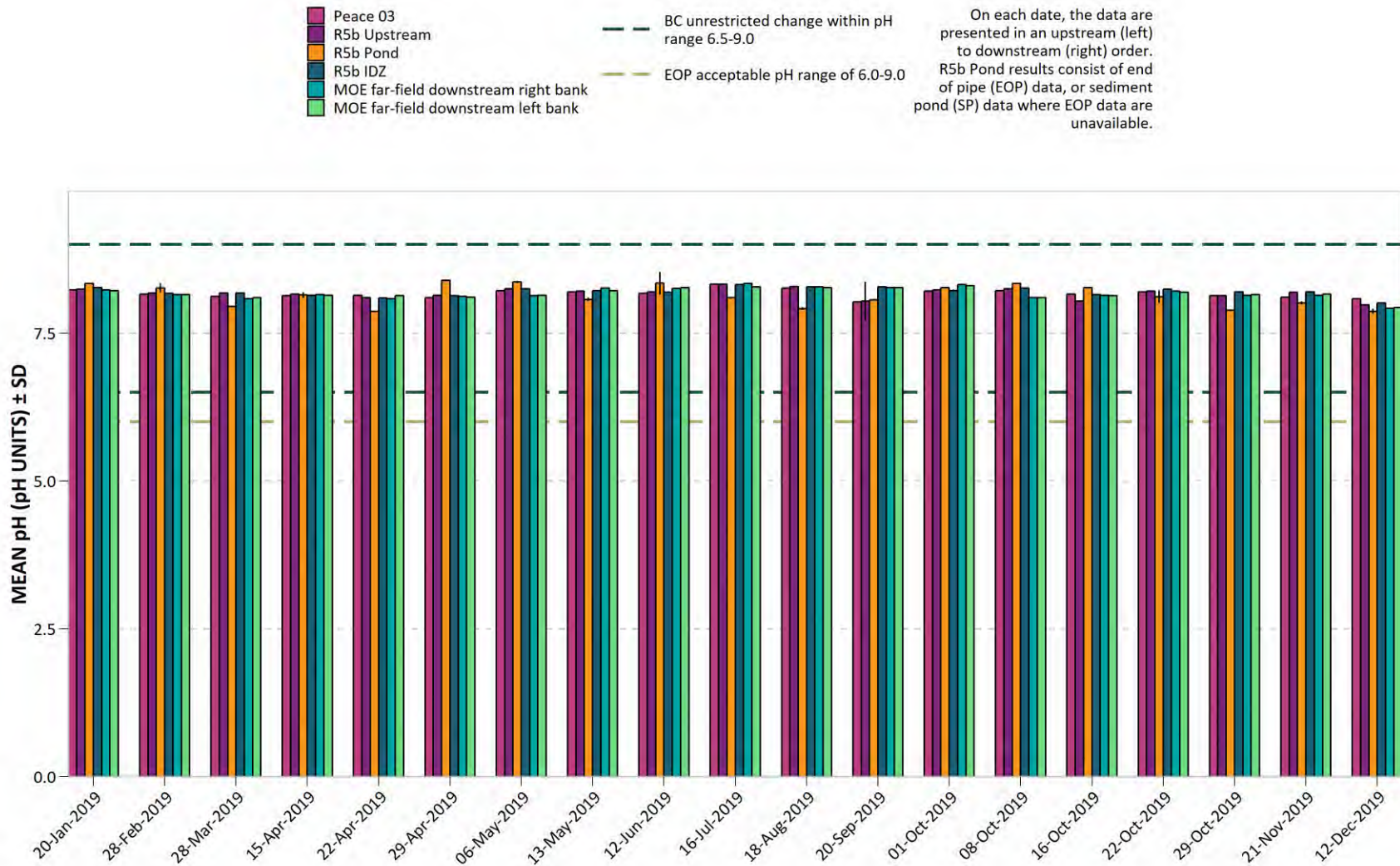


Figure 10. 2019 Peace River and RSEM R5b pond total alkalinity (as CaCO<sub>3</sub>).

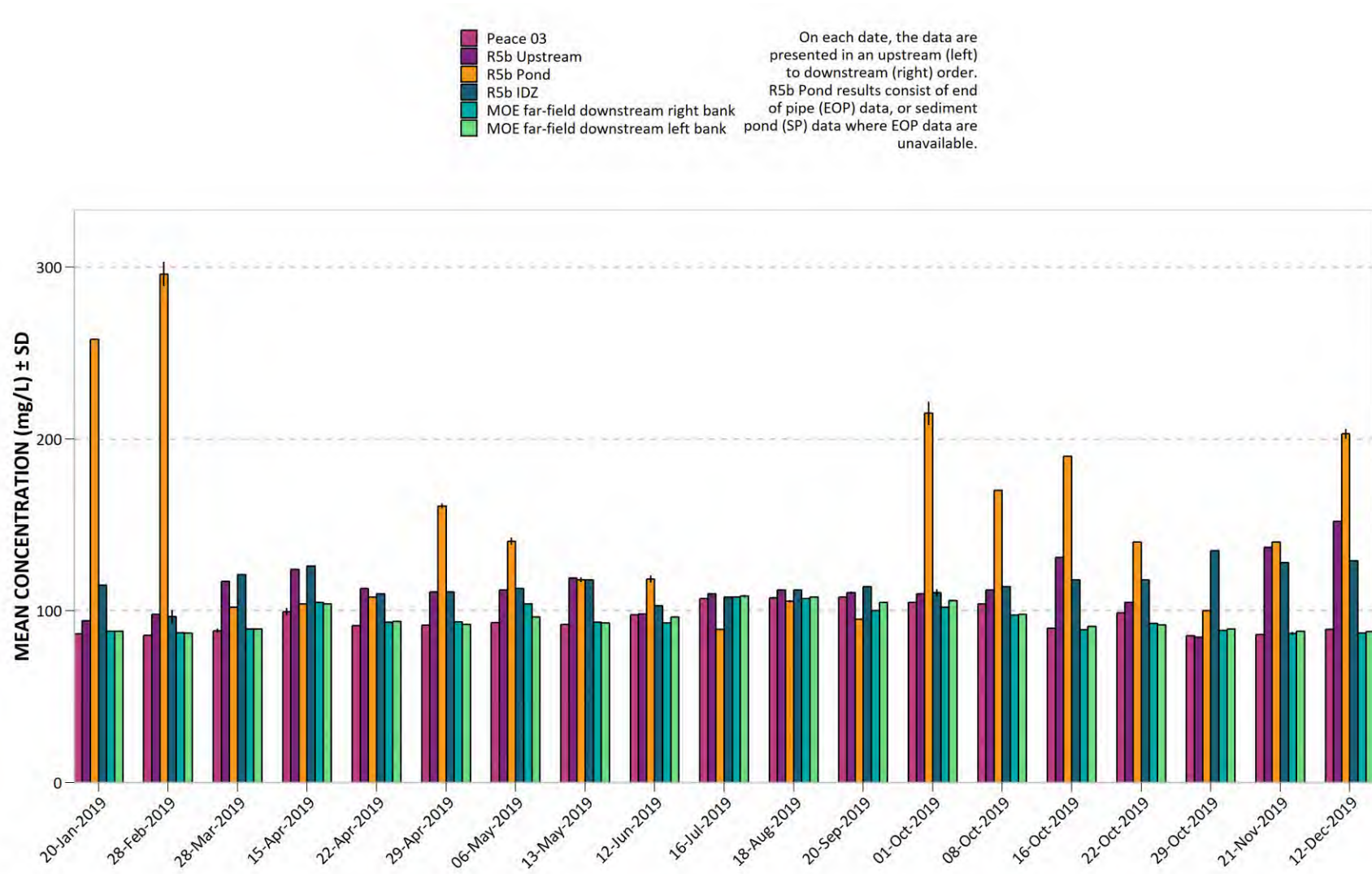


Figure 11. 2019 Peace River and RSEM R5b pond total ammonia (as N).

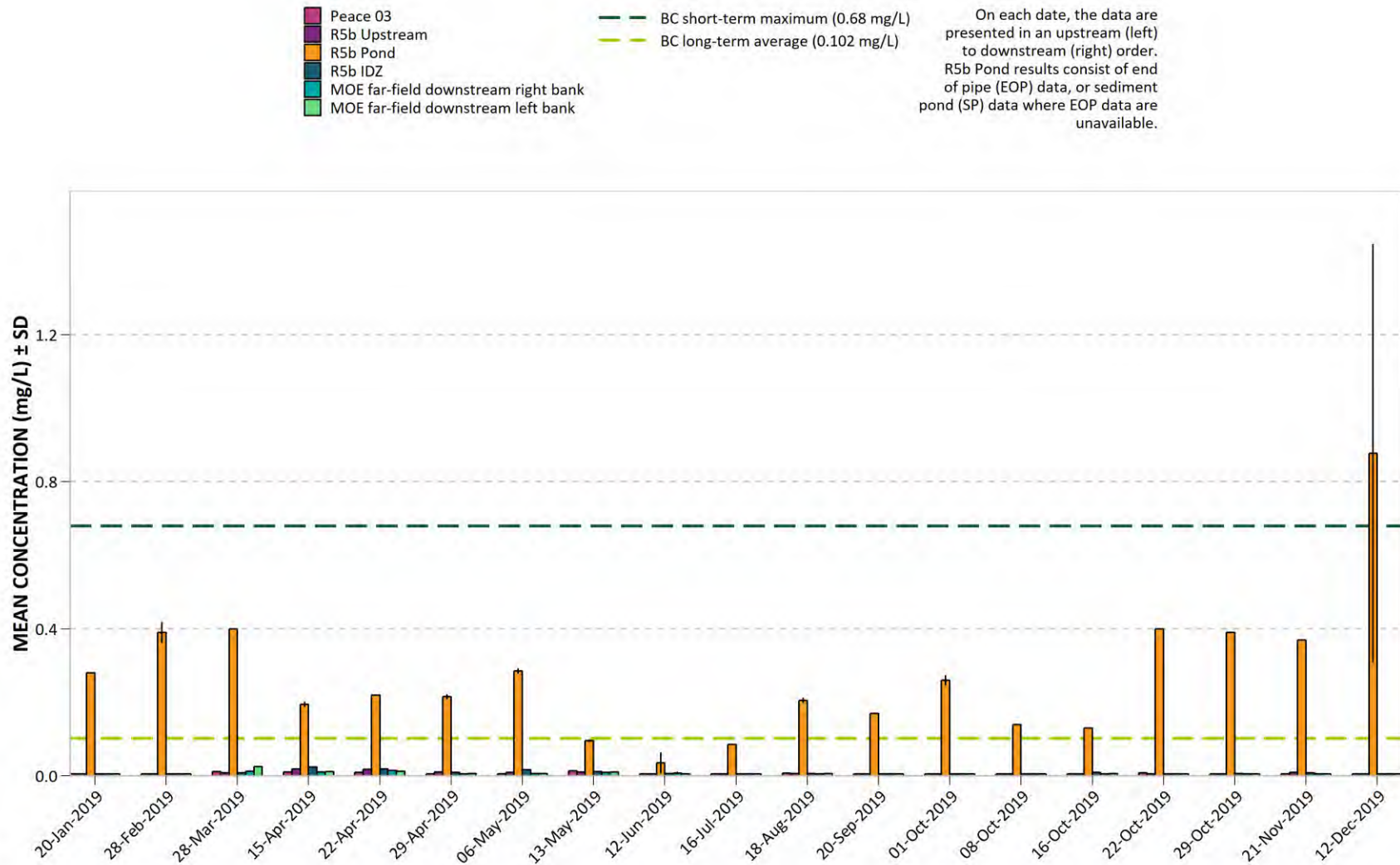
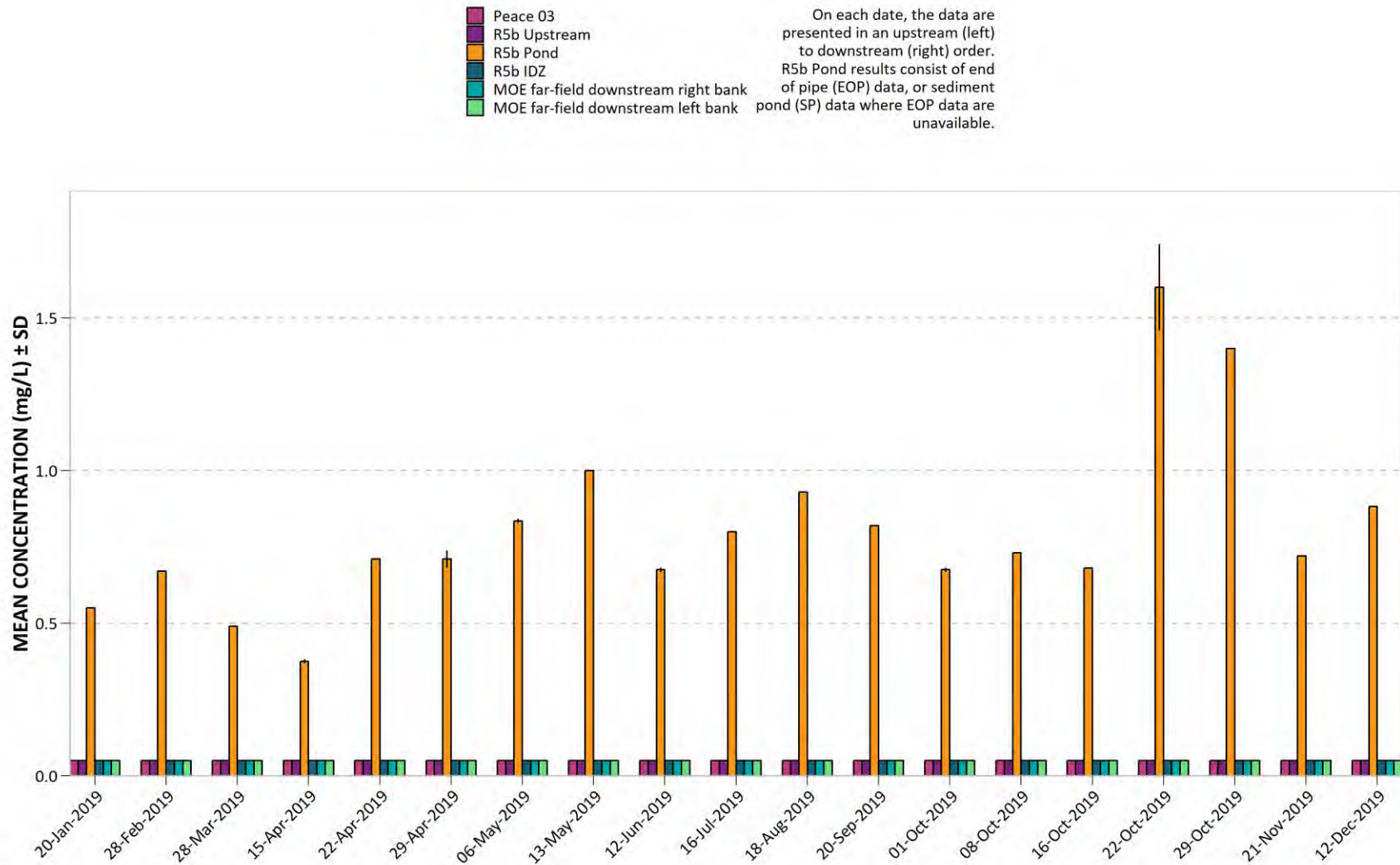
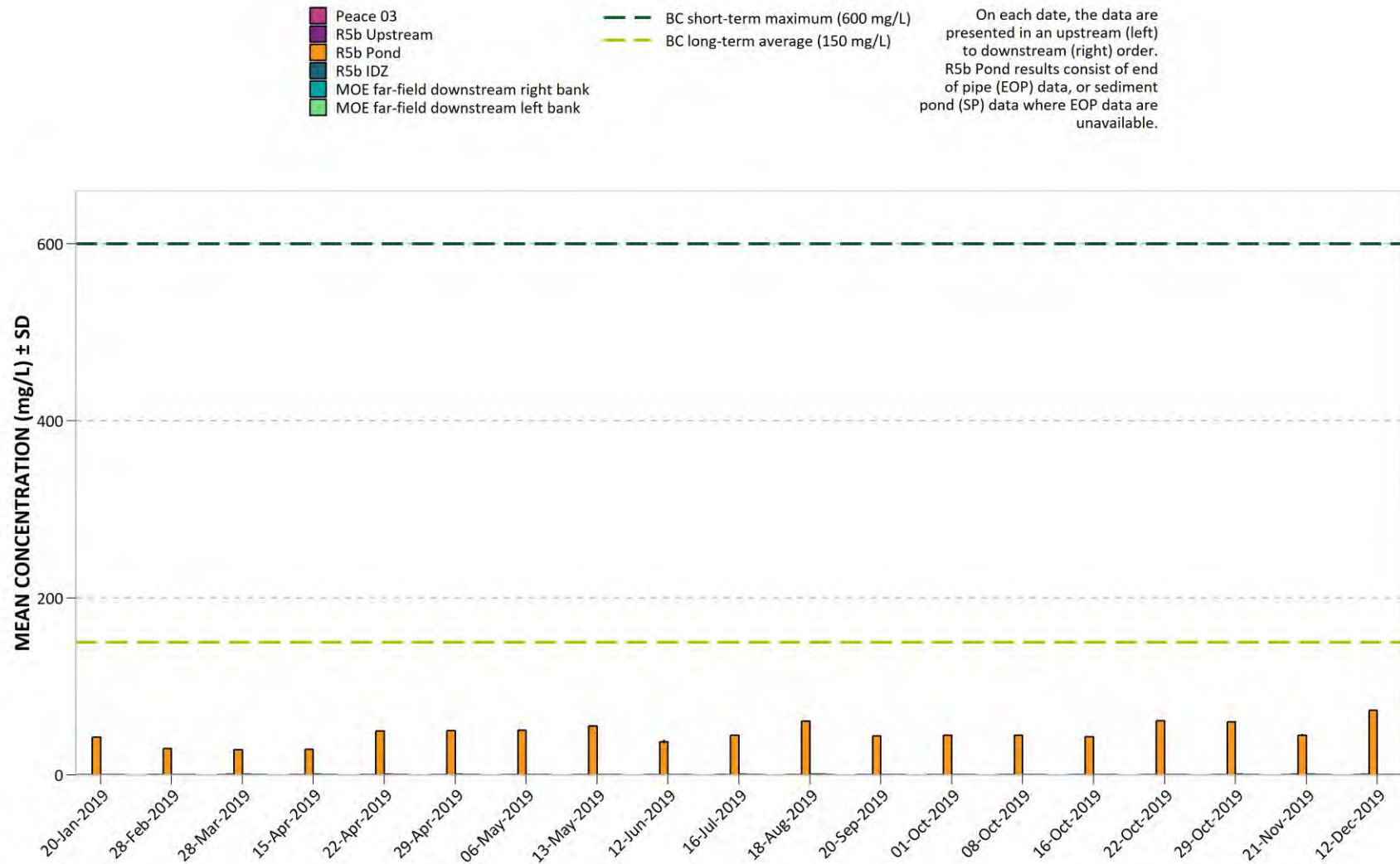


Figure 12. 2019 Peace River and RSEM R5b pond bromide (Br).



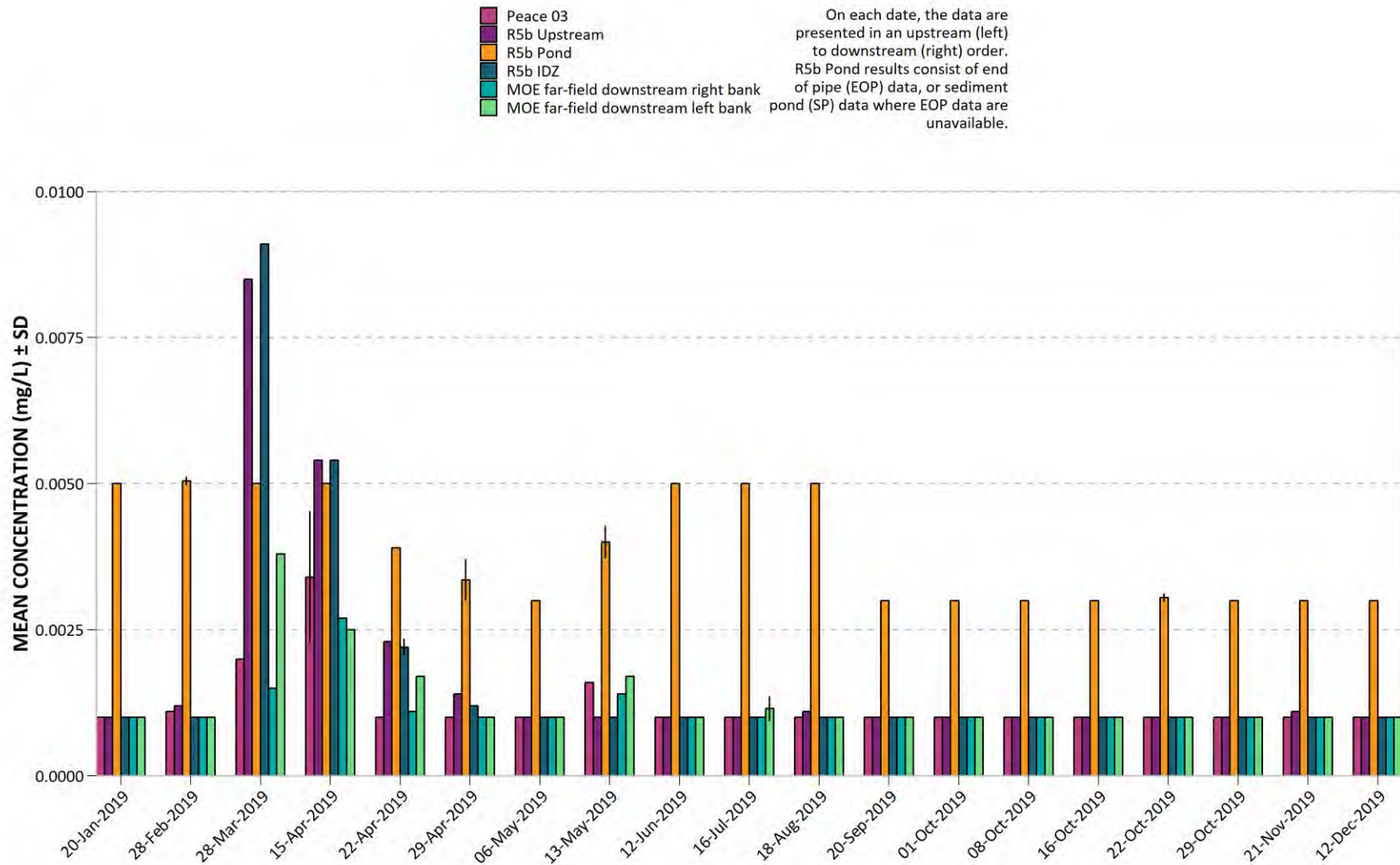
Peace River results less than the MDL were assigned the MDL value of 0.05 mg/L

Figure 13. 2019 Peace River and RSEM R5b pond chloride (Cl).



All Peace River results were less than the MDL and thus were assigned the MDL value of 0.5 mg/L.

Figure 14. 2019 Peace River and RSEM R5b pond dissolved orthophosphate.



Peace River results less than the MDL were assigned the MDL value 0.001 mg/L. Pond data less than the MDL were assigned the corresponding MDL.



Figure 15. 2019 Peace River and RSEM R5b pond fluoride (F).

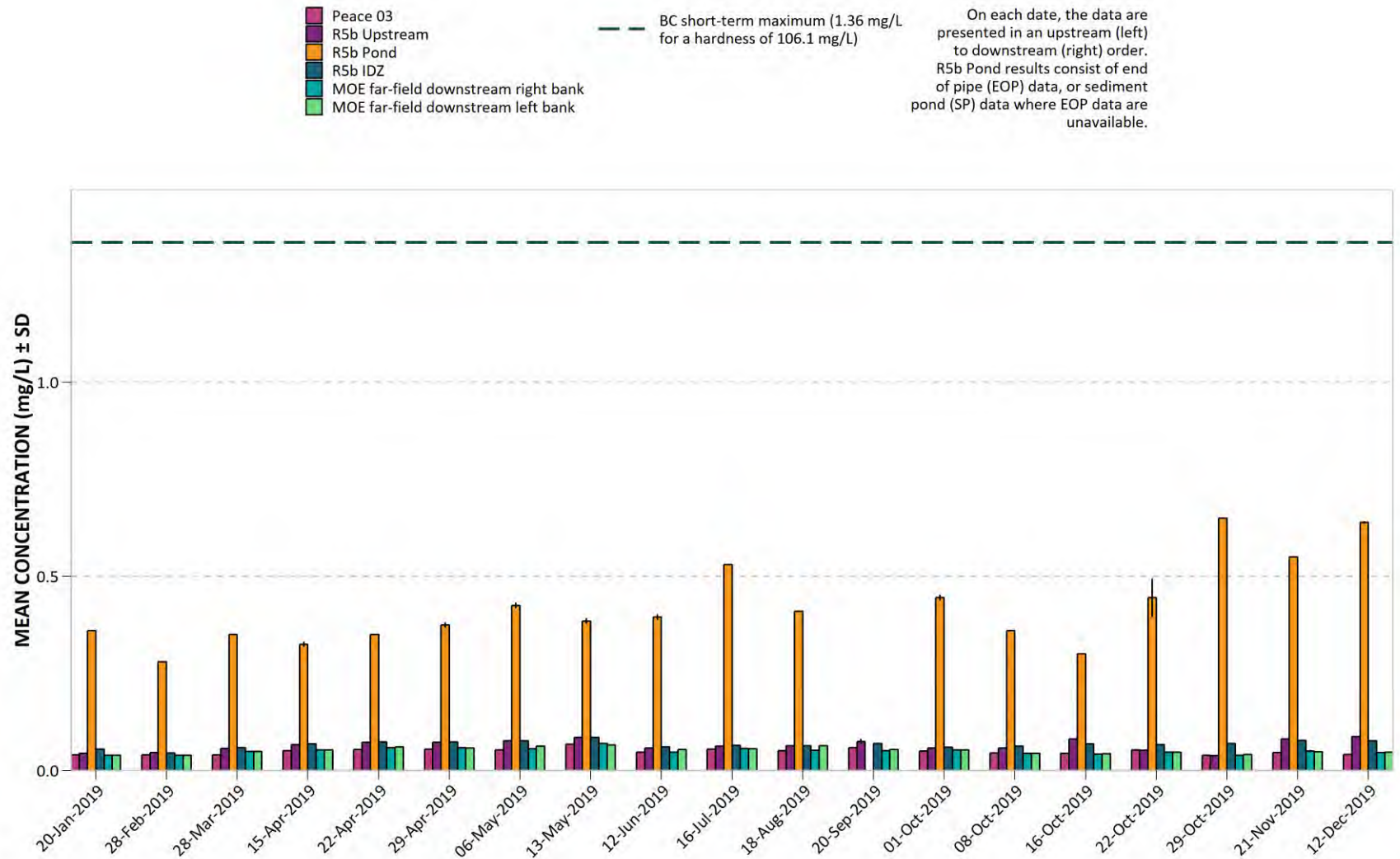


Figure 16. 2019 Peace River and RSEM R5b pond nitrate (as N).

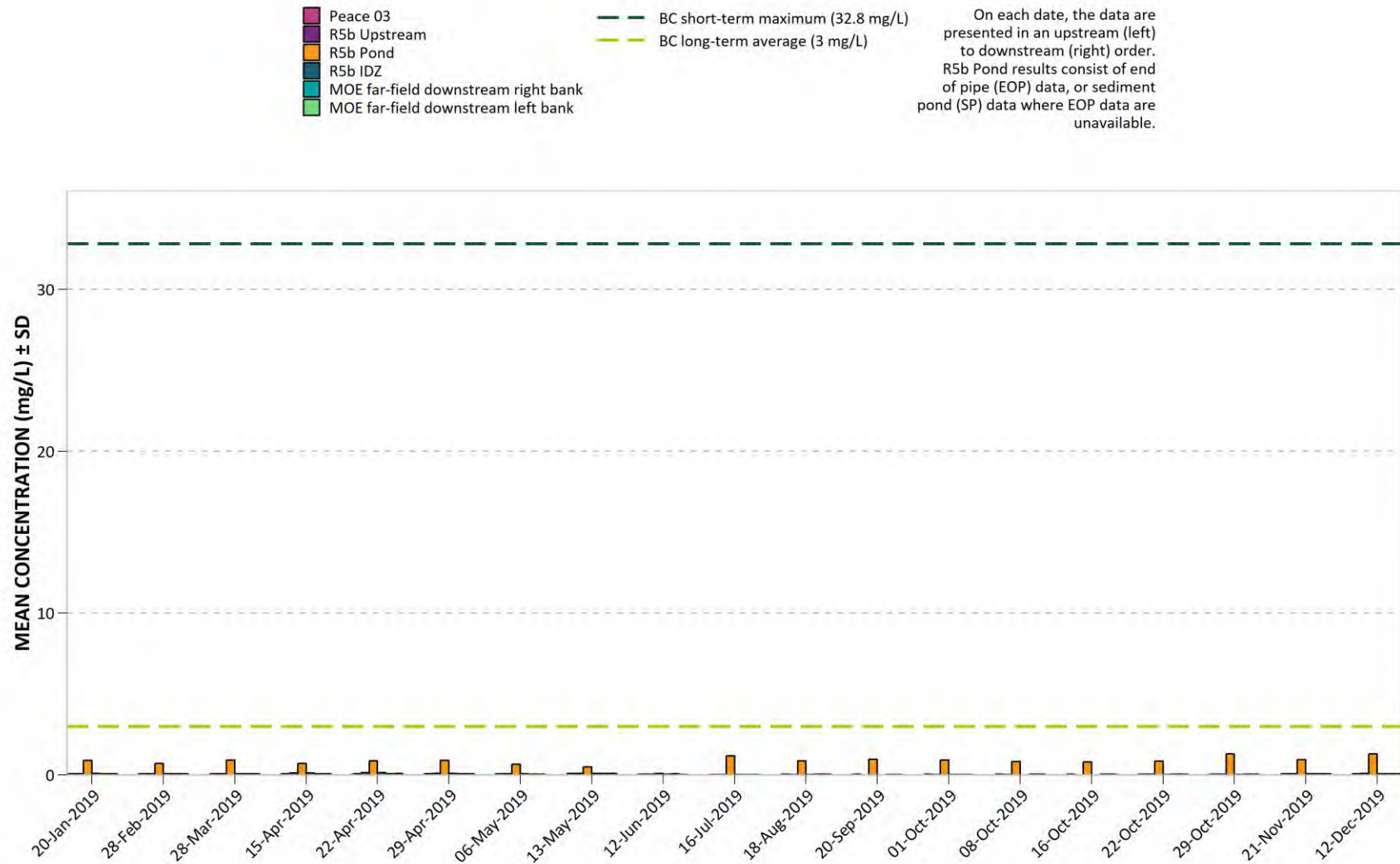
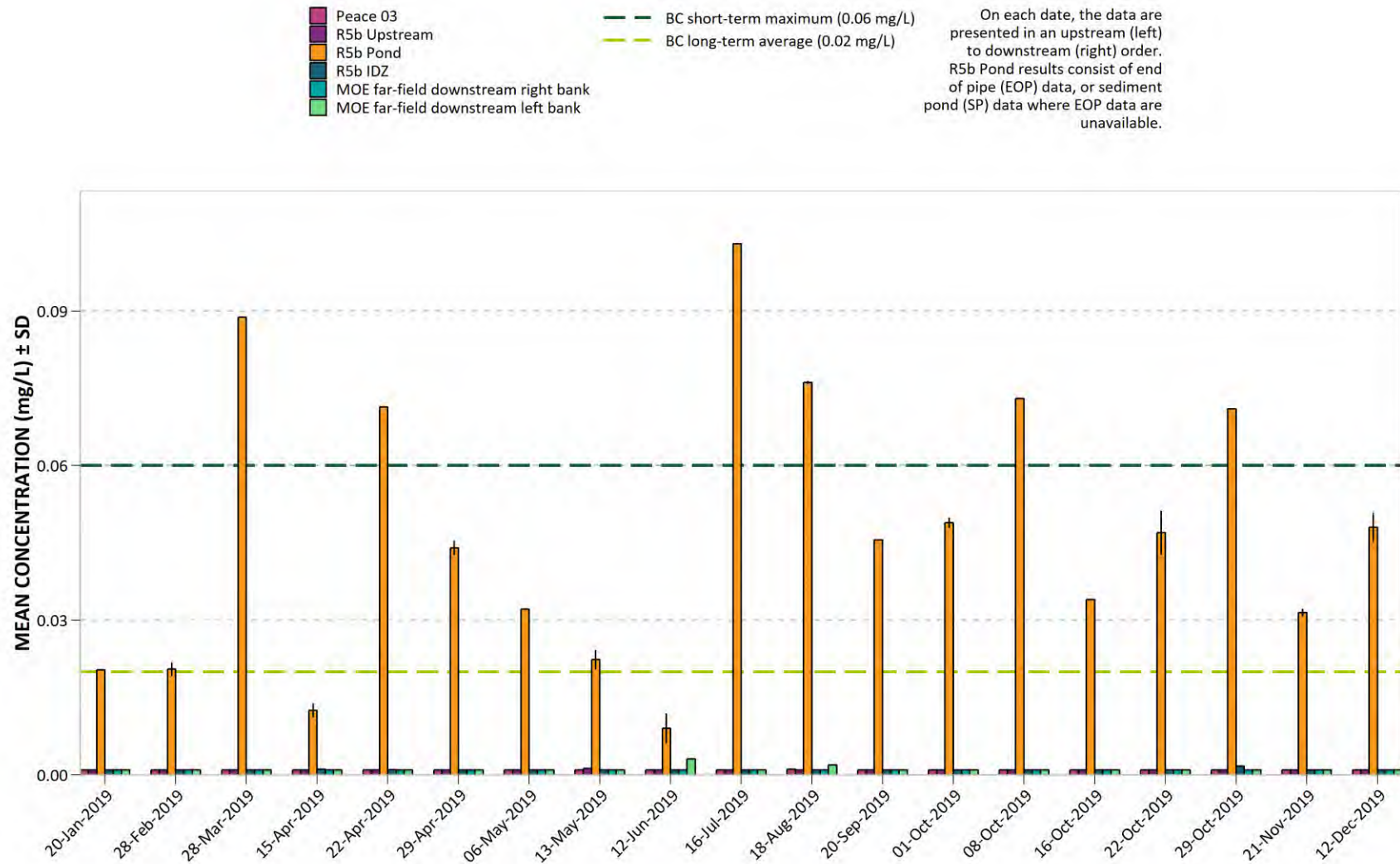


Figure 17. 2019 Peace River and RSEM R5b pond nitrite (as N).



Note: BC WQG for nitrite are chloride dependent, and therefore guidelines depicted in the plot are applicable for Peace River sites only. Based on the range of chloride values observed in the R5b pond, the applicable BC Maximum and 30-day guidelines are 0.6 mg/L and 0.2 mg/L, respectively. Most of the Peace River data are <MDL.

Figure 18. 2019 Peace River and RSEM R5b pond sulfate (SO<sub>4</sub>).

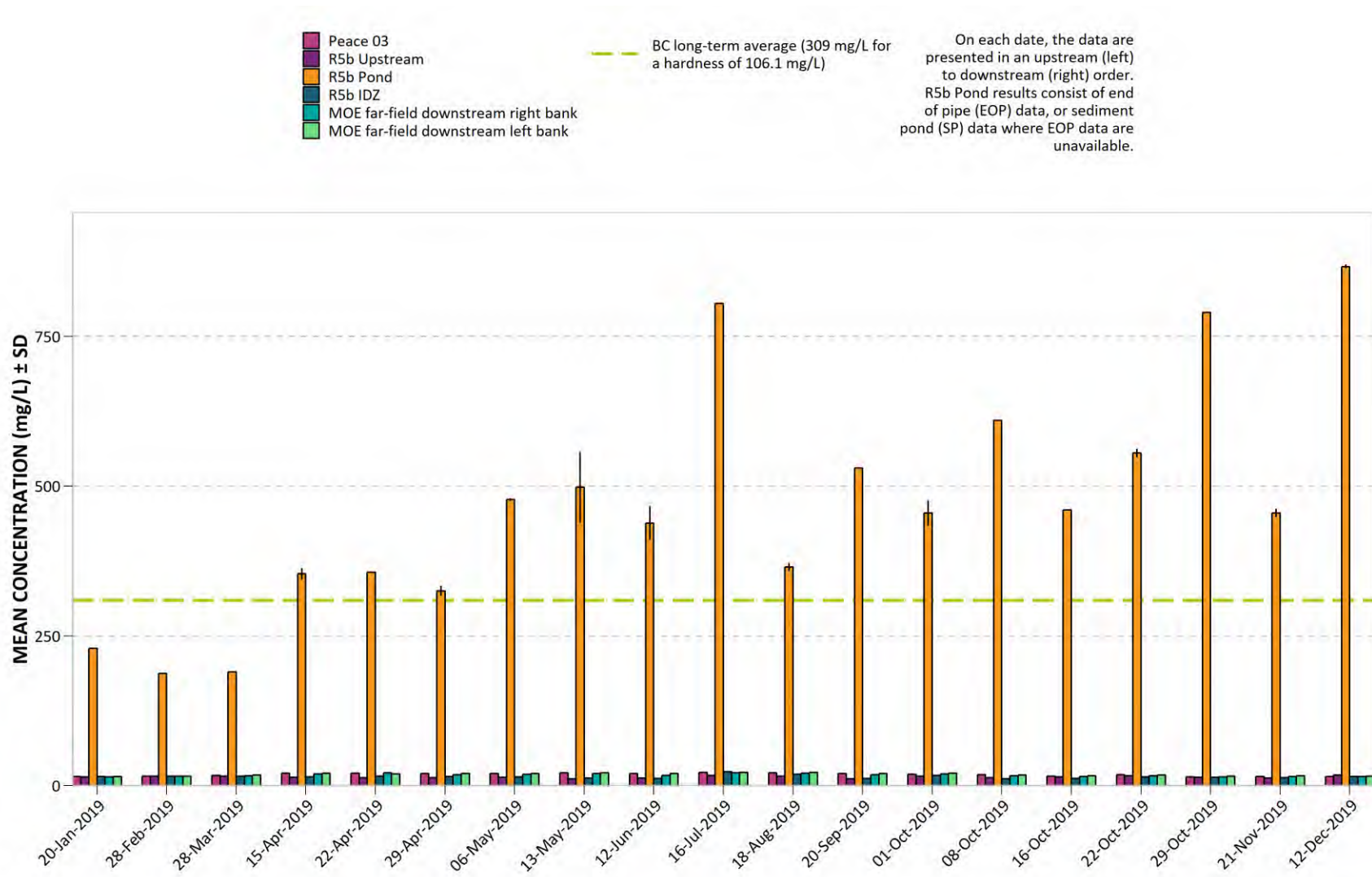


Figure 19. 2019 Peace River and RSEM R5b pond dissolved organic carbon (DOC).

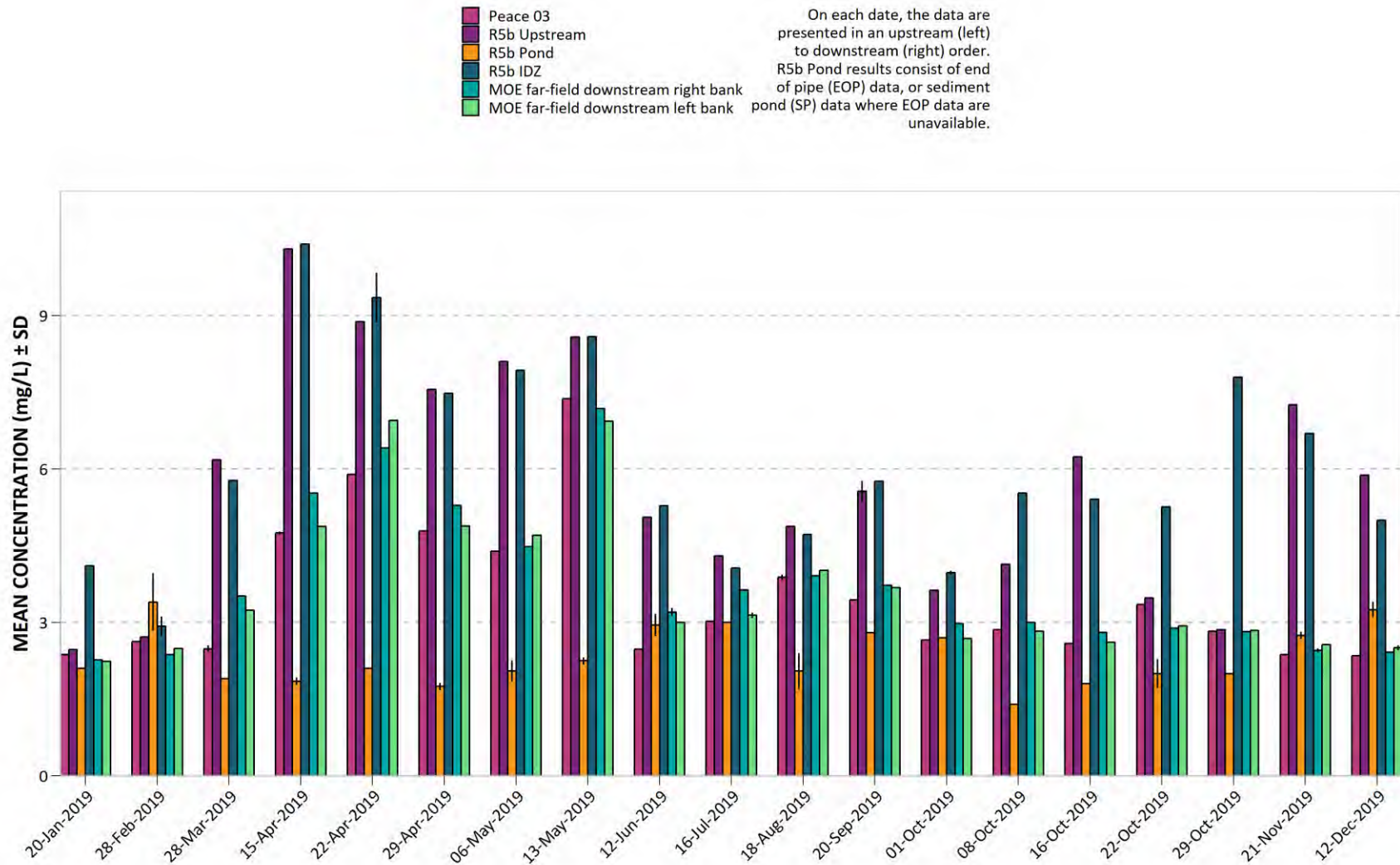


Figure 20. 2019 Peace River and RSEM R5b pond total organic carbon (TOC).

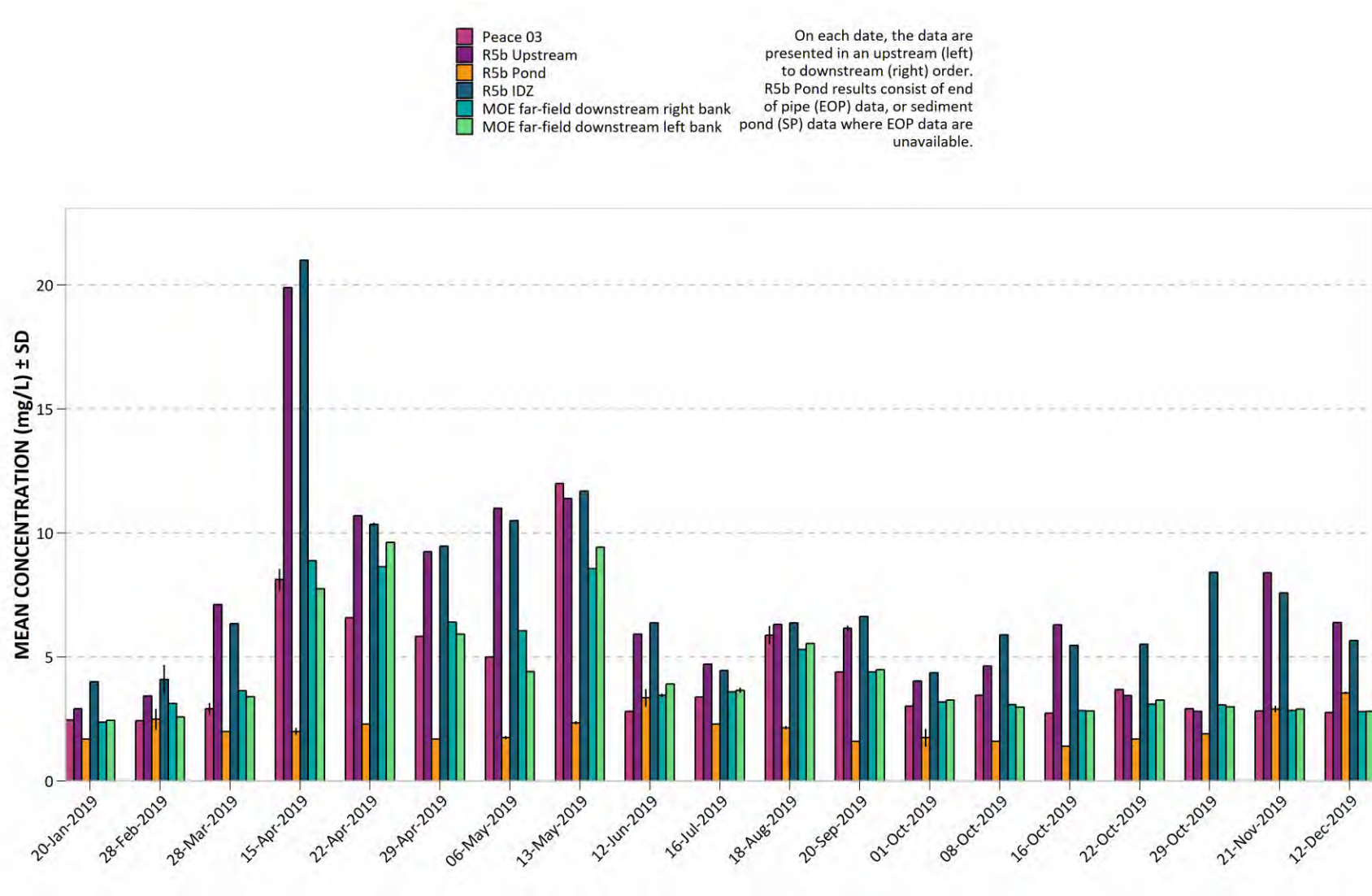


Figure 21. 2019 Peace River and RSEM R5b pond total aluminum (Al).

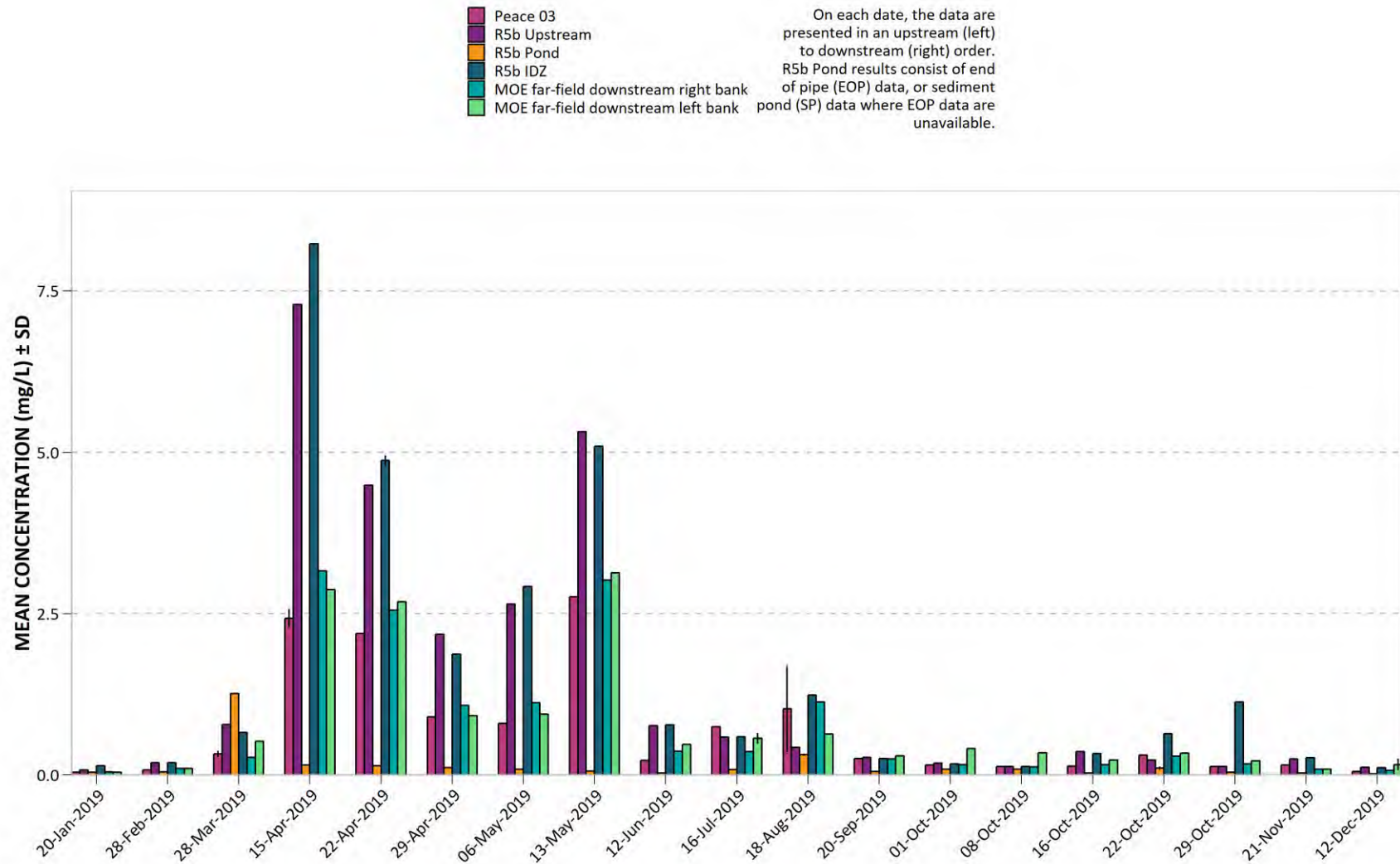
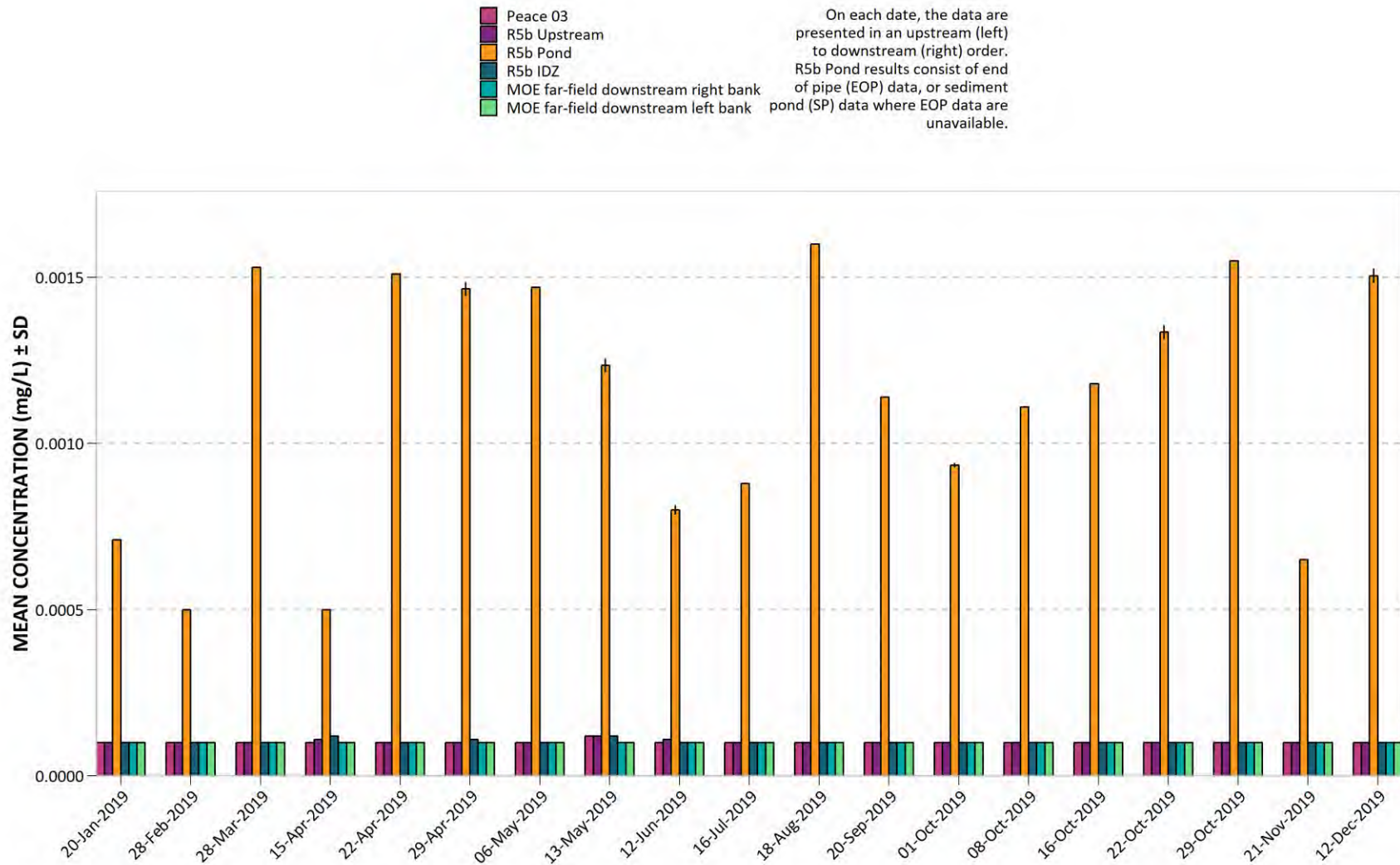


Figure 22. 2019 Peace River and RSEM R5b pond total antimony (Sb).



Results less than the MDL were assigned the MDL value of 0.0005 mg/L (Pond) or 0.0001 mg/L (Peace River).



Figure 23. 2019 Peace River and RSEM R5b pond total arsenic (As).

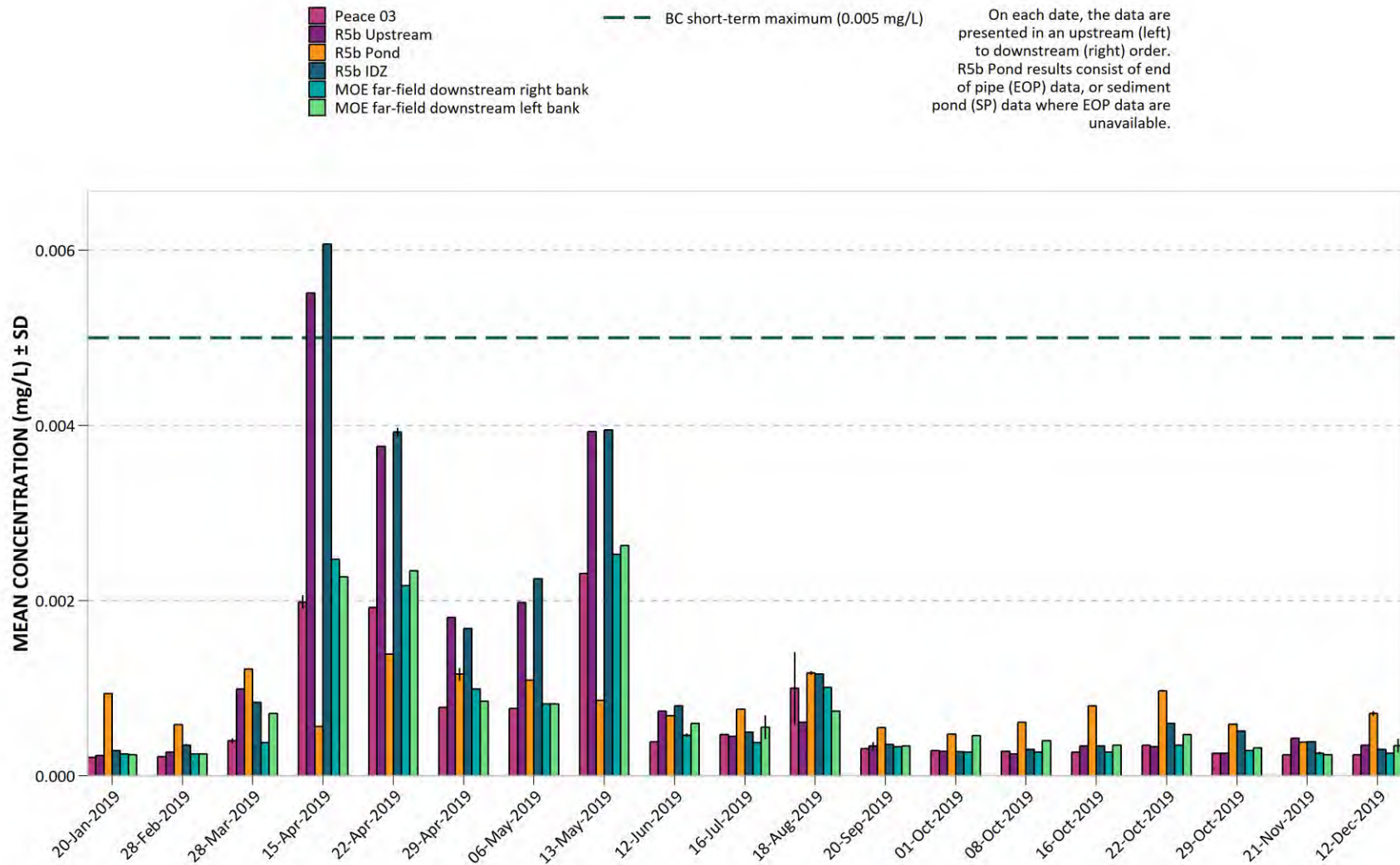


Figure 24. 2019 Peace River and RSEM R5b pond total barium (Ba).

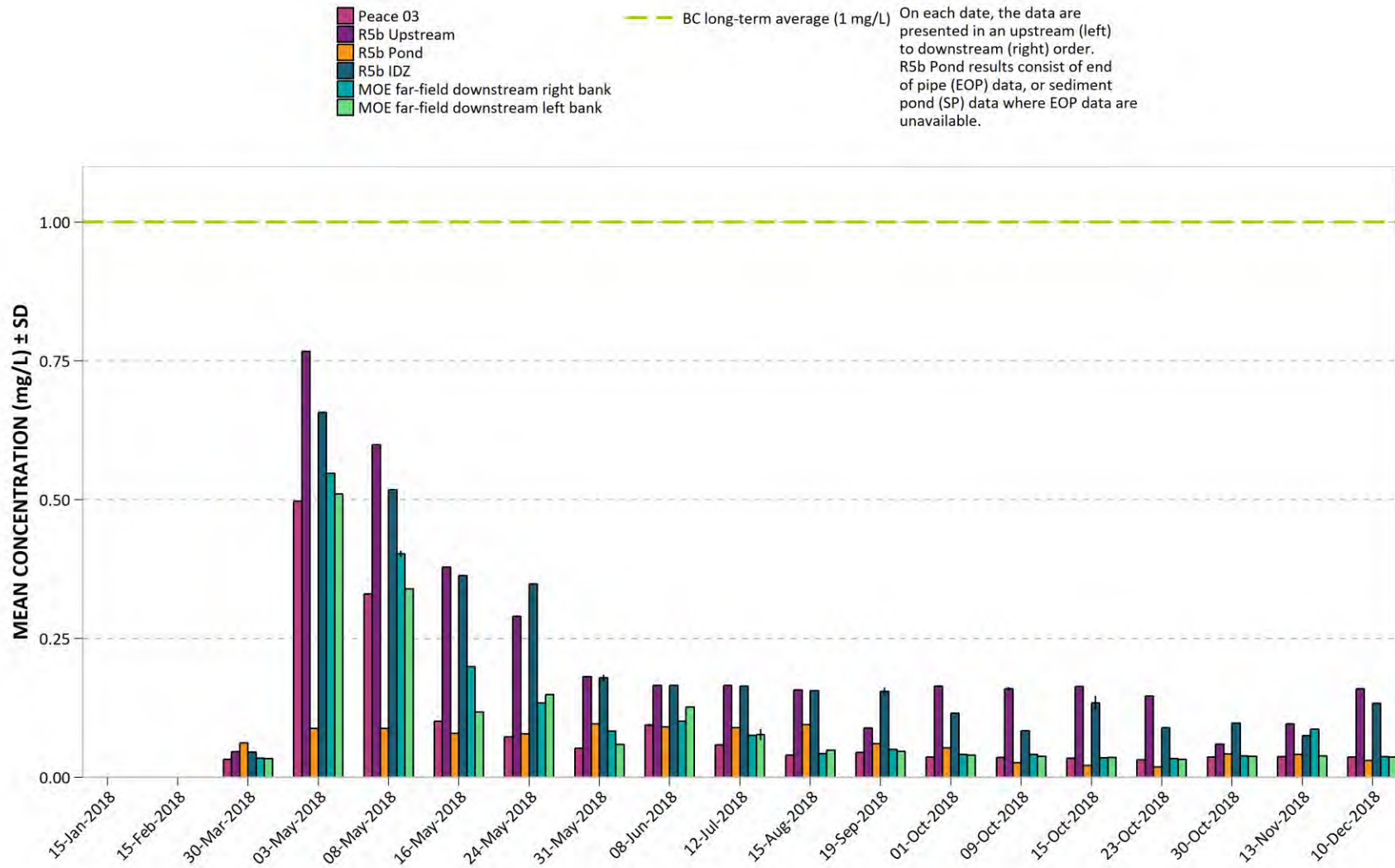
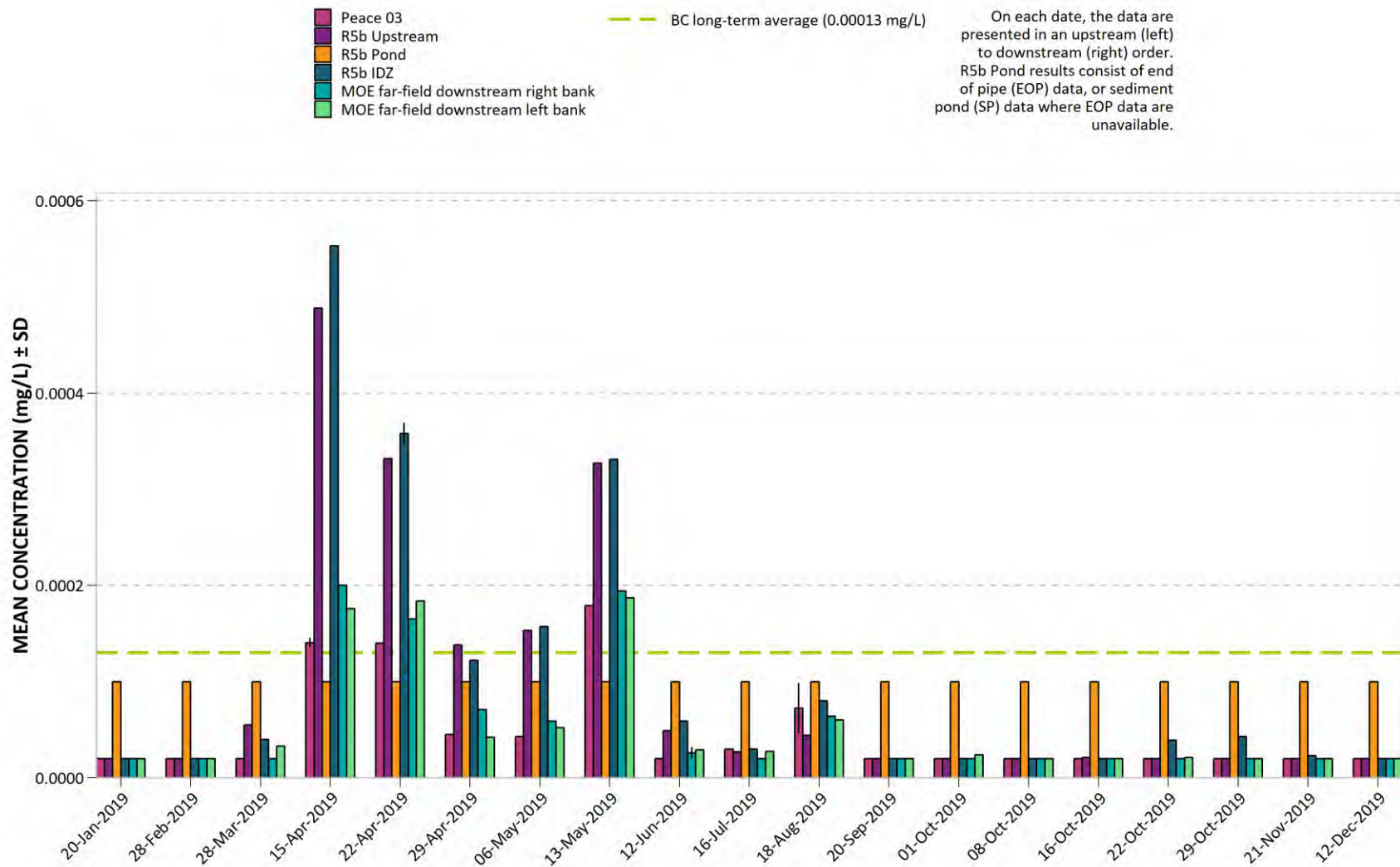
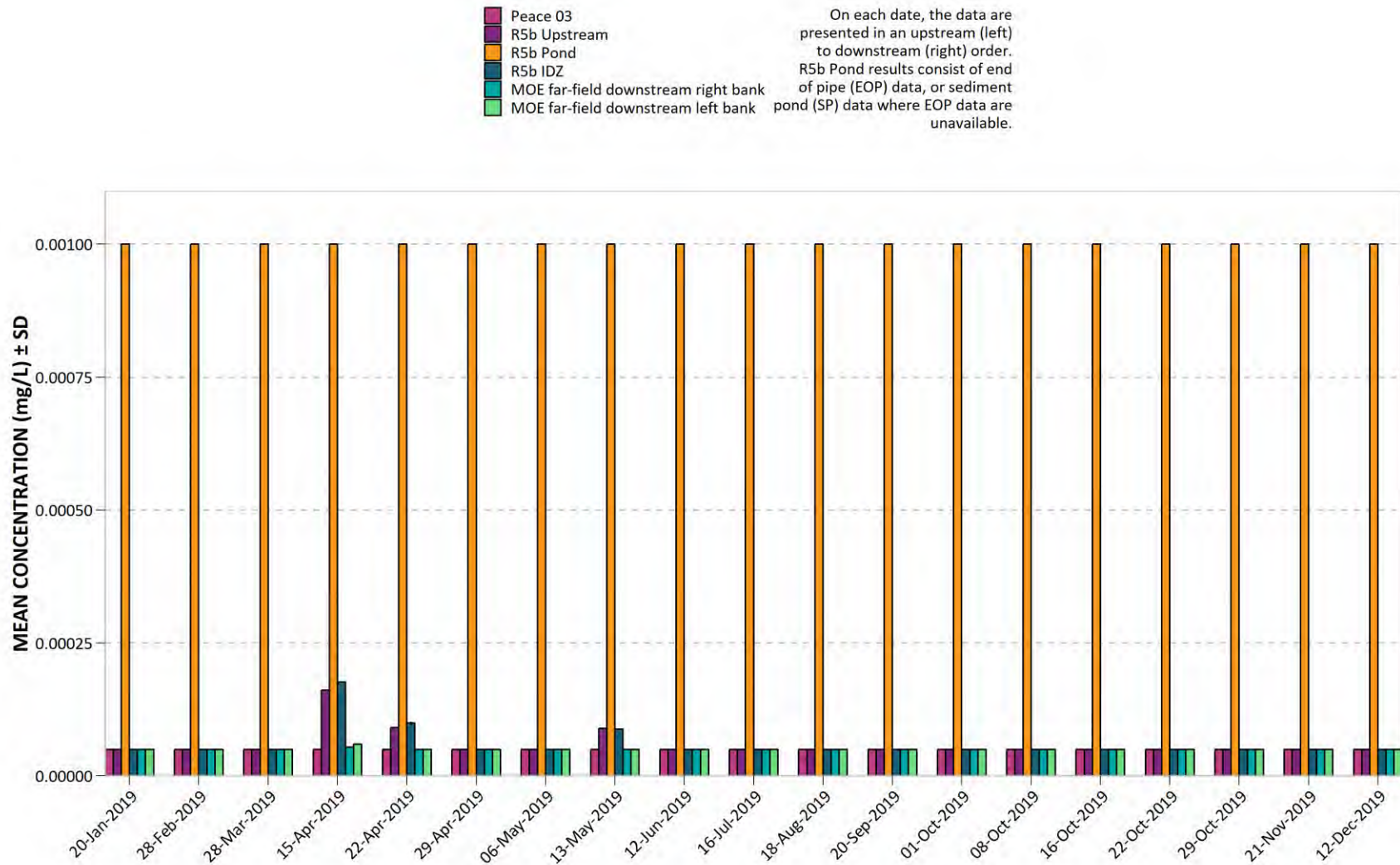


Figure 25. 2019 Peace River and RSEM R5b pond total beryllium (Be).



All results were less than the MDL and thus were assigned the MDL value of 0.0001 mg/L (Pond) or 0.00002 mg/L (Peace River).

Figure 26. 2019 Peace River and RSEM R5b pond total bismuth (Bi).



Results less than the MDL were assigned the MDL value of 0.001 mg/L (Pond) or 0.0001 mg/L (Peace River).

Figure 27. 2019 Peace River and RSEM R5b pond total boron (B).

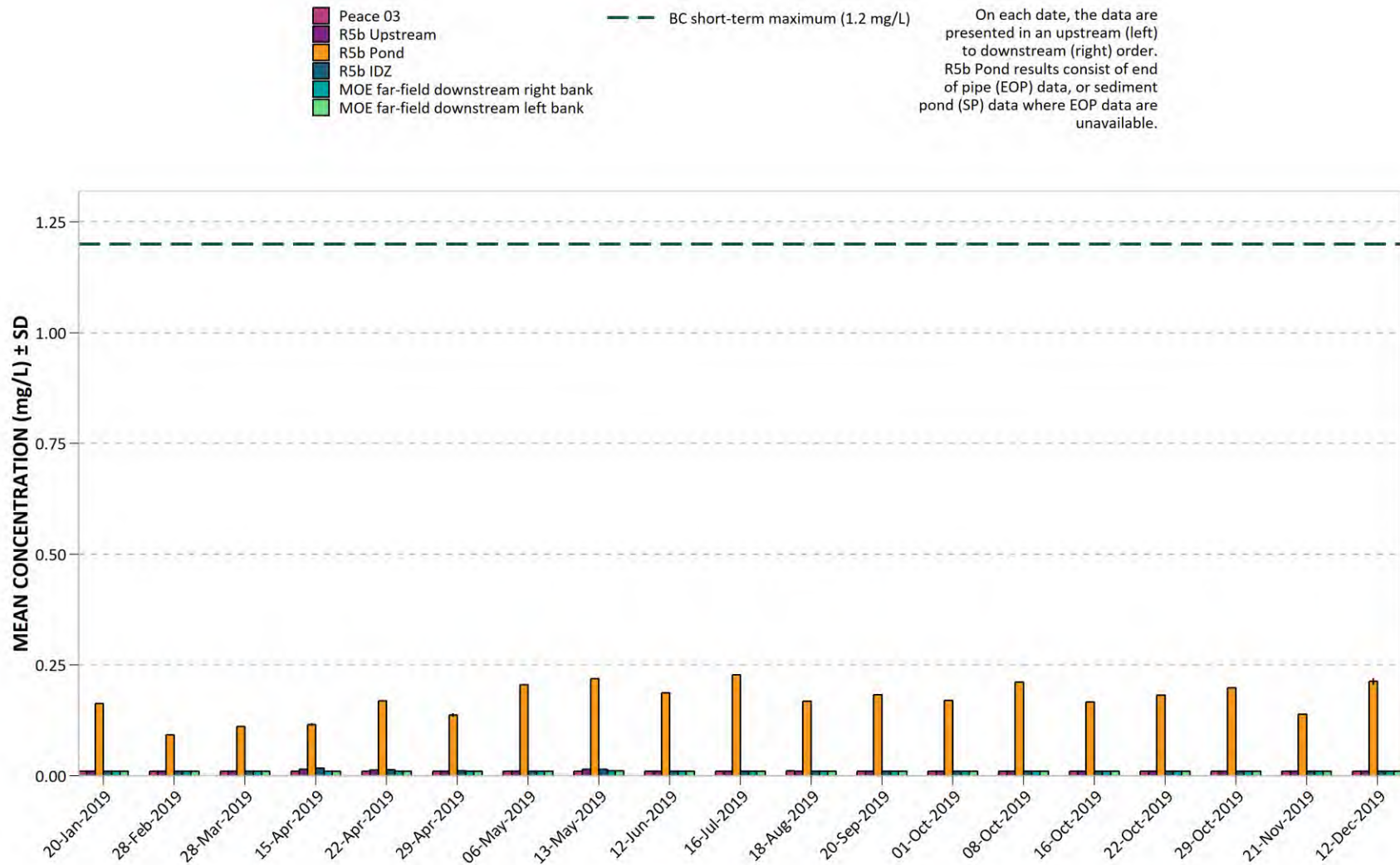


Figure 28. 2019 Peace River and RSEM R5b pond total cadmium (Cd).

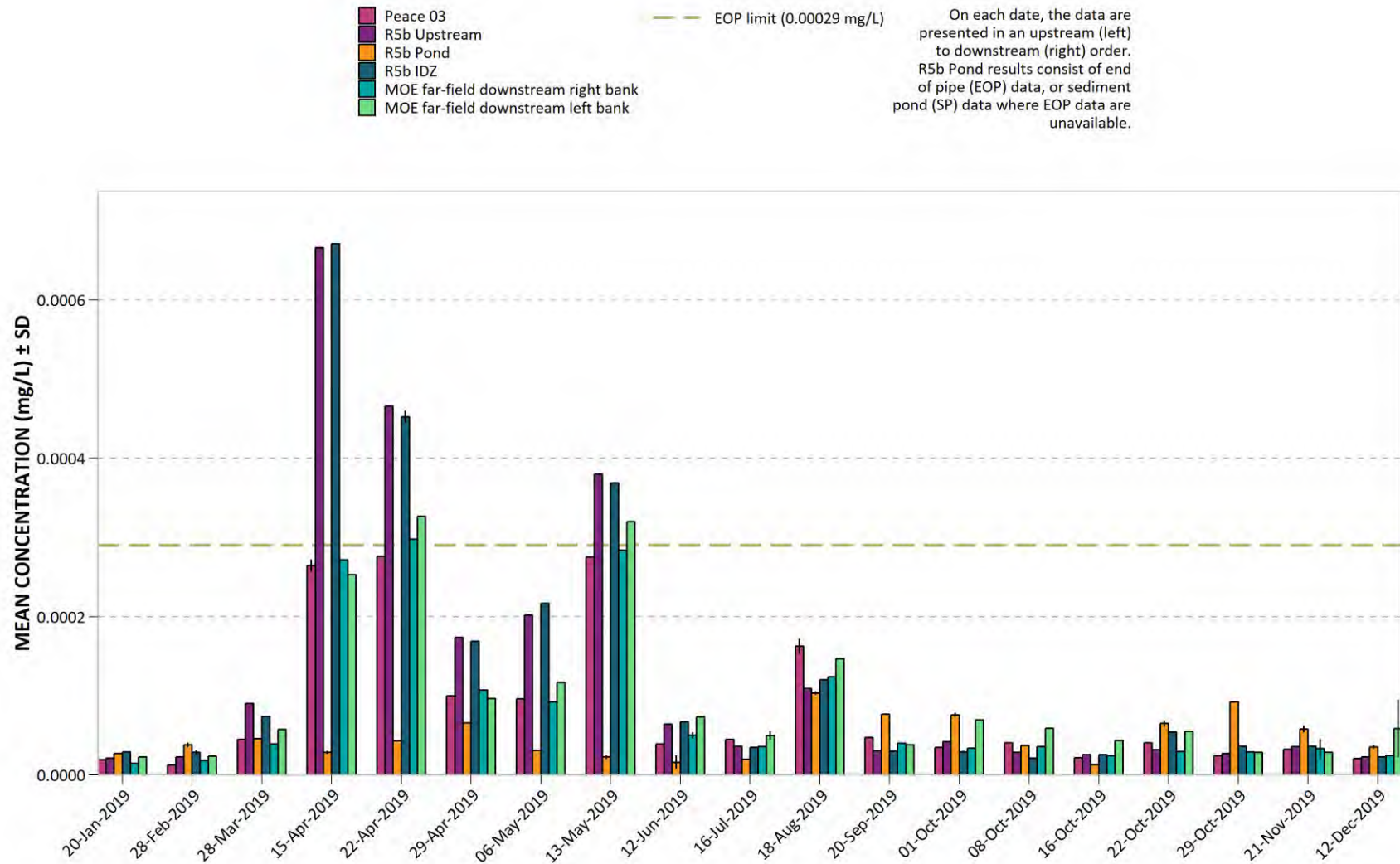


Figure 29. 2019 Peace River and RSEM R5b pond total calcium (Ca).

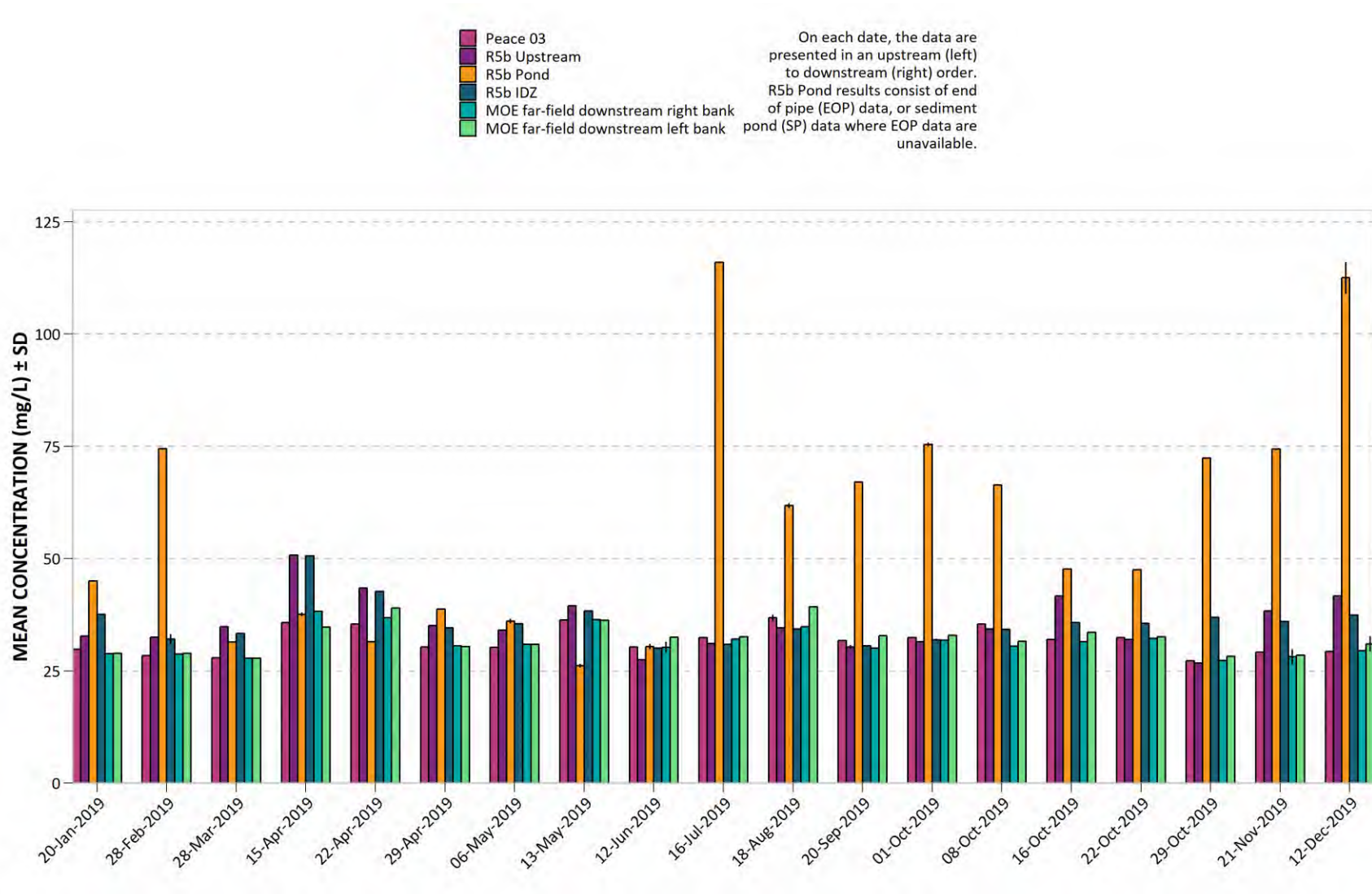


Figure 30. 2019 Peace River and RSEM R5b pond total chromium (Cr).

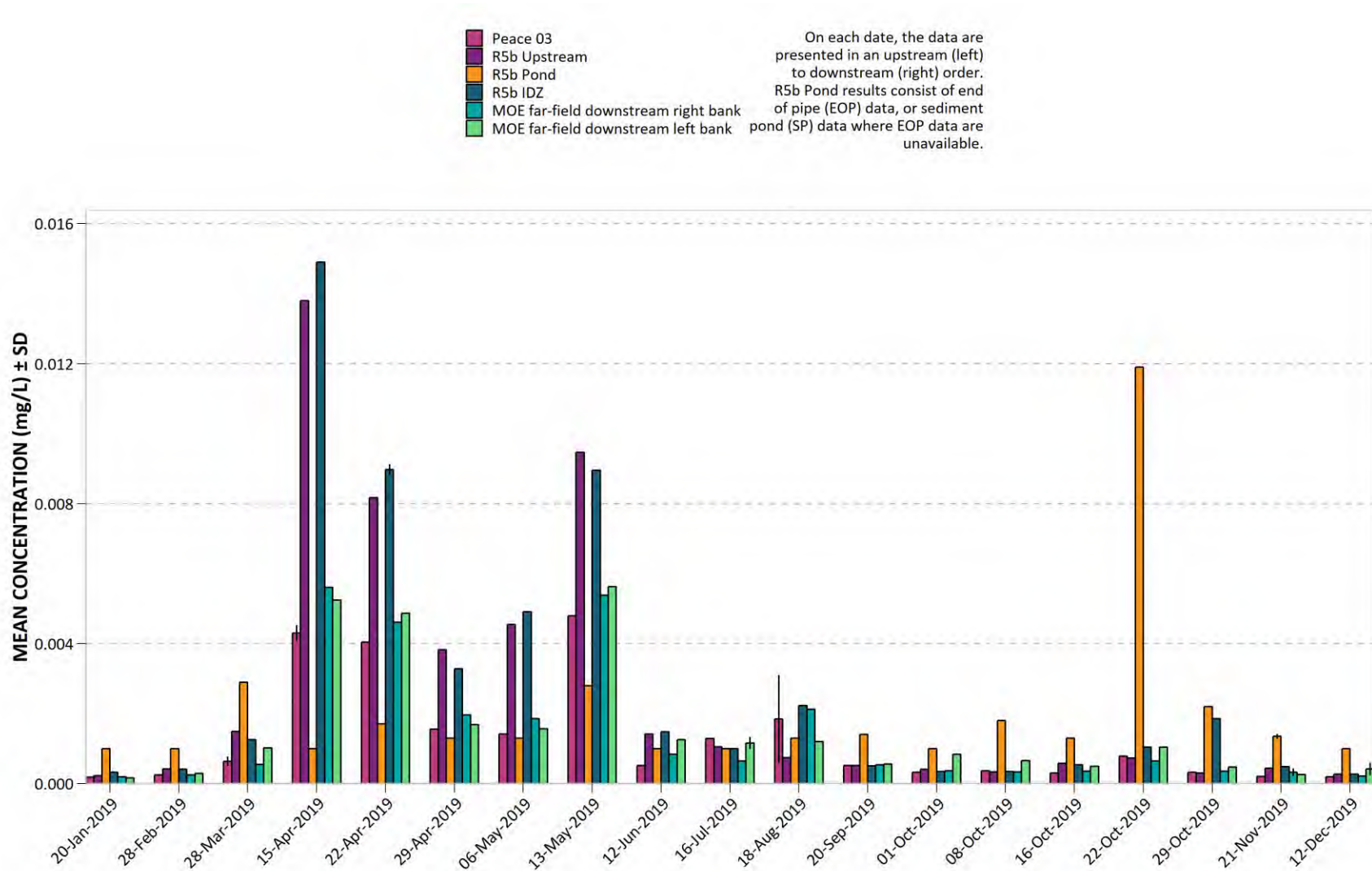




Figure 31. 2019 Peace River and RSEM R5b pond total cobalt (Co).

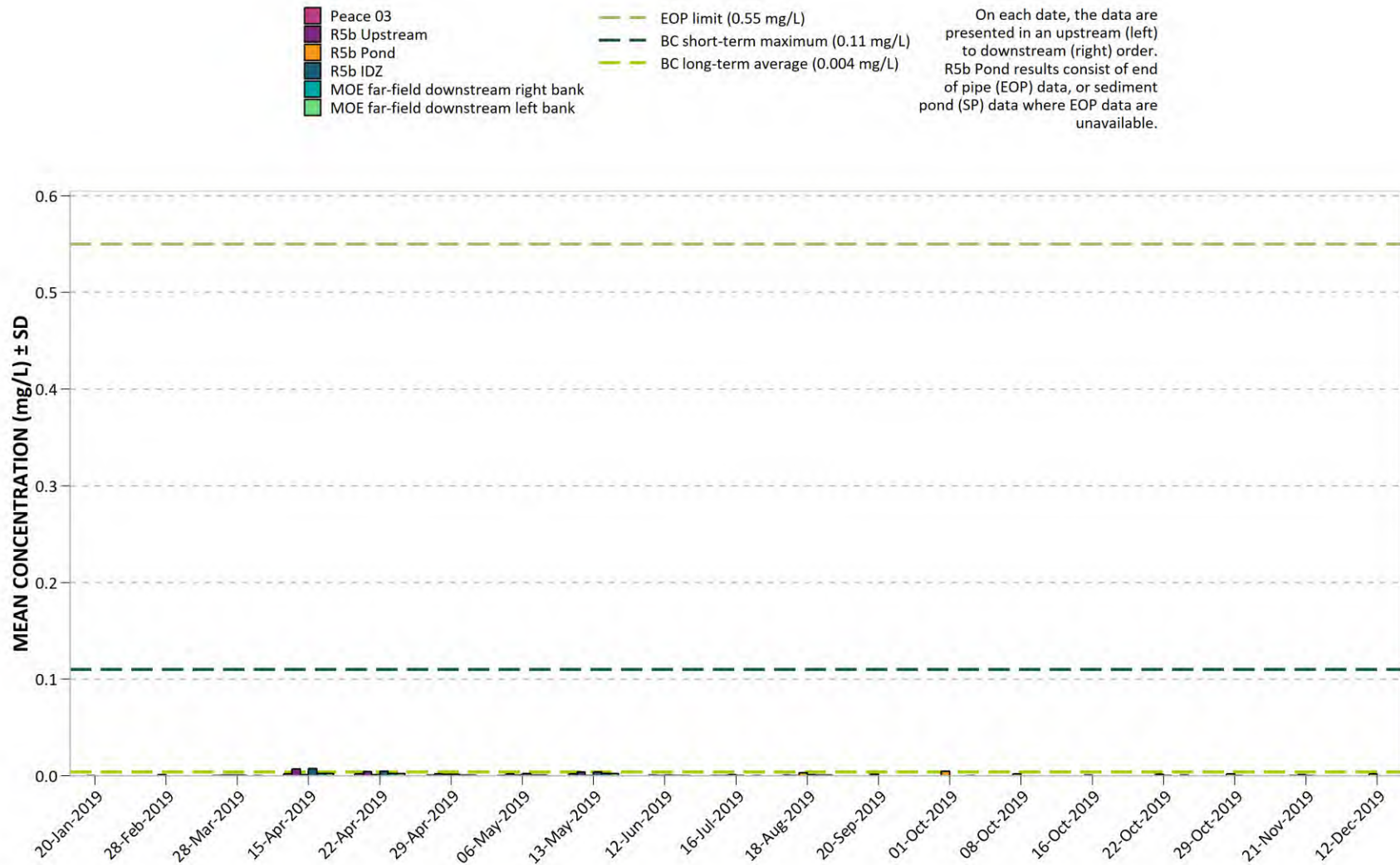


Figure 32. 2019 Peace River and RSEM R5b pond total copper (Cu). New dissolved copper BC WQG replaced the total copper BC WQG in August 2019 (MOE 2019).

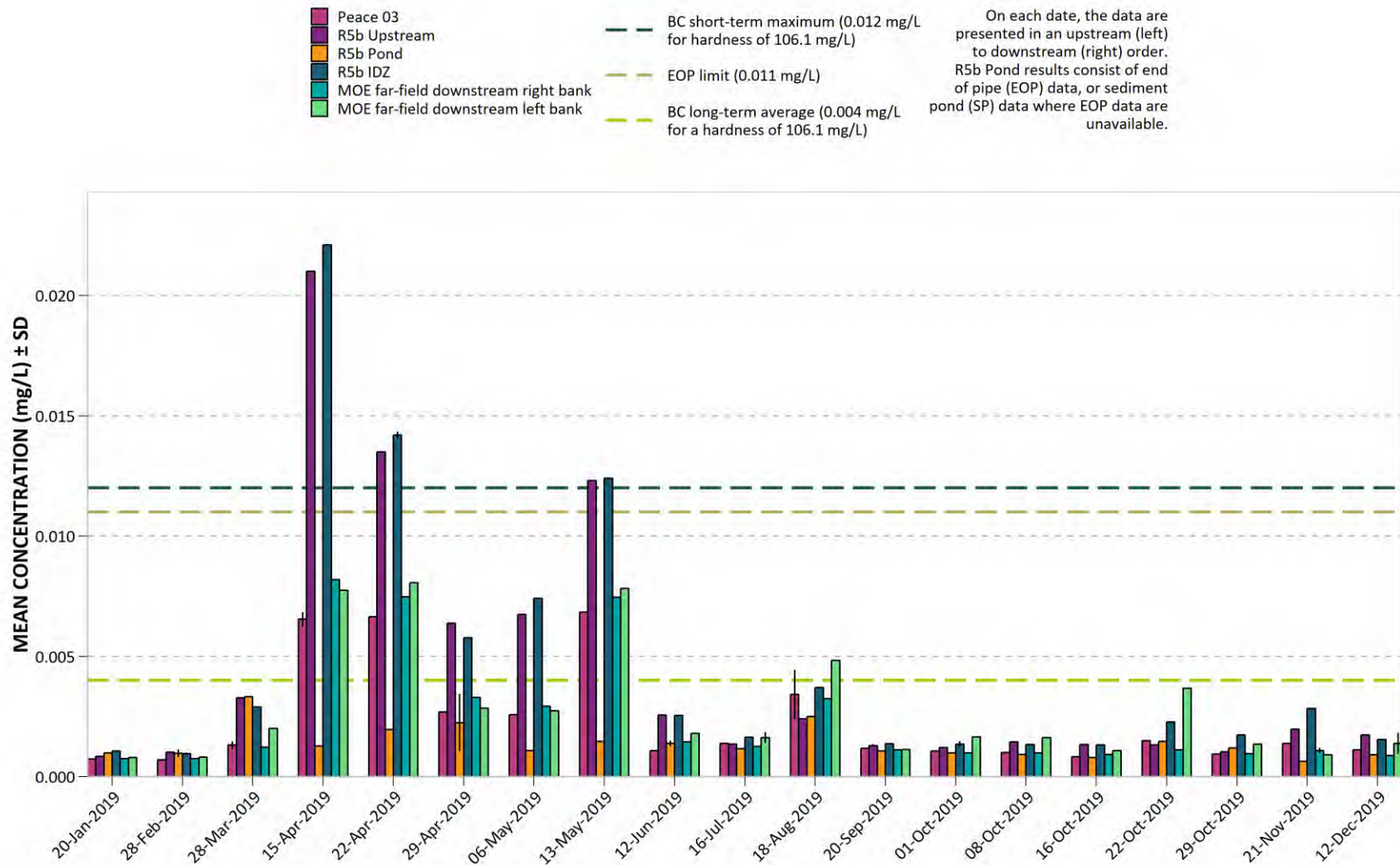


Figure 33. 2019 Peace River and RSEM R5b pond total iron (Fe).

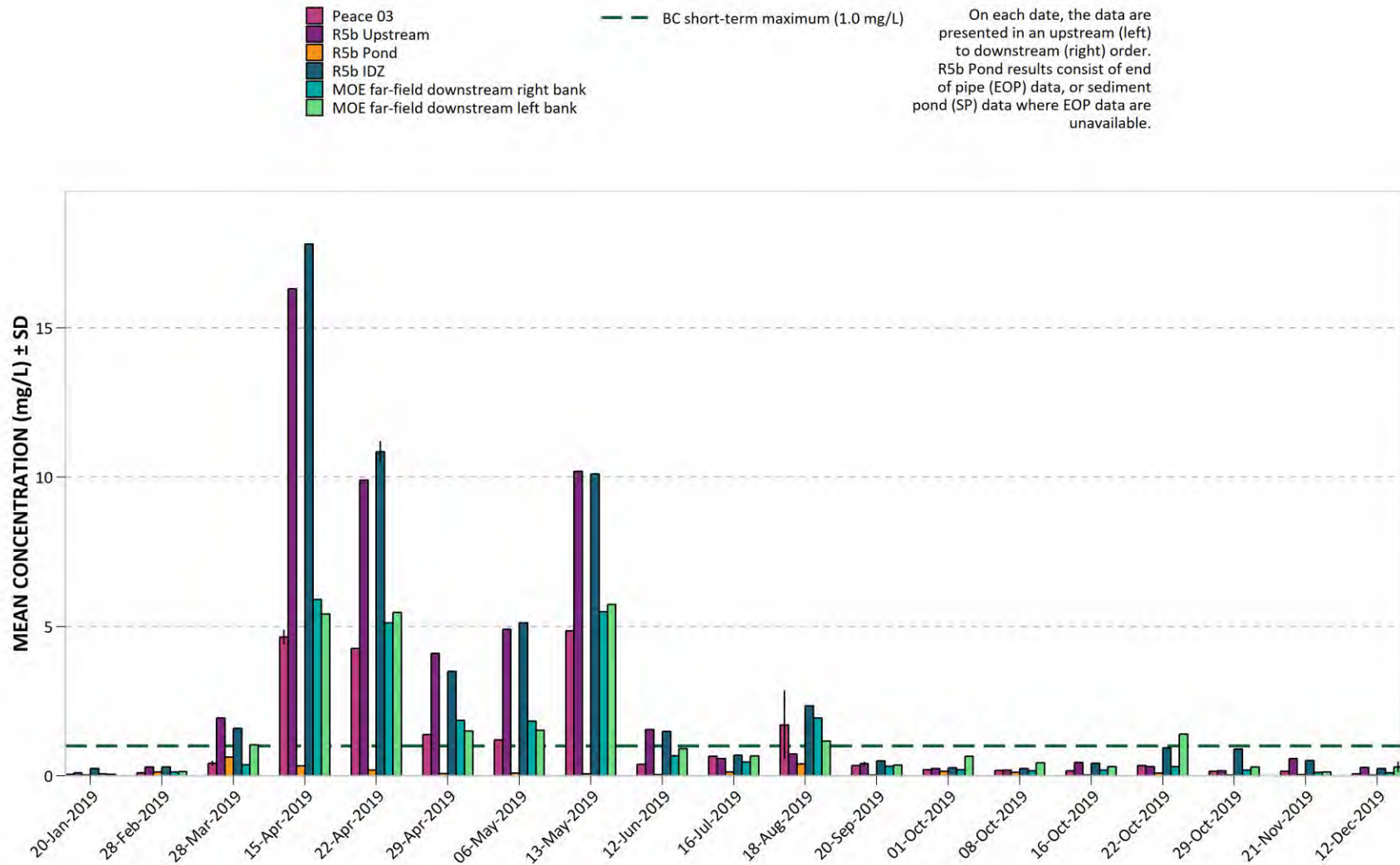


Figure 34. 2019 Peace River and RSEM R5b pond total lead (Pb).

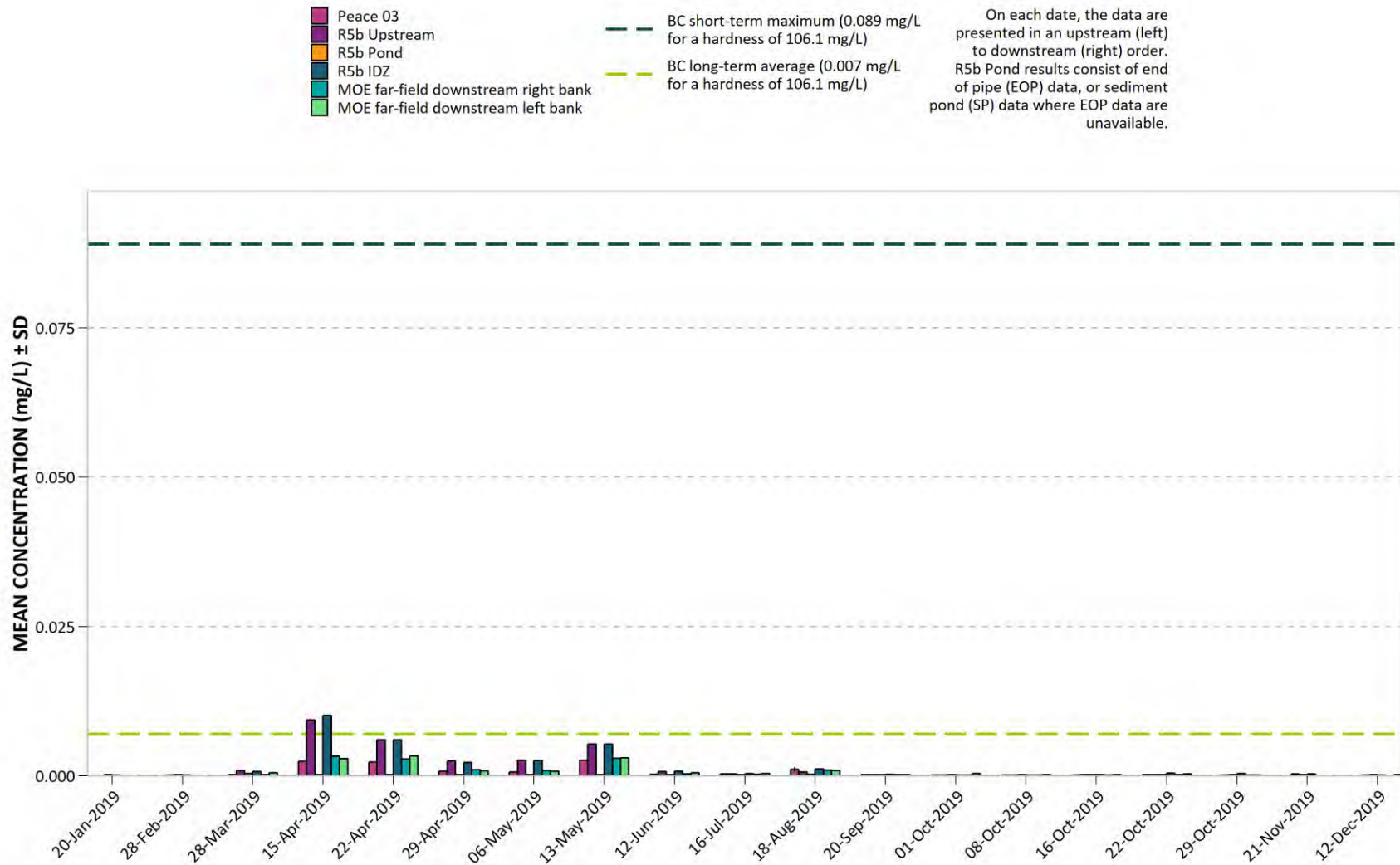


Figure 35. 2019 Peace River and RSEM R5b pond total lithium (Li).

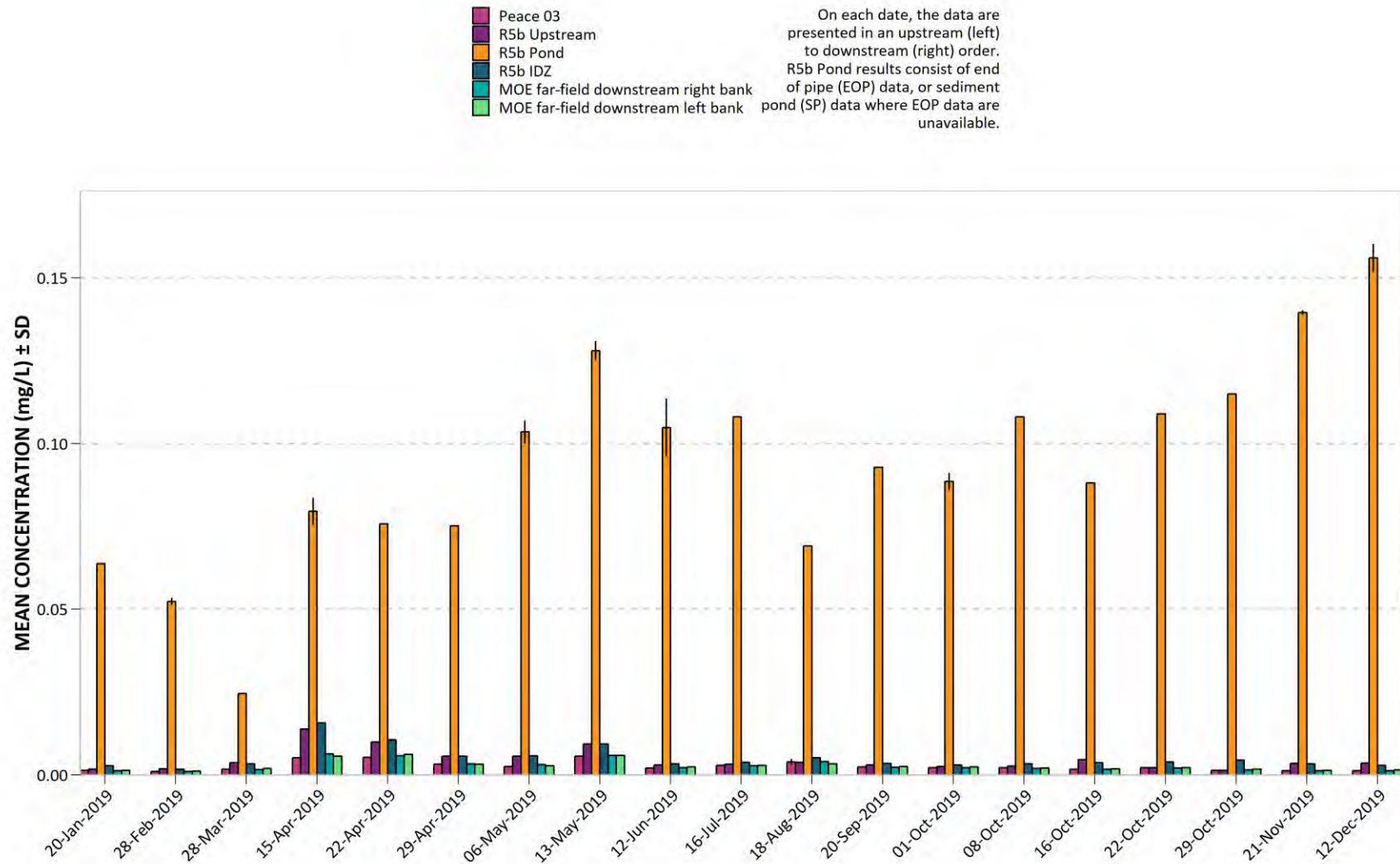


Figure 36. 2019 Peace River and RSEM R5b pond total magnesium (Mg).

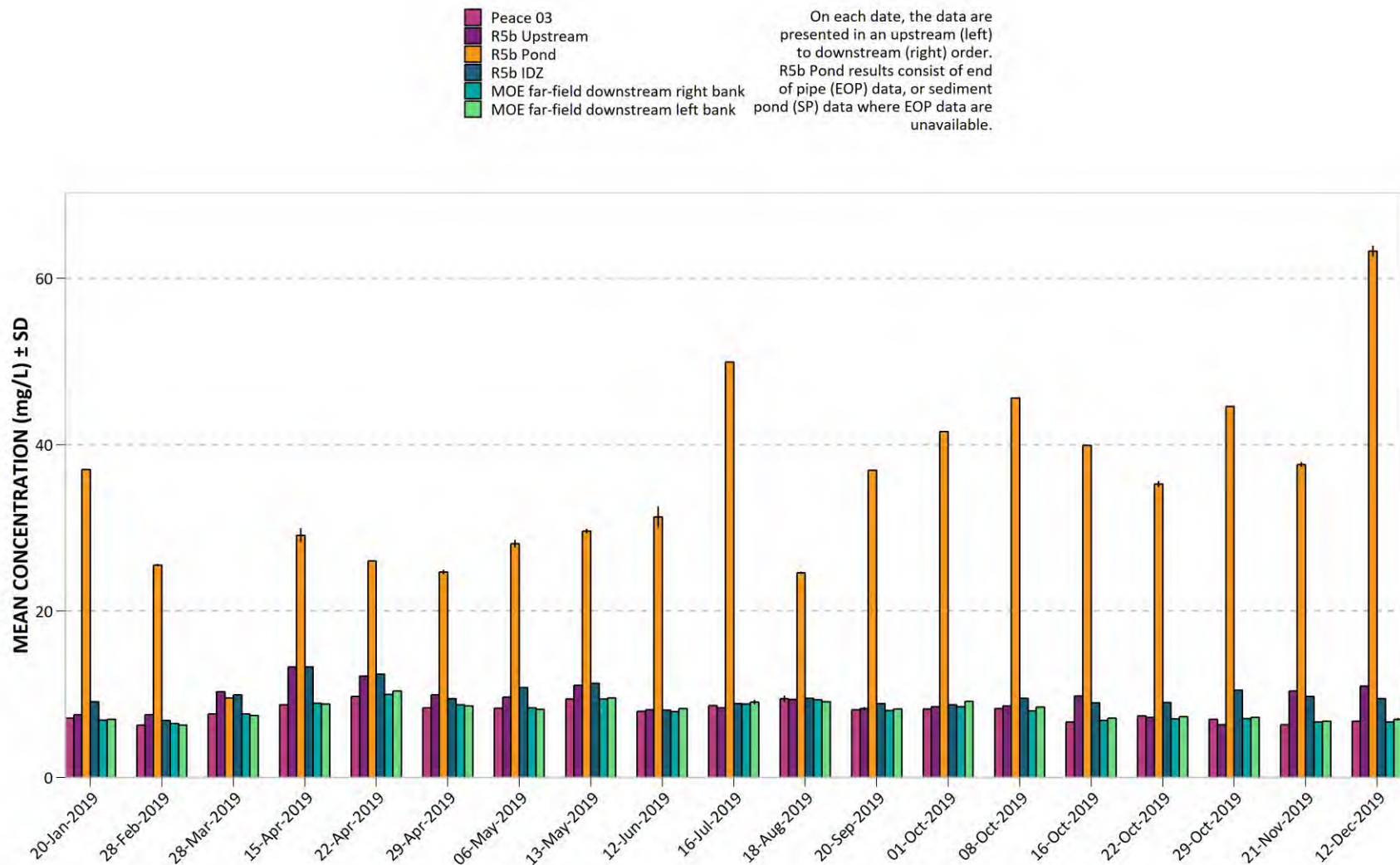


Figure 37. 2019 Peace River and RSEM R5b pond total manganese (Mn).

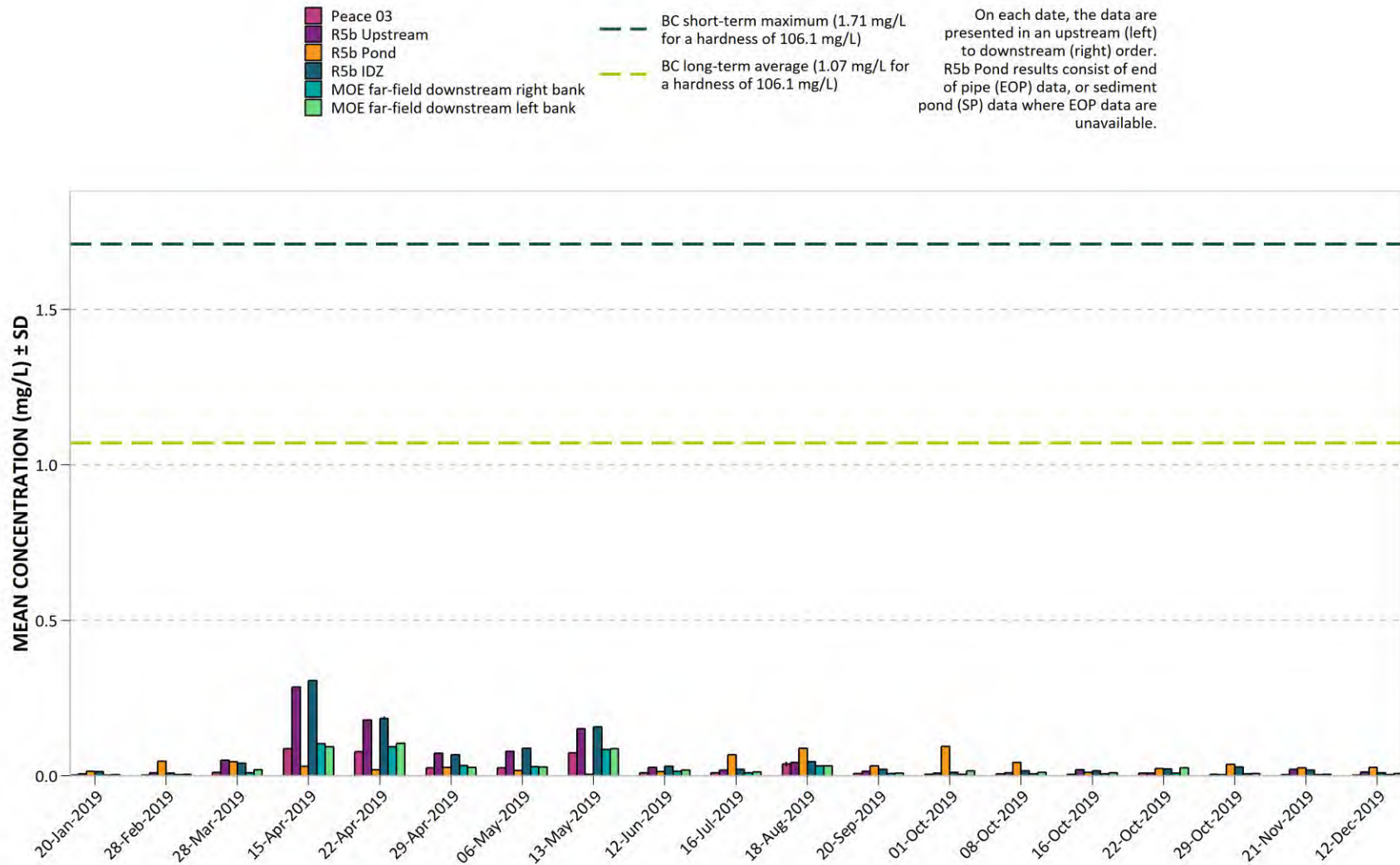
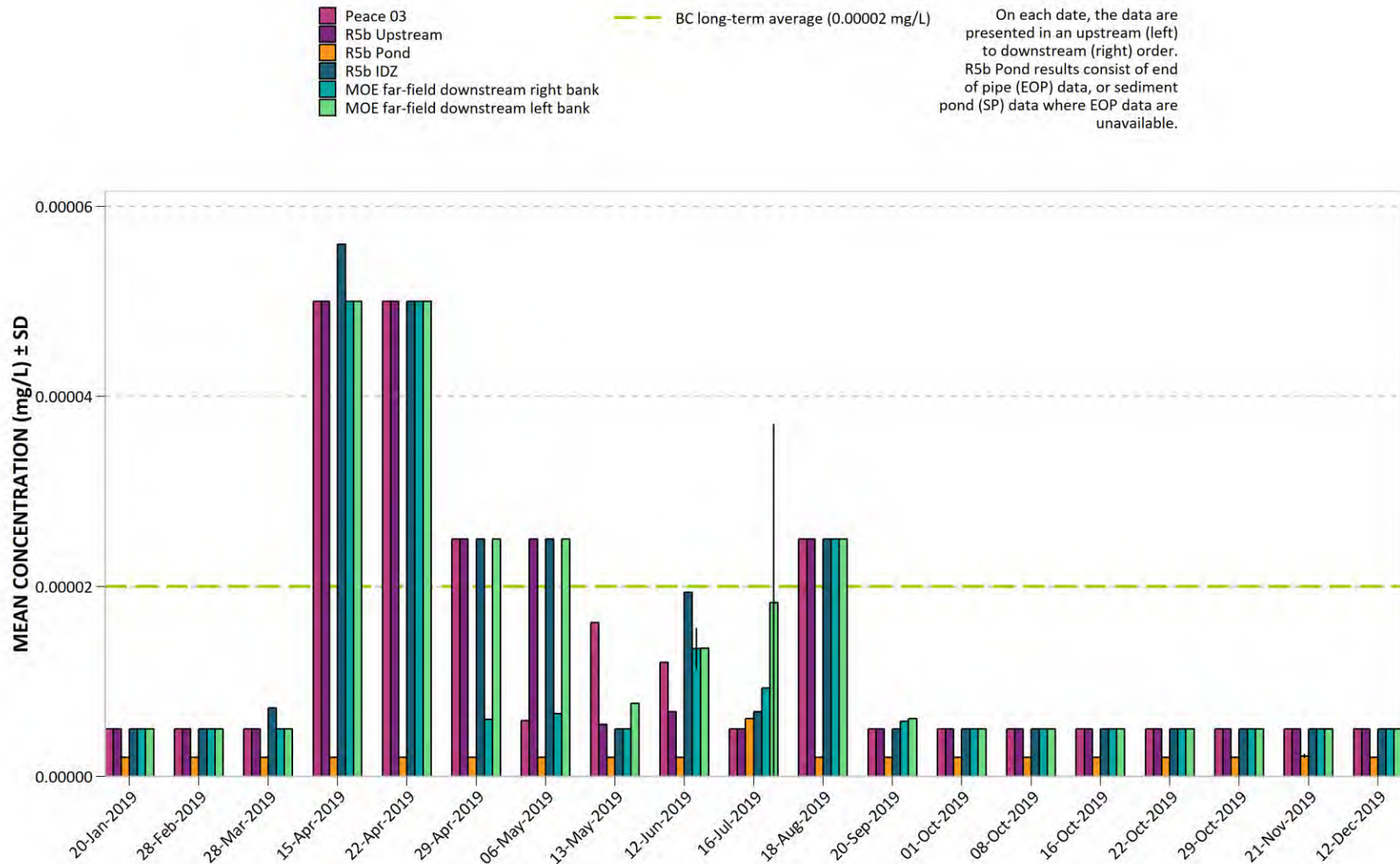


Figure 38. 2019 Peace River and RSEM R5b pond total mercury (Hg).



Results lower than the MDL are assigned the MDL value, which varies for total mercury depending on matrix effects. Most results in 2019 were assigned the MDL value.



Figure 39. 2019 Peace River and RSEM R5b pond total molybdenum (Mo).

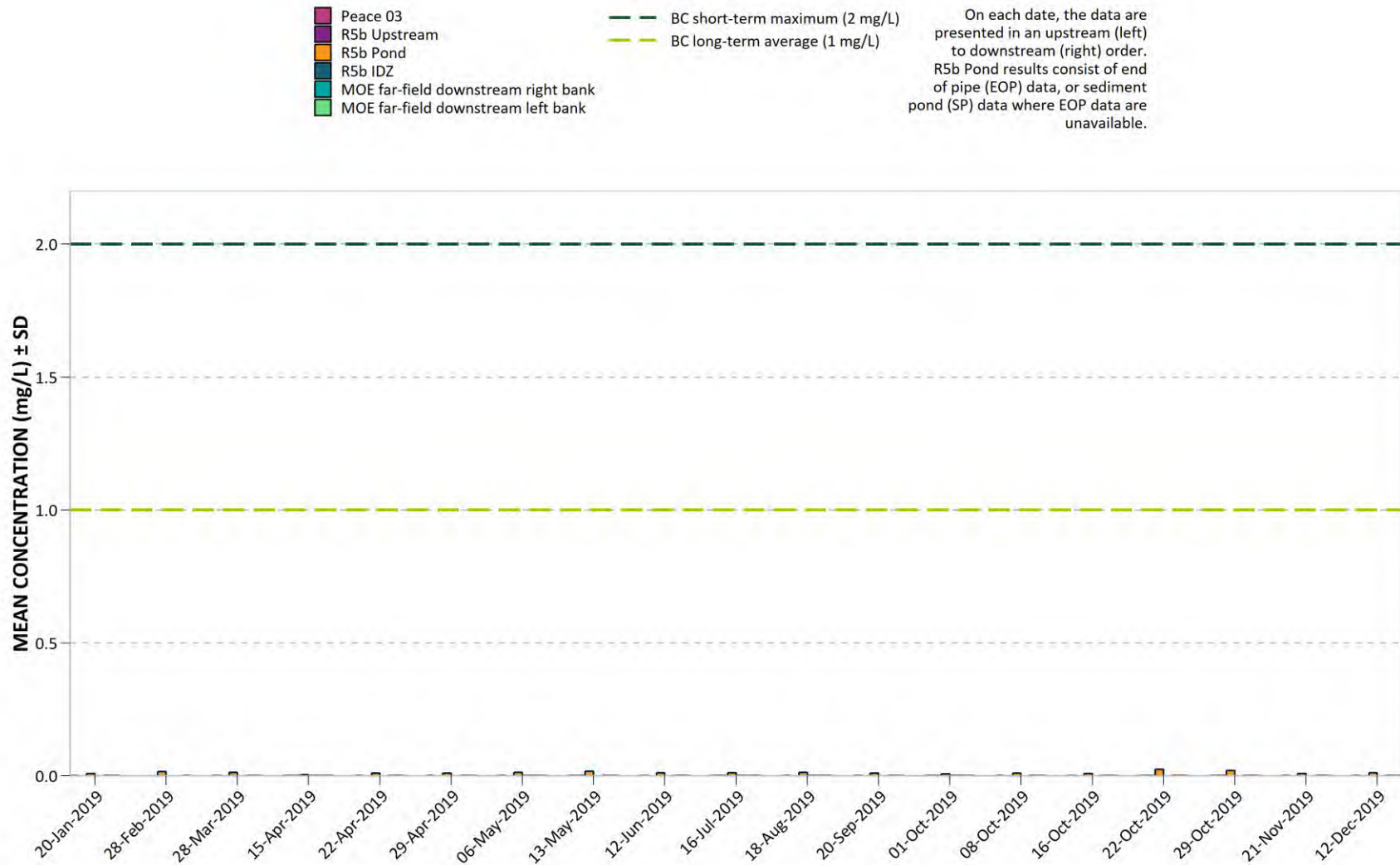


Figure 40. 2019 Peace River and RSEM R5b pond total nickel (Ni).

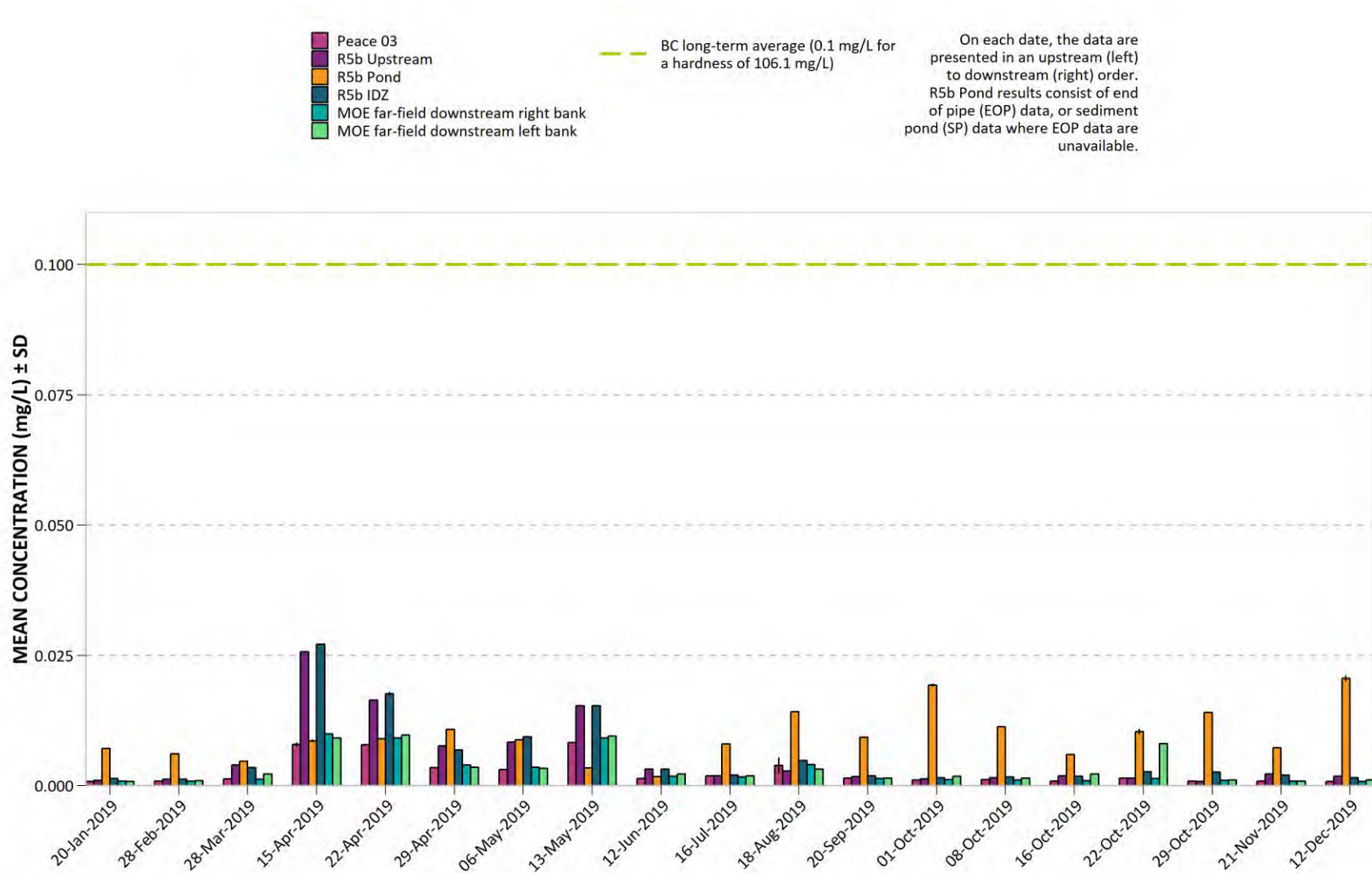


Figure 41. 2019 Peace River and RSEM R5b pond total potassium (K).

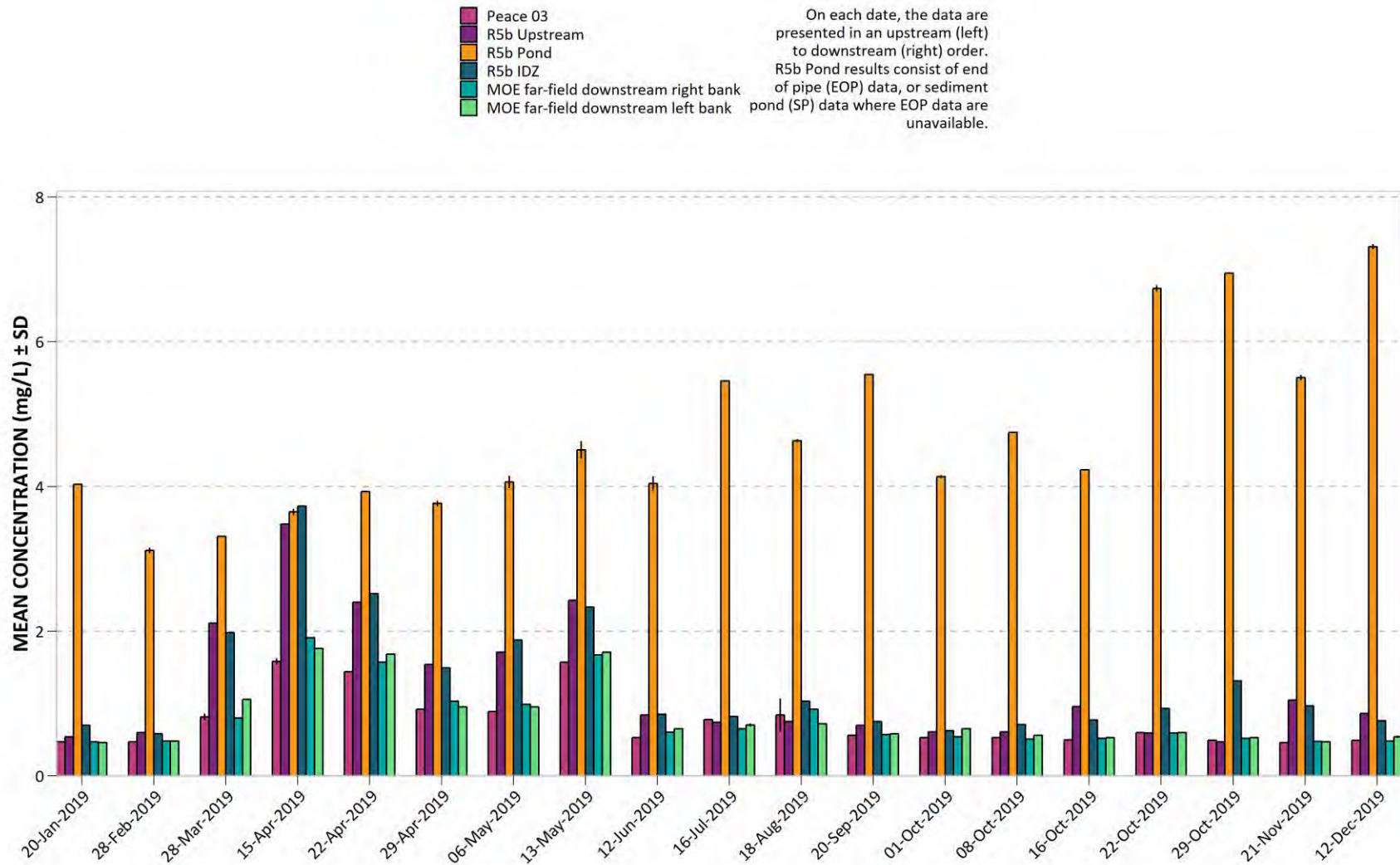


Figure 42. 2019 Peace River and RSEM R5b pond total selenium (Se).

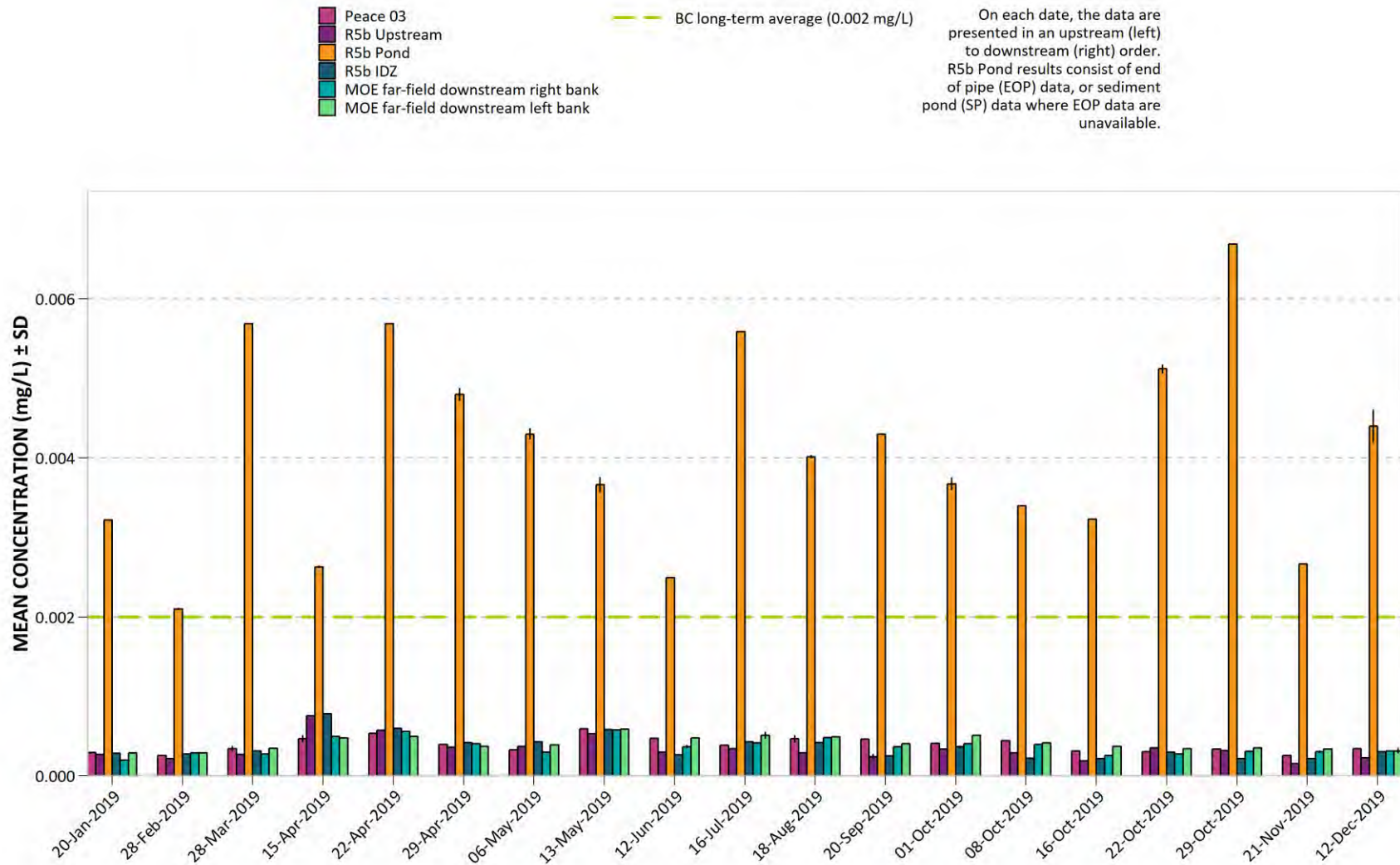


Figure 43. 2019 Peace River and RSEM R5b pond total silicon (Si).

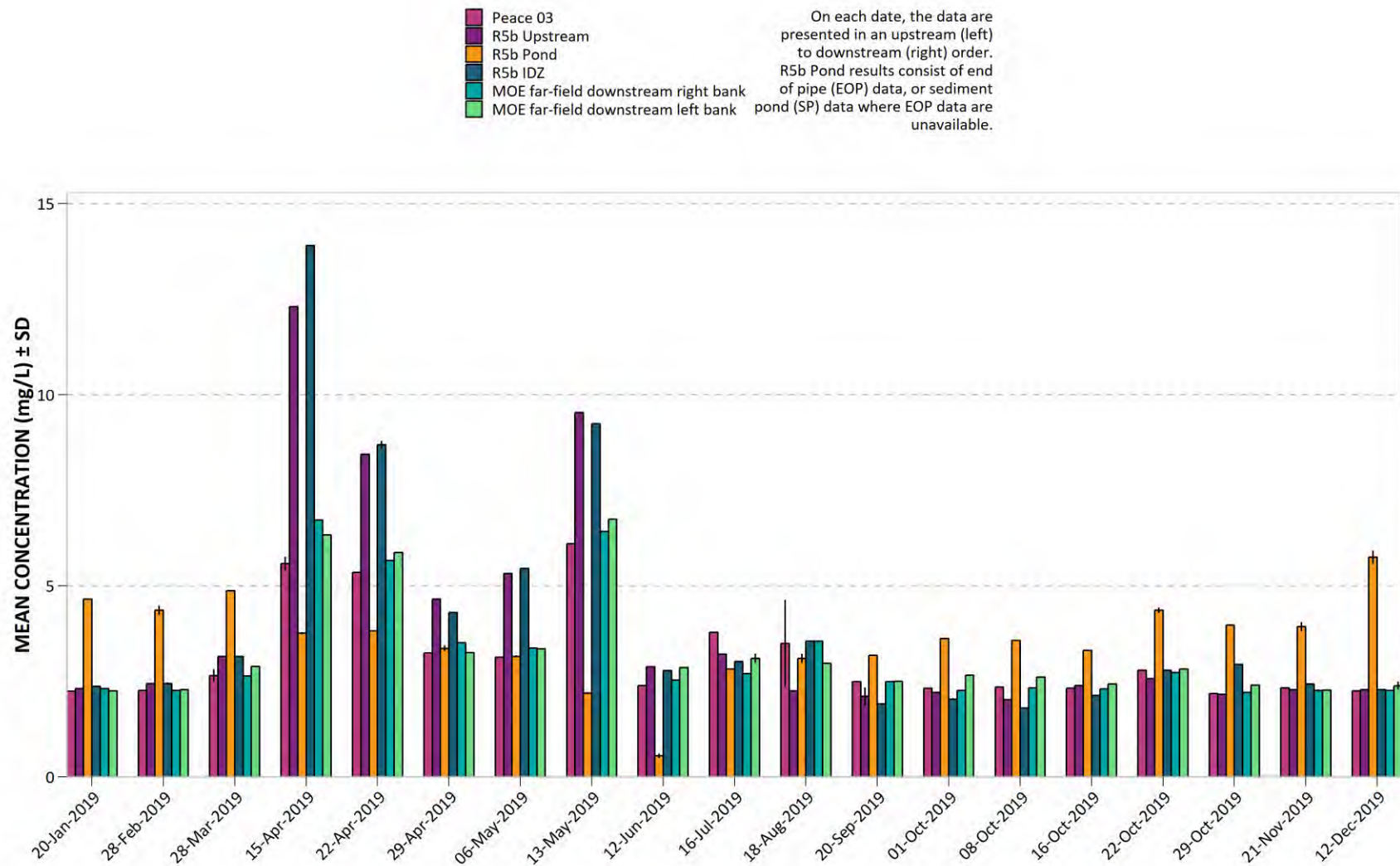


Figure 44. 2019 Peace River and RSEM R5b pond total silver (Ag).

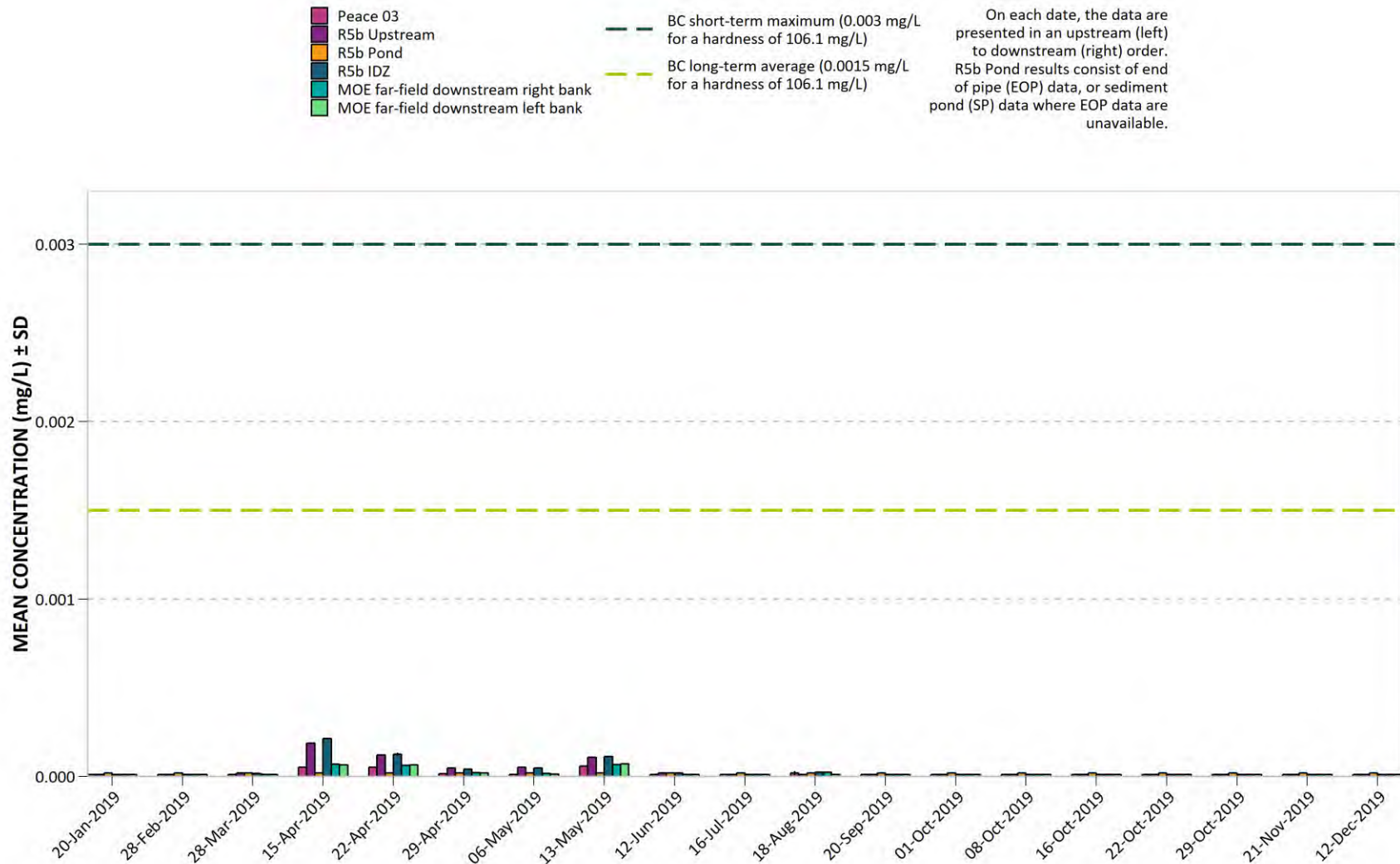


Figure 45. 2019 Peace River and RSEM R5b pond total sodium (Na).

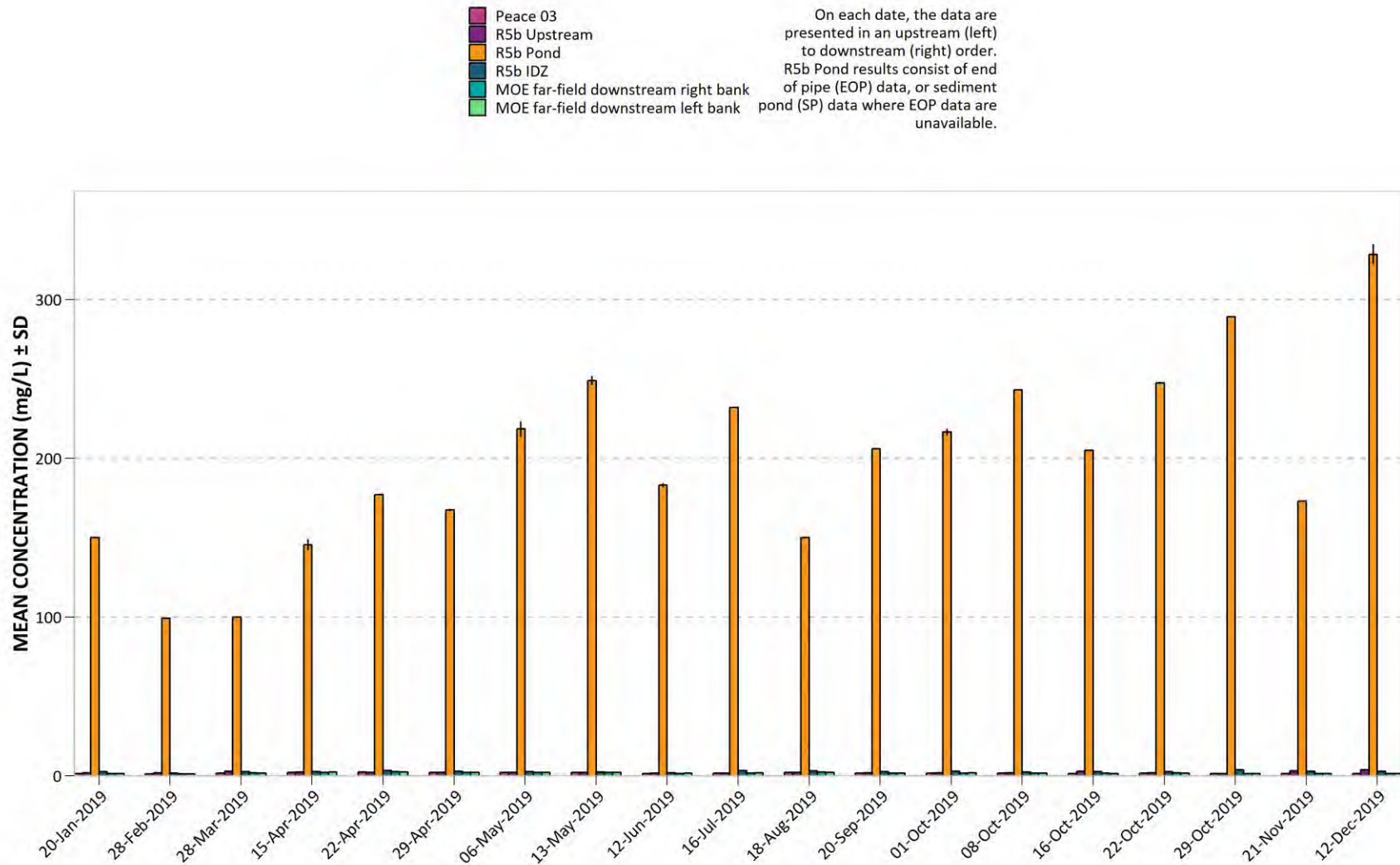


Figure 46. 2019 Peace River and RSEM R5b pond total strontium (Sr).

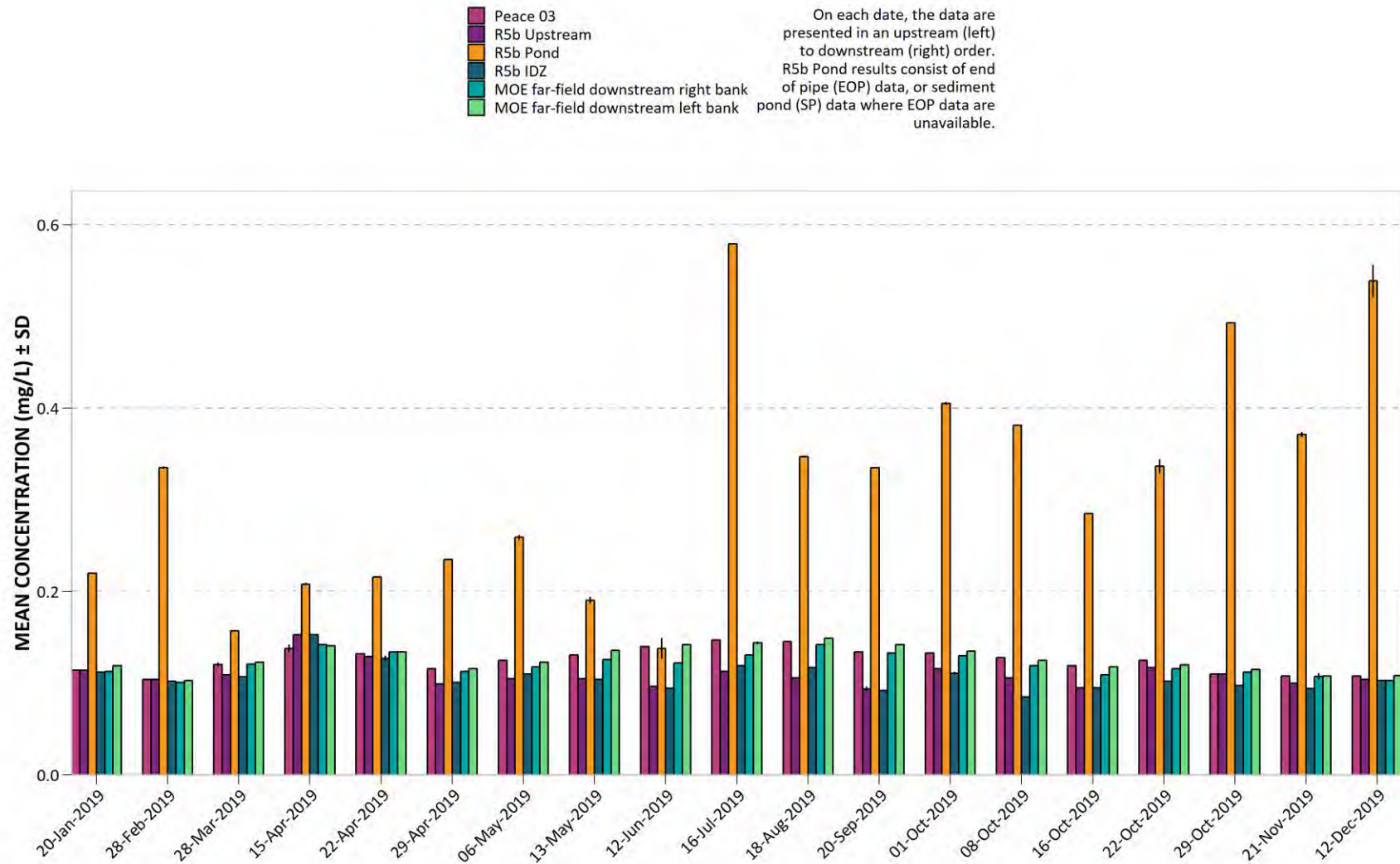




Figure 47. 2019 Peace River and RSEM R5b pond total sulfur (S).

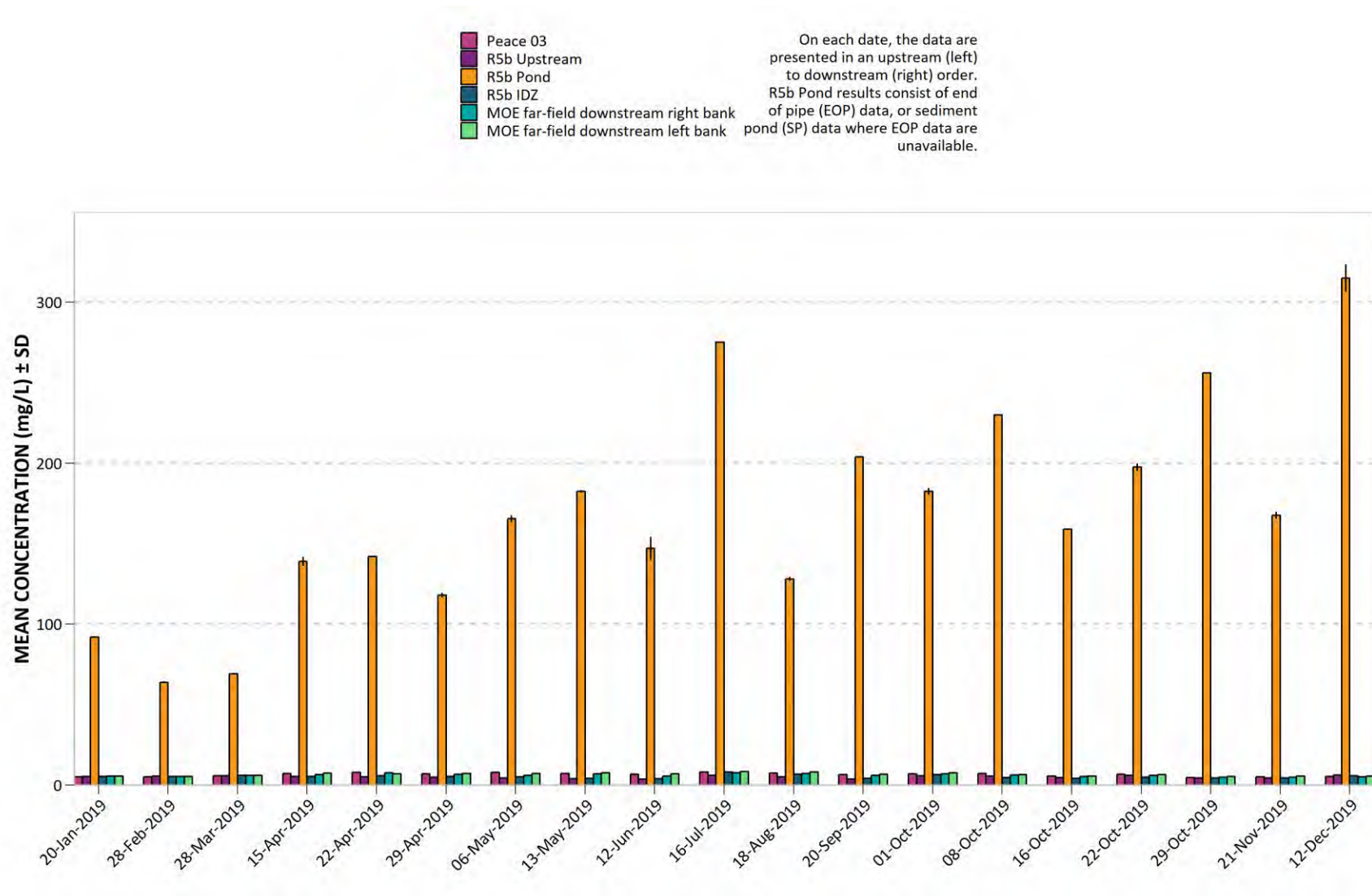
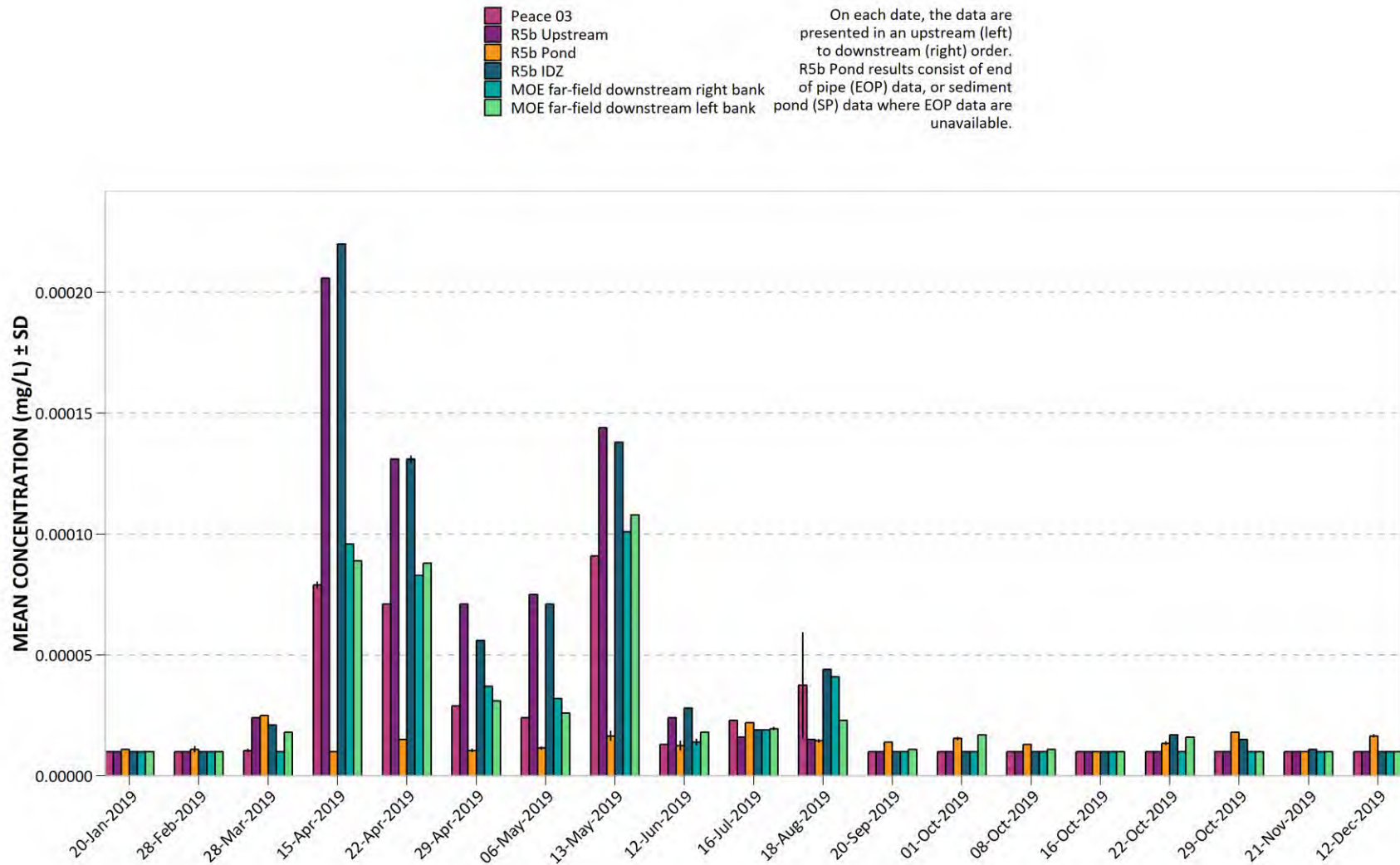
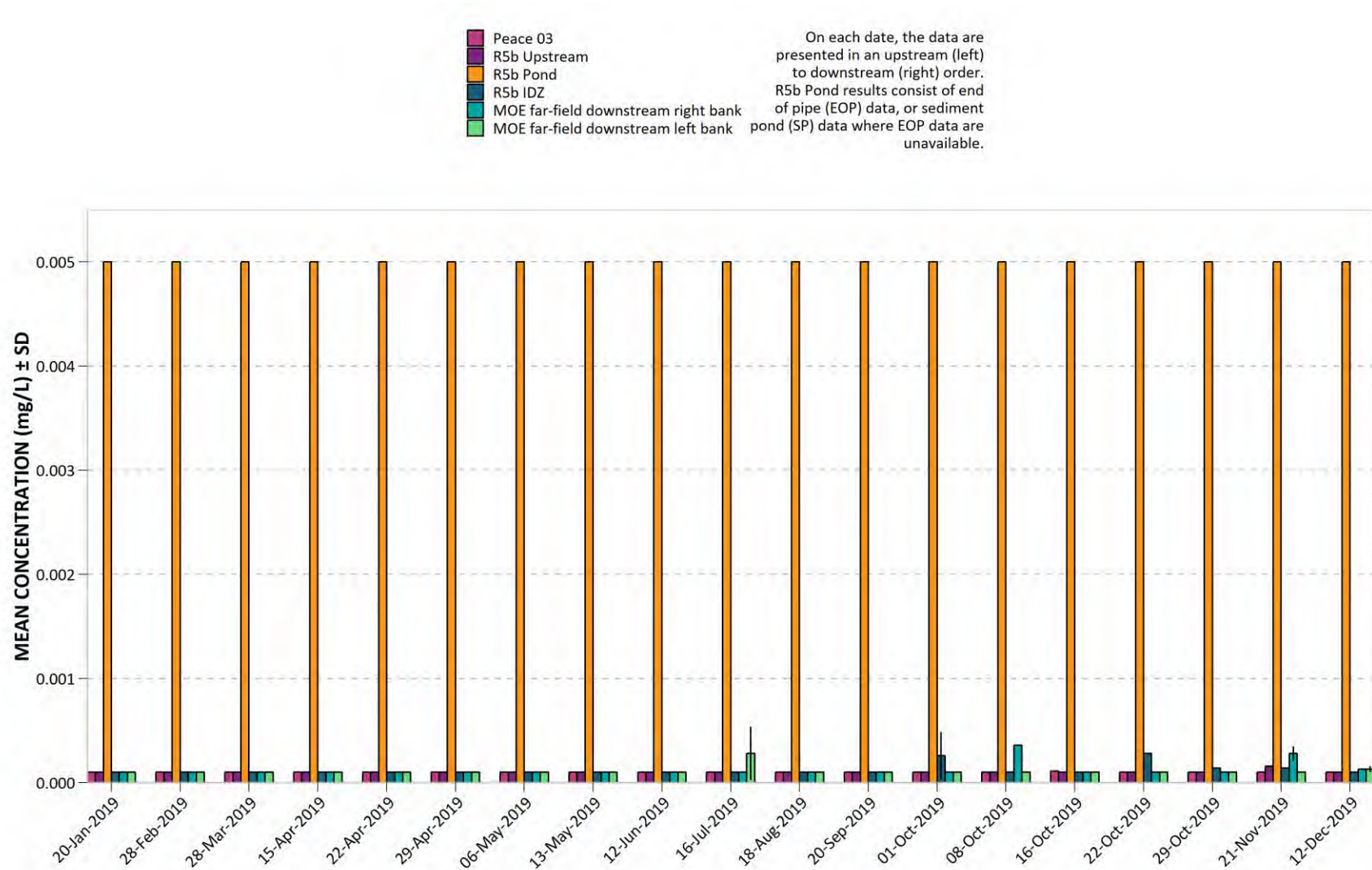


Figure 48. 2019 Peace River and RSEM R5b pond total thallium (Tl).



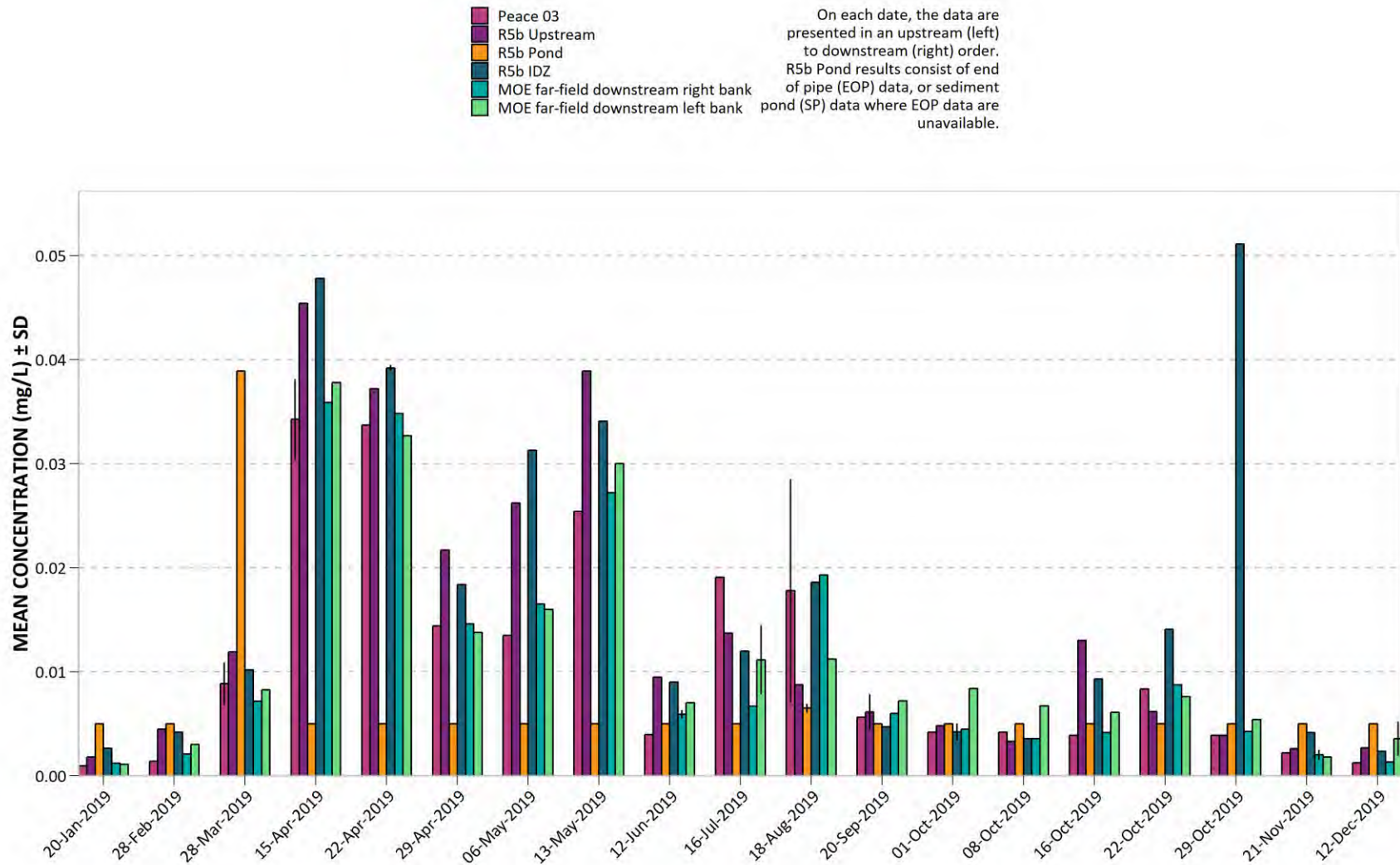
Results less than the MDL were assigned the MDL value of 0.00001 mg/L (Pond and Peace River).

Figure 49. 2019 Peace River and RSEM R5b pond total tin (Sn).



Results less than the MDL were assigned the MDL value of 0.005 mg/L (Pond) or 0.0001 mg/L (Peace River).

Figure 50. 2019 Peace River and RSEM R5b pond total titanium (Ti).



Pond results less than the MDL were assigned the MDL value of 0.005 mg/L.

Figure 51. 2019 Peace River and RSEM R5b pond total uranium (U).

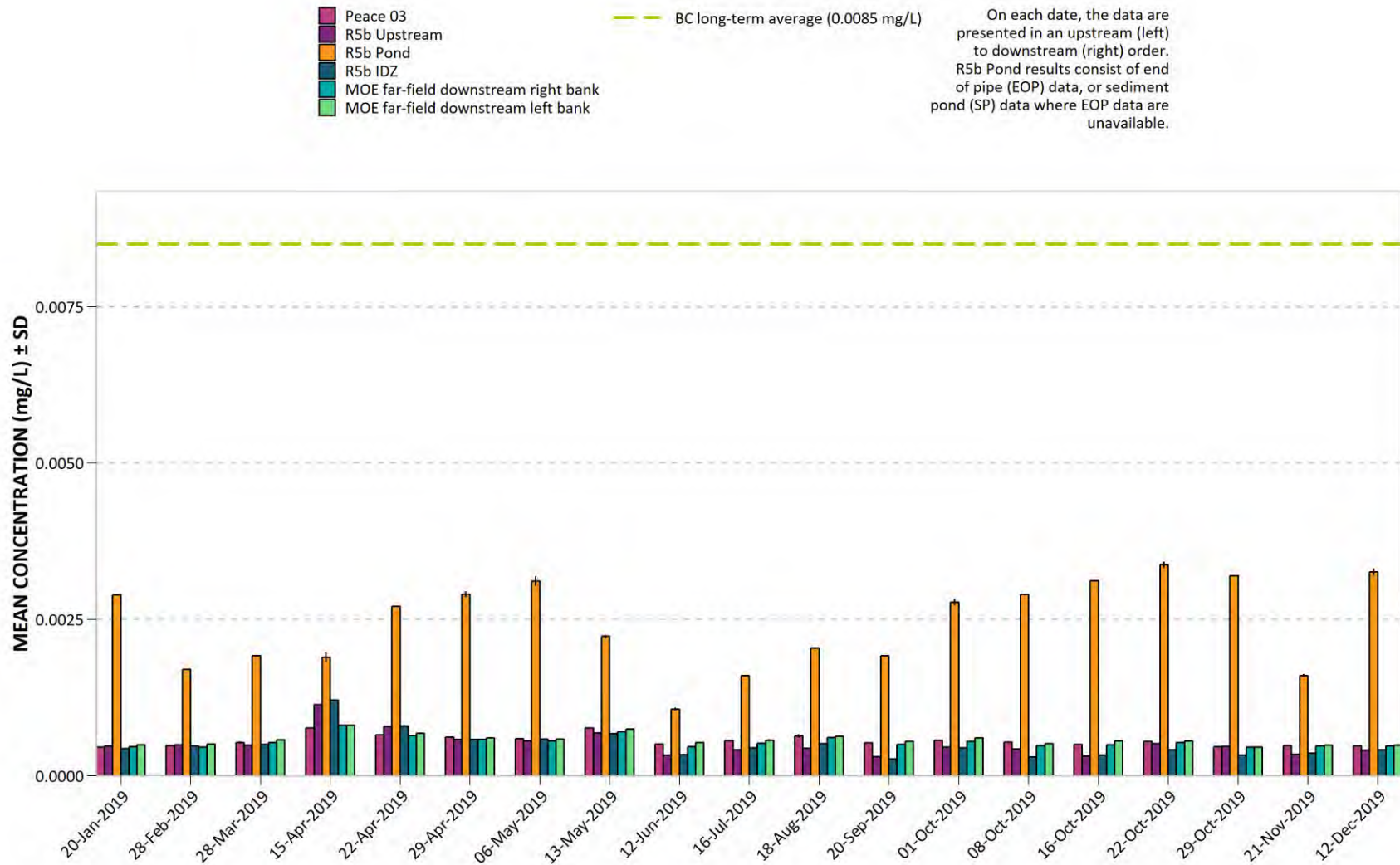
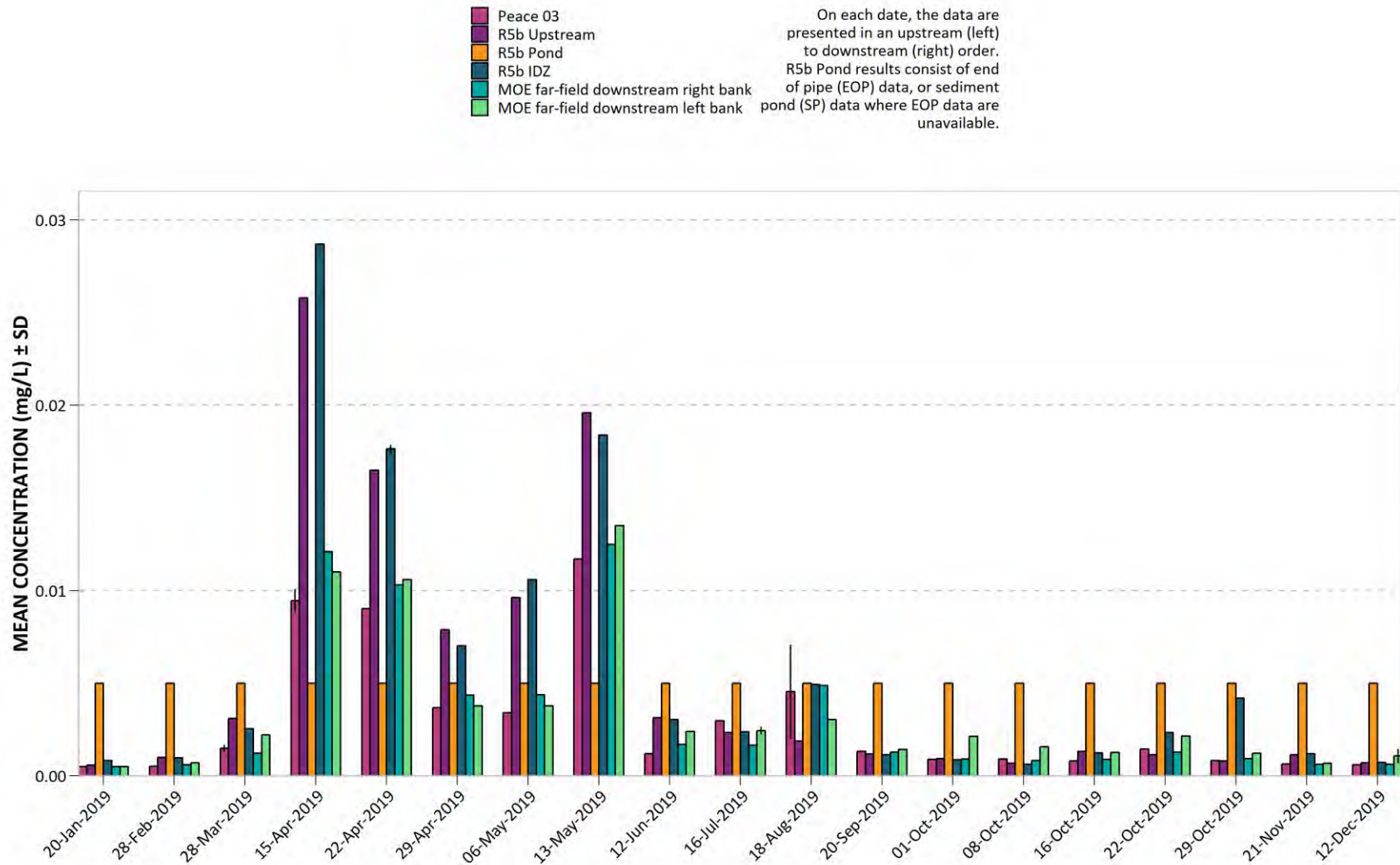
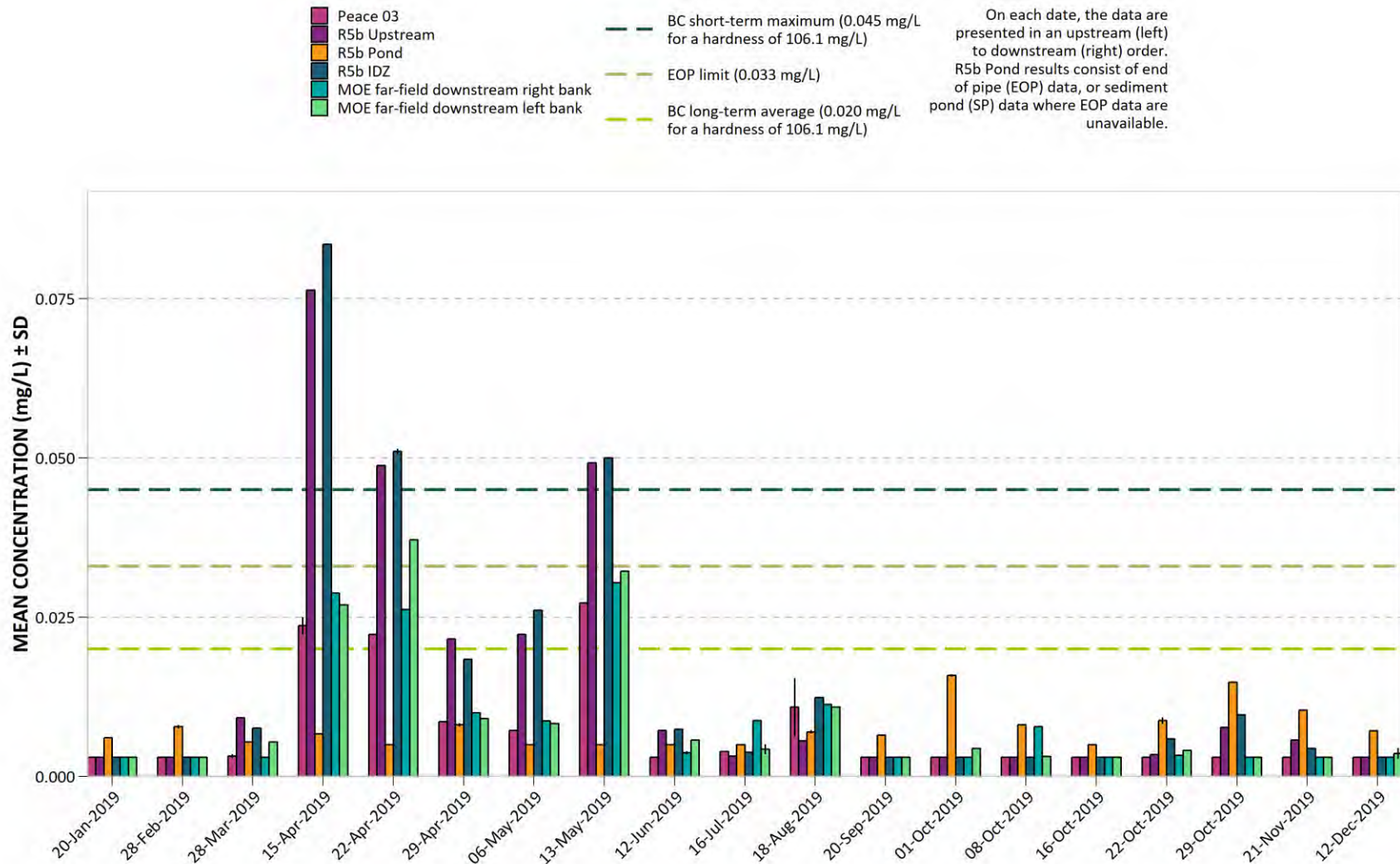


Figure 52. 2019 Peace River and RSEM R5b pond total vanadium (V).



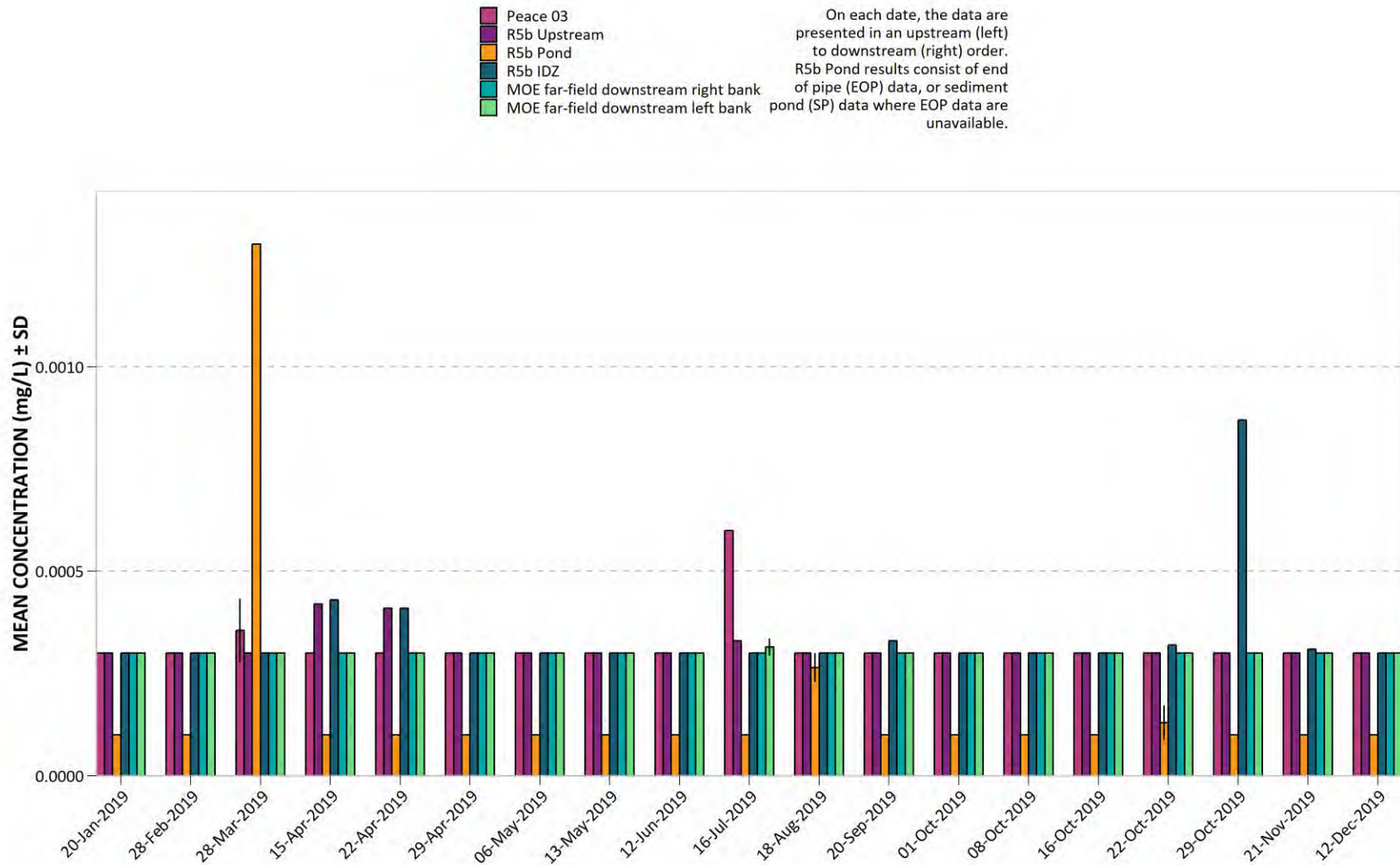
Results less than the MDL were assigned the MDL value of 0.005 mg/L (Pond) or 0.0005 mg/L (Peace River).

Figure 53. 2019 Peace River and RSEM R5b pond total zinc (Zn).



Results less than the MDL were assigned the MDL value of 0.005 mg/L (Pond) or 0.003 mg/L (Peace River).

Figure 54. 2019 Peace River and RSEM R5b pond total zirconium (Zr).



Results less than the MDL were assigned the MDL value of 0.0001 mg/L (Pond) or 0.0003/0.0006 mg/L (Peace River).



Figure 55. 2019 Peace River and RSEM R5b pond dissolved aluminum (Al).

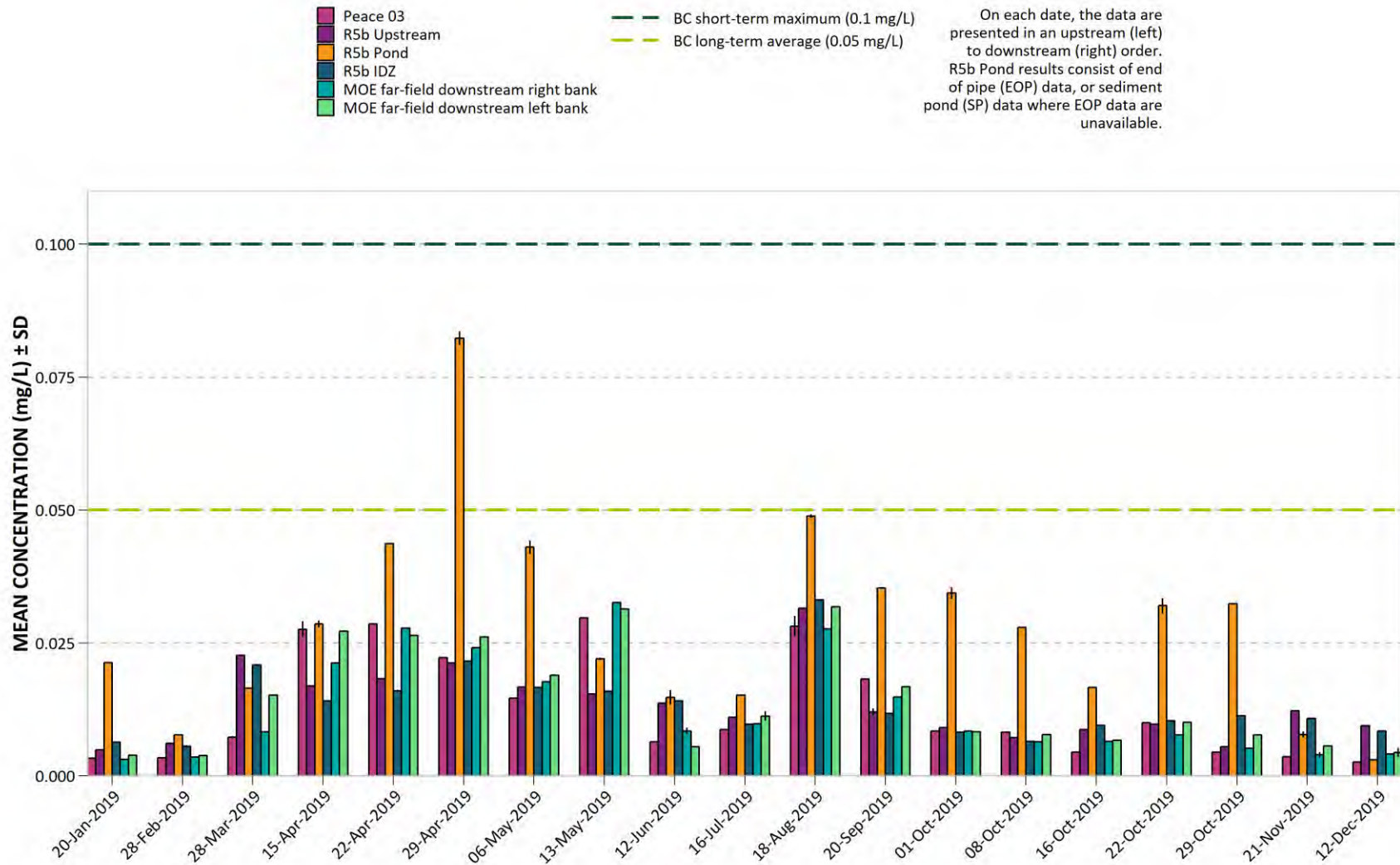
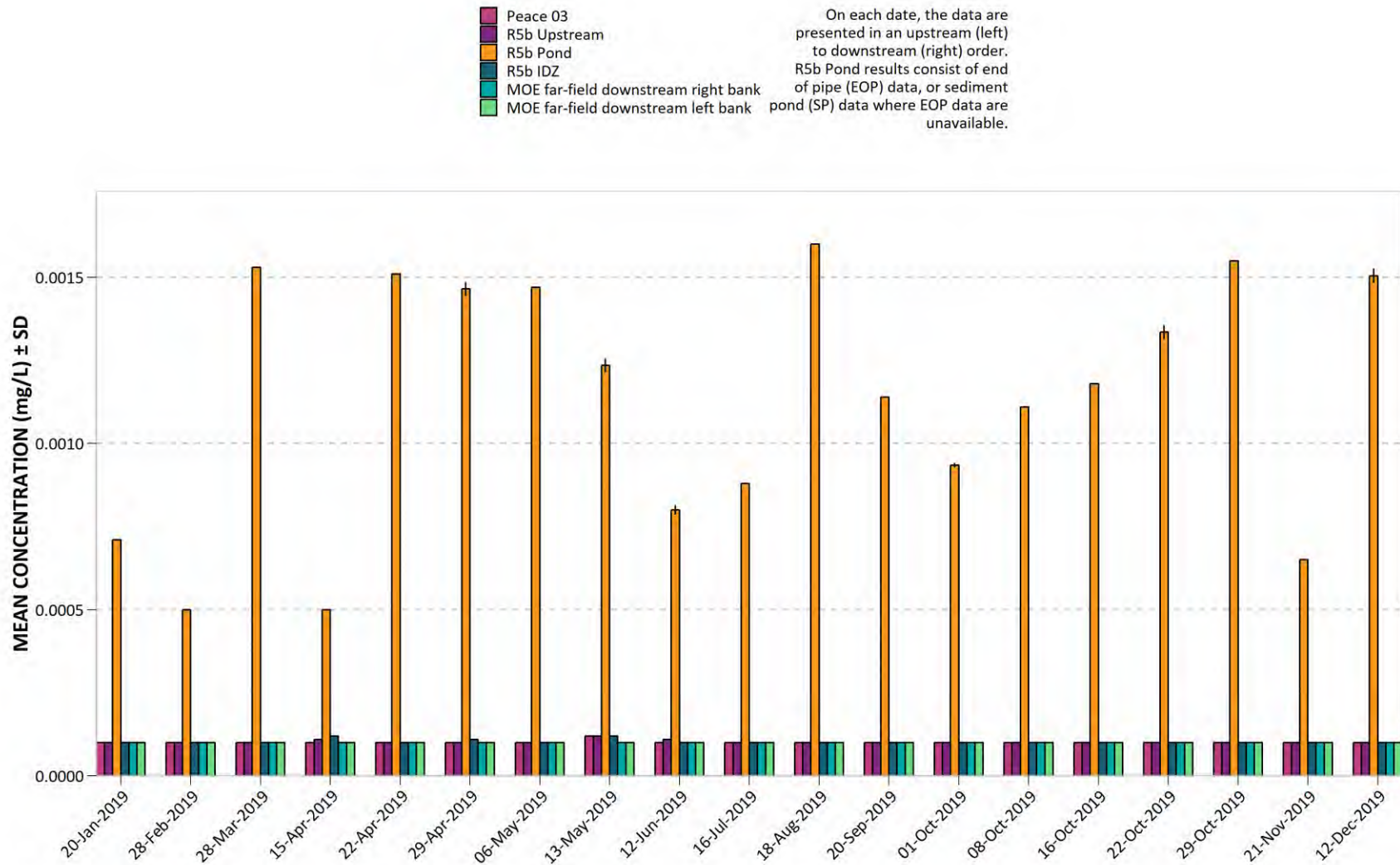


Figure 56. 2019 Peace River and RSEM R5b pond dissolved antimony (Sb).



Results less than the MDL were assigned the MDL value of 0.0005 mg/L (Pond) or 0.0001 mg/L (Peace River).

Figure 57. 2019 Peace River and RSEM R5b pond dissolved arsenic (As).

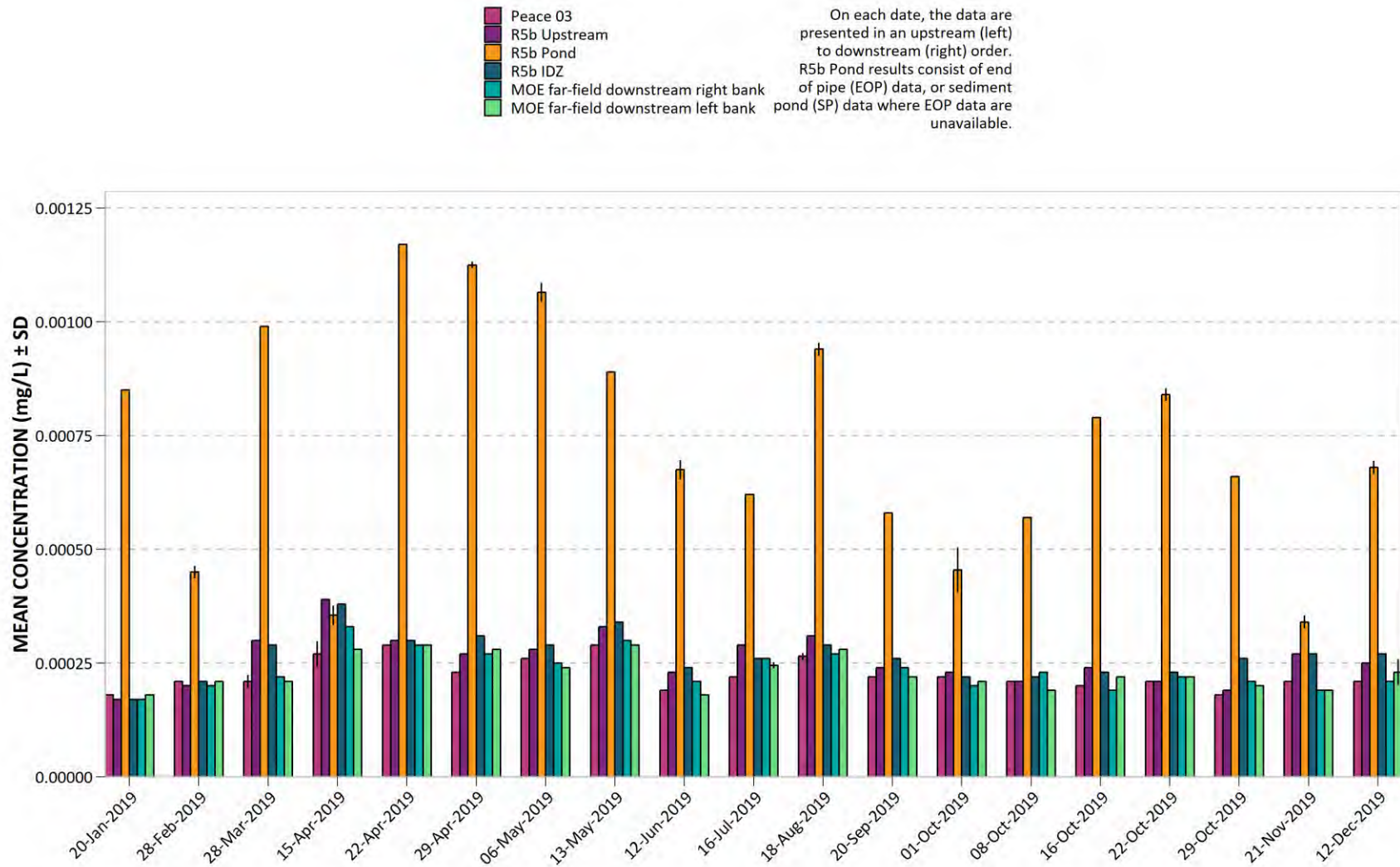


Figure 58. 2019 Peace River and RSEM R5b pond dissolved barium (Ba).

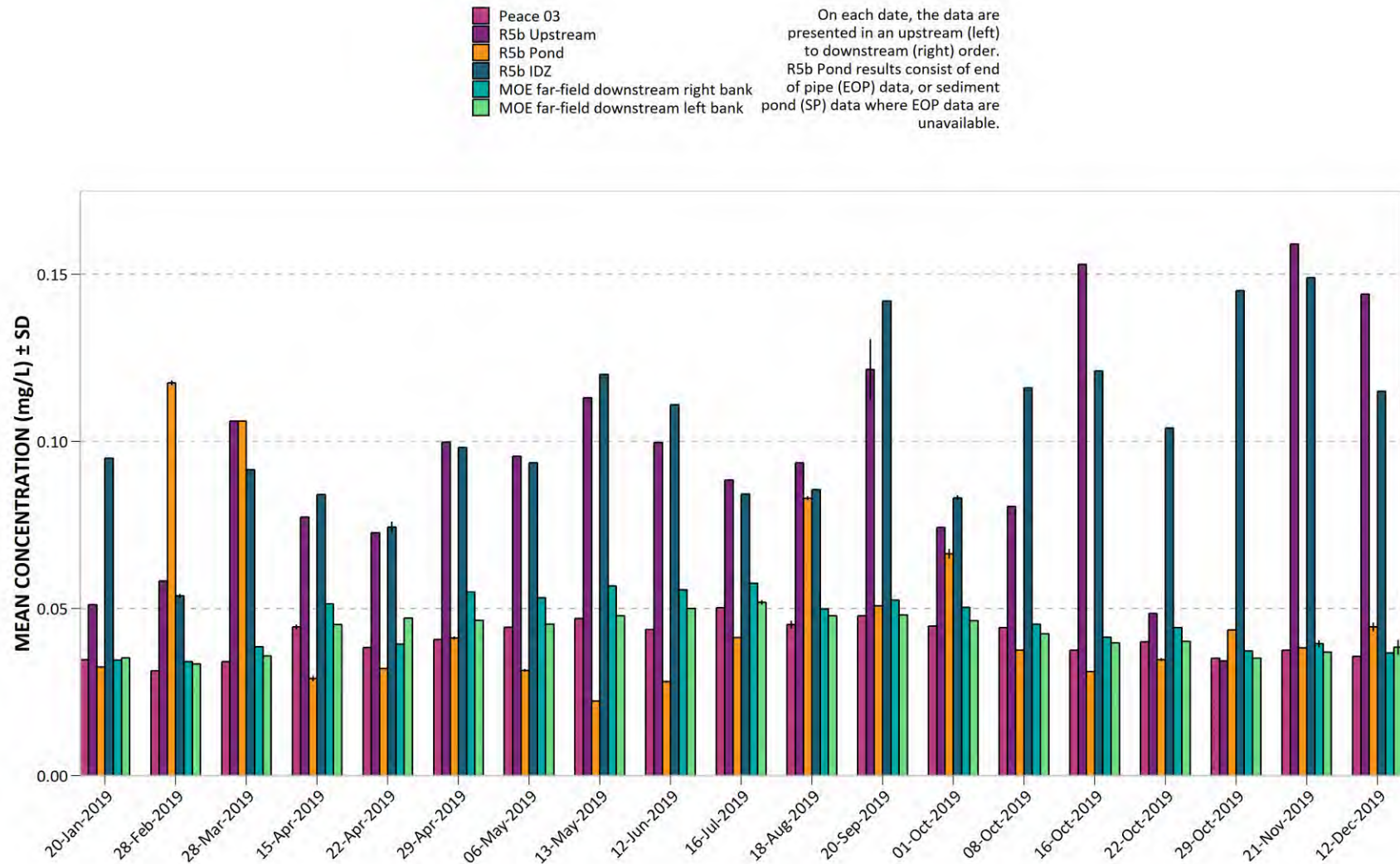
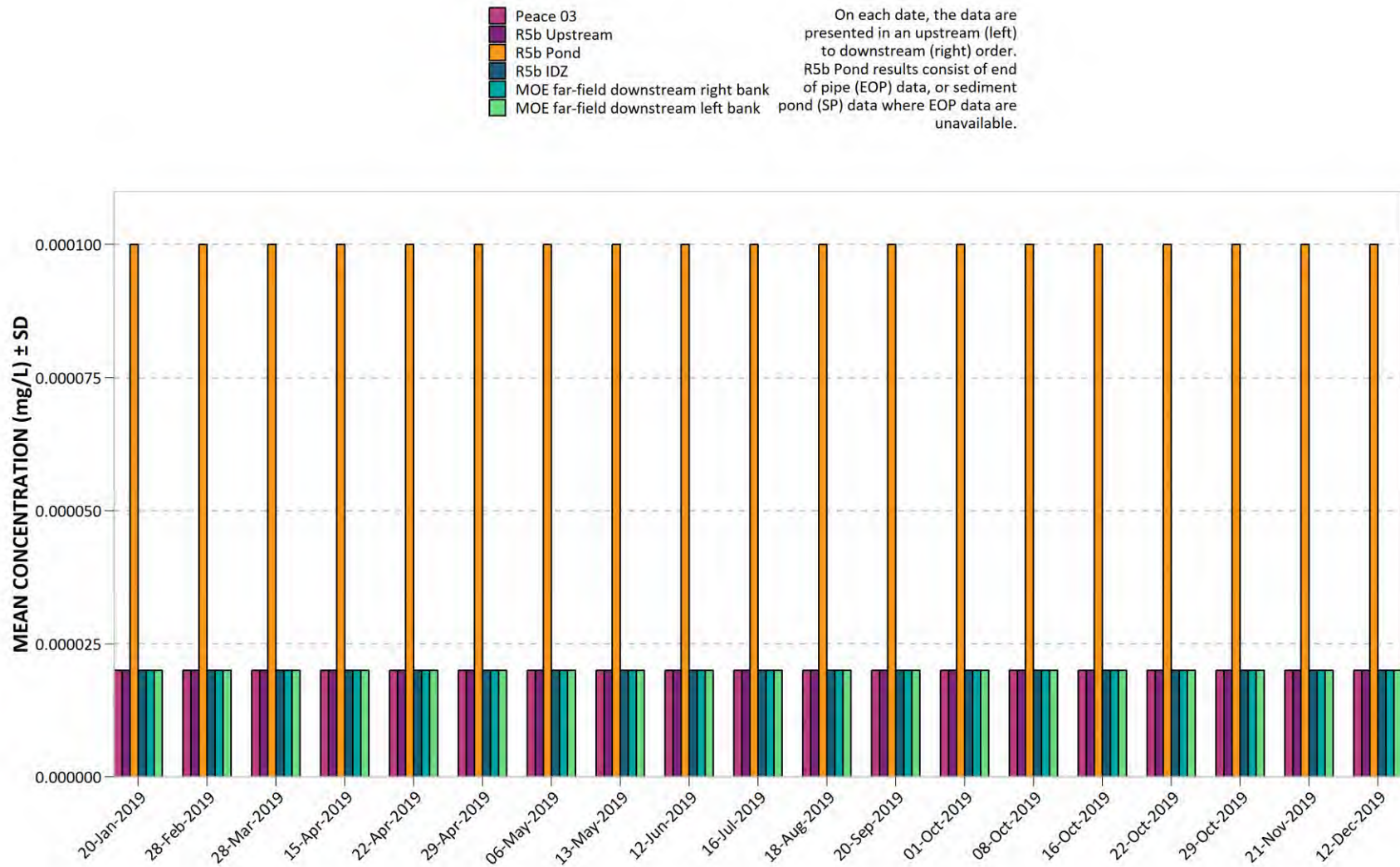
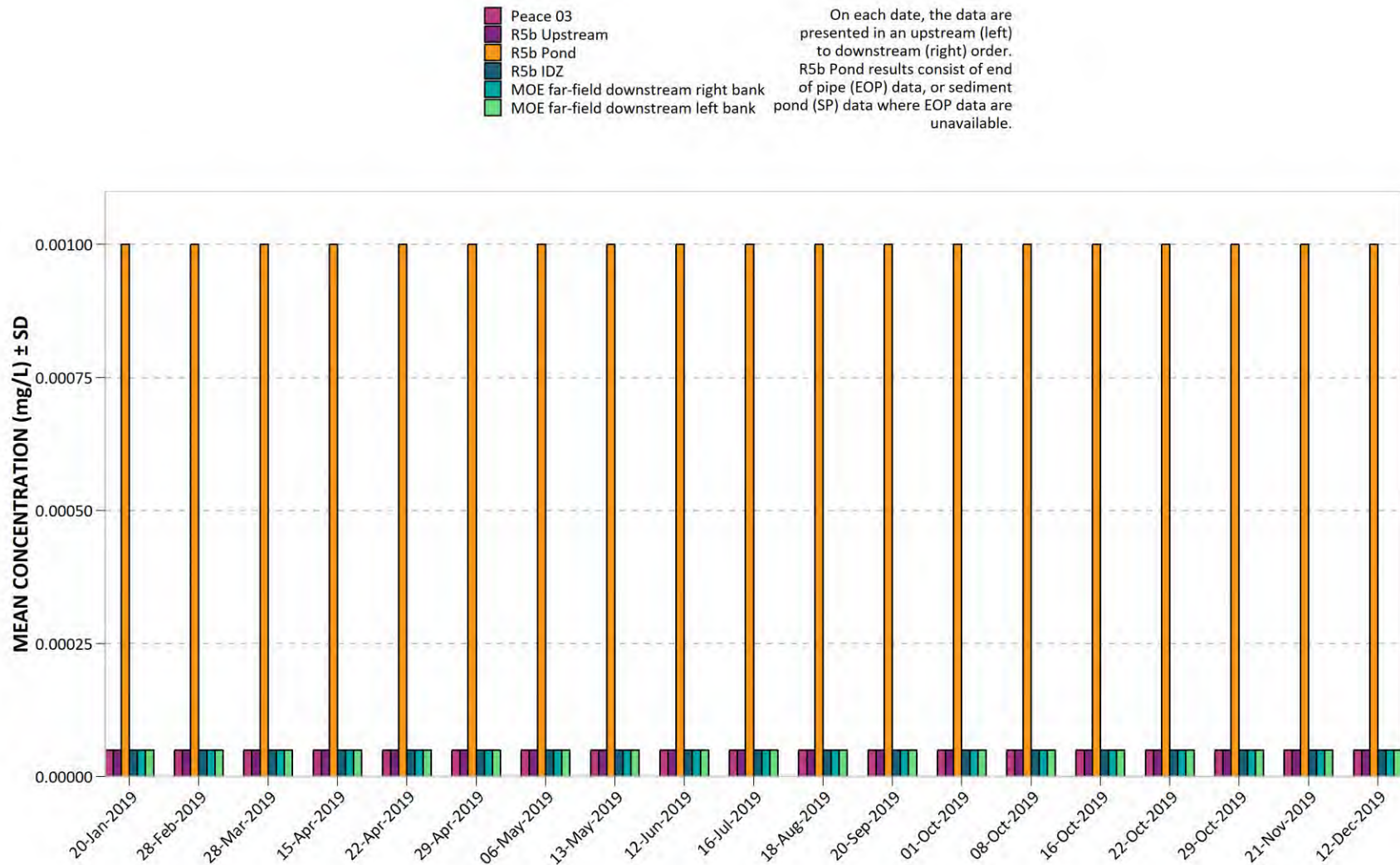


Figure 59. 2019 Peace River and RSEM R5b pond dissolved beryllium (Be).



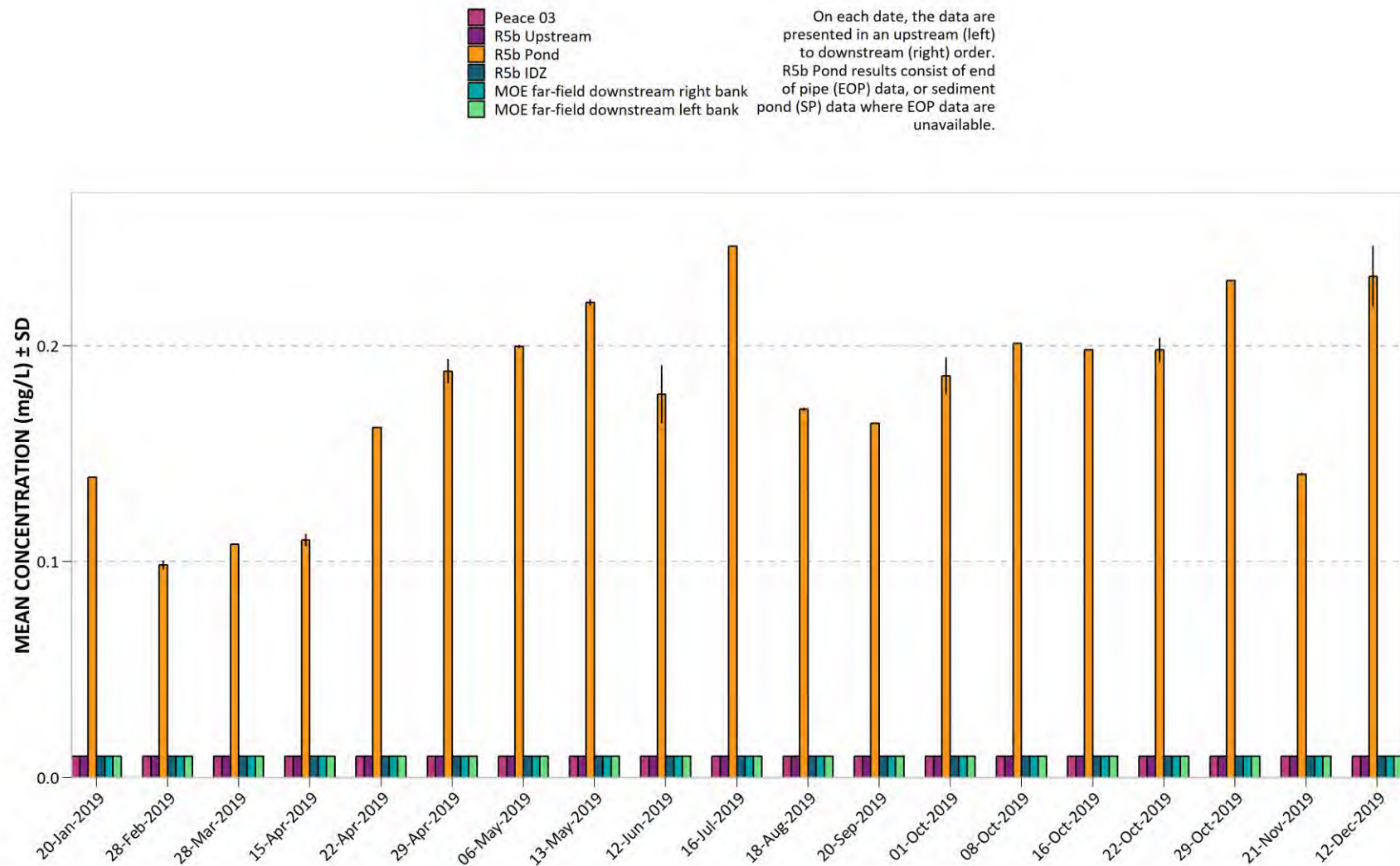
All results were less than the MDL and thus were assigned the MDL value of 0.0001 mg/L (Pond) or 0.00002 mg/L (Peace River).

Figure 60. 2019 Peace River and RSEM R5b pond dissolved bismuth (Bi).



All results were less than the MDL and thus were assigned the MDL value of 0.001 mg/L (Pond) or 0.00005 mg/L (Peace River).

Figure 61. 2019 Peace River and RSEM R5b pond dissolved boron (B).



Results less than the MDL were assigned the MDL value of 0.05 mg/L (Pond) or 0.01 mg/L (Peace River).

Figure 62. 2019 Peace River and RSEM R5b pond dissolved cadmium (Cd).

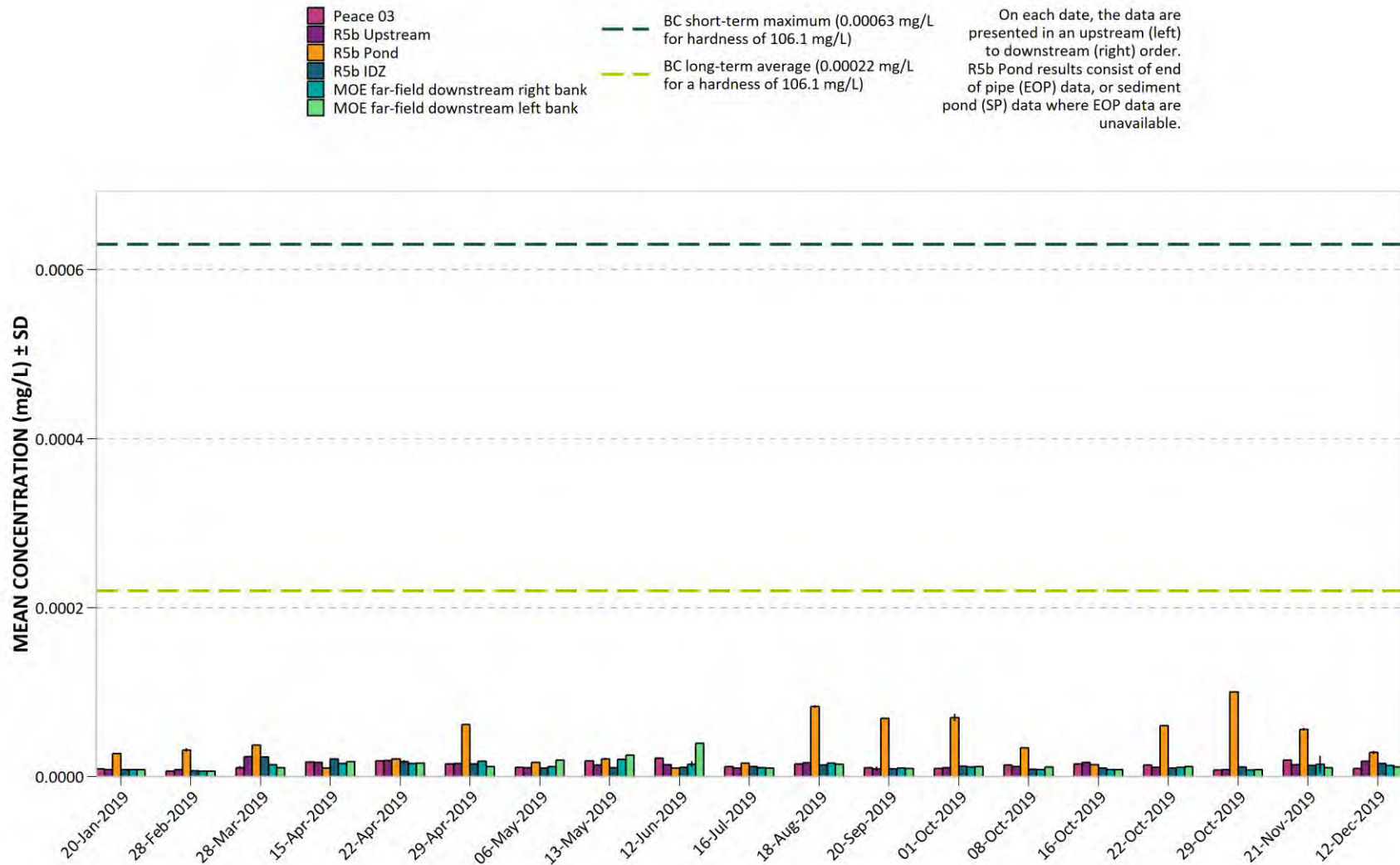




Figure 63. 2019 Peace River and RSEM R5b pond dissolved calcium (Ca).

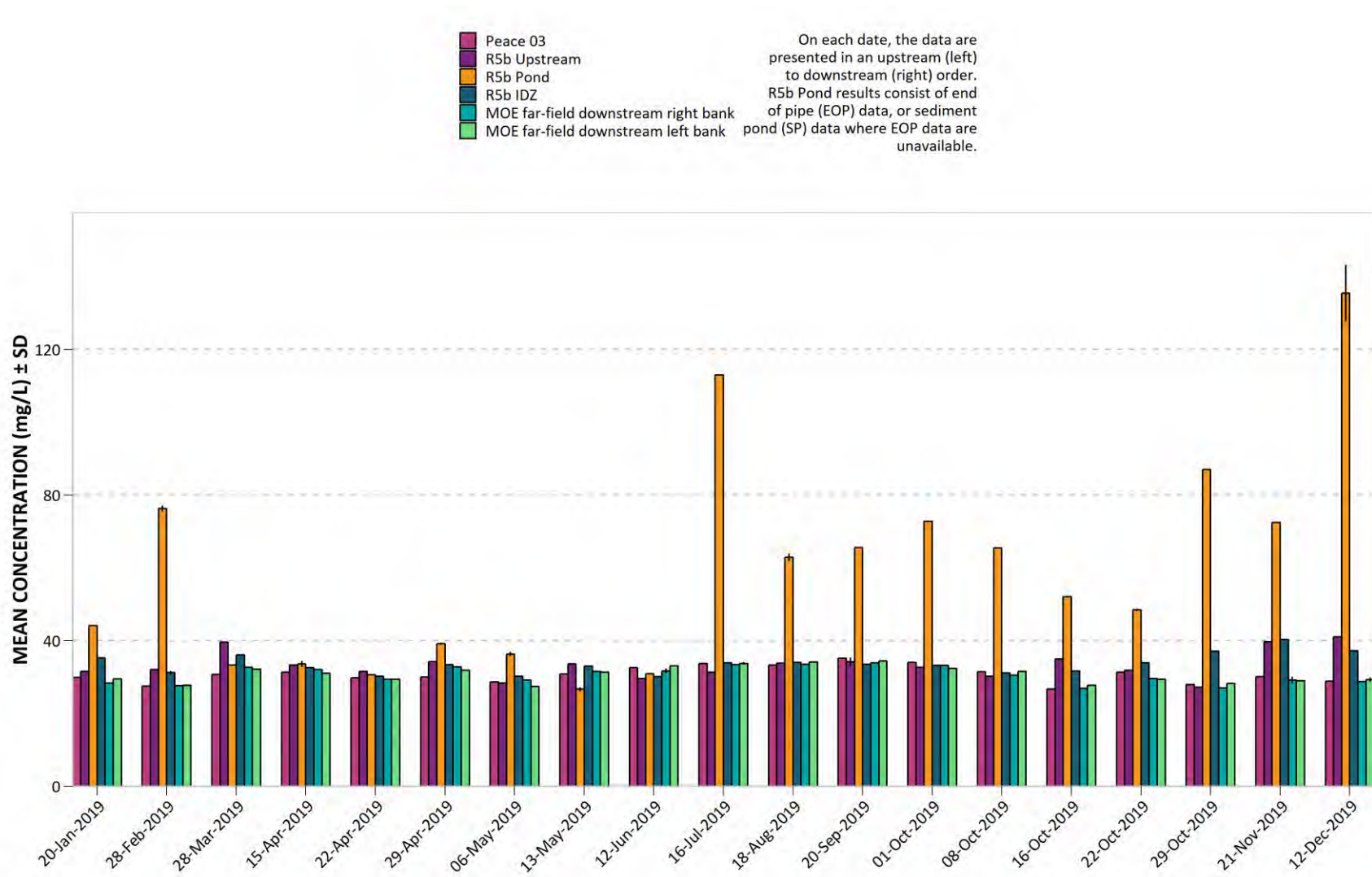
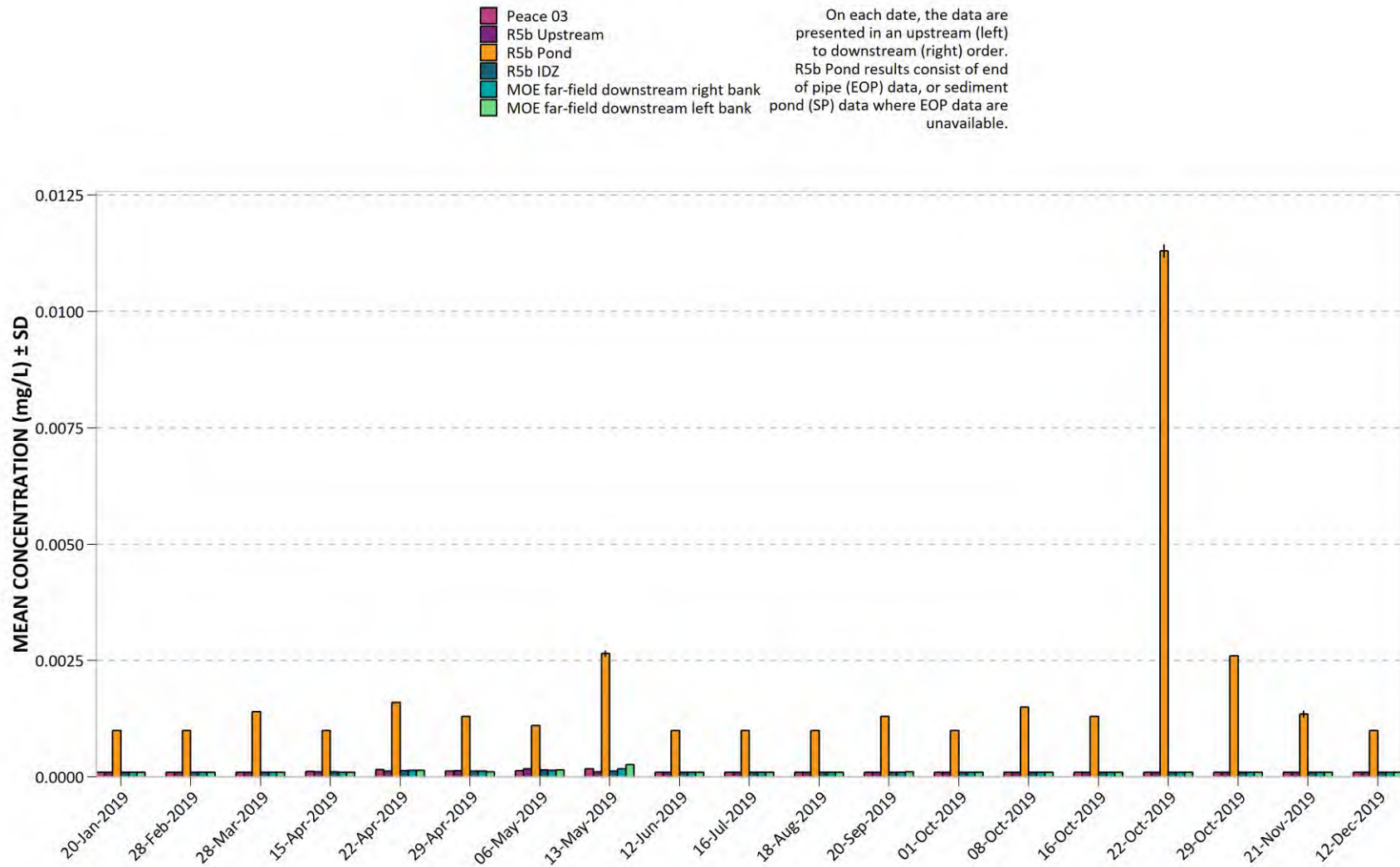
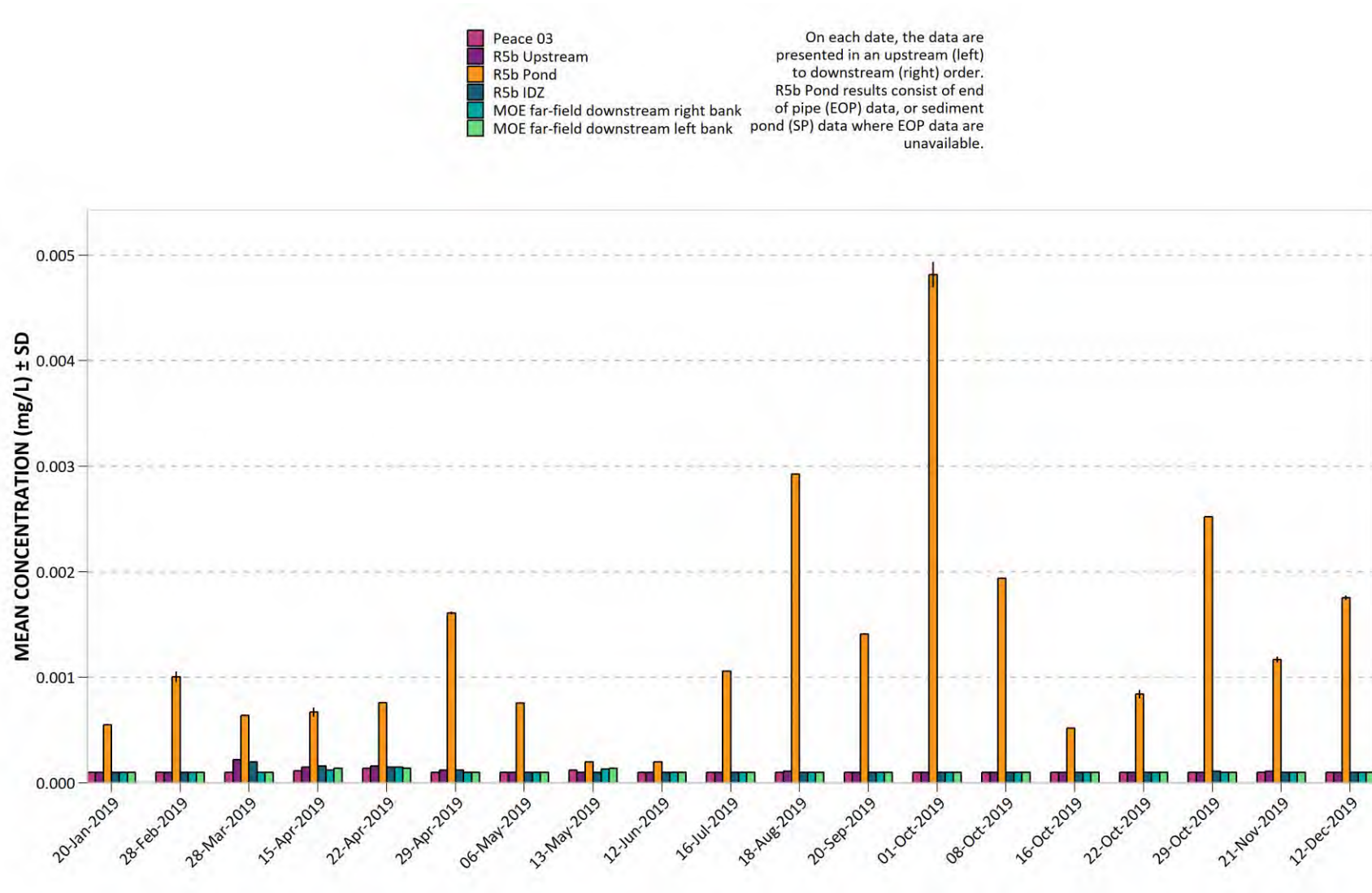


Figure 64. 2019 Peace River and RSEM R5b pond dissolved chromium (Cr).



Results less than the MDL were assigned the MDL value of 0.001 mg/L (Pond) or 0.0001 mg/L (Peace River).

Figure 65. 2019 Peace River and RSEM R5b pond dissolved cobalt (Co).



Results less than the MDL were assigned the MDL value of 0.0002 mg/L (Pond) or 0.0001 mg/L (Peace River).

Figure 66. 2019 Peace River and RSEM R5b pond dissolved copper (Cu). New dissolved copper BC WQG replaced the total copper BC WQG in August 2019 (MOE 2019).

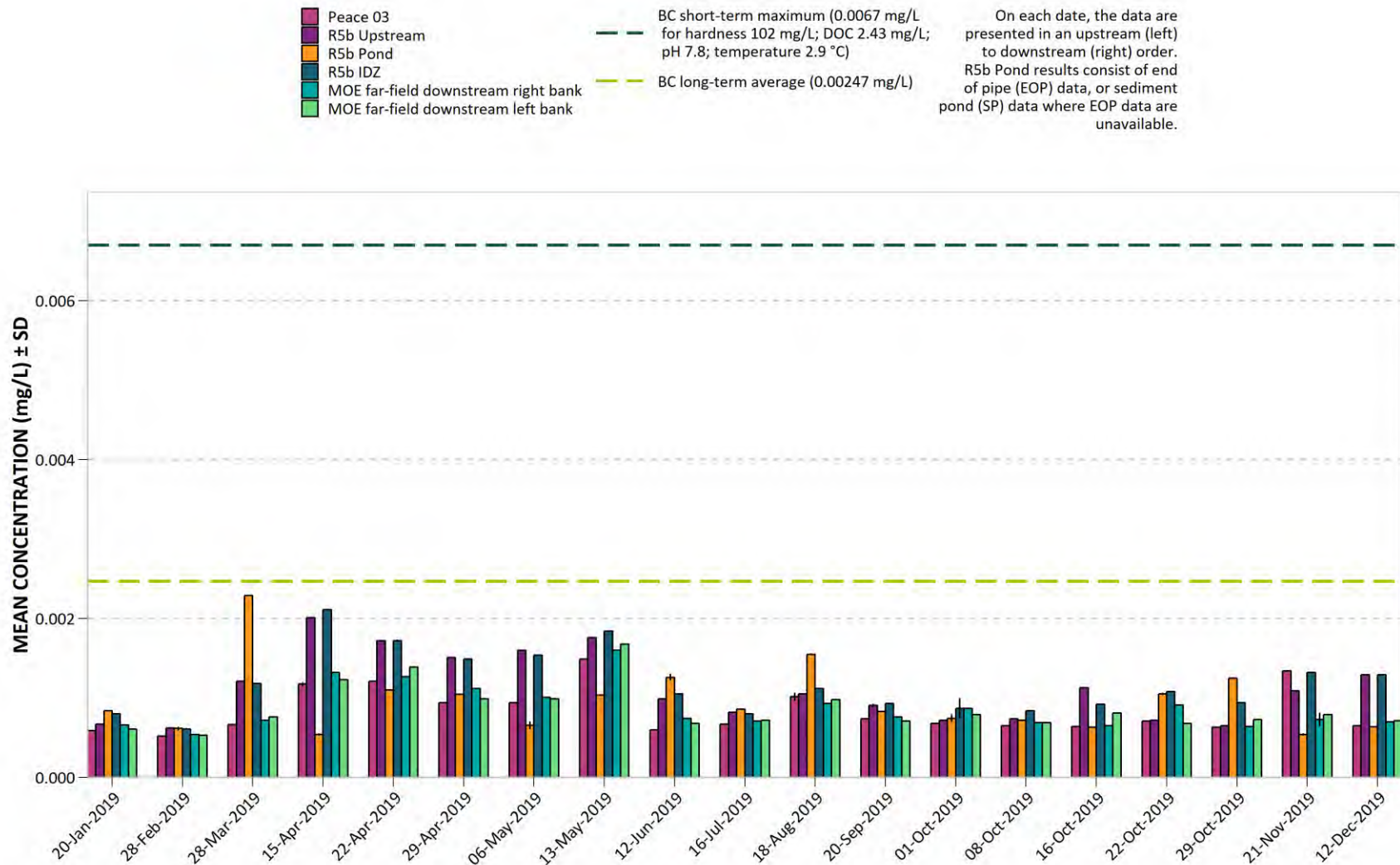
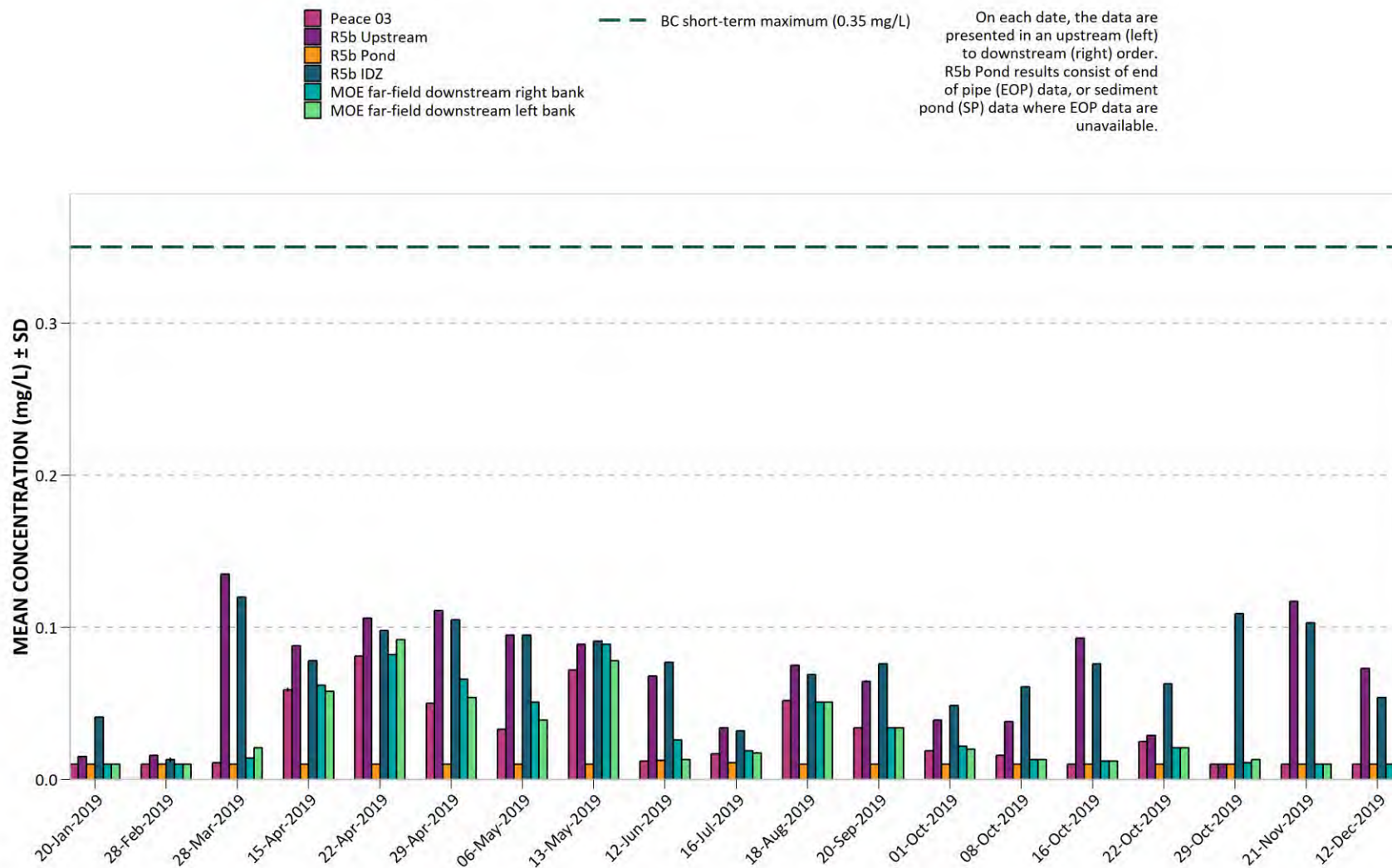
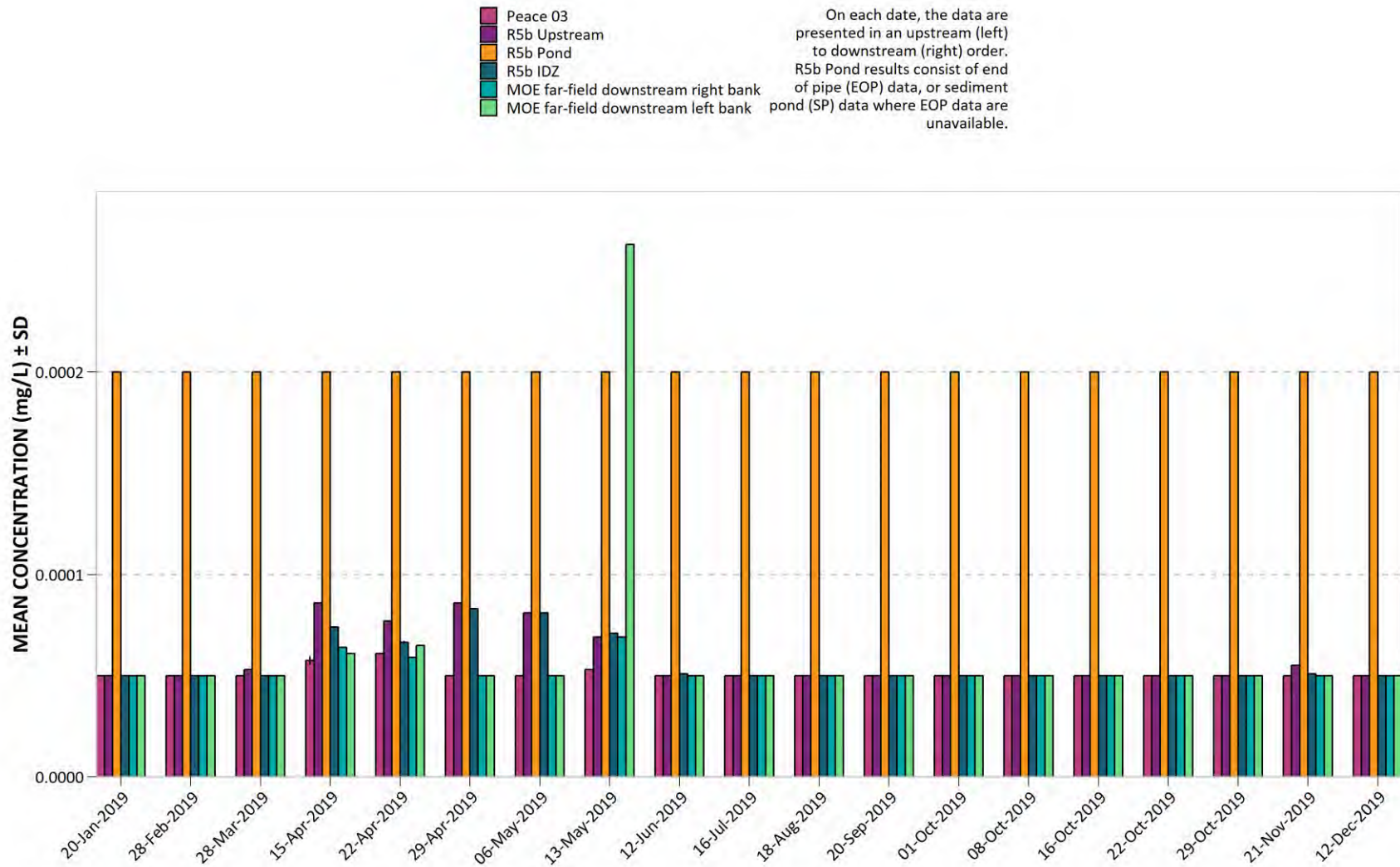


Figure 67. 2019 Peace River and RSEM R5b pond dissolved iron (Fe).



Results less than the MDL were assigned the MDL value of 0.01 mg/L (Pond and Peace River).

Figure 68. 2019 Peace River and RSEM R5b pond dissolved lead (Pb).



Results less than the MDL were assigned the MDL value of 0.0002 mg/L (Pond) or 0.00005 mg/L (Peace River).

Figure 69. 2019 Peace River and RSEM R5b pond dissolved lithium (Li).

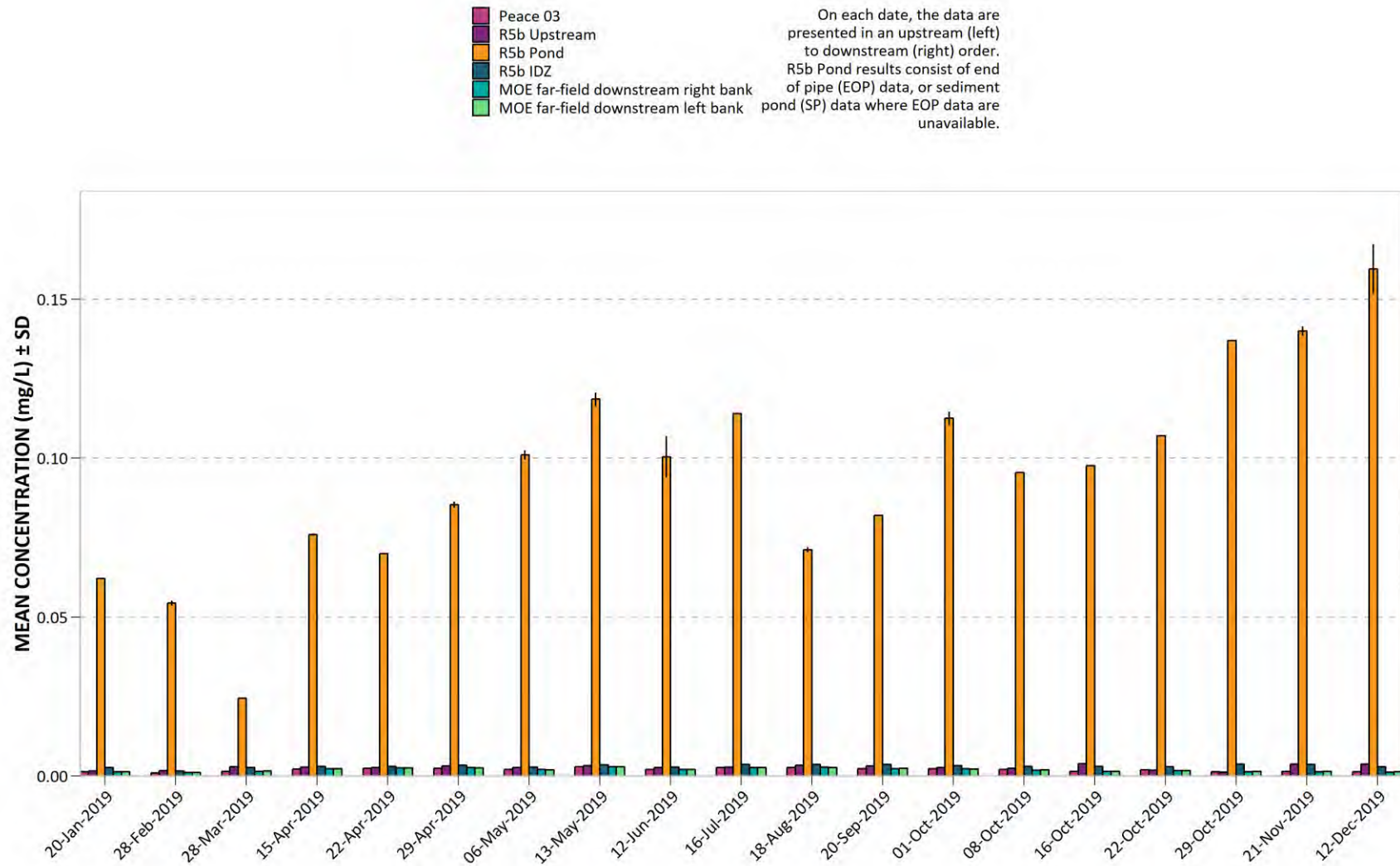


Figure 70. 2019 Peace River and RSEM R5b pond dissolved magnesium (Mg).

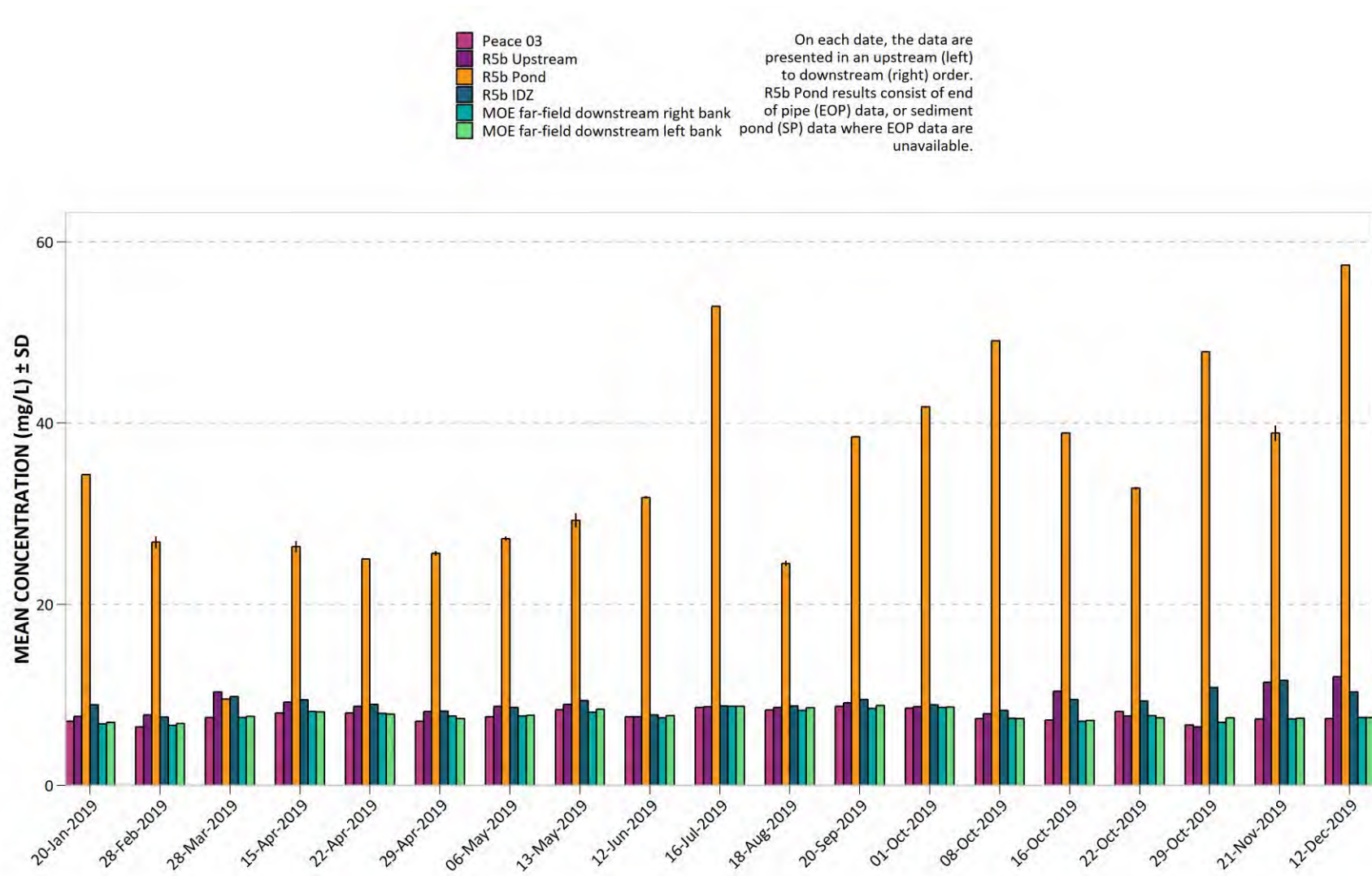




Figure 71. 2019 Peace River and RSEM R5b pond dissolved manganese (Mn).

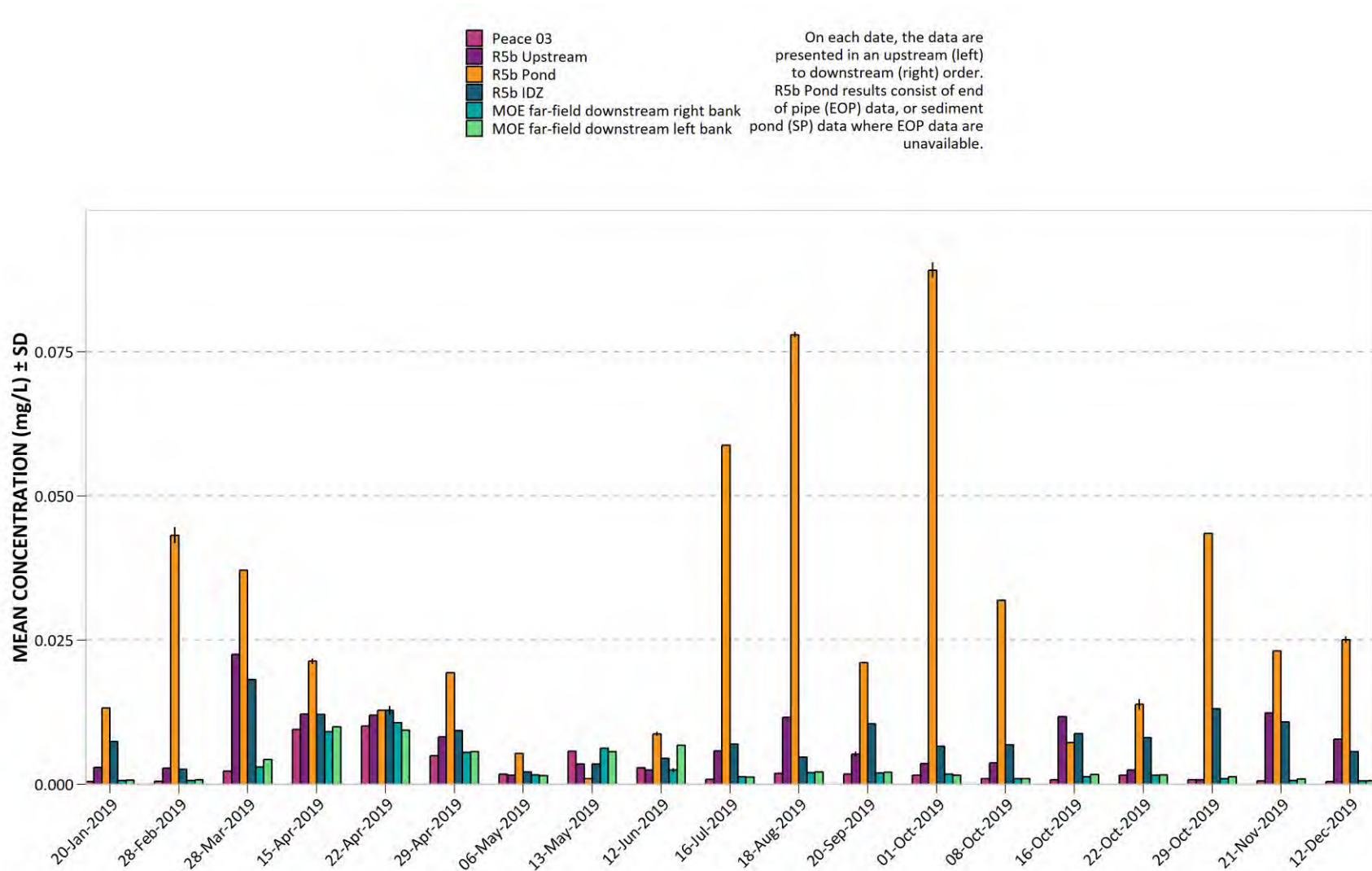
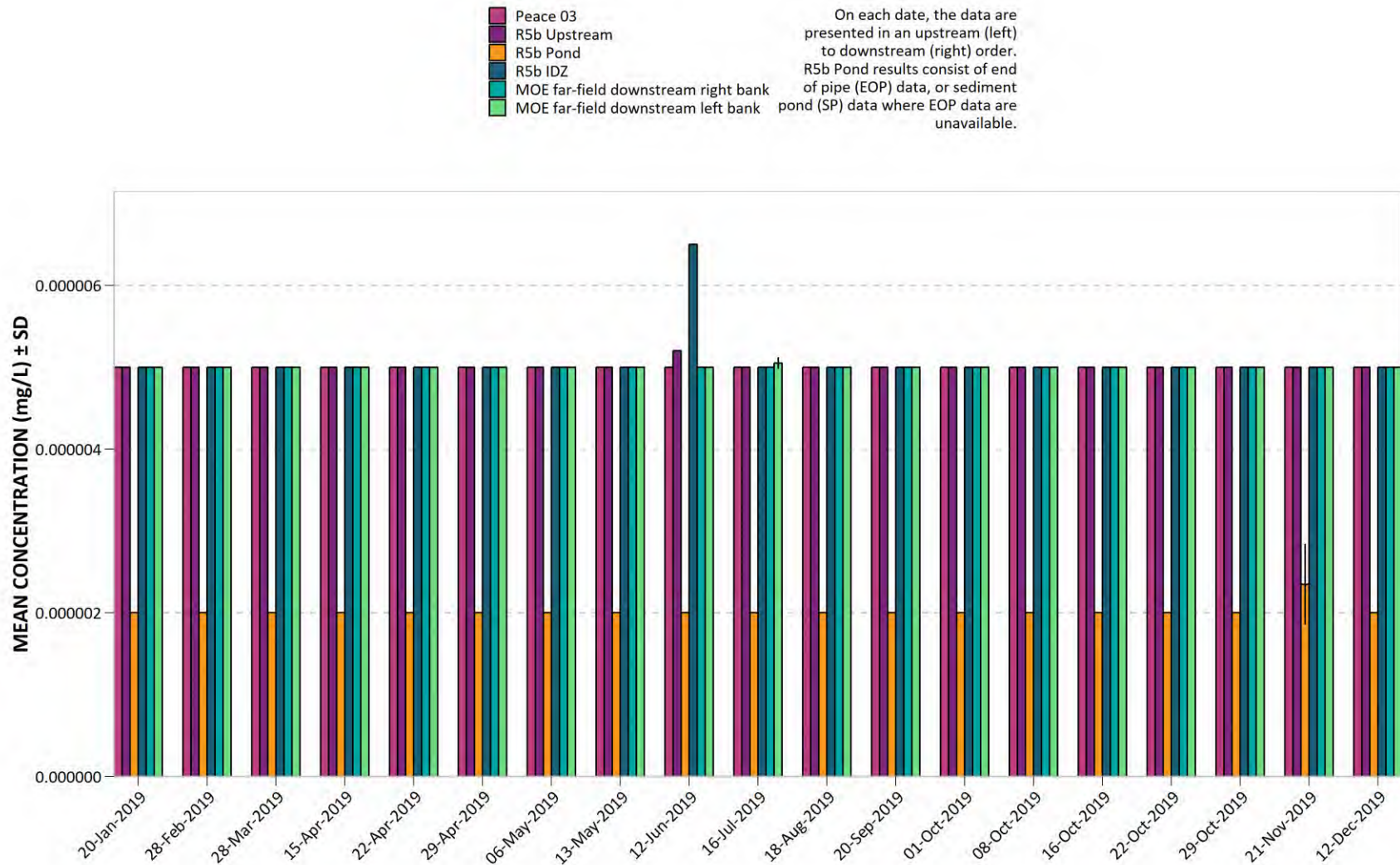


Figure 72. 2019 Peace River and RSEM R5b pond dissolved mercury (Hg).



Results less than the MDL were assigned the MDL value of 0.000005 mg/L (Peace River), 0.000002 mg/L (Pond)

Figure 73. 2019 Peace River and RSEM R5b pond dissolved molybdenum (Mo).

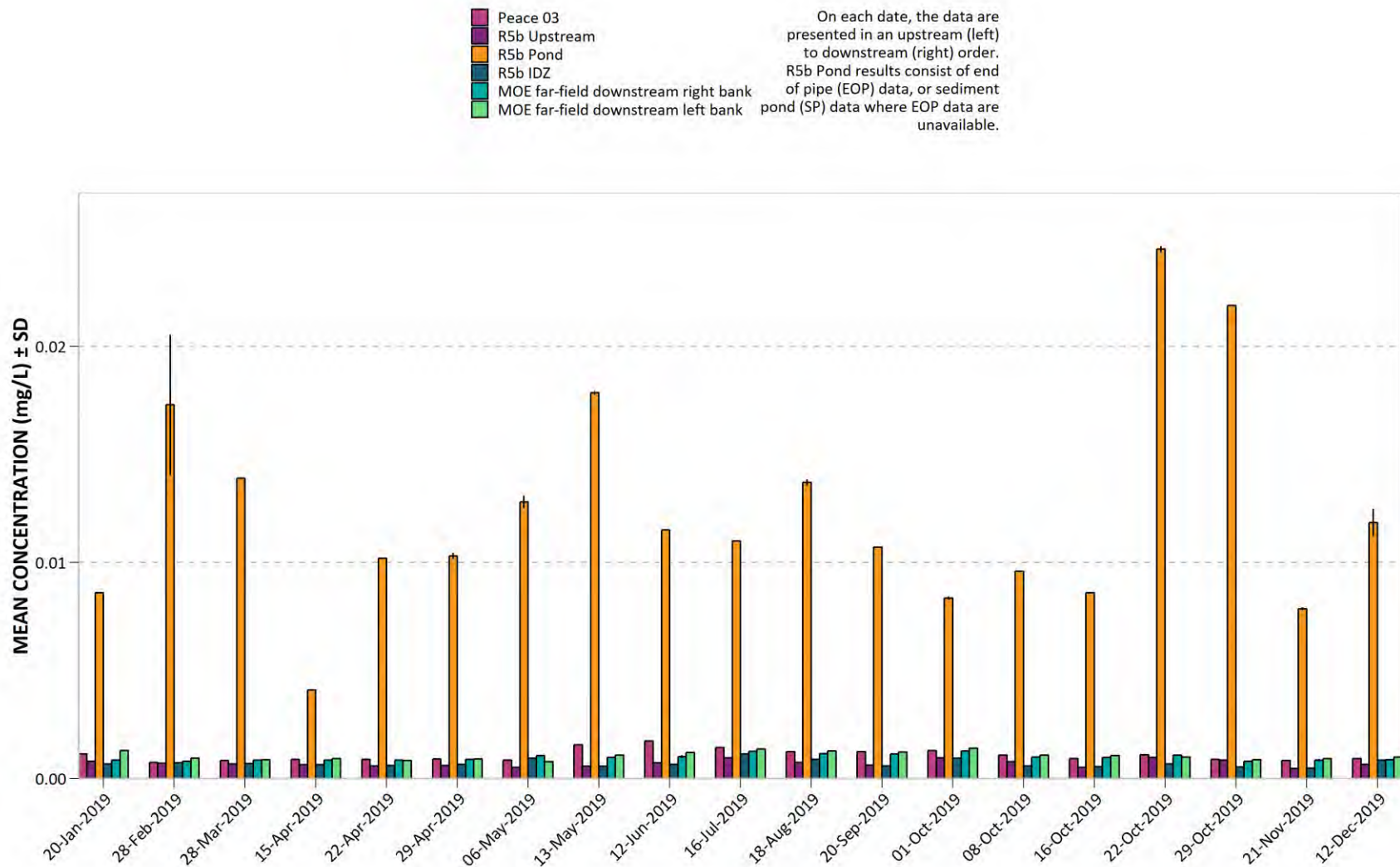


Figure 74. 2019 Peace River and RSEM R5b pond dissolved nickel (Ni).

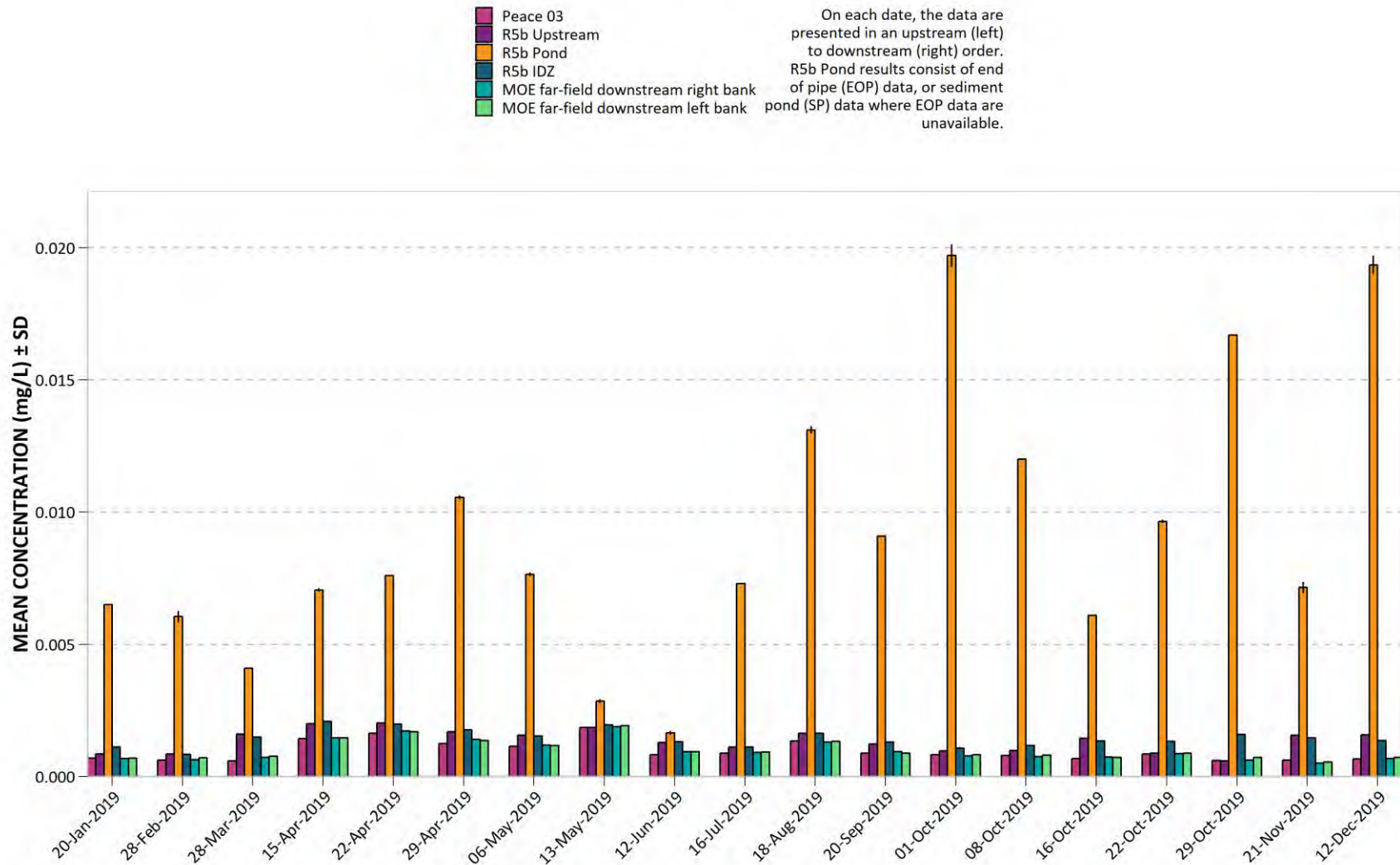


Figure 75. 2019 Peace River and RSEM R5b pond dissolved potassium (K).

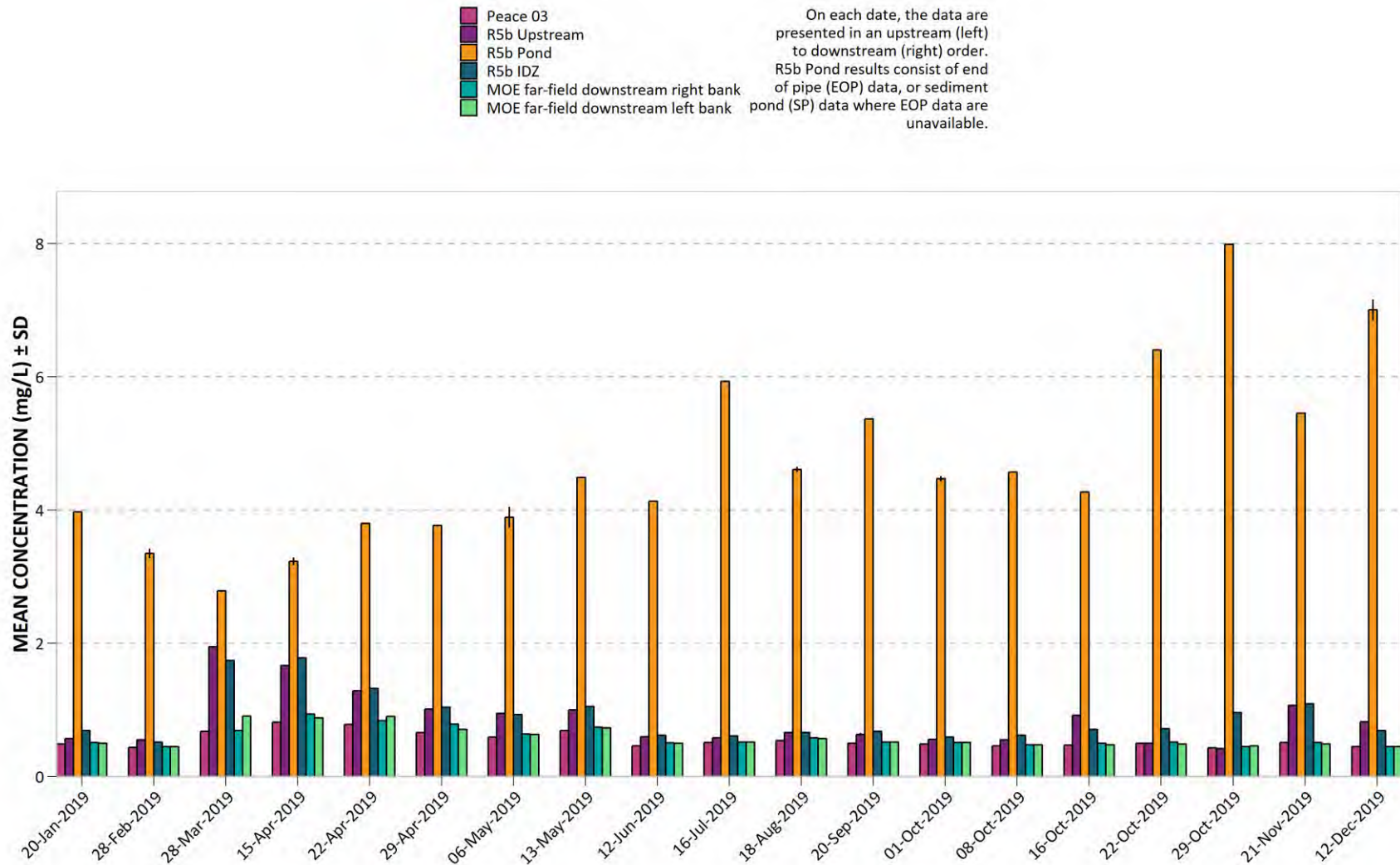


Figure 76. 2019 Peace River and RSEM R5b pond dissolved selenium (Se).

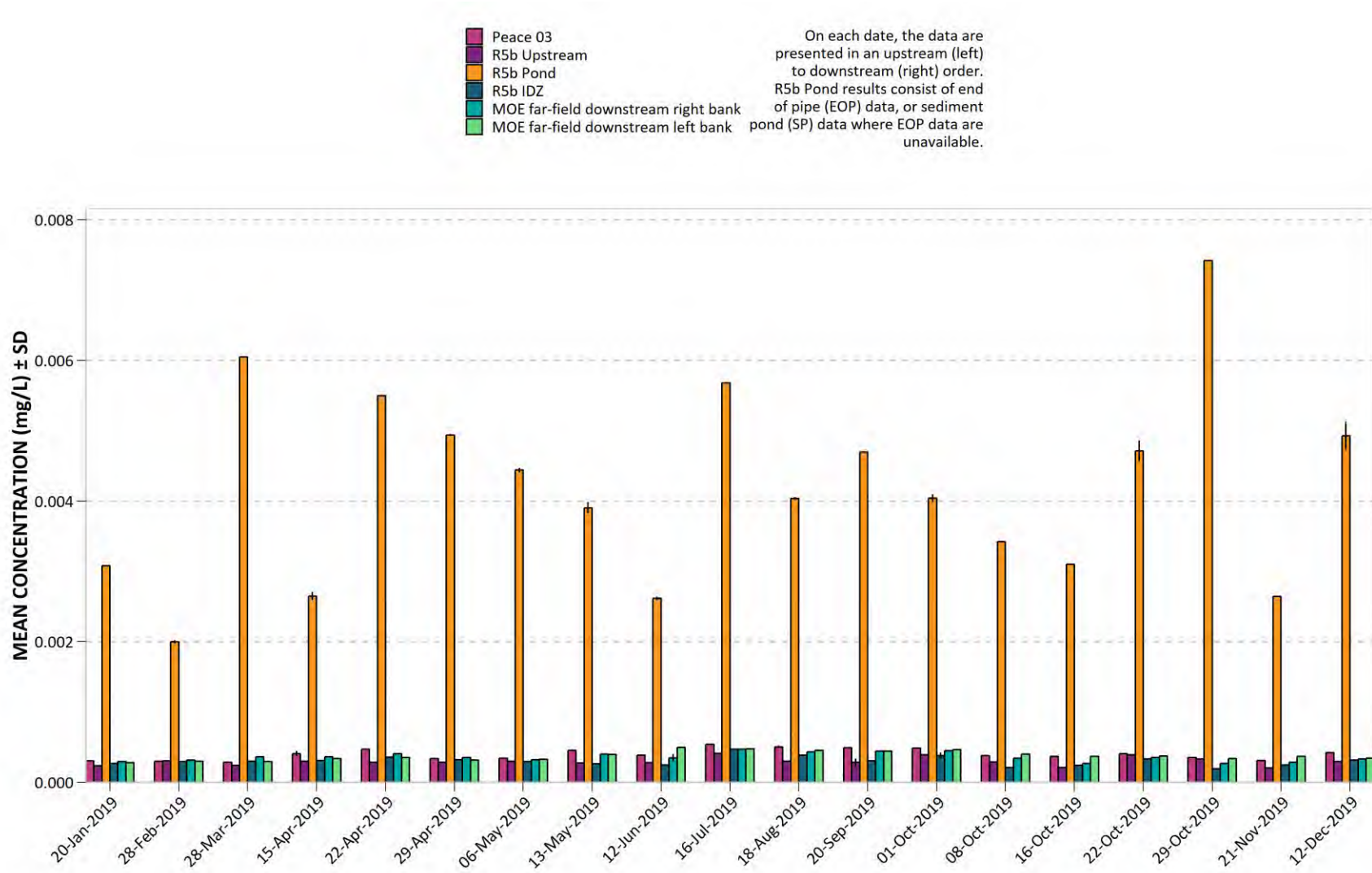


Figure 77. 2019 Peace River and RSEM R5b pond dissolved silicon (Si).

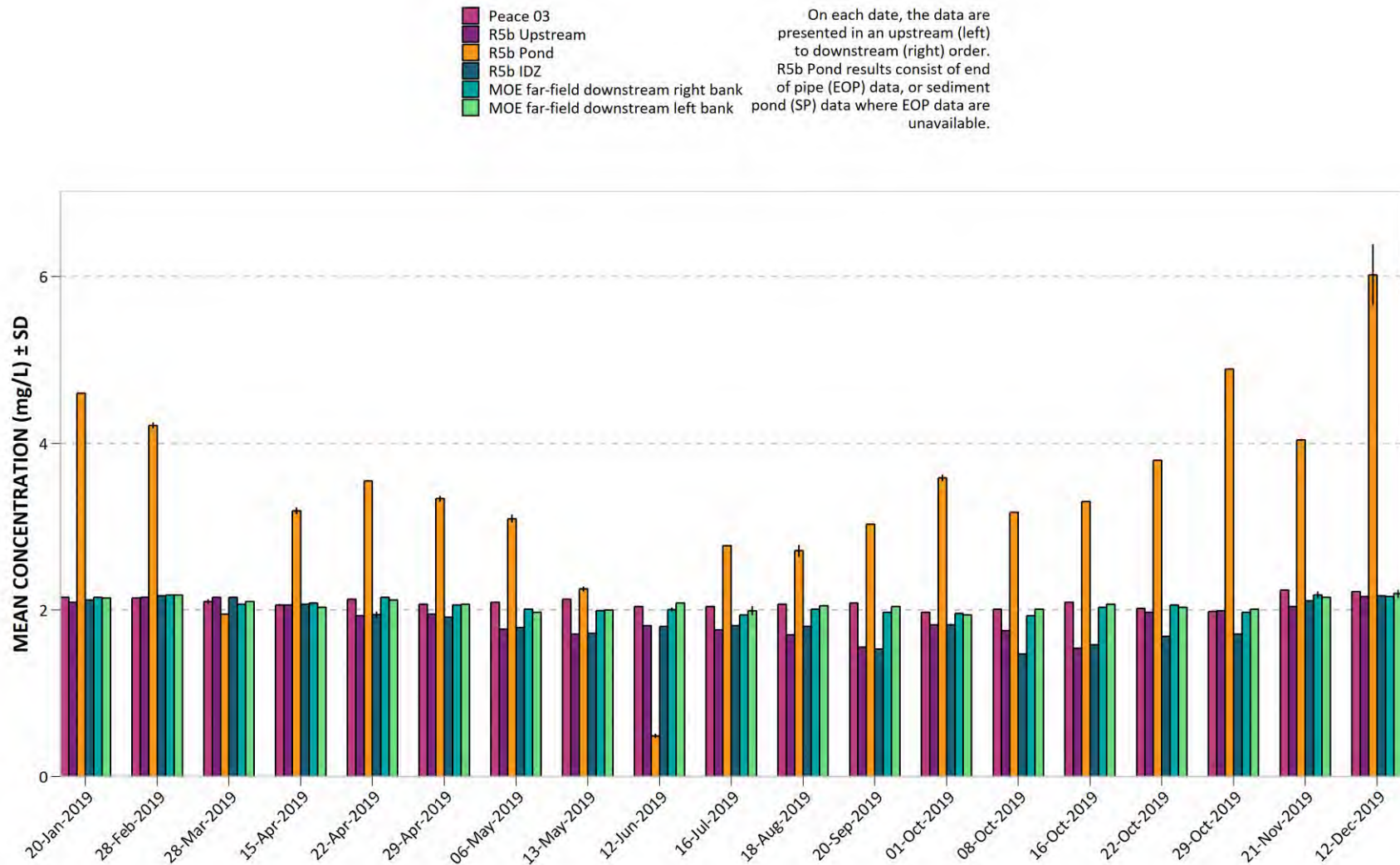
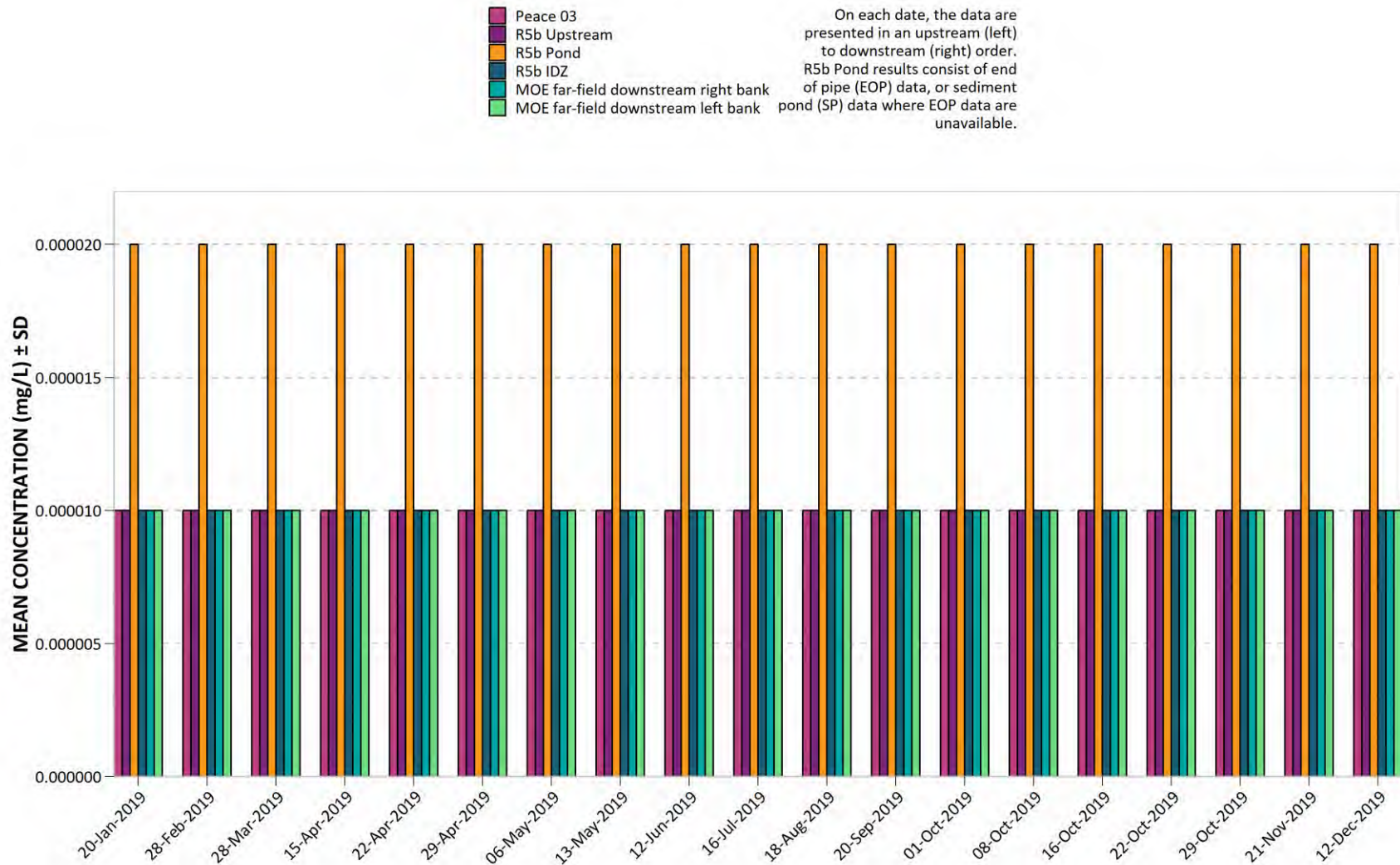


Figure 78. 2019 Peace River and RSEM R5b pond dissolved silver (Ag).



Results less than the MDL were assigned the MDL value of 0.00002 mg/L (Pond) or 0.00001 mg/L (Peace River).



Figure 79. 2019 Peace River and RSEM R5b pond dissolved sodium (Na).

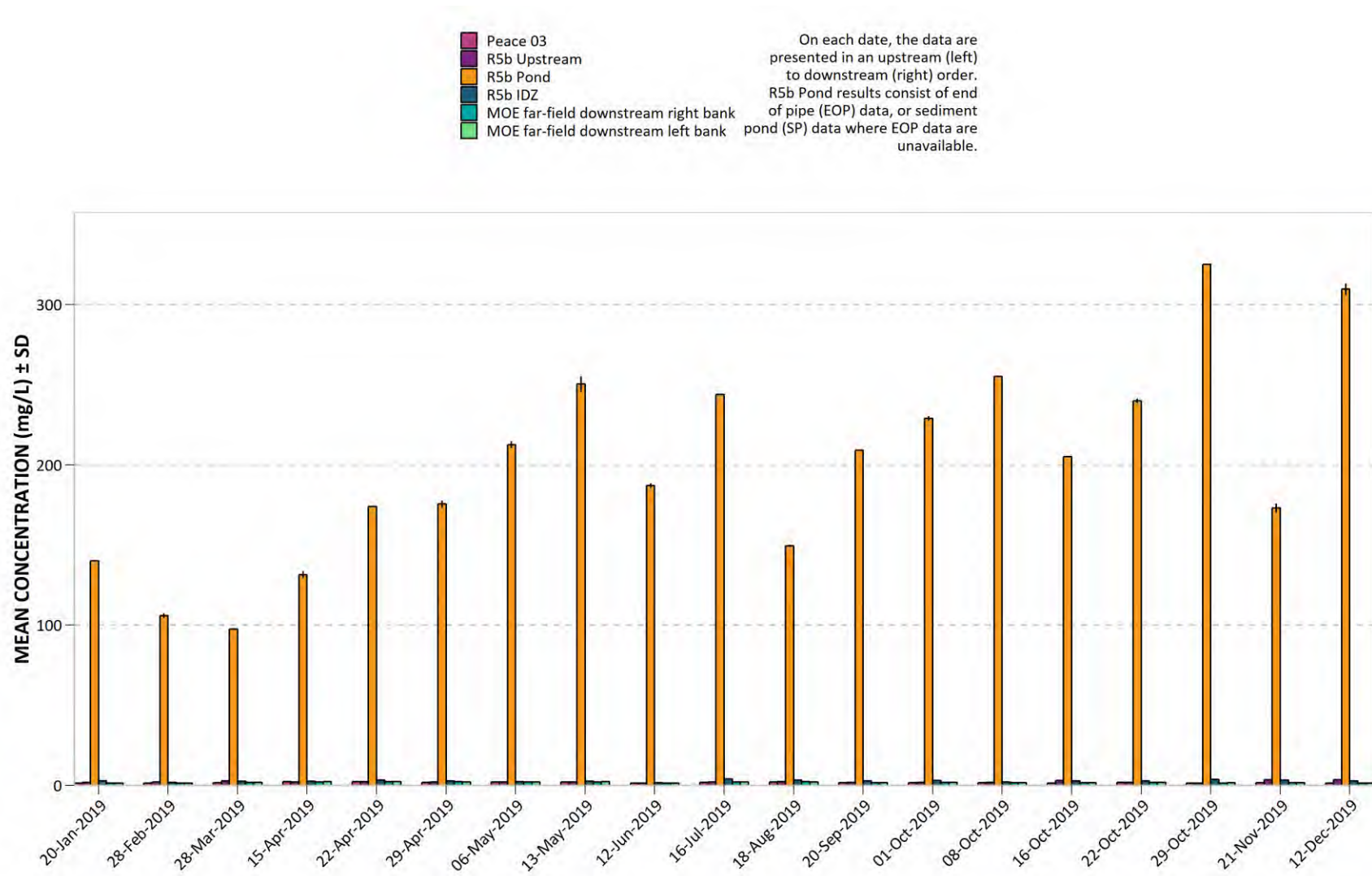


Figure 80. 2019 Peace River and RSEM R5b pond dissolved strontium (Sr).

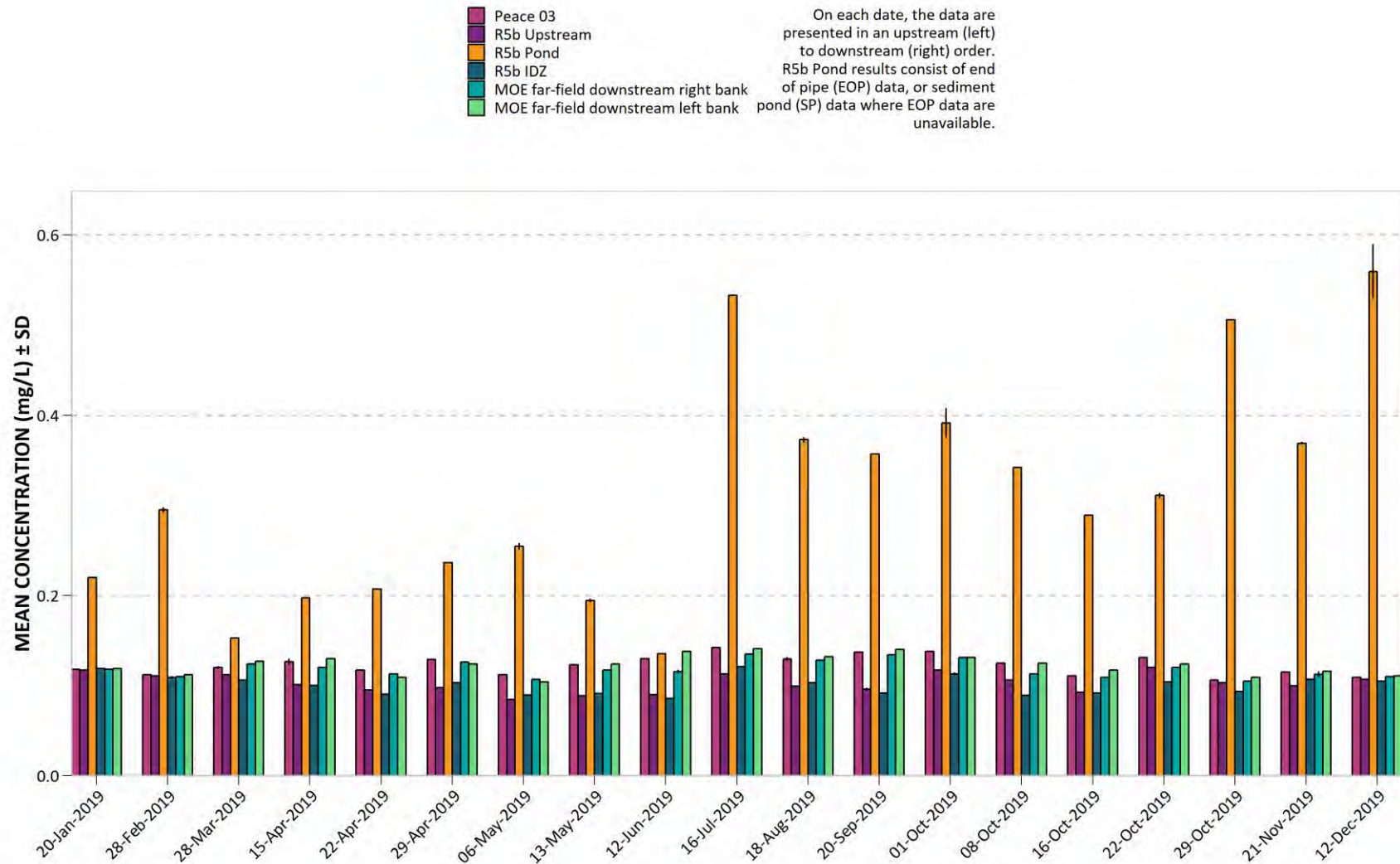


Figure 81. 2019 Peace River and RSEM R5b pond dissolved sulfur (S).

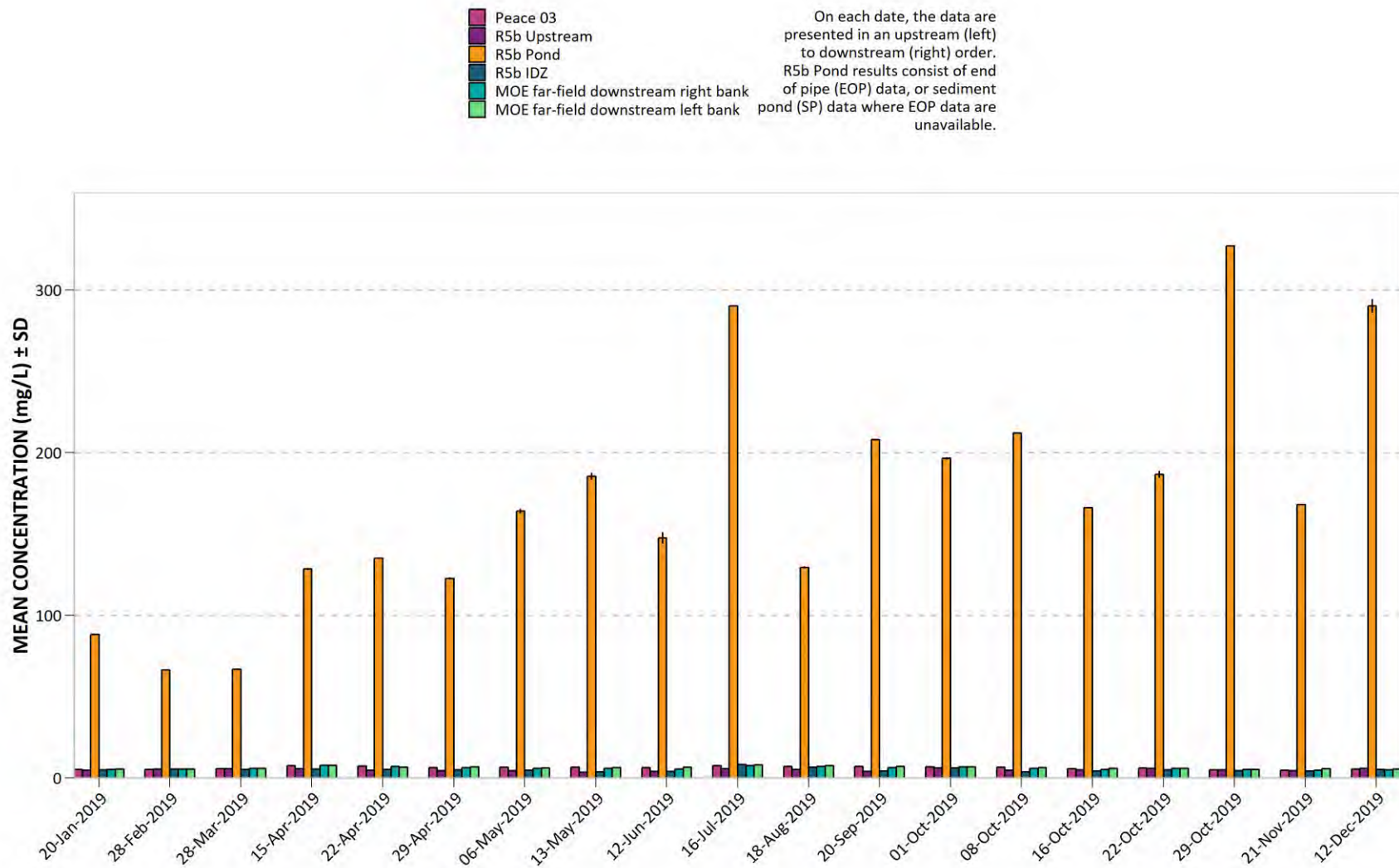
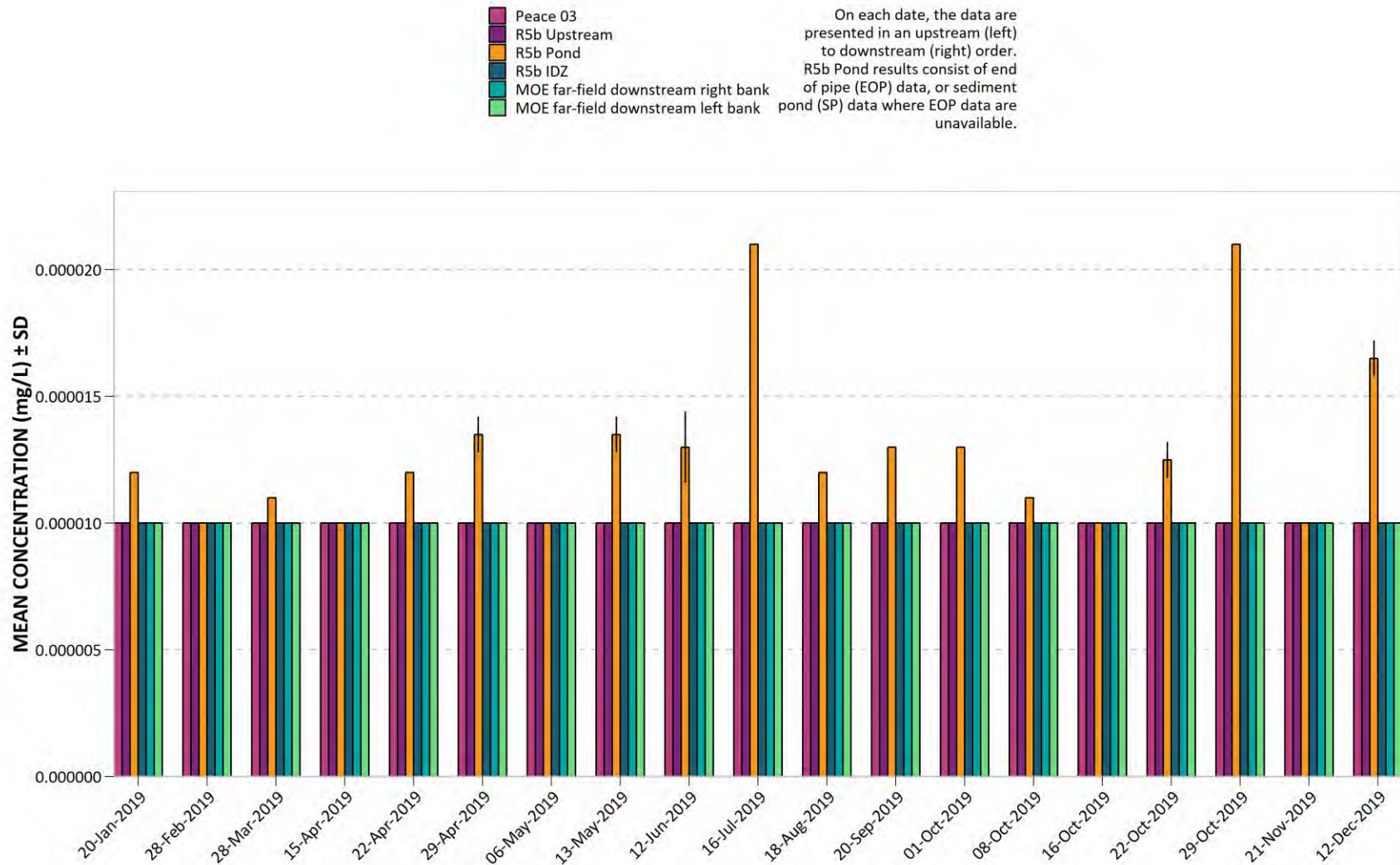
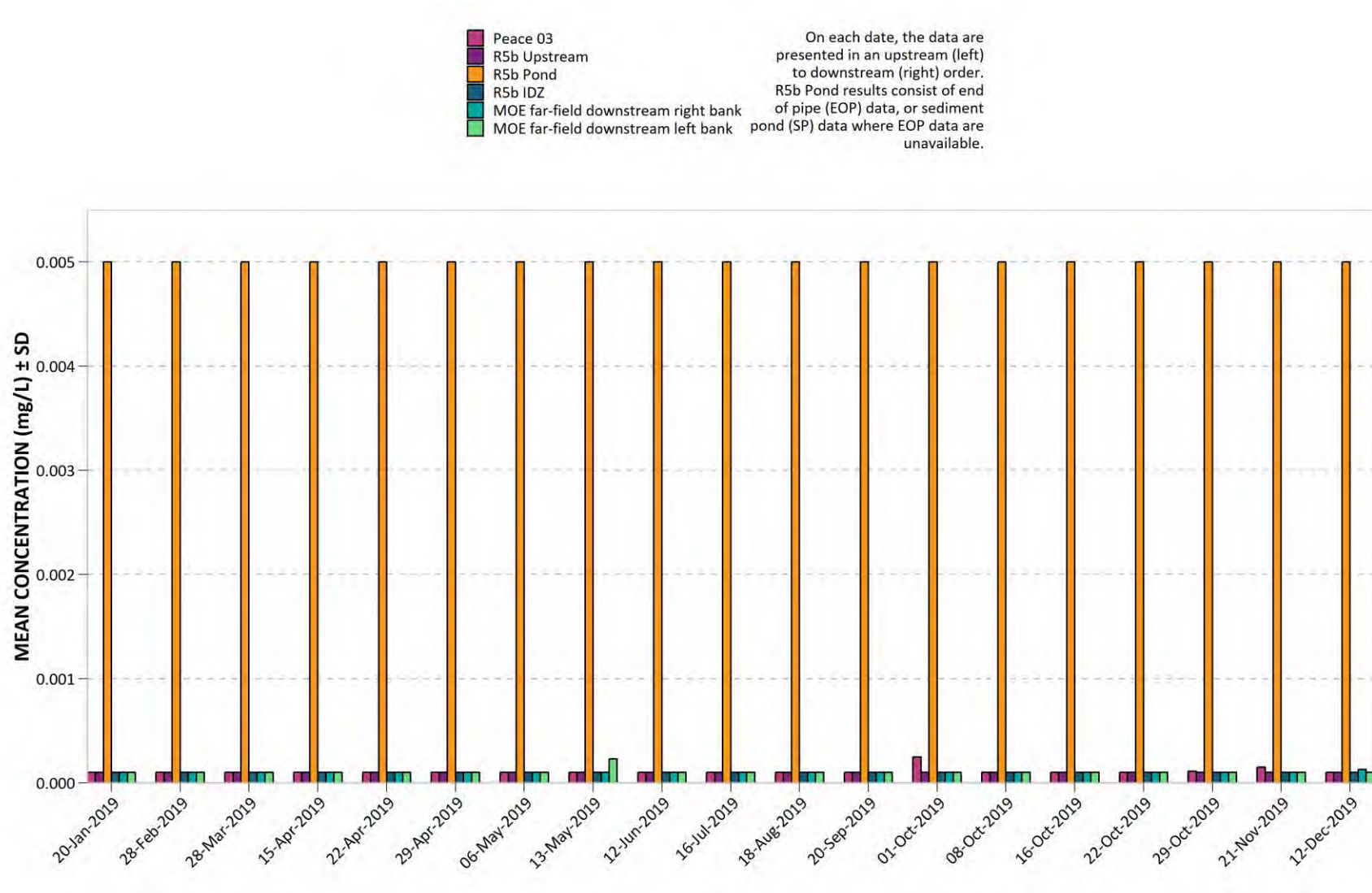


Figure 82. 2019 Peace River and RSEM R5b pond dissolved thallium (Tl).



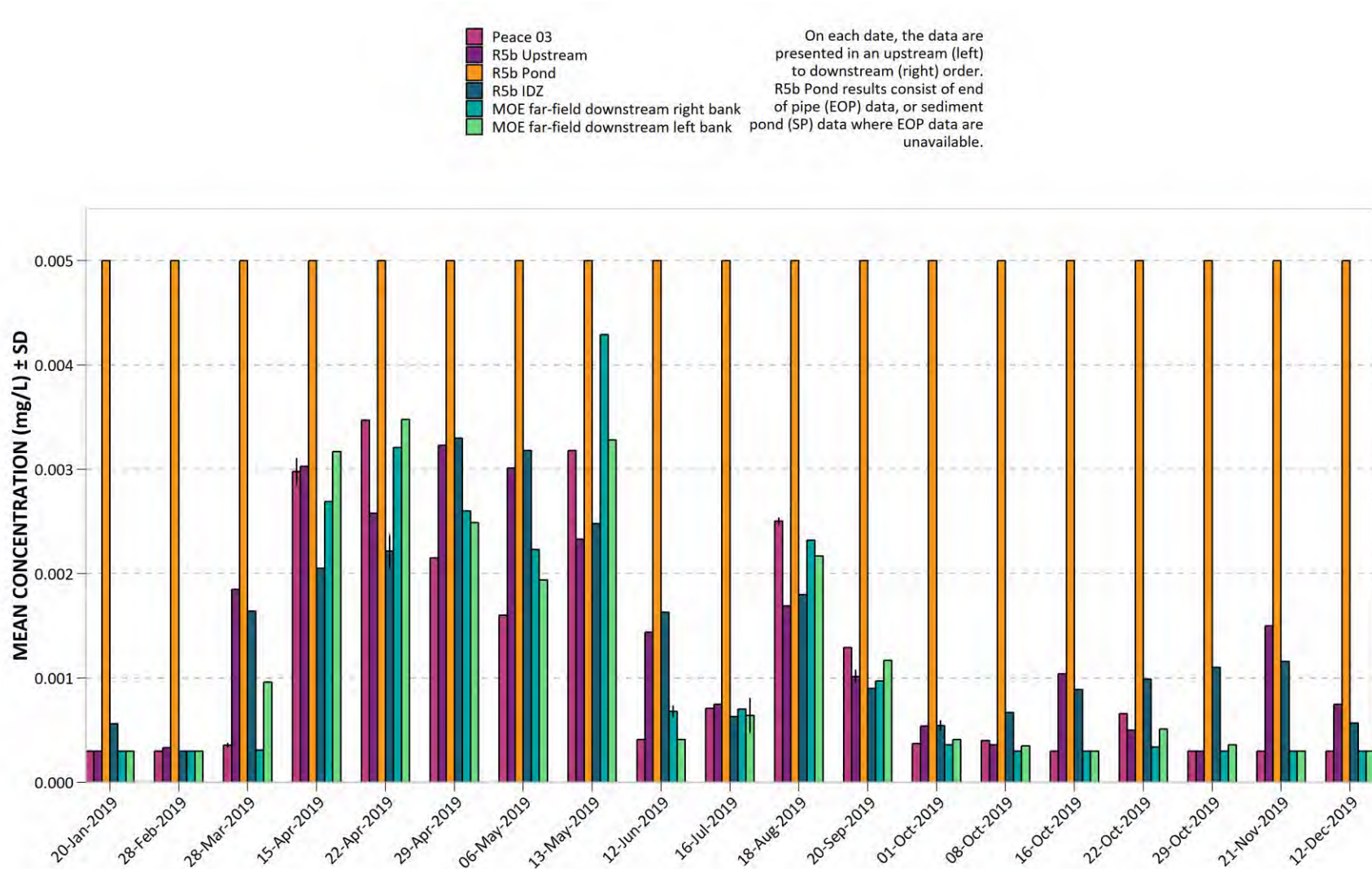
Results less than the MDL were assigned the MDL value of 0.00001 mg/L (Peace River and Pond).

Figure 83. 2019 Peace River and RSEM R5b pond dissolved tin (Sn).



Results less than the MDL were assigned the MDL value of 0.005 mg/L (Pond) or 0.0001 mg/L (Peace River).

Figure 84. 2019 Peace River and RSEM R5b pond dissolved titanium (Ti).



Results less than the MDL were assigned the MDL value of 0.005 mg/L (Pond) or 0.0003 mg/L (Peace River).

Figure 85. 2019 Peace River and RSEM R5b pond dissolved uranium (U).

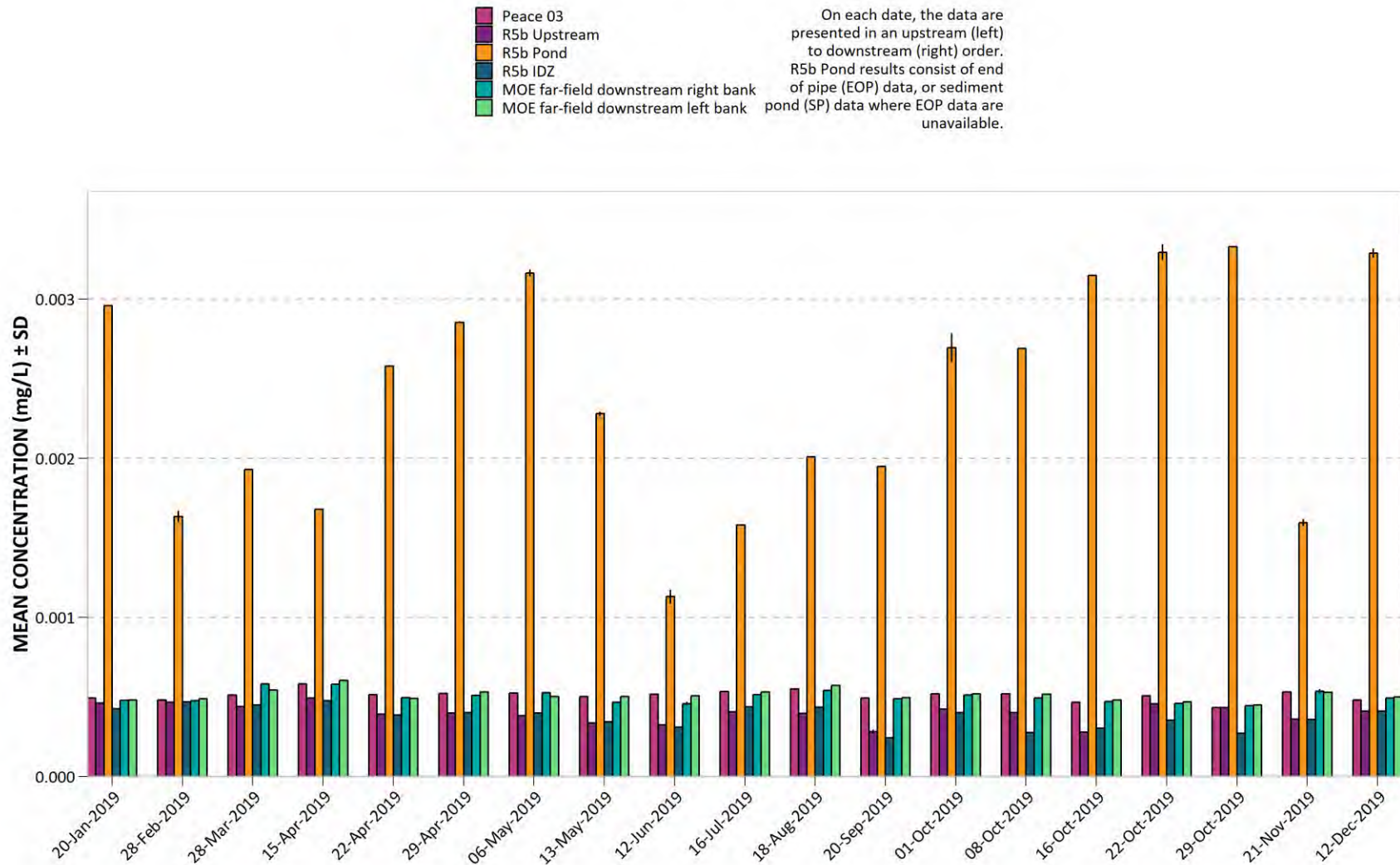
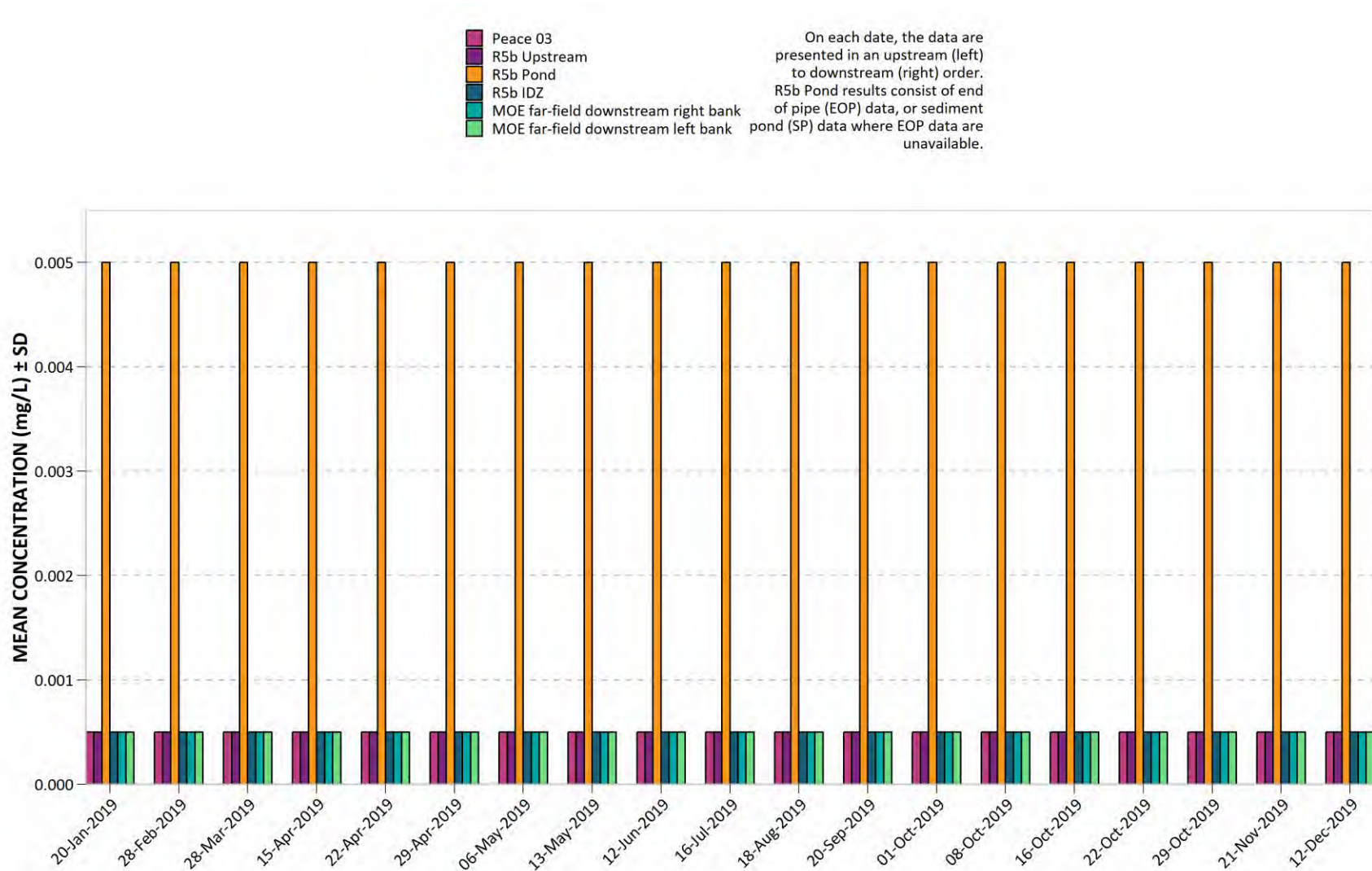


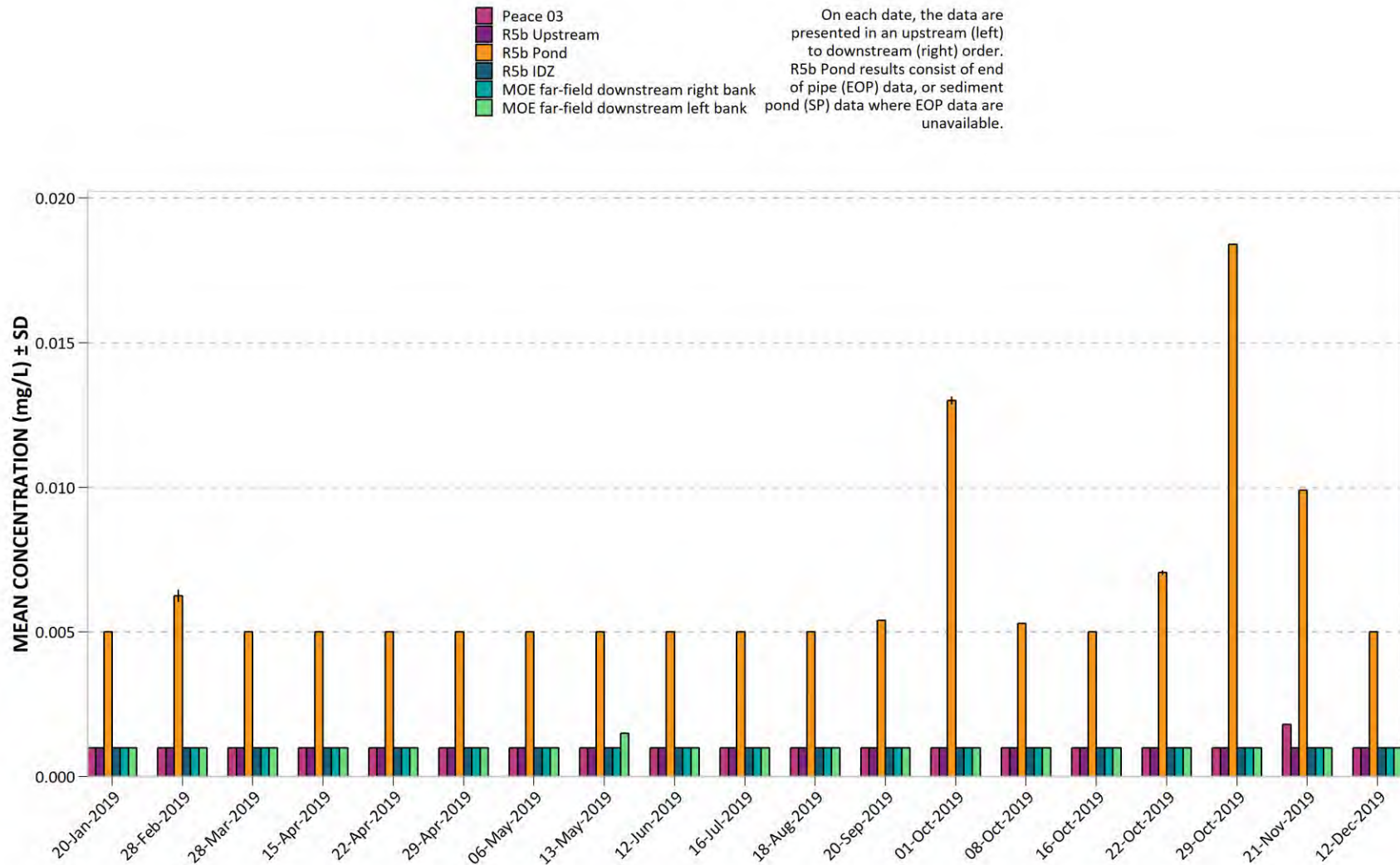
Figure 86. 2019 Peace River and RSEM R5b pond dissolved vanadium (V).



Results less than the MDL were assigned the MDL value of 0.005 mg/L (Pond) or 0.0005 mg/L (Peace River).

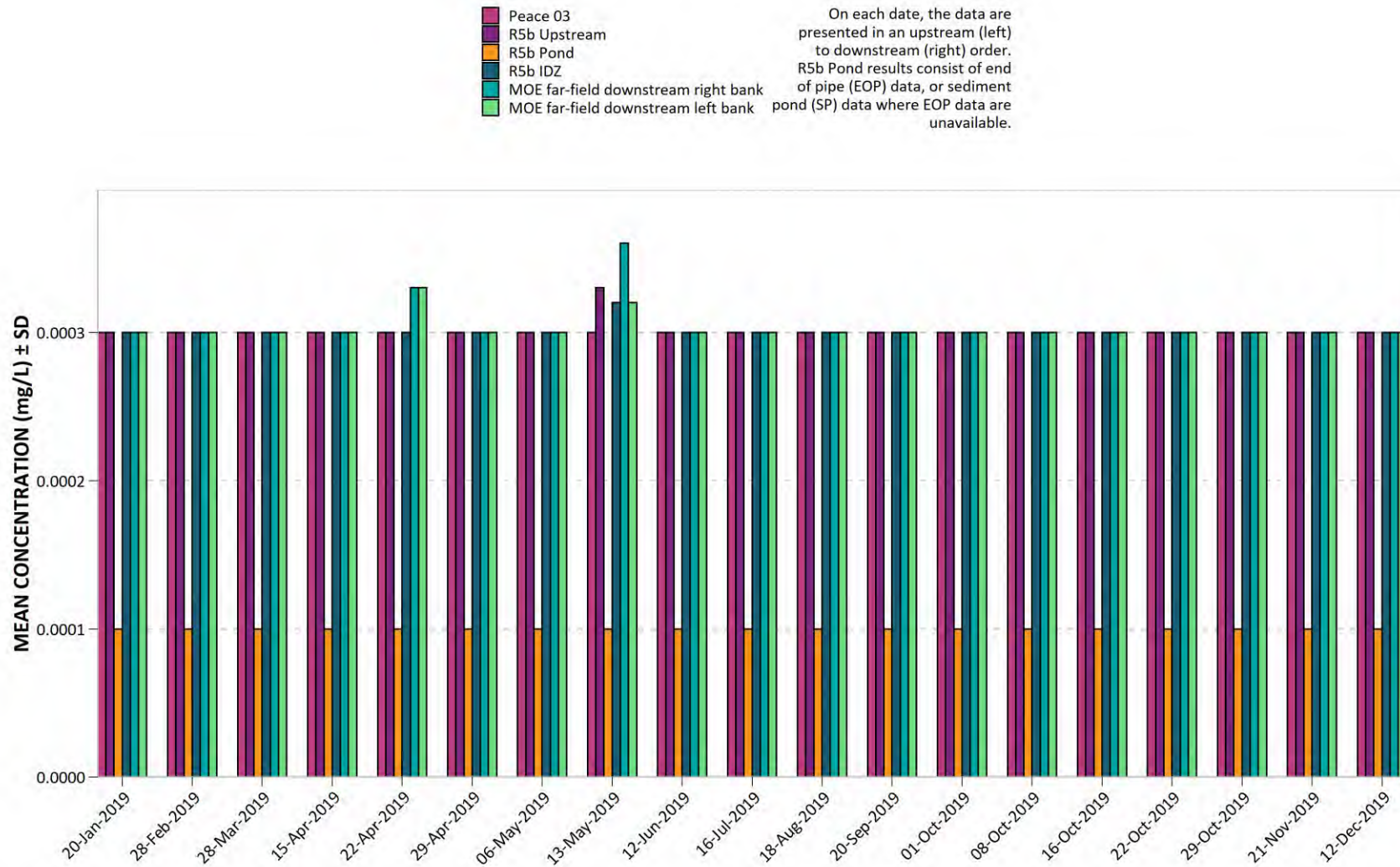


Figure 87. 2019 Peace River and RSEM R5b pond dissolved zinc (Zn).



Results less than the MDL were assigned the MDL value of 0.005 mg/L (Pond) or 0.001 mg/L (Peace River).

Figure 88. 2019 Peace River and RSEM R5b pond dissolved zirconium (Zr).



Results less than the MDL were assigned the MDL value of 0.0001 mg/L (Pond) or 0.0003 mg/L (Peace River).

**Appendix C. Site C PAG Contact RSEM Surface Water Quality Monitoring Time Series Plots  
– R6 Monthly and 5 in 30-day Data.**

Figure 89. 2019 Peace River (*in-situ*) and RSEM R6 pond (lab) specific conductivity.

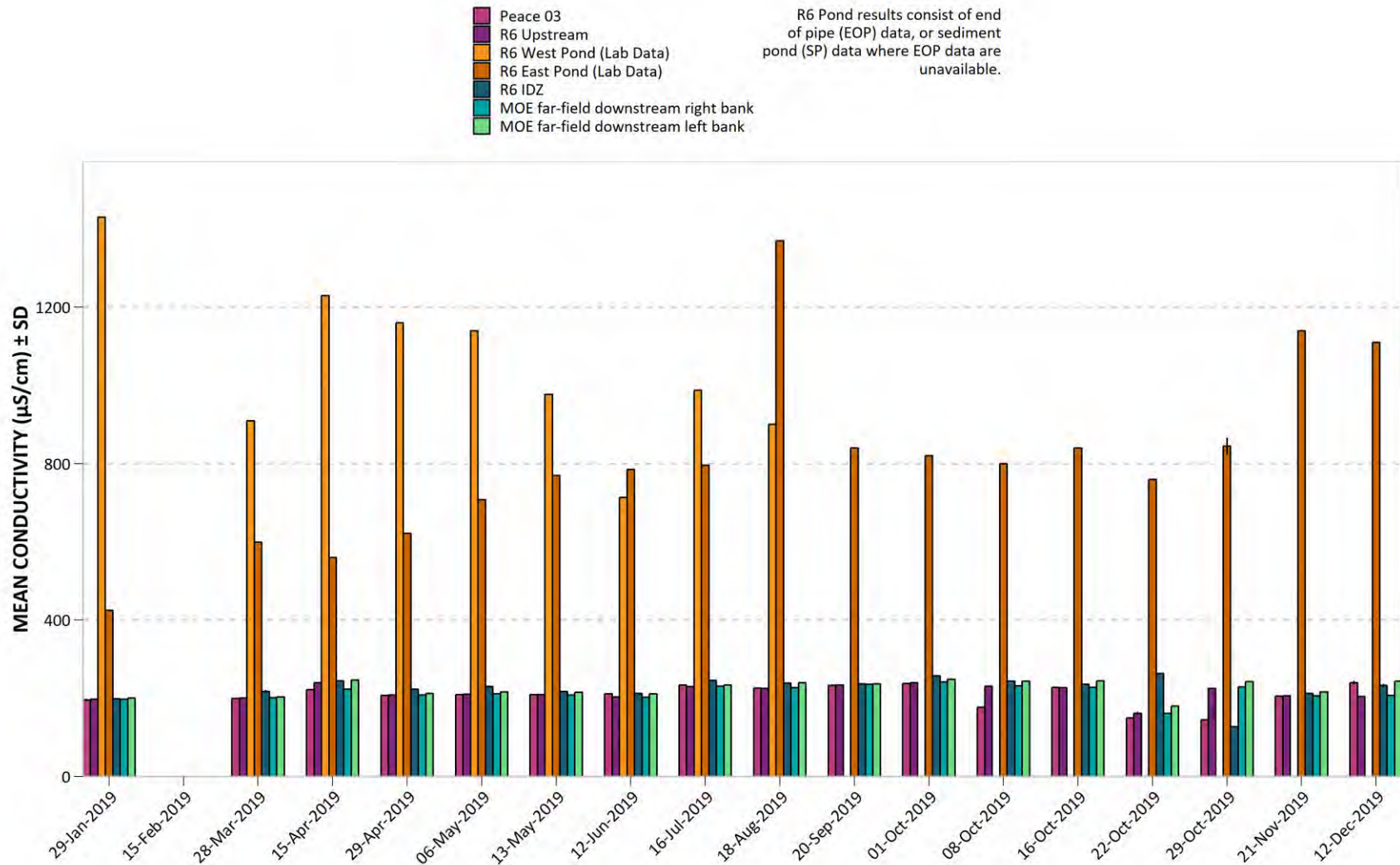


Figure 90. 2019 Peace River and RSEM R6 pond lab specific conductivity.

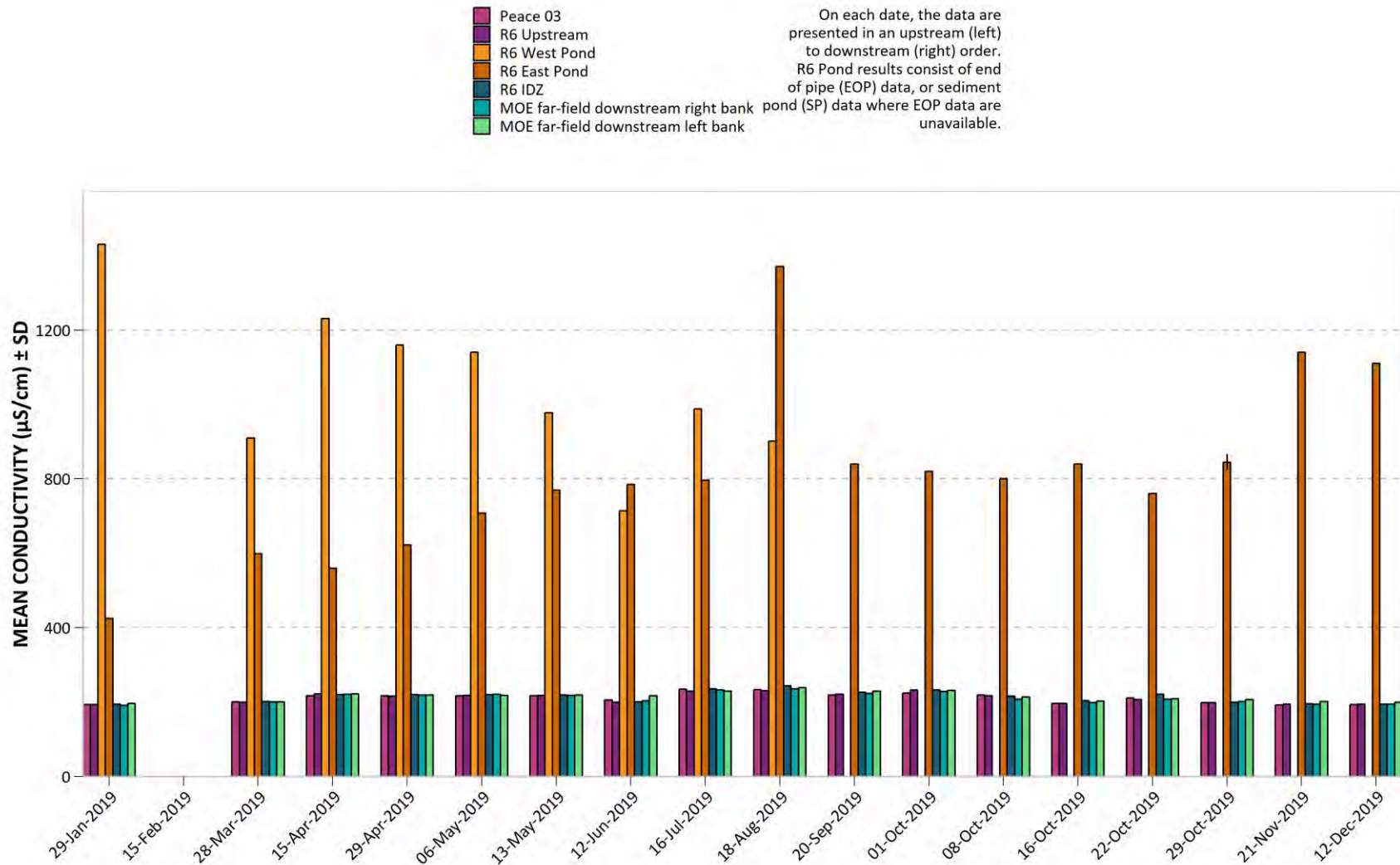


Figure 91. 2019 Peace River and RSEM R6 pond hardness (as CaCO<sub>3</sub>).

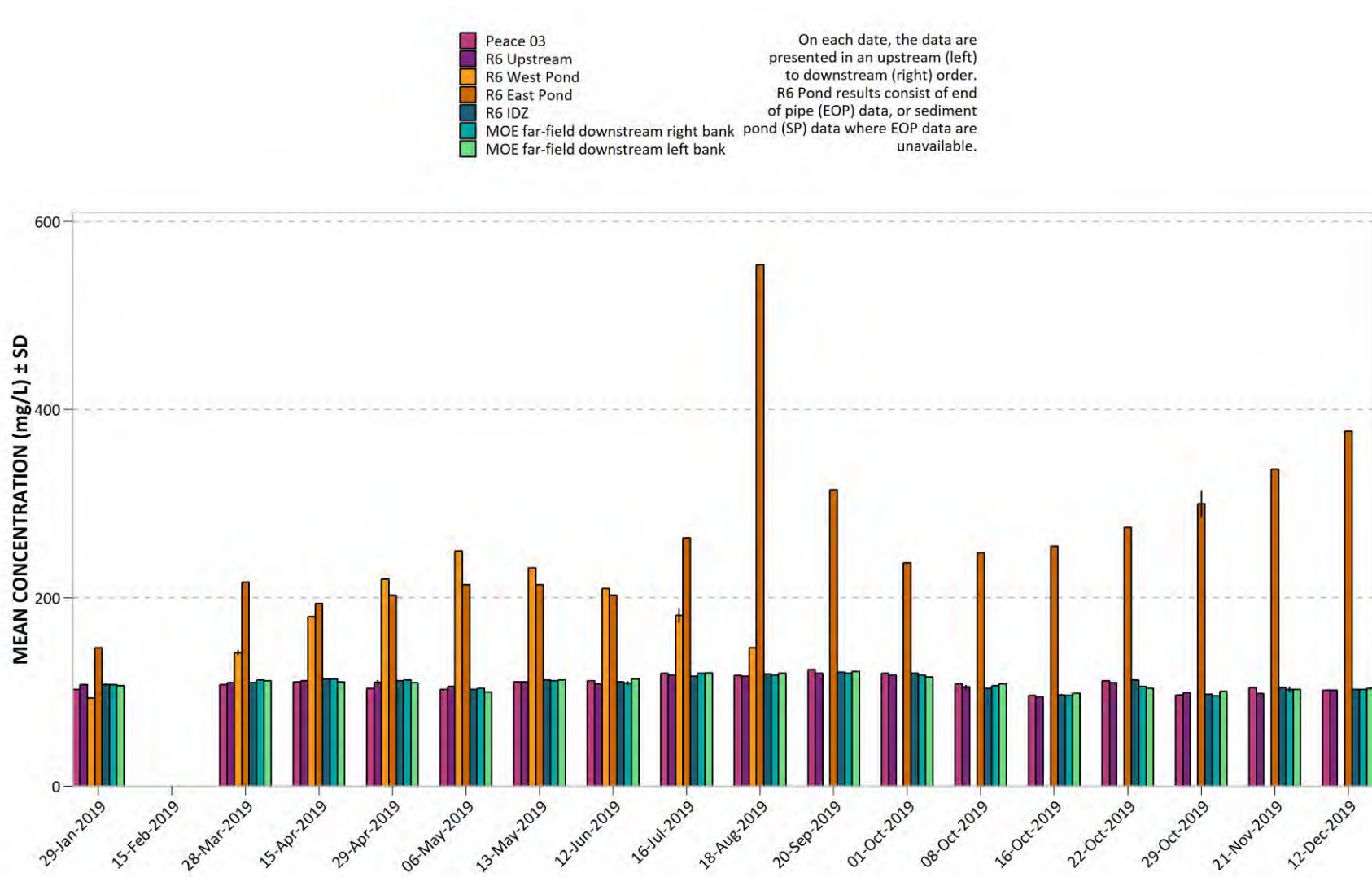


Figure 92. 2019 Peace River and RSEM R6 pond total dissolved solids (TDS).

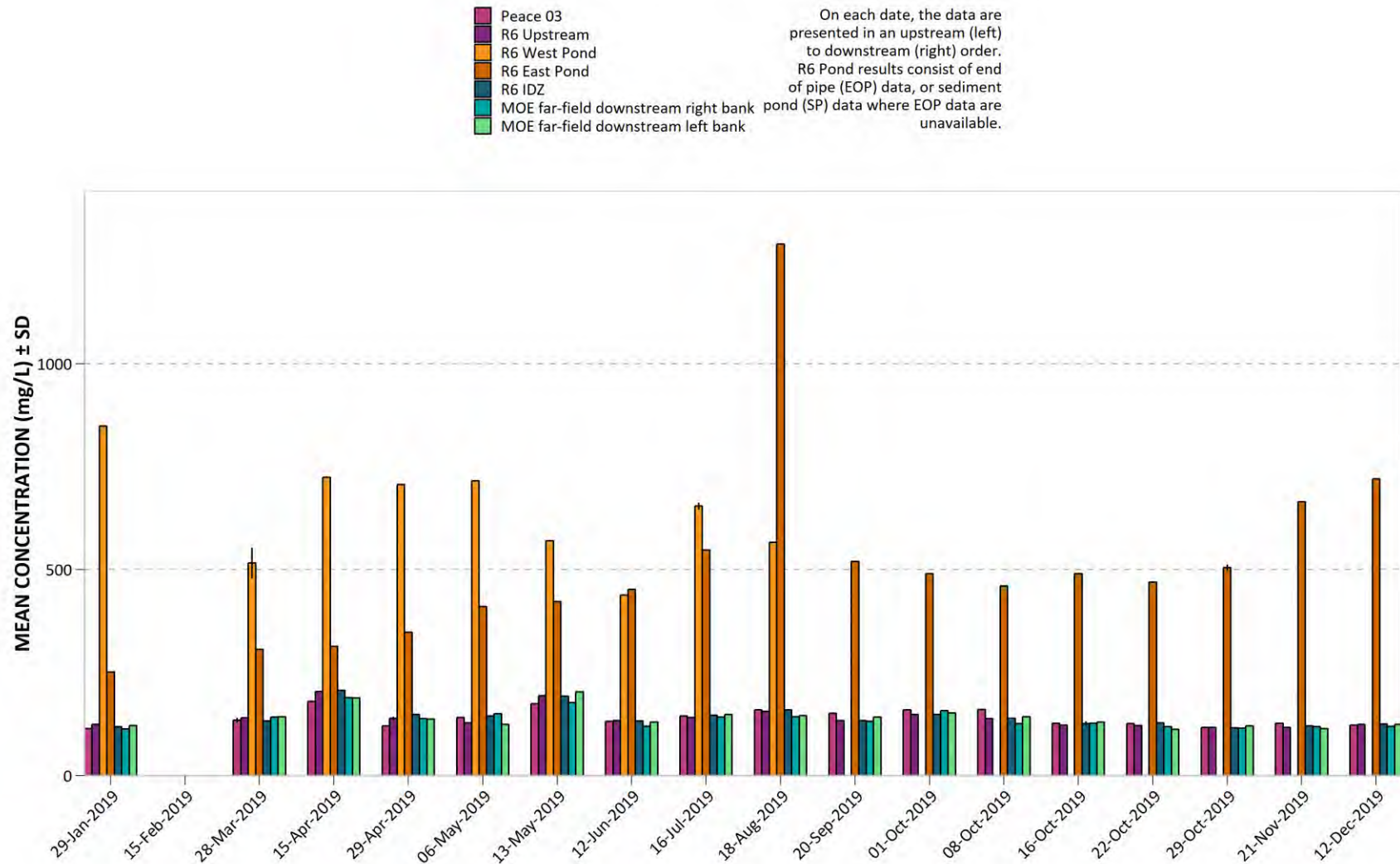


Figure 93. 2019 Peace River and RSEM R6 pond total suspended solids (TSS).

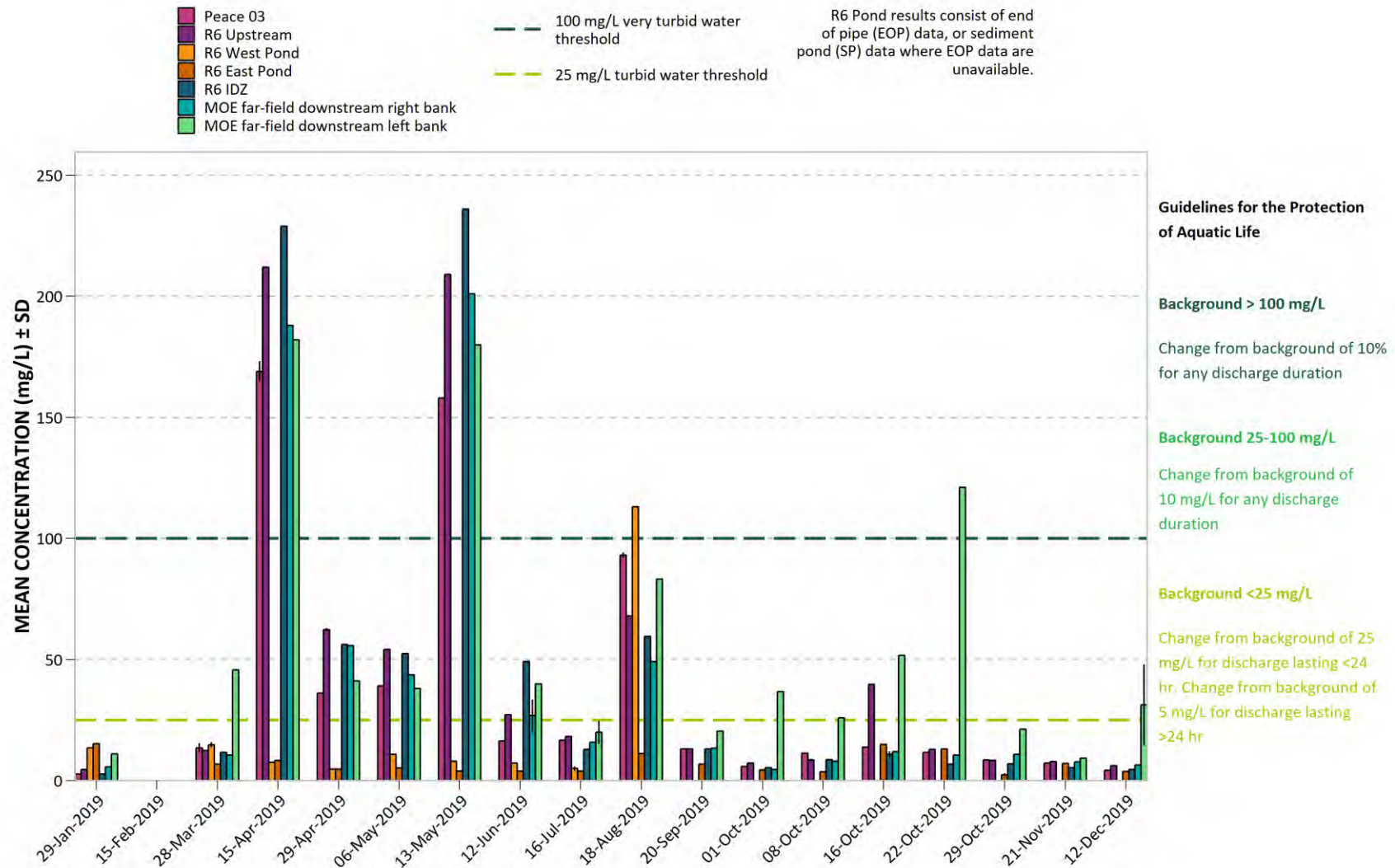




Figure 94. 2019 Peace River (*in-situ*) and RSEM R6 pond (lab) turbidity.

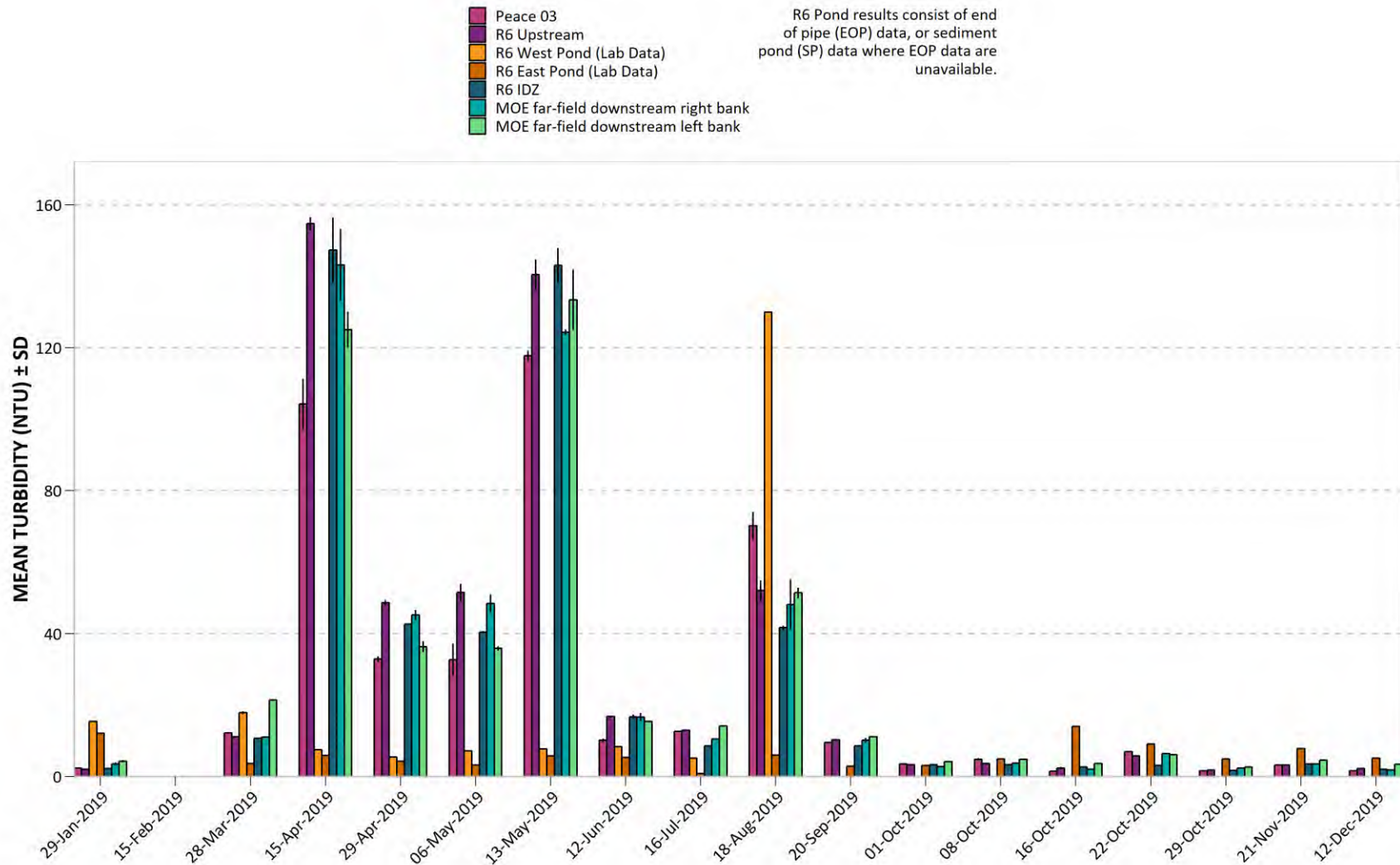


Figure 95. 2019 Peace River (*in-situ*) and RSEM R6 pond (lab) pH.

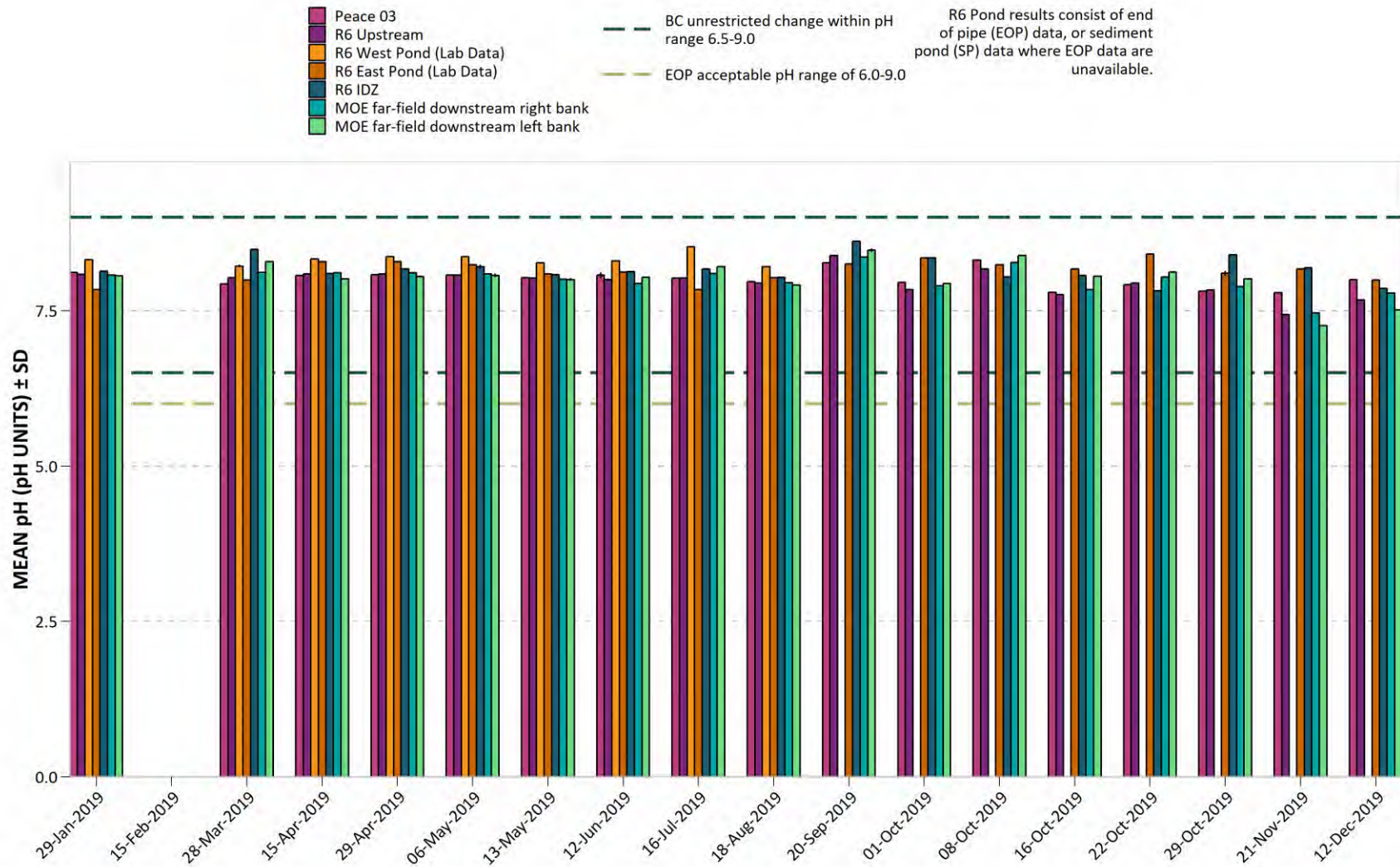


Figure 96. 2019 Peace River and RSEM R6 pond lab pH.

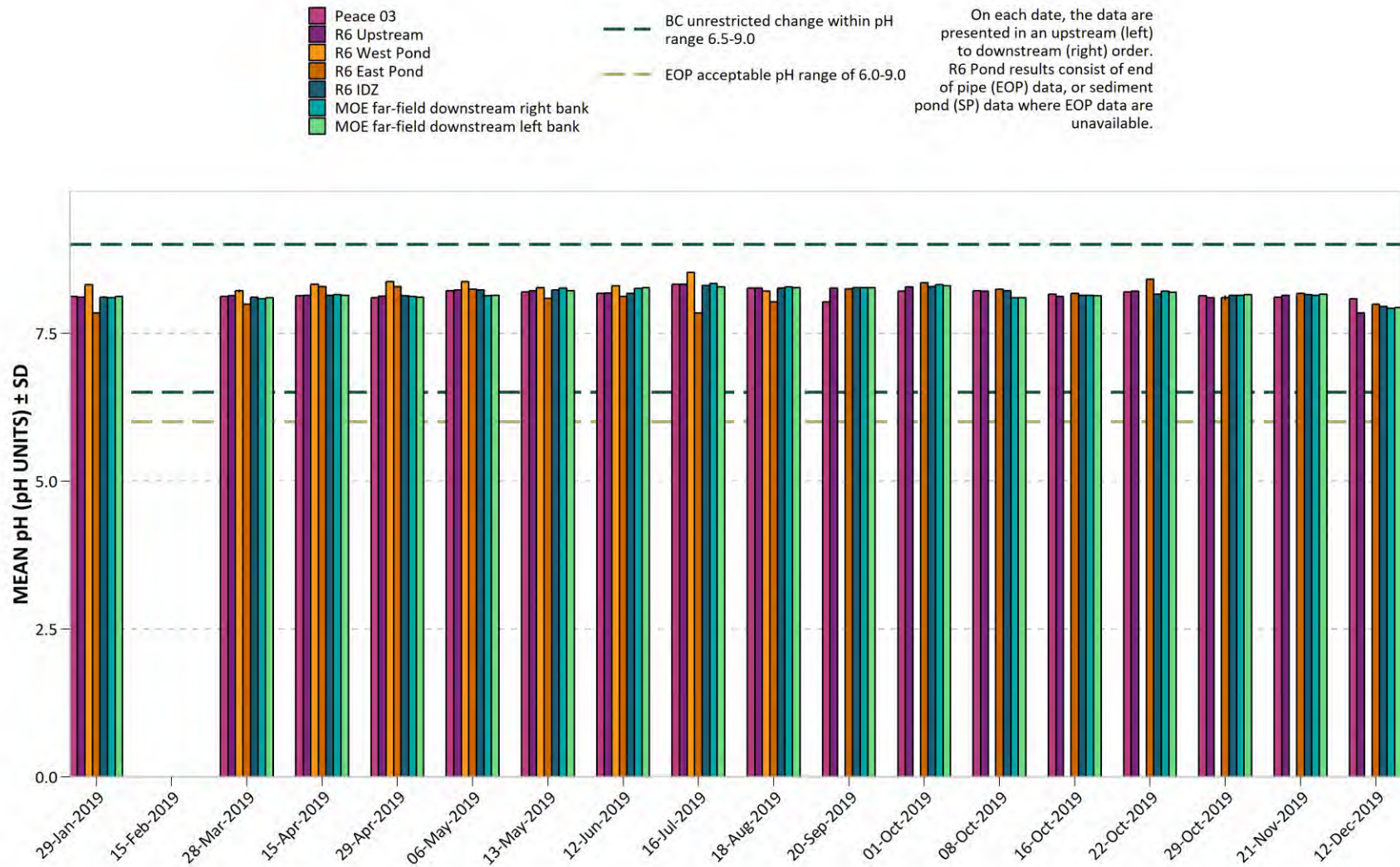


Figure 97. 2019 Peace River and RSEM R6 pond total alkalinity (as CaCO<sub>3</sub>).

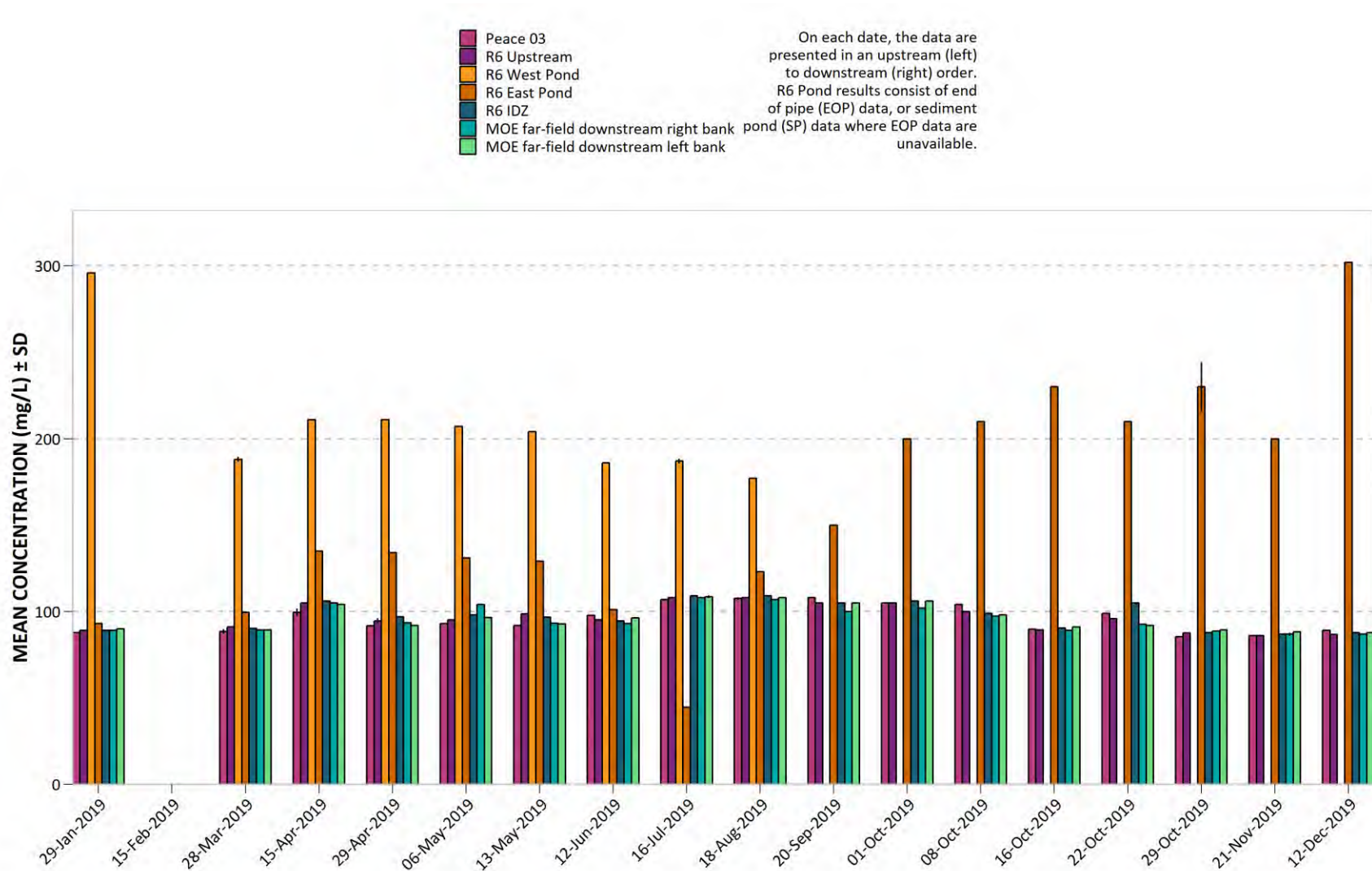


Figure 98. 2019 Peace River and RSEM R6 pond total ammonia (as N).

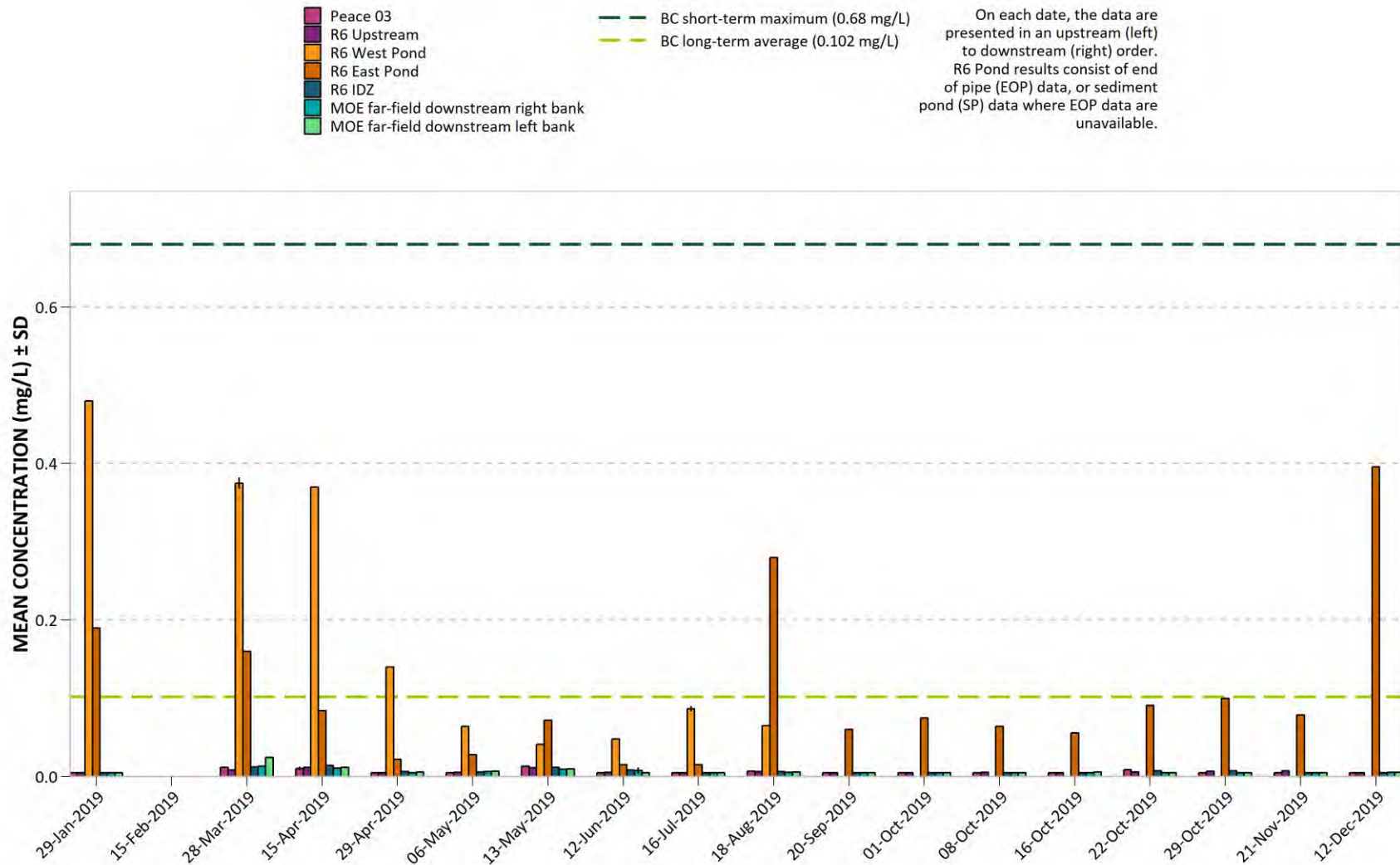
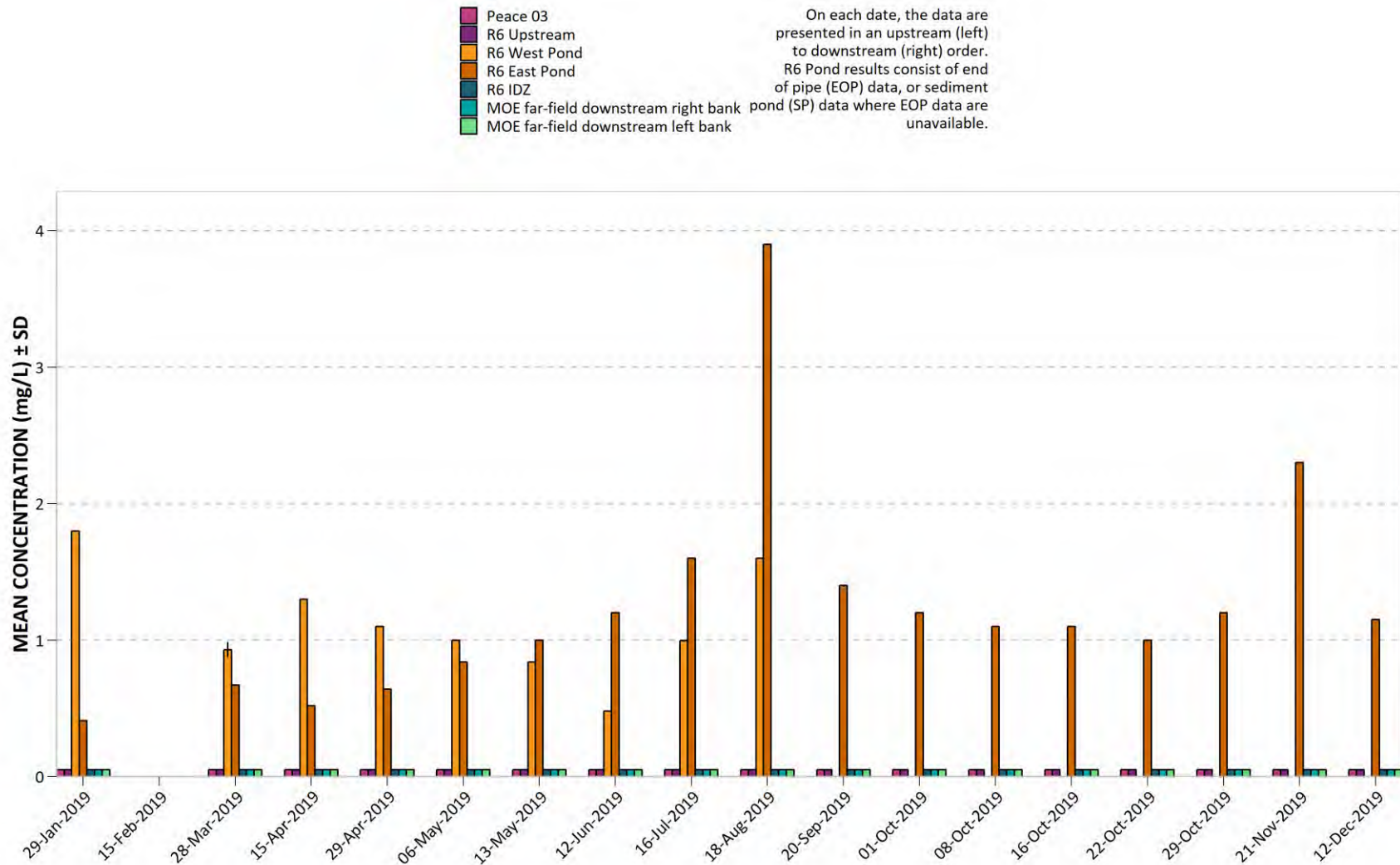
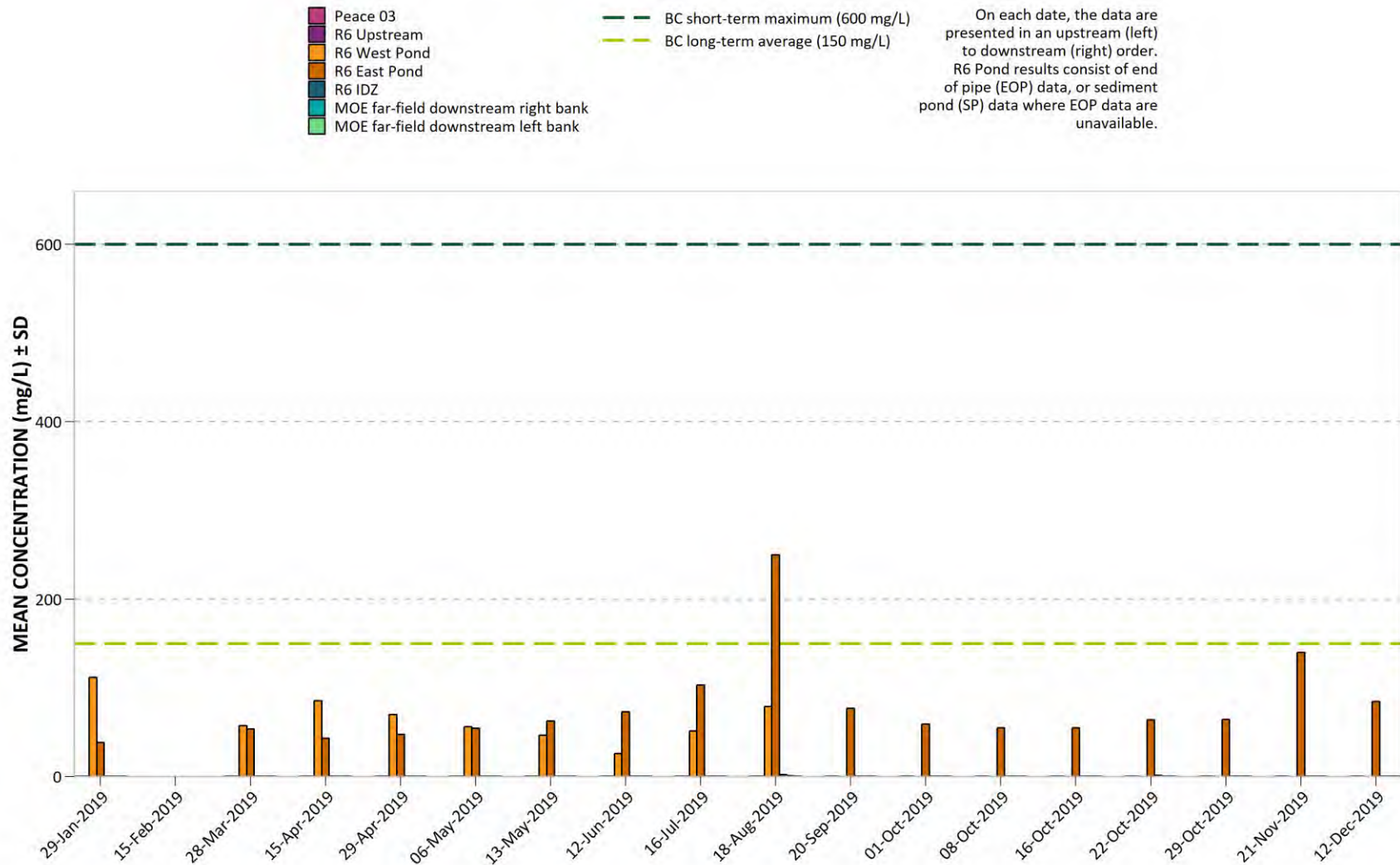


Figure 99. 2019 Peace River and RSEM R6 pond bromide (Br).



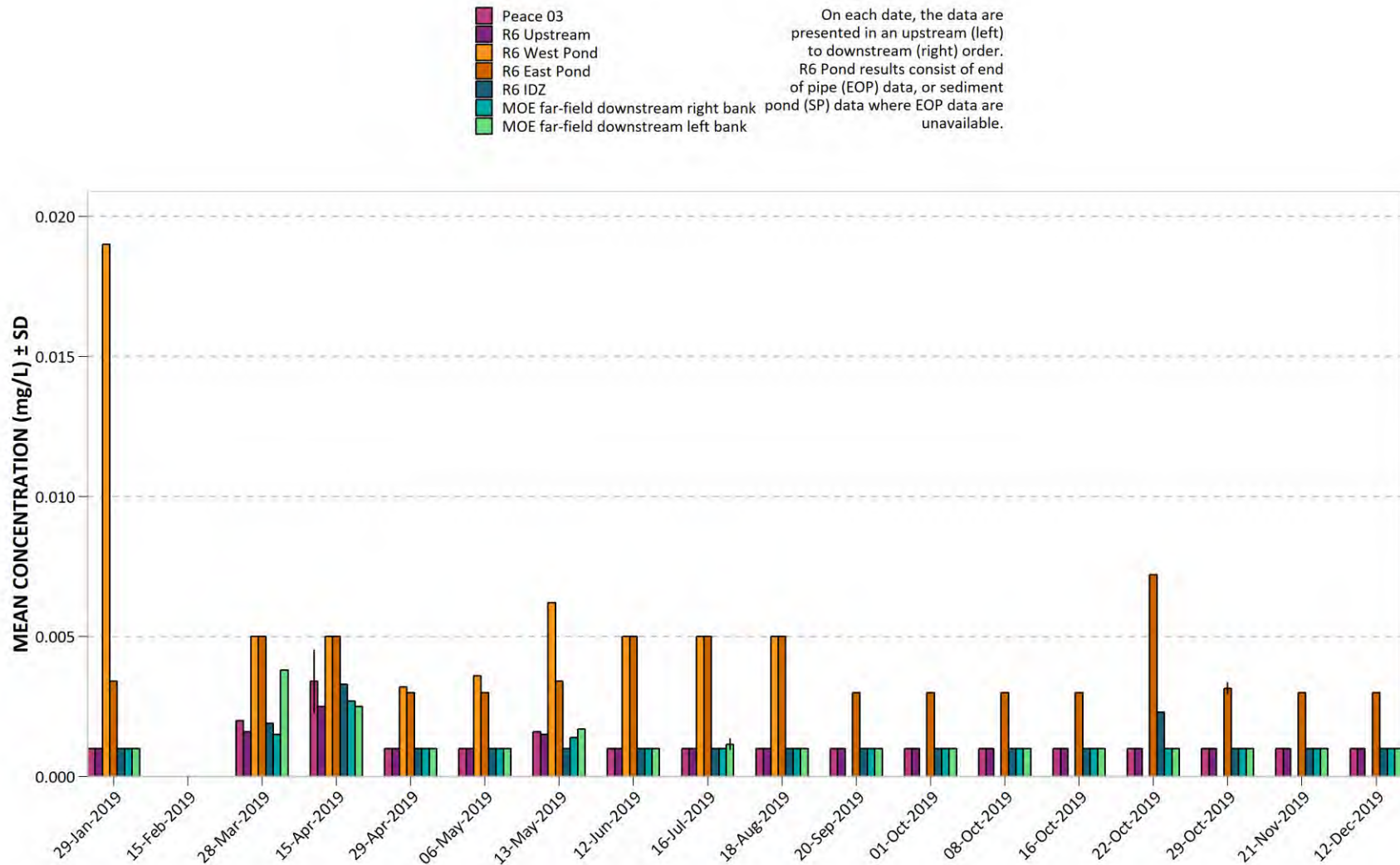
All Peace River results were less than the MDL and thus were assigned the MDL value of 0.05 mg/L.

Figure 100. 2019 Peace River and RSEM R6 pond chloride (Cl).



All Peace River results were less than the MDL and thus were assigned the MDL value of 0.5 mg/L.

Figure 101. 2019 Peace River and RSEM R6 pond dissolved orthophosphate.



Peace River results less than the MDL were assigned the MDL value 0.001 mg/L. Pond data less than the MDL were assigned the corresponding MDL.



Figure 102. 2019 Peace River and RSEM R6 pond fluoride (F).

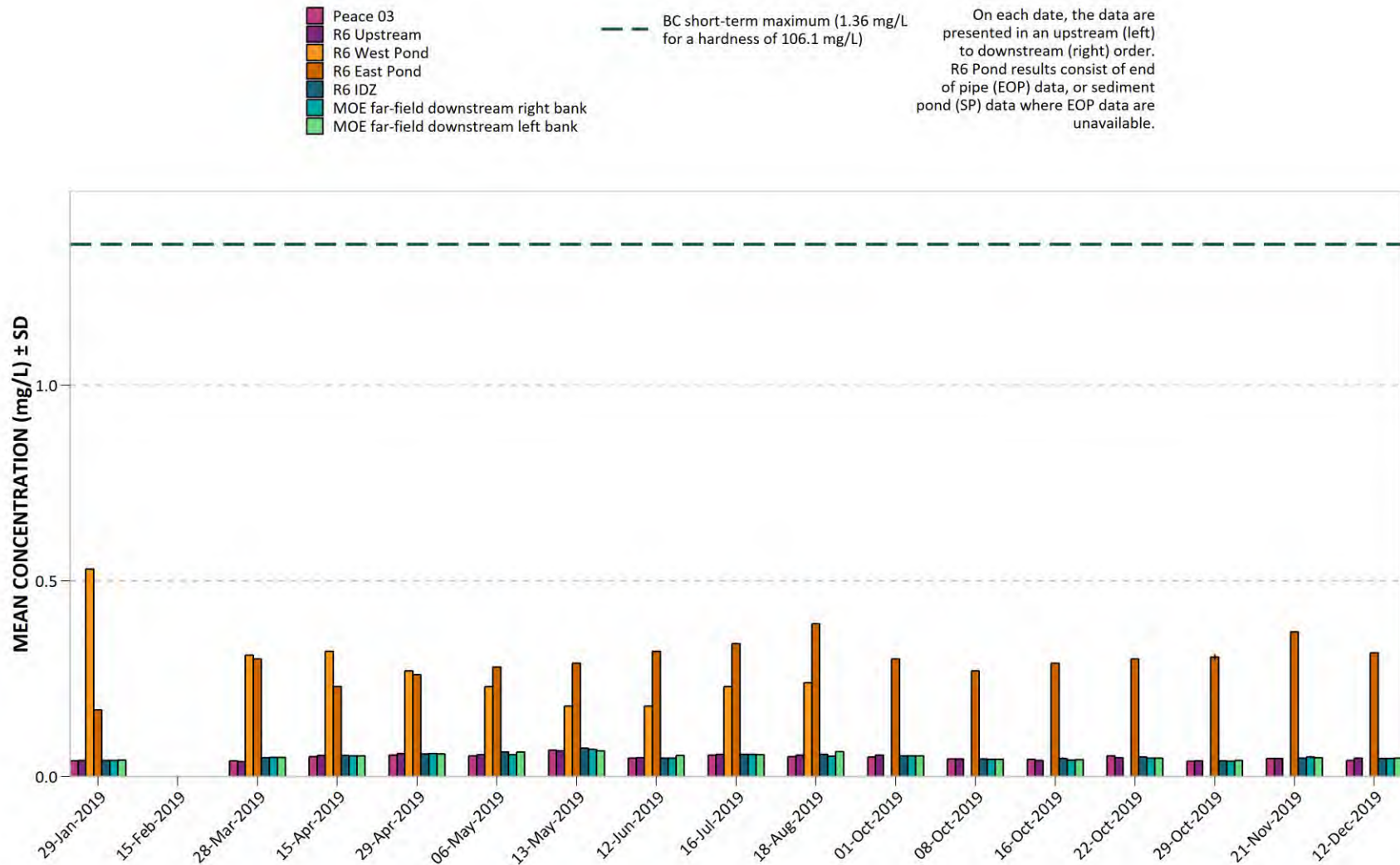


Figure 103. 2019 Peace River and RSEM R6 pond nitrate (as N).

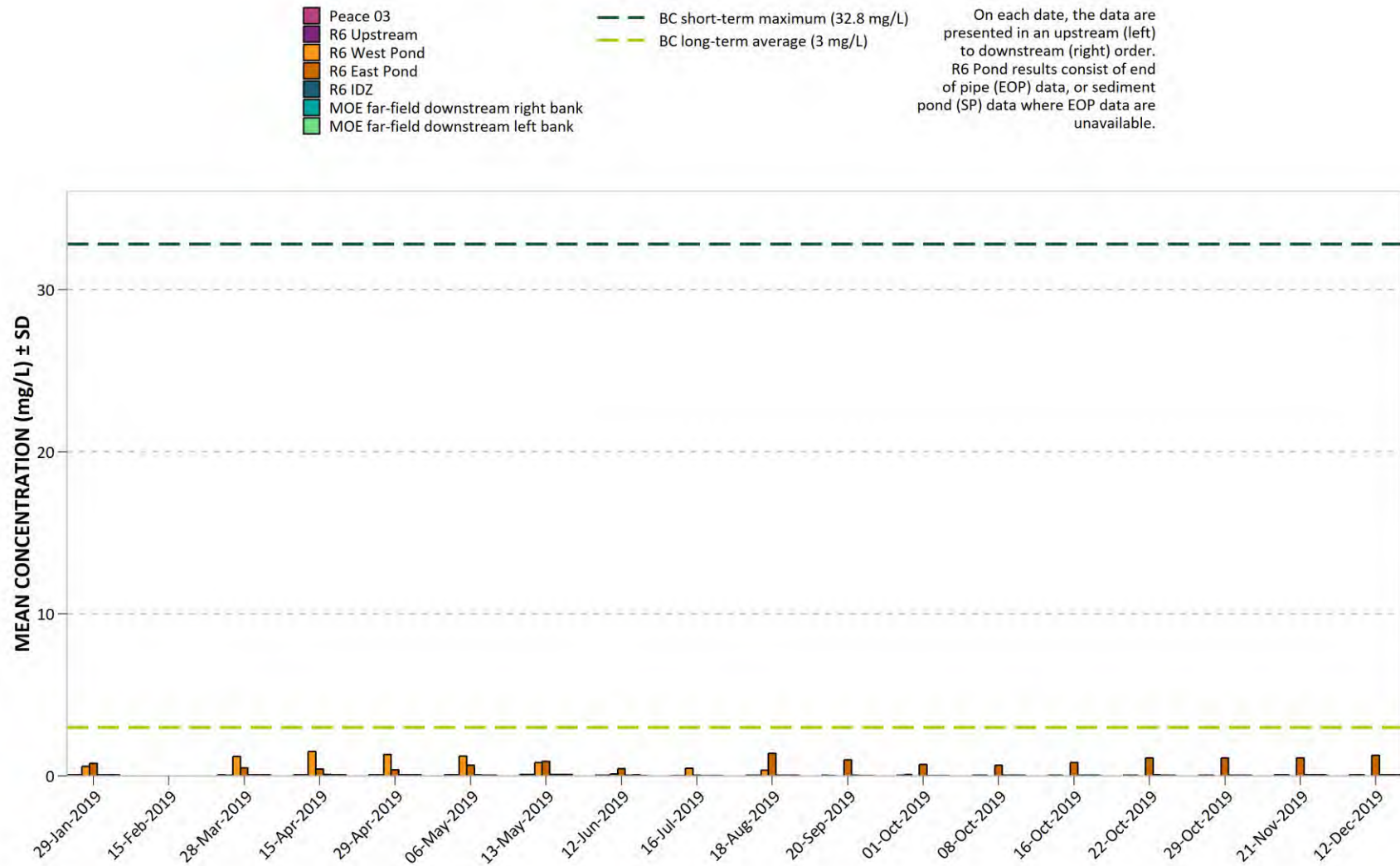
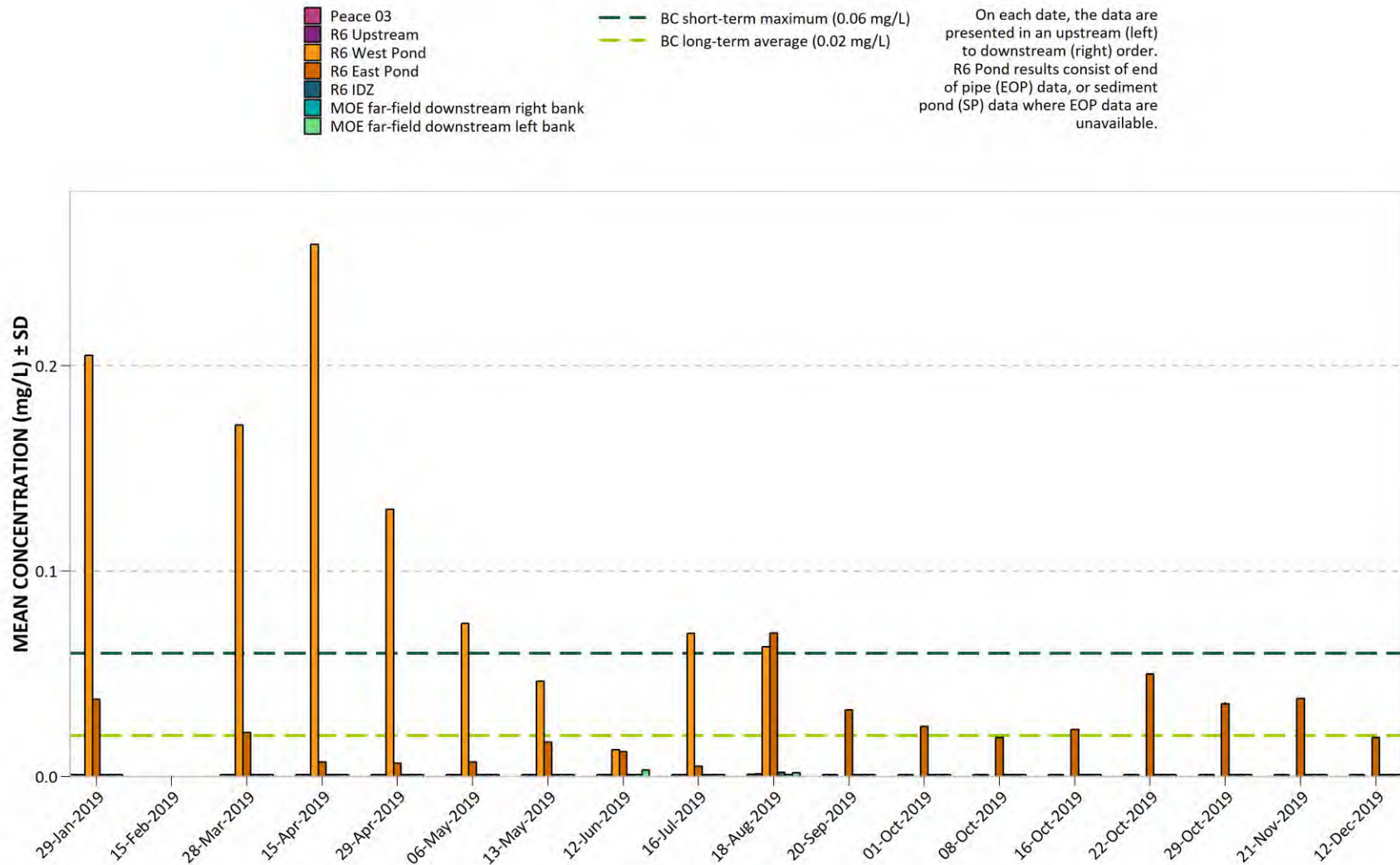


Figure 104. 2019 Peace River and RSEM R6 pond nitrite (as N).



Note: BC WQG for nitrite are chloride dependent, and therefore guidelines depicted in the plot are applicable for Peace River sites only. Based on the range of chloride values observed in the Peace River, the applicable BC Maximum and 30-day guidelines are 0.06 mg/L and 0.02 mg/L, respectively.

Figure 105. 2019 Peace River and RSEM R6 pond sulfate (SO<sub>4</sub>).

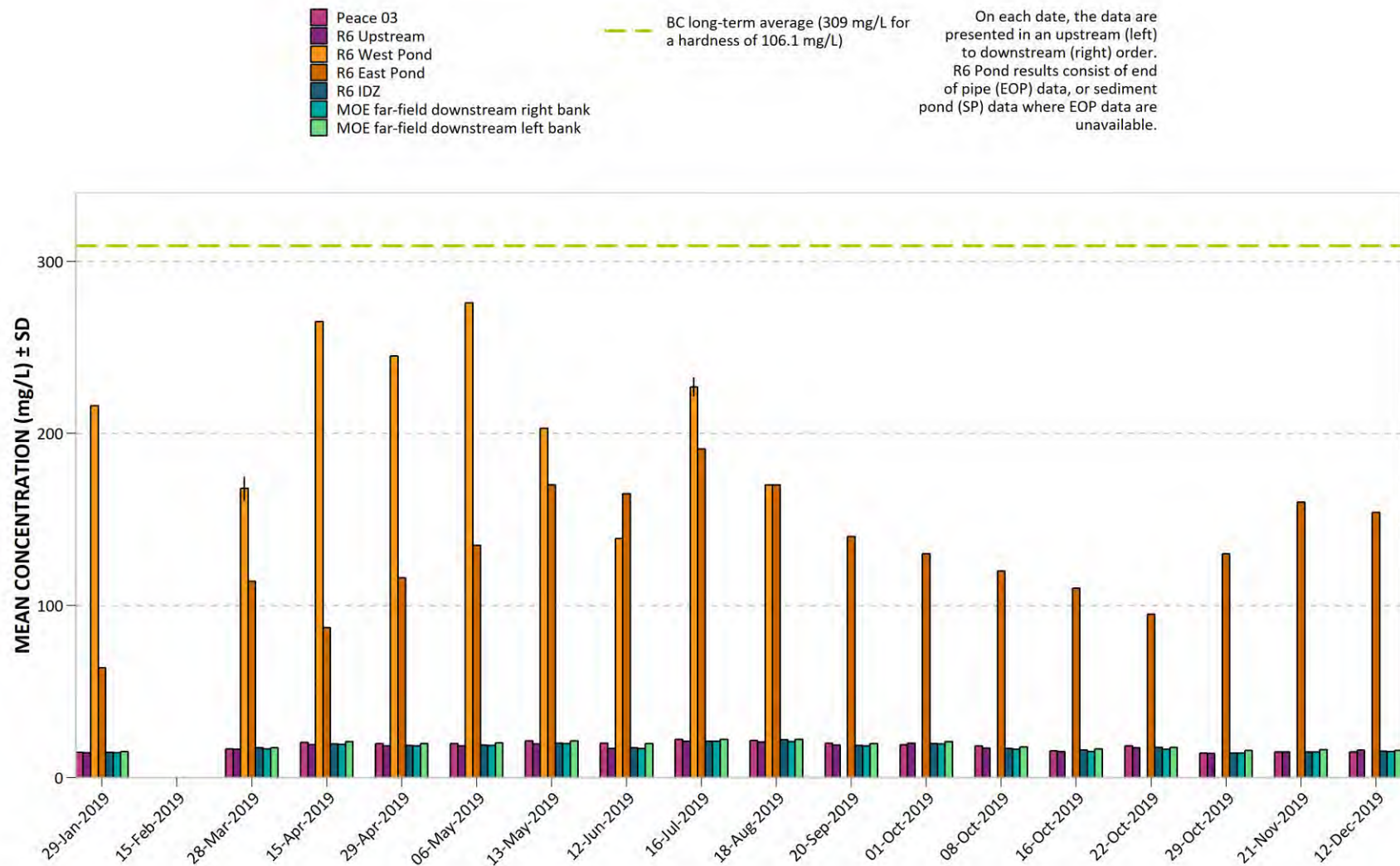


Figure 106. 2019 Peace River and RSEM R6 pond dissolved organic carbon (DOC).

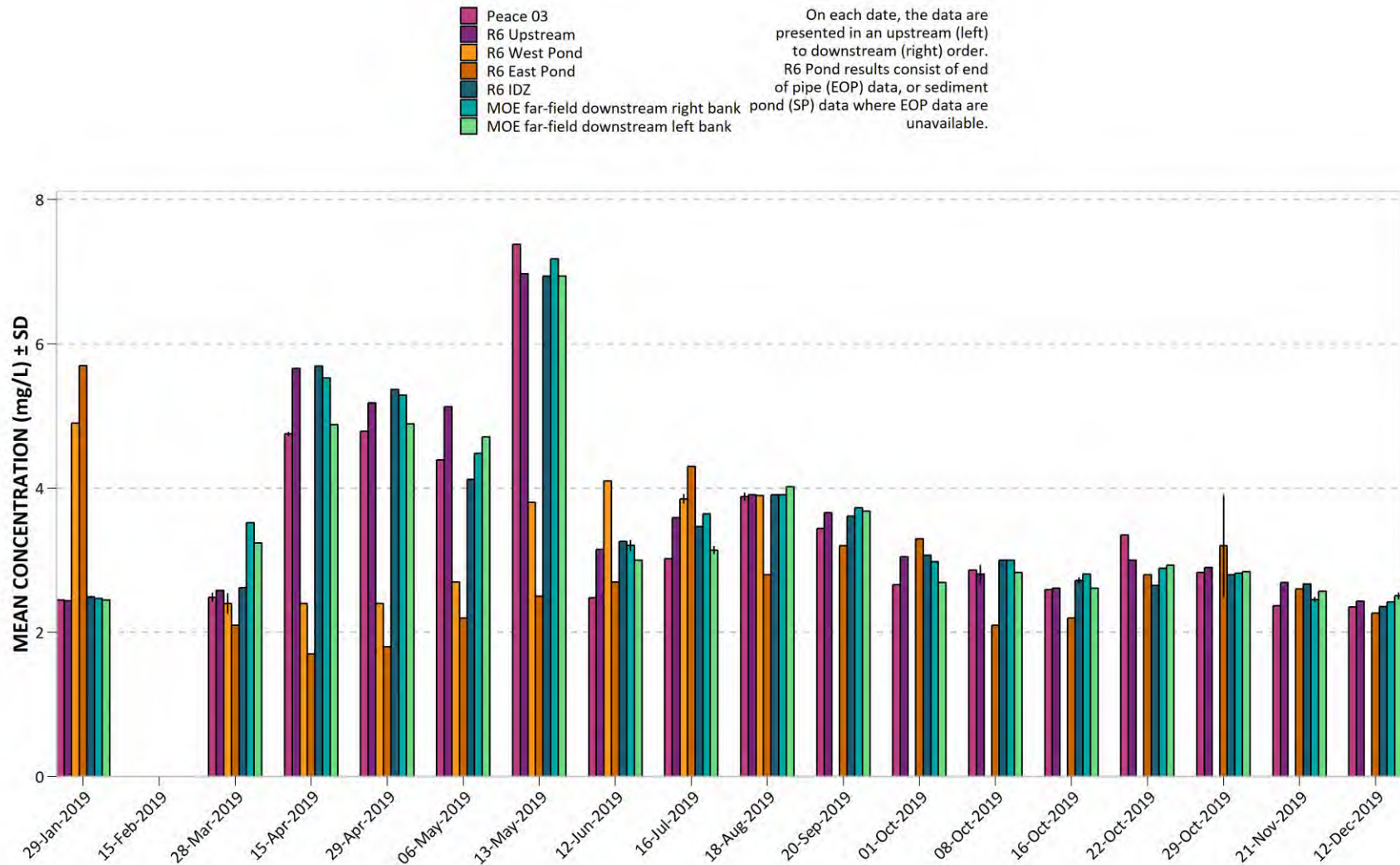


Figure 107. 2019 Peace River and RSEM R6 pond total organic carbon (TOC).

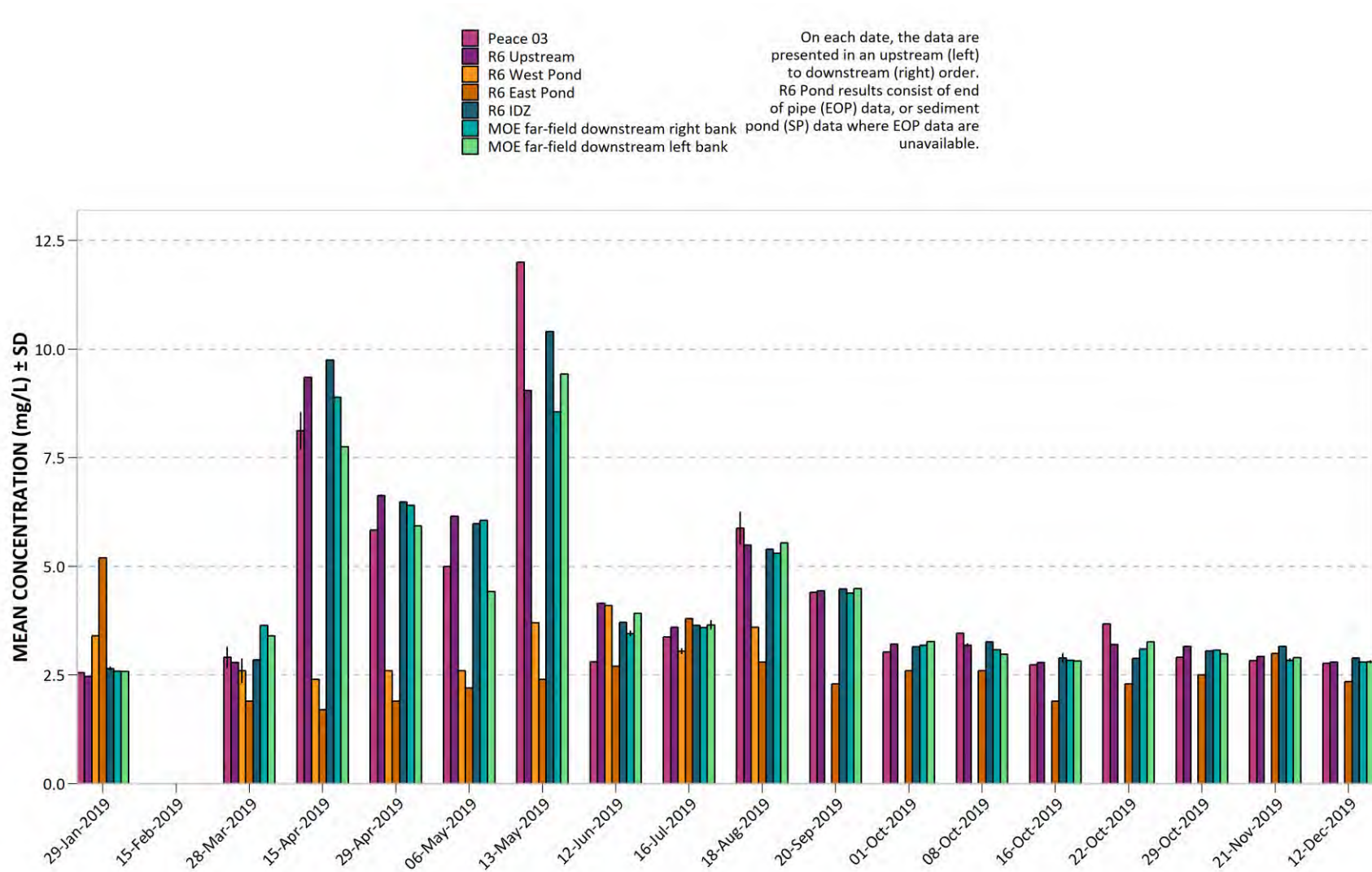


Figure 108. 2019 Peace River and RSEM R6 pond total aluminum (Al).

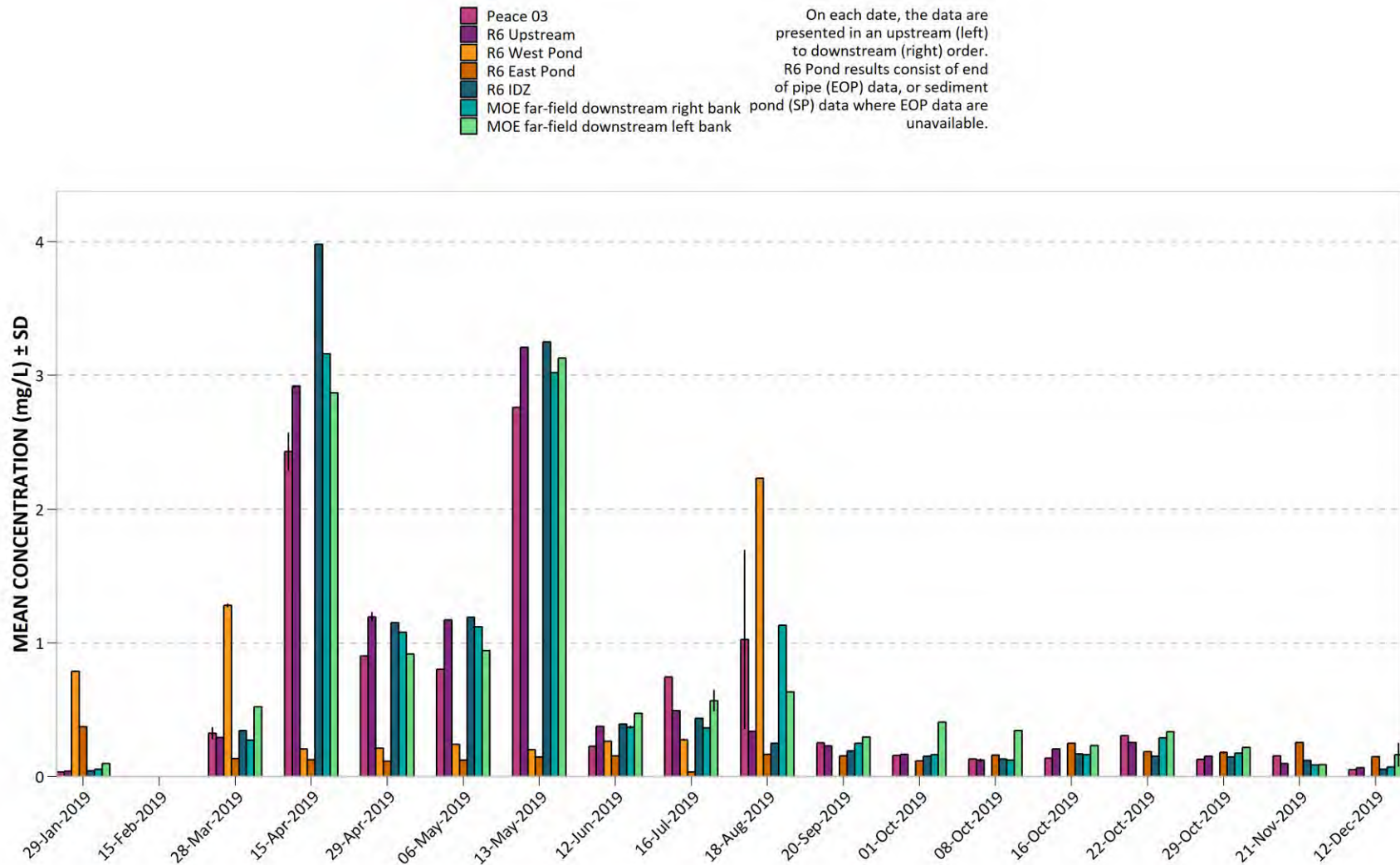
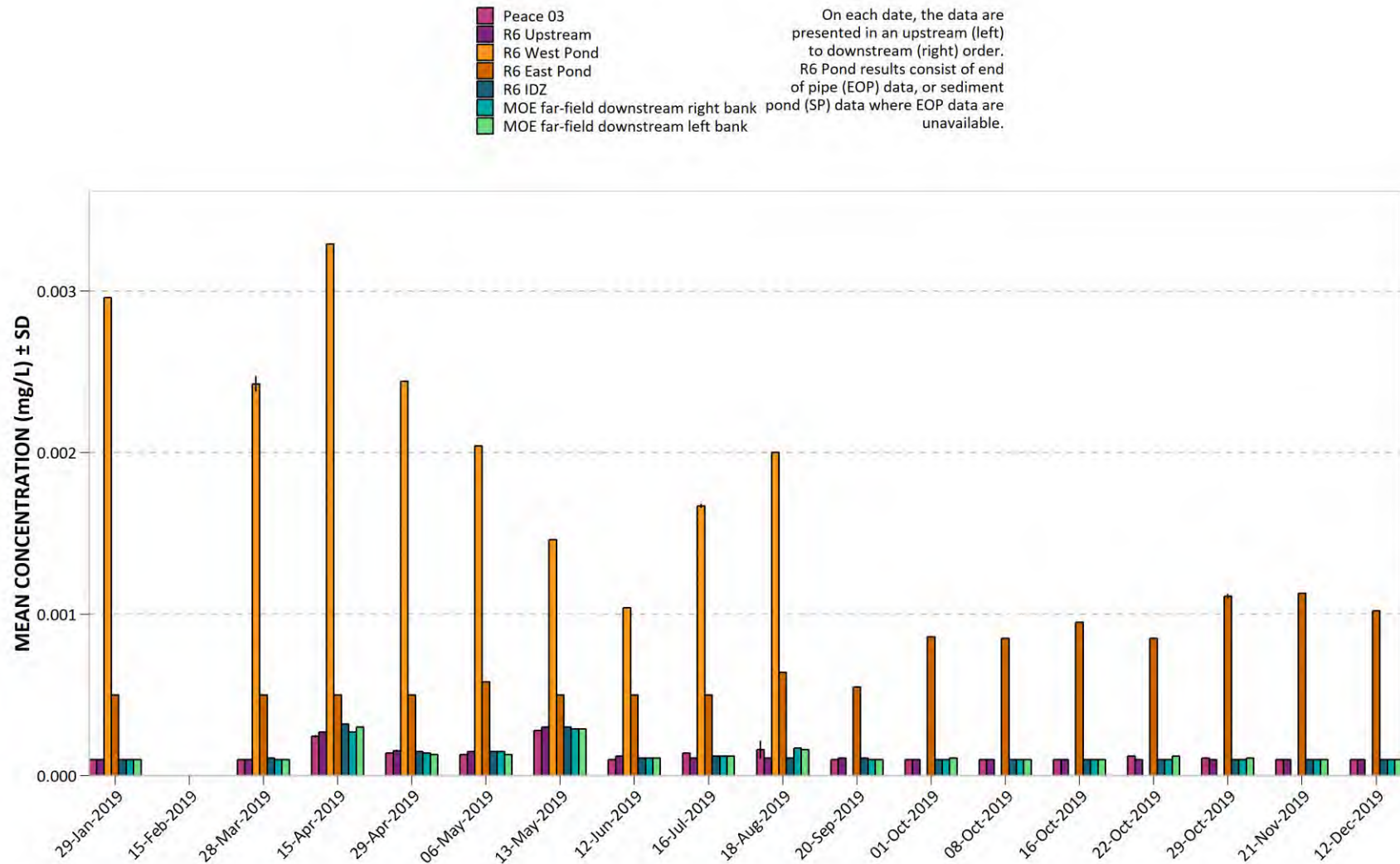


Figure 109. 2019 Peace River and RSEM R6 pond total antimony (Sb).



Results less than the MDL were assigned the MDL value of 0.0005 mg/L (Pond) or 0.0001 mg/L (Peace River).



Figure 110. 2019 Peace River and RSEM R6 pond total arsenic (As).

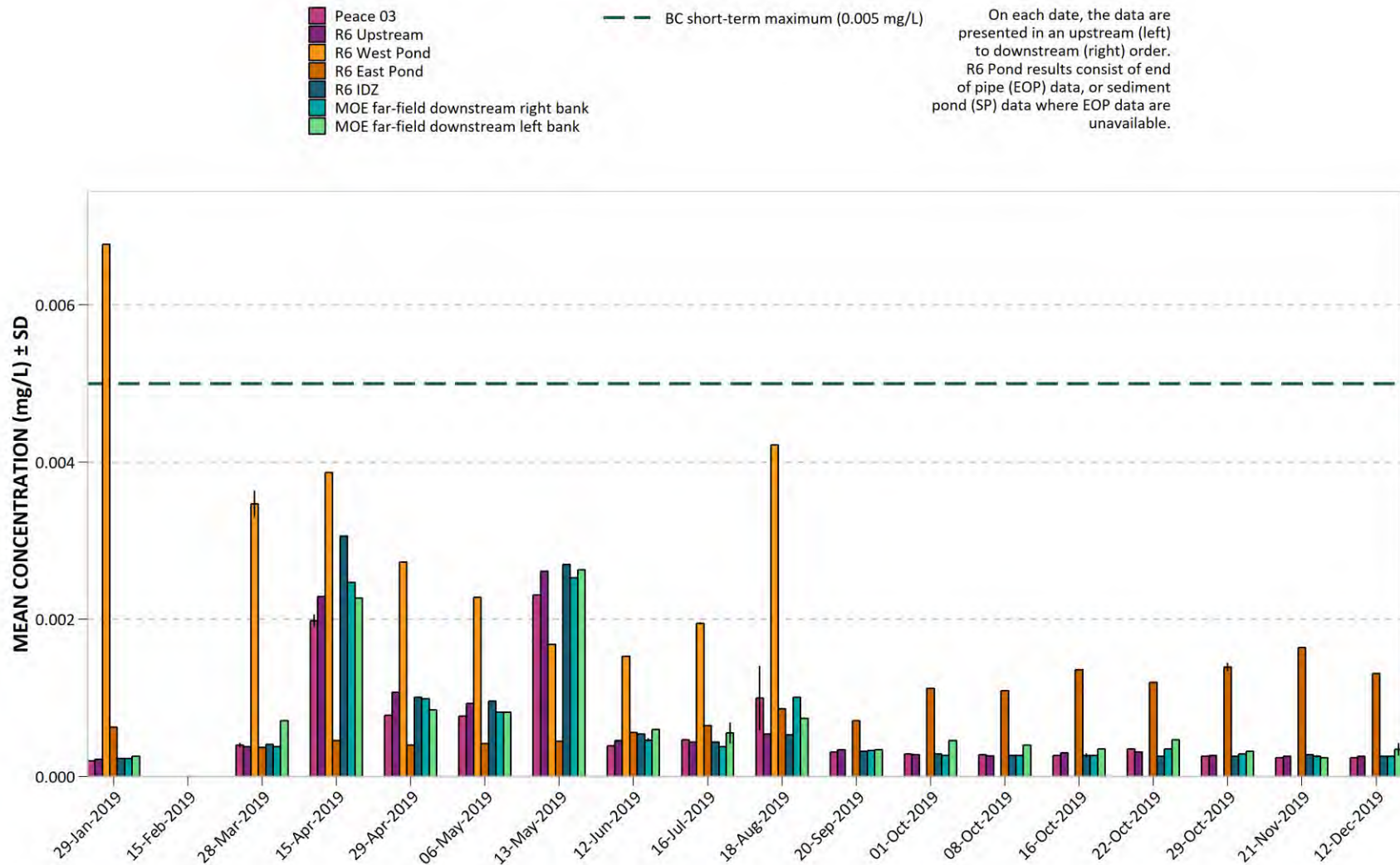


Figure 111. 2019 Peace River and RSEM R6 pond total barium (Ba).

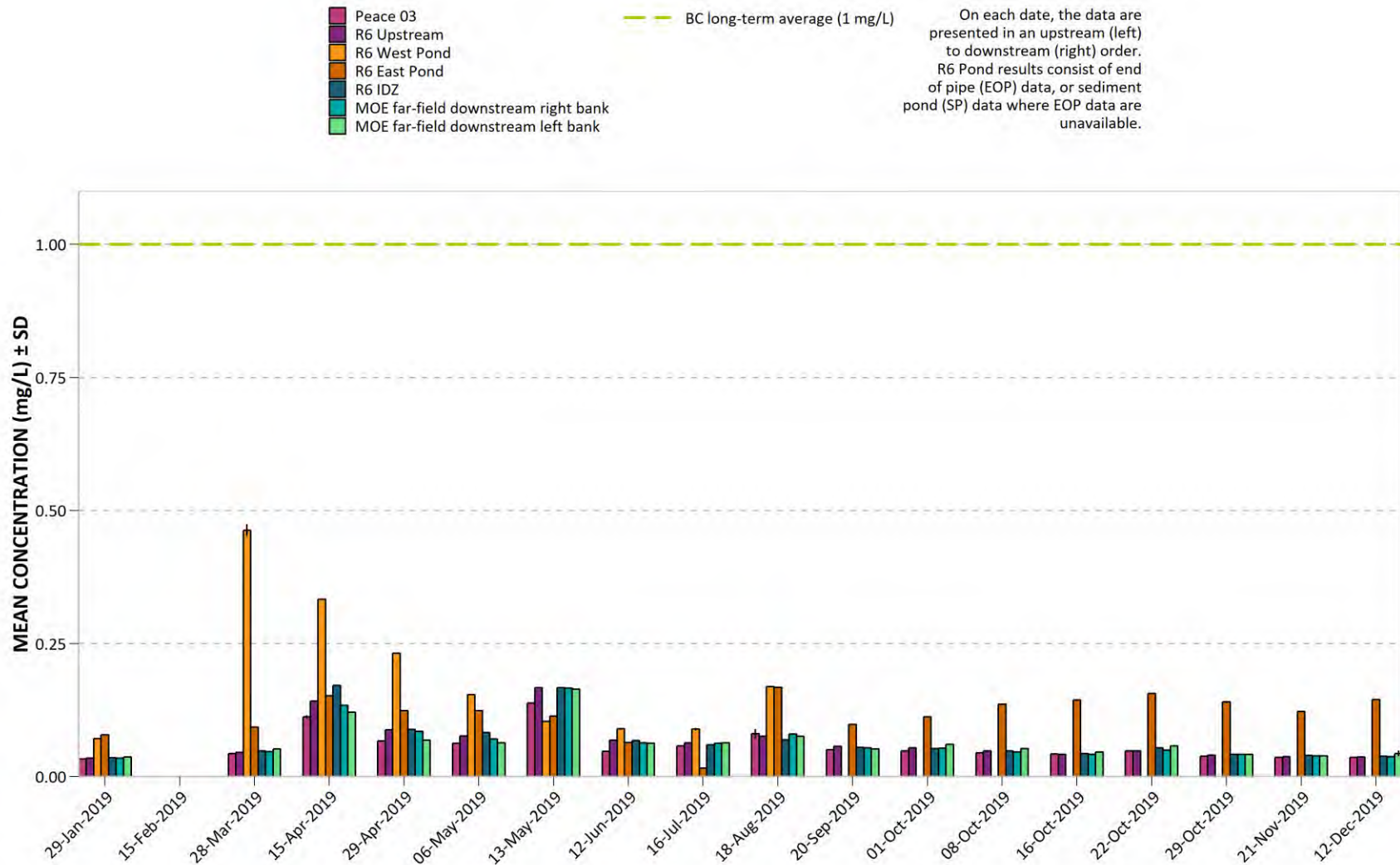
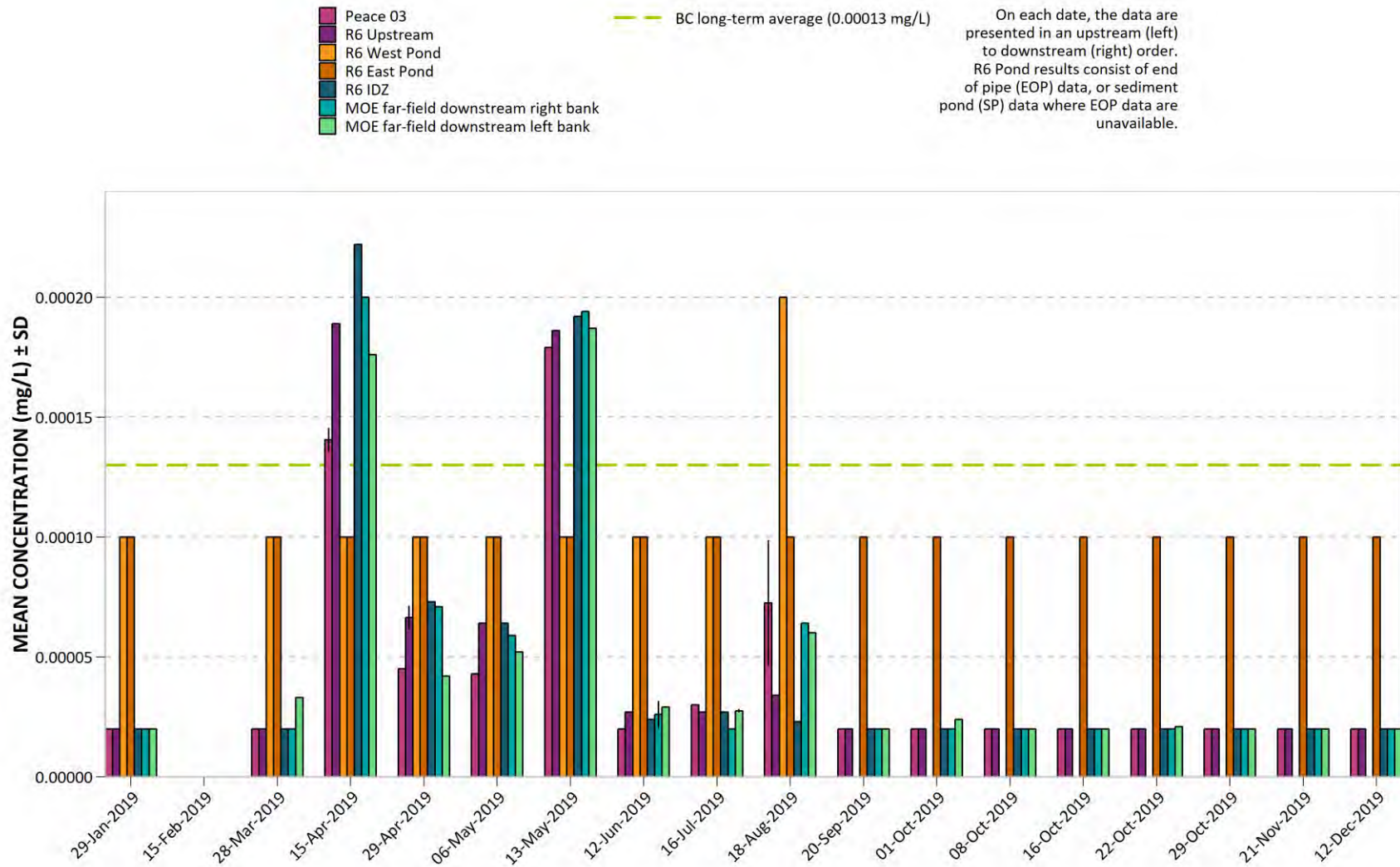
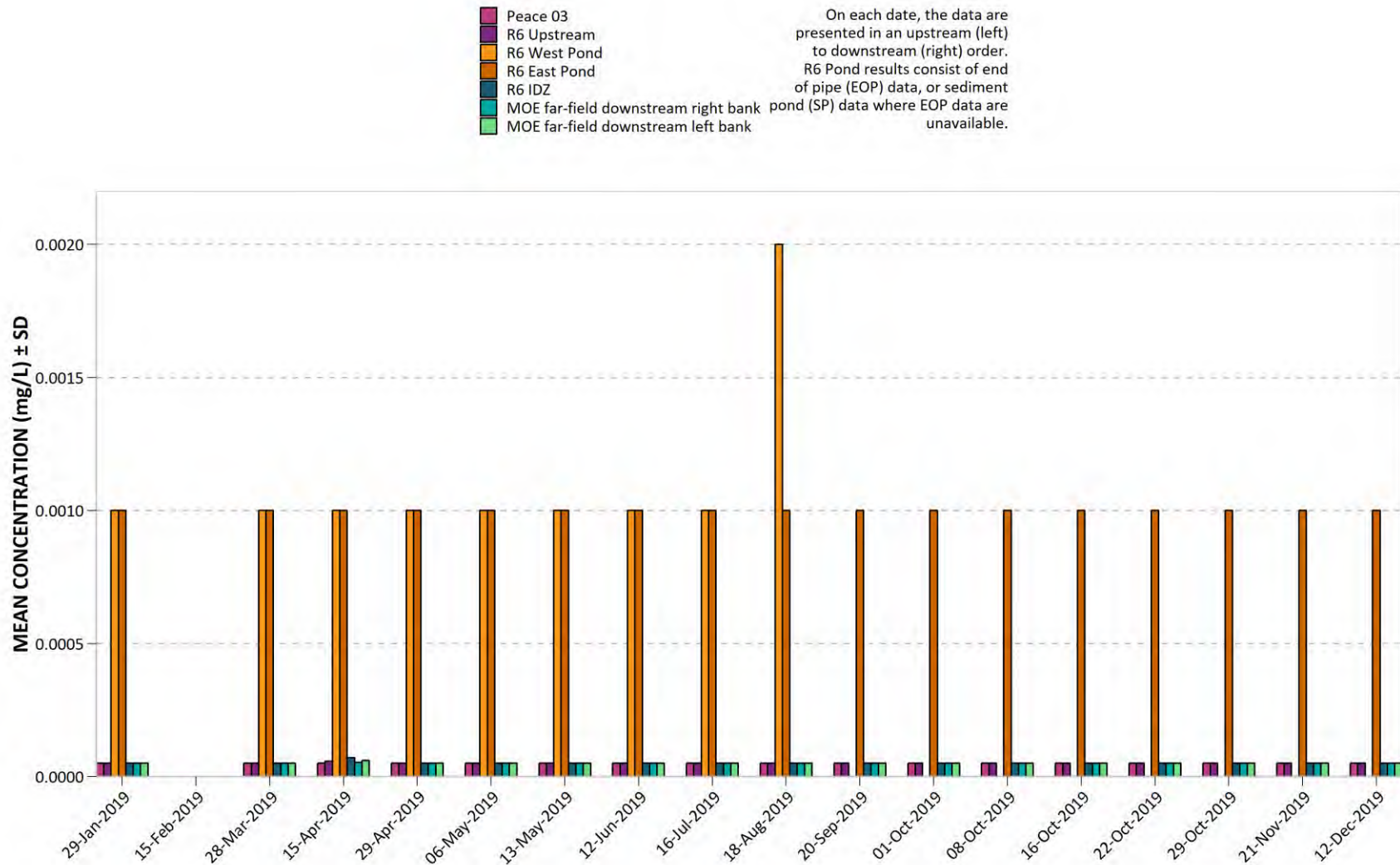


Figure 112. 2019 Peace River and RSEM R6 pond total beryllium (Be).



All results were less than the MDL and thus were assigned the MDL value of 0.0001 mg/L (Pond) or 0.00002 mg/L (Peace River).

Figure 113. 2019 Peace River and RSEM R6 pond total bismuth (Bi).



Results less than the MDL were assigned the MDL value of 0.001 mg/L (Pond) or 0.0001 mg/L (Peace River).

Figure 114. 2019 Peace River and RSEM R6 pond total boron (B).

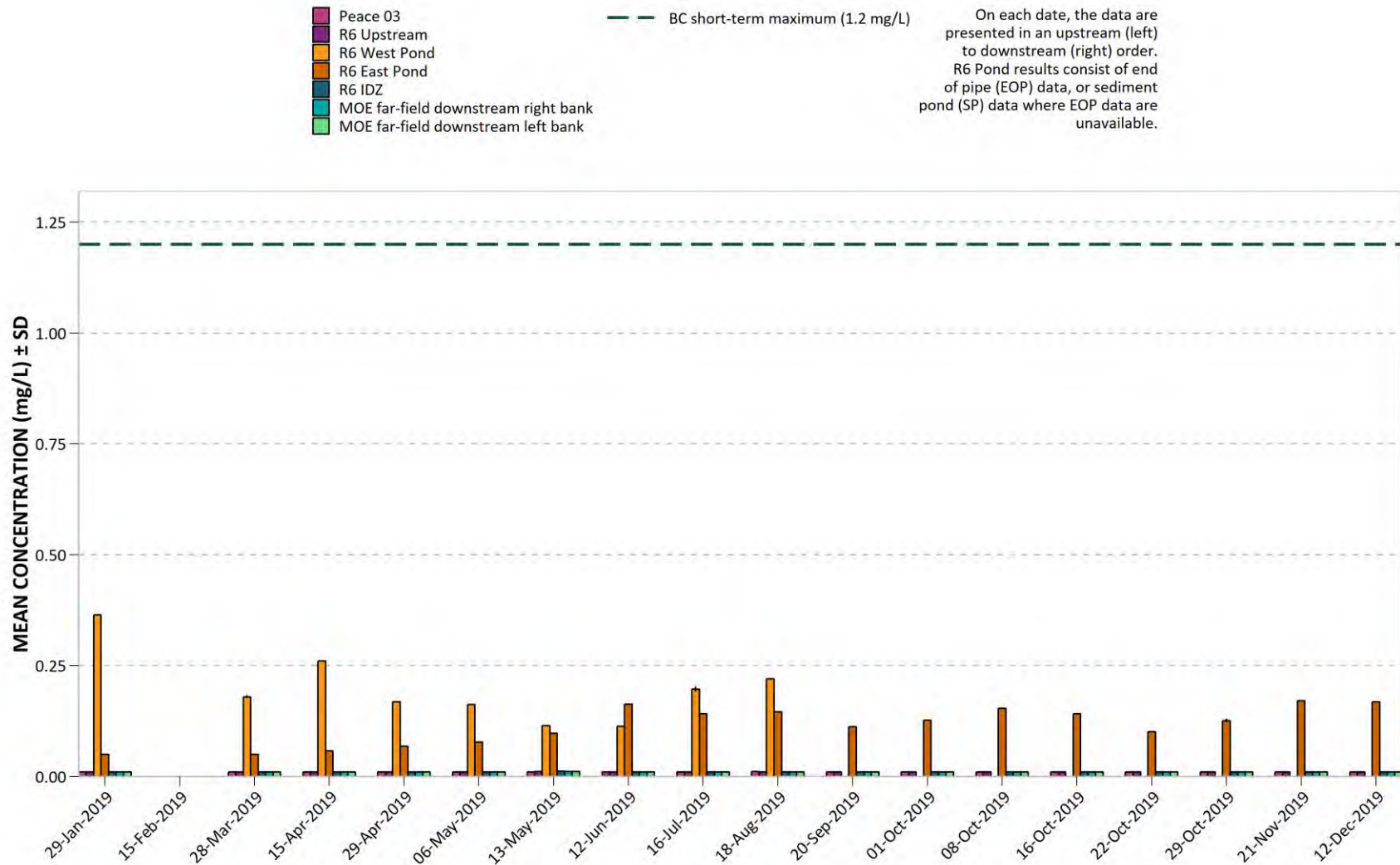


Figure 115. 2019 Peace River and RSEM R6 pond total cadmium (Cd).

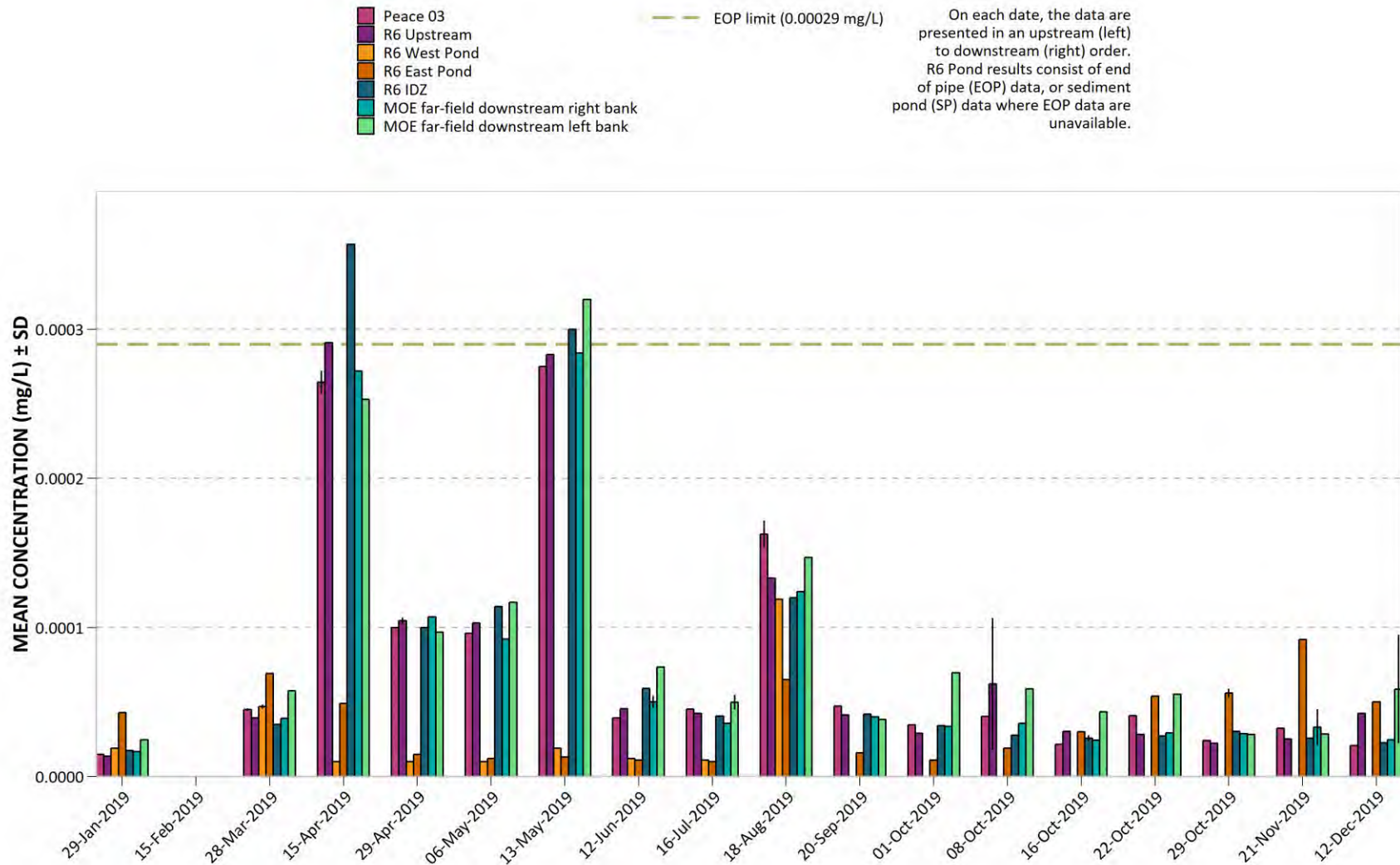


Figure 116. 2019 Peace River and RSEM R6 pond total calcium (Ca).

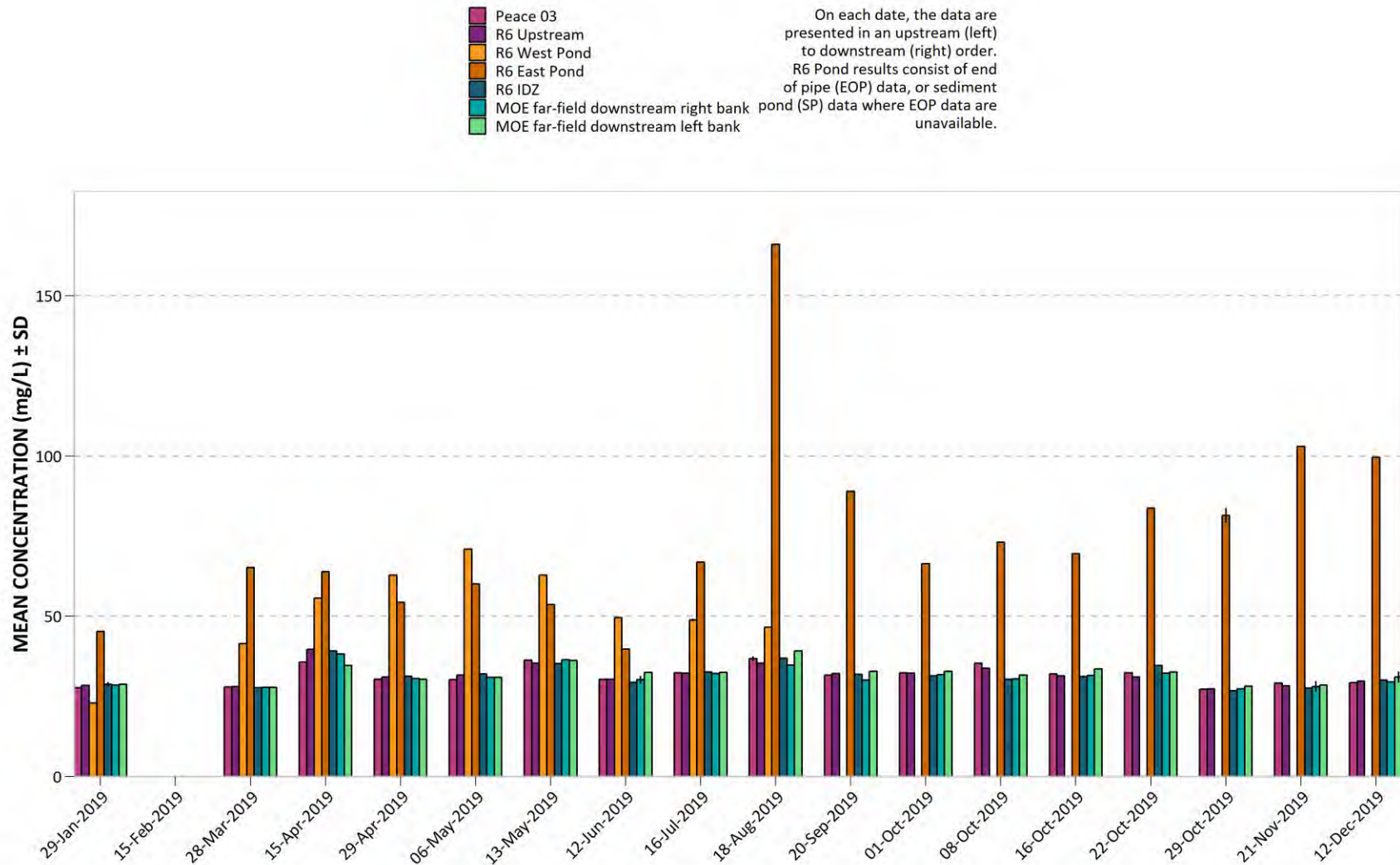


Figure 117. 2019 Peace River and RSEM R6 pond total chromium (Cr).

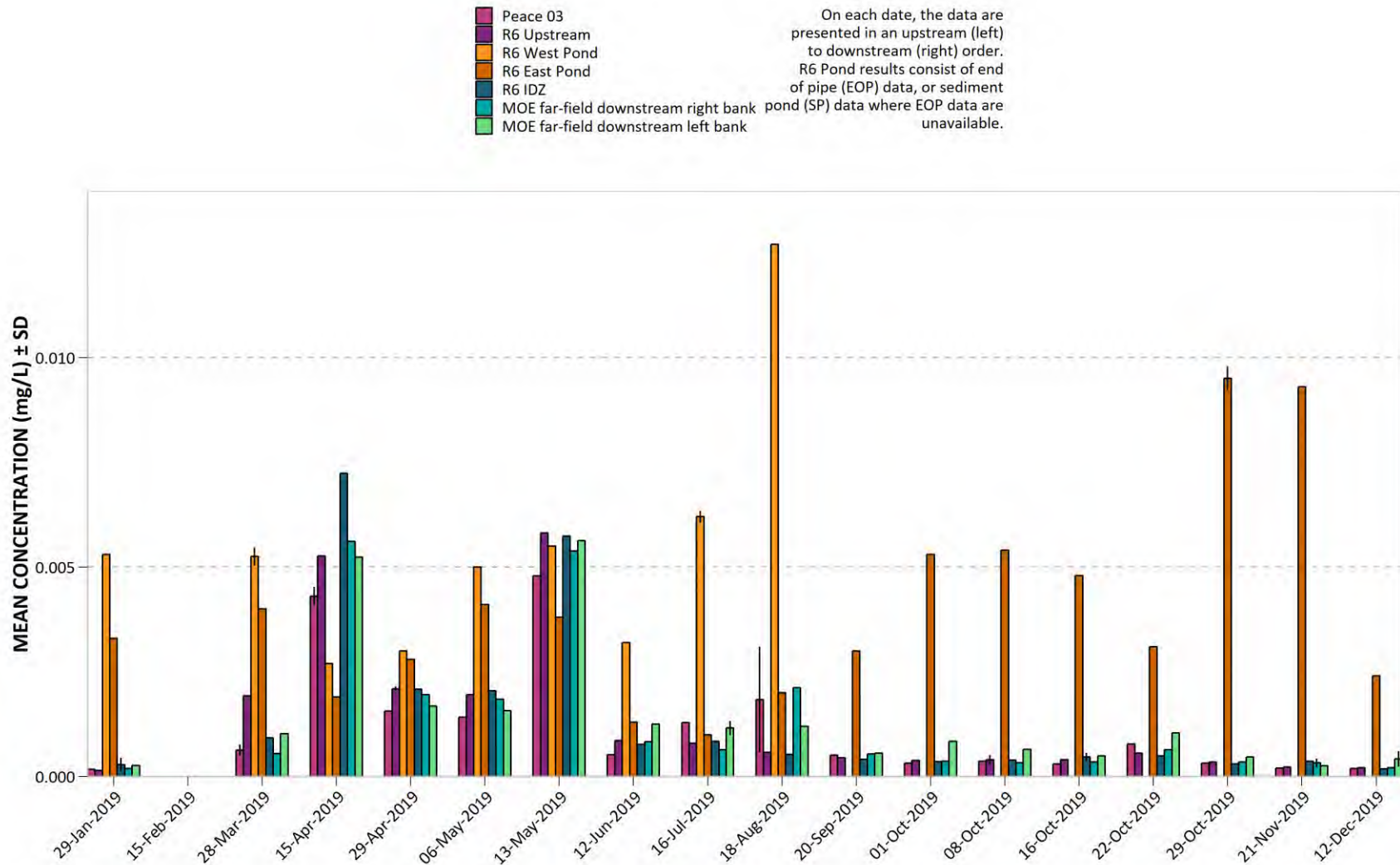




Figure 118. 2019 Peace River and RSEM R6 pond total cobalt (Co).

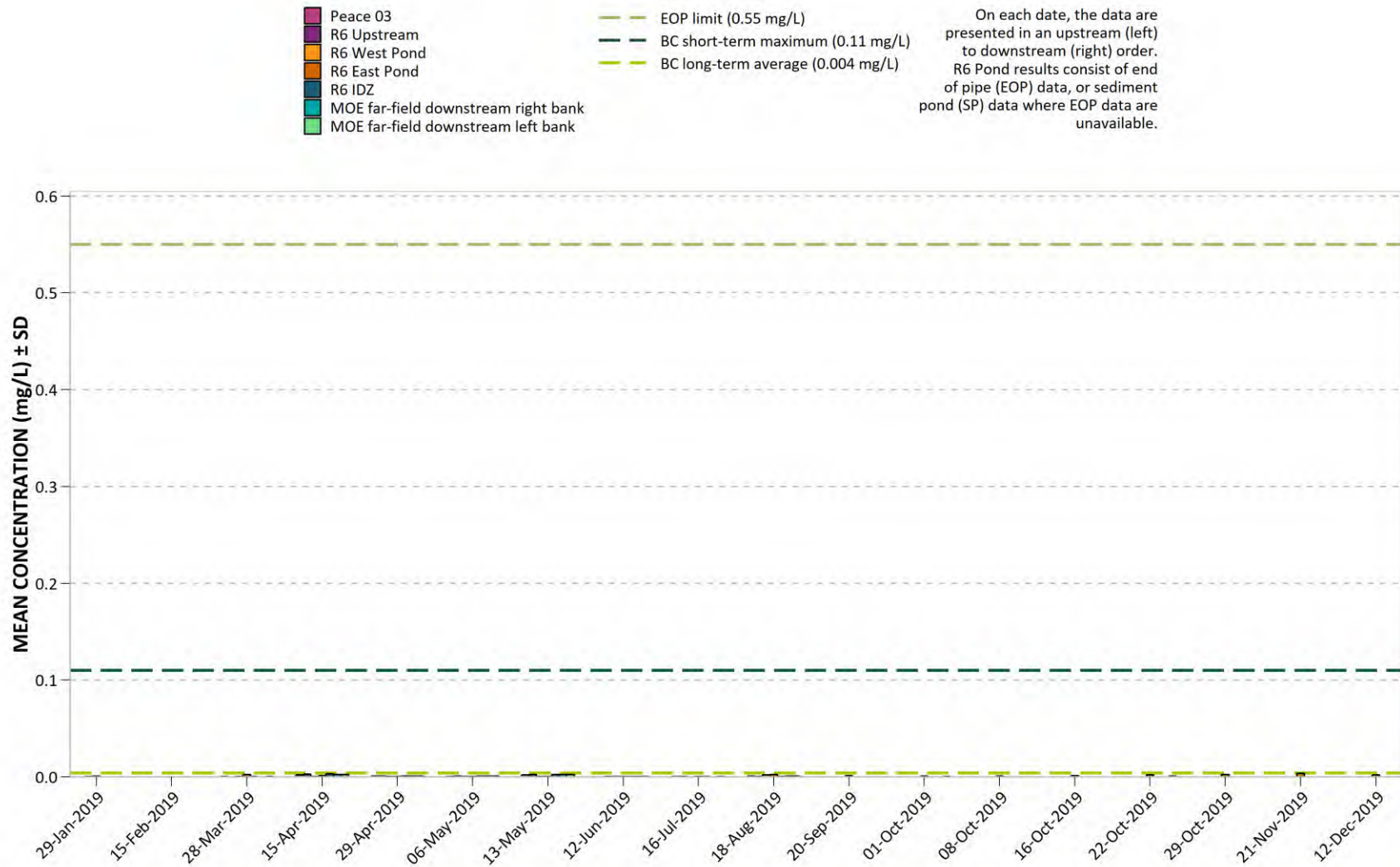


Figure 119. 2019 Peace River and RSEM R6 pond total copper (Cu). New dissolved copper BC WQG replaced the total copper BC WQG in August 2019 (MOE 2019).

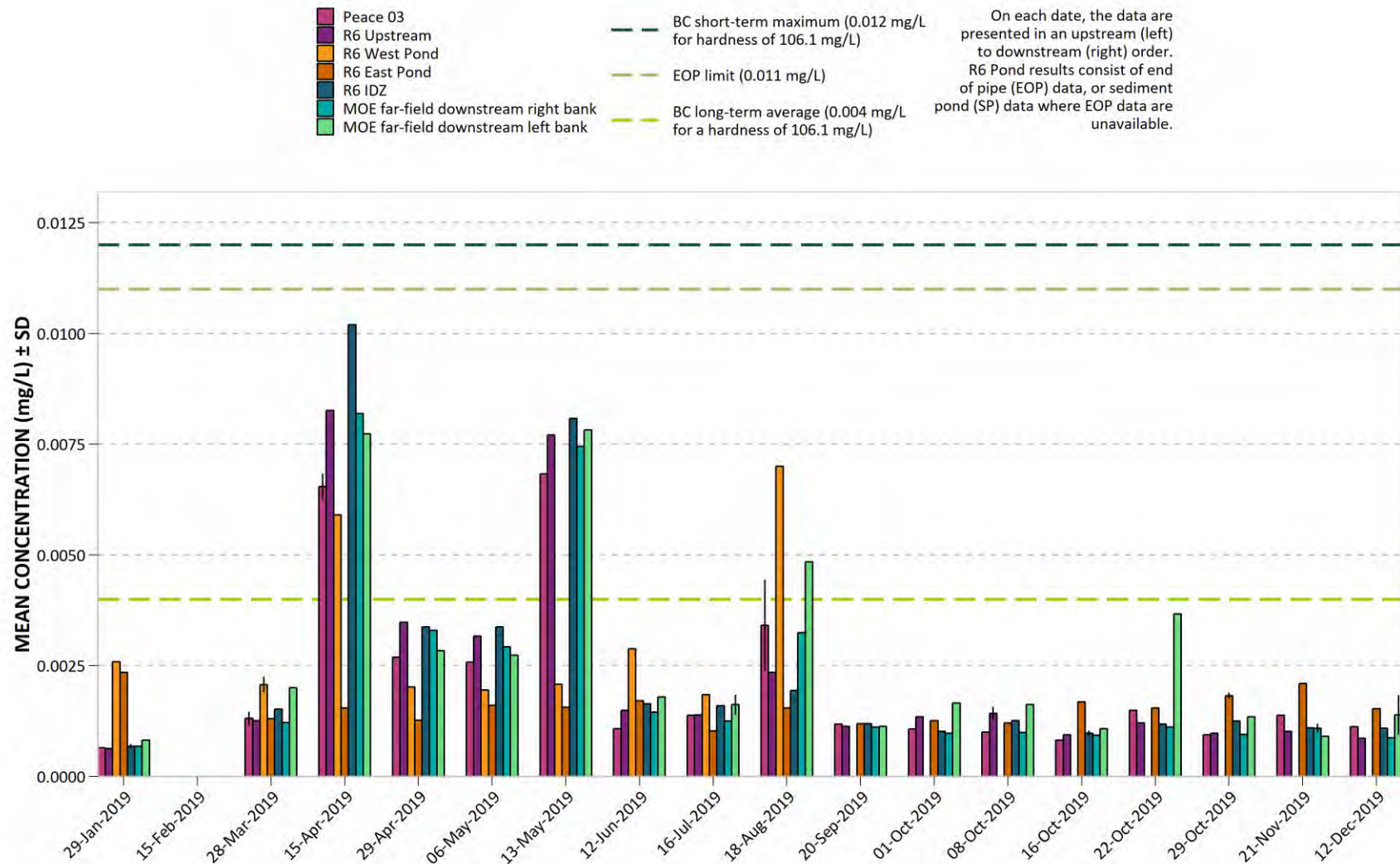


Figure 120. 2019 Peace River and RSEM R6 pond total iron (Fe).

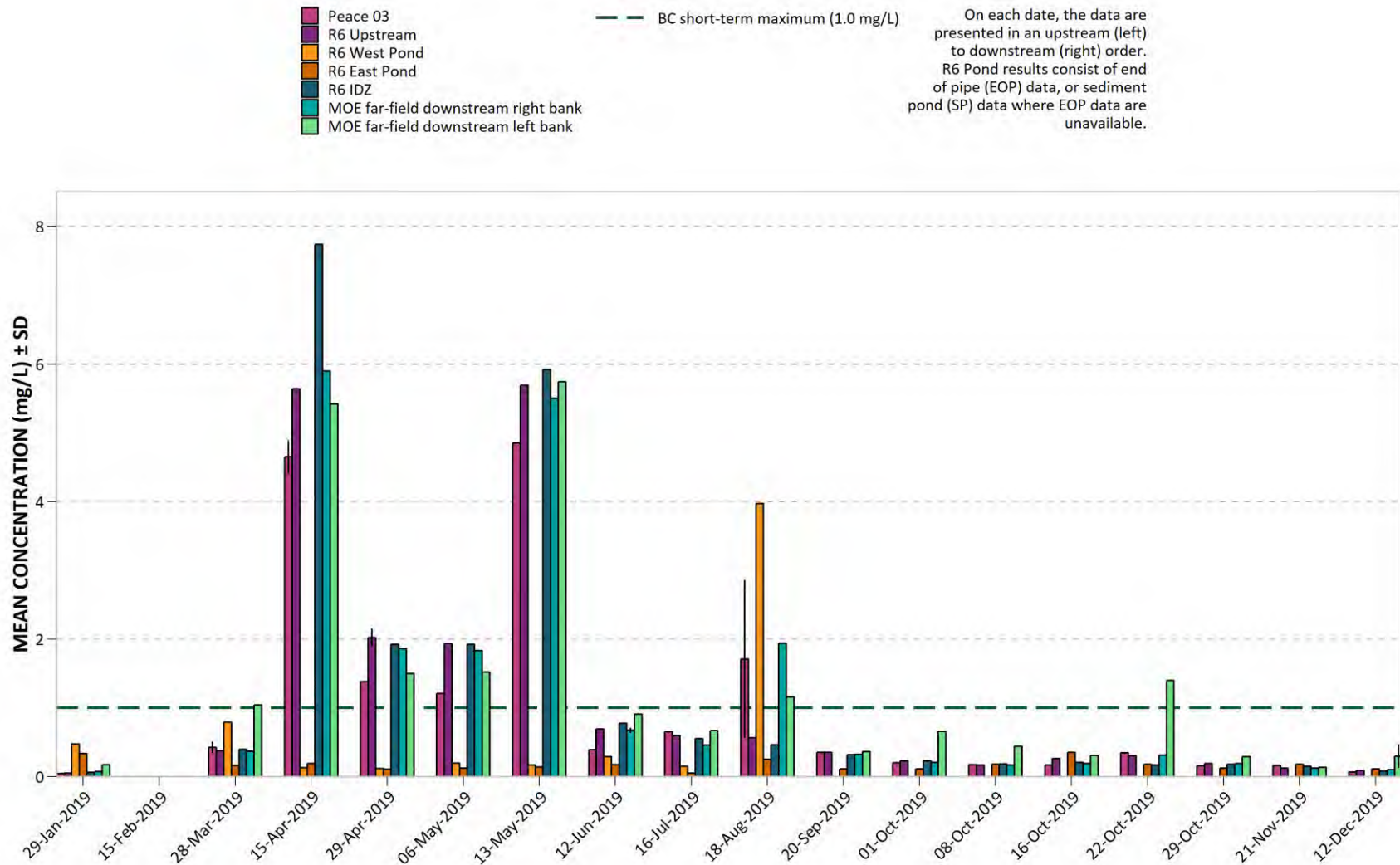


Figure 121. 2019 Peace River and RSEM R6 pond total lead (Pb).

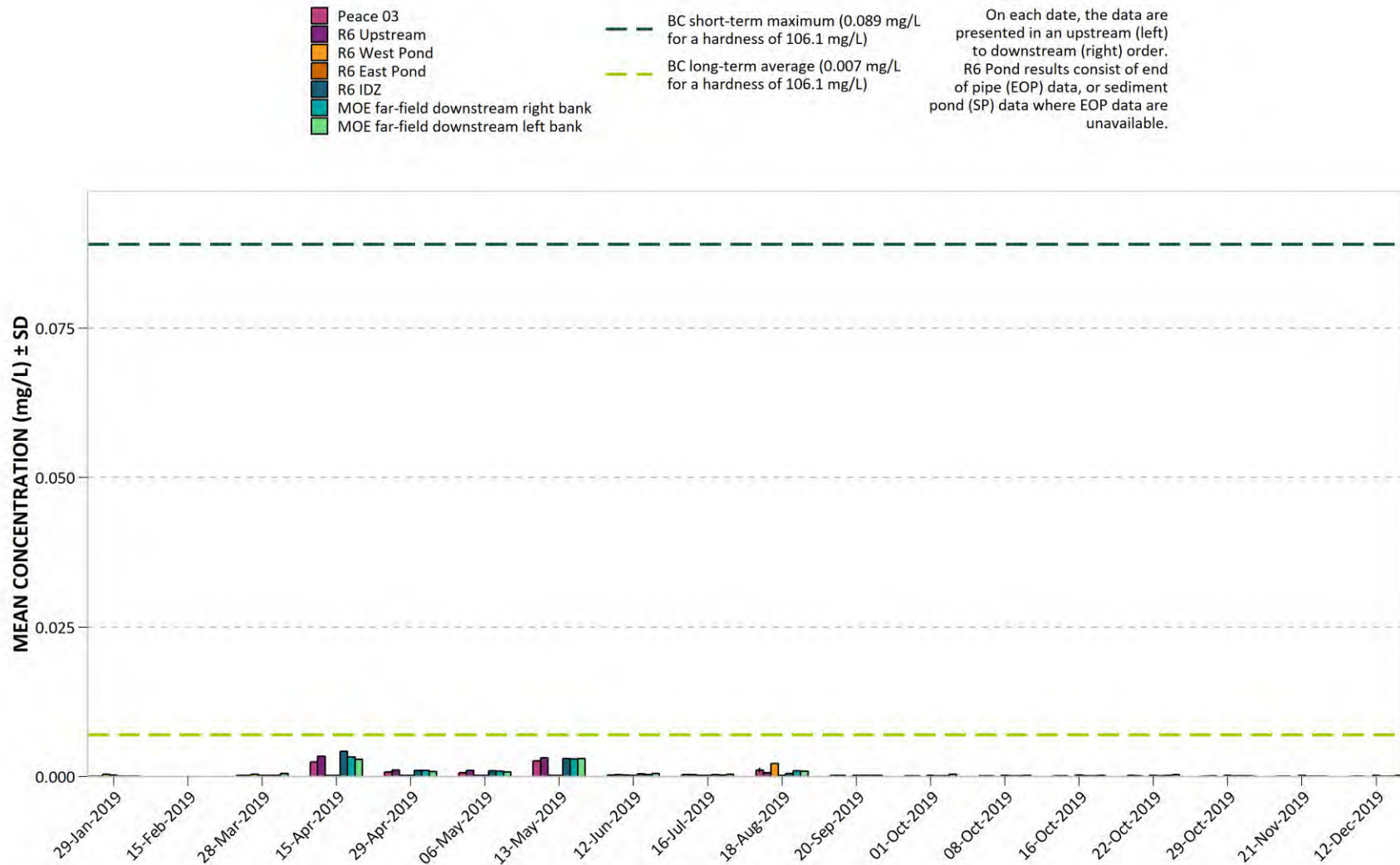


Figure 122. 2019 Peace River and RSEM R6 pond total lithium (Li).

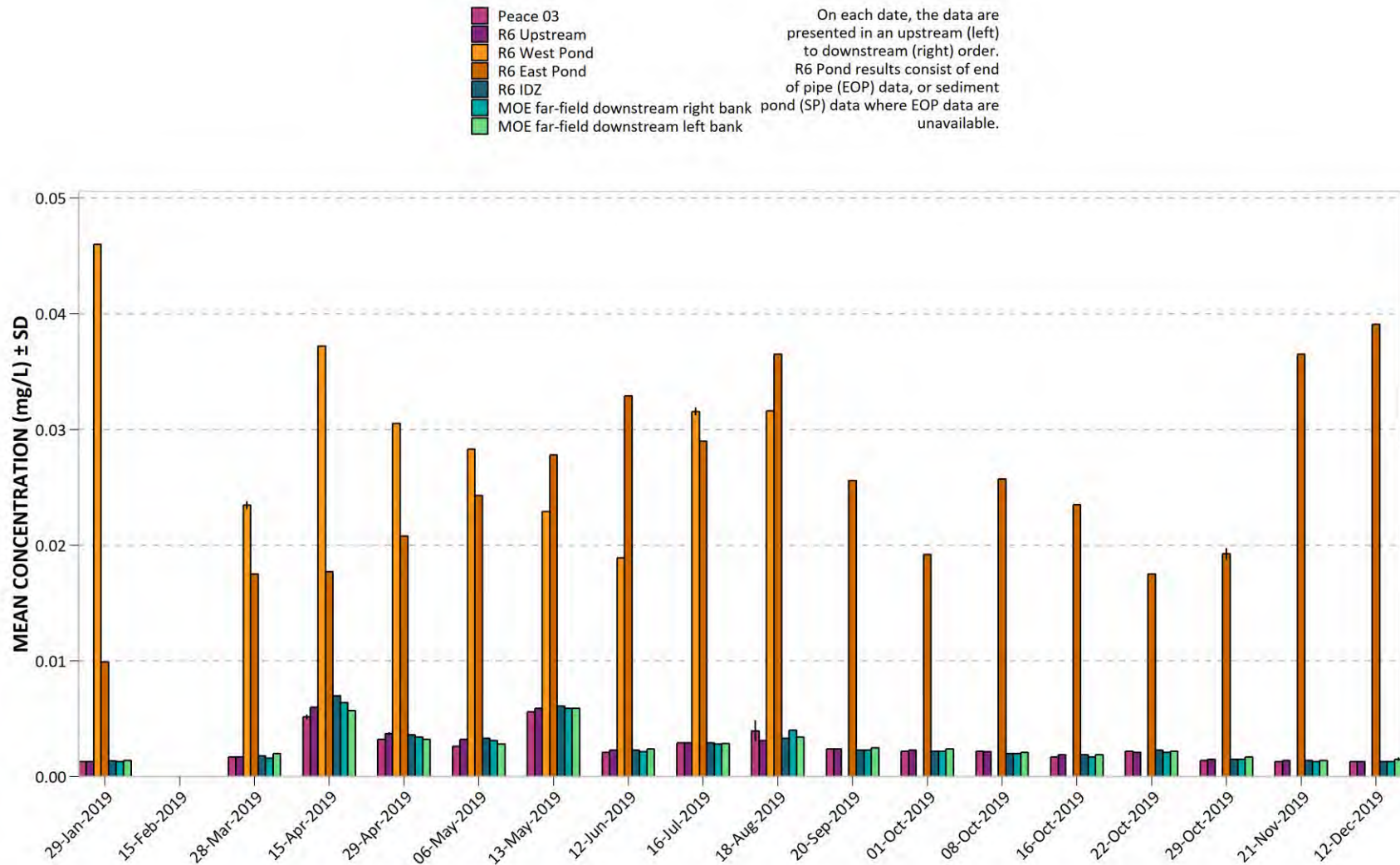


Figure 123. 2019 Peace River and RSEM R6 pond total magnesium (Mg).

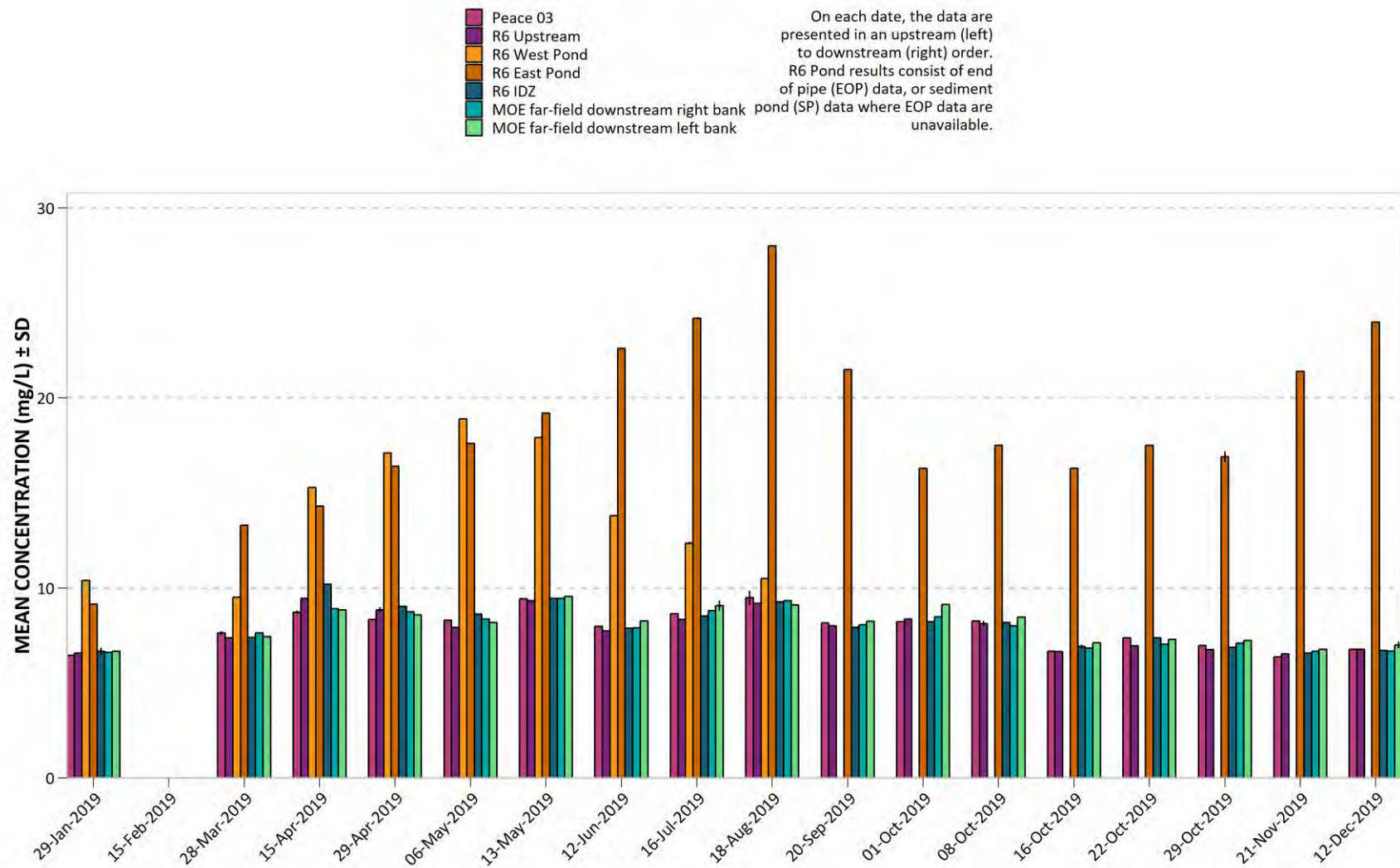


Figure 124. 2019 Peace River and RSEM R6 pond total manganese (Mn).

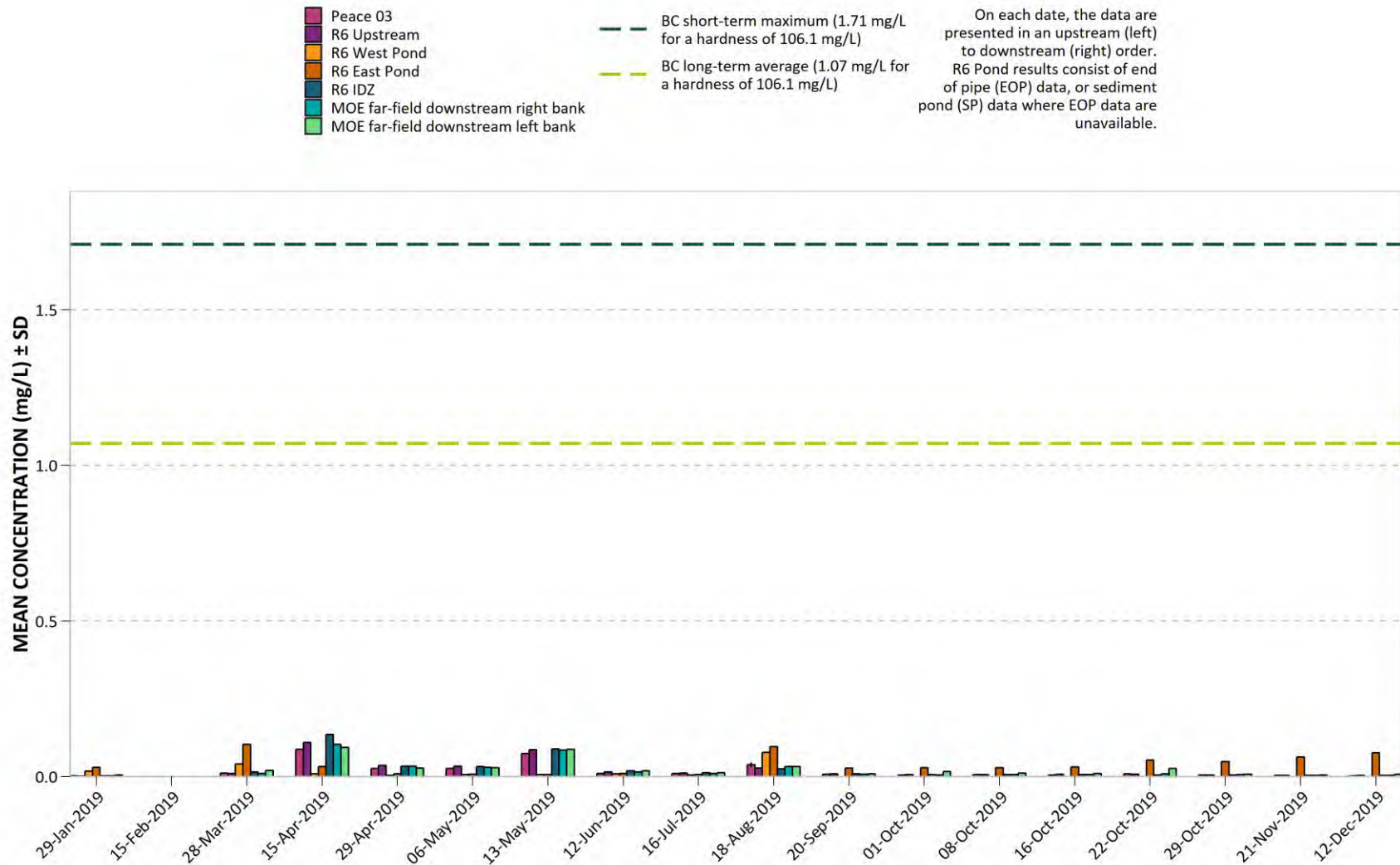
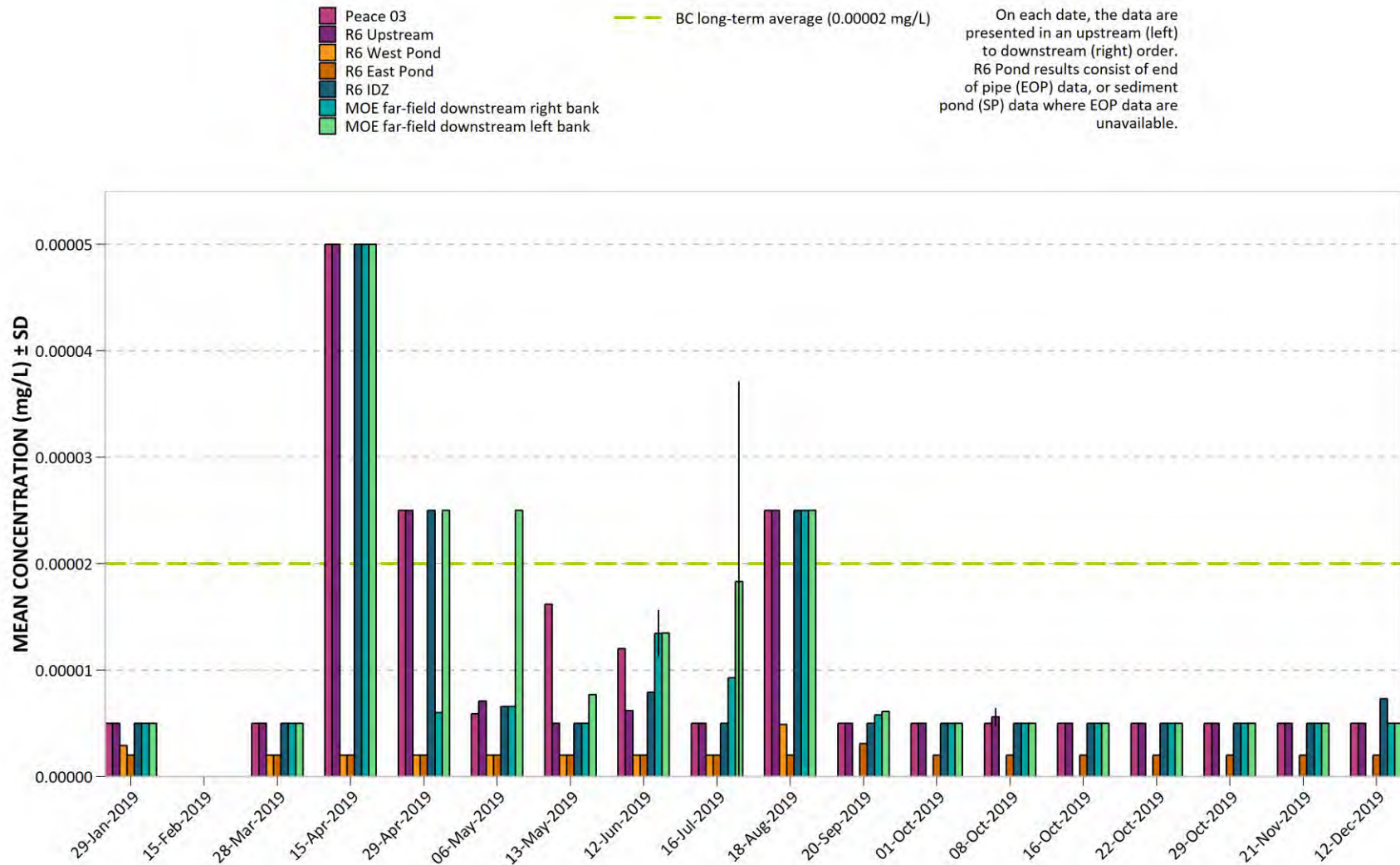


Figure 125. 2019 Peace River and RSEM R6 pond total mercury (Hg).



Results lower than the MDL are assigned the MDL value, which varies for total mercury depending on matrix effects. Most results in 2019 were assigned the MDL value.



Figure 126. 2019 Peace River and RSEM R6 pond total molybdenum (Mo).

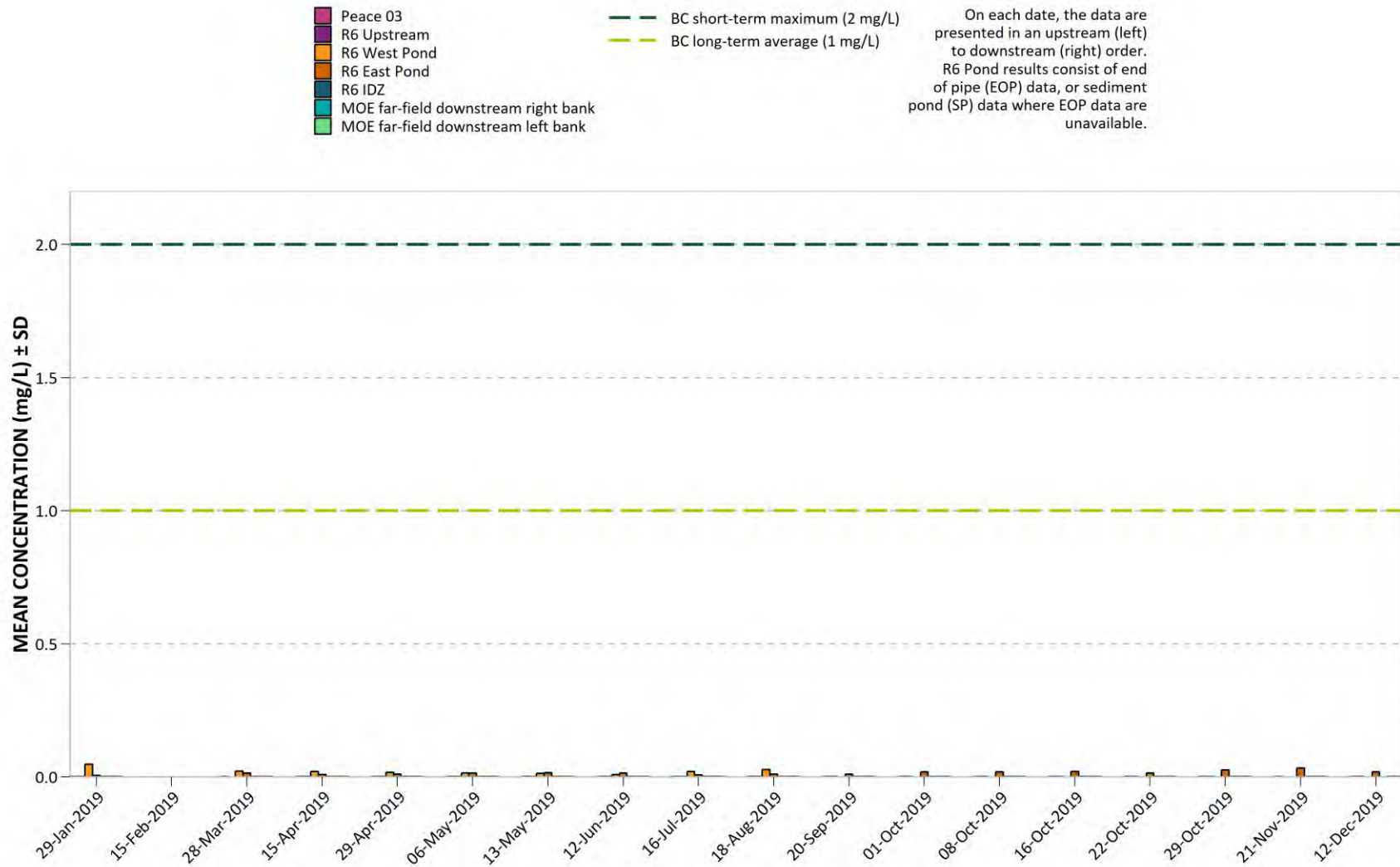


Figure 127. 2019 Peace River and RSEM R6 pond total nickel (Ni).

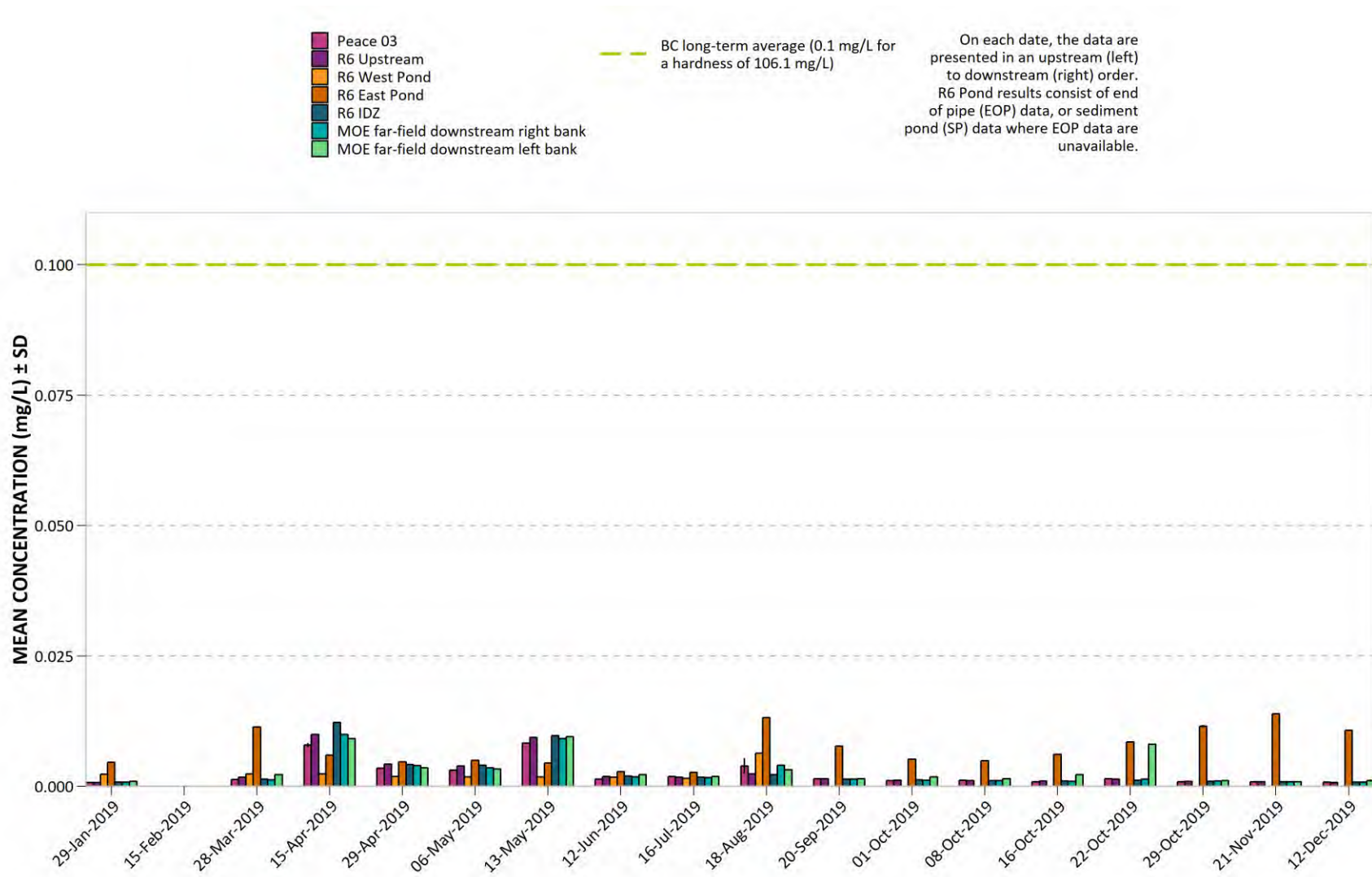


Figure 128. 2019 Peace River and RSEM R6 pond total potassium (K).

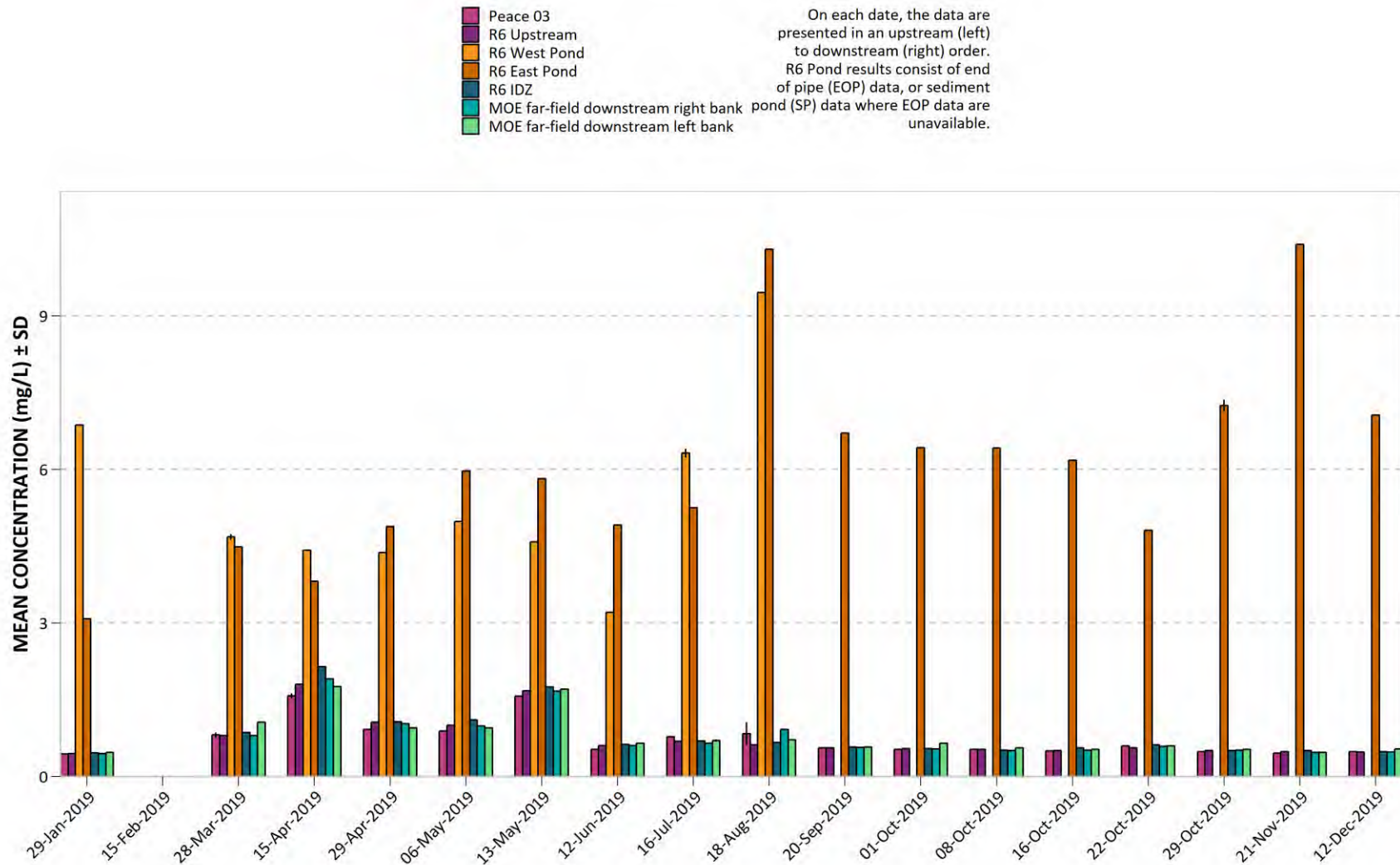


Figure 129. 2019 Peace River and RSEM R6 pond total selenium (Se).

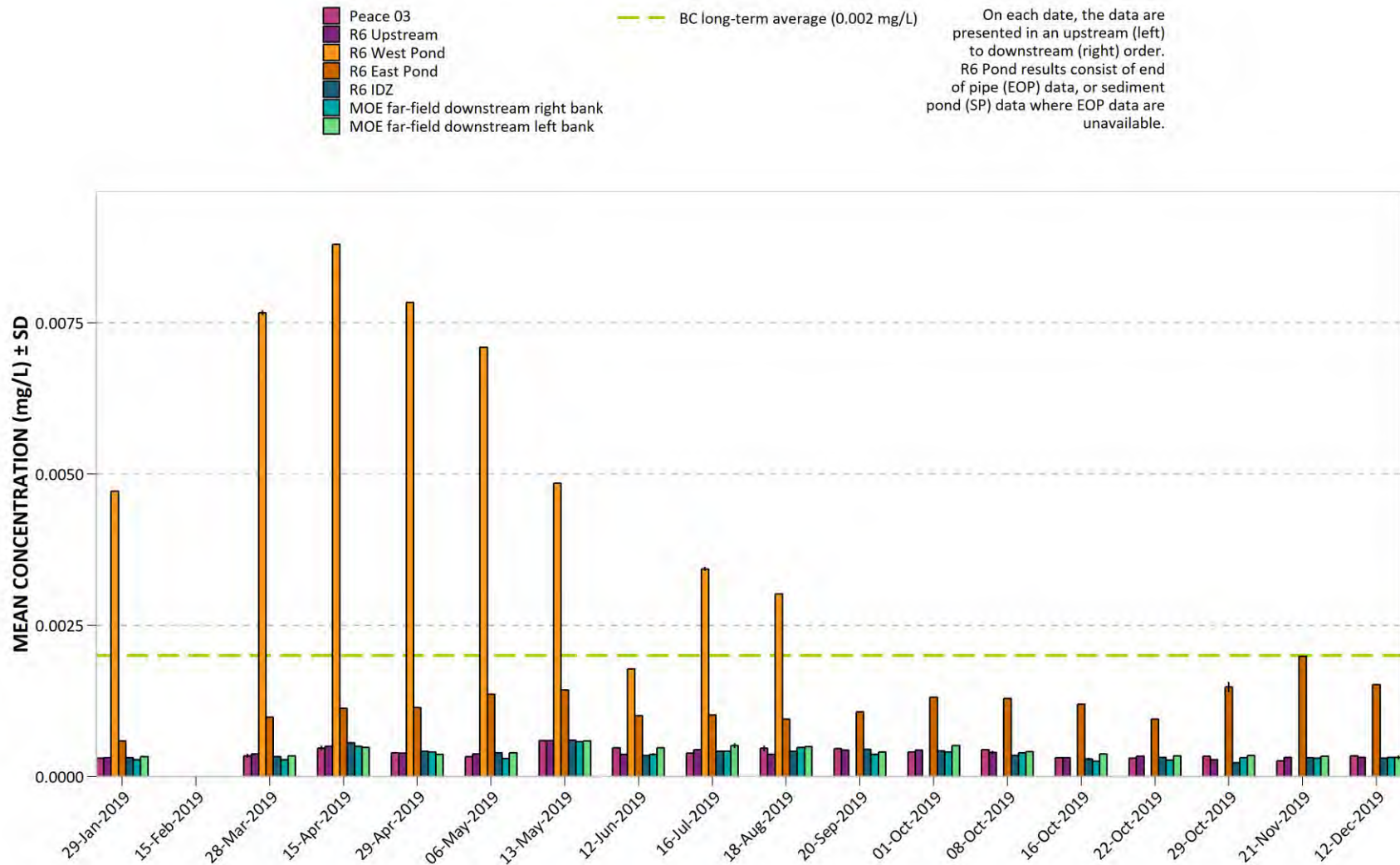


Figure 130. 2019 Peace River and RSEM R6 pond total silicon (Si).

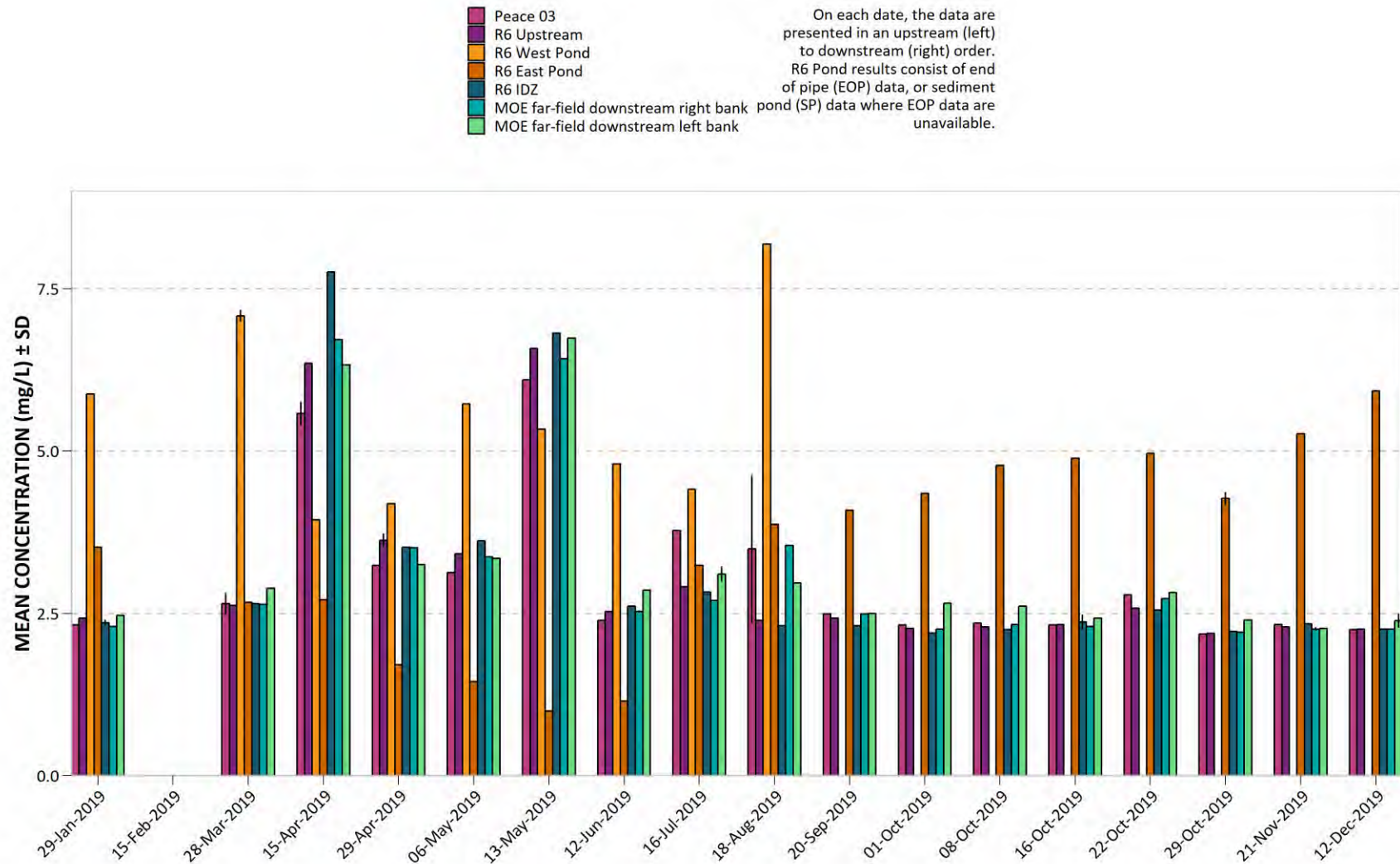


Figure 131. 2019 Peace River and RSEM R6 pond total silver (Ag).

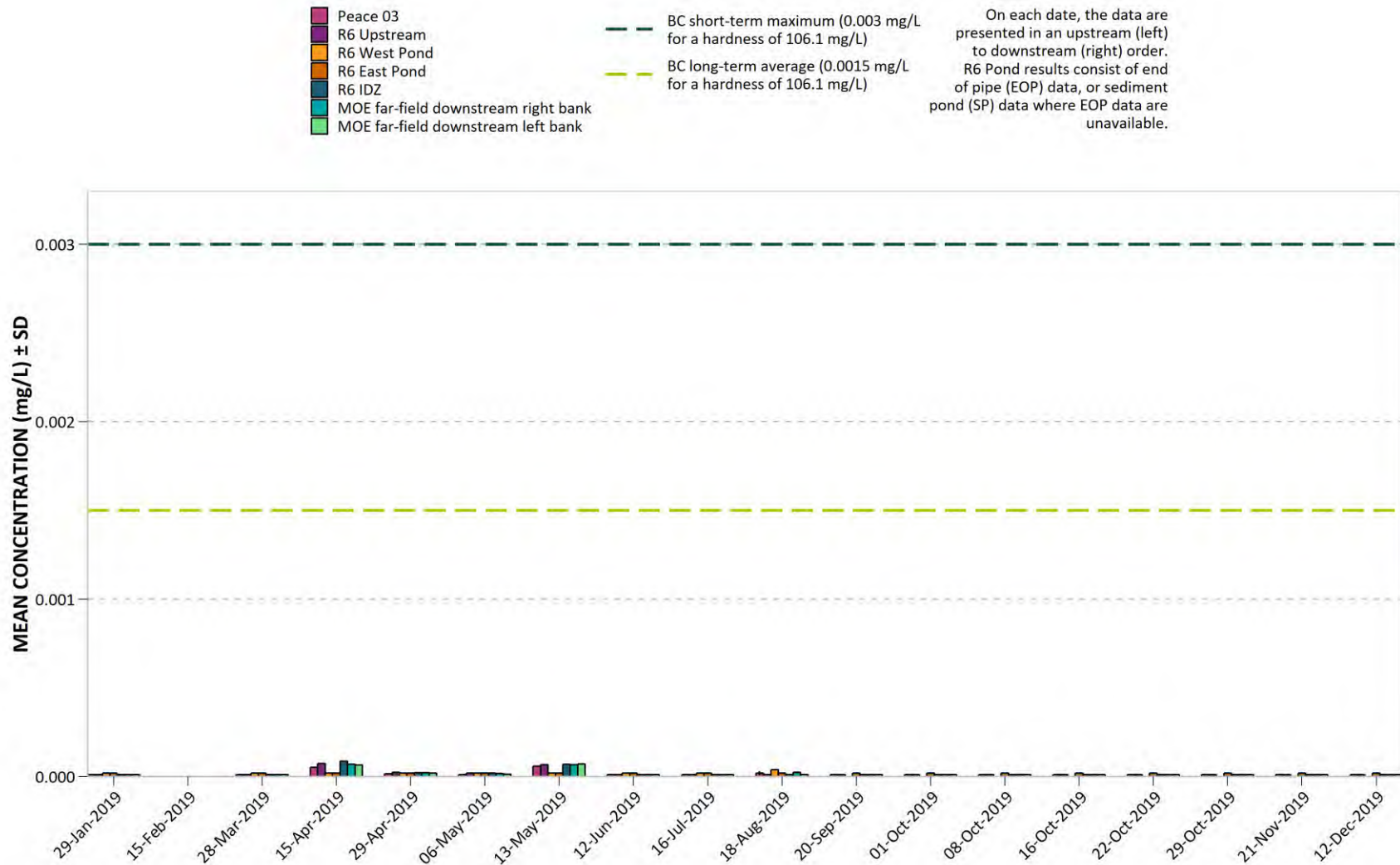


Figure 132. 2019 Peace River and RSEM R6 pond total sodium (Na).

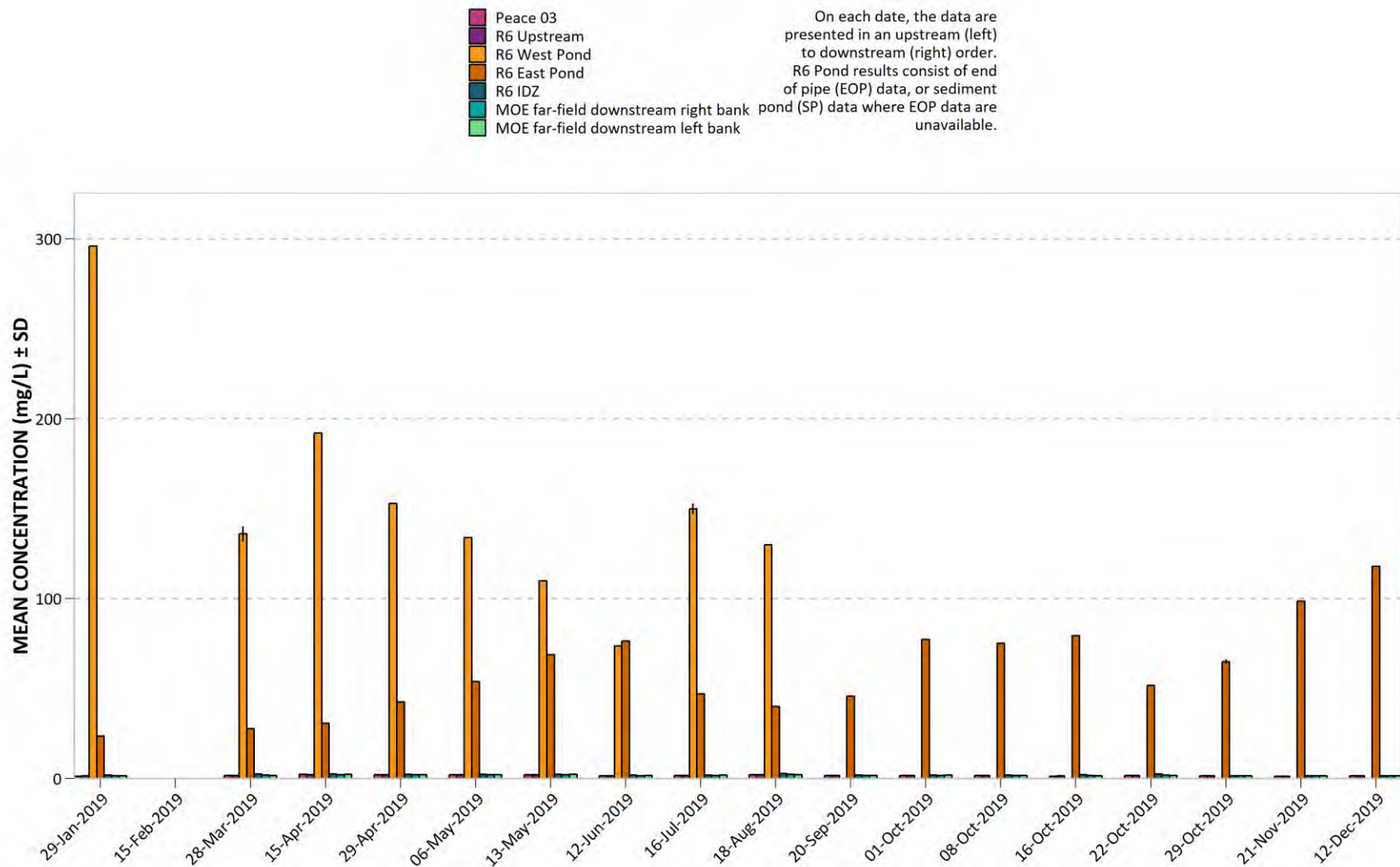


Figure 133. 2019 Peace River and RSEM R6 pond total strontium (Sr).

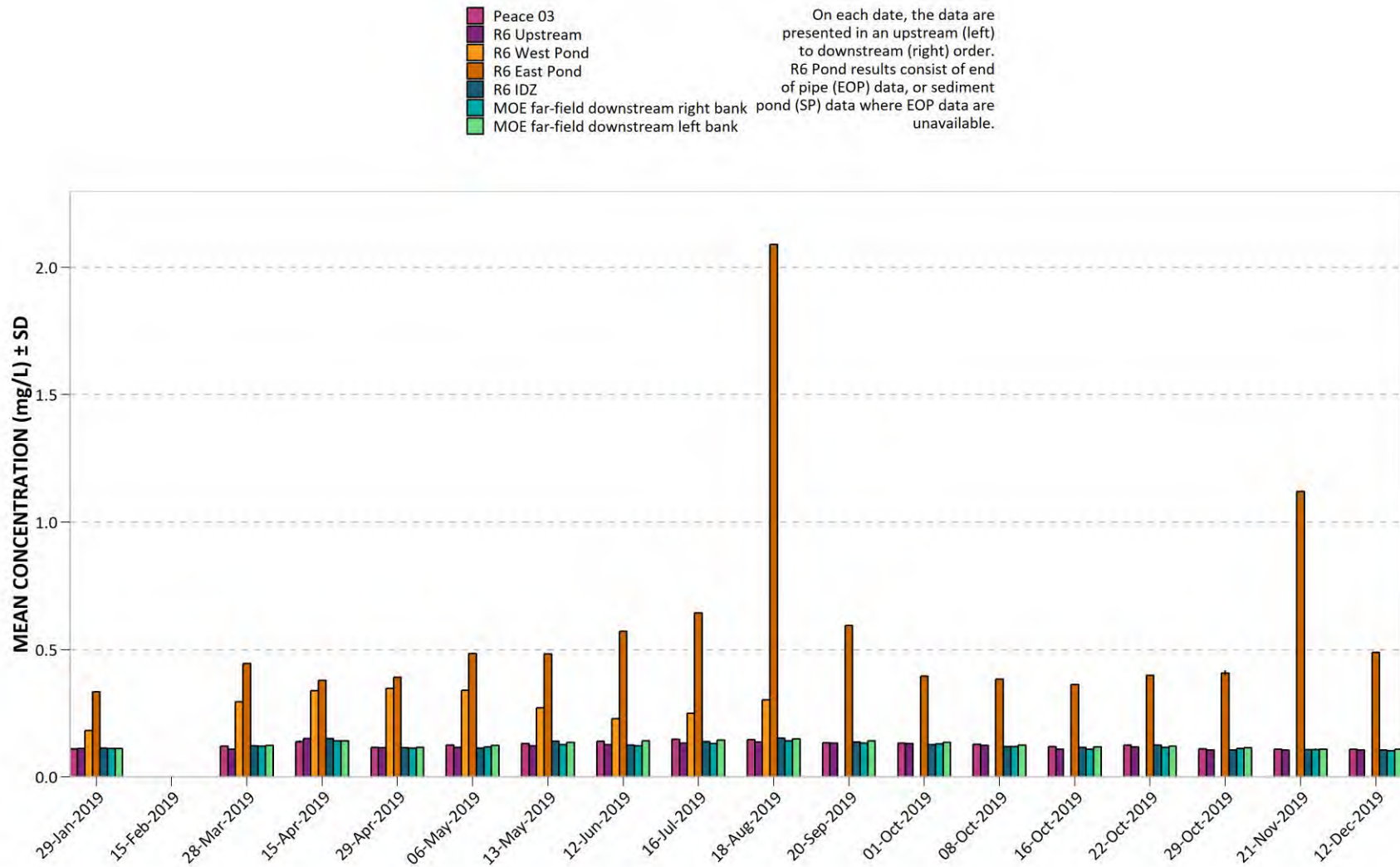




Figure 134. 2019 Peace River and RSEM R6 pond total sulfur (S).

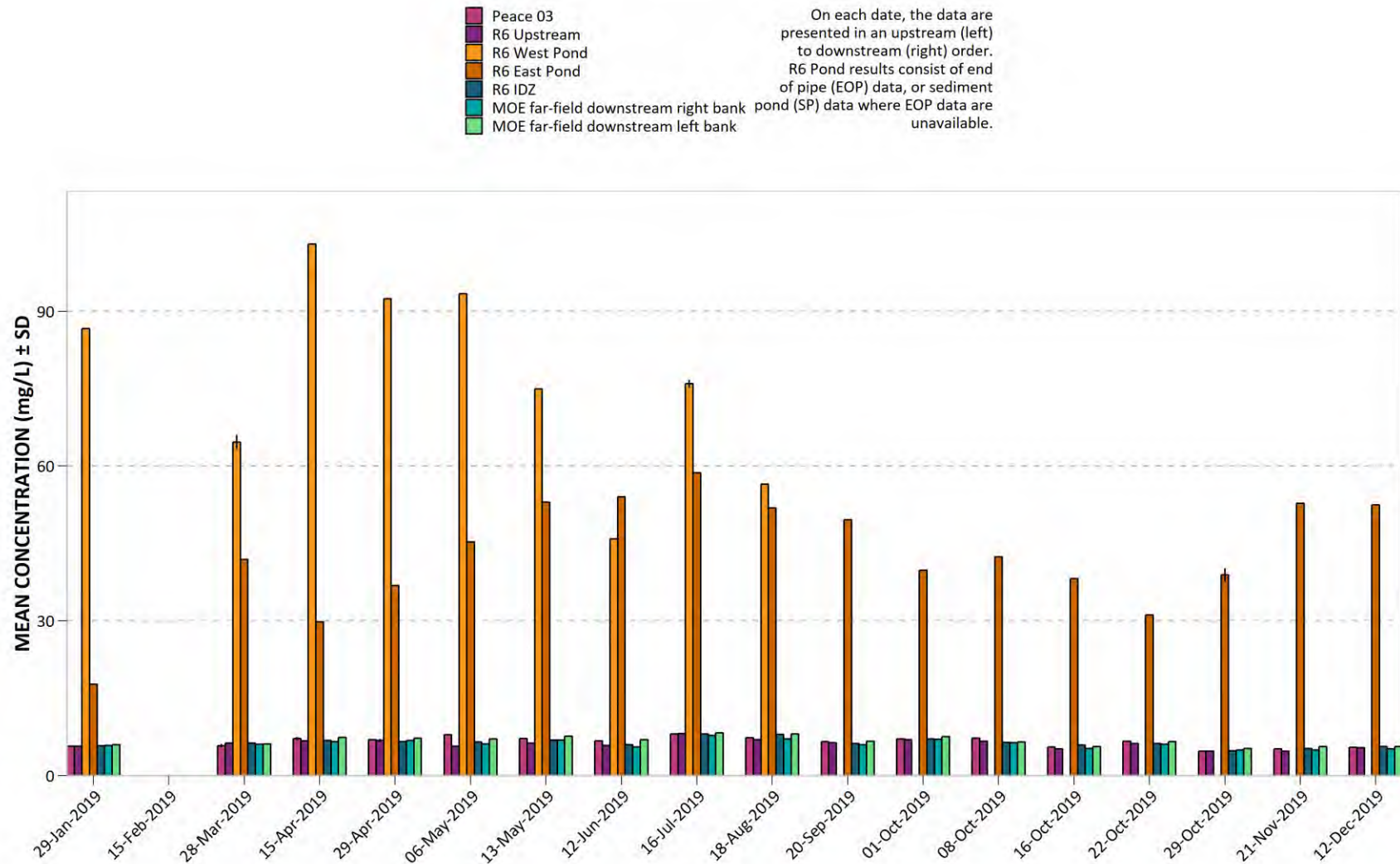
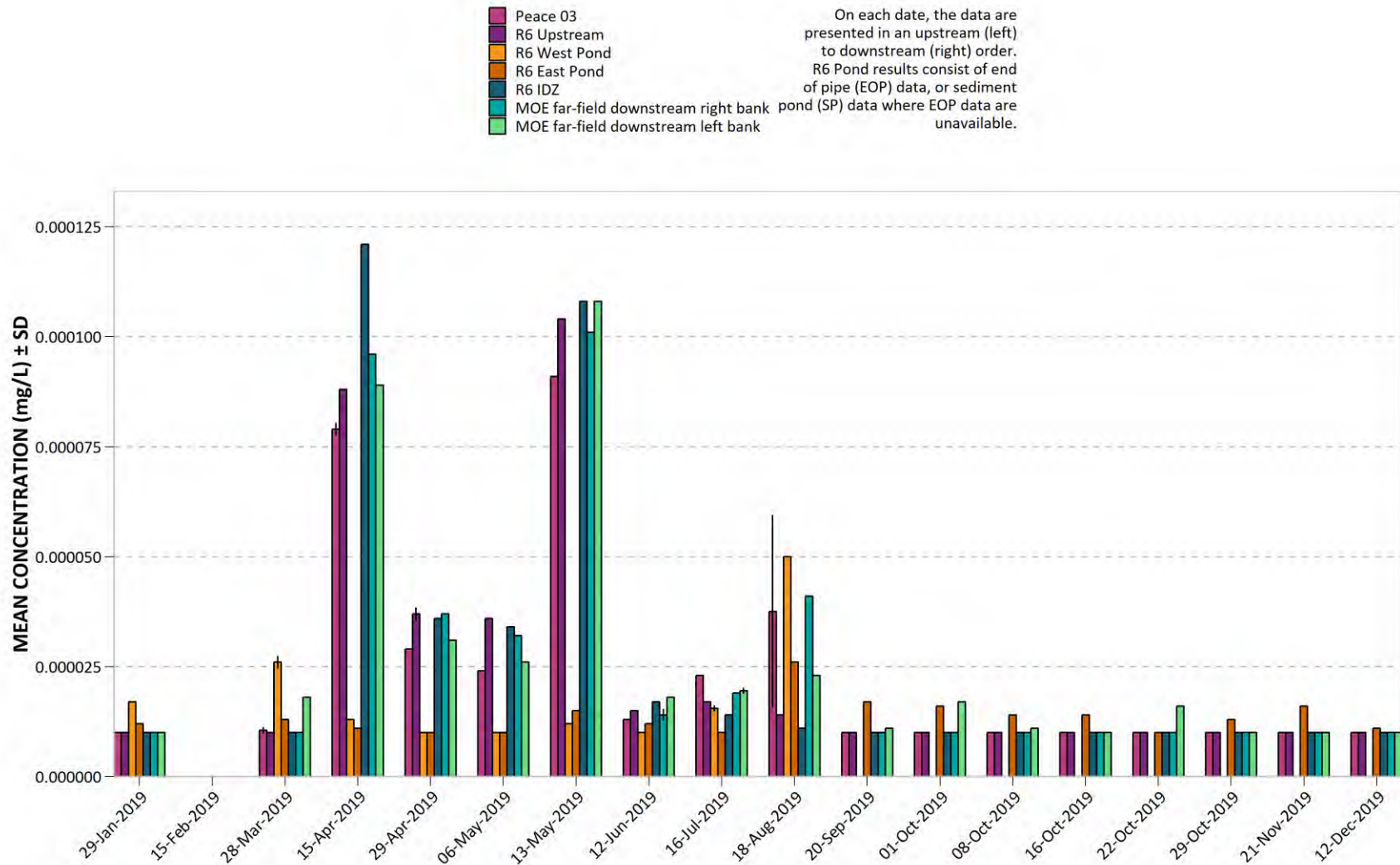
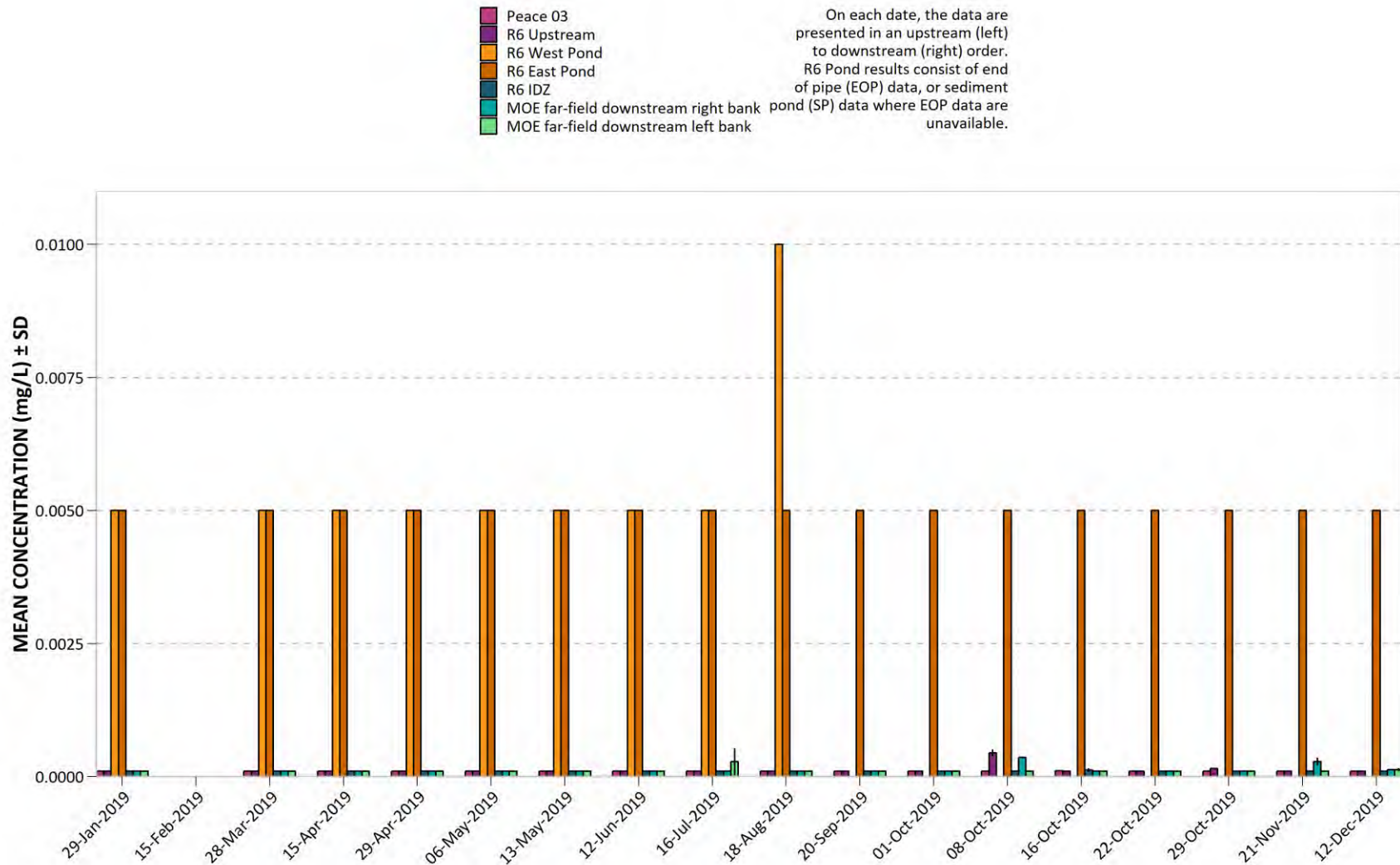


Figure 135. 2019 Peace River and RSEM R6 pond total thallium (Tl).



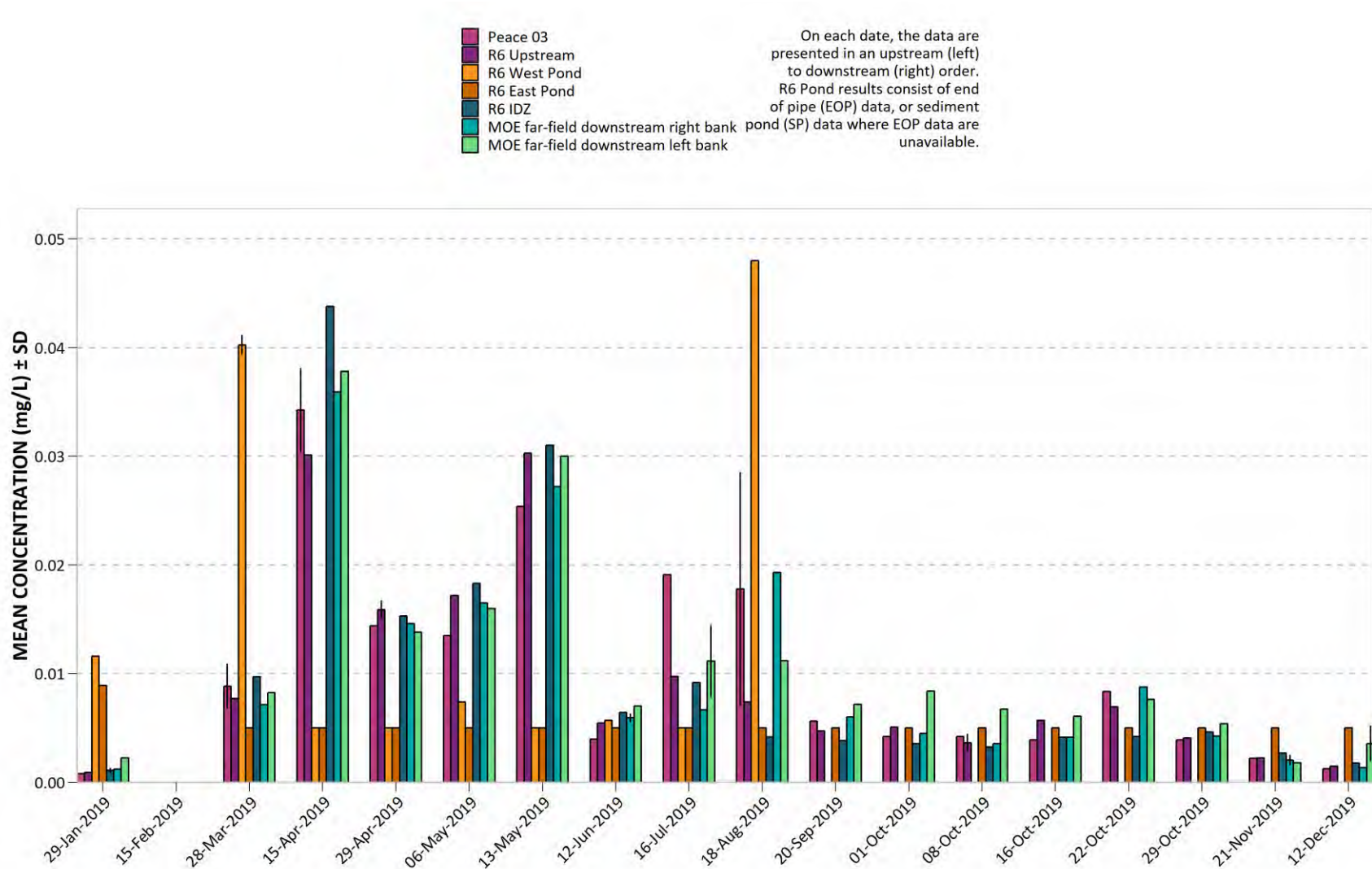
Results less than the MDL were assigned the MDL value of 0.00001 mg/L (Pond and Peace River).

Figure 136. 2019 Peace River and RSEM R6 pond total tin (Sn).



Results less than the MDL were assigned the MDL value of 0.005 mg/L (Pond) or 0.0001 mg/L (Peace River).

Figure 137. 2019 Peace River and RSEM R6 pond total titanium (Ti).



Pond results less than the MDL were assigned the MDL value of 0.005 mg/L.

Figure 138. 2019 Peace River and RSEM R6 pond total uranium (U).

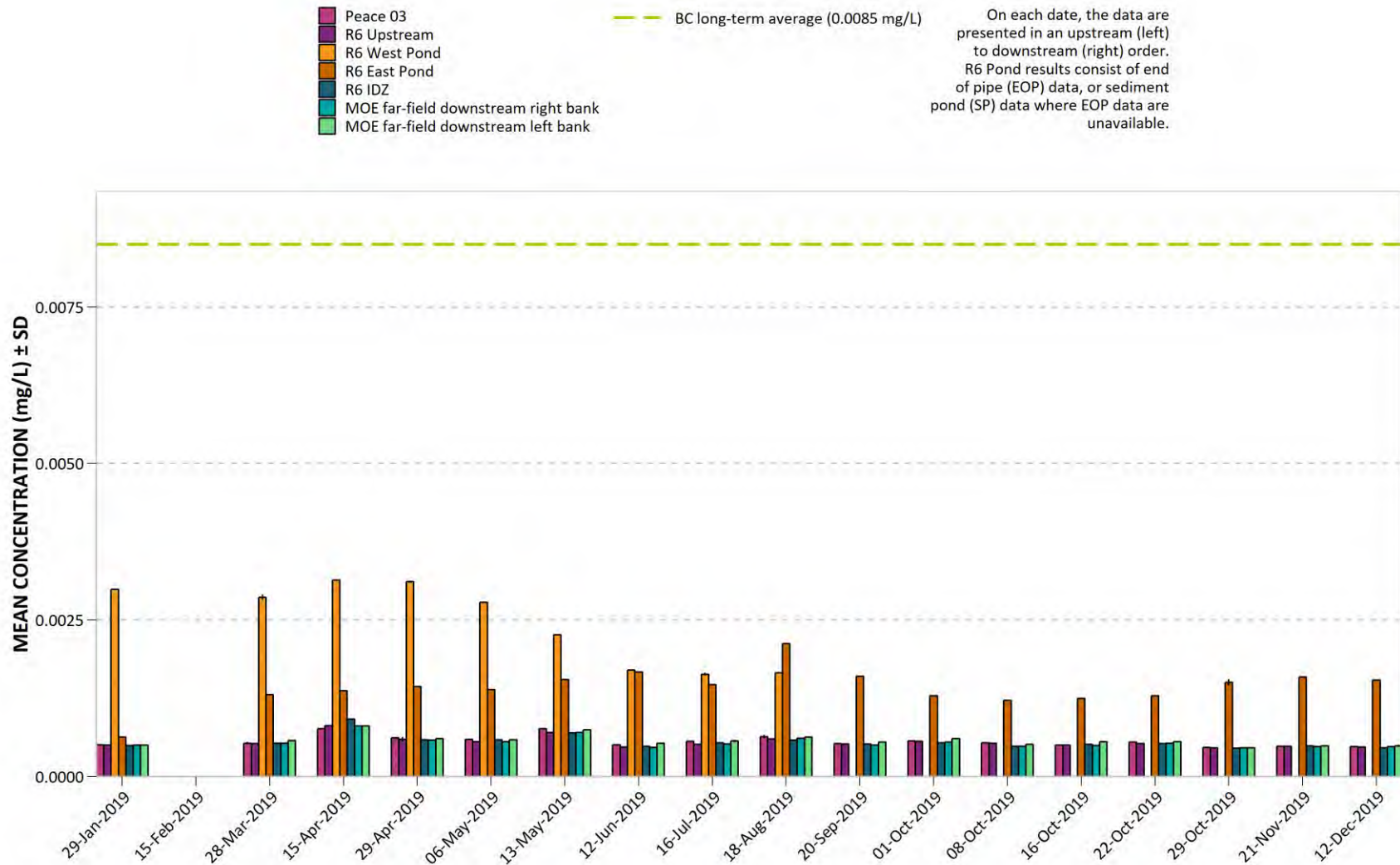
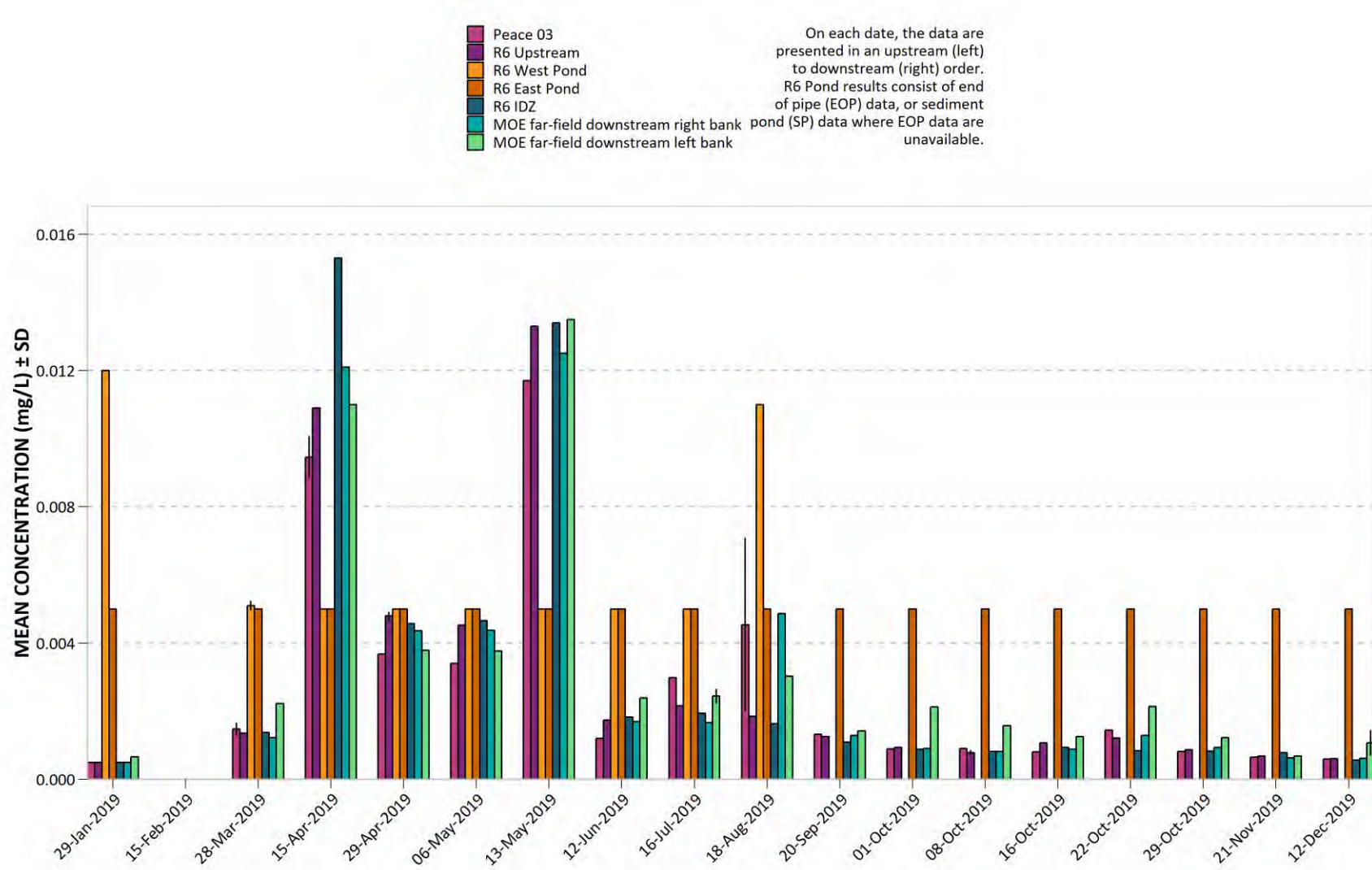
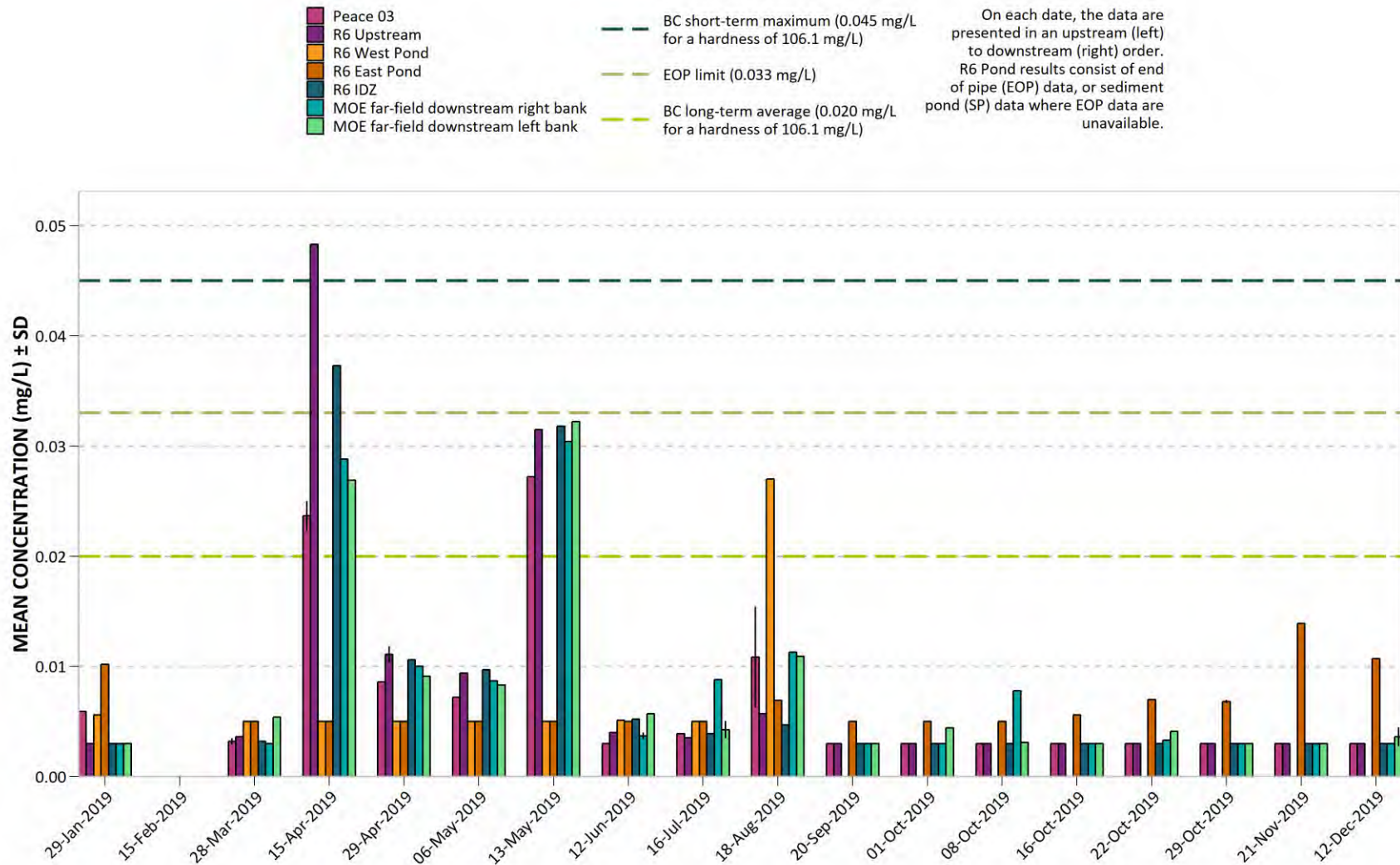


Figure 139. 2019 Peace River and RSEM R6 pond total vanadium (V).



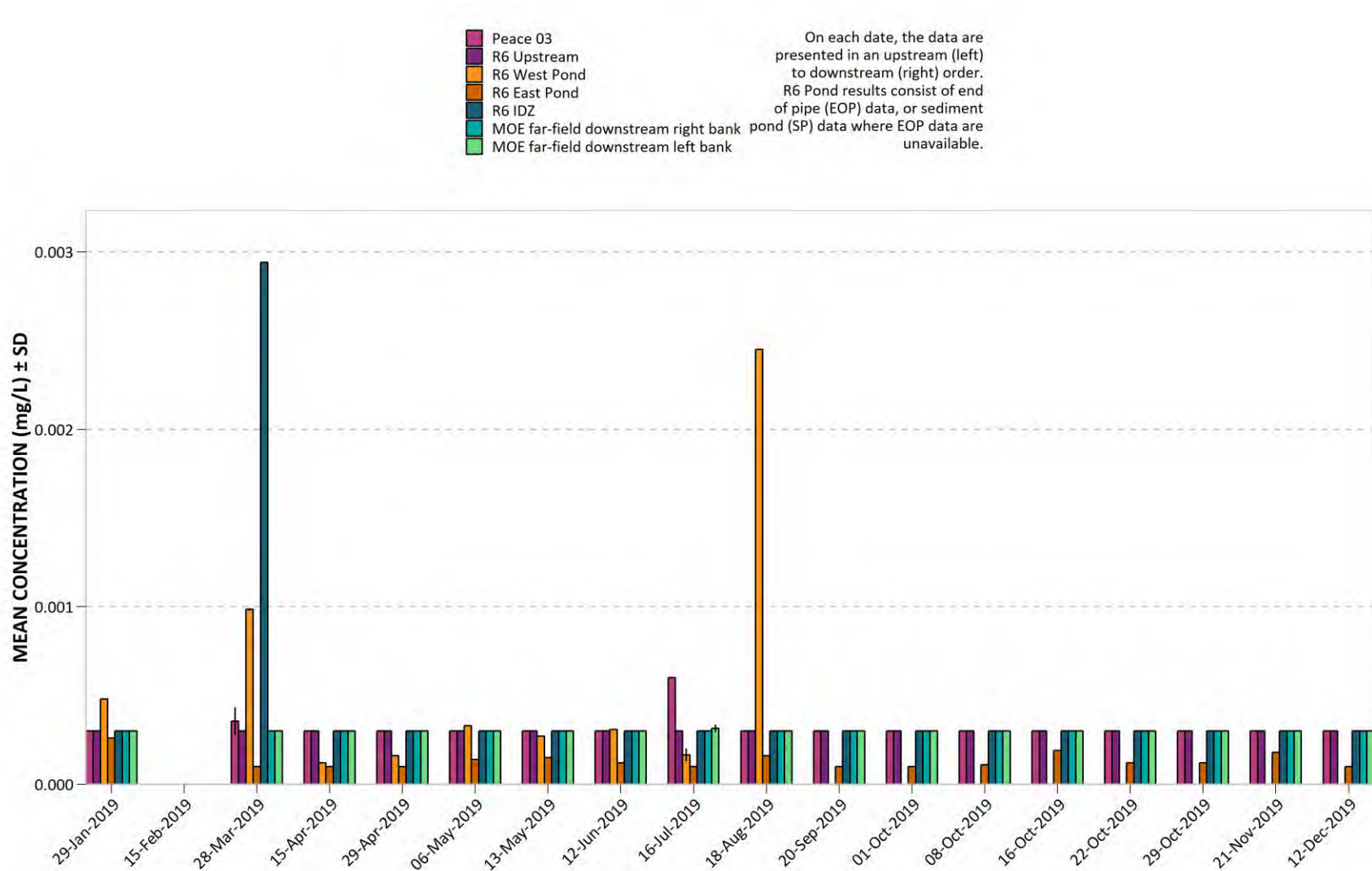
Results less than the MDL were assigned the MDL value of 0.005 mg/L (Pond) or 0.0005 mg/L (Peace River).

Figure 140. 2019 Peace River and RSEM R6 pond total zinc (Zn).



Results less than the MDL were assigned the MDL value of 0.005 mg/L (Pond) or 0.003 mg/L (Peace River).

Figure 141. 2019 Peace River and RSEM R6 pond total zirconium (Zr).



Results less than the MDL were assigned the MDL value of 0.0001 mg/L (Pond) or 0.0003/0.0006 mg/L (Peace River).



Figure 142. 2019 Peace River and RSEM R6 pond dissolved aluminum (Al).

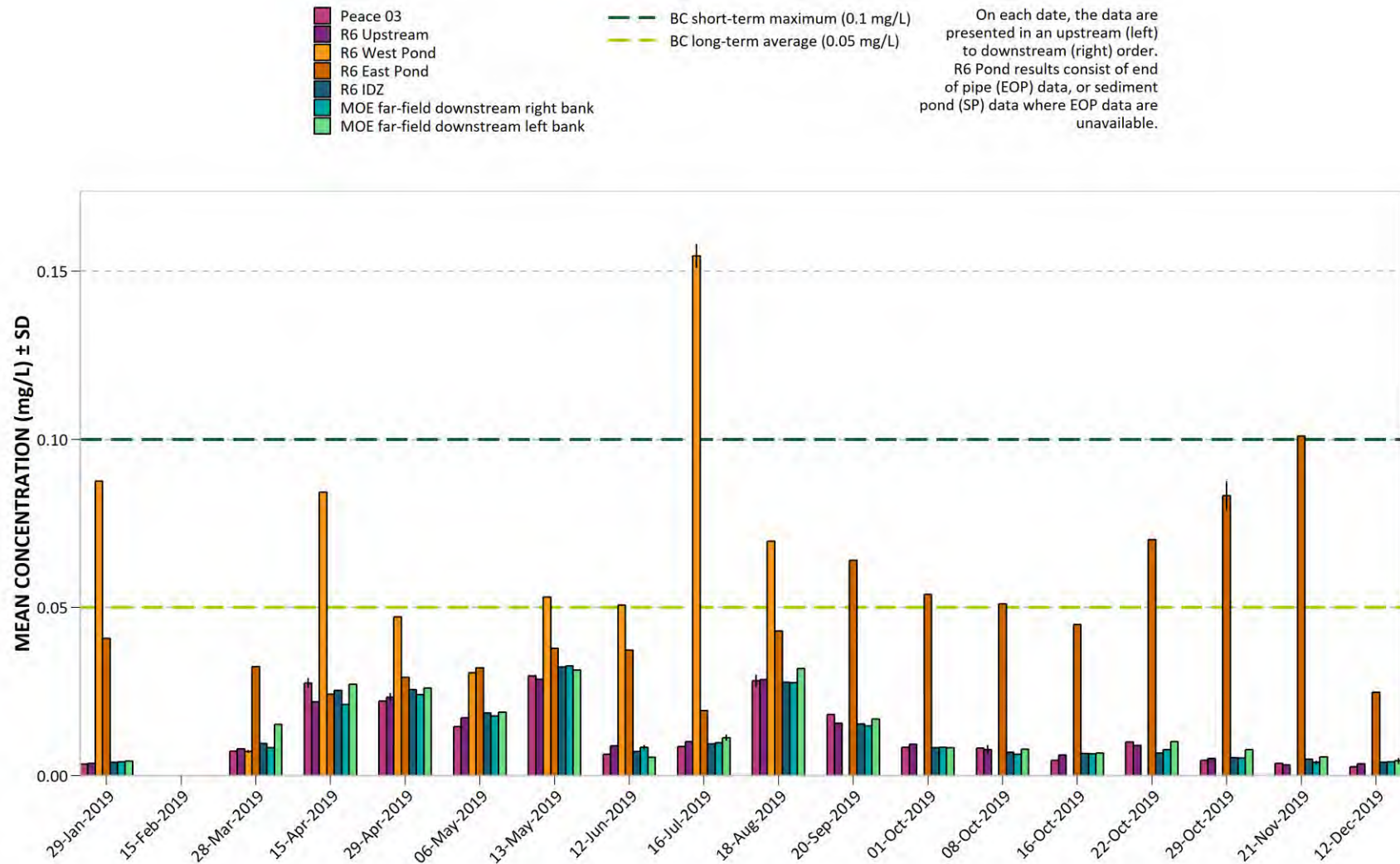
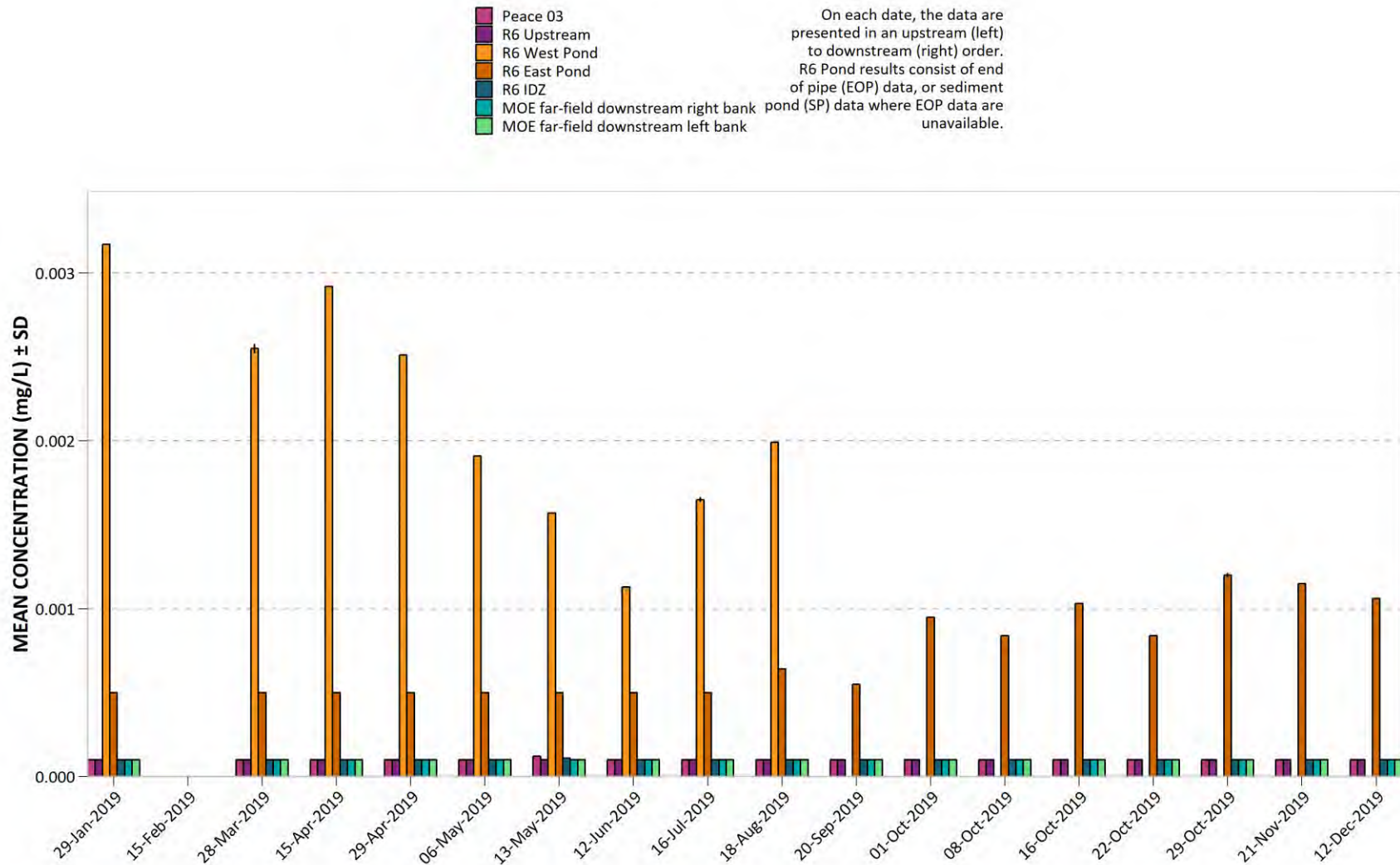


Figure 143. 2019 Peace River and RSEM R6 pond dissolved antimony (Sb).



Results less than the MDL were assigned the MDL value of 0.0005 mg/L (Pond) or 0.0001 mg/L (Peace River).

Figure 144. 2019 Peace River and RSEM R6 pond dissolved arsenic (As).

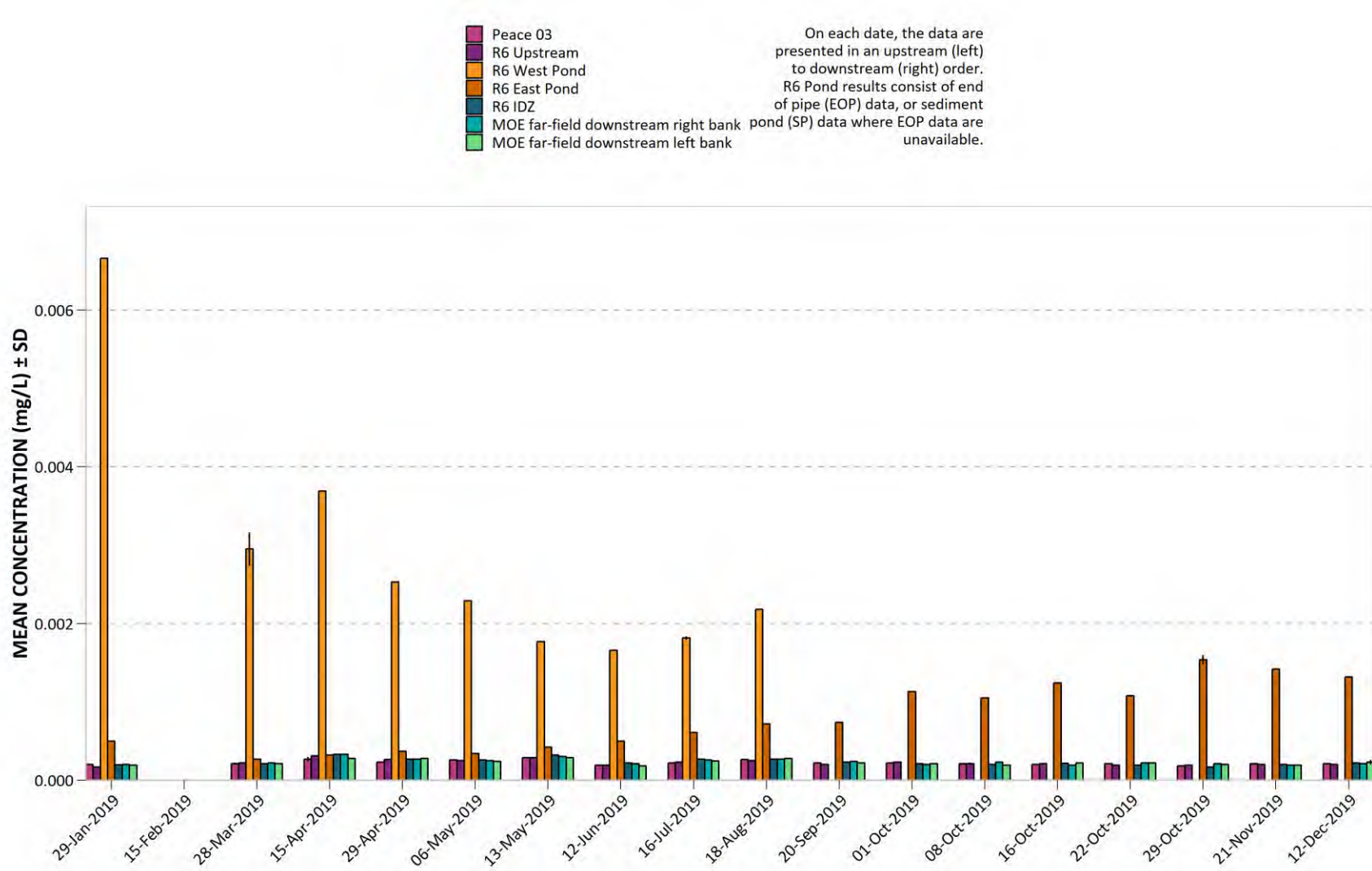


Figure 145. 2019 Peace River and RSEM R6 pond dissolved barium (Ba).

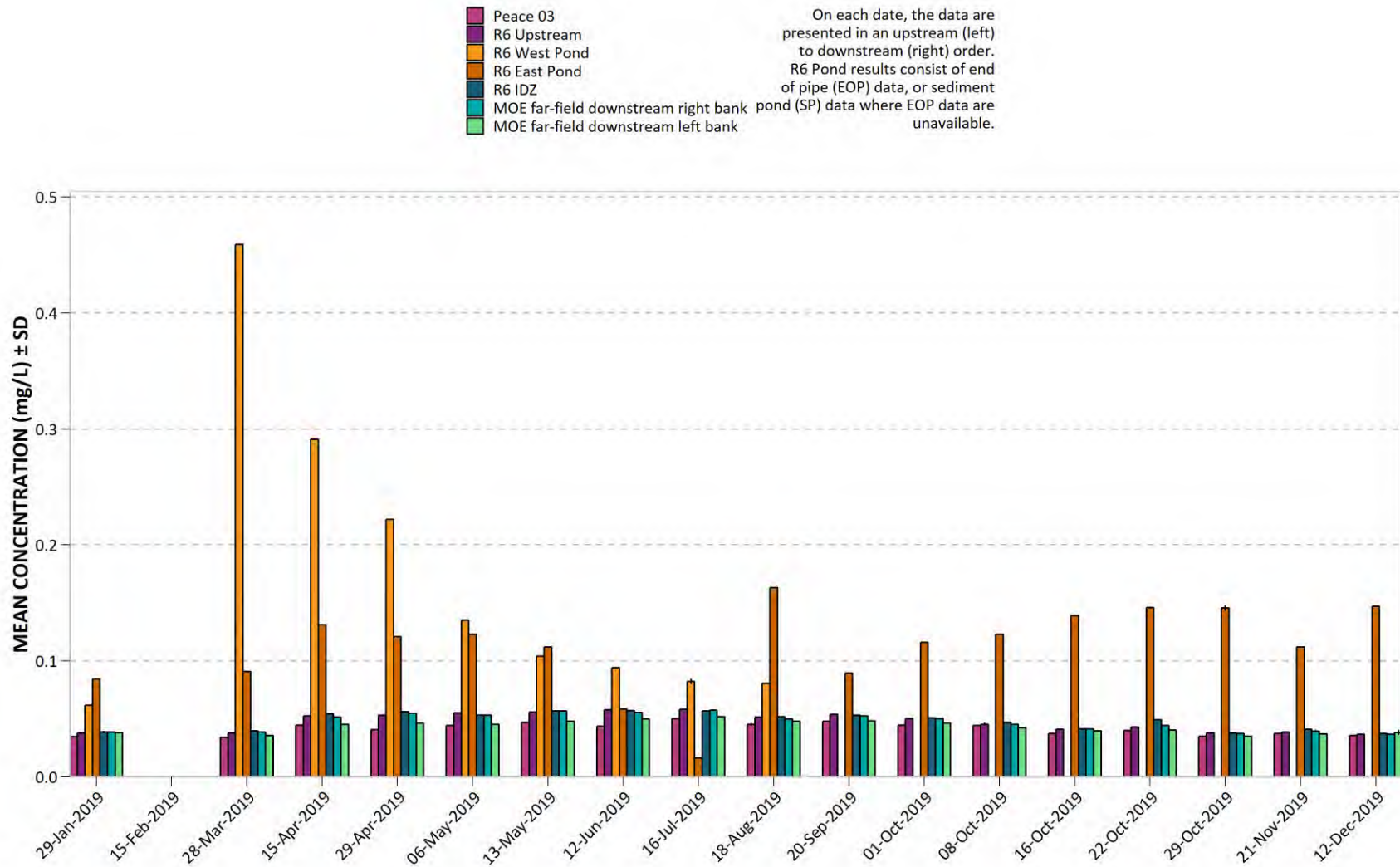
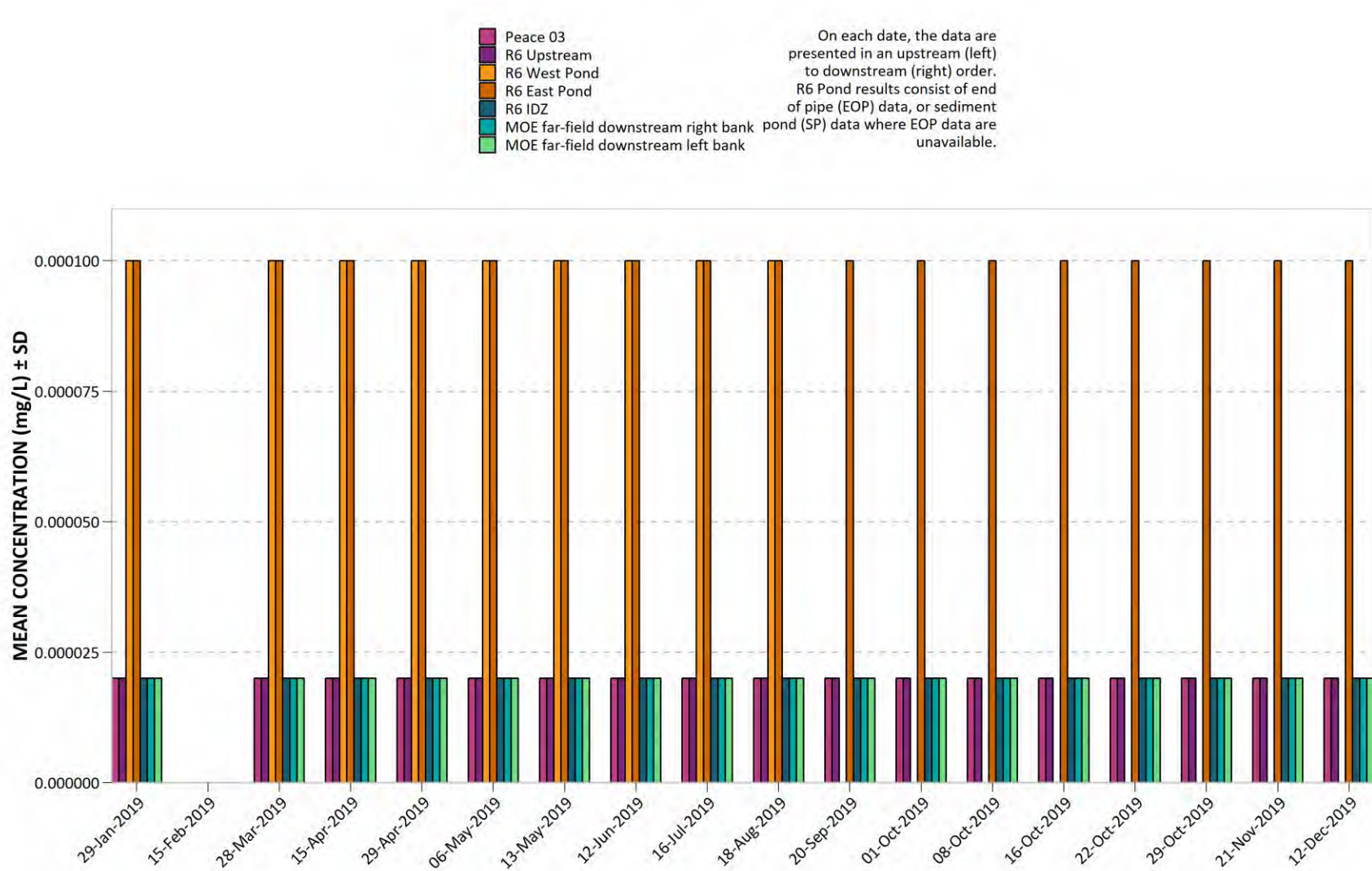
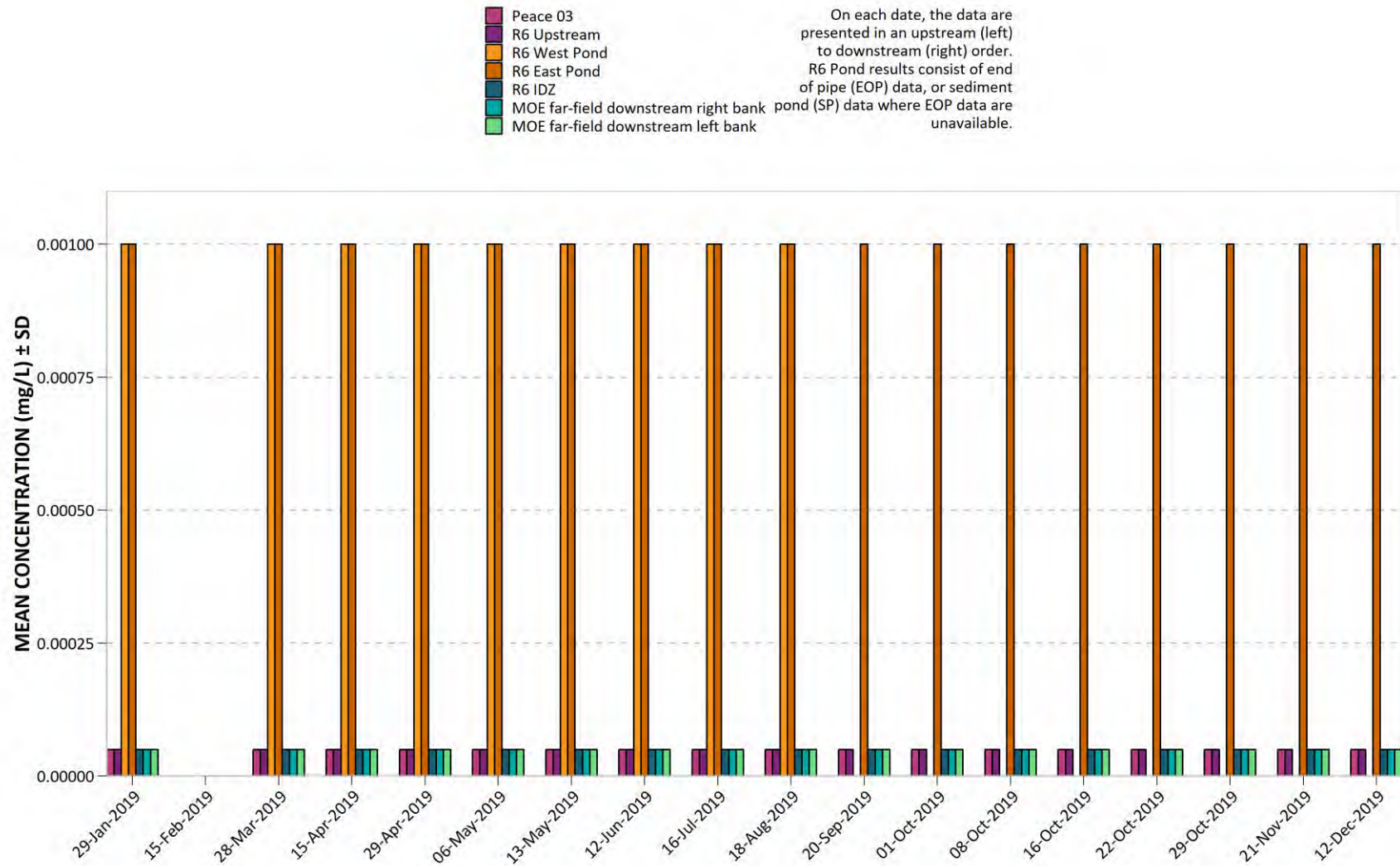


Figure 146. 2019 Peace River and RSEM R6 pond dissolved beryllium (Be).



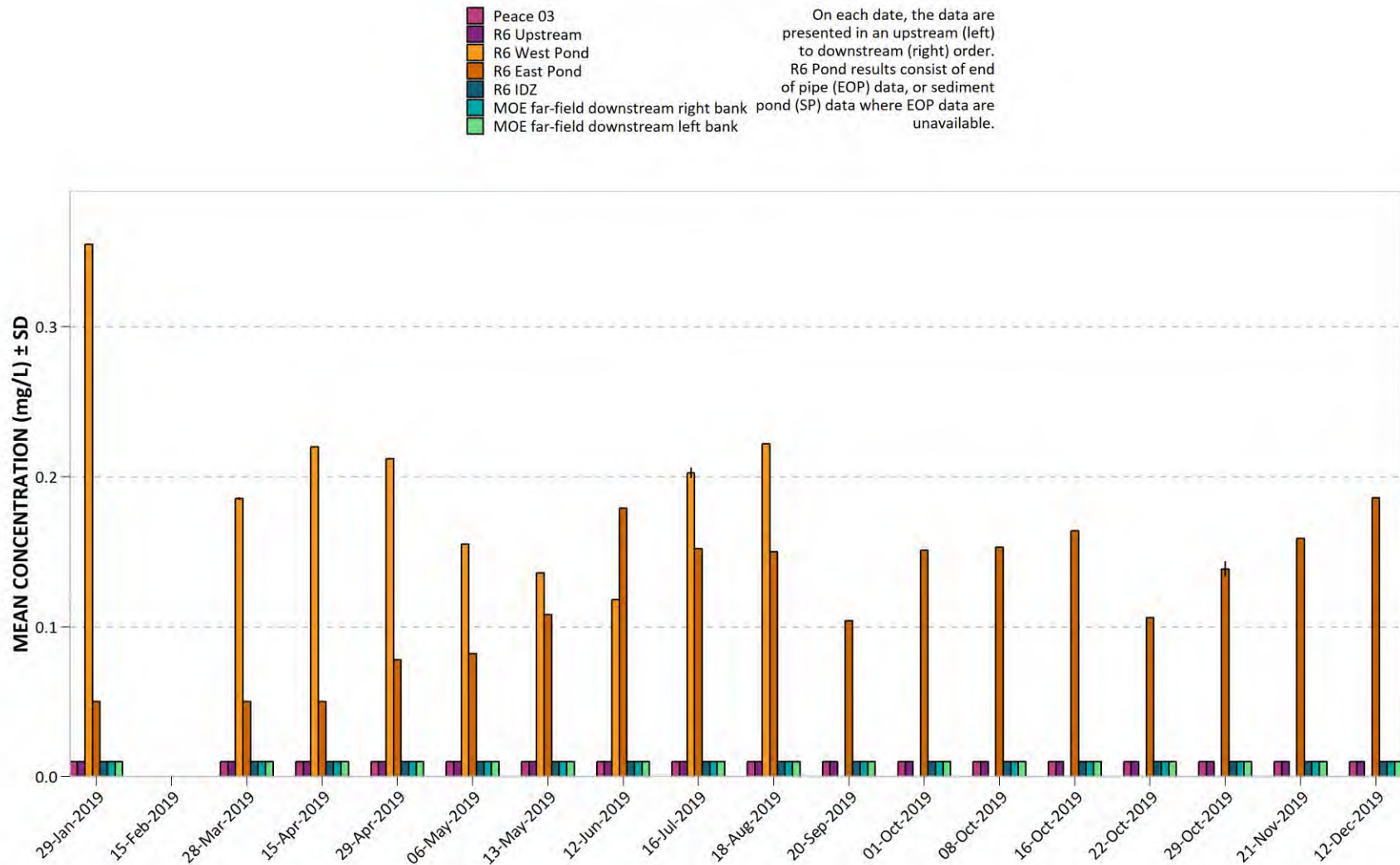
All results were less than the MDL and thus were assigned the MDL value of 0.0001 mg/L (Pond) or 0.00002 mg/L (Peace River).

Figure 147. 2019 Peace River and RSEM R6 pond dissolved bismuth (Bi).



Results less than the MDL were assigned the MDL value of 0.001 mg/L (Pond) or 0.0001 mg/L (Peace River).

Figure 148. 2019 Peace River and RSEM R6 pond dissolved boron (B).



Results less than the MDL were assigned the MDL value of 0.05 mg/L (Pond) or 0.01 mg/L (Peace River).

Figure 149. 2019 Peace River and RSEM R6 pond dissolved cadmium (Cd).

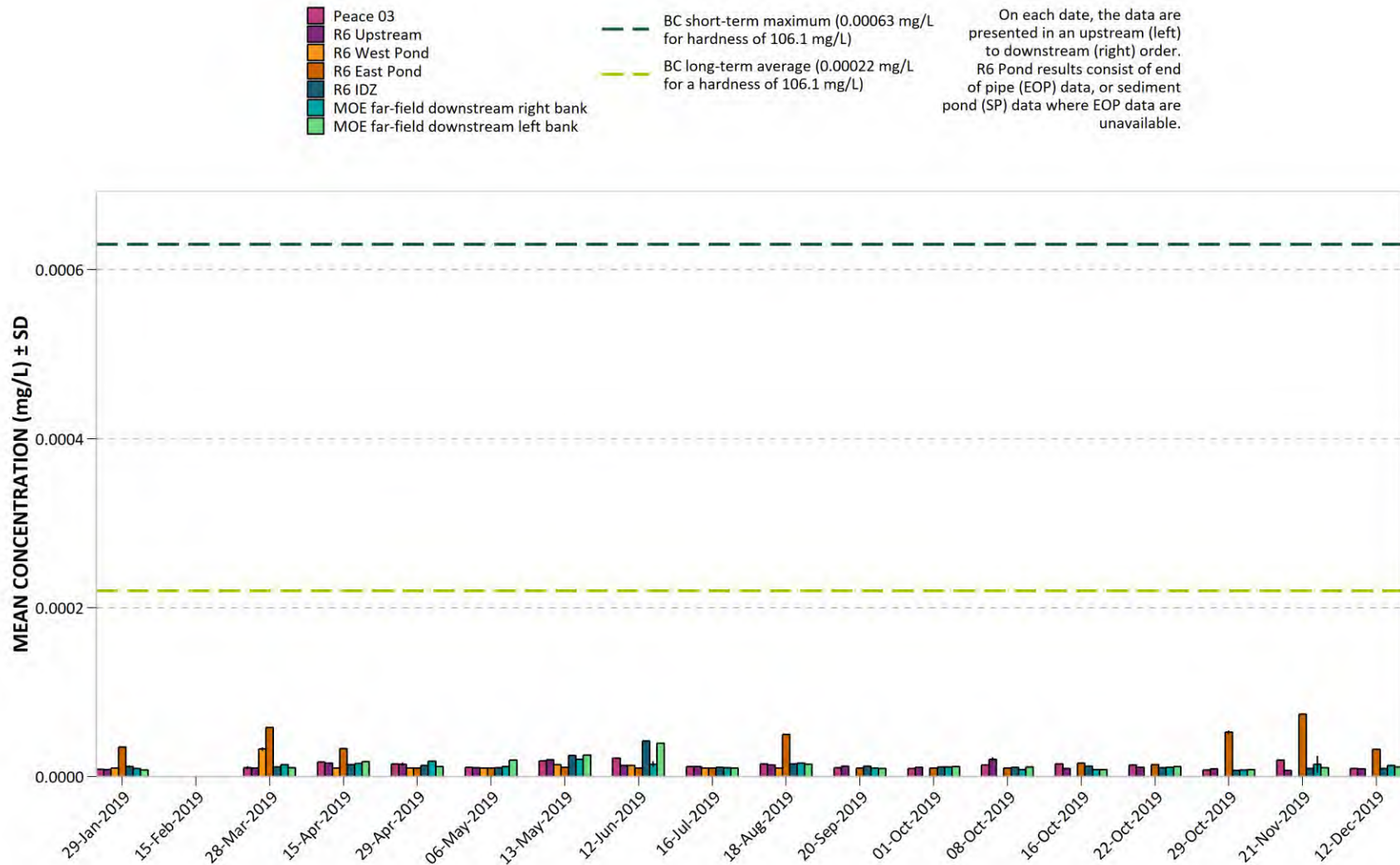




Figure 150. 2019 Peace River and RSEM R6 pond dissolved calcium (Ca).

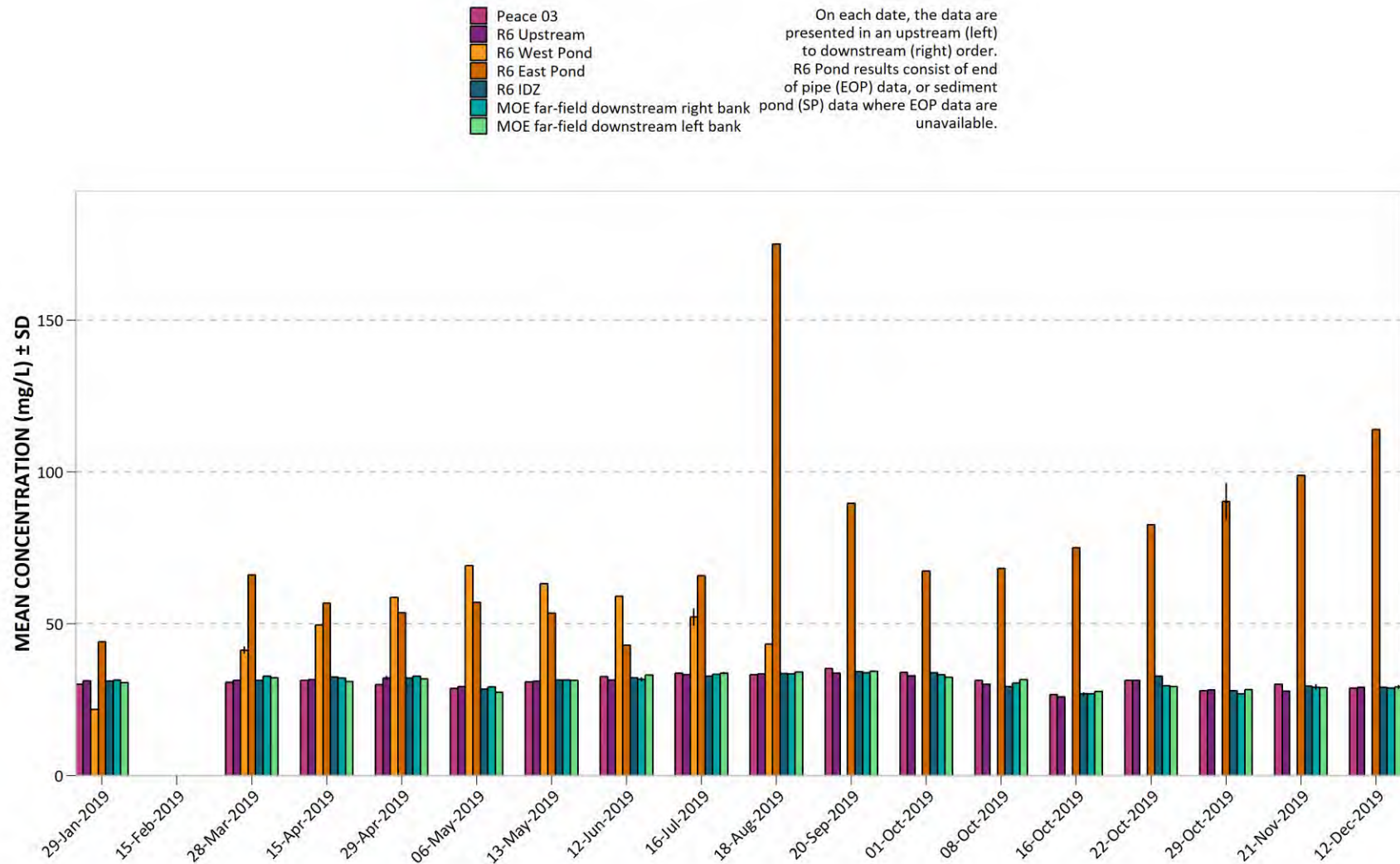
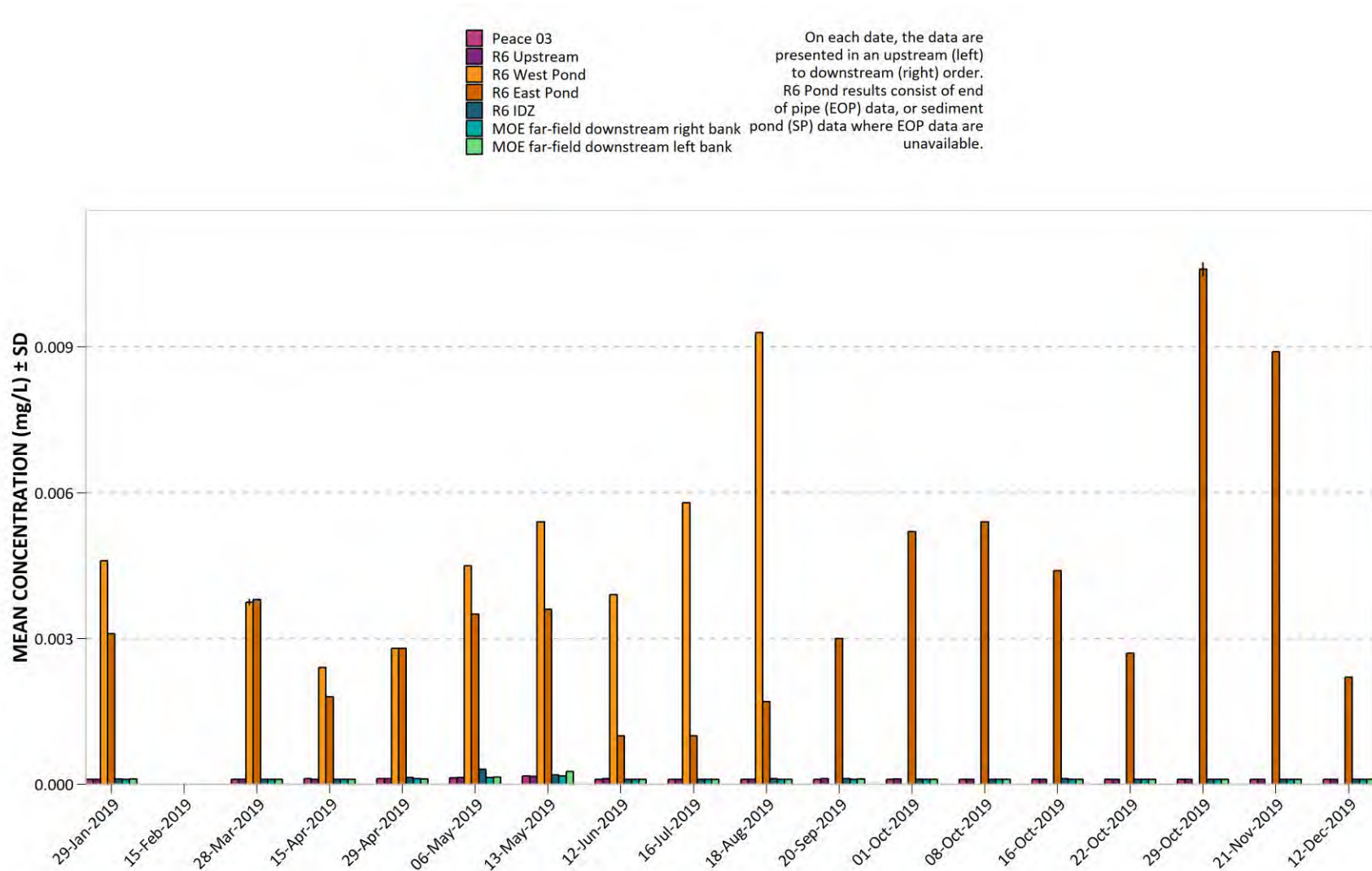
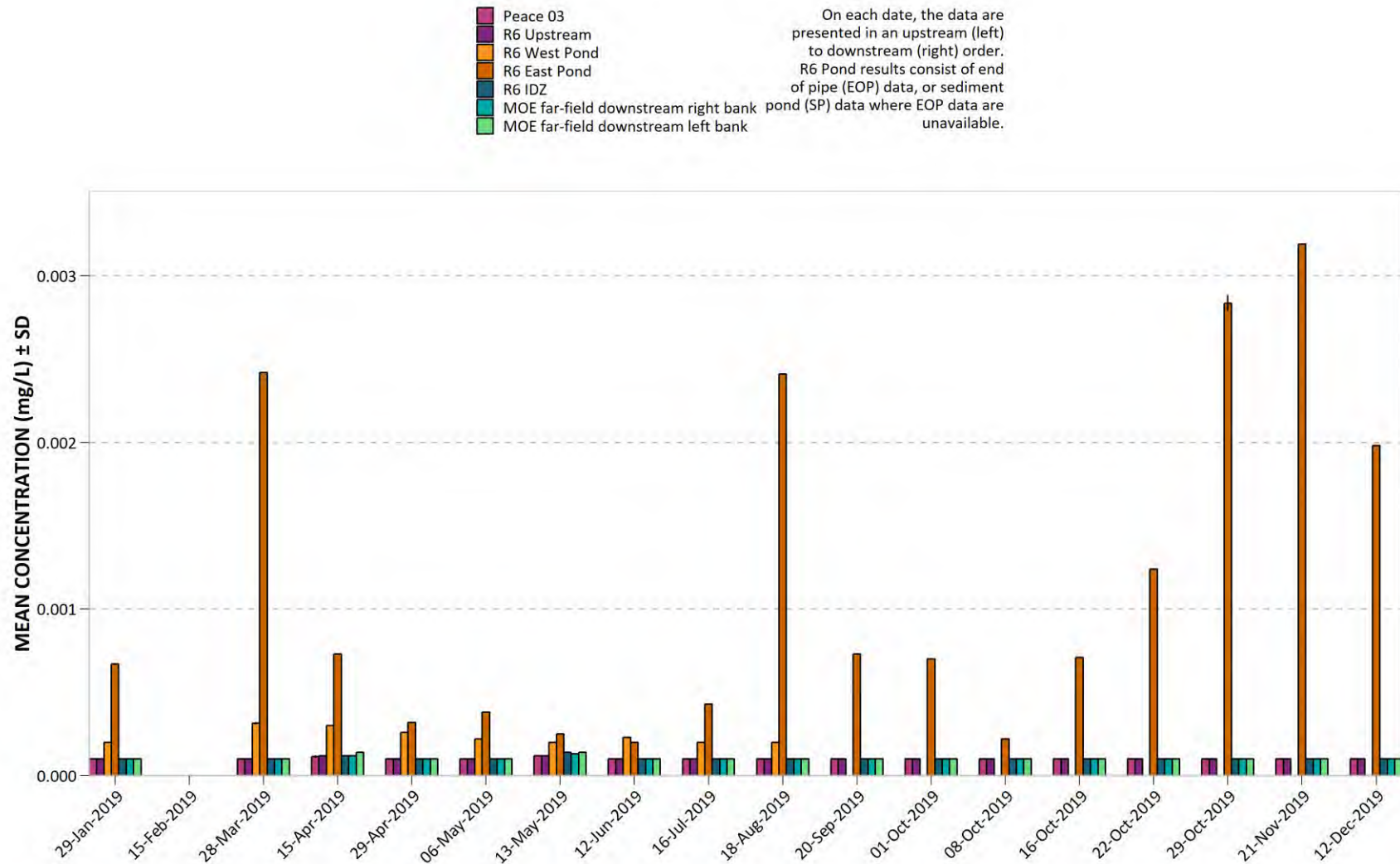


Figure 151. 2019 Peace River and RSEM R6 pond dissolved chromium (Cr).



Results less than the MDL were assigned the MDL value of 0.001 mg/L (Pond) or 0.0001 mg/L (Peace River).

Figure 152. 2019 Peace River and RSEM R6 pond dissolved cobalt (Co).



Results less than the MDL were assigned the MDL value of 0.0002 mg/L (Pond) or 0.0001 mg/L (Peace River).

Figure 153. 2019 Peace River and RSEM R6 pond dissolved copper (Cu). New dissolved copper BC WQG replaced the total copper BC WQG in August 2019 (MOE 2019).

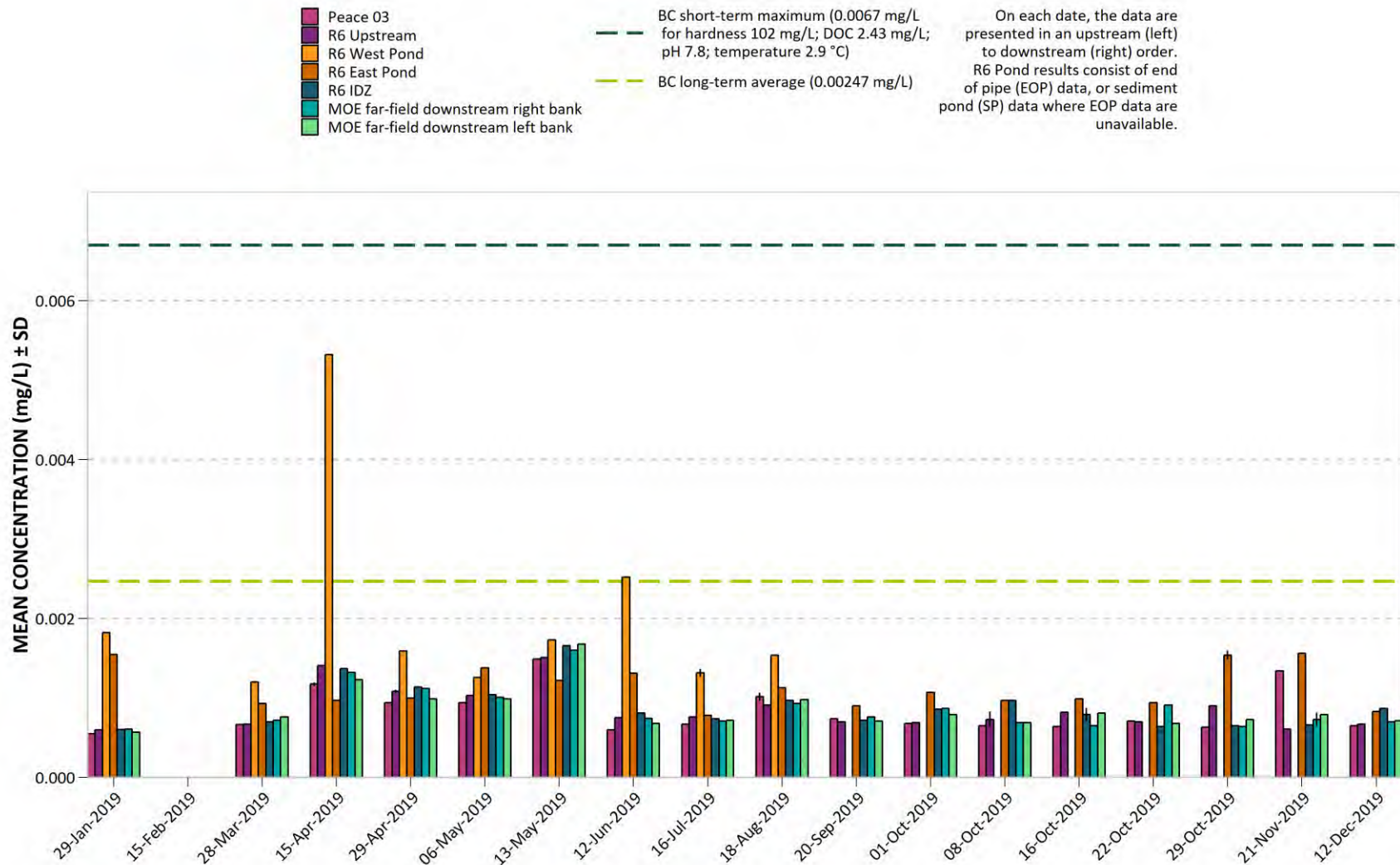
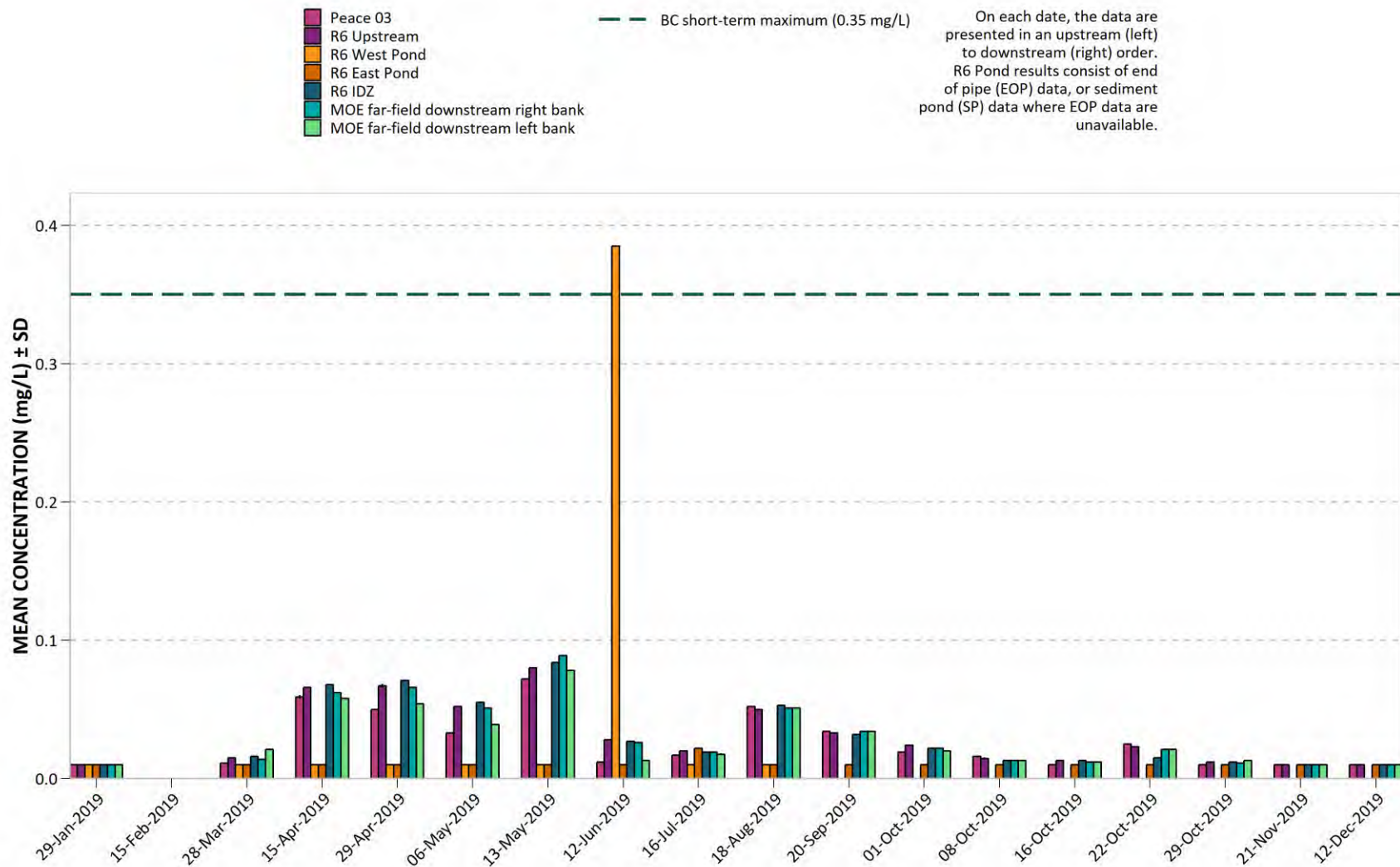
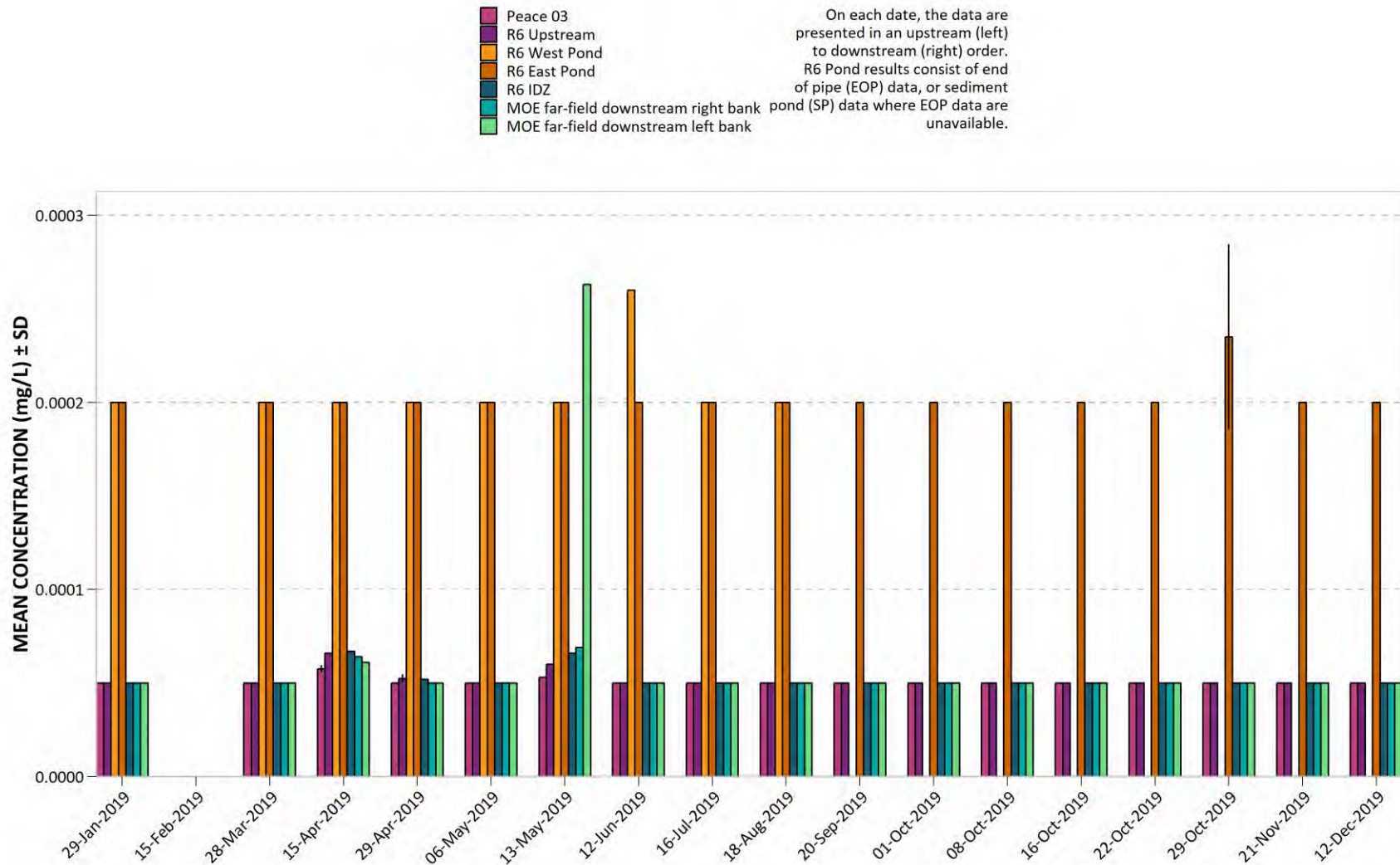


Figure 154. 2019 Peace River and RSEM R6 pond dissolved iron (Fe).



Results less than the MDL were assigned the MDL value of 0.01 mg/L (Pond and Peace River).

Figure 155. 2019 Peace River and RSEM R6 pond dissolved lead (Pb).



Results less than the MDL were assigned the MDL value of 0.0002 mg/L (Pond) or 0.00005 mg/L (Peace River).

Figure 156. 2019 Peace River and RSEM R6 pond dissolved lithium (Li).

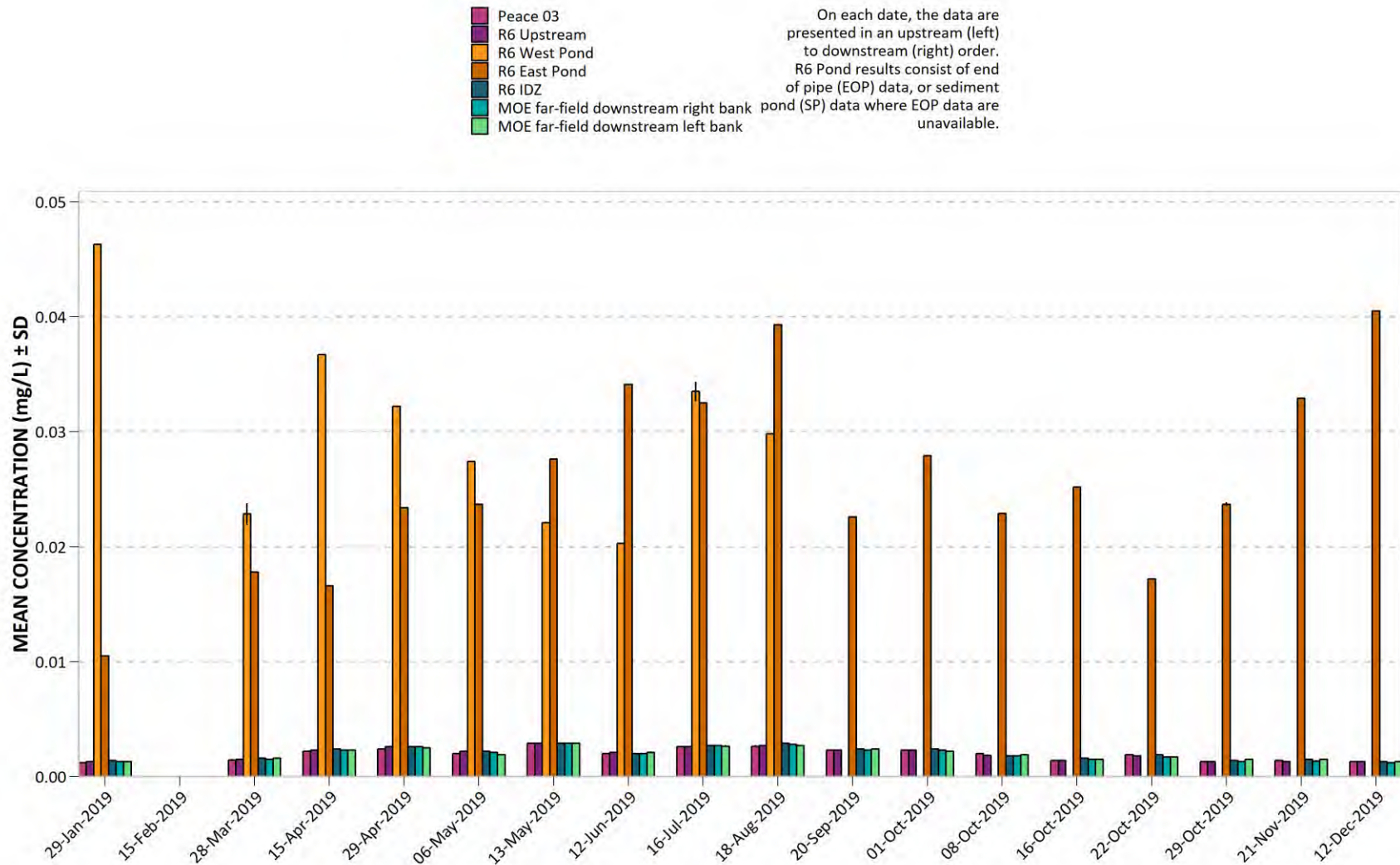


Figure 157. 2019 Peace River and RSEM R6 pond dissolved magnesium (Mg).

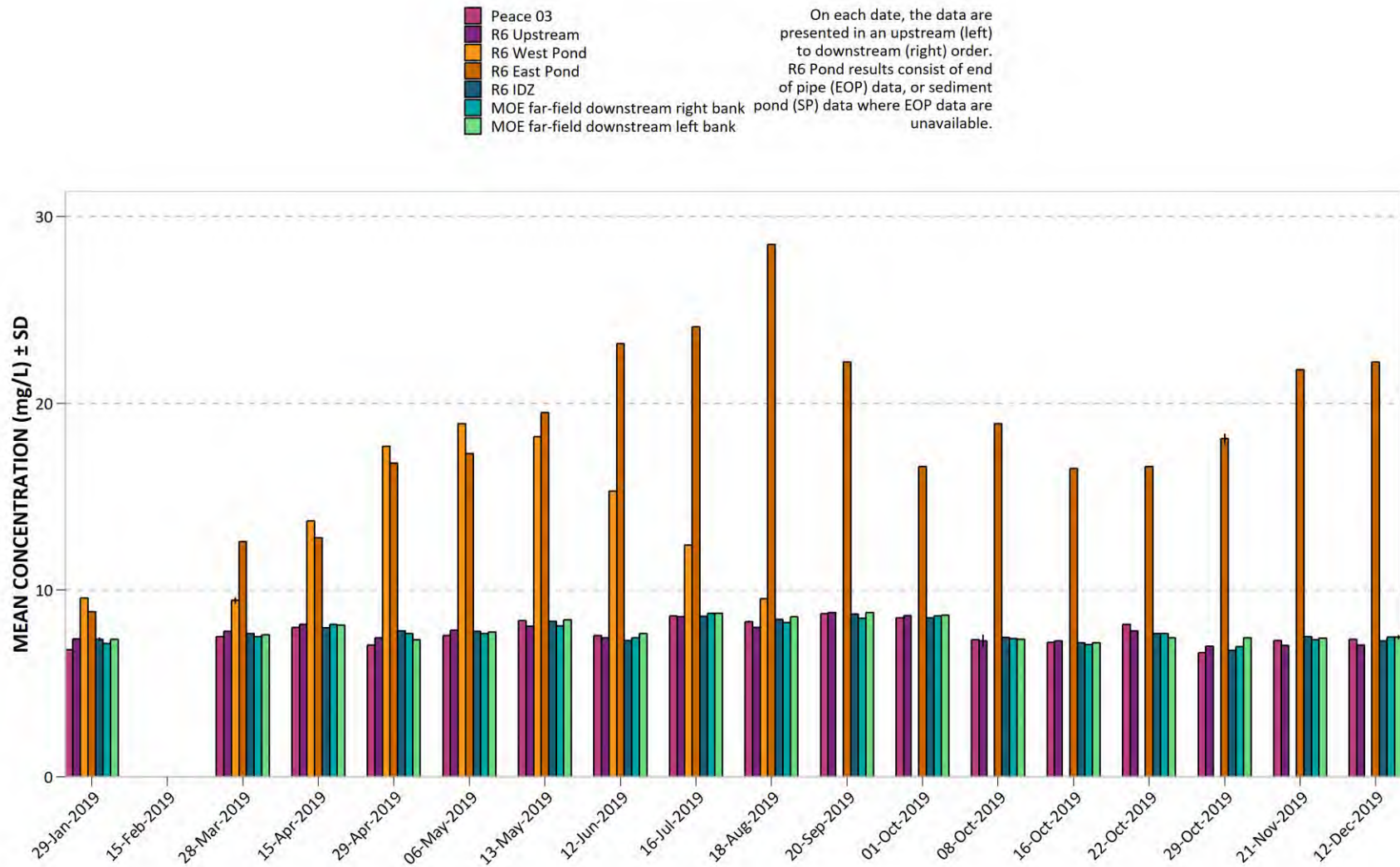




Figure 158. 2019 Peace River and RSEM R6 pond dissolved manganese (Mn).

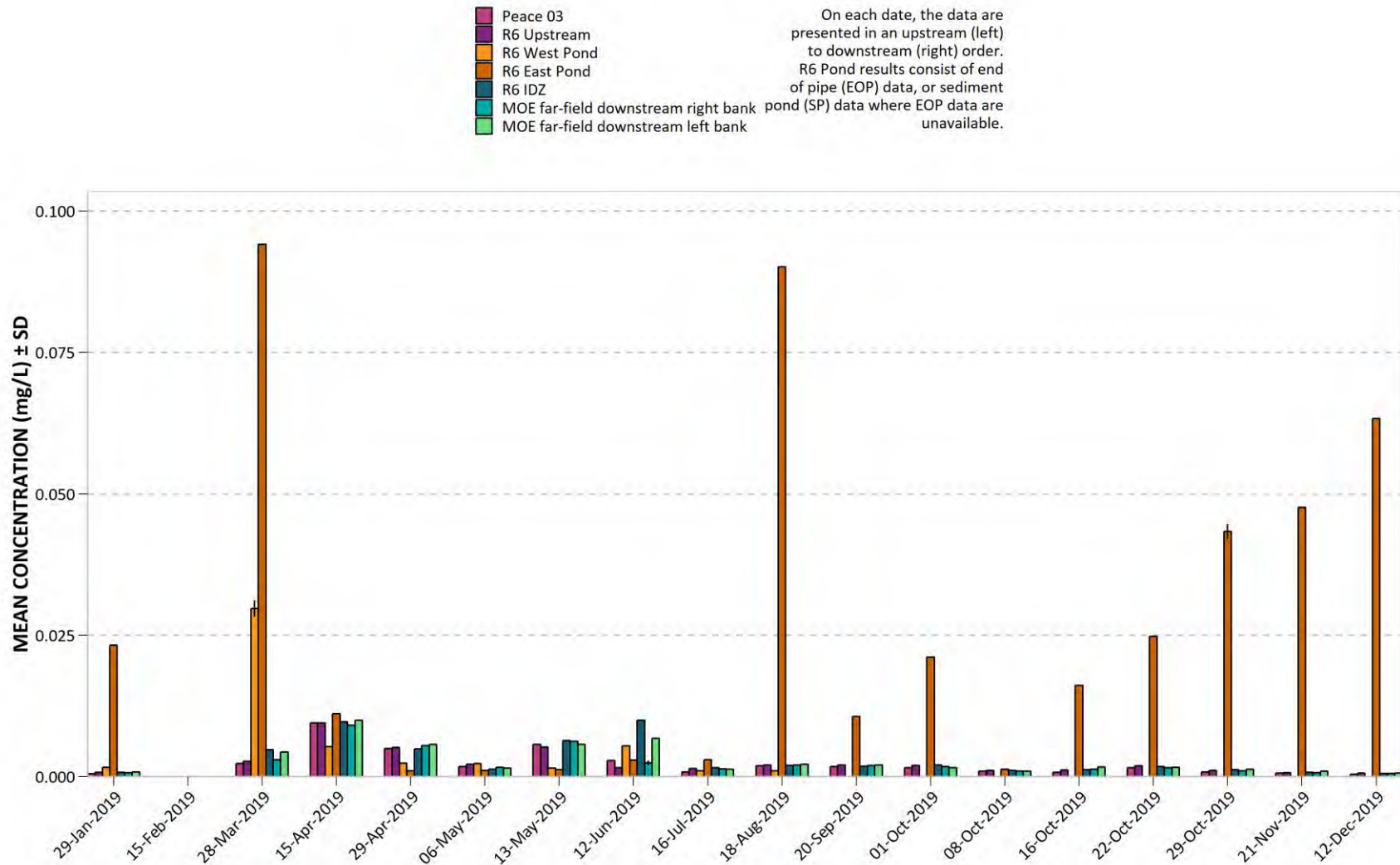
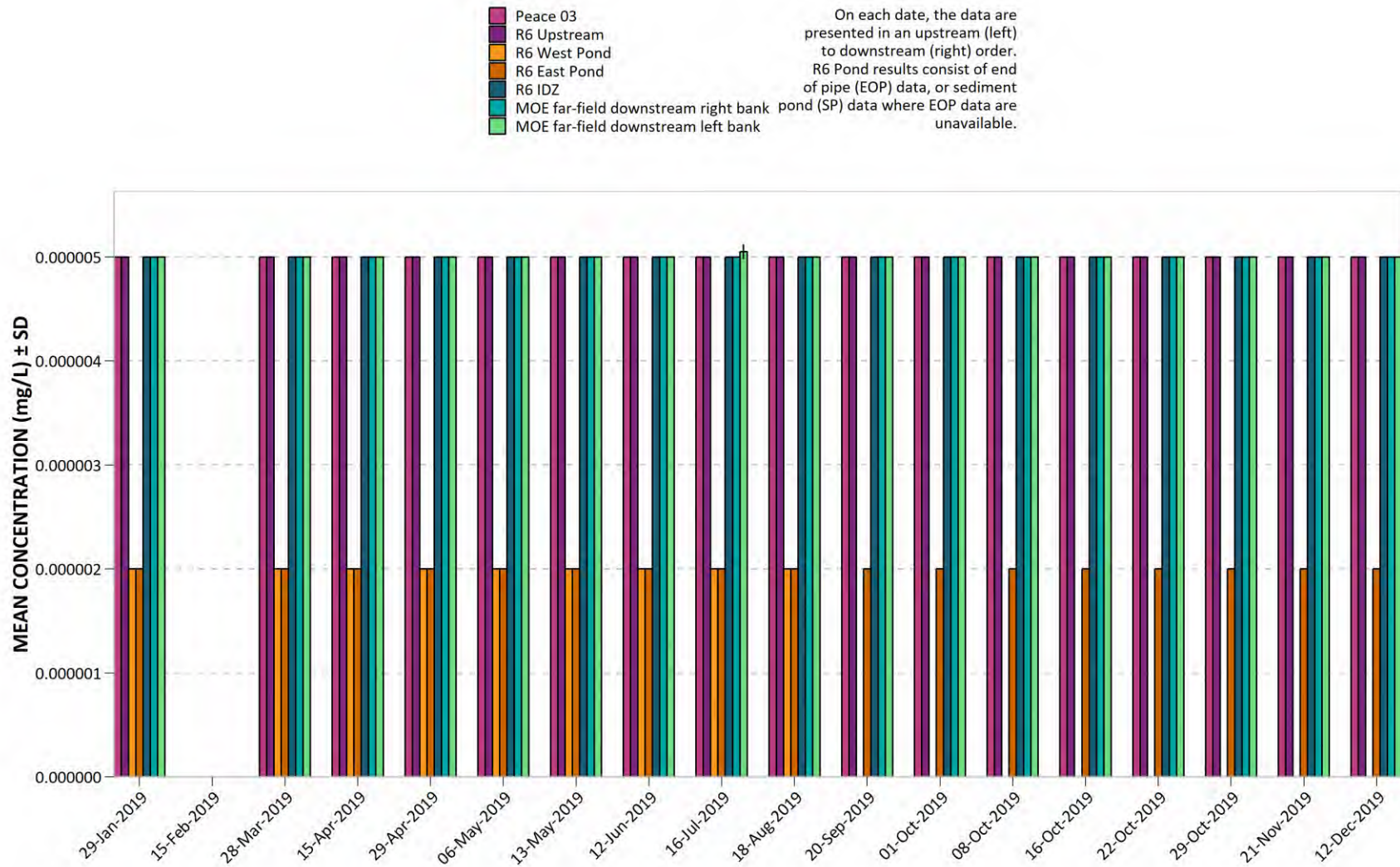


Figure 159. 2019 Peace River and RSEM R6 pond dissolved mercury (Hg).



Results less than the MDL were assigned the MDL value of 0.000005 mg/L (Peace River), 0.000002 mg/L (Pond)

Figure 160. 2019 Peace River and RSEM R6 pond dissolved molybdenum (Mo).

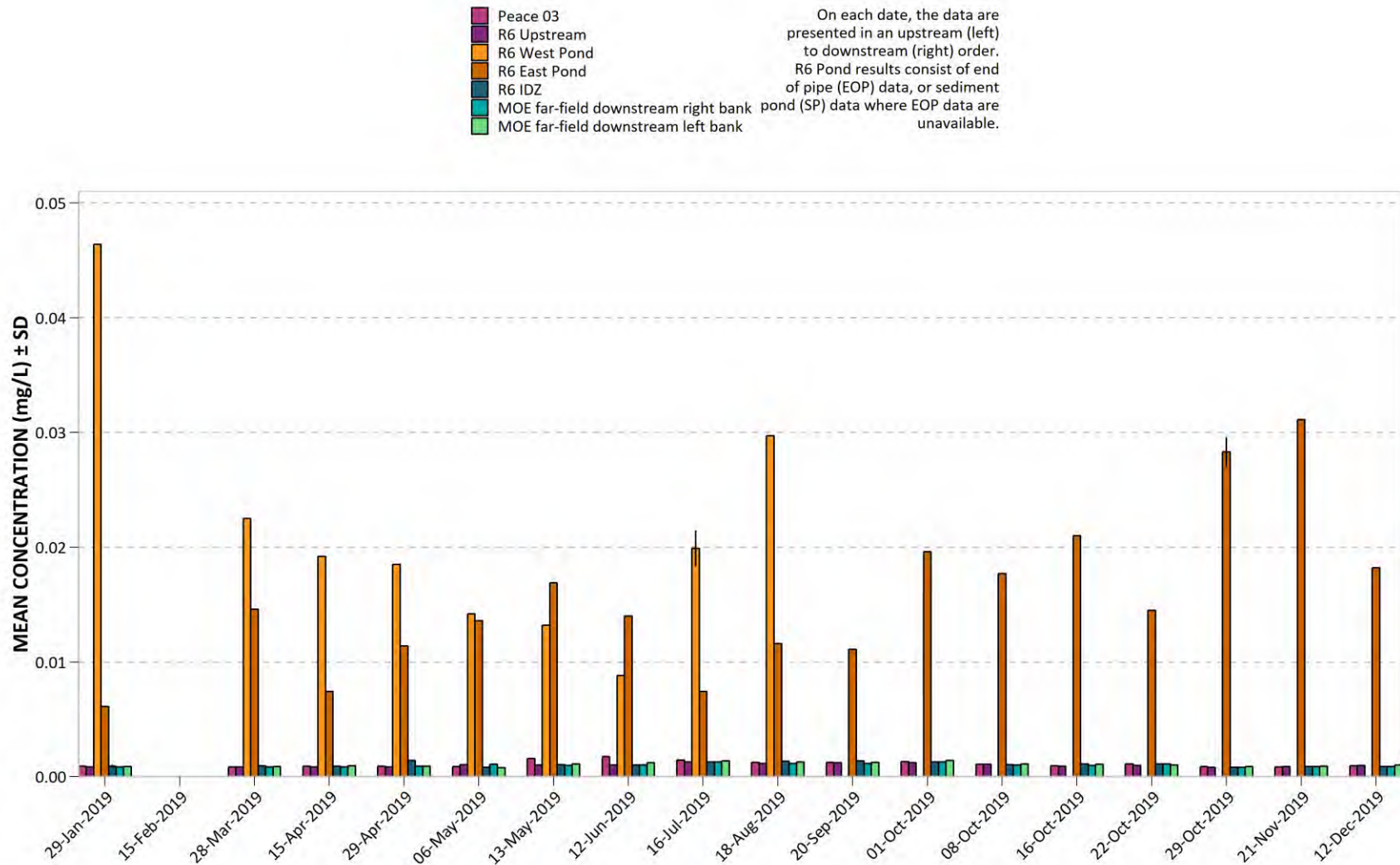


Figure 161. 2019 Peace River and RSEM R6 pond dissolved nickel (Ni).

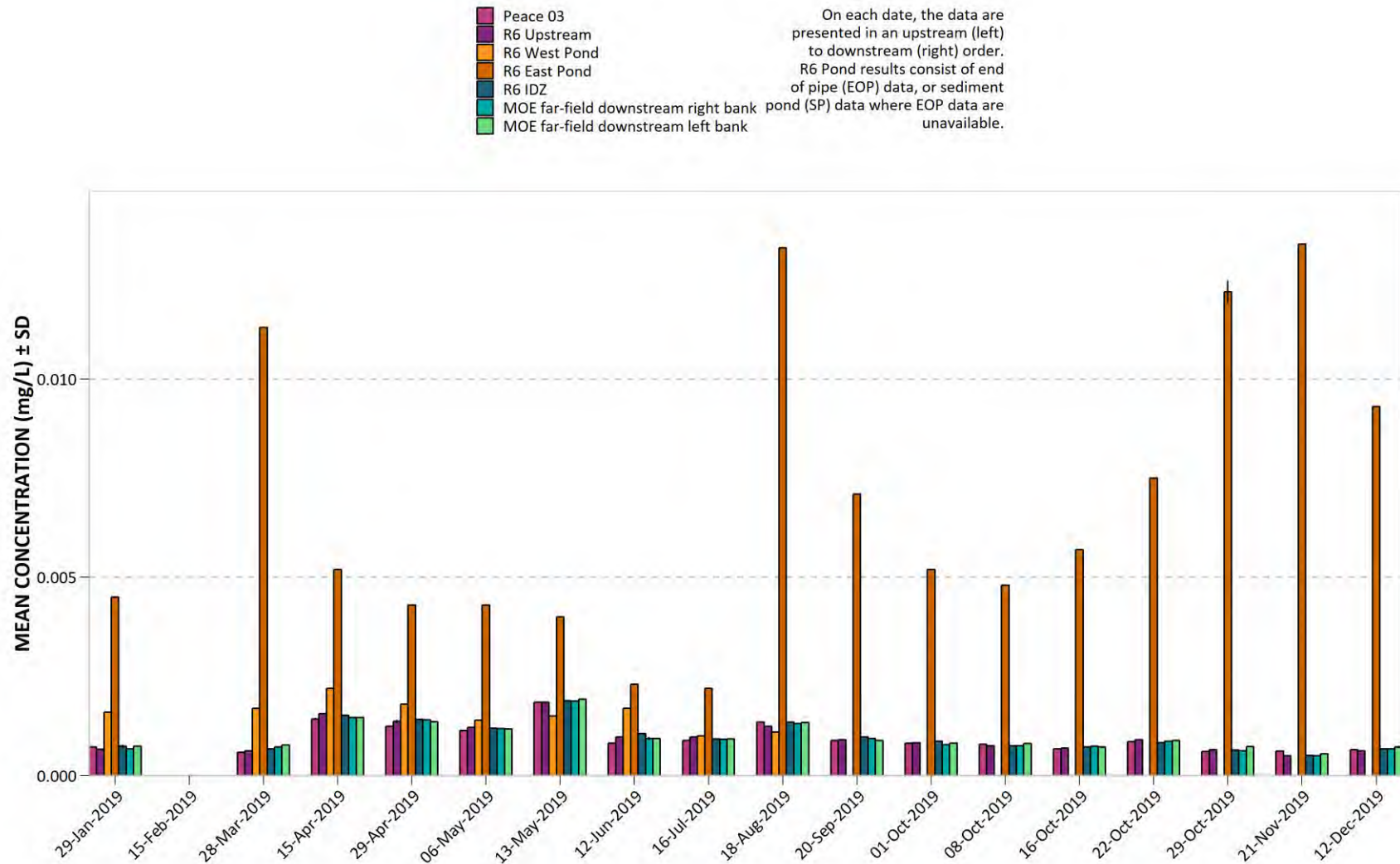


Figure 162. 2019 Peace River and RSEM R6 pond dissolved potassium (K).

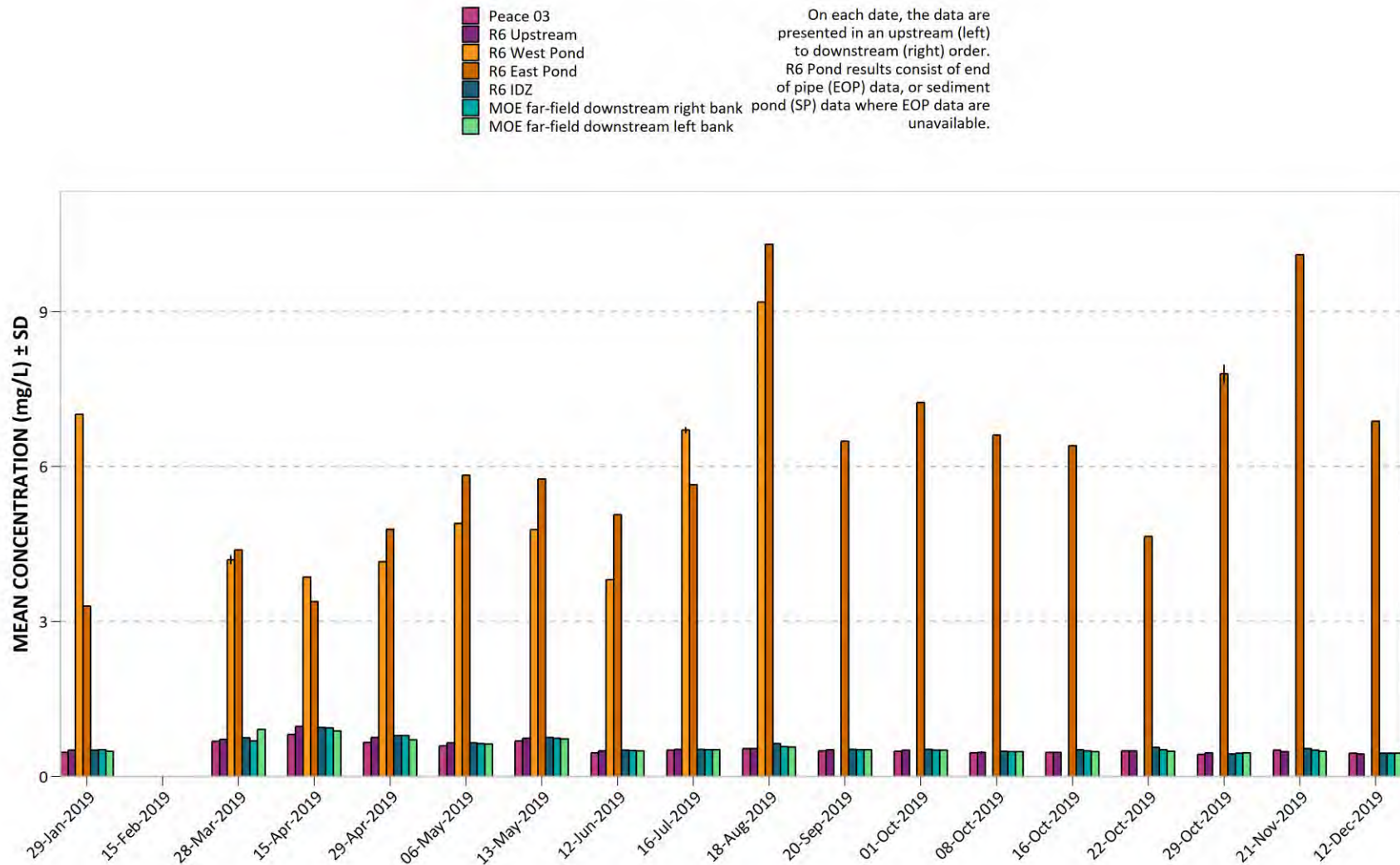


Figure 163. 2019 Peace River and RSEM R6 pond dissolved selenium (Se).

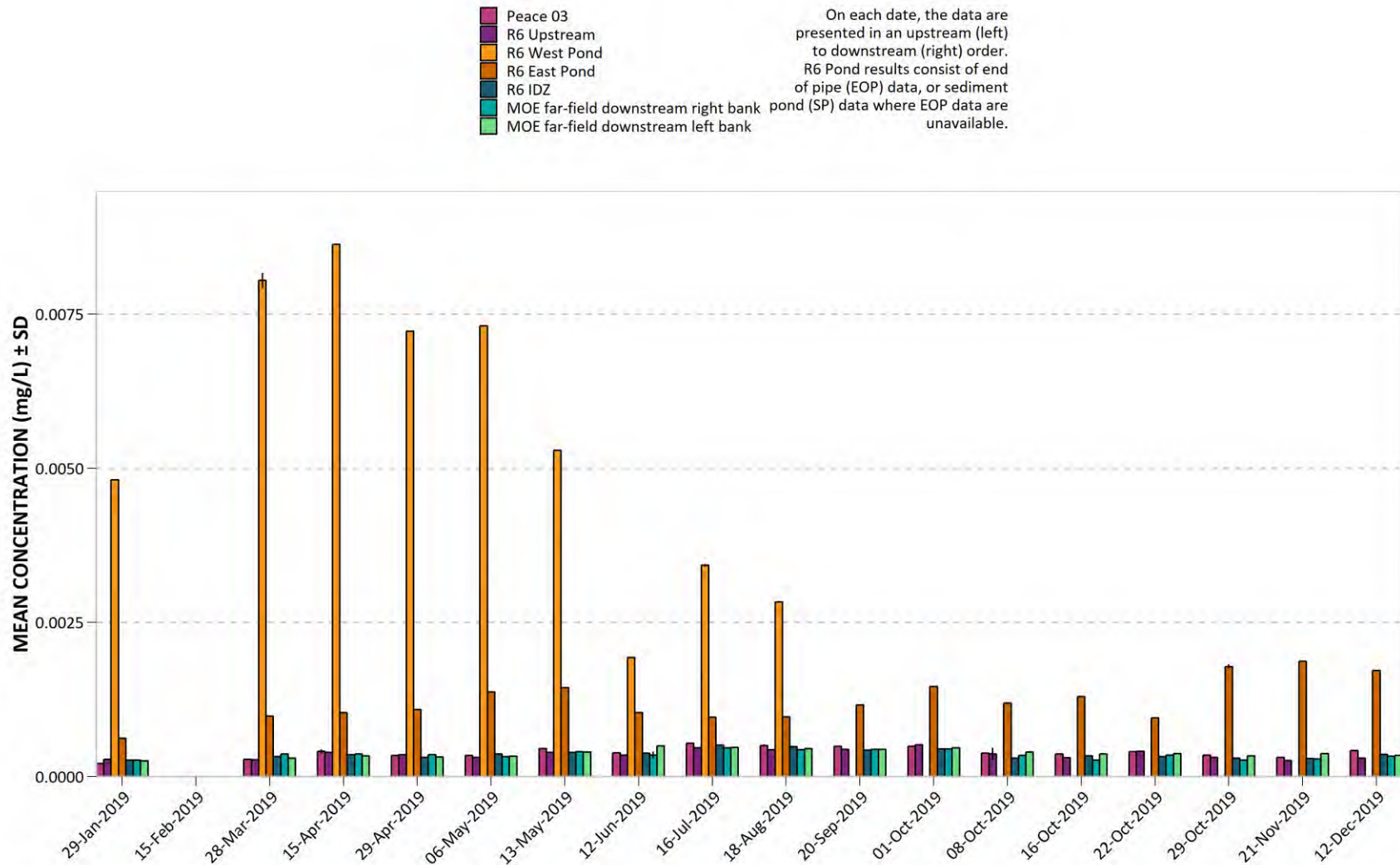


Figure 164. 2019 Peace River and RSEM R6 pond dissolved silicon (Si).

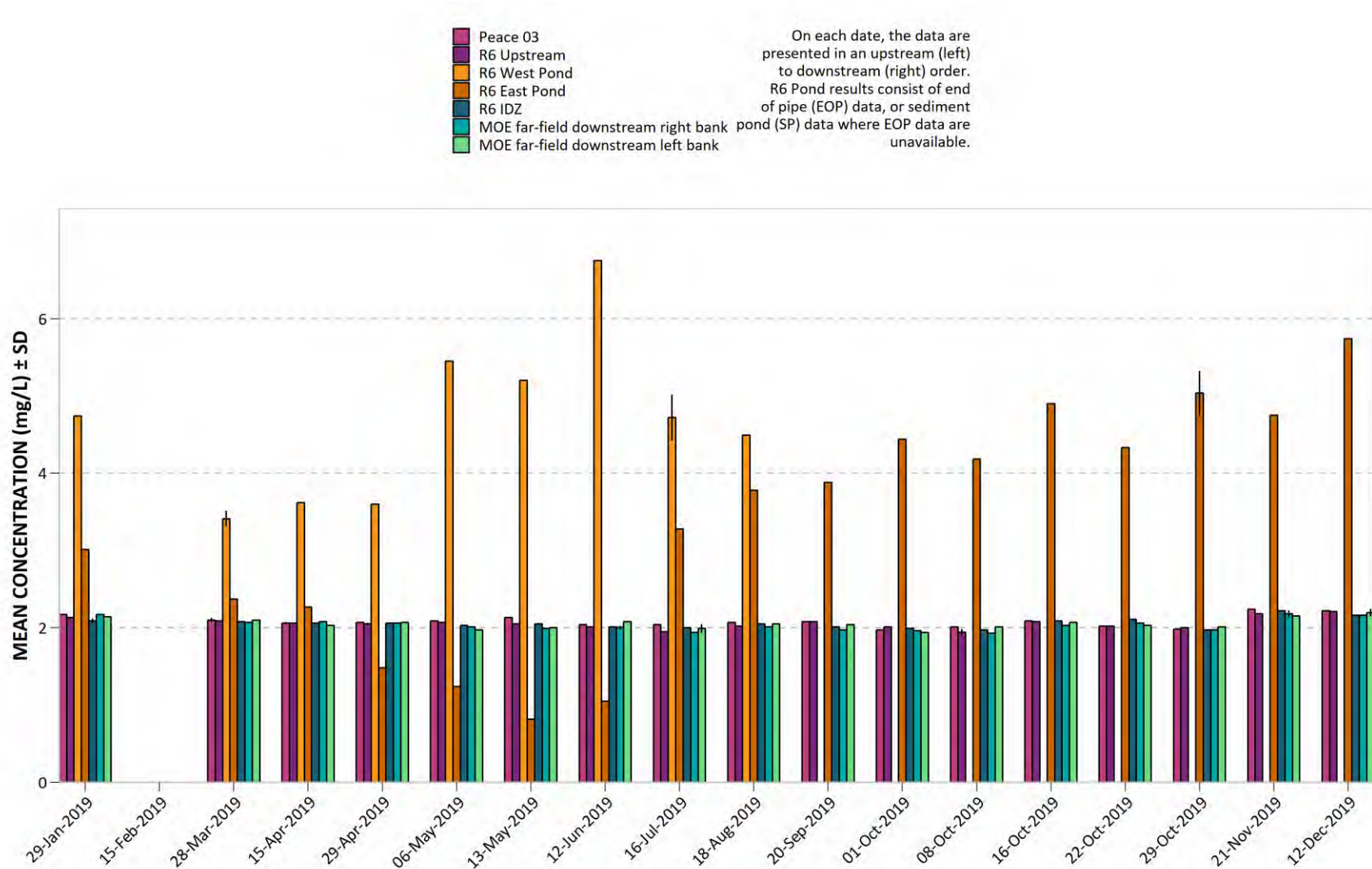
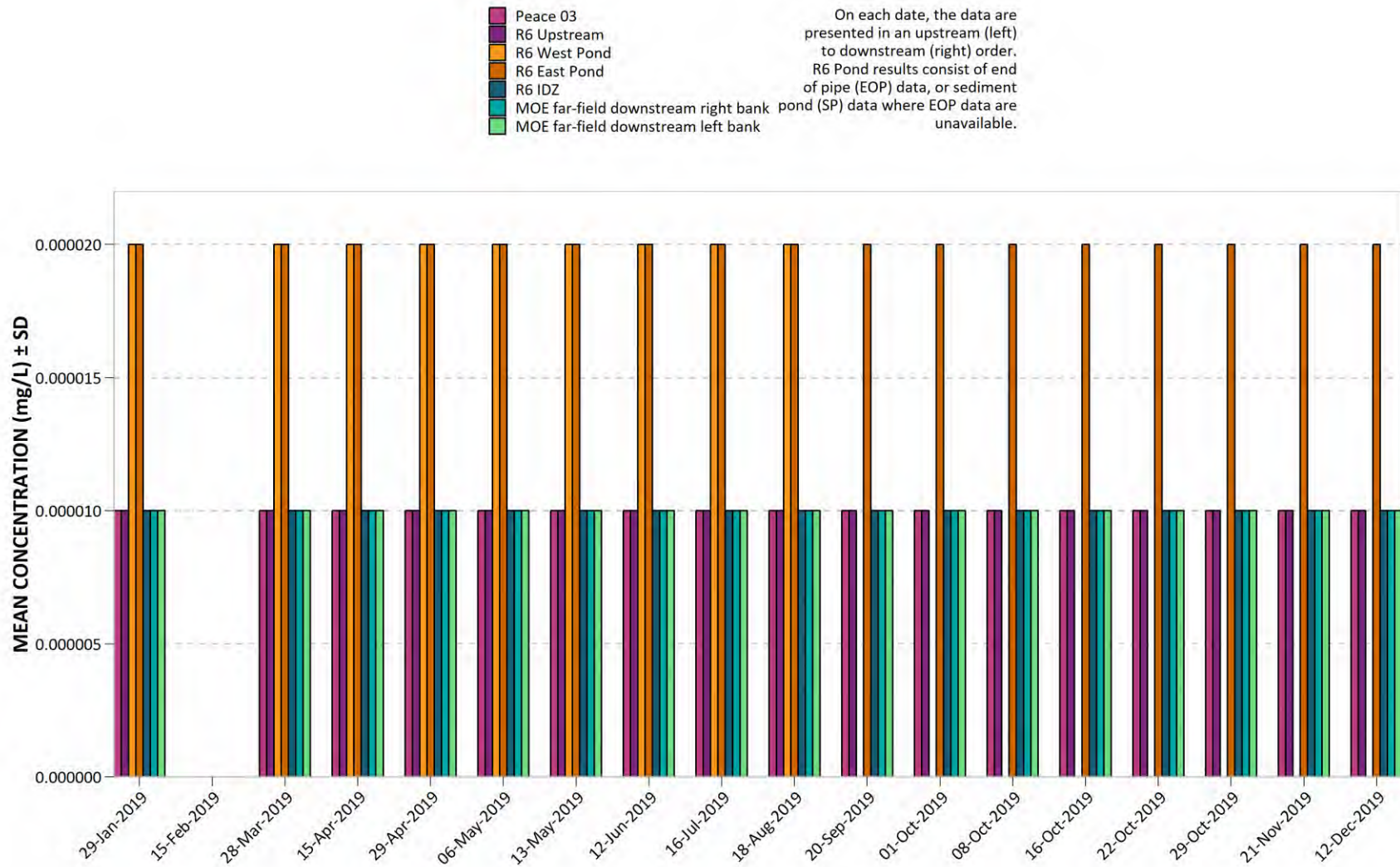


Figure 165. 2019 Peace River and RSEM R6 pond dissolved silver (Ag).



Results less than the MDL were assigned the MDL value of 0.00002 mg/L (Pond) or 0.00001 mg/L (Peace River).



Figure 166. 2019 Peace River and RSEM R6 pond dissolved sodium (Na).

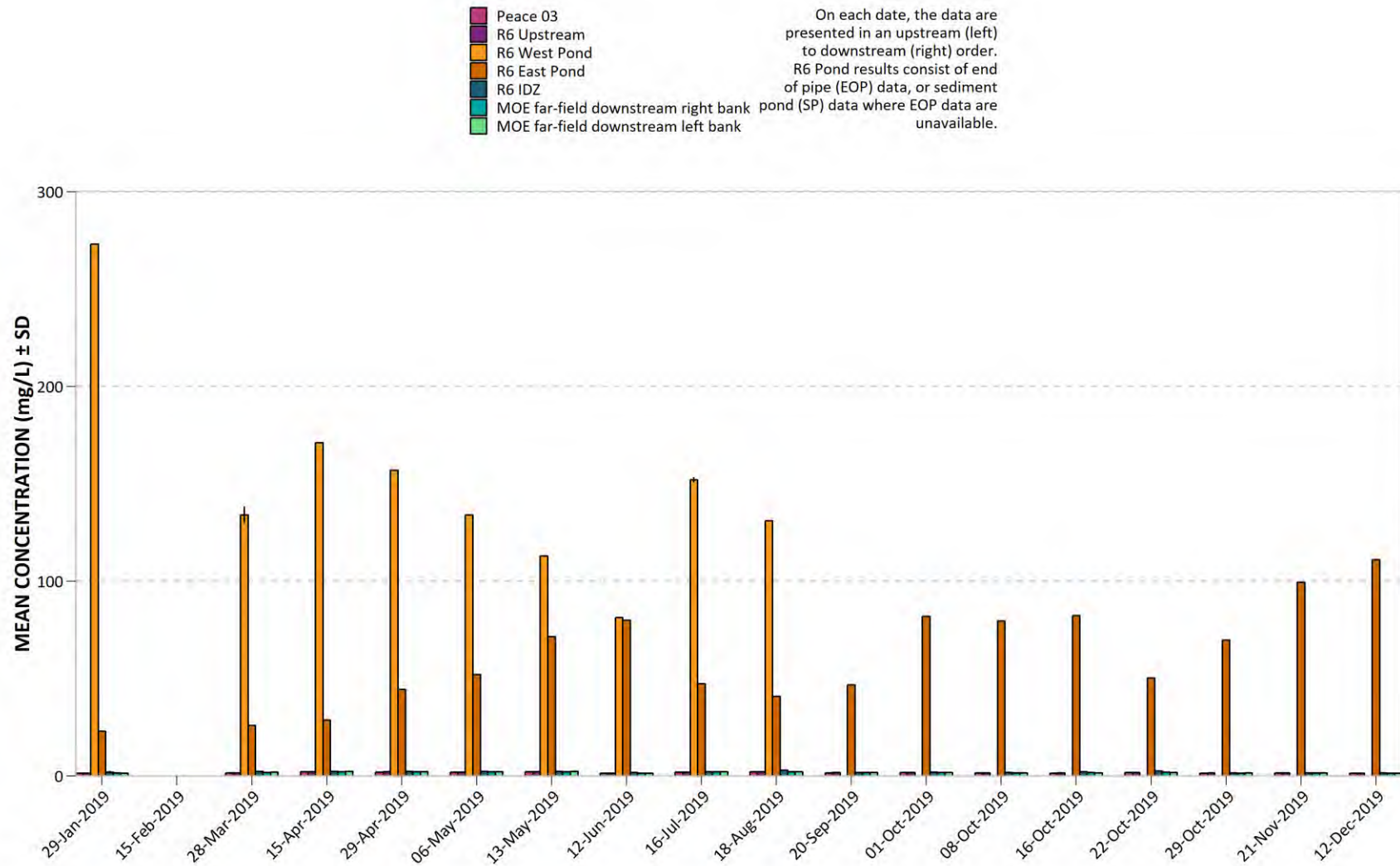


Figure 167. 2019 Peace River and RSEM R6 pond dissolved strontium (Sr).

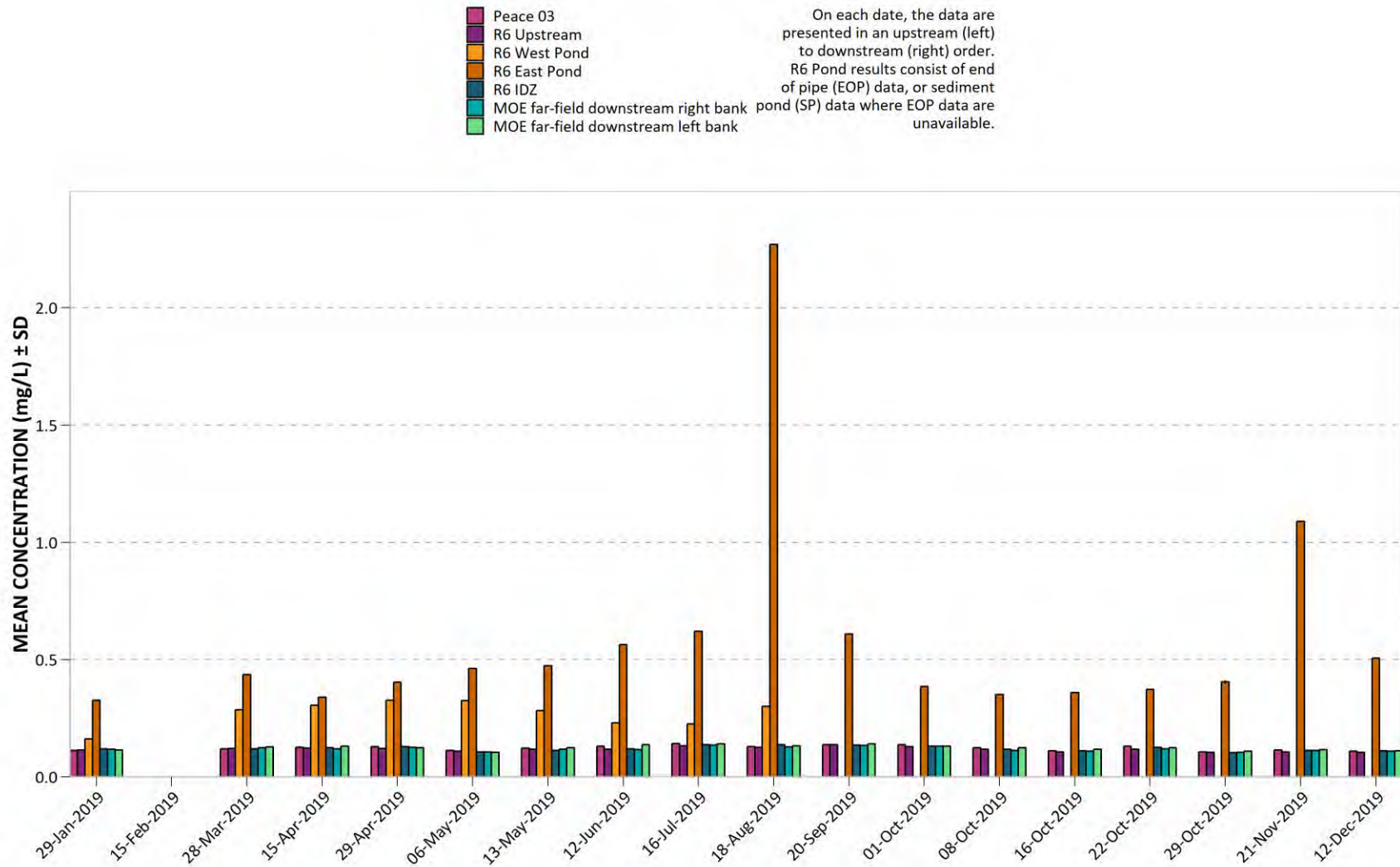


Figure 168. 2019 Peace River and RSEM R6 pond dissolved sulfur (S).

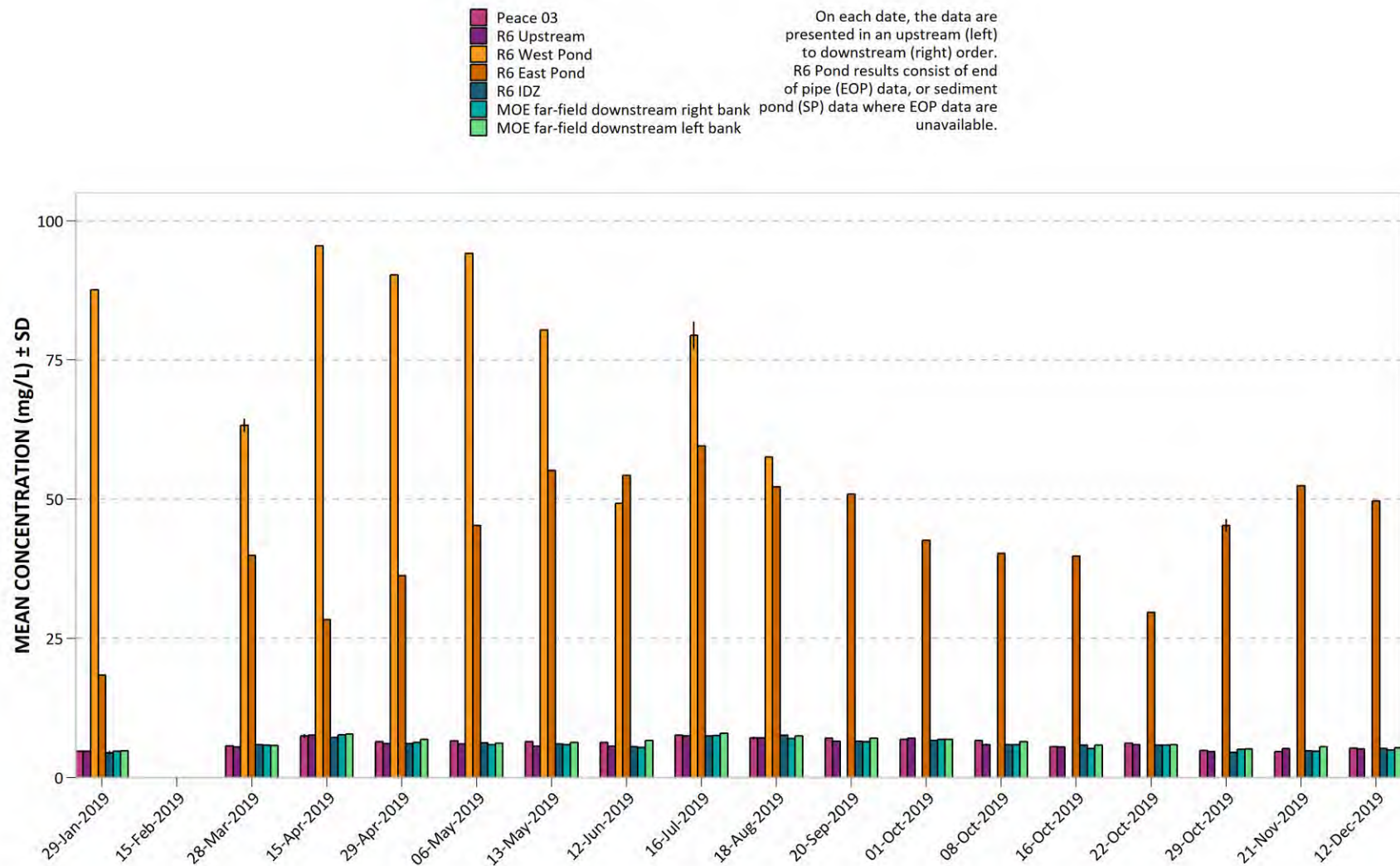
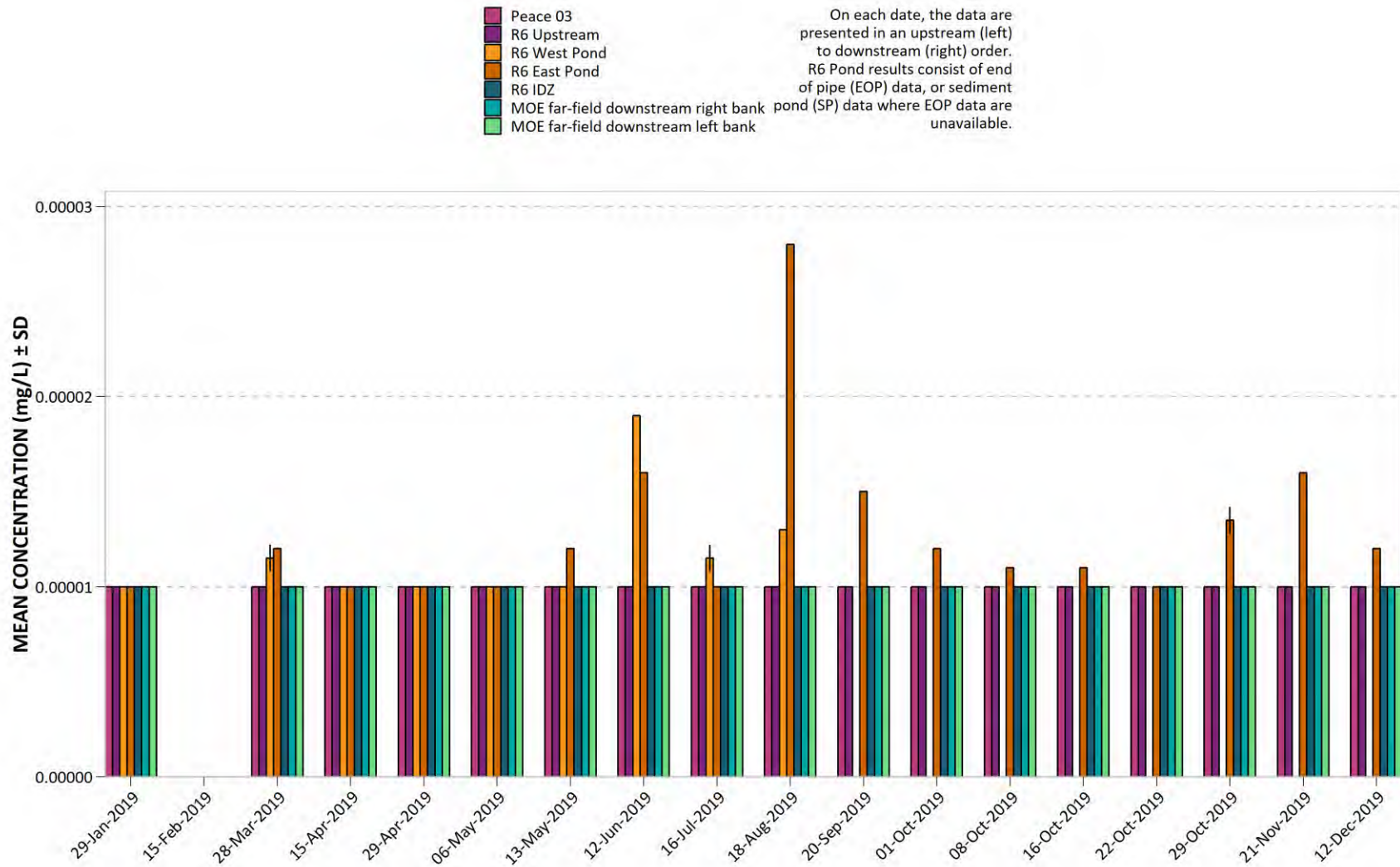
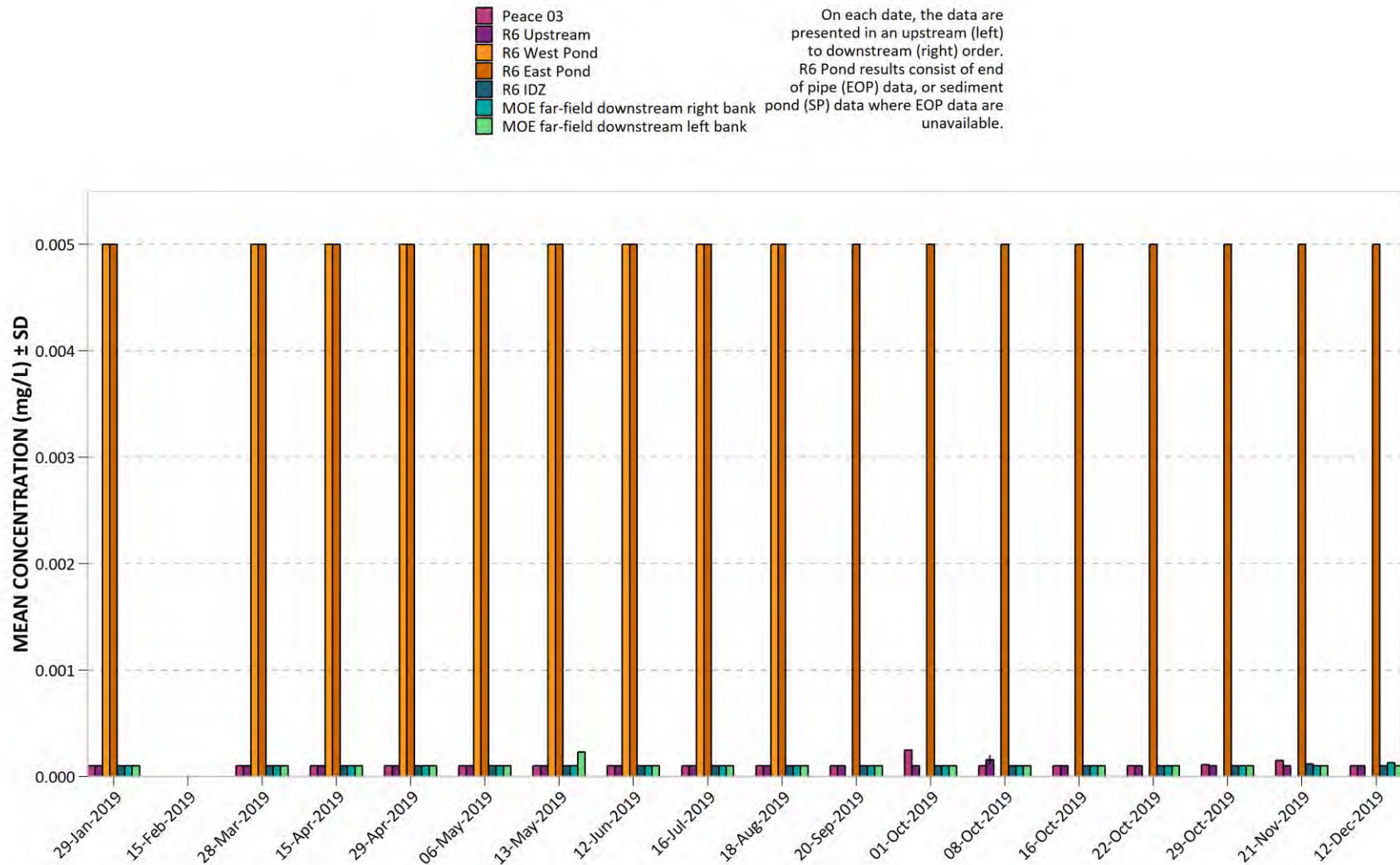


Figure 169. 2019 Peace River and RSEM R6 pond dissolved thallium (Tl).



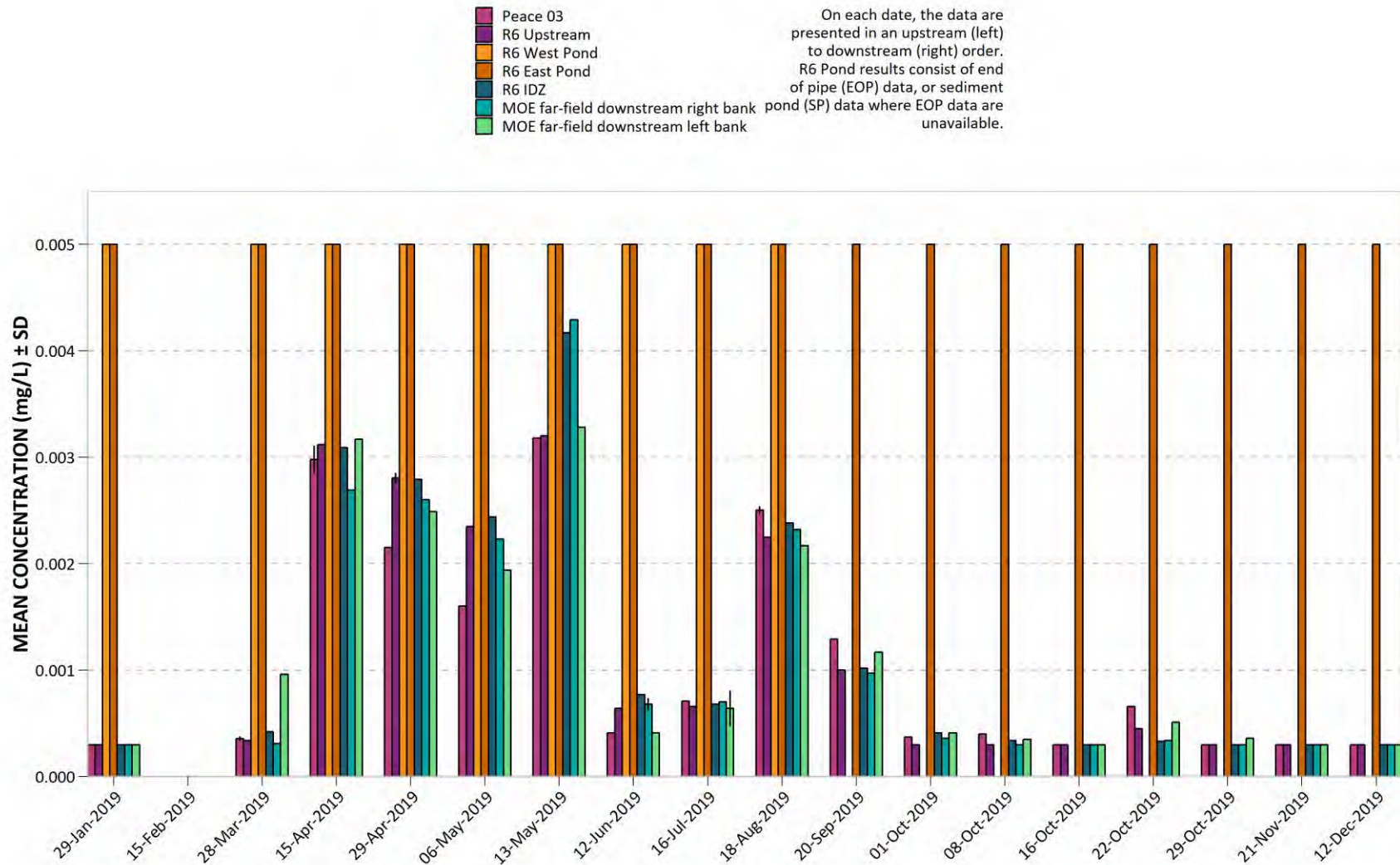
Results less than the MDL were assigned the MDL value of 0.00001 mg/L (Peace River and Pond).

Figure 170. 2019 Peace River and RSEM R6 pond dissolved tin (Sn).



Results less than the MDL were assigned the MDL value of 0.005 mg/L (Pond) or 0.0001 mg/L (Peace River).

Figure 171. 2019 Peace River and RSEM R6 pond dissolved titanium (Ti).



Results less than the MDL were assigned the MDL value of 0.005 mg/L (Pond) or 0.0003 mg/L (Peace River).

Figure 172. 2019 Peace River and RSEM R6 pond dissolved uranium (U).

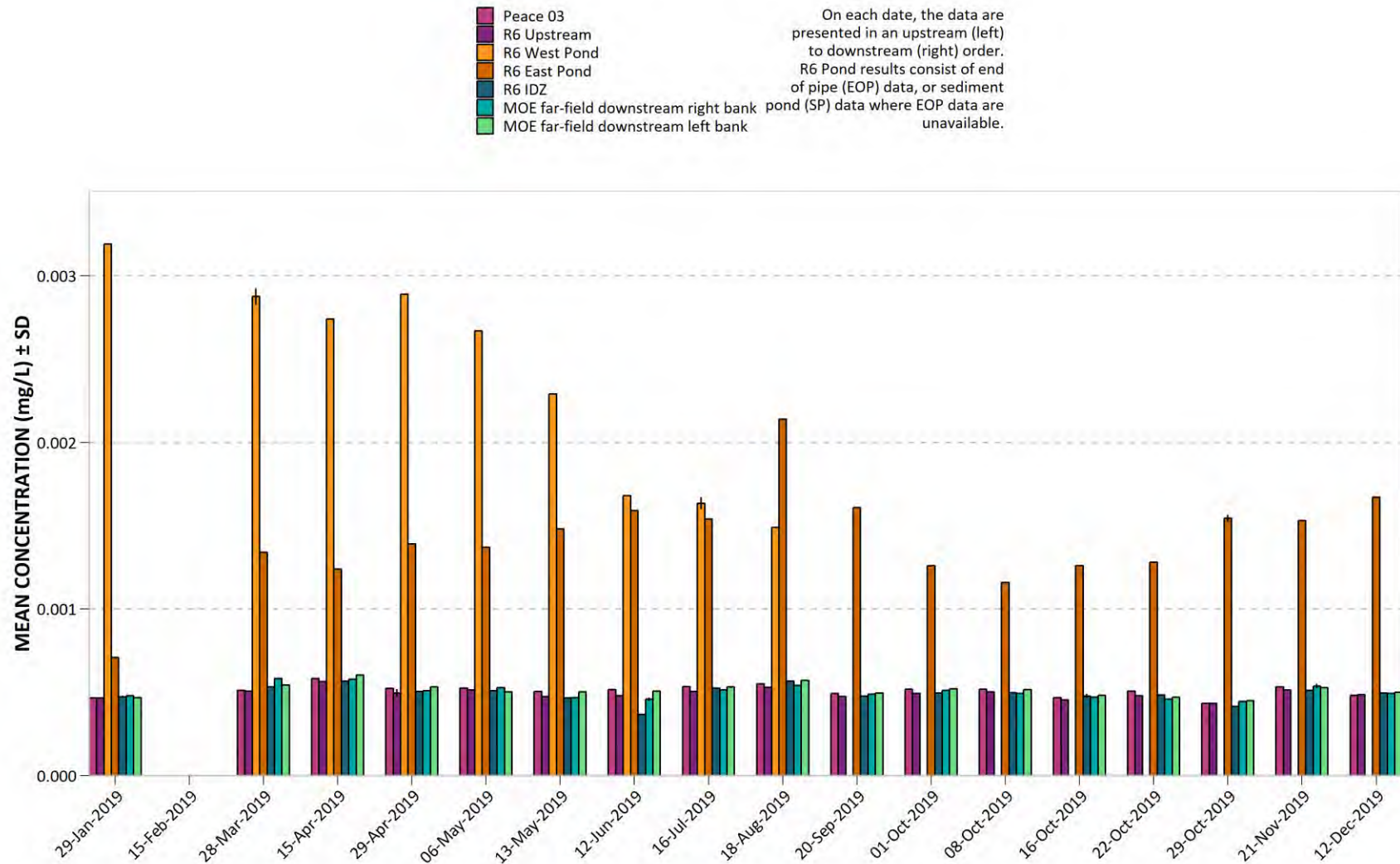
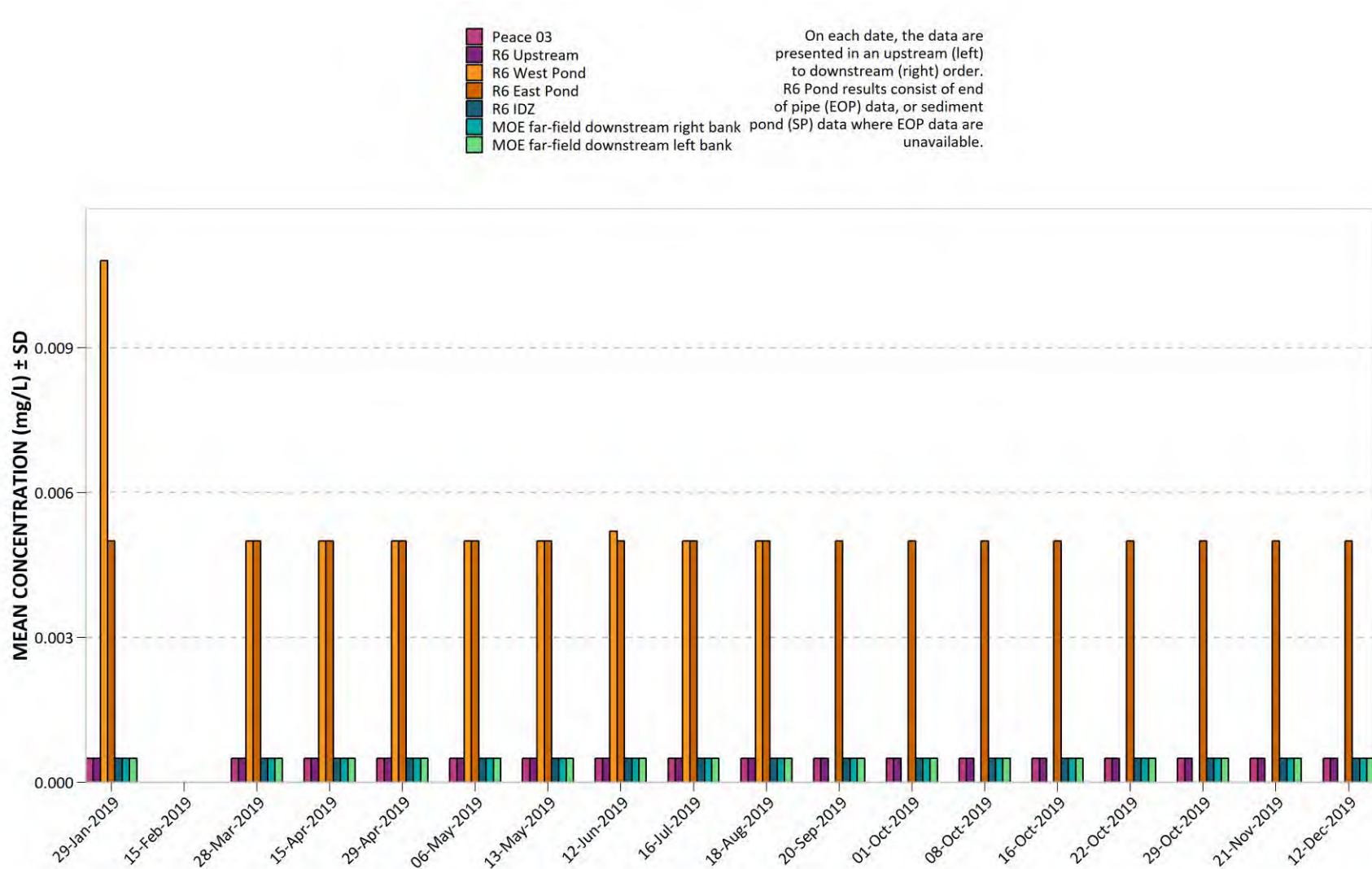


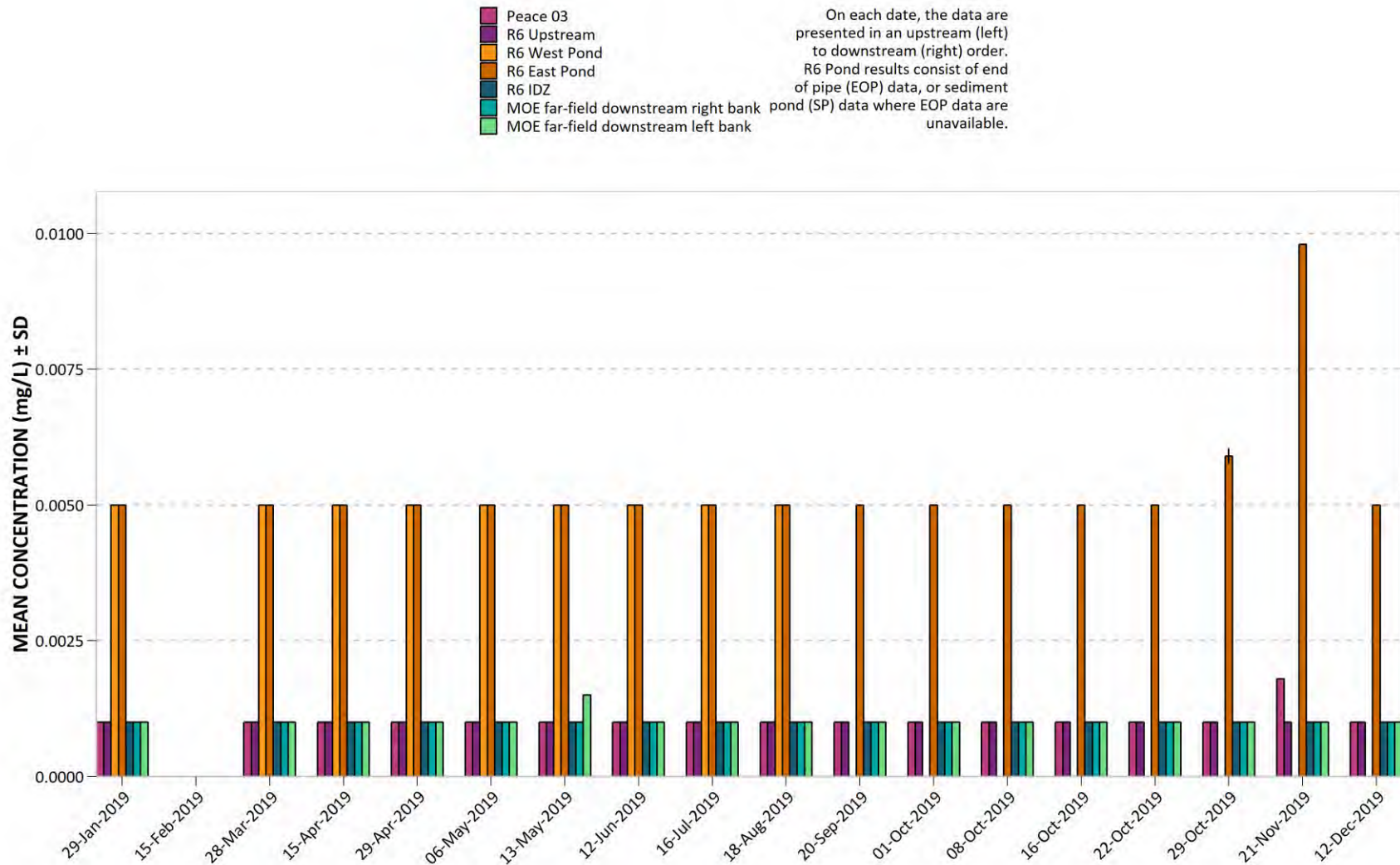
Figure 173. 2019 Peace River and RSEM R6 pond dissolved vanadium (V).



Results less than the MDL were assigned the MDL value of 0.005 mg/L (Pond) or 0.0005 mg/L (Peace River).

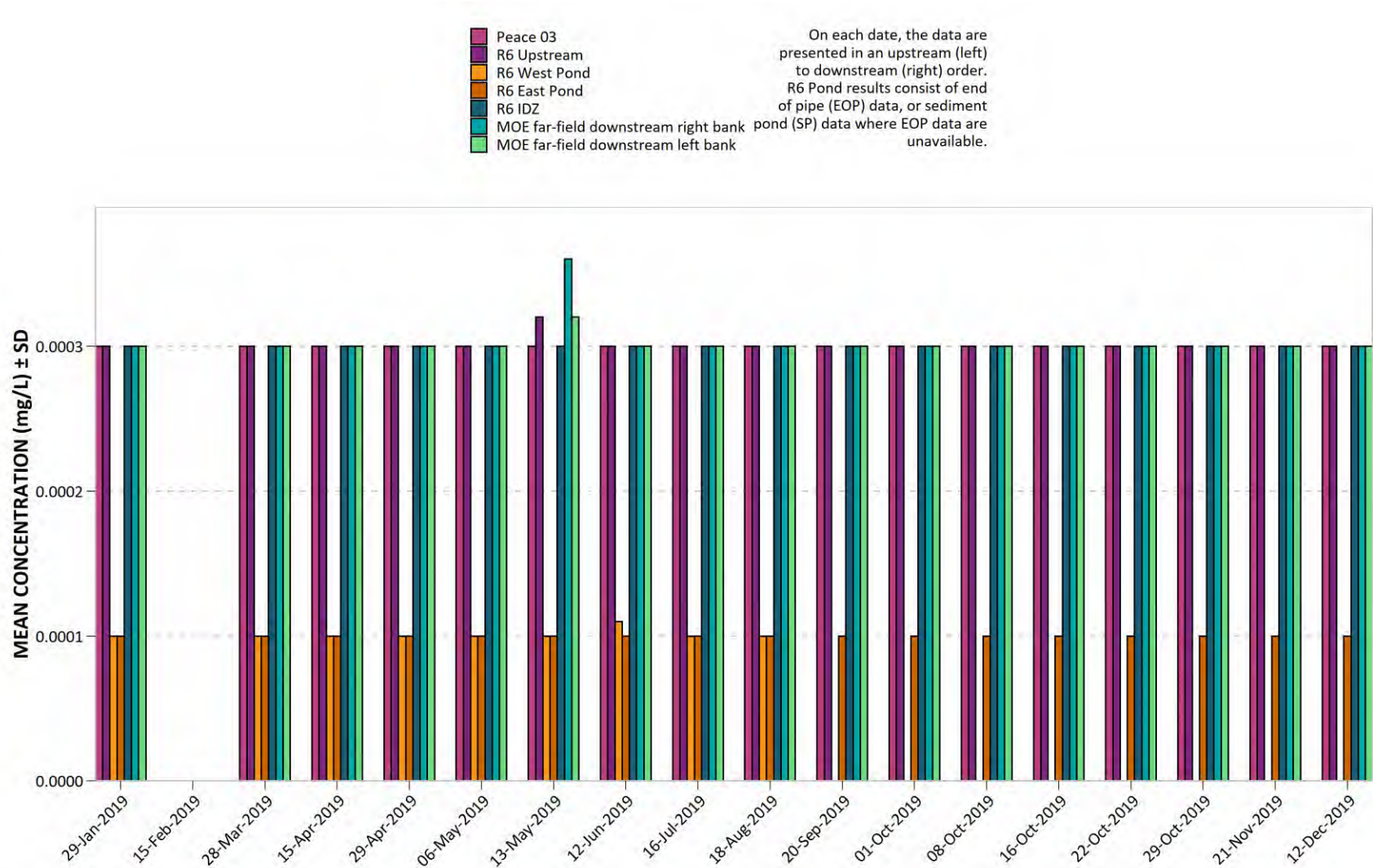


Figure 174. 2019 Peace River and RSEM R6 pond dissolved zinc (Zn).



Results less than the MDL were assigned the MDL value of 0.005 mg/L (Pond) or 0.001 mg/L (Peace River).

Figure 175. 2019 Peace River and RSEM R6 pond dissolved zirconium (Zr).



Results less than the MDL were assigned the MDL value of 0.0001 mg/L (Pond) or 0.0003 mg/L (Peace River).