

Impact Water Quality Monitoring for Dredging Activities at SB CMP 2

Sampling Date	Tide	Station	Time	Depth	Depth (m)	Current Direction	Current Velocity (m/s)	Water Temp (°C)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)	pH	SS (mg/L)
2013/12/20	MF	DS1	8:07:22	B	2.0	275.6	0.31	17.97	32.19	98.13	7.67	9.35	8.03	12
2013/12/20	MF	DS1	8:08:07	T	1.0	233.9	0.54	17.87	32.17	98.33	7.38	9.65	8.08	15
2013/12/20	MF	DS1	8:09:08	B	2.0	226.5	0.14	17.81	32.16	92.73	7.27	9.35	8.09	11
2013/12/20	MF	DS1	8:10:09	T	1.0	149.2	0.42	17.67	32.10	92.83	7.30	8.45	8.10	18
2013/12/20	MF	DS1	8:11:09	B	2.0	311.3	0.49	17.83	32.20	92.43	7.24	9.15	8.10	10
2013/12/20	MF	DS1	8:12:07	T	1.0	149.2	0.42	17.47	32.00	92.43	7.30	7.25	8.10	14
2013/12/20	MF	DS2	8:13:29	B	2.0	55.3	0.09	17.36	31.88	96.24	7.62	17.15	8.09	15
2013/12/20	MF	DS2	8:19:23	T	1.0	217.0	0.47	17.49	31.98	93.54	7.37	12.65	8.09	11
2013/12/20	MF	DS2	8:20:10	B	2.1	190.4	0.47	17.62	32.03	92.34	7.27	14.95	8.10	14
2013/12/20	MF	DS2	8:21:14	T	1.0	217.0	0.47	17.25	31.81	92.25	7.32	9.35	8.10	13
2013/12/20	MF	DS2	8:22:09	B	1.6	290.0	0.27	17.57	32.02	92.35	7.28	14.95	8.10	14
2013/12/20	MF	DS2	8:23:03	T	1.2	217.0	0.47	17.31	31.88	92.55	7.33	11.05	8.11	10
2013/12/20	MF	DS3	8:32:06	M	1.5	279.5	0.26	17.34	31.83	92.56	7.33	18.75	8.10	16
2013/12/20	MF	DS3	8:33:01	M	1.5	279.5	0.26	17.34	31.83	92.36	7.32	16.05	8.10	14
2013/12/20	MF	DS3	8:33:45	M	1.4	279.5	0.26	17.36	31.82	93.06	7.37	17.25	8.10	19
2013/12/20	MF	DS4	8:42:50	B	3.0	311.3	0.30	17.35	31.78	92.18	7.30	33.15	8.10	47
2013/12/20	MF	DS4	8:43:28	T	1.0	57.3	0.40	17.35	31.78	92.38	7.32	30.55	8.11	33
2013/12/20	MF	DS4	8:44:21	B	3.1	21.4	0.35	17.35	31.78	92.08	7.30	31.15	8.11	41
2013/12/20	MF	DS4	8:45:10	T	1.1	57.3	0.40	17.34	31.77	92.28	7.31	30.25	8.11	34
2013/12/20	MF	DS4	8:46:06	B	3.0	250.5	0.38	17.32	31.75	92.28	7.32	36.05	8.10	50
2013/12/20	MF	DS4	8:47:06	T	1.4	195.1	1.02	17.34	31.78	92.48	7.33	29.25	8.11	29
2013/12/20	MF	DS5	8:53:50	B	4.0	250.3	0.25	17.26	31.79	94.90	7.53	13.15	8.10	15
2013/12/20	MF	DS5	8:54:56	M	3.0	313.6	0.27	17.26	31.78	92.90	7.37	12.35	8.10	11
2013/12/20	MF	DS5	8:55:42	T	1.0	217.7	0.33	17.24	31.74	92.40	7.34	12.95	8.10	13
2013/12/20	MF	DS5	8:56:55	B	4.0	294.7	0.25	17.24	31.78	93.40	7.42	12.85	8.10	14
2013/12/20	MF	DS5	8:57:56	M	3.0	336.9	0.17	17.25	31.73	92.30	7.33	14.35	8.10	14
2013/12/20	MF	DS5	8:58:42	T	1.0	223.2	0.41	17.27	31.72	92.20	7.32	13.55	8.10	15
2013/12/20	MF	DS5	8:59:31	B	4.0	109.4	0.99	17.37	31.77	92.00	7.30	13.65	8.10	13
2013/12/20	MF	DS5	9:00:18	M	3.0	96.2	0.13	17.26	31.73	91.60	7.27	14.25	8.10	15
2013/12/20	MF	DS5	9:01:07	T	1.0	9.0	0.92	17.27	31.73	92.00	7.30	13.65	8.09	15
2013/12/20	MF	US1	9:32:25	B	2.0	113.7	0.37	17.78	32.39	95.46	7.47	6.35	8.11	8
2013/12/20	MF	US1	9:33:26	T	1.0	78.7	0.26	17.85	32.43	93.96	7.35	6.85	8.11	10
2013/12/20	MF	US1	9:34:20	B	2.0	315.4	0.43	17.89	32.46	93.46	7.30	8.15	8.11	9
2013/12/20	MF	US1	9:35:10	T	1.0	78.7	0.26	17.91	32.46	93.36	7.29	7.85	8.11	8
2013/12/20	MF	US1	9:35:58	B	2.0	315.4	0.43	17.92	32.48	93.06	7.26	9.55	8.11	6
2013/12/20	MF	US1	9:37:03	T	1.0	276.8	0.19	17.94	32.49	93.06	7.26	8.75	8.10	7
2013/12/20	MF	US2	9:44:26	B	3.0	226.6	0.52	18.17	32.62	92.97	7.22	10.75	8.08	15
2013/12/20	MF	US2	9:45:55	T	1.0	276.8	0.19	18.18	32.62	92.67	7.19	10.25	8.08	10
2013/12/20	MF	US2	9:46:52	B	3.0	202.7	0.57	18.17	32.62	92.37	7.17	11.45	8.08	14
2013/12/20	MF	US2	9:47:42	T	1.1	166.4	0.36	18.19	32.61	92.57	7.18	9.35	8.08	10
2013/12/20	MF	US2	9:48:31	B	3.0	176.0	0.51	18.17	32.61	92.57	7.16	10.15	8.08	12
2013/12/20	MF	US2	9:49:57	T	1.0	206.9	0.29	18.20	32.61	92.58	7.18	9.25	8.08	10
2013/12/20	MF	MW1	8:08:34	B	18.0	31.0	0.40	19.35	32.99	90.54	6.86	7.60	8.08	8
2013/12/20	MF	MW1	8:09:24	M	10.1	227.7	0.33	19.36	33.00	90.43	6.85	7.31	8.10	8
2013/12/20	MF	MW1	8:10:14	T	1.1	177.9	0.57	19.33	33.00	90.50	6.86	5.68	8.10	6
2013/12/20	MF	MW1	8:11:24	B	17.9	245.9	0.33	19.37	33.03	90.44	6.85	7.75	8.10	12
2013/12/20	MF	MW1	8:12:14	M	10.1	227.7	0.33	19.38	33.04	90.49	6.85	7.46	8.11	8
2013/12/20	MF	MW1	8:13:09	T	1.0	151.7	1.59	19.35	33.04	90.57	6.86	5.70	8.11	9
2013/12/20	MF	MW1	8:14:19	B	18.0	13.9	0.64	19.38	33.04	90.45	6.85	7.50	8.11	10
2013/12/20	MF	MW1	8:15:09	M	10.2	110.0	0.30	19.41	33.06	90.52	6.85	7.74	8.12	12
2013/12/20	MF	MW1	8:16:04	T	0.8	143.0	0.25	19.40	33.06	90.60	6.85	6.56	8.12	12
2013/12/20	MF	THB1	9:12:44	B	2.7	259.7	0.53	17.98	32.04	92.55	7.23	8.49	8.05	11
2013/12/20	MF	THB1	9:13:49	T	1.4	104.4	1.43	17.78	31.79	91.91	7.22	7.01	8.04	6
2013/12/20	MF	THB1	9:14:40	B	3.1	244.7	0.48	18.03	32.08	92.01	7.18	9.55	8.05	11
2013/12/20	MF	THB1	9:15:24	T	1.0	57.5	0.58	17.92	31.97	91.93	7.20	7.80	8.05	9
2013/12/20	MF	THB1	9:16:19	B	3.1	170.2	0.21	18.02	32.07	92.13	7.19	8.62	8.06	10
2013/12/20	MF	THB1	9:17:09	T	1.1	215.6	0.07	18.00	32.06	92.02	7.19	8.45	8.06	12
2013/12/20	MF	THB2	9:18:13	M	1.4	40.0	0.03	18.05	31.50	89.03	6.97	4.98	7.76	6
2013/12/20	MF	THB2	9:19:20	M	1.4	40.0	0.03	18.04	31.50	87.26	6.83	5.08	7.82	5
2013/12/20	MF	THB2	9:20:23	M	1.4	40.0	0.03	18.04	31.51	86.10	6.74	5.18	7.86	5
2013/12/20	MF	WSR45C	8:45:19	B	12.0	212.6	0.54	18.14	32.34	92.88	7.23	8.10	8.08	9
2013/12/20	MF	WSR45C	8:46:09	M	7.3	53.4	0.39	18.15	32.33	92.56	7.20	8.12	8.08	8
2013/12/20	MF	WSR45C	8:46:59	T	1.1	226.3	1.43	18.09	32.28	92.79	7.23	6.39	8.09	7
2013/12/20	MF	WSR45C	8:48:24	B	12.0	304.9	0.67	18.14	32.34	92.35	7.18	8.19	8.09	13
2013/12/20	MF	WSR45C	8:49:14	M	6.9	254.5	0.07	18.13	32.32	92.32	7.18	7.80	8.08	8
2013/12/20	MF	WSR45C	8:49:59	T	1.0	226.3	1.43	18.12	32.28	92.58	7.21	6.72	8.08	8
2013/12/20	MF	WSR45C	8:50:59	B	12.2	218.0	0.63	18.14	32.33	92.21	7.17	8.57	8.08	11
2013/12/20	MF	WSR45C	8:51:59	M	7.1	335.6	0.62	18.13	32.32	92.29	7.18	8.15	8.08	11
2013/12/20	MF	WSR45C	8:52:59	T	1.1	230.0	1.53	18.12	32.27	92.59	7.21	6.30	8.08	8
2013/12/20	MF	WSR46	9:50:23	B	9.0	281.6	0.76	18.01	32.20	93.83	7.32	11.91	8.07	9
2013/12/20	MF	WSR46	9:51:10	M	5.4	312.9	0.77	17.99	32.18	93.49	7.30	9.72	8.07	11
2013/12/20	MF	WSR46	9:51:59	T	1.1	272.2	0.52	17.98	32.17	93.40	7.29	9.96	8.06	12
2013/12/20	MF	WSR46	9:52:59	B	9.2	289.0	0.26	18.00	32.20	93.21	7.28	12.30	8.06	12
2013/12/20	MF	WSR46	9:53:59	M	5.4	256.9	0.04	17.98	32.17	93.29	7.29	10.44	8.06	12
2013/12/20	MF	WSR46	9:54:59	T	0.9	20.8	0.56	17.96	32.17	93.36	7.29	9.86	8.06	9
2013/12/20	MF	WSR46	9:55:59	B	8.8	265.1	0.56	17.99	32.18	93.15	7.27	11.72	8.06	10
2013/12/20	MF	WSR46	9:56:59	M	5.6	9.2	0.27	17.97	32.17	93.24	7.28	10.07	8.06	11
2013/12/20	MF	WSR46	9:57:59	T	1.1	284.0	1.14	17.97	32.19	93.34	7.29	8.94	8.06	8

Impact Water Quality Monitoring for Dredging Activities at SB CMP 2

Sampling Date	Tide	Station	Time	Depth	Depth (m)	Current Direction	Current Velocity (m/s)	Water Temp (°C)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)	pH	SS (mg/L)
2013/12/20	ME	DS1	13:18:54	B	3.0	160.8	1.08	18.24	32.45	97.80	7.59	6.15	8.08	10
2013/12/20	ME	DS1	13:20:00	T	1.0	58.6	0.54	18.66	32.54	95.20	7.33	4.45	8.14	6
2013/12/20	ME	DS1	13:20:48	B	2.9	148.4	0.38	18.25	32.55	93.41	7.24	6.15	8.15	9
2013/12/20	ME	DS1	13:21:36	T	1.0	58.6	0.54	18.67	32.55	94.42	7.26	4.65	8.15	7
2013/12/20	ME	DS1	13:22:44	B	3.0	358.2	0.16	18.26	32.57	93.03	7.21	6.25	8.16	9
2013/12/20	ME	DS1	13:23:12	T	1.0	58.6	0.54	18.43	32.58	93.54	7.23	5.75	8.16	7
2013/12/20	ME	DS2	13:28:52	B	3.0	8.0	0.42	18.20	32.57	98.41	7.48	7.35	8.15	9
2013/12/20	ME	DS2	13:29:53	T	1.0	345.7	0.12	18.27	32.58	93.11	7.21	6.25	8.14	5
2013/12/20	ME	DS2	13:30:46	B	3.0	342.8	0.23	18.22	32.58	92.11	7.14	8.35	8.14	9
2013/12/20	ME	DS2	13:31:36	T	1.0	345.7	0.12	18.26	32.57	92.83	7.19	6.35	8.15	7
2013/12/20	ME	DS2	13:32:20	B	3.0	287.4	0.43	18.22	32.58	92.23	7.15	6.75	8.15	8
2013/12/20	ME	DS2	13:33:09	T	1.0	345.7	0.12	18.30	32.58	92.64	7.17	6.15	8.15	6
2013/12/20	ME	DS3	13:38:32	B	5.0	95.1	0.48	18.43	32.72	93.10	7.18	5.15	8.16	5
2013/12/20	ME	DS3	13:39:17	M	3.5	205.2	0.15	18.66	32.73	92.81	7.13	4.65	8.16	5
2013/12/20	ME	DS3	13:40:14	T	1.0	250.3	0.74	18.99	32.70	94.13	7.19	3.75	8.16	3
2013/12/20	ME	DS3	13:41:24	B	5.0	315.0	1.03	18.43	32.71	92.93	7.17	5.75	8.17	5
2013/12/20	ME	DS3	13:42:10	M	3.5	154.7	0.36	18.62	32.73	92.64	7.13	4.85	8.17	6
2013/12/20	ME	DS3	13:43:08	T	1.0	250.3	0.74	18.93	32.70	94.16	7.20	3.75	8.16	6
2013/12/20	ME	DS3	13:44:02	B	5.0	37.8	0.63	18.61	32.73	92.66	7.13	4.75	8.17	5
2013/12/20	ME	DS3	13:45:18	M	3.5	85.0	0.88	18.66	32.71	92.88	7.14	4.35	8.16	7
2013/12/20	ME	DS3	13:46:07	T	1.0	250.3	0.74	19.00	32.70	94.09	7.19	3.75	8.16	6
2013/12/20	ME	DS4	13:52:23	B	5.1	65.4	0.34	19.16	33.21	91.35	6.94	6.35	8.18	7
2013/12/20	ME	DS4	13:53:16	M	3.5	46.3	0.48	18.49	32.71	91.66	7.07	5.35	8.16	8
2013/12/20	ME	DS4	13:54:16	T	1.0	107.9	1.09	18.55	32.65	93.28	7.19	4.75	8.16	5
2013/12/20	ME	DS4	13:55:25	B	5.0	143.5	0.29	19.12	33.19	93.29	7.09	5.75	8.19	8
2013/12/20	ME	DS4	13:56:28	M	3.6	306.4	0.23	18.55	32.80	91.49	7.04	6.15	8.17	8
2013/12/20	ME	DS4	13:57:14	T	1.0	68.6	0.90	18.53	32.70	92.81	7.15	5.15	8.17	5
2013/12/20	ME	DS4	13:58:26	B	5.0	143.5	0.29	19.00	33.12	90.61	6.90	5.85	8.18	8
2013/12/20	ME	DS4	13:59:21	M	3.5	111.1	0.80	18.49	32.72	91.92	7.09	5.15	8.16	9
2013/12/20	ME	DS4	14:00:22	T	1.0	68.6	0.90	18.62	32.65	93.85	7.22	4.45	8.16	6
2013/12/20	ME	DS5	14:06:11	B	7.0	32.3	0.25	19.31	33.31	95.02	7.19	5.55	8.19	8
2013/12/20	ME	DS5	14:07:07	M	4.5	30.0	0.33	18.85	33.02	92.11	7.04	5.55	8.17	7
2013/12/20	ME	DS5	14:07:55	T	1.0	70.2	1.35	18.68	32.64	93.73	7.20	4.55	8.16	5
2013/12/20	ME	DS5	14:09:16	B	7.0	32.3	0.25	19.37	33.34	92.64	7.00	5.65	8.20	7
2013/12/20	ME	DS5	14:10:07	M	4.5	96.8	0.26	19.13	33.20	90.83	6.90	5.65	8.19	8
2013/12/20	ME	DS5	14:11:06	T	1.0	70.2	1.35	18.61	32.66	93.36	7.19	4.75	8.16	6
2013/12/20	ME	DS5	14:12:08	B	7.0	341.2	0.41	19.33	33.32	90.86	6.87	5.75	8.20	8
2013/12/20	ME	DS5	14:13:08	M	4.5	90.0	0.42	19.08	33.15	90.66	6.90	5.55	8.18	9
2013/12/20	ME	DS5	14:14:07	T	1.0	70.2	1.35	18.69	32.65	93.60	7.19	4.75	8.15	8
2013/12/20	ME	US1	14:30:41	B	3.0	335.2	0.46	17.96	32.38	96.21	7.51	14.35	8.14	16
2013/12/20	ME	US1	14:31:58	T	1.0	186.4	0.48	18.25	32.48	95.13	7.46	9.05	8.14	10
2013/12/20	ME	US1	14:32:44	B	3.0	335.2	0.46	17.98	32.41	94.11	7.34	13.35	8.15	15
2013/12/20	ME	US1	14:33:29	T	1.0	186.4	0.48	18.33	32.25	96.04	7.45	8.75	8.15	11
2013/12/20	ME	US1	14:34:22	B	3.5	16.1	0.31	18.09	32.38	94.23	7.34	10.95	8.15	13
2013/12/20	ME	US1	14:35:13	T	1.0	186.4	0.48	18.35	32.25	96.06	7.45	9.45	8.15	9
2013/12/20	ME	US2	15:00:50	B	2.0	56.3	0.51	17.95	31.99	100.31	7.85	8.65	8.13	10
2013/12/20	ME	US2	15:01:41	T	1.2	131.8	0.38	17.97	31.97	97.48	7.62	9.05	8.12	11
2013/12/20	ME	US2	15:02:35	B	2.0	119.6	0.80	18.00	32.05	96.28	7.52	10.45	8.12	8
2013/12/20	ME	US2	15:03:27	T	1.0	86.5	0.68	17.92	31.94	96.39	7.55	9.15	8.13	9
2013/12/20	ME	US2	15:04:19	B	2.0	347.9	0.29	17.89	31.96	96.19	7.54	9.35	8.12	10
2013/12/20	ME	US2	15:05:06	T	1.0	237.8	0.24	17.87	31.93	96.20	7.54	9.05	8.13	9
2013/12/20	ME	MW1	15:00:19	B	17.9	39.2	0.67	19.56	33.22	92.16	6.94	6.37	8.01	6
2013/12/20	ME	MW1	15:01:09	M	10.1	12.4	0.42	19.55	33.20	92.02	6.94	5.08	8.01	6
2013/12/20	ME	MW1	15:02:04	T	1.0	198.3	0.15	19.55	33.20	91.99	6.93	5.56	8.01	6
2013/12/20	ME	MW1	15:03:19	B	17.8	43.5	0.11	19.56	33.22	91.69	6.91	5.95	8.00	8
2013/12/20	ME	MW1	15:04:14	M	10.1	7.7	0.39	19.56	33.21	91.72	6.91	6.13	8.00	8
2013/12/20	ME	MW1	15:05:04	T	1.0	161.3	0.32	19.54	33.19	92.21	6.95	4.30	8.00	6
2013/12/20	ME	MW1	15:06:24	B	17.9	56.2	0.62	19.58	33.22	91.79	6.91	5.51	8.00	6
2013/12/20	ME	MW1	15:07:09	M	10.2	326.2	0.17	19.58	33.22	91.82	6.92	5.66	8.00	7
2013/12/20	ME	MW1	15:07:59	T	1.0	96.3	0.59	19.66	33.22	92.45	6.95	3.53	8.00	4
2013/12/20	ME	THB1	13:34:49	B	3.0	240.9	0.44	18.19	32.14	94.84	7.38	6.85	8.01	9
2013/12/20	ME	THB1	13:35:39	T	1.1	207.9	0.69	18.46	31.91	95.79	7.43	6.59	8.01	6
2013/12/20	ME	THB1	13:36:25	B	3.0	52.7	0.38	18.17	32.13	94.09	7.32	6.83	8.01	9
2013/12/20	ME	THB1	13:37:09	T	0.9	207.9	0.69	18.48	31.91	95.56	7.40	6.61	8.00	7
2013/12/20	ME	THB1	13:37:59	B	3.0	144.8	0.26	18.22	32.13	94.13	7.32	7.33	8.00	9
2013/12/20	ME	THB1	13:38:59	T	0.8	164.7	0.32	18.49	31.89	95.64	7.41	6.55	8.00	7
2013/12/20	ME	THB2	13:38:56	M	1.4	40.0	0.03	18.09	31.96	101.97	7.96	11.29	7.61	6
2013/12/20	ME	THB2	13:40:01	M	1.4	40.0	0.03	18.10	31.95	101.01	7.88	11.39	7.65	8
2013/12/20	ME	THB2	13:41:01	M	1.4	40.0	0.03	18.11	31.94	100.56	7.85	10.29	7.67	6
2013/12/20	ME	WSR45C	14:07:44	B	12.0	252.9	1.09	19.51	33.18	92.83	7.00	5.00	8.06	7
2013/12/20	ME	WSR45C	14:08:39	M	7.0	100.5	0.60	19.30	33.02	92.52	7.01	4.17	8.04	6
2013/12/20	ME	WSR45C	14:09:34	T	1.0	177.0	0.36	18.71	32.50	93.38	7.18	4.74	8.01	5
2013/12/20	ME	WSR45C	14:10:29	B	12.1	179.4	0.27	19.51	33.18	91.97	6.94	5.46	8.04	7
2013/12/20	ME	WSR45C	14:11:19	M	7.2	20.4	0.40	19.45	33.13	91.96	6.95	4.19	8.03	6
2013/12/20	ME	WSR45C	14:12:09	T	0.9	110.7	0.87	18.72	32.52	92.90	7.14	4.65	8.00	5
2013/12/20	ME	WSR45C	14:13:09	B	11.9	16.7	0.62	19.52	33.19	91.80	6.92	5.25	8.03	6
2013/12/20	ME	WSR45C	14:13:59	M	6.9	131.4	0.40	19.35	33.06	92.04	6.97	4.30	8.02	5
2013/12/20	ME	WSR45C	14:14:59	T	1.0	87.3	0.63	18.69	32.48	93.47	7.19	4.80	7.99	6
2013/12/20	ME	WSR46	13:05:44	B	9.1	207.0	0.23	18.18	32.20	92.96	7.23	8.49	7.94	10
2013/12/20	ME	WSR46	13:06:34	M	5.6	354.1	0.41	18.11	32.16	93.17	7.26	8.90	7.97	11
2013/12/20	ME	WSR46	13:07:19	T	1.0	106.4	0.51	18.08	32.14	93.19	7.27	9.03	7.98	11
2013/12/20	ME	WSR46	13:08:10	B	9.1	268.4	0.32	18.19	32.23	92.84	7.22	8.14	7.99	12
2013/12/20	ME	WSR46	13:08:59	M	5.4	43.4	0.53	18.15	32.20	92.97	7.24	9.05	7.99	11
2013/12/20	ME	WSR46	13:09:59	T	1.1	67.6	1.33	18.11	32.17	93.13	7.26	9.47	8.00	11
2013/12/20	ME	WSR46	13:10:59	B	8.9	118.6	0.14	18.17	32.23	92.89	7.23	9.72	8.00	12
2013/12/20	ME	WSR46	13:11:59	M	5.6	346.1	0.72	18.00	32.14	92.89	7.25</			