

## 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)
2013/12/11	MF	DS1	11:26:24	B	2.0	219.7	0.44	20.24	30.77	97.24	7.34	41.98	7.93	54
2013/12/11	MF	DS1	11:27:14	T	1.0	17.4	0.15	20.25	30.78	92.95	7.02	29.18	7.90	48
2013/12/11	MF	DS1	11:27:40	B	2.0	50.2	0.13	20.24	30.78	92.05	6.95	58.68	7.89	67
2013/12/11	MF	DS1	11:28:04	T	1.0	17.4	0.15	20.25	30.79	92.15	6.96	42.98	7.89	50
2013/12/11	MF	DS1	11:28:31	B	2.0	162.9	0.23	20.25	30.78	91.84	6.93	59.38	7.89	49
2013/12/11	MF	DS1	11:28:56	T	1.1	17.4	0.15	20.25	30.78	91.84	6.93	41.68	7.89	35
2013/12/11	MF	DS2	11:35:10	B	2.0	251.2	0.74	20.27	30.81	93.38	7.20	6.58	7.89	6
2013/12/11	MF	DS2	11:35:32	T	1.0	257.0	0.72	20.28	30.81	93.38	7.04	6.88	7.89	7
2013/12/11	MF	DS2	11:36:14	B	2.0	251.2	0.74	20.28	30.81	92.48	6.98	6.78	7.89	5
2013/12/11	MF	DS2	11:36:50	T	1.0	71.9	0.45	20.29	30.81	92.38	6.97	6.88	7.88	5
2013/12/11	MF	DS2	11:37:21	B	2.0	251.2	0.74	20.28	30.81	92.18	6.95	6.88	7.88	8
2013/12/11	MF	DS2	11:37:59	T	1.0	128.4	0.45	20.30	30.81	92.47	6.97	6.58	7.88	7
2013/12/11	MF	DS3	11:42:23	B	1.9	341.5	0.27	20.27	30.84	97.91	7.39	7.48	7.90	10
2013/12/11	MF	DS3	11:43:01	T	1.0	71.9	0.45	20.28	30.85	93.73	7.07	8.18	7.89	9
2013/12/11	MF	DS3	11:43:47	B	2.0	135.4	0.40	20.29	30.86	92.63	6.98	8.48	7.88	9
2013/12/11	MF	DS3	11:44:13	T	1.0	71.9	0.45	20.30	30.86	92.52	6.97	8.28	7.88	8
2013/12/11	MF	DS3	11:44:39	B	2.0	310.1	0.52	20.30	30.86	92.52	6.97	8.28	7.85	10
2013/12/11	MF	DS3	11:45:10	T	1.0	71.9	0.45	20.31	30.86	92.02	6.93	8.48	7.85	8
2013/12/11	MF	DS4	11:51:36	B	3.0	301.8	0.07	20.29	30.88	96.54	7.28	8.88	7.90	9
2013/12/11	MF	DS4	11:52:07	T	0.9	232.3	0.57	20.30	30.88	94.45	7.12	7.68	7.89	11
2013/12/11	MF	DS4	11:52:55	B	3.0	301.8	0.07	20.30	30.89	93.45	7.04	8.78	7.89	9
2013/12/11	MF	DS4	11:53:38	T	1.0	232.3	0.57	20.31	30.89	93.45	7.04	7.88	7.89	7
2013/12/11	MF	DS4	11:54:09	B	3.0	301.8	0.07	20.30	30.89	93.05	7.01	9.28	7.89	10
2013/12/11	MF	DS4	11:54:51	T	1.0	251.6	0.77	20.32	30.89	93.44	7.04	7.48	7.89	7
2013/12/11	MF	DS5	11:59:54	B	3.0	144.0	0.23	20.27	30.84	96.38	7.27	5.28	7.90	6
2013/12/11	MF	DS5	12:00:35	T	1.0	251.6	0.77	20.29	30.82	93.69	7.07	3.98	7.88	4
2013/12/11	MF	DS5	12:01:18	B	3.0	297.9	0.40	20.27	30.85	93.69	7.07	5.88	7.89	5
2013/12/11	MF	DS5	12:02:06	T	1.0	251.6	0.77	20.29	30.82	92.99	7.01	3.88	7.88	4
2013/12/11	MF	DS5	12:02:58	B	3.0	195.0	1.02	20.27	30.85	93.67	7.07	5.68	7.89	6
2013/12/11	MF	DS5	12:03:41	T	1.0	251.6	0.77	20.30	30.83	93.17	7.02	4.18	7.88	4
2013/12/11	MF	US1	12:24:25	B	3.1	159.9	0.13	20.38	31.09	95.20	7.16	5.08	7.90	4
2013/12/11	MF	US1	12:24:55	T	1.0	244.7	1.35	20.47	31.05	92.71	6.97	4.78	7.90	5
2013/12/11	MF	US1	12:25:40	B	3.0	217.8	0.43	20.38	31.10	90.53	6.80	5.38	7.89	5
2013/12/11	MF	US1	12:26:20	T	0.9	244.7	1.35	20.39	31.09	90.72	6.82	4.68	7.89	4
2013/12/11	MF	US1	12:27:10	B	3.0	107.9	0.07	20.38	31.10	89.92	6.76	5.38	7.88	7
2013/12/11	MF	US1	12:27:55	T	1.0	244.7	1.35	20.38	31.06	90.51	6.80	4.88	7.89	4
2013/12/11	MF	US2	12:32:27	B	3.0	144.9	0.59	20.35	31.06	90.48	6.81	6.38	7.89	4
2013/12/11	MF	US2	12:32:54	T	1.0	203.2	0.72	20.36	31.02	90.38	6.80	4.78	7.89	5
2013/12/11	MF	US2	12:33:45	B	3.0	140.9	0.42	20.35	31.04	89.77	6.75	5.08	7.89	4
2013/12/11	MF	US2	12:34:21	T	1.0	203.2	0.72	20.36	31.01	90.17	6.78	4.58	7.89	4
2013/12/11	MF	US2	12:34:57	B	3.0	250.3	0.72	20.35	31.04	89.57	6.75	5.48	7.89	5
2013/12/11	MF	US2	12:35:34	T	1.0	203.2	0.72	20.37	31.00	90.26	6.79	4.48	7.89	5
2013/12/11	MF	MW1	13:27:05	B	17.8	26.3	0.16	20.72	32.31	89.49	6.84	3.28	7.91	5
2013/12/11	MF	MW1	13:28:02	M	10.1	228.5	0.32	20.72	32.30	88.30	6.55	2.78	7.91	4
2013/12/11	MF	MW1	13:29:00	T	1.0	176.6	0.19	20.69	32.09	89.18	6.63	2.48	7.90	3
2013/12/11	MF	MW1	13:30:44	B	18.0	62.9	1.25	20.72	32.31	87.69	6.50	3.08	7.91	4
2013/12/11	MF	MW1	13:31:24	M	10.1	308.6	0.23	20.71	32.26	87.78	6.51	3.28	7.91	4
2013/12/11	MF	MW1	13:32:07	T	1.0	176.6	0.19	20.66	32.04	88.66	6.59	2.48	7.90	3
2013/12/11	MF	MW1	13:33:13	B	18.0	12.9	0.88	20.72	32.31	87.08	6.46	3.08	7.91	5
2013/12/11	MF	MW1	13:34:17	M	10.0	219.3	0.27	20.69	32.22	87.46	6.49	2.88	7.90	4
2013/12/11	MF	MW1	13:35:09	T	1.1	214.8	0.25	20.65	31.99	88.54	6.59	2.48	7.90	4
2013/12/11	MF	THB1	12:13:38	B	2.1	335.6	0.50	20.31	30.79	95.58	7.21	4.68	7.88	6
2013/12/11	MF	THB1	12:14:03	T	1.0	271.0	0.90	20.31	30.79	92.00	6.94	4.58	7.87	5
2013/12/11	MF	THB1	12:14:31	B	2.1	72.8	0.54	20.31	30.79	91.40	6.89	4.68	7.86	5
2013/12/11	MF	THB1	12:15:20	T	1.0	271.0	0.90	20.32	30.79	90.11	6.79	4.28	7.84	5
2013/12/11	MF	THB1	12:15:53	B	2.0	188.1	0.53	20.32	30.79	89.71	6.76	5.28	7.84	5
2013/12/11	MF	THB1	12:16:33	T	1.0	271.0	0.90	20.32	30.79	89.40	6.74	4.98	7.84	4
2013/12/11	MF	WSR45C	12:45:44	B	12.0	335.9	0.39	20.33	31.09	89.59	6.74	3.88	7.86	4
2013/12/11	MF	WSR45C	12:46:22	M	6.8	239.0	0.60	20.27	31.02	88.69	6.68	3.88	7.85	5
2013/12/11	MF	WSR45C	12:47:16	T	1.0	174.0	0.22	20.30	30.93	90.47	6.82	3.08	7.86	3
2013/12/11	MF	WSR45C	12:48:06	B	11.9	269.0	0.49	20.31	31.08	88.09	6.63	3.88	7.86	4
2013/12/11	MF	WSR45C	12:49:07	M	7.0	207.3	0.59	20.25	31.01	87.88	6.62	3.78	7.86	4
2013/12/11	MF	WSR45C	12:49:51	T	1.1	174.0	0.22	20.30	30.93	90.05	6.79	3.08	7.87	4
2013/12/11	MF	WSR45C	12:51:21	B	12.0	193.1	0.21	20.33	31.11	88.76	6.68	4.18	7.87	5
2013/12/11	MF	WSR45C	12:52:03	M	7.0	265.5	0.84	20.29	31.06	87.76	6.61	3.78	7.87	5
2013/12/11	MF	WSR45C	12:52:48	T	1.1	174.0	0.22	20.30	30.93	90.03	6.78	3.08	7.87	4
2013/12/11	MF	WSR46	10:58:46	B	8.0	107.8	0.41	20.32	30.84	99.06	7.46	5.98	7.84	8
2013/12/11	MF	WSR46	10:59:25	M	5.0	243.1	0.16	20.26	30.68	95.06	7.18	4.88	7.85	5
2013/12/11	MF	WSR46	11:00:09	T	1.0	318.7	0.58	20.25	30.63	94.45	7.14	5.08	7.85	5
2013/12/11	MF	WSR46	11:01:10	B	8.0	11.1	0.06	20.31	30.82	91.85	6.92	5.68	7.85	8
2013/12/11	MF	WSR46	11:01:59	M	5.1	136.8	0.52	20.25	30.67	92.44	6.98	4.88	7.86	4
2013/12/11	MF	WSR46	11:03:08	T	1.0	51.4	0.48	20.25	30.61	93.73	7.08	4.18	7.87	6
2013/12/11	MF	WSR46	11:06:16	B	7.8	9.0	0.17	20.36	30.93	92.71	6.98	7.08	7.86	8
2013/12/11	MF	WSR46	11:06:43	M	4.9	263.7	0.24	20.27	30.73	91.51	6.91	5.68	7.87	7
2013/12/11	MF	WSR46	11:07:18	T	1.0	99.7	0.73	20.24	30.61	93.20	7.04	4.18	7.88	6

## 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)
2013/12/11	ME	DS1	7:31:54	B	3.0	38.2	0.65	20.25	30.78	93.70	7.07	16.38	7.99	30
2013/12/11	ME	DS1	7:32:31	T	1.0	113.6	0.44	20.24	30.78	90.68	6.85	17.58	7.98	16
2013/12/11	ME	DS1	7:33:08	B	3.0	53.4	0.39	20.30	30.82	89.78	6.77	25.38	7.97	18
2013/12/11	ME	DS1	7:33:35	T	1.0	113.6	0.44	20.23	30.78	89.78	6.78	16.68	7.97	24
2013/12/11	ME	DS1	7:34:14	B	3.0	311.2	0.56	20.29	30.81	89.38	6.74	23.48	7.97	17
2013/12/11	ME	DS1	7:34:46	T	1.0	113.6	0.44	20.23	30.77	89.59	6.77	14.78	7.97	18
2013/12/11	ME	DS2	7:40:54	B	3.0	242.9	0.45	20.38	30.97	90.73	6.92	7.78	7.96	10
2013/12/11	ME	DS2	7:41:34	T	1.0	62.7	0.74	20.21	30.83	89.93	6.79	5.38	7.96	7
2013/12/11	ME	DS2	7:42:18	B	3.0	24.5	0.56	20.23	30.85	89.94	6.79	5.38	7.96	7
2013/12/11	ME	DS2	7:43:00	T	1.0	62.7	0.74	20.23	30.83	90.04	6.80	5.28	7.97	5
2013/12/11	ME	DS2	7:44:06	B	3.0	24.0	1.67	20.22	30.83	89.85	6.78	5.28	7.97	6
2013/12/11	ME	DS2	7:45:05	T	1.0	62.7	0.74	20.22	30.83	89.95	6.79	5.18	7.97	6
2013/12/11	ME	DS3	7:49:39	B	6.0	281.9	0.82	20.34	30.95	91.60	6.90	4.68	7.98	5
2013/12/11	ME	DS3	7:50:27	M	4.0	323.7	0.16	20.21	30.82	90.09	6.80	4.28	7.97	5
2013/12/11	ME	DS3	7:51:22	T	1.0	103.6	0.81	20.21	30.82	90.20	6.81	4.18	7.97	5
2013/12/11	ME	DS3	7:52:12	M	6.0	128.8	1.00	20.30	30.88	88.89	6.70	4.78	7.97	5
2013/12/11	ME	DS3	7:53:06	M	4.0	48.2	0.43	20.21	30.82	89.80	6.78	4.18	7.97	4
2013/12/11	ME	DS3	7:54:07	T	1.0	103.6	0.81	20.20	30.81	90.01	6.80	4.08	7.97	5
2013/12/11	ME	DS3	7:55:02	B	6.0	73.6	0.68	20.22	30.83	89.61	6.77	4.18	7.97	4
2013/12/11	ME	DS3	7:56:07	M	4.0	136.6	0.08	20.20	30.80	89.82	6.79	4.08	7.97	5
2013/12/11	ME	DS3	7:57:07	T	1.0	103.6	0.81	20.20	30.81	90.03	6.80	3.98	7.97	4
2013/12/11	ME	DS4	8:01:56	B	4.0	168.5	0.56	20.26	30.91	91.67	6.91	3.48	7.98	3
2013/12/11	ME	DS4	8:02:44	M	3.0	34.9	1.07	20.23	30.85	89.96	6.79	3.38	7.98	4
2013/12/11	ME	DS4	8:03:47	T	1.0	118.2	0.41	20.22	30.85	90.07	6.80	3.48	7.98	4
2013/12/11	ME	DS4	8:04:36	B	4.0	319.0	0.33	20.25	30.87	89.67	6.77	3.48	7.98	4
2013/12/11	ME	DS4	8:05:30	M	3.0	34.9	1.07	20.24	30.88	89.68	6.77	3.38	7.98	3
2013/12/11	ME	DS4	8:06:27	T	1.0	118.2	0.41	20.20	30.85	89.89	6.79	3.48	7.98	3
2013/12/11	ME	DS4	8:07:24	B	4.0	359.6	0.41	20.25	30.89	89.59	6.76	3.68	7.98	4
2013/12/11	ME	DS4	8:08:20	M	3.0	34.9	1.07	20.21	30.85	89.70	6.77	3.58	7.98	4
2013/12/11	ME	DS4	8:09:06	T	1.0	118.2	0.41	20.21	30.85	89.90	6.79	3.58	7.96	5
2013/12/11	ME	DS5	8:13:38	B	6.0	57.0	0.46	20.45	31.32	89.93	6.74	4.98	7.98	6
2013/12/11	ME	DS5	8:14:25	M	4.0	143.5	0.34	20.27	30.90	89.43	6.74	3.78	7.97	3
2013/12/11	ME	DS5	8:15:14	T	1.0	235.2	0.70	20.23	30.87	89.84	6.78	3.68	7.96	4
2013/12/11	ME	DS5	8:16:15	B	6.0	336.7	0.86	20.37	31.07	88.03	6.62	4.18	7.97	4
2013/12/11	ME	DS5	8:17:17	M	4.0	71.1	0.82	20.24	30.87	89.25	6.73	3.78	7.96	4
2013/12/11	ME	DS5	8:18:51	T	1.0	235.2	0.70	20.24	30.87	89.76	6.77	3.68	7.96	9
2013/12/11	ME	DS5	8:21:00	B	6.0	56.4	0.35	20.46	31.31	87.15	6.53	5.38	7.97	5
2013/12/11	ME	DS5	8:21:47	M	4.0	95.5	0.42	20.24	30.87	88.97	6.71	3.68	7.96	4
2013/12/11	ME	DS5	8:22:20	T	1.0	235.2	0.70	20.23	30.87	89.68	6.77	3.68	7.96	4
2013/12/11	ME	US1	8:35:54	B	2.0	114.0	0.27	20.26	30.78	93.61	7.06	8.88	7.98	13
2013/12/11	ME	US1	8:37:07	T	1.0	34.0	0.10	20.39	30.78	91.70	6.92	7.58	7.97	9
2013/12/11	ME	US1	8:38:02	B	2.0	331.0	0.03	20.24	30.78	91.50	6.91	7.88	7.97	7
2013/12/11	ME	US1	8:39:24	T	1.0	34.0	0.10	20.24	30.78	91.51	6.91	7.68	7.93	8
2013/12/11	ME	US1	8:40:11	B	2.0	209.9	0.61	20.25	30.79	91.01	6.87	6.88	7.94	9
2013/12/11	ME	US1	8:40:59	T	1.0	34.0	0.10	20.25	30.78	91.12	6.88	7.08	7.94	7
2013/12/11	ME	US2	8:45:25	B	2.0	28.8	0.46	20.20	30.78	95.19	7.19	6.08	7.98	9
2013/12/11	ME	US2	8:46:11	T	1.0	197.4	0.46	20.22	30.80	91.96	6.94	7.28	7.97	8
2013/12/11	ME	US2	8:47:09	B	2.0	340.1	0.62	20.25	30.81	91.16	6.88	7.78	7.97	7
2013/12/11	ME	US2	8:49:27	T	1.0	197.4	0.46	20.21	30.80	91.47	6.91	6.08	7.97	10
2013/12/11	ME	US2	9:03:33	B	1.9	74.0	0.30	20.23	30.80	96.63	7.30	9.38	8.00	7
2013/12/11	ME	US2	9:04:30	T	0.7	244.4	0.13	20.23	30.81	92.38	6.97	8.98	7.98	8
2013/12/11	ME	MW1	6:08:42	B	19.0	0.5	0.85	20.79	32.43	88.35	6.54	3.18	7.95	4
2013/12/11	ME	MW1	6:09:33	M	10.5	89.9	0.41	20.78	32.41	88.56	6.56	2.08	7.93	3
2013/12/11	ME	MW1	6:10:34	T	1.1	79.1	0.60	20.67	32.22	89.37	6.64	2.28	7.94	3
2013/12/11	ME	MW1	6:11:38	B	19.0	122.6	0.49	20.79	32.44	88.17	6.53	2.48	7.96	3
2013/12/11	ME	MW1	6:12:26	M	10.5	97.0	0.36	20.76	32.39	88.58	6.56	2.48	7.96	6
2013/12/11	ME	MW1	6:13:14	T	1.0	79.1	0.60	20.67	32.22	89.48	6.65	2.28	7.96	3
2013/12/11	ME	MW1	6:14:22	B	19.0	317.5	0.40	20.79	32.45	88.29	6.53	2.58	7.98	4
2013/12/11	ME	MW1	6:15:07	M	10.5	13.2	0.37	20.76	32.39	88.79	6.58	2.48	7.98	4
2013/12/11	ME	MW1	6:16:07	T	1.0	79.1	0.60	20.69	32.24	89.60	6.65	2.28	7.98	5
2013/12/11	ME	THB1	7:17:28	B	3.1	254.9	0.36	20.28	30.80	90.49	6.83	3.98	7.97	4
2013/12/11	ME	THB1	7:18:16	T	1.1	342.6	1.07	20.23	30.78	89.99	6.80	3.98	7.97	6
2013/12/11	ME	THB1	7:19:23	B	3.0	230.5	0.50	20.30	30.81	89.49	6.75	3.88	7.96	5
2013/12/11	ME	THB1	7:20:09	T	1.0	342.6	1.07	20.32	30.82	89.60	6.75	3.68	7.96	4
2013/12/11	ME	THB1	7:21:07	B	3.0	0.9	1.10	20.32	30.82	89.20	6.72	3.48	7.96	4
2013/12/11	ME	THB1	7:22:09	T	1.0	342.6	1.07	20.32	30.82	89.51	6.75	3.68	7.96	4
2013/12/11	ME	WSR45C	6:50:24	B	12.0	85.3	0.68	20.64	32.00	88.91	6.62	3.98	8.01	5
2013/12/11	ME	WSR45C	6:51:08	M	7.0	40.1	0.67	20.61	31.90	87.51	6.52	3.98	7.99	5
2013/12/11	ME	WSR45C	6:52:07	T	1.0	84.5	0.67	20.25	30.88	89.82	6.78	3.58	7.97	4
2013/12/11	ME	WSR45C	6:53:08	B	12.0	85.3	0.68	20.64	32.00	87.22	6.49	3.98	7.99	5
2013/12/11	ME	WSR45C	6:54:07	M	7.0	25.9	0.56	20.60	31.89	87.03	6.48	3.58	7.98	3
2013/12/11	ME	WSR45C	6:55:07	T	1.0	84.5	0.67	20.23	30.90	89.54	6.76	3.48	7.97	4
2013/12/11	ME	WSR45C	6:56:33	B	11.9	22.5	0.18	20.63	31.99	86.64	6.45	4.78	7.99	6
2013/12/11	ME	WSR45C	6:57:34	M	7.0	123.7	0.47	20.33	31.14	88.85	6.98	3.48	7.97	5
2013/12/11	ME	WSR45C	6:58:40	T	1.0	84.5	0.67	20.23	30.87	89.87	6.78	3.58	7.97	5
2013/12/11	ME	WSR46	9:38:23	B	7.9	40.3	0.31	20.29	30.80	94.83	7.15	5.48	8.01	6
2013/12/11	ME	WSR46	9:39:11	M	5.0	33.2	0.62	20.23	30.66	93.42	7.06	4.48	7.98	3
2013/12/11	ME	WSR46	9:40:13	T	1.0	160.2	0.48	20.19	30.64	93.53	7.07	4.28	7.98	5
2013/12/11	ME	WSR46	9:41:03	B	8.0	24.8	0.19	20.36	31.01	91.09	6.85	6.18	7.97	7
2013/12/11	ME	WSR46	9:41:46	M	5.0	228.6	0.26	20.26	30.72	91.91	6.94	4.78	7.98	4
2013/12/11	ME	WSR46	9:42:45	T	1.0	160.2	0.48	20.22	30.64	93.14	7.04	4.08	7.98	5
2013/12/11	ME	WSR46	9:43:59	B	8.0	133.8	0.83	20.38	31.03	91.82	6.90	5.78	7.98	6
2013/12/11	ME	WSR46	9:44:45	M	5.0	3.2	0.47	20.26	30.69	91.83	6.93	4.68	7.98	6
2013/12/11	ME	WSR46	9:45:30	T	1.0	160.2	0.48	20.21	30.64	92.95	7.03	4.08	7.98	3

Remarks: No current speeds and directions were measured at Station THB2.