

Impact Water Quality Monitoring for Dredging Activities

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)
23/01/2013	MF	US1	15:11:12	B	8.1	250.7	0.28	17.97	32.41	101.1	7.89	2.5	7.79	6
23/01/2013	MF	US1	15:11:47	M	4.7	200.1	0.29	18.13	31.85	108.6	8.47	2.0	7.89	5
23/01/2013	MF	US1	15:12:23	T	0.9	47.0	0.60	18.43	31.29	119.9	9.33	2.1	7.94	2
23/01/2013	MF	US1	15:13:06	B	7.8	325.4	0.12	17.97	32.40	102.9	8.03	2.6	7.80	3
23/01/2013	MF	US1	15:13:36	M	4.3	10.2	0.38	18.09	31.97	105.0	8.19	1.8	7.87	3
23/01/2013	MF	US1	15:14:08	T	0.9	47.0	0.60	18.36	31.45	114.2	8.89	2.7	7.93	3
23/01/2013	MF	US2	15:19:59	B	6.3	164.2	0.71	18.02	32.10	107.8	8.42	2.1	7.84	1
23/01/2013	MF	US2	15:20:33	M	3.3	344.6	0.59	18.21	31.78	113.1	8.82	2.2	7.92	1
23/01/2013	MF	US2	15:21:08	T	0.7	263.1	0.29	18.47	31.35	122.6	9.53	2.2	7.95	2
23/01/2013	MF	US2	15:21:52	B	5.9	289.9	0.55	18.03	32.04	111.8	8.73	1.7	7.86	3
23/01/2013	MF	US2	15:22:26	M	3.6	305.4	0.71	18.29	31.68	117.3	9.13	2.6	7.94	2
23/01/2013	MF	US2	15:23:03	T	0.8	146.2	0.77	18.95	30.33	124.4	9.64	2.2	7.96	3
23/01/2013	MF	DS1	15:02:46	B	9.1	316.5	0.69	17.93	32.30	99.0	7.73	6.9	7.78	7
23/01/2013	MF	DS1	15:03:20	M	5.0	339.6	0.56	17.99	32.12	100.8	7.87	19.0	7.81	6
23/01/2013	MF	DS1	15:04:07	T	0.9	43.5	0.81	18.61	30.70	120.9	9.41	3.5	7.93	32
23/01/2013	MF	DS1	15:04:59	B	9.2	199.0	0.72	17.93	32.30	103.9	8.12	5.9	7.79	31
23/01/2013	MF	DS1	15:05:43	M	5.0	298.5	0.45	17.99	32.13	102.3	7.99	21.0	7.82	5
23/01/2013	MF	DS1	15:06:35	T	1.0	43.5	0.81	18.48	31.11	121.1	9.43	4.0	7.93	5
23/01/2013	MF	DS2	14:53:04	B	9.4	296.9	0.79	18.14	31.88	109.8	8.56	8.1	7.82	42
23/01/2013	MF	DS2	14:53:46	M	5.0	245.1	0.49	18.33	31.46	115.2	8.98	4.6	7.90	41
23/01/2013	MF	DS2	14:54:24	T	0.9	64.5	0.40	18.56	30.70	120.2	9.37	2.1	7.89	6
23/01/2013	MF	DS2	14:56:02	B	8.1	172.9	0.11	18.01	32.08	104.1	8.13	14.8	7.80	4
23/01/2013	MF	DS2	14:56:40	M	5.3	125.0	0.95	18.26	31.61	114.6	8.93	4.2	7.87	2
23/01/2013	MF	DS2	14:57:16	T	1.1	64.5	0.40	18.57	30.68	119.1	9.28	2.3	7.89	4
23/01/2013	MF	DS3	14:43:47	B	27.1	357.5	0.54	17.94	32.24	99.5	7.77	2.0	7.75	3
23/01/2013	MF	DS3	14:44:40	M	14.4	241.8	0.09	17.96	32.15	100.6	7.86	2.2	7.76	2
23/01/2013	MF	DS3	14:45:37	T	0.9	130.7	0.08	18.43	30.94	113.0	8.82	2.3	7.86	3
23/01/2013	MF	DS3	14:46:48	B	26.7	83.4	0.40	17.94	32.25	101.1	7.90	2.2	7.76	3
23/01/2013	MF	DS3	14:47:41	M	14.1	200.2	0.32	17.96	32.14	99.8	7.80	2.2	7.77	4
23/01/2013	MF	DS3	14:48:35	T	0.9	130.7	0.08	18.38	31.12	111.6	8.71	2.4	7.88	3
23/01/2013	MF	DS4	14:30:40	B	21.1	292.5	0.52	17.97	32.13	100.9	7.88	2.4	7.74	5
23/01/2013	MF	DS4	14:31:34	M	11.2	116.8	0.59	17.98	32.07	101.3	7.92	2.1	7.74	6
23/01/2013	MF	DS4	14:32:26	T	1.1	177.5	0.21	18.61	30.24	113.6	8.87	1.9	7.81	3
23/01/2013	MF	DS4	14:36:54	B	20.6	285.8	0.50	17.98	32.13	102.5	8.01	2.4	7.75	2
23/01/2013	MF	DS4	14:37:40	M	11.0	318.6	0.39	17.98	32.09	102.1	7.98	2.1	7.76	2
23/01/2013	MF	DS4	14:38:25	T	1.3	230.8	0.31	18.37	31.00	112.6	8.79	2.3	7.83	2
23/01/2013	MF	DS5	14:22:38	B	8.2	8.8	0.19	18.00	31.99	102.8	8.03	6.8	7.76	6
23/01/2013	MF	DS5	14:23:14	M	4.6	303.2	0.17	18.20	31.40	108.7	8.49	2.8	7.82	5
23/01/2013	MF	DS5	14:23:54	T	1.1	302.6	0.15	18.80	29.55	114.6	8.95	2.1	7.82	4
23/01/2013	MF	DS5	14:24:37	B	8.2	243.6	0.92	17.97	32.12	105.2	8.22	2.9	7.73	5
23/01/2013	MF	DS5	14:25:11	M	4.6	28.4	0.82	18.25	31.18	110.5	8.64	2.5	7.80	3
23/01/2013	MF	DS5	14:25:44	T	0.8	302.6	0.15	18.67	29.95	114.7	8.96	1.9	7.80	4
23/01/2013	MF	MW1	16:15:24	B	19.0	88.3	0.69	17.93	32.57	90.5	7.06	2.0	7.71	3
23/01/2013	MF	MW1	16:16:06	M	10.2	328.7	0.16	17.94	32.57	91.3	7.12	1.7	7.72	4
23/01/2013	MF	MW1	16:16:50	T	1.0	57.1	0.19	17.95	32.57	91.7	7.15	1.5	7.72	3
23/01/2013	MF	MW1	16:18:04	B	18.9	88.4	0.25	17.94	32.58	91.6	7.14	1.4	7.72	2
23/01/2013	MF	MW1	16:18:52	M	10.0	23.6	0.59	17.94	32.58	91.5	7.13	1.5	7.72	3
23/01/2013	MF	MW1	16:19:49	T	1.0	37.6	0.65	17.96	32.58	92.6	7.22	1.3	7.73	2

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23/01/2013	ME	US1	10:51:22	B	9.2	83.7	0.05	18.05	31.88	105.3	8.23	4.5	7.81	8
23/01/2013	ME	US1	10:52:03	M	5.0	321.2	0.17	18.06	31.86	106.9	8.35	4.3	7.81	8
23/01/2013	ME	US1	10:52:48	T	1.0	66.3	0.14	18.22	31.67	113.7	8.87	2.7	7.87	7
23/01/2013	ME	US1	10:53:31	B	9.3	126.9	0.02	18.06	31.87	110.0	8.59	5.2	7.82	7
23/01/2013	ME	US1	10:54:05	M	4.8	314.6	0.11	18.07	31.85	108.5	8.48	4.9	7.83	4
23/01/2013	ME	US1	10:54:41	T	1.2	66.3	0.14	18.16	31.75	111.4	8.70	2.7	7.84	3
23/01/2013	ME	US2	10:41:42	B	10.2	255.7	0.05	17.91	32.27	100.4	7.85	2.8	7.74	7
23/01/2013	ME	US2	10:42:24	M	5.7	81.0	0.05	18.11	31.74	109.2	8.53	3.0	7.82	6
23/01/2013	ME	US2	10:43:06	T	1.1	11.6	0.04	18.25	31.59	115.4	9.00	2.8	7.87	4
23/01/2013	ME	US2	10:43:52	B	10.2	255.7	0.05	17.91	32.29	104.0	8.13	3.5	7.74	4
23/01/2013	ME	US2	10:44:27	M	5.4	60.1	0.10	18.02	31.91	104.3	8.15	2.7	7.79	4
23/01/2013	ME	US2	10:45:02	T	0.9	11.6	0.04	18.29	31.62	113.3	8.83	2.8	7.87	5
23/01/2013	ME	DS1	11:01:14	B	8.0	31.8	0.21	17.93	32.14	101.9	7.96	2.7	7.78	4
23/01/2013	ME	DS1	11:01:55	M	4.5	82.3	0.06	18.02	31.92	106.2	8.30	2.7	7.82	4
23/01/2013	ME	DS1	11:02:34	T	1.1	67.5	0.27	18.18	31.66	112.7	8.80	2.9	7.87	5
23/01/2013	ME	DS1	11:03:14	B	7.9	176.8	0.16	17.95	32.12	105.0	8.21	2.8	7.79	4
23/01/2013	ME	DS1	11:03:49	M	4.5	82.3	0.06	18.01	31.94	105.6	8.25	2.8	7.82	4
23/01/2013	ME	DS1	11:04:24	T	1.1	67.5	0.27	18.30	31.63	115.6	9.00	3.4	7.90	4
23/01/2013	ME	DS2	11:10:21	B	5.9	104.4	0.15	18.00	31.96	104.6	8.18	2.3	7.81	3
23/01/2013	ME	DS2	11:10:53	M	3.6	34.3	0.17	18.03	31.92	108.1	8.44	2.0	7.83	3
23/01/2013	ME	DS2	11:11:30	T	1.1	72.1	0.10	18.26	31.64	114.8	8.95	3.2	7.89	3
23/01/2013	ME	DS2	11:12:06	B	6.1	136.6	0.17	17.99	32.00	108.1	8.45	2.0	7.81	3
23/01/2013	ME	DS2	11:12:37	M	3.3	136.7	0.12	18.07	31.86	107.8	8.42	1.8	7.85	4
23/01/2013	ME	DS2	11:13:08	T	1.1	72.1	0.10	18.29	31.66	114.9	8.95	2.5	7.90	4
23/01/2013	ME	DS3	11:18:01	B	6.1	132.0	0.12	17.99	32.02	103.1	8.05	1.8	7.82	5
23/01/2013	ME	DS3	11:18:34	M	3.4	115.3	0.20	17.99	32.02	104.0	8.13	2.0	7.83	5
23/01/2013	ME	DS3	11:19:05	T	0.9	131.8	0.34	18.03	31.96	106.5	8.32	2.3	7.85	3
23/01/2013	ME	DS3	11:19:37	B	6.0	83.4	0.24	17.98	32.05	105.6	8.26	2.4	7.83	3
23/01/2013	ME	DS3	11:20:06	M	3.4	84.0	0.22	18.10	31.91	107.9	8.42	2.1	7.86	4
23/01/2013	ME	DS3	11:20:34	T	1.0	131.8	0.34	18.14	31.88	110.0	8.58	2.1	7.87	4
23/01/2013	ME	DS4	11:24:46	B	4.0	84.0	0.22	18.02	32.02	104.7	8.17	1.6	7.82	4
23/01/2013	ME	DS4	11:25:14	M	2.4	131.8	0.34	18.04	31.94	106.0	8.28	1.6	7.83	3
23/01/2013	ME	DS4	11:25:46	T	1.1	131.8	0.34	18.05	31.97	108.2	8.45	1.5	7.83	4
23/01/2013	ME	DS4	11:26:16	B	4.1	84.0	0.22	17.96	32.26	105.1	8.21	2.0	7.79	3
23/01/2013	ME	DS4	11:27:14	M	2.6	131.8	0.34	18.05	31.94	108.9	8.50	1.8	7.85	3
23/01/2013	ME	DS4	11:27:41	T	1.2	177.3	0.30	18.08	31.91	110.6	8.63	1.9	7.86	2
23/01/2013	ME	DS5	11:32:31	B	4.1	244.1	0.12	18.00	32.08	103.5	8.09	3.2	7.82	5
23/01/2013	ME	DS5	11:33:03	M	2.5	220.1	0.08	18.13	31.86	108.8	8.49	2.9	7.86	6
23/01/2013	ME	DS5	11:33:31	T	0.9	177.3	0.30	18.03	32.02	109.0	8.51	2.9	7.84	5
23/01/2013	ME	DS5	11:34:04	B	4.1	244.1	0.12	17.99	32.10	107.4	8.39	2.9	7.84	4
23/01/2013	ME	DS5	11:34:33	M	2.5	220.1	0.08	18.05	31.97	107.3	8.38	2.4	7.86	4
23/01/2013	ME	DS5	11:34:59	T	1.1	177.3	0.30	18.18	31.79	112.1	8.74	1.8	7.89	6
23/01/2013	ME	MW1	09:28:26	B	18.9	115.1	0.07	17.92	32.55	94.0	7.33	2.4	7.50	3
23/01/2013	ME	MW1	09:29:19	M	9.7	76.1	0.14	17.91	32.54	93.1	7.26	2.3	7.54	4
23/01/2013	ME	MW1	09:30:04	T	0.9	344.4	0.09	17.92	32.53	94.3	7.36	1.8	7.57	3
23/01/2013	ME	MW1	09:30:56	B	19.2	173.8	0.08	17.91	32.54	93.7	7.31	2.3	7.57	5
23/01/2013	ME	MW1	09:31:39	M	10.1	79.3	0.13	17.91	32.54	92.8	7.24	2.0	7.58	4
23/01/2013	ME	MW1	09:32:22	T	1.1	87.2	0.08	17.92	32.53	93.8	7.32	1.9	7.59	5