Water Quality Monitoring Report
2013 Dredging and Decanting
for the
New NY Bridge Project

Revision 0
February 18, 2014

Prepared by
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Document History			
Issue Date	**Description**	**By**	**Revision**
2/18/2014	Submitted to NYSTA	CRC	0

1.0 Introduction

This report summarizes the results of water quality monitoring for dredging and decanting activities, in accordance with New York State Department of Environmental Conservation Permit DEC ID 3-9903-00043/00012 (NYSDEC Permit) Condition 65.

2.0 Dredging and Decanting Activities

Dredging operations commenced on August 2, 2013 and ended on October 31, 2013. Dredging activities were scheduled to occur seven (7) days a week, twenty-four (24) hours a day. All dredging operations were completed by Weeks Marine Inc. (WMI) as subcontractor to Tappan Zee Constructors LLC (TZC) using two dredges (WMI 551 and WMI 506) and one barge (WMI 211) for decanting operations. The East Dredge Area was dredged by the WMI 551 barge; the West Dredge Area was dredged by the WMI 506 barge and the WMI 551 barge.

Decanting of dredged material prior to transport to upland placement facilities commenced on August 2, 2013 and ended on October 31, 2013. Decanting activities were scheduled to occur when necessary during dredging.

3.0 Water Quality Monitoring Activities

Water quality monitoring occurred in accordance with the approved Water Quality Monitoring Plan throughout the dredging season. The NYSDEC Permit was modified during dredging activities as follows:

- August 6, 2013 – Permit Condition 60: (iii) requires the collection of whole water samples in the vertical water column (from at least three depths in waters greater than 20 feet deep, from two depths in waters between 10 and 20 feet deep and at mid-depth in waters less than 10 feet deep) along a transect in the plume;
- August 6, 2013 – Permit Condition 61: Modified the water quality standard for dissolved copper from 3.4 µg/L to 5.6 µg/L; and
- October 21, 2013 – Permit Condition 27A: For the remaining dredging that is conducted in calendar year 2013, only, the overlying water in the barge may be pumped to the water column after 12 hours of settling.

Monitoring occurred every day during daylight hours from August 2, 2013 to October 31, 2013 per Section 3.2 of the Water Quality Monitoring Plan. Due to logistical (e.g., dredge scow availability) and equipment mechanical issues, there were multiple days or tides when dredging and decanting did not occur as scheduled such that whole water samples were not collected. High winds and severe weather suspended water quality monitoring on August 8, 2013.

4.0 Results

There were no observations of turbidity resulting in substantial visible contrasts from ambient conditions to the Hudson River outside of the 500-foot mixing zone from dredging or decanting.

Attachment 1 provides a summary of whole water samples collected for each day of dredging and decanting. Water quality samples were collected on 91 days during the dredging season. Water quality monitoring results indicate that there were no water quality exceedances during 82 of the 91 days sampled. Table 1 provides a summary of samples collected by dredge or decanting barge and the number of days below water quality standards.

Table 1. Number of Days Sampled within NYSDEC Permit Condition 61 Standards

Dredging/ Decanting Barge	Number of Days Sampled	Number of Days within Water Quality Standards	Percentage
211 Barge	46	45	98%
506 Barge	73	69	95%
551 Barge	74	69	93%

There were ten samples that exceeded Permit Condition 61 water quality standards during the dredging season; seven TSS samples, each collected on separate days and tide cycles, and four dissolved copper samples collected on August 6, 8 and 18 (Tables 2 and 3).

Table 2. TSS Exceedances during 2013 Dredging and Decanting

Date (mm/dd/yy)	Dredge Barge	Tide Cycle	Depth of Sample	Up-current concentration	Down-current concentration
08/18/13	551 Barge	Flood	Mid-water	26.0 ppm	128 ppm
08/20/13	506 Barge	Flood	Surface	52.8 ppm	160 ppm
08/23/13	506 Barge	Ebb	Bottom	30.4 ppm	166 ppm
09/02/13	506 Barge	Flood	Bottom	29.0 ppm	203 ppm
09/07/13	506 Barge	Ebb	Mid-water	22.0 ppm	186 ppm
10/21/13	551 Barge	Flood	Bottom	32.8 ppm	160 ppm
10/30/13	551 Barge	Flood	Mid-water	9.6 ppm	143 ppm

Table 3. Dissolved Copper Exceedances during 2013 Dredging and Decanting

Date (mm/dd/yy)	Dredging Operation	Tide Cycle	Depth of Sample	Up-current concentration	Down-current concentration
08/06/13	551 Barge	Flood	Mid-water	5.6 ppb	6.5 ppb
08/06/13	551 Barge	Flood	Bottom	4.9 ppb	6.2 ppb
08/08/13	551 Barge	Flood	Mid-water	5.1 ppb	5.9 ppb
08/18/13	211 Barge	Ebb	Bottom	3.4 ppb	14 ppb

Down-current TSS concentrations among those samples that exceeded TSS standards ranged from 2 to 74 ppm above the Permit Condition 61 standard; with the majority of samples less than 40 ppm above the standard.

Dissolved copper exceedances during dredging occurred on August 6 and 8, 2013 at the same dredge barge, with concentrations 0.8-1.3 ppb above up-current or background concentrations. Only one sample collected during decanting exceeded Permit Condition 61 standards for dissolved copper.

Attachment 1: Summary of Dredging Quality Monitoring
New NY Bridge Project
08/02/2013 - 10/31/2013
506 Dredge Data

TAPPAN ZEE
CONSTRUCTORS, LLC

Created by: Christopher Coccaro, January 15, 2014
Checked by: Paul Moccio, January 20, 2014

Date	Tidal Cycle	Sample Depth[1]	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene	Comments[2,3]
									Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260			
(mm/dd/yyyy)	(Flood or Ebb)	(S, M, B)	(ppm)	(ppb)											(Exceedances and other observations)
8/2/2013	Ebb	S	53.6	ND	ND	4.0	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
8/2/2013	Ebb	M	48.4	ND	ND	4.2	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
8/2/2013	Ebb	B	66.4	ND	ND	4.2	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
8/3/2013	Ebb	S	17.2	ND	ND	4.0	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/3/2013	Ebb	M	51.2	ND	ND	4.3	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/3/2013	Ebb	B	3.80	ND	ND	4.1	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
8/3/2013	Flood	S	12.0	ND	ND	4.1	ND	19	ND	ND	ND	ND	ND	ND	No exceedance
8/3/2013	Flood	M	10.4	ND	ND	4.1	ND	18	ND	ND	ND	ND	ND	ND	No exceedance
8/3/2013	Flood	B	12.0	ND	ND	4.5	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
8/4/2013	Flood	S	26	ND	ND	4.5	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/4/2013	Flood	M	40	ND	ND	4.3	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/4/2013	Flood	B	59	ND	ND	4.5	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/5/2013	Ebb	S	89.0	ND	ND	4.4	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/5/2013	Ebb	M	70.0	ND	ND	4.1	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/5/2013	Ebb	B	104	ND	ND	4.1	ND	ND	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 21.6 mg/L, 104 mg/L was not an exceedance.
8/5/2013	Flood	S	21.2	ND	ND	4.2	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
8/5/2013	Flood	M	60.0	ND	ND	4.2	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
8/5/2013	Flood	B	123	ND	ND	4.0	ND	15	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 43.2 mg/L, 123 mg/L was not an exceedance.
8/6/2013	Ebb	S	96	ND	ND	5.6	ND	12	ND	ND	ND	ND	ND	ND	Upcurrent Cu was 6.1 ppb, 5.6 ppb was not an exceedance.
8/6/2013	Ebb	M	110	ND	ND	6.0	ND	14	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 33 mg/L, 110 mg/L TSS was not an exceedance. Upsteam Cu was 6.1 ppb, 6.0 ppb was not an exceedance.
8/6/2013	Ebb	B	100	ND	ND	5.8	ND	13	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 65 mg/L, 100 mg/L TSS was not an exceedance. Upsteam Cu was 5.8 ppb, 5.8 ppb was not an exceedance.
8/7/2013	Ebb	S	30.4	ND	ND	3.3	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/7/2013	Ebb	B	39.2	ND	ND	3.2	ND	17	ND	ND	ND	ND	ND	ND	Upsteam Cu was 7.9 ppb
8/7/2013	Flood	S	59.0	ND	ND	3.1	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/7/2013	Flood	B	71.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/8/2013	Flood	S	47.0	ND	ND	5.7	ND	14	ND	ND	ND	ND	ND	ND	Upcurrent Cu was 6.3 ppb, 5.7 ppb was not an exceedance.
8/8/2013	Flood	B	54.0	ND	ND	6.2	ND	11	ND	ND	ND	ND	ND	ND	Upcurrent Cu was 6.5 ppb, 6.2 ppb was not an exceedance.
8/9/2013	Ebb	S	39	ND	ND	3.0	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/9/2103	Ebb	B	45	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/9/2103	Flood	S	30	ND	ND	3.5	ND	18	ND	ND	ND	ND	ND	ND	No exceedance
8/9/2103	Flood	B	71	ND	ND	3.8	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
8/10/2103	Ebb	S	46	ND	ND	4.3	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/10/2103	Ebb	B	54	ND	ND	4.0	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/10/2103	Flood	S	80	ND	ND	3.8	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/10/2103	Flood	B	74	ND	ND	3.8	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
8/11/2013	Ebb	S	35	ND	ND	3.9	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/11/2013	Ebb	B	39	ND	ND	3.5	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/11/2013	Flood	S	51	ND	ND	3.3	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/11/2013	Flood	B	93	ND	ND	3.5	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/12/2013	Ebb	S	79	ND	ND	3.7	ND	21	ND	ND	ND	ND	ND	ND	No exceedance
8/12/2013	Ebb	B	77	ND	ND	5.4	3	22	ND	ND	ND	ND	ND	ND	No exceedance
8/13/2013	Flood	S	62.0	ND	ND	3.5	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/13/2013	Flood	B	72.0	ND	ND	3.5	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/13/2013	Ebb	S	27.6	ND	ND	3.8	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/13/2013	Ebb	B	27.6	ND	ND	3.9	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/14/2013	Flood	S	24.8	ND	ND	3.7	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/14/2013	Flood	B	33.2	ND	ND	4.4	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/14/2013	Ebb	S	42.8	ND	ND	4.1	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
8/14/2013	Ebb	B	54.0	ND	ND	4.2	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
8/15/2013	Ebb	M	44.0	ND	ND	4.2	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/15/2013	Flood	S	32.0	ND	ND	4.5	ND	14	ND	ND	ND	ND	ND	ND	No exceedance

Attachment 1: Summary of Dredging Quality Monitoring
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08/02/2013 - 10/31/2013
506 Dredge Data

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Created by: Christopher Coccaro, January 15, 2014
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Date	Tidal Cycle	Sample Depth[1]	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene	Comments[2,3]
									Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260			
(mm/dd/yyyy)	(Flood or Ebb)	(S, M, B)	(ppm)	(ppb)											(Exceedances and other observations)
8/15/2013	Flood	B	45.0	ND	ND	4.3	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/18/2013	Ebb	S	36.8	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
8/18/2013	Ebb	B	40.8	ND	ND	3.2	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/19/2013	Flood	S	81.6	ND	ND	3.4	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/19/2013	Flood	B	86.8	ND	ND	3.2	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/19/2013	Ebb	S	101	ND	ND	3.3	ND	12	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 70.4 mg/L, 101 mg/L TSS is not an exceedance.
8/19/2013	Ebb	B	111	ND	ND	3.3	ND	15	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 79.6 mg/L, 111 mg/L TSS is not an exceedance.
8/20/2013	Flood	S	160	ND	ND	3.7	ND	15	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 52.8.6 mg/L, 160 mg/L TSS is an exceedance.
8/20/2013	Flood	B	78.8	ND	ND	3.9	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
8/20/2013	Ebb	S	57.6	ND	ND	3.5	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/20/2013	Ebb	B	60.8	ND	ND	3.4	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/21/2013	Flood	M	44.8	ND	ND	3.6	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/21/2013	Ebb	S	40.8	ND	ND	3.2	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
8/21/2013	Ebb	B	40.8	ND	ND	3.3	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/22/2013	Ebb	S	57.6	ND	ND	3.1	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/22/2013	Ebb	B	166	ND	ND	3.0	ND	12	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 30.4 mg/L, 166 mg/L TSS is an exceedance.
8/23/2013	Ebb	S	55.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/23/2013	Ebb	B	54.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/23/2013	Flood	S	52.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/23/2013	Flood	B	55.0	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/24/2013	Flood	S	62	ND	ND	4.8	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/24/2013	Flood	B	82	ND	ND	5.1	ND	14	ND	ND	ND	ND	0.20	ND	No exceedance
8/24/2013	Ebb	S	32	ND	ND	4.5	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/24/2013	Ebb	B	35	ND	ND	5.5	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/25/2013	Flood	S	50.0	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/25/2013	Flood	B	121	ND	ND	3.1	ND	12	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 157 mg/L, 121 mg/L TSS is not an exceedance.
8/26/2013	Ebb	M	69.0	ND	ND	3.1	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/27/2013	Ebb	S	62.0	ND	ND	3.4	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/27/2013	Ebb	B	62.0	ND	ND	3.4	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
8/29/2013	Ebb	S	28.0	ND	ND	3.5	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/29/2013	Ebb	B	24.0	ND	ND	3.9	ND	18	ND	ND	ND	ND	ND	ND	No exceedance
8/30/2013	Ebb	S	28.0	ND	ND	3.7	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
8/30/2013	Ebb	B	40.0	ND	ND	3.4	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/30/2013	Flood	S	19.0	ND	ND	3.7	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/30/2013	Flood	B	19.0	ND	ND	3.5	ND	10	ND	ND	ND	ND	ND	ND	No exceedance
8/31/2013	Flood	S	38	ND	ND	4.9	ND	9.7	ND	ND	ND	ND	ND	ND	No exceedance
8/31/2013	Flood	B	64	ND	ND	5.9	ND	15	ND	ND	ND	ND	ND	ND	Upcurrent Cu was 5.7 ppb, 5.9 ppb Cu is not an exceedance.
8/31/2013	Ebb	S	43	ND	ND	5.2	ND	11	ND	ND	ND	ND	ND	ND	Upcurrent Cu was 5.9 ppb, 5.2 ppb Cu is not an exceedance.
8/31/2013	Ebb	B	46	ND	ND	5.0	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/2/2013	Flood	S	62.0	ND	ND	3.3	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
9/2/2013	Flood	B	203	ND	ND	3.4	ND	14	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 29 mg/L, 203 mg/L TSS is an exceedance.
9/2/2013	Ebb	S	32.0	ND	ND	3.5	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/2/2013	Ebb	B	35.0	ND	ND	3.5	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/3/2013	Flood	S	46.0	ND	ND	3.0	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
9/3/2013	Flood	B	61.0	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/4/2013	Flood	S	44.0	ND	ND	3.2	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
9/4/2013	Flood	B	43.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
9/5/2013	Ebb	M	84.0	ND	ND	ND	3.7	16	ND	ND	ND	ND	ND	ND	No exceedance
9/6/2013	Flood	S	81.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/6/2013	Flood	B	93.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/7/2013	Flood	S	79.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/7/2013	Flood	B	77.2	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/7/2013	Ebb	M	186	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 22.0 mg/L, 186 mg/L TSS is an exceedance.
9/8/2013	Flood	S	50.0	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance

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08/02/2013 - 10/31/2013
506 Dredge Data

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Date	Tidal Cycle	Sample Depth[1]	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene	Comments[2,3]
									Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260			
(mm/dd/yyyy)	(Flood or Ebb)	(S, M, B)	(ppm)	(ppb)											(Exceedances and other observations)
9/8/2013	Flood	B	53.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/9/2013	Flood	S	78.0	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/9/2013	Flood	B	69.0	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/10/2013	Flood	M	40.4	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/11/2013	Flood	M	57.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/13/2013	Ebb	M	34.8	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/14/2013	Ebb	M	67.6	ND	ND	ND	ND	18	ND	ND	ND	ND	ND	ND	No exceedance
9/14/2013	Flood	M	49.2	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/15/2013	Ebb	M	42.0	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/15/2013	Flood	S	35.2	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/15/2013	Flood	B	38.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/16/2013	Flood	S	50.8	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/16/2013	Flood	B	50.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/16/2013	Ebb	S	13.6	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/16/2013	Ebb	B	13.6	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
9/17/2013	Flood	S	32.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/17/2013	Flood	B	121	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 56.4 mg/L, 121 mg/L TSS was not an exceedance.
9/17/2013	Ebb	S	52.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/17/2013	Ebb	B	58.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/26/2013	Ebb	S	73.6	ND	ND	4.0	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/26/2013	Ebb	B	94.4	ND	ND	4.0	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/26/2013	Flood	S	52.4	ND	ND	4.1	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/26/2013	Flood	B	70.0	ND	ND	3.6	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/27/2013	Ebb	S	120	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 8.4 mg/L, 120 mg/L TSS was an exceedance. However, this sample was considered to be influenced by tug activity.
9/27/2013	Ebb	B	100	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
9/27/2013	Flood	S	49.5	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/27/2013	Flood	B	26.8	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/28/2013	Ebb	M	9.60	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/28/2013	Flood	M	46.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/29/2013	Flood	M	8.40	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/30/2013	Ebb	M	7.20	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
10/1/2013	Flood	S	19.6	ND	ND	ND	ND	18	ND	ND	ND	ND	ND	ND	No exceedance
10/1/2013	Flood	B	58.8	ND	ND	ND	ND	19	ND	ND	ND	ND	ND	ND	No exceedance
10/1/2013	Ebb	M	19.2	ND	ND	3.2	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/2/2013	Flood	M	17.2	ND	ND	3.3	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
10/3/2013	Flood	M	30.0	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/3/2013	Ebb	M	108	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 14.4 mg/L, 108 mg/L TSS was not an exceedance.
10/4/2013	Ebb	M	29.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/4/2013	Flood	S	14.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/4/2013	Flood	B	47.2	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/5/2013	Ebb	M	58.0	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
10/6/2013	Flood	S	34.8	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/6/2013	Flood	B	43.6	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
10/6/2013	Ebb	M	37.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/8/2013	Flood	S	35.2	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/8/2013	Flood	B	83.6	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/8/2013	Ebb	M	32.0	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
10/9/2013	Flood	S	52.8	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/9/2013	Flood	B	47.2	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/9/2013	Ebb	M	107	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 37.6 mg/L, 107 mg/L TSS was not an exceedance.
10/10/2013	Ebb	M	102	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 34.8 mg/L, 102 mg/L TSS was not an exceedance.
10/10/2013	Flood	S	54.0	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/10/2013	Flood	B	38.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/11/2013	Ebb	M	32.8	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance

Attachment 1: Summary of Dredging Quality Monitoring
New NY Bridge Project
08/02/2013 - 10/31/2013
506 Dredge Data

TAPPAN ZEE CONSTRUCTORS, LLC

Created by: Christopher Coccaro, January 15, 2014
Checked by: Paul Moccio, January 20, 2014

Date	Tidal Cycle	Sample Depth[1]	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene	Comments[2,3]
									Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260			
(mm/dd/yyyy)	(Flood or Ebb)	(S, M, B)	(ppm)	(ppb)											(Exceedances and other observations)
10/12/2013	Ebb	M	29.2	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/12/2013	Flood	S	47.2	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/12/2013	Flood	B	61.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/13/2013	Ebb	S	26.0	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/13/2013	Ebb	B	24.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/13/2013	Flood	S	8.80	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/13/2013	Flood	B	8.40	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/14/2013	Flood	S	24.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/14/2013	Flood	B	38.4	ND	ND	ND	ND	18	ND	ND	ND	ND	ND	ND	No exceedance
10/14/2013	Ebb	M	35.6	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/15/2013	Flood	S	33.2	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/15/2013	Flood	B	34.4	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
10/15/2013	Ebb	S	33.6	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/15/2013	Ebb	B	39.2	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/17/2013	Flood	S	34.0	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/17/2013	Flood	B	43.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/18/2013	Ebb	S	34.4	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
10/18/2013	Ebb	B	53.6	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/19/2013	Flood	S	77.6	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
10/19/2013	Flood	B	105	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 142 mg/L, 105 mg/L TSS was not an exceedance.
10/20/2013	Flood	S	74.8	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/20/2013	Flood	B	125	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 77.6 mg/L, 125 mg/L TSS was not an exceedance.
10/21/2013	Flood	S	32.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/21/2013	Flood	B	40.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/22/2013	Ebb	M	88.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/22/2013	Flood	M	79.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/23/2013	Flood	S	18.0	ND	ND	ND	ND	19	ND	ND	ND	ND	ND	ND	No exceedance
10/23/2013	Flood	B	22.4	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
10/23/2013	Ebb	S	52.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/23/2013	Ebb	B	50.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/24/2013	Ebb	M	59.2	ND	ND	3.7	ND	20	ND	ND	ND	ND	ND	ND	No exceedance
10/24/2013	Flood	M	17.2	ND	ND	3.4	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/25/2013	Flood	M	31.2	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
10/26/2013	Ebb	M	26.0	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
10/27/2013	Ebb	M	8.80	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
10/27/2013	Flood	S	13.6	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
10/27/2013	Flood	B	17.6	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/28/2013	Flood	S	15.6	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/28/2013	Flood	B	13.6	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
10/28/2013	Ebb	S	31.2	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/28/2013	Ebb	B	58.4	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
10/29/2013	Flood	M	45.6	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance

Notes:
[1] S = Near Surface, M = Mid-Depth, B = Near Bottom
[2] Exceedances based on New York State Department of Envrionmental Conversation (NYSDEC) Permit Condition 61 of the NYSDEC Permit ID 3-9903-00043/00012
[3] Upcurrent samples information not included unless noted
Samples collected at the edge of the 500 ft mixing zone
ND = Not Detected

Attachment 1: Summary of Dredging Quality Monitoring
New NY Bridge Project
08/02/2013 - 10/31/2013
551 Dredge Data

TAPPAN ZEE CONSTRUCTORS, LLC

Created by: Christopher Coccaro, January 15, 2014
Checked by: Paul Moccio, January 17, 2014

Date	Tidal Cycle	Sample Depth[1]	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene	Comments[2,3]
									Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260			
(mm/dd/yyyy)	(Flood or Ebb)	(S, M, B)	(ppm)	(ppb)											(Exceedances and other observations)
8/2/2013	Ebb	S	9.60	ND	ND	4.6	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/2/2013	Ebb	M	13.2	ND	ND	4.3	ND	18	ND	ND	ND	ND	ND	ND	No exceedance
8/2/2013	Ebb	B	12.8	ND	ND	4.2	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
8/3/2013	Ebb	S	22.0	ND	ND	4.2	ND	23	ND	ND	ND	ND	ND	ND	No exceedance
8/3/2013	Ebb	M	13.6	ND	ND	4.5	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
8/3/2013	Ebb	B	16.0	ND	ND	4.4	ND	50	ND	ND	ND	ND	ND	ND	No exceedance
8/6/2013	Flood	S	24	ND	ND	6.2	ND	14	ND	ND	ND	ND	ND	ND	Upcurrent Cu exceeded the Water Quality Standard, downcurrent Cu was less than 30% over background.
8/6/2013	Flood	M	24	ND	ND	6.5	ND	33	ND	ND	ND	ND	ND	ND	Upcurrent Cu was 5.6 ppb, 6.5 is an exceedance.
8/6/2013	Flood	B	33	ND	ND	6.2	ND	12	ND	ND	ND	ND	ND	ND	Upcurrent Cu was 4.9 ppb, 6.2 is an exceedance.
8/7/2013	Ebb	M	28.4	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
8/7/2013	Flood	S	36.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/7/2013	Flood	B	46.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/8/2013	Ebb	M	58	ND	ND	5.9	ND	ND	ND	ND	ND	ND	ND	ND	Upcurrent Cu was 5.1 ppb, 5.9 ppb Cu is an exceedance.
8/8/2013	Flood	S	31	ND	ND	4.5	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/8/2013	Flood	B	28	ND	ND	5.2	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
8/9/2013	Ebb	M	45.0	ND	ND	ND	ND	18	ND	ND	ND	ND	ND	ND	Upcurrent Zinc was 78 ppb.
8/10/2013	Flood	M	43	ND	ND	3.9	ND	8.6	ND	ND	ND	ND	ND	ND	No exceedance
8/10/2013	Ebb	S	32	ND	ND	3.4	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/10/2013	Ebb	B	41	ND	ND	3.8	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/11/2013	Ebb	M	49	ND	ND	3.6	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/11/2013	Flood	M	31	ND	ND	3.3	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/12/2013	Ebb	M	79	ND	ND	3.3	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/12/2103	Flood	M	38	ND	ND	3.8	ND	19	ND	ND	ND	ND	ND	ND	No exceedance
8/13/2013	Ebb	M	54.8	ND	ND	3.4	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/15/2013	Flood	M	24.0	ND	ND	4.2	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/15/2013	Ebb	M	42.0	ND	ND	4.0	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/16/2013	Flood	M	103	ND	ND	3.7	ND	12	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 16.0 mg/L, 103 mg/L is not an exceedance.
8/18/2013	Flood	M	128	ND	ND	3.1	ND	15	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 26 mg/L, 128 mg/L TSS is an exceedance.
8/19/2013	Ebb	M	54.0	ND	ND	3.1	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/20/2013	Ebb	M	51.6	ND	ND	3.0	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/20/2013	Flood	M	42.8	ND	ND	3.4	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
8/21/2013	Ebb	M	34.8	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
8/22/2013	Ebb	M	57.2	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/23/2013	Flood	M	70.0	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/23/2013	Ebb	M	42.0	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/24/2013	Ebb	M	32	ND	ND	4.6	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/25/2013	Ebb	M	26.0	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/25/2013	Flood	M	29.0	ND	ND	3.2	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/26/2013	Flood	M	62.0	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/26/2013	Ebb	M	43.0	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/27/2013	Ebb	M	40.0	ND	ND	3.2	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
8/27/2013	Flood	M	34.0	ND	ND	3.0	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/30/2013	Ebb	M	24.0	ND	ND	3.2	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
8/30/2013	Flood	M	27.0	ND	ND	3.6	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/1/2013	Ebb	M	27.0	ND	ND	3.1	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/2/2013	Ebb	M	28.0	ND	ND	3.3	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
9/2/2013	Flood	M	54.0	ND	ND	3.3	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/5/2013	Ebb	M	55.0	ND	ND	ND	ND	25	ND	ND	ND	ND	ND	ND	No exceedance
9/6/2013	Flood	M	41	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/7/2013	Flood	M	11.6	ND	ND	ND	ND	18	ND	ND	ND	ND	ND	ND	No exceedance

Attachment 1: Summary of Dredging Quality Monitoring
New NY Bridge Project
08/02/2013 - 10/31/2013
551 Dredge Data

TAPPAN ZEE CONSTRUCTORS, LLC

Created by: Christopher Coccaro, January 15, 2014
Checked by: Paul Moccio, January 17, 2014

Date	Tidal Cycle	Sample Depth[1]	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene	Comments[2,3]
									Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260			
(mm/dd/yyyy)	(Flood or Ebb)	(S, M, B)	(ppm)	(ppb)											(Exceedances and other observations)
9/7/2013	Ebb	M	23.6	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/8/2013	Flood	M	21.0	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/8/2013	Ebb	M	26.0	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/9/2013	Flood	M	57.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/10/2013	Flood	M	73.6	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/10/2013	Ebb	M	14.8	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/11/2013	Flood	M	17.2	ND	ND	3.0	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
9/12/2013	Ebb	M	16.4	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
9/12/2013	Flood	M	10.8	ND	ND	3.1	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/13/2013	Ebb	M	15.6	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/13/2013	Flood	M	12.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
9/15/2013	Flood	M	20.8	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/15/2013	Ebb	M	12.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/16/2013	Flood	M	12.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/16/2013	Ebb	M	38.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/17/2013	Flood	M	22.4	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
9/17/2013	Ebb	M	81.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/18/2013	Flood	M	19.6	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/18/2013	Ebb	M	4.80	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/19/2013	Flood	S	18.8	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/19/2013	Flood	B	32.8	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/19/2013	Ebb	M	11.6	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
9/20/2013	Flood	S	29.6	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/20/2013	Flood	B	24.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/20/2013	Ebb	M	67.2	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/21/2013	Flood	S	22.4	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/21/2013	Flood	B	38.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/21/2013	Ebb	M	21.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/22/2013	Ebb	M	38.8	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/22/2013	Flood	M	19.6	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/23/2013	Ebb	M	24.8	ND	ND	3.0	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/23/2013	Flood	M	26.0	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/24/2013	Ebb	M	30.8	ND	ND	3.7	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/24/2013	Flood	M	65.2	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/25/2013	Ebb	M	20.8	ND	ND	3.2	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/25/2013	Flood	M	27.2	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/26/2013	Ebb	M	26.4	ND	ND	4.4	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/26/2013	Flood	M	40.8	ND	ND	3.7	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
9/27/2013	Flood	M	55.6	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/28/2013	Ebb	M	74.0	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/28/2013	Flood	M	110	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 18.0 mg/L, 110 mg/L TSS was not an exceedance.
9/29/2013	Ebb	M	13.6	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/29/2013	Flood	M	36.4	ND	ND	ND	ND	22	ND	ND	ND	ND	ND	ND	No exceedance
9/30/2013	Ebb	M	45.6	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/1/2013	Flood	M	24.4	ND	ND	3.6	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/1/2013	Ebb	M	44.4	ND	ND	3.6	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/2/2013	Ebb	M	21.2	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/4/2013	Flood	M	21.2	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/5/2013	Ebb	M	20.4	ND	ND	ND	ND	19	ND	ND	ND	ND	ND	ND	No exceedance
10/6/2013	Ebb	M	44.4	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	No exceedance

Attachment 1: Summary of Dredging Quality Monitoring
New NY Bridge Project
08/02/2013 - 10/31/2013
551 Dredge Data

TAPPAN ZEE CONSTRUCTORS, LLC

Created by: Christopher Coccaro, January 15, 2014
Checked by: Paul Moccio, January 17, 2014

Date	Tidal Cycle	Sample Depth[1]	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene	Comments[2,3]
									Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260			
(mm/dd/yyyy)	(Flood or Ebb)	(S, M, B)	(ppm)	(ppb)											(Exceedances and other observations)
10/7/2013	Flood	M	38.0	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
10/8/2013	Flood	M	21.6	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/10/2013	Ebb	M	57.2	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
10/12/2013	Ebb	M	35.6	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/12/2013	Flood	M	48.8	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/13/2013	Ebb	M	50.4	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
10/15/2013	Flood	M	82.8	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/15/2013	Ebb	M	19.2	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
10/16/2013	Ebb	M	42.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/16/2013	Flood	S	16.4	ND	ND	ND	ND	20	ND	ND	ND	ND	ND	ND	No exceedance
10/16/2013	Flood	B	42.4	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/17/2013	Flood	S	20.0	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/17/2013	Flood	B	28.0	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/17/2013	Ebb	S	16.8	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/17/2013	Ebb	B	26.0	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/18/2013	Ebb	M	40.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/19/2013	Flood	S	45.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/19/2013	Flood	B	40.8	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
10/20/2013	Flood	S	85.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/20/2013	Flood	B	88.4	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/20/2013	Ebb	M	29.2	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/21/2013	Ebb	M	22.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/21/2013	Flood	S	24.4	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/21/2013	Flood	B	160	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 32.8 mg/L, 160 mg/L TSS is an exceedance.
10/22/2013	Flood	M	40.4	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
10/23/2013	Ebb	M	53.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/24/2013	Ebb	M	48.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/24/2013	Flood	M	66.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/25/2013	Flood	M	65.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/26/2013	Ebb	M	35.6	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/27/2013	Ebb	M	14.4	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/28/2013	Ebb	M	14.4	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/28/2013	Flood	M	114	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 27.6 mg/L, 114 mg/L TSS is not an exceedance.
10/29/2013	Ebb	M	16.0	ND	ND	3.5	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
10/29/2013	Flood	M	86.0	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/30/2013	Ebb	M	15.6	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/30/2013	Flood	M	143	ND	ND	5.6	ND	14	ND	ND	ND	ND	ND	ND	Upcurrent TSS was 9.60 mg/L, 143 mg/L TSS was an exceedance.

Notes:
[1] S = Near Surface, M = Mid-Depth, B = Near Bottom
[2] Exceedances based on New York State Department of Envrionmental Conversation (NYSDEC) Permit Condition 61 of the NYSDEC Permit ID 3-9903-00043/00012
[3] Upcurrent samples information not included unless noted
[4] Upcurrent (ambient) concentration exceeds the Water Quality Standard, Downcurrent concentration is less than 30% over background.
Samples collected at the edge of the 500 ft mixing zone
ND = Not Detected

Attachment 1: Summary of Dredging Quality Monitoring
New NY Bridge Project
08/02/2013 - 10/31/2013
211 Barge Data

TAPPAN ZEE CONSTRUCTORS, LLC

Created by: Christopher Coccaro, January 14, 2014
Checked by: Paul Moccio, January 16, 2014

Date	Tidal Cycle	Sample Depth[1]	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene	Comments[2,3]
									Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260			
(mm/dd/yyyy)	(Flood or Ebb)	(S, M, B)	(ppm)	(ppb)											(Exceedances and other observations)
8/7/2013	Flood	S	34	ND	ND	3.4	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/7/2013	Flood	B	72	ND	ND	3.3	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/11/2013	Ebb	S	32	ND	ND	3.8	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/11/2013	Ebb	B	31	ND	ND	3.9	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/11/2013	Flood	S	28	ND	ND	3.7	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
8/11/2013	Flood	B	32	ND	ND	3.4	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
8/12/2013	Flood	S	12	ND	ND	4.4	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/12/2013	Flood	B	21	ND	ND	4	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/12/2013	Ebb	S	37	ND	ND	4.1	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
8/12/2013	Ebb	B	73	ND	ND	3.9	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/13/2013	Ebb	S	44.0	ND	ND	3.6	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/13/2013	Ebb	B	36.4	ND	ND	3.6	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/15/2013	Flood	S	18.0	ND	ND	4.3	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
8/15/2013	Flood	B	31.0	ND	ND	3.3	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
8/16/2013	Flood	S	18.0	ND	ND	3.7	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/16/2013	Flood	B	22.0	ND	ND	3.7	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/16/2013	Ebb	S	24.0	ND	ND	4.2	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/16/2013	Ebb	B	27.0	ND	ND	3.7	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
8/17/2013	Ebb	S	14	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/17/2013	Ebb	B	19	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/18/2013	Flood	S	20.0	ND	ND	3.6	ND	18	ND	ND	ND	ND	ND	ND	No exceedance
8/18/2013	Flood	B	29.6	ND	ND	3.6	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/18/2013	Ebb	S	48.8	ND	ND	3.3	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/18/2013	Ebb	B	51.6	ND	ND	14	ND	15	ND	ND	ND	ND	ND	ND	Upcurrent concentration was 3.4 ppb, 14 ppb was an exceedance.
8/19/2013	Ebb	S	60.0	ND	ND	3.6	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
8/19/2013	Ebb	B	52.4	ND	ND	3.5	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/21/2013	Ebb	S	65.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
8/21/2013	Ebb	B	77.2	ND	ND	3.2	ND	18	ND	ND	ND	ND	ND	ND	No exceedance
8/25/2013	Flood	S	58.0	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/25/2013	Flood	B	70.0	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/26/2013	Ebb	S	70.0	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/26/2013	Ebb	B	84.0	ND	ND	3.0	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
8/28/2013	Flood	S	26.0	ND	ND	4.0	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
8/28/2013	Flood	B	41.0	ND	ND	3.8	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
8/31/2013	Ebb	S	27	ND	ND	5.6	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
8/31/2013	Ebb	B	24	ND	ND	4.7	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/1/2013	Ebb	S	27.0	ND	ND	3.3	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/1/2013	Ebb	B	24.0	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
9/2/2013	Flood	S	28.0	ND	ND	3.4	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
9/2/2013	Flood	B	39.0	ND	ND	3.1	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/6/2013	Flood	S	51.0	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/6/2013	Flood	B	54.0	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
9/9/2013	Ebb	S	26.8	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/9/2013	Ebb	B	18.8	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/9/2013	Flood	S	26.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
9/9/2013	Flood	B	26.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	No exceedance
9/10/2013	Ebb	S	9.60	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance

Attachment 1: Summary of Dredging Quality Monitoring
New NY Bridge Project
08/02/2013 - 10/31/2013
211 Barge Data

TAPPAN ZEE
CONSTRUCTORS, LLC

Created by: Christopher Coccaro, January 14, 2014
Checked by: Paul Moccio, January 16, 2014

Date	Tidal Cycle	Sample Depth[1]	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene	Comments[2,3]
									Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260			
(mm/dd/yyyy)	(Flood or Ebb)	(S, M, B)	(ppm)	(ppb)											(Exceedances and other observations)
9/10/2013	Ebb	B	18.4	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/11/2013	Ebb	S	30.4	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/11/2013	Ebb	B	22.8	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/12/2013	Ebb	S	32.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/12/2013	Ebb	B	17.2	ND	ND	3.4	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/12/2013	Flood	S	5.20	ND	ND	3.5	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/12/2013	Flood	B	9.60	ND	ND	3.5	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/13/2013	Ebb	S	26.0	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/13/2013	Ebb	B	30.0	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	No exceedance
9/13/2013	Flood	S	24.0	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
9/13/2013	Flood	B	37.2	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/15/2013	Ebb	S	12.4	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/15/2013	Ebb	B	14.8	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/20/2013	Ebb	S	42.0	ND	ND	3.4	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
9/20/2013	Ebb	B	36.8	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/22/2013	Ebb	S	22.8	ND	ND	3.2	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/22/2013	Ebb	B	31.2	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/22/2013	Flood	S	19.6	ND	ND	3.8	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/22/2013	Flood	B	50.8	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/23/2013	Ebb	S	28.0	ND	ND	3.5	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/23/2013	Ebb	B	31.6	ND	ND	4.3	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/24/2013	Ebb	S	28.4	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/24/2013	Ebb	B	53.2	ND	ND	3.7	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/24/2013	Flood	S	14.4	ND	ND	3.0	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/24/2013	Flood	B	15.2	ND	ND	3.0	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/27/2013	Flood	S	7.20	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/27/2013	Flood	B	14.8	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/29/2013	Ebb	S	6.40	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
9/29/2013	Ebb	B	11.6	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
9/29/2013	Flood	S	9.60	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
9/29/2013	Flood	B	65.6	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/1/2013	Flood	S	8.80	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/1/2013	Flood	B	19.6	ND	ND	ND	ND	23	ND	ND	ND	ND	ND	ND	No exceedance
10/1/2013	Ebb	S	12.0	ND	ND	4.0	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/1/2013	Ebb	B	15.6	ND	ND	ND	ND	18	ND	ND	ND	ND	ND	ND	No exceedance
10/4/2013	Flood	S	15.2	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	No exceedance
10/4/2013	Flood	B	25.6	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/4/2013	Ebb	S	23.2	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/4/2013	Ebb	B	24.0	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/5/2013	Flood	S	52.4	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/5/2013	Flood	B	61.6	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/7/2013	Flood	S	80.0	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/7/2013	Flood	B	95.2	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
10/8/2013	Flood	S	24.4	ND	ND	ND	ND	18	ND	ND	ND	ND	ND	ND	No exceedance
10/8/2013	Flood	B	49.2	ND	ND	ND	ND	18	ND	ND	ND	ND	ND	ND	No exceedance
10/8/2013	Ebb	S	19.6	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/8/2013	Ebb	B	35.6	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	No exceedance

Attachment 1: Summary of Dredging Quality Monitoring
New NY Bridge Project
08/02/2013 - 10/31/2013
211 Barge Data

TAPPAN ZEE CONSTRUCTORS, LLC

Created by: Christopher Coccaro, January 14, 2014
Checked by: Paul Moccio, January 16, 2014

Date	Tidal Cycle	Sample Depth[1]	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene	Comments[2,3]
									Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260			
(mm/dd/yyyy)	(Flood or Ebb)	(S, M, B)	(ppm)	(ppb)											(Exceedances and other observations)
10/10/2013	Ebb	S	45.6	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No exceedance
10/10/2013	Ebb	B	64.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/12/2013	Flood	S	25.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/12/2013	Flood	B	45.6	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/14/2013	Flood	S	9.20	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/14/2013	Flood	B	26.8	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
10/14/2013	Ebb	S	13.6	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/14/2013	Ebb	B	32.8	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/17/2013	Ebb	S	31.2	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/17/2013	Ebb	B	30.8	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/18/2013	Ebb	S	40.4	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/18/2013	Ebb	B	52.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/20/2013	Ebb	S	32.8	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/20/2013	Ebb	B	22.4	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	No exceedance
10/22/2013	Ebb	S	26.8	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/22/2013	Ebb	B	45.2	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/22/2013	Flood	S	24.4	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	No exceedance
10/22/2013	Flood	B	30.8	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/24/2013	Flood	S	22.0	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/24/2013	Flood	B	20.8	ND	ND	3.1	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/29/2013	Ebb	S	7.20	ND	ND	3.6	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/29/2013	Ebb	B	15.6	ND	ND	4.1	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/30/2013	Flood	S	4.80	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/30/2013	Flood	B	27.6	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	No exceedance
10/31/2013	Ebb	S	38.4	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance
10/31/2013	Ebb	B	64.0	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	No exceedance

Notes:
[1] S = Near Surface, M = Mid-Depth, B = Near Bottom
[2] Exceedances based on New York State Department of Envrionmental Conversation (NYSDEC) Permit Condition 61 of the NYSDEC Permit ID 3-9903-00043/00012
[3] Upcurrent samples information not included unless noted
Samples collected at the edge of the 500 ft mixing zone
ND = Not Detected