APPENDIX A

Field Logs

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Deployment No. 1

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Field Daily Log Form

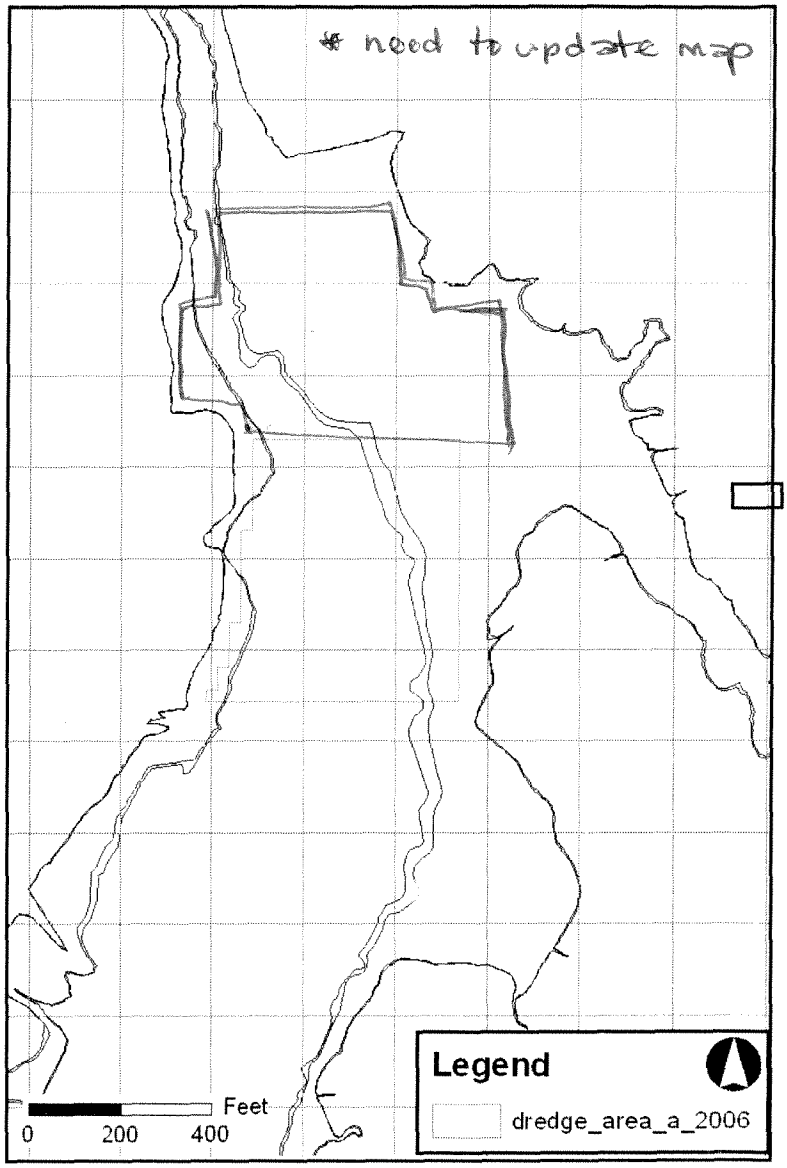
Date: 10/02/07 **Weather:** 65°F / partly cloudy / wind 5 SE

Tides:

0.2 @ 0552
4.2 @ 13:09
0.6 @ 19:19

Monitoring Period:
From: 0900 **To:** 1500
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:

dredge & debris removal in area H



Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST-01	4.2	1
ST-02	4.9	1
ST-03	3.8	1
ST-04	4.2	1

Oil sheen/ Debris:
Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) NA
PCB (Surface Grab) NA
Turbidity (500ml) NA
Dissolved PCB (2x1L) NA
Notes:

Sampling Crew: Mike McKee / Mike Walsh
Chief Scientist Signature: [signature]

* Sediment traps are labelled ST-XXX (station #, A B or C)
* 2 traps deployed at stations 2, 3, & 4
* 3 traps deployed at station 1
* YSI mooring at station 03 (~7' depth @ 1345)

Battelle Sediment Trap Deployment (G606422)

Mooring Deployment/Retrieval Log and Calibration Form

Project No. G606422-07SED	**Date:** 10/02/07	**Recorded By:** Mike McKee
Station ID: ST-Ø3- TRAP	**On Station:** (local) 1345	**Off Station:** (local) 1405
Northing (NAD83, feet) 248579.186	**Easting** (NAD83, feet) 825452.762	**DGPS Accuracy Estimate** (± m): 1.70
Water depth (ft): ~~7.2 ft~~ 5.7	**Sample Platform:** Vessel Wading	**Deployment/Retrieval Time:** (local) 1403 / Retrieved 10/16/07 @ 11:16
Sensor Depth (ft): ~~6 ft~~ 5.9		
Data File Name: ~~ST-Ø3-Ø1~~ ① ST03_1A	**Instrument Model / SN:** 06J1733 AB	

General Water Description-*Option* (from back-up meter)

Temperature (°C): 19.03	**Other:**
Salinity (‰): 30.39	**D.O.** (mg/L) 7.41
Turbidity (NTU): 1.7	**pH** (pH units): 8.03

CALIBRATION and MAINTENANCE

DO membrane changed? (Y) N	Turbidity Wiper Changed? (Y) N	Chlorophyll Wiper Changed? (Y) N
Battery Voltage: 12.6	Turbidly wiper parks 180° from optics? (Y) N	Chlorophyll Wiper Parks 180° from optics? (Y) N

Parameter	Initial Reading	Calibrated Reading	Calibration Data (acceptable range)
Conductivity (mS/cm)	1.012	1000	Cell constant (4.55 – 5.45)
pH 4 ± 1	4.05	4.00	MV (0 ± 50)
pH 7 ± 1	7.02	7.00	MV (+ ~172 ± 7 from 7 buffer)
pH 10 ± 1	NA	NA	
Depth ~~(ft)~~ m	0.2	0.0	Pressure offset, vented (0 ± 6)
Turbidity (NTU) 0	-0.8	0.0	Turbidity Offset:
Turbidity (NTU) 123	138.7	123.0	
D.O. (% Sat)	100.2	100.0	D.O. Gain (0.7 - 1.4)

Field Activities / Comments / Observations:

Chl	-0.5	0.0	

Data file name is station (ST-XX) and deployment # (-XX)

File Name: ST0301 Station: ST-Ø3

① Renamed data file to correspond w/ series - MPM 12/19/07

Retrieved @ 0920 on 10/9/07
Redeployed @ 0925 on 10/9/07

* YSI was visually inspected to confirm that it's turning on, wipers are working, and membrane is in shape. Redeployed from [illegible]

Battelle

Sediment Trap Deployment (G606422)

In situ Data Field Form

Dredging Location	Area H
Dredging Description	Dredging & debris removal
Survey Vessel	Gale Force
Chief Scientist	Mike McKee
Sampling Technician	
Vessel Captain	Mike Walsh
Other Personnel	
Weather conditions	65°F / partly cloudy / winds 5 SE

Date	10/02/07
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Tide information	
High	
Low	0.2 @ 0552
High	4.2 @ 1309
Low	0.6 @ 1919

	Station Number	Time	~~Latitude~~ Northing SP MA 2001_m	~~Longitude~~ Easting SP MA 200_m	Water depth	Sample Depth	Turbidity	Salinity	DO	Temp	Notes
PDOP	ST-04	1149	825355.285	248604.666	4.2 ft	0.807 ft	4.2 NTU	30.1	13.6 mg	19.26	
						2.0 ft	3.5 NTU	30.18	10.38	19.22	2 traps
						3.0 ft	2.9	30.36	8.82	19.13	deployed @ 1200
2.13 →	ST-03	1208	825449.835	248585.592	5.0 ft	1 ft	3.8	29.67	14.63	19.57	
						2 ft	3.2	29.89	12.14	19.25	
						3 ft	3.8	30.19	10.45	19.23	2 traps
near bridge						4 ft	2.3	30.34	8.17	19.11	deployed @ 1215
6.19	ST-02	1223	825516.524	248540.927	6.9 ft	1 ft	4.9	29.09	15.49	19.20	
						2 ft	2.4	29.96	10.28	19.06	
						3 ft	2.2	30.21	9.25	19.10	
						4 ft	1.8	30.32	8.21	19.03	
						5 ft	1.7	30.35	7.45	18.92	2 traps
						6 ft	1.7	30.34	6.94	18.90	deployed @ 1230
2.81	ST-01	1239	825587.814	248537.952	5.2 ft	1 ft	4.2	29.16	14.31	19.42	
						2 ft	3.0	29.94	10.94	18.97	
						3 ft	1.8	30.20	9.04	18.99	
						4 ft	1.7	30.27	8.14	19.05	
						4.5 ft	1.6	30.30	7.53	19.00	3 traps deployed @ 1245

Signature of Data recorder: [illegible]

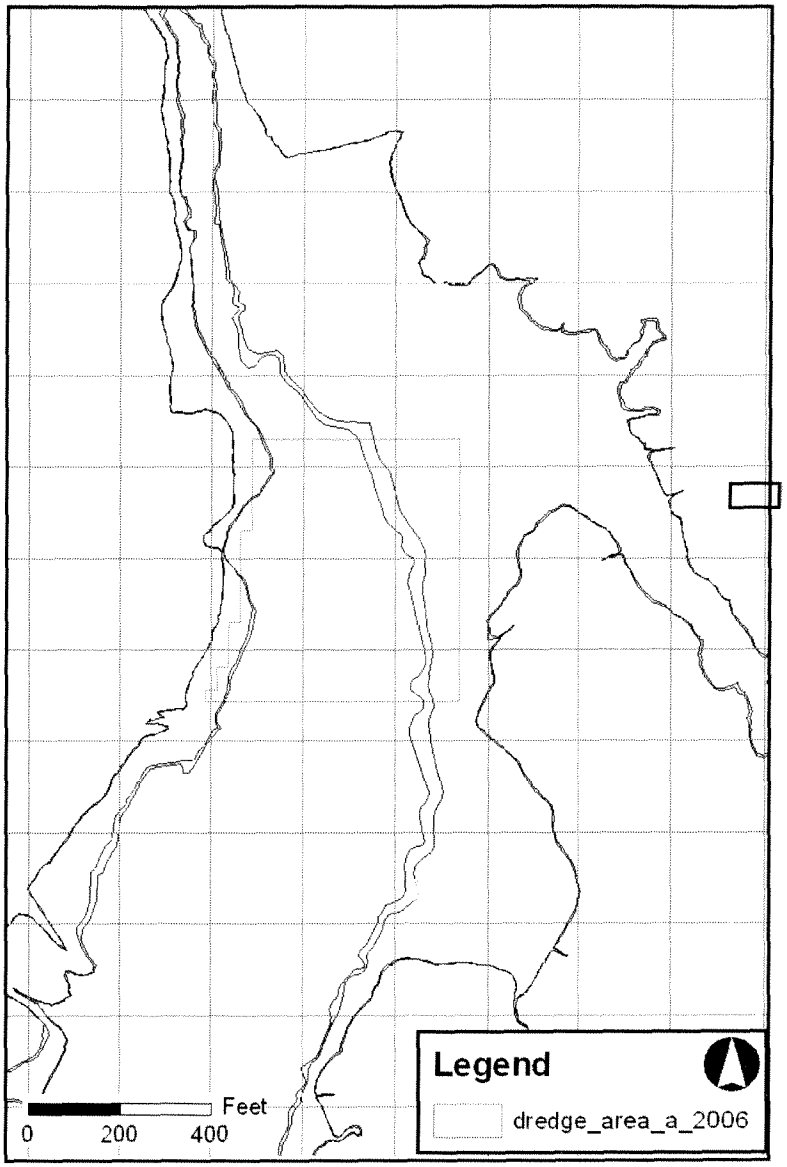
Field Daily Log Form

Date: 10/9/07 **Weather:** 60°F ptly cloudy winds NNW 10

Tides:
4.14 @ 0706
0.2L @ 1337
4.04 @ 1926

Monitoring Period:
From: 0800 **To:** 1245
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:

dredging & debris removal



Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST-01	6.8	1.09
ST-02	5.9	0.97
ST-03	7.2	1.01
ST-04	4.1	1.02

Oil sheen/ Debris:
Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) NA
PCB (Surface Grab) NA
Turbidity (500ml) NA
Dissolved PCB (2x1L) NA
Notes: Insufficient quantity of material in sediment traps. Redeployed traps for one week.
Sampling Crew: Mike Walsh / Mike McKee
Chief Scientist Signature: Michael P. [illegible]

Battelle

Sediment Trap Deployment (G606422)

In situ Data Field Form

Dredging Location	Area H
Dredging Description	Dredging & debris removal
Survey Vessel	Gale Force
Chief Scientist	Mike McKee
Sampling Technician	
Vessel Captain	Mike Walsh
Other Personnel	
Weather conditions	60°F PHy Cloudy Winds NNW @ 10 kt

Date	10/9/07
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Tide information	
High	0706
Low	1337
High	1926
Low	

* sediment traps do not have sufficient material for analysis / redeployed for one week

Station Number	Time	N Latitude SPMA2001-m	E Longitude SPMA2001-m	Water depth	Sample Depth	Turbidity	Salinity	DO	Temp	Notes
ST-01	0842	825587.814	248537.952	5.2	1.09 ft	6.8	29.94	5.07	20.22	Ph 6.96
					2.04 ft	6.5	30.12	4.85	20.08	Ph 6.93
					3.00 ft	6.5	30.15	4.10	20.03	Ph 6.90
					4.02 ft	5.1	30.17	3.82	19.98	Ph 6.90
ST-02	0856	825516.524	248540.927	7.3	0.97 ft	5.9	29.94	5.15	19.90	Ph 7.01
					2.03 ft	5.7	29.99	4.97	19.90	Ph 7.00
					3.01 ft	4.5	30.20	4.52	19.87	Ph 6.97
					4.01 ft	4.3	30.22	4.37	19.87	Ph 6.96
					5.01 ft	5.0	30.23	4.31	19.86	Ph 6.97
					6.00 ft	5.3	30.24	4.21	19.86	Ph 6.97
ST-03	0907	825449.835	248585.692	4.7	1.01 ft	7.2	29.61	6.92	19.83	Ph 7.09
					2.01 ft	5.2	30.11	5.60	19.85	Ph 7.01
					3.02 ft	4.2	30.26	4.77	19.86	Ph 6.97
					4.00 ft	4.6	30.27	4.46	19.85	Ph 6.97
ST-04	0930	825355.285	248604.666	4.1	1.02 ft	4.1	30.26	8.10	19.71	Ph 7.24
					2.00 ft	3.2	30.42	7.59	19.69	Ph 7.23
					3.00 ft	3.2	30.44	7.48	19.68	Ph 7.23

Signature of Data recorder: Michael P. [illegible]

Battelle **Sediment Trap Deployment (G606422)**

Field Daily Log Form

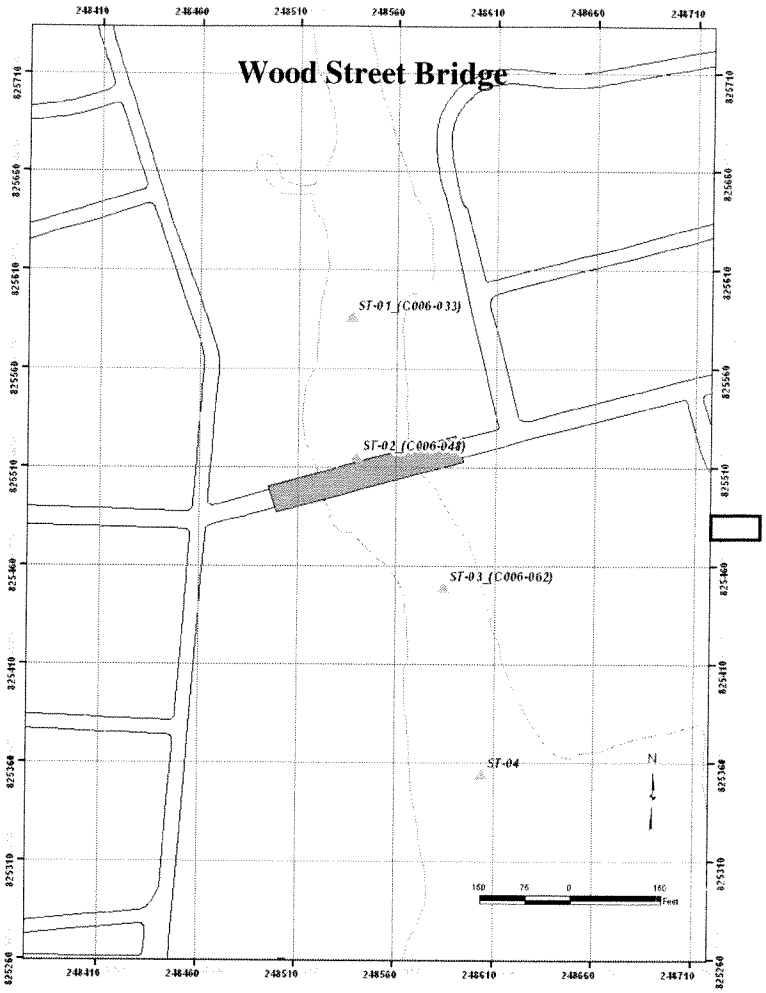
Date: 10/16/07 **Weather:** 55°F / sunny / wind NW 10-15 kt

Tides:

L0428	@	0.4
H1146	@	3.6
L1712	@	0.7

Monitoring Period:
From: 1000 **To:** 1200
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:

completed / demob



Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST04	2.6	1.03
	2.3	2.99
ST01	3.0	1.05
	2.3	3.04
ST02	8.6	1.03
	7.1	5.01
ST03	3.6	1.06
	2.3	4.02

Oil sheen/ Debris: none

Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) NA
PCB (Surface Grab) NA
Turbidity (500ml) NA
Dissolved PCB (2x1L) NA

Notes:
Insufficient quantity of material in sed traps. Redeployed for two weeks (until 10/30/07)

Sampling Crew: Mike McKee, Mike Walsh

Chief Scientist Signature: [signature]

Battelle **Sediment Trap Deployment (G606422)**

dGPS Calibration Form

Project #:

INITIALS MPM

CHECK GPS against at least one reference checkpoint at beginning of each day.

GPS Reference Checkpoint Name NBH porch
Benchmark Location:

Time	Units and Datum	Northing / Latitude	Easting / Longitude
Beginning of day	MA2001 SP NAD83 ft	2701152.075	814564.881

Comments -

Date/Time 10/16/07 0909 Vessel Gale Force

Unit Make/Model Trimble XRS Pro

Mooring Deployment/Retrieval Log and Calibration Form

Project No. 606422-07SEDSAMP	**Date:** 10/16/07	**Recorded By:** MW / MM
Station ID: ST-03	**On Station:** D / R (local) 1107	**Off Station:** D / R (local) 1145
Northing (NAD83, feet) 825449.835	**Easting** (NAD83, feet) 248585.592	**DGPS Accuracy Estimate** (± m): 1.7
Water depth (ft): 4.8 **Sensor Depth** (ft): 3.03	**Sample Platform:** (Vessel) Wading	**Deployment/Retrieval Time:** (local) D 1140 / R
Data File Name: ~~ST03 02~~ (1) ST03 1B		**Instrument Model / SN:** 02A0880AA

General Water Description-*Option* **(from back-up meter)**	
Temperature (°C): 16.07	**: D.O.** (mg/L) 9.89
Salinity (‰): 29.51	
Turbidity (NTU): 2.5	

CALIBRATION and MAINTENANCE

DO membrane changed? (Y) N	Turbidity Wiper Changed? Y (N)
Battery Voltage: 12.7	Turbidly wiper parks 180° from optics? (Y) N

Parameter	Initial Reading	Calibrated Reading	Calibration Data (acceptable range)
Conductivity (mS/cm)	1003	1000	Cell constant (4.55 – 5.45)
Depth (ft)	-0.083	0.000	Pressure offset, vented (0 ± 6)
Turbidity (NTU) 0	0.2	0.0	Turbidity Offset:
Turbidity (NTU) 123	124.1	123.0	
D.O. (% Sat)	100.8%	100.8%	D.O. Gain (0.7 - 1.4)
Field Activities / Comments / Observations:			
Ph 4	4.02	3.99	
Ph 7	7.25	7.00	
Batteries Changed			

(1) File name changed to ST03_1B to correspond w/ series - MPM 12/19/07

Battelle

Sediment Trap Deployment (G606422)

In situ Data Field Form

Dredging Location	NA (dredging complete / dendb)
Dredging Description	NA
Survey Vessel	Gale Force
Chief Scientist	Mike McKee
Sampling Technician	
Vessel Captain	Mike Walsh
Other Personnel	
Weather conditions	55°F / sunny / winds NW @ 10-15 knts

Date	10/16/07
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Tide information		
High		
Low	0428	0.4
High	1146	3.6
Low	1712	0.7

Station Number	Time	N Latitude MASP2001_m	E Longitude MASP2001_m	Water depth	Sample Depth	Turbidity	Salinity	DO	Temp	Notes pH
ST-04	1032	825355.285	248604.666	3.5	1.03	2.6	28.55	9.39	15.67	6.81
					2.00	2.9	29.32	9.46	15.97	7.05
					2.99	2.3	29.57	9.51	16.04	7.35
ST-01	1044	825587.814	248537.952	4.4	1.05	3.0	28.27	8.70	16.12	7.49
					2.04	2.5	29.48	9.08	16.16	~~7.08~~ 7.55
					3.04	2.3	29.56	9.21	16.20	7.57
ST-02	1054	825516.524	248540.927	6.1	1.03	8.6	28.17	8.73	15.88	7.57
					2.06	8.0	28.91	9.27	15.98	7.64
					3.00	7.4	29.44	9.51	16.10	7.65
					3.99	7.22	29.53	9.55	16.06	7.66
					5.01	7.1	29.55	9.51	16.07	7.67
ST-03	1107	825449.835	248585.592	4.8	1.06	3.6	28.23	~~15.96~~ 9.09	15.96	7.65
					2.01	3.3	28.83	9.68	16.00	7.70
					3.03	2.5	29.51	9.89	16.07	7.72
					4.02	2.3	29.58	9.89	16.10	7.72

Signature of Data recorder: [illegible]

Battelle **Sediment Trap Deployment (G606422)**

Field Daily Log Form

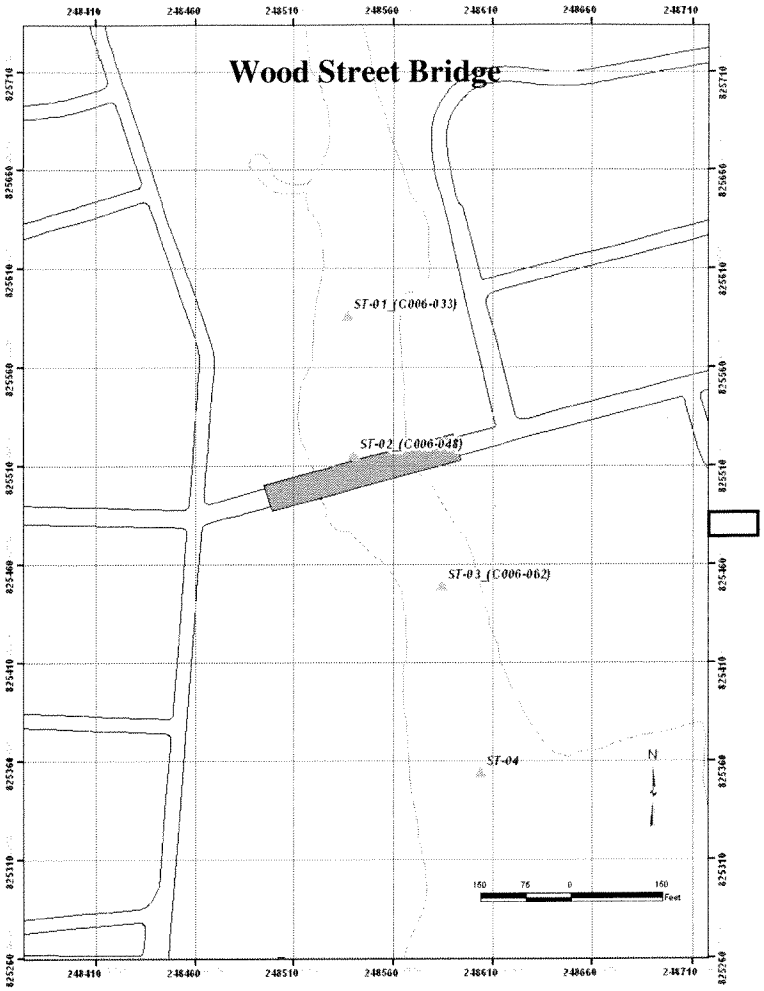
Date: 10/31/07 **Weather:** 50°F / ptly cloudy / winds 15 SW

Tides:

0546 L	@	0.2
1247 H	@	4.2
1858 L	@	0.4

Monitoring Period:
From: 1400 **To:** 1600
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:

dredging complete



Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST04	1.4	3.02
ST03	3.4	3.00
ST02	2.4	3.04
ST01	2.5	3.03

Oil sheen/ Debris: yes
Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) ST-A-XXXXXX-Z
PCB (Surface Grab) NA
Turbidity (500ml) NA
Dissolved PCB (2x1L) NA
Notes: retrieved YSI mooring
retrieved 1st round of sediment traps → ST-01-103107-1, ST-01-103107-2, ST-01-103107-3, ST-02-103107-1, ST-02-103107-2, ST-03-103107-1, ST-03-103107-2, ST-04-103107-1, ST-04-103107-2

Sampling Crew: Mike McKee, Mike Walsh

Chief Scientist Signature: Michael P. [illegible]

Battelle

~~Passive Sampling Devices (G921346)~~ Sed Traps (G606422)

In situ Water Quality Field Form

Dredging Location	NA
Dredging Description	dredging complete
Survey Vessel	Gale Force
Chief Scientist	Mike McKee
Sampling Technician	
Vessel Captain	Mike walsh
Other Personnel	
Weather conditions	50°F / ptly cloudy / winds 15 SW

Date	10/31/07
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Tide information	
High	
Low	0516 @ 0.2
High	1247 4.2
Low	1858 0.4

Station Number	Time	N Latitude MA SP 2001_m	E Longitude MA SP 2001_m	Water depth	Sample Depth	Turbidity	Salinity	DO	Temp	pH	Notes
ST04	1411	825355.285	248604.666	4.2'	1.02'	2.0	30.04	8.71	13.59	7.66	
↓	↓				2.03	2.0	30.03	8.06	13.59	7.66	
					3.02	1.4	30.27	7.30	13.62	7.66	
ST03	1422	825449.835	248585.592	4.7'	1.04	4.4	29.40	8.16	13.76	7.71	
↓	↓				2.02	4.1	29.35	7.93	13.76	7.70	
					3.00	3.4	29.67	7.40	13.65	7.68	
ST02	1431	825516.524	248540.927	5.7'	1.01	5.5	28.35	7.97	13.78	7.69	
↓	↓				2.03	3.2	29.13	7.69	13.71	7.70	
					3.04	2.4	29.70	7.17	13.37	7.63	
					4.01	1.8	30.02	6.83	13.30	7.60	
ST01	1441	825587.814	248537.952	4.4'	1.00	2.4	26.18	6.52	13.48	7.62	
↓	↓				2.04	2.3	29.17	6.42	13.46	7.64	
					3.03	2.5	29.70	6.39	13.41	7.63	

Signature of Data recorder: Michael R. [illegible]

Passive Sampling Devices (G921346)
SURVEY RECORD LOG

SURVEY: Passive Sampling Devices 21 day retrieval **DATE:** 10/31/07

0700 @ NBH trailer

0900 - depart for NBH4 from dock

0940 - on station @ NBH4

0948 - pulled moorings → mid & south floats fouled w/ seaweed

10:15 - new PEDs on moorings (7D)

1020 - mooring redeployed

1035 - YSI cast & water collection → Turbidity reading off (~-5 NTU go back to dock to get other YSI

1220 - back on station @ NBH4 - new YSI

1238 - depart for NBH2

1305 - arrive @ NBH 2 @ recover moorings

1315 - collect PEDs

1320 - water collection & YSI cast

1343 - PEDs redeployed

Sed Trap 1411 - 1441 → YSI casts and sed. trap recovery @ N. wood St.

Surface Sampling Event No. 1

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Station Log for Benthic Sediment Grab Samples

Project Name: New Bedford Harbor Environmental Monitoring — *Location: New Bedford, MA*
Project #: G606422 — *Chief Scientist:* M. Walsh
Client: USACE NAE — *Vessel: R/V Gale Force*

Field Measurements

Survey ID: ST-04 (MW)	Station Depth (feet): 3.8
Station ID:	Time on Station: 0936
Date: 11/12/2007	Time Depart Station: 0955
Recorded by: MW	

Attempt #1		
	Northing: 2707840.49	Grab Size: 0.1-m^2
	Easting: 815620.64	Analyses : PCBs TOC/GS
	Collection Time: 1000	
	Sample ID: SS-ST04-111207	

Sample Description: Grey Brown silt/sand over black silt/sand and Gravel oyster shells

Attempt #2		
	Latitude:	Grab Size: 0.1-m^2
	Longitude:	Analyses : PCBs
	Time:	
	Sample ID:	

Sample Description:

Additional Comments:

Field Measurements

Survey ID:	Station Depth (feet): 4.0'
Station ID: ST-03	Time on Station: 1014
Date: 11/12/07	Time Depart Station: 1024
Recorded by: MW	

Attempt #1		
	Northing: 2708143.91	Grab Size: 0.1-m^2
	Easting: 815574.35	Analyses : PCBs TOC/GS
	Collection Time: 1016	
	Sample ID: SS-ST03-111207	

Sample Description:

Attempt #2		
	Latitude:	Grab Size: 0.1-m^2
	Longitude:	Analyses : PCBs
	Time:	
	Sample ID:	

Sample Description: Grey Brown ~~silt/sand~~ MW sand and silt on surface over mostly Grey Brown SAND. Snail and Glass Shrimp on surface

Additional Comments:

Station Log for Benthic Sediment Grab Samples

Project Name: New Bedford Harbor Environmental Monitoring — *Location: New Bedford, MA*
Project #: G606422 — *Chief Scientist:* M. WALSH
Client: USACE NAE — *Vessel: R/V Gale Force*

Field Measurements

Survey ID:	Station Depth (feet): 6.1'
Station ID: ST-02	Time on Station: 1030
Date: 11/12/07	Time Depart Station: 1058
Recorded by: MW	

	Attempt #1	
	Northing: 2708405.70	Grab Size: 0.1-m^2
	Easting: 815438.52	Analyses : PCBs, TOC/GS
	Collection Time: ~~1037~~ 1051	
	Sample ID: SS-ST02-111207	

Sample Description: 1st Attempt N/G - 2nd Attempt N/G
Grey Brown sand and silt with Algae and Organic Detritus
Many Glass Shrimp - Slight Sheen on Surface

	Attempt #2	
	Latitude:	Grab Size: 0.1-m^2
	Longitude:	Analyses : PCBs
	Time:	
	Sample ID:	

Sample Description:

Additional Comments:

Field Measurements

Survey ID:	Station Depth (feet): 3.9'
Station ID: ST01	Time on Station: 1105
Date: 11/12/07	Time Depart Station:
Recorded by: MW	

	Attempt #1	
	Northing: 2708600.18	Grab Size: 0.1-m^2
	Easting: 815404.64	Analyses : PCBs TOC/GS
	Collection Time: 1108	
	Sample ID: SS-ST01-111207	

Sample Description: Black silt and Organic Detritus
Strong Sulfide Odor
SPOTTY Sheen on Surface - sheen noticed throughout Grab

	Attempt #2	
N	~~Latitude~~: Northing 2708600.18	Grab Size: 0.1-m^2
E	~~Longitude~~: Easting 815404.64	Analyses : PCBs TOC/GS
	Time: 1116	
	Sample ID: SS-ST01-111207-DUP	

Sample Description: Black/Brown silt and organic Detritus
Spotty Sheen on Surface - Strong Sulfide Odor

Additional Comments:

Deployment No. 2

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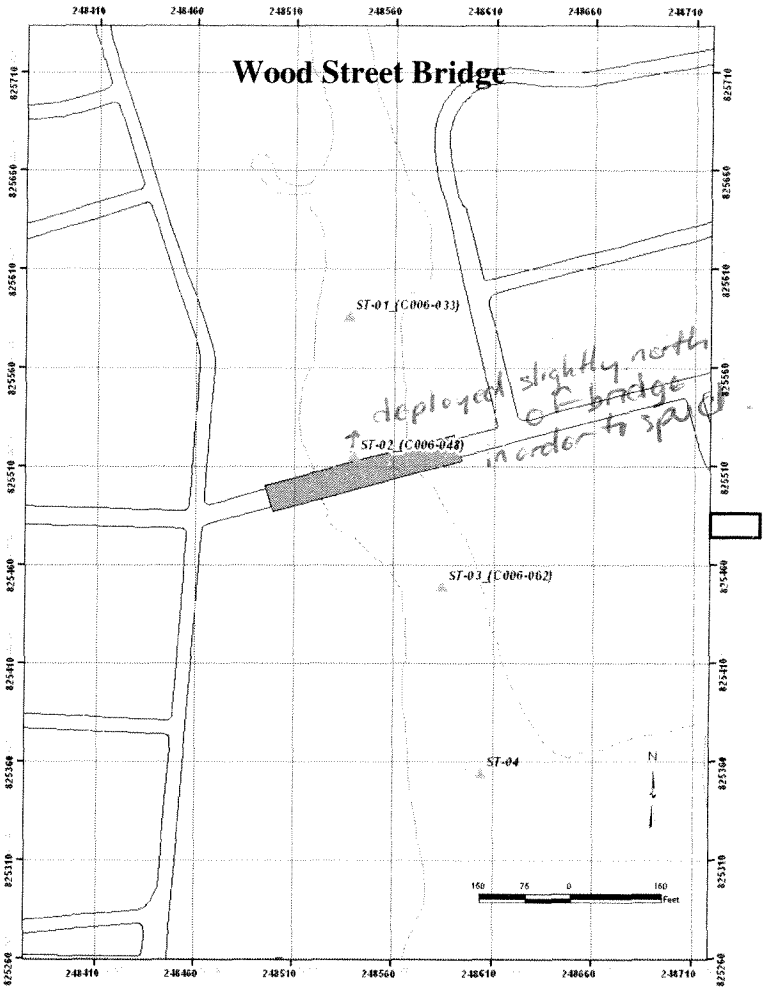
Battelle **Sediment Trap Deployment (G606422)**

Field Daily Log Form

Date: 11/7/07 **Weather:** 50°F / Sunny / 8 kts WNW

Tides:

536	@	4.0 H
1213	@	0.3 L
1755	@	3.6 H



Monitoring Period:
From: 0800 **To:** 12:30
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:

dredging complete

Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST01	2.2	1.08
ST02	2.8	1.02
"	2.4	2.02
ST03	3.2	1.04
ST04	2.6	1.00

Oil sheen/ Debris: none
Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) NA
PCB (Surface Grab) NA
Turbidity (500ml) NA
Dissolved PCB (2x1L) NA
Notes:
very low tide for sed trap deployment. churned up the bottom a bit at ST-04.

Sampling Crew: Mike McKee / Mike Walsh

Chief Scientist Signature: [signature]

Battelle **Sediment Trap Deployment (G606422)**

dGPS Calibration Form

Project #: G606422

INITIALS MPM

CHECK GPS against at least one reference checkpoint at beginning of each day.

GPS Reference Checkpoint Name Jacobs NBH Benchmark

Benchmark Location:

Time	Units and Datum	Northing / Latitude	Easting / Longitude
Beginning of day	MA State Plane 2001 (ft)	2701297.880	814160.870

Comments -

Replacement Trimble XRS Pro used.

Date/Time 11/7/07 Vessel Gale force

Unit Make/Model Trimble XRS Pro

Sed Trap
G606422

Mooring Deployment/Retrieval Log and Calibration Form

Project No. G606422	**Date:** 11/6/07	**Recorded By:** MPM
Station ID: ST03	**On Station:** (local) 0921	**Off Station:** (local) 0925
Northing (NAD83, feet) 2708169.790	**Easting** (NAD83, feet) 815567.815	**DGPS Accuracy Estimate** (± m): 2.87
Water depth (ft): 2.3 **Sensor Depth** (ft): 1.04	**Sample Platform:** Vessel Wading	**Deployment/Retrieval Time:** (local) 11/7/07 @ 0921 Retrieved
Data File Name: ST03B1 ① ST03_2A	**Instrument Model / SN:** 06J1733 4B	

General Water Description-*Option* **(from back-up meter)**	
Temperature (°C): 12.21	**: D.O.** (mg/L) 4.94
Salinity (‰): 27.75	
Turbidity (NTU): 3.2	

CALIBRATION and MAINTENANCE

DO membrane changed? Y N	Turbidity Wiper Changed? Y N
Battery Voltage: 12.5	Turbidly wiper parks 180° from optics? Y N

Parameter	Initial Reading	Calibrated Reading	Calibration Data (acceptable range)
Conductivity (mS/cm)	0.977	1.0	Cell constant (4.55 – 5.45)
Depth (ft)	-0.665	0.000	Pressure offset, vented (0 ± 6)
Turbidity (NTU) 0	0.07	0.00	Turbidity Offset:
Turbidity (NTU) 123	119.1	123.0	
D.O. (% Sat)	99.5	99.5	D.O. Gain (0.7 - 1.4)
Field Activities / Comments / Observations:			
pH 4.0	4.03	4.00	
pH 7.0	7.02	7.00	
Chl	-0.1	-0.1	

① Renamed data file ST03_2A to correspond w/ rest of series - MPM 12/19/07

Battelle

Sediment Trap Deployment (G606422)

In situ Data Field Form

Dredging Location	NA
Dredging Description	dredging complete
Survey Vessel	Gale Force
Chief Scientist	Mike McKee
Sampling Technician	
Vessel Captain	Mike Walsh
Other Personnel	
Weather conditions	50°F / sunny / 8 kts WNW

Date	11/7/07
Page	1 of 1

Tide information		
High	536	4.0H
Low	1213	0.3L
High	19:55	3.6H
Low		

Station Number	Time	N Latitude SPMA2001-ft	E Longitude SPMA 2001-ft	Water depth	Sample Depth	Turbidity	Salinity	DO	Temp	Notes pH
ST01	0901	2708620.226	815413.123	3.3'	1.08	2.2	27.88	6.38	12.16	6.85
ST02	0910	2708405.62	815419.82	4.3'	1.02	2.8	27.92	7.73	12.16	7.03
"	"			2.	2.02	2.4	28.10	7.11	12.15	7.08
ST03	0921	2708169.860	815567.815	2.3	1.04	3.2	27.75	4.94	12.21	7.09
ST04	0922	2707858.632	815631.824	2.0	1.00	2.6	28.06	4.02	12.22	7.18

Signature of Data recorder: [signature]

DUXBURY OPERATIONS

SURVEY PROBLEM LOG

SURVEY: Sed Trap / Pass Samp **DATE:** 11/7/07

Please record any problems or issues.

0830 - depart from dock for NWS bridge

0901 - arrive at ST01 & deployed sed traps

0905 - YSI cast (1 depth)

0910 - arrive at ST02 & deployed traps just N of station

0915 - YSI cast (2 depths)

0921 - arrived @ ST03 & deployed traps & YSI sonde

0925 - YSI cast (1 depth)

0927 - arrived @ ST04 & deployed traps

0930 - YSI cast (1 depth) & depart for NBH4

1037 - arrive @ NBH4 & collect PEDs 1 = South 2 = Mid 3 = North

1045 - YSI cast

1055 - water collection @ 8' WD

1138 - on station @ NBH2 / collect PEDs 1 = South 2 = Mid 3 = North

1145 - YSI cast

1205 - water collection @ 12' WD

1215 - rinsate blank

1230 - back @ dock

Mooring Deployment/Retrieval Log and Calibration Form

Project No. G606422	**Date:** 11/29/2007	**Recorded By:** MW
Station ID: ST03	**On Station:** (local) 1005	**Off Station:** (local) 1030
Northing (NAD83, feet)	**Easting** (NAD83, feet)	**DGPS Accuracy Estimate** (± m):
Water depth (ft): 5.2' **Sensor Depth** (ft): 4'	**Sample Platform:** (Vessel) Wading	**Deployment/Retrieval Time:** (local) 1025
Data File Name: ~~ST03B2~~ ② ST03_2B	**Instrument Model / SN:** ~~02A0880AA~~ ① M	

Retrieved 12/10/07 @0915 PM 11/29/07

General Water Description-*Option* **(from back-up meter)**	
Temperature (°C):	**: D.O.** (mg/L)
Salinity (‰):	
Turbidity (NTU):	

CALIBRATION and MAINTENANCE

DO membrane changed? (Y) N	Turbidity Wiper Changed? Y (N)
Battery Voltage: 12.1	Turbidly wiper parks 180° from optics? (Y) N

Parameter	Initial Reading	Calibrated Reading	Calibration Data (acceptable range)
Conductivity (mS/cm)	988	1001	Cell constant (4.55 – 5.45)
Depth (ft)	-0.013	0.000	Pressure offset, vented (0 ± 6)
Turbidity (NTU) 0	1.2	0.0	Turbidity Offset:
Turbidity (NTU) 123	121.6	123.0	
D.O. (% Sat)	100.6	100.6	D.O. Gain (0.7 - 1.4)
Field Activities / Comments / Observations:			
Ph 4.00	3.99	4.00	
Ph 7.00	6.92	7.00	

① Wiper on sensor not working / redeployed sensor from previous week w/ new filename.

② File name changed to correspond w/ rest of series - MPM 12/19/07

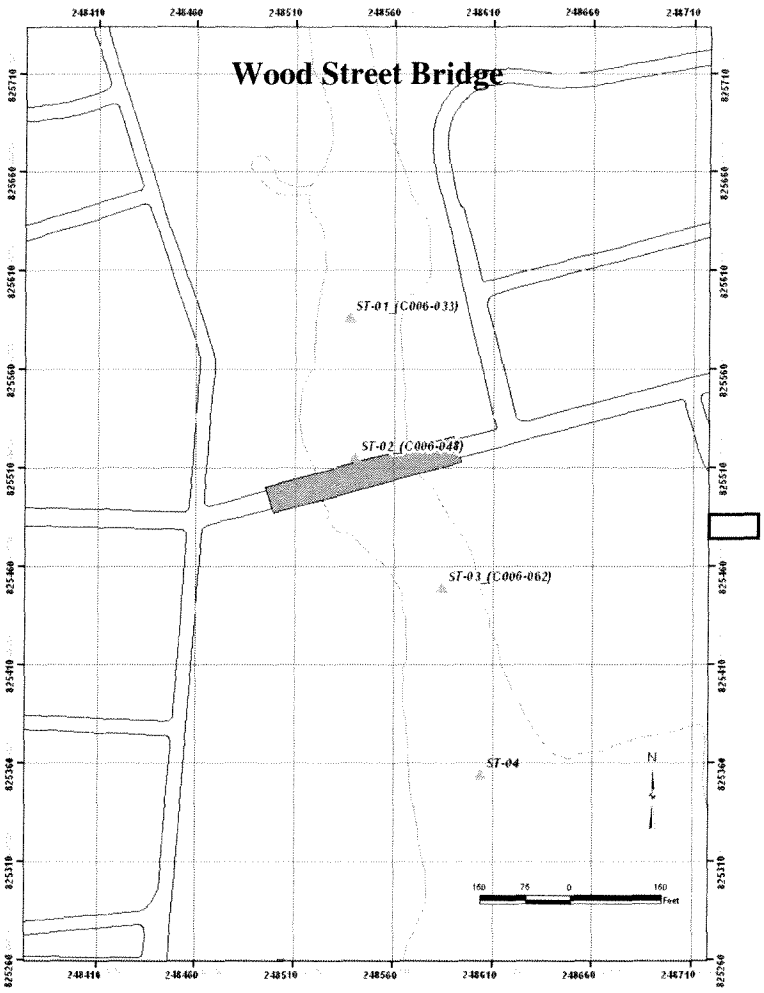
Battelle **Sediment Trap Deployment (G606422)**

Field Daily Log Form

Date: 12/10/07 **Weather:** 32°F / rainy / winds N 5-10kts

Tides:

H 0752	@	4.0
L 1330	@	0.2
H 2014	@	3.2



Monitoring Period:
From: 0800 **To:** 1000
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:

dredging complete

Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST04	x	x
ST03	x	x
ST02	x	x
ST01	x	x

① MPM 12/10/07

Oil sheen/ Debris: none
Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) ST-STATI#-MMDDYY-Rep
PCB (Surface Grab) NA
Turbidity (500ml) NA
Dissolved PCB (2x1L) NA
Notes:
① Not able to conduct YSI casts during recovery → area around NWS bridge was iced out and we had to operate quickly to recover traps & fixed YSI before getting iced in.

Sampling Crew: Mike McKee, Mike Walsh

Chief Scientist Signature: [signature]

Passive Sampling Devices (G921346)
SURVEY RECORD LOG

SURVEY: Sediment Traps/Passive Samplers **DATE:** 12/10/07

0815 Depart dock for North Wood St. Bridge to collect sediment traps
0845 Arrive at station 4 and begin retrievals (South to North)
0930 Depart NWS area for dock to drop off samples & YSI
1005 Depart dock for NBH4
1050 Arrive at NBH4 & recover SPMD/SPME canisters (21 day)
1058 Recover 21 day PEDs
1115 YSI cast & bulk water (8' WD)
1132 Depart for NBH 2
1159 Arrive @ NBH2 and retrieve SPMDs/SPMEs
1220 Recover PEDs (21 Day)
1235 YSI cast & collect bulk water (10' WD)
1300 Back at dock

Deployment No. 3

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Battelle Sediment Trap Deployment (G606422)

Field Daily Log Form

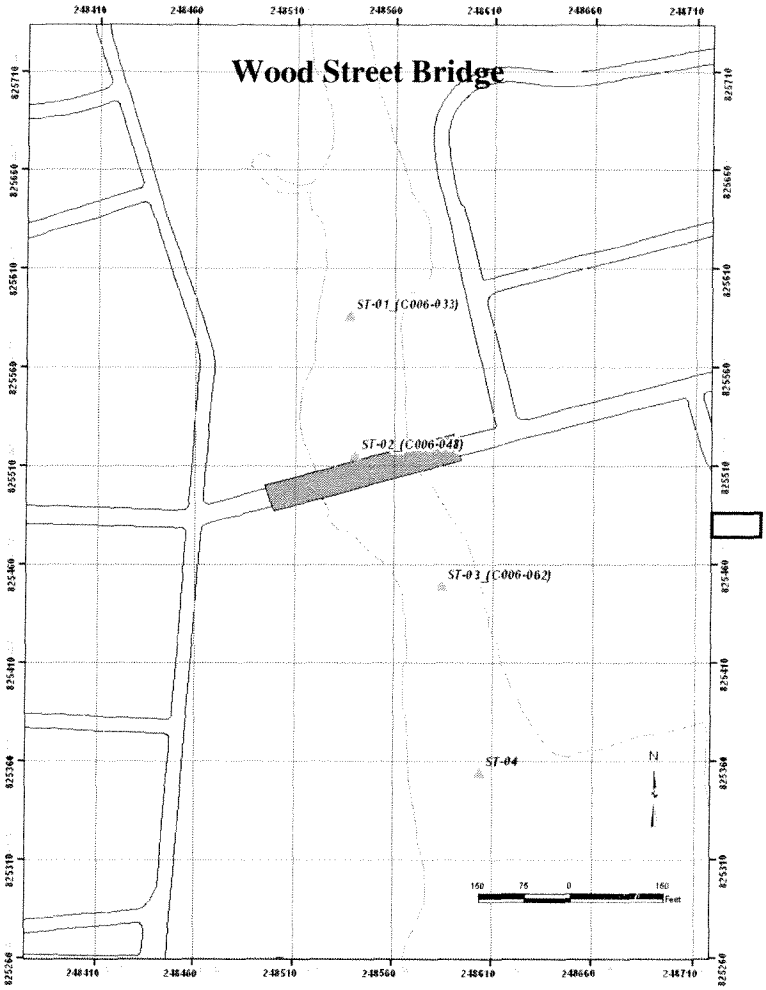
Date: 03/14/08 **Weather:** 50°F / overcast / winds 5kts S

Tides:

L 7:41 @ 0.3
H 14:28 @ 2.9
L 19:43 @ 0.3

Monitoring Period:
From: 12:00 **To:** 16:15
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:

Pre-dredge



Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST01	1.0	2.0'
ST02	1.2	3.1'
ST03	1.1	2.05'
ST04	1.6	2.0'

Oil sheen/ Debris:
Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) N/A
PCB (Surface Grab) N/A
Turbidity (500ml) N/A
Dissolved PCB (2x1L) N/A
Notes:
Reddish brown tint to the water near Wood St bridge (humics?)
Sediment traps deployed for two weeks

Sampling Crew: Mike McKee / Mike Walsh

Chief Scientist Signature: [signature]

Battelle **Sediment Trap Deployment (G606422)**

dGPS Calibration Form

Project #: G606422

INITIALS MPM

CHECK GPS against at least one reference checkpoint at beginning of each day.

GPS Reference Checkpoint Name NBH Trailer porch (NW corner)
Benchmark Location:

Time	Units and Datum	Northing / Latitude	Easting / Longitude
Beginning of day	MA SP 2001/NAD83	2701153.27	814566.01

PDOP 2.43

Explorist 210: WG884 41° 39.514N 070° 55.222W ACC=33'

Comments - The new leased Trimble GeoXT did not have an active GPS upon boot. Reboot (soft reboot) corrected the problem after speaking to tech support as U.S. Environmental.

Date/Time 03/14/08 Vessel Gale Force

Unit Make/Model Trimble GeoXT

YSI Calibration Form
Daily 2007 WQ Monitoring for New Bedford Harbor – G606422

Instrument Model # 6920 S/N# 02B00711 AR

Date: 3/14/2008		Initials: MPM	
DO membrane changed? (Y) N	Turbidity Wiper Changed? (Y) N		
Battery Voltage: 12.4	Turbidly wiper parks 180° from optics? (Y) N		
Parameter	**Initial Reading**	**Calibrated Reading**	**Calibration Data (acceptable range)**
Conductivity (mS/cm)	1.039	1.500	Cell constant (4.55 – 5.45)
Depth (ft)	0.821	0.002	Pressure offset, vented (0 ± 6)
Turbidity (NTU) 0	2.1	0.0	Turbidity Offset:
Turbidity (NTU) 123	122.5	123.0	
D.O. (% Sat)	100% 9.67mg/l	→ "	D.O. Gain (0.7 - 1.4)
pH 4	4.06	4.00	
pH 7	7.07	6.99	
Comments: pH 10	9.84	9.97	

Date:		Initials:	
DO membrane changed? Y N	Turbidity Wiper Changed? Y N		
Battery Voltage:	Turbidly wiper parks 180° from optics? Y N		
Parameter	**Initial Reading**	**Calibrated Reading**	**Calibration Data (acceptable range)**
Conductivity (mS/cm)			Cell constant (4.55 – 5.45)
Depth (ft)			Pressure offset, vented (0 ± 6)
Turbidity (NTU) 0			Turbidity Offset:
Turbidity (NTU) 123			
D.O. (% Sat)			D.O. Gain (0.7 - 1.4)
pH 4			
pH 7			
Comments:			

Battelle Sediment Trap Deployment (G606422)

Mooring Deployment/Retrieval Log and Calibration Form

Project No. 606422	**Date:** 3/14/2008	**Recorded By:** MW/MM
Station ID: ST-03	**On Station:** (local) 1535	**Off Station:** (local) 1546
Northing (NAD83, feet) 2705163.51	**Easting** (NAD83, feet) 815512.03	**DGPS Accuracy Estimate** (± m): 2.09
Water depth (ft): 4.9'	**Sample Platform:** (Vessel) Wading	**Deployment/Retrieval Time:** (local) 1546 / –
Sensor Depth (ft): ~2' from bottom		
Data File Name: ~~ST03~~ (1) MPM ST03_3A	**Instrument Model / SN:** 026007 114A	

Removed 04/15/08 1438

General Water Description-*Option* (from back-up meter)	
Temperature (°C): 6.53	**Other:**
Salinity (‰): 13.68	**D.O.** (mg/L) 11.16
Turbidity (NTU): 1.1	**pH** (pH units): 7.46

CALIBRATION and MAINTENANCE

DO membrane changed? (Y) N	Turbidity Wiper Changed? (Y) N	Chlorophyll Wiper Changed? Y N N/A
Battery Voltage: 12.3	Turbidly wiper parks 180° from optics? (Y) N	Chlorophyll Wiper Parks 180° from optics? Y N N/A

Parameter	Initial Reading	Calibrated Reading	Calibration Data (acceptable range)
Conductivity (mS/cm)	1.039	1.000	Cell constant (4.55 – 5.45)
pH 4 ± 1	4.06	4.00	MV (0 ± 50)
pH 7 ± 1	7.07	6.99	MV (+ ~172 ± 7 from 7 buffer)
pH 10 ± 1	9.84	9.97	
Depth (ft)	0.821	0.002	Pressure offset, vented (0 ± 6)
Turbidity (NTU) 0	2.1	0.0	Turbidity Offset:
Turbidity (NTU) 123	122.5	123.0	
D.O. (% Sat)	100.9	9.67 mg/l	D.O. Gain (0.7 - 1.4)

Field Activities / Comments / Observations:

ST03_3A → 03/14/08 through 03/28/08

ST03_3B → 03/28/08 through 04/15/08

ST03_4A → 04/15/08 through 05/15/08

(1) Filename changed to correspond with deployment period - MPM 05/19/08

Battelle

Sediment Trap Deployment (G606422)

In situ Data Field Form

Dredging Location	N/A
Dredging Description	Pre-Dredge
Survey Vessel	Gale Force
Chief Scientist	Mike McKee
Sampling Technician	
Vessel Captain	Mike Walsh
Other Personnel	
Weather conditions	40°F / overcast / winds 5 kts S

Date	03/14/08
Page	1 of 1

Tide information	
High	01:54 @ 3.7ft
Low	07:41 @ 0.3 ft
High	14:28 @ 2.9 ft
Low	19:43 @ 0.3 ft

NAD83 (ft)

PDOP	Station Number	Time	~~Latitude~~ Northing	~~Longitude~~ Easting	Water depth	Sample Depth	Turbidity NTU	Salinity ppt	DO mg/L	Temp C	Notes pH
2.25	ST-04	1512	2707853.40	815632.51	4.0'	2.0'	1.6	10.9	11.56	6.6	7.23
1.95	ST-01	1520	2708613.12	815410.75	4.2'	2.0'	1.0	10.25	10.97	6.51	7.50
2.24	ST-02	1529	2708389.20	815422.22	6.7'	3.1	1.2	20.5	10.8	6.38	7.67
2.09	ST-03	1538	2708163.51	815570.03	4.9'	2.05'	1.1	13.68	11.16	6.53	7.46

Signature of Data recorder: [signature]

DUXBURY OPERATIONS

SURVEY PROBLEM LOG

SURVEY: NBH Sed Trap **DATE:** 03/14/08

Please record any problems or issues.

~1000 - Arrive at NBH trailer, calibrate YSI sensor, benchmark the Trimble GeoXT on the porch, load gear onto boat

1140 - Arrive at the public launch in Fairhaven and launch pontoon boat

1200 - Depart for upper Harbor

1300 - Arrived at NBHST-01 and prepared to deploy sediment traps

1315 - Deployed 1st three traps at ST-01 and conducted YSI cast → salinity values near 0 → may need to recal

1330 - Deploy remaining traps and head for more saline waters to test YSI

1438 - YSI cast at area H to quickly test salinity values 11 ppt seems reasonable for position in the Harbor → return to ST-01 to conduct YSI casts at sed trap locations

1545 - Depart for Jacobs dock to pick up 20' spuds

1615 - Return to Fairhaven launch and recover boat

Battelle **Sediment Trap Deployment (G606422)**

Field Daily Log Form

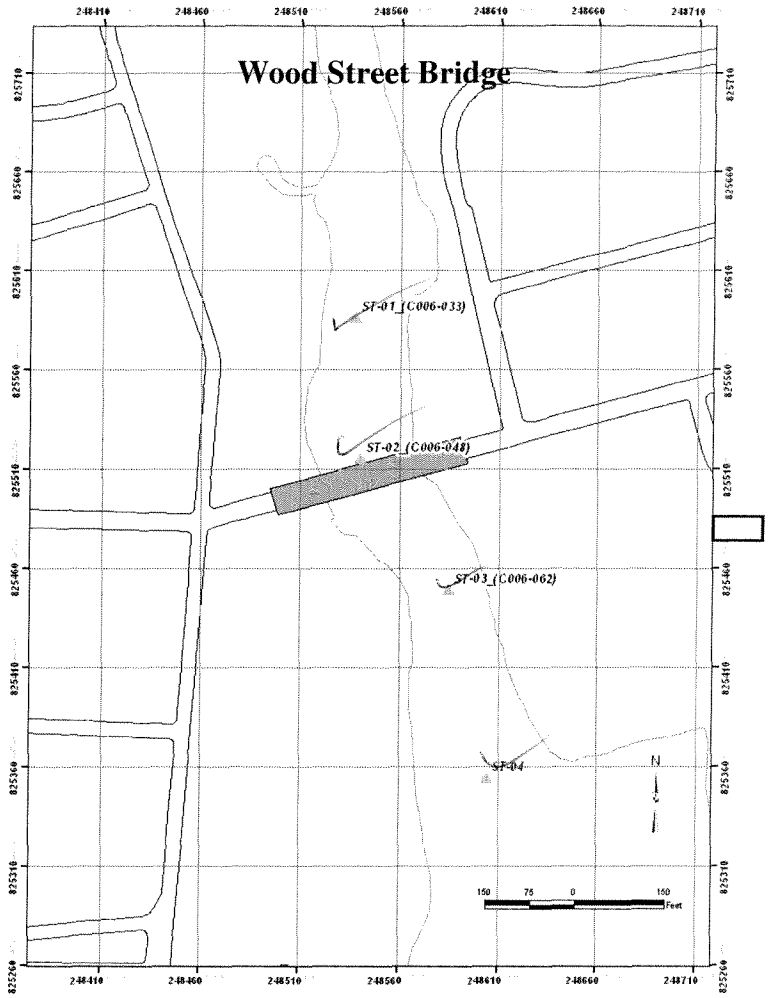
Date: 03/28/08 **Weather:** 40°F/cloudy/winds 10-15 NE

Tides:

0.5'	@	05:42
2.4'	@	13:16
0.5'	@	17:48

Monitoring Period:
From: 08:00 **To:** 11:00
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:

NA



Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)

Oil sheen/ Debris:
Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) N/A
PCB (Surface Grab) N/A
Turbidity (500ml) N/A
Dissolved PCB (2x1L) N/A
Notes:
Sediment traps deployed for 2 weeks so far. Checking amount of material collected → Light veneer of sediments at bottom of HDPE containers. Re-deployed for 2 weeks. Checked battery life & started data file for YSI

Sampling Crew: Mike Walsh / Mike McKee

Chief Scientist Signature: [signature]

Battelle **Sediment Trap Deployment (G606422)**

dGPS Calibration Form

Project #: G606422

INITIALS MPM

CHECK GPS against at least one reference checkpoint at beginning of each day.

GPS Reference Checkpoint Name NBH Trailer Porch (NW Corner)
Benchmark Location:

Time	Units and Datum	Northing / Latitude	Easting / Longitude
Beginning of day	MA 2001 SP NAD83 (ft)	2701152.61'	814564.27'

PDOP
3.86

Comments -
None

Date/Time 03/28/08 08:15 Vessel Gale Force

Unit Make/Model Trimble GeoXT

Deployment No. 4

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Battelle **Sediment Trap Deployment (G606422)**

Field Daily Log Form

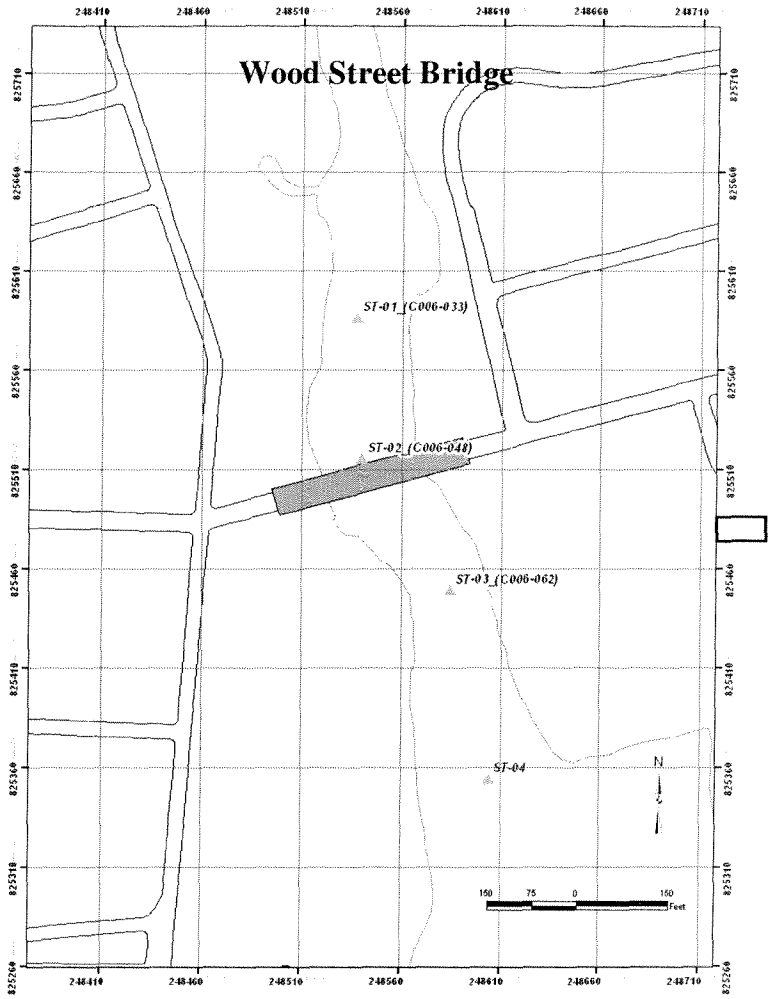
Date: 04/15/08 **Weather:** 50°F/sunny/winds 10-15 kts S

Tides:

3.6'	@	4:49
0.2'	@	11:23
3.7'	@	17:16

Monitoring Period:
From: 1400 **To:** 1700
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:

None



Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST-01	+0.4	2.04'
ST-02	-0.3	4.00'
ST-03	-0.3	2.00'
ST-04	-0.1	2.02'

Oil sheen/ Debris:
Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) N/A
PCB (Surface Grab) N/A
Turbidity (500ml) N/A
Dissolved PCB (2x1L) N/A
Notes:
- Reddish brown tint to water near Wood St. Bridge
- American eel in sed trap ST-02B
- Sediment traps recovered and re-deployed

Sampling Crew: Mike McKee / Mike Walsh

Chief Scientist Signature: [signature]

Battelle **Sediment Trap Deployment (G606422)**

dGPS Calibration Form

Project #: G606422

INITIALS MPM

CHECK GPS against at least one reference checkpoint at beginning of each day.

GPS Reference Checkpoint Name NBH Trailer Porch (NW corner)
Benchmark Location:

PDOP 2.29

Time	Units and Datum	Northing / Latitude	Easting / Longitude
Beginning of day	MA SP 2001 NAD83 ft	2701151.53	814564.17

Comments -
GPS ~ 10 ft off the reference point in the AM. Checked all settings (i.e. datum, units, benchmark waypoint) and all were correct. Reloaded factory settings and the problem was corrected

Date/Time 04/15/08 1718 Vessel Gale Force

Unit Make/Model Trimble GeoXT

Battelle Sediment Trap Deployment (G606422)

Mooring Deployment/Retrieval Log and Calibration Form

Project No. G606422	**Date:** 04/15/08	**Recorded By:** MPM / MW
Station ID: ST-Ø3	**On Station:** (local) 1430	**Off Station:** (local)
Northing (NAD83, feet) 2708168	**Easting** (NAD83, feet) 815569	**DGPS Accuracy Estimate** (± m): 2.87
Water depth (ft): 3.6' **Sensor Depth** (ft): 2.6'	**Sample Platform:** Vessel Wading	**Deployment/Retrieval Time:** (local) 04/15/08 1650 / 05/15/08 1459 ①
Data File Name: ~~ST-03E~~ ② ST03_4A	**Instrument Model / SN:** 6920 / 02B0071AA	

General Water Description-*Option* **(from back-up meter)**	
Temperature (°C): 12.77	**Other:**
Salinity (‰): 26.20	**D.O.** (mg/L) 10.21
Turbidity (NTU): -0.1	**pH** (pH units): 8.01

CALIBRATION and MAINTENANCE

DO membrane changed? Y (N)	Turbidity Wiper Changed? Y (N)	Chlorophyll Wiper Changed? Y (N) NA
Battery Voltage: 12.9	Turbidly wiper parks 180° from optics? (Y) N	Chlorophyll Wiper Parks 180° from optics? Y (N) NA

Parameter	Initial Reading	Calibrated Reading	Calibration Data (acceptable range)
Conductivity (mS/cm)	0.985	1.000	Cell constant (4.55 – 5.45)
pH 4 ± 1	3.91	4.01	MV (0 ± 50)
pH 7 ± 1	7.10	7.00	MV (+ ~172 ± 7 from 7 buffer)
pH 10 ± 1	9.86	9.99	
Depth (ft)	0.467	0.004	Pressure offset, vented (0 ± 6)
Turbidity (NTU) 0	0.7	0.0	Turbidity Offset:
Turbidity (NTU) 123	126.3	123.0	
D.O. (% Sat)	10.23 / 102%		D.O. Gain (0.7 - 1.4) D.O. Charge 48.2

Field Activities / Comments / Observations:

① Re-deployed on 05/15/08 @ 1615 b/c other sonde is providing inconsistent DO & turbidity readings

② Filename changed to correspond w/ deployment period - MPM 05/19/08

Battelle

Sediment Trap Deployment (G606422)

In situ Data Field Form

Dredging Location	NA
Dredging Description	None
Survey Vessel	Gale Force
Chief Scientist	Mike McKee
Sampling Technician	
Vessel Captain	Mike Walsh
Other Personnel	
Weather conditions	50°F / sunny /

Date	04/15/08
Page	1 of 1

Tide information	
High	3.6 @ 4:49
Low	0.2 @ 11:23
High	3.7 @ 17:16
Low	0.1 @ 23:56

PDOP

	Station Number	Time	Latitude	Longitude	Water depth	Sample Depth	Turbidity NTU	Salinity PSU	DO	Temp °C	Notes pH
2.87	ST-03	1438	2708168	815569	3.6'	1'	-0.5	15.14	10.81	13.22	7.93
						2'	-0.1	26.20	10.21	12.77	8.01
3.93	ST-01	1556	2708615	815410	4.2'	1.02'	-1.0	1.43	11.33	12.76	7.76
						2.04'	0.4	25.62	9.57	12.83	7.75
3.04	ST-02	1620	2708393	815422	6.4'	1.10'	-0.4	8.08	10.02	13.39	7.78
						2.08'	0.0	15.76	9.38	13.91	7.94
						3.03'	-0.2	25.91	9.34	12.76	8.04
						4.00'	-0.3	26.67	9.42	12.47	8.06
2.99	ST-04	1637	2707853	815630	4.2'	1.04'	0.4	16.32	9.48	14.05	7.96
						2.02	-0.3	20.94	9.27	13.83	8.02

Signature of Data recorder: [illegible]

Battelle

Sediment Trap Deployment (G606422)

Field Daily Log Form

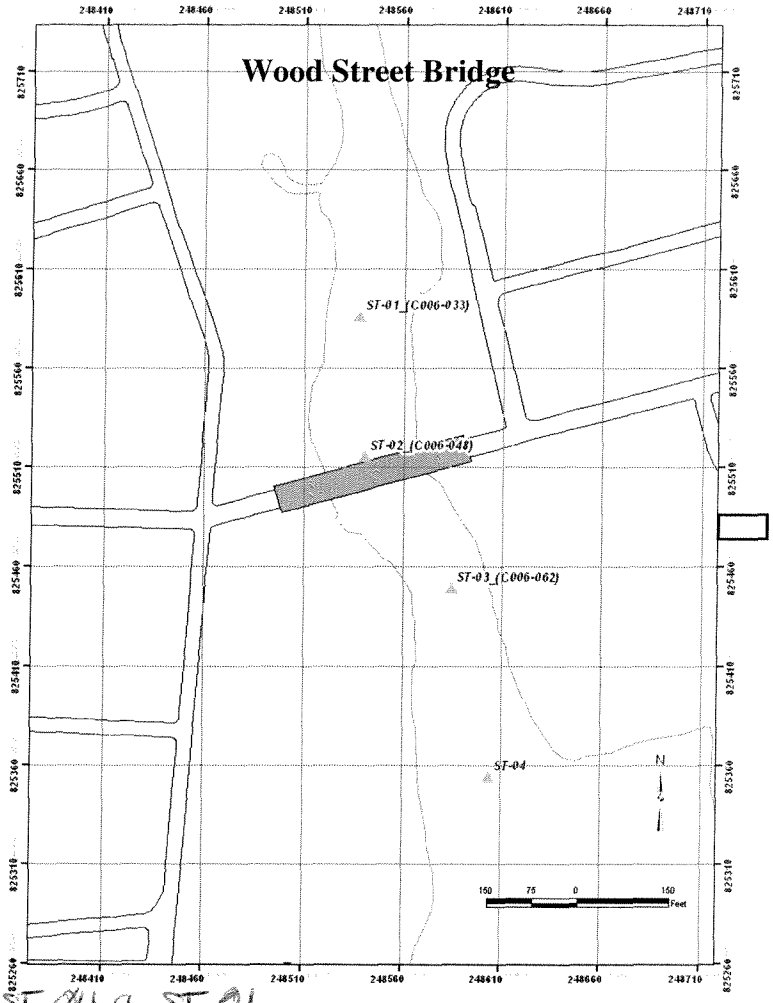
Date: 04/22/08 **Weather:** 60°F/calm/clear/winds 5-10 SE

Tides:

0.0	@	3:20
3.4	@	9:51
0.0	@	15:08

Monitoring Period:
From: 0800 **To:** 1100
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:

None



Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)

Oil sheen/ Debris: slight sheen on grabs @ ST-04 & ST-01

Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) ## MMDDYY
PCB (Surface Grab) SS-Station-Date-rep
Turbidity (500ml)
Dissolved PCB (2x1L)
Notes:
Sediment grabs at four sed trap locations w/ 0.1m² Van Veen grab

Sampling Crew: Mike Walsh / Mike McKee

Chief Scientist Signature: [signature]

Battelle **Sediment Trap Deployment (G606422)**

dGPS Calibration Form

Project #: 606422

INITIALS MPM

CHECK GPS against at least one reference checkpoint at beginning of each day.

GPS Reference Checkpoint Name NBH Trailer Porch (NW Corner)
Benchmark Location:

Time	Units and Datum	Northing / Latitude	Easting / Longitude
Beginning of day	MA SP 2001 NAD83 feet	270115 4.86'	814565.20'

Comments -

Date/Time 04/22/08 Vessel Gale Force

Unit Make/Model Trimble GeoXT

Pre-Dredge

SURVEY RECORD LOG

SURVEY: Sediment Grabs **DATE:** 04/22/08

Please record any problems or issues.

0815 - On station at NBH ST-04 to collect surf sed grabs

0901 - depart ST-04 for ST-03

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Surface Sampling Event No. 2

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Station Log for Benthic Sediment Grab Samples

Project Name: New Bedford Harbor Environmental Monitoring
Project #: G606422
Client: USACE NAE

Location: New Bedford, MA
Chief Scientist:
Vessel: R/V Gale Force

Field Measurements

Survey ID: 07SEDTRAP	Station Depth (feet): 3.0'
Station ID: ST-04	Time on Station: 0818
Date: 04/22/08	Time Depart Station: 0901
Recorded by: MM	

Attempt #1	
Northing: 2701850.93' PDOP 2.03	Grab Size: 0.1-m^2
Easting: 815615.74'	Analyses : PCBs / TOC & GS
Collection Time:	
Sample ID: SS 04-042208	

Sample Description:
overpenetrated - using mud shoe

Attempt #2	
Latitude: 2701850.93'	Grab Size: 0.1-m^2
Longitude: 815615.74'	Analyses : PCBs / TOC & GS
Time: 0835	
Sample ID: SS04-042208	

Sample Description: olive brown silt sand mixture over dark gray course sand/silt clay mixture / some gravel and shell hash / slight H_2S smell / light sheen in mixture

Additional Comments:
biota - sea lettuce, snails, amphipods, small eel

Field Measurements

Survey ID: 07SEDTRAP	Station Depth (feet): 3.7'
Station ID: ST-03	Time on Station: 0908
Date: 04/22/08	Time Depart Station: 0925
Recorded by: MM	

Attempt #1	
Northing: 2708196.58' PDOP 2.16	Grab Size: 0.1-m^2
Easting: 815580.11'	Analyses : PCBs / TOC & GS
Collection Time: 0913	
Sample ID: SS03-042208	

Sample Description: olive brown to black silt / mixture of fine sand no clear odor

Attempt #2	
Latitude:	Grab Size: 0.1-m^2
Longitude:	Analyses : PCBs
Time:	
Sample ID:	

Sample Description:

Additional Comments:
biota - sea lettuce, worm tubes, amphipods

Station Log for Benthic Sediment Grab Samples

Project Name: New Bedford Harbor Environmental Monitoring — *Location: New Bedford, MA*
Project #: G606422 — *Chief Scientist:*
Client: USACE NAE — *Vessel: R/V Gale Force*

Field Measurements

Survey ID: 07SEDTRAP	Station Depth (feet): 4.4'
Station ID: ST-01	Time on Station: 0945
Date: 04/22/08	Time Depart Station: ~~0952~~ 1020
Recorded by: MM	

Attempt #1		
	Northing: 2708609.64' PDOP 4.19	Grab Size: 0.1-m^2
	Easting: 815420.65'	Analyses : PCBs / TOC & GS
	Collection Time: 0952	
	Sample ID: SS01-042208	

Sample Description: olive brown to black silt / detritus mixture
no clear odor

Attempt #2		
	Latitude: 2708609.64'	Grab Size: 0.1-m^2
	Longitude: 815420.65'	Analyses : PCBs / TOC & GS
	Time: 1008	
	Sample ID: SS01-042208-DUP	

Sample Description: olive brown to black silt / detritus mixture
no clear odor

Additional Comments:
light sheen on both grabs / lots of detritus / some amphipods and worm tubes

Field Measurements

Survey ID: 07SEDTRAP	Station Depth (feet): 6.5'
Station ID: ST-02	Time on Station: 1030
Date: 04/22/08	Time Depart Station:
Recorded by: MM	

Attempt #1		
	Northing: 2708382'	Grab Size: 0.1-m^2
	Easting: 815420'	Analyses : PCBs / TOC & GS
	Collection Time: 1035	
	Sample ID: SS02-042208	

Sample Description: olive brown to black silt / detritus mixture
slight H_2S odor

Attempt #2		
	Latitude:	Grab Size: 0.1-m^2
	Longitude:	Analyses : PCBs
	Time:	
	Sample ID:	

Sample Description:

Additional Comments:
biota- snails, sea lettuce, small eel, worm tubes

Deployment No. 5

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Battelle Sediment Trap Deployment (G606422)

Field Daily Log Form

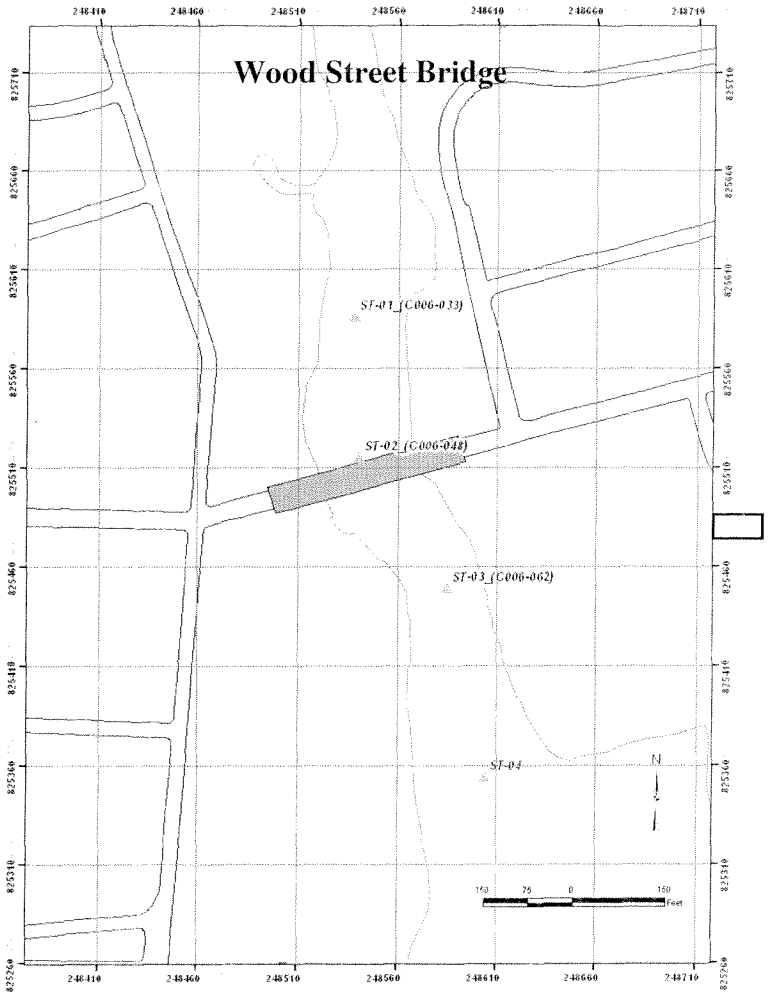
Date: 05/15/08 **Weather:** 65°F / overcast / winds 10 kts S

Tides:

3.3	@	05:11
0.4	@	11:23
4.0	@	17:36

Monitoring Period:
From: 1200 **To:** 1700
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:

- none
- shore-based mob for Aerovox dredging



Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST-01	~0.9	2.0'
ST-02	~0.4	4.0'
ST-03	~0.6	2.0'
ST-04	~0.7	1.0'

Oil sheen/ Debris:
Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) ST-(station)-MMDDYY-rep
PCB (Surface Grab) NA
Turbidity (500ml) NA
Dissolved PCB (2x1L) NA
Notes:
- strong paint smell near stations ST03 & ST04

Sampling Crew: Mike Walsh / Mike McKee

Chief Scientist Signature: Michael P [illegible]

Battelle **Sediment Trap Deployment (G606422)**

dGPS Calibration Form

Project #: G606422

INITIALS MPM

CHECK GPS against at least one reference checkpoint at beginning of each day.

GPS Reference Checkpoint Name NBH Trailer porch (NW corner)
Benchmark Location:

Time	Units and Datum	Northing / Latitude	Easting / Longitude
Beginning of day	MA State Plane 2001 NAD83, U.S. feet	2701155.61'	814565.01'

Comments -

Date/Time 05/15/08/ 11:45 Vessel Gale Force

Unit Make/Model Trimble GeoXT

~~Attachment 1.~~

Battelle
Applied Coastal and Environmental Services

Deployment/Retrieval Log and Calibration Form

Project No. 660692-07SEDTRAP	Date: 5/15/08	Recorded By: M. Walsh
Station ID: ST03	On Station: (local) 1608	Off Station: (local)

Latitude/Northing (circle one)	Longitude/Easting (circle one)	Navigation System (units)	DGPS Accuracy Estimate (units):
2708173'	815557'	NAD 83/ feet	1.92

Water depth (ft): 4.3'	Sample Platform: (Vessel) Wading	Deployment/Retrieval Time: (2) MPM (local) 05/15/08 1615 / 05/20/08 1500
Sensor Depth (ft): 2.3'		
Data File Name: ~~ST03F~~ (3) ST03-5A	Instrument Model / SN: Battelle Sonde 06J1733 AB	

General Water Description-*Option* (from back-up meter if available)

Temperature (°C): 15.85	Other:
Salinity (‰): 21.85	D.O. (mg/L) 6.30
Turbidity (NTU): -0.6	pH (pH units): 7.70

CALIBRATION and MAINTENANCE

DO membrane changed? (Y) N	Turbidity Wiper Changed? (Y) N	Chlorophyll Wiper Changed? (Y) N
Battery Voltage: 12.3	Turbidly wiper parks 180° from optics? (Y) N	Chlorophyll Wiper Parks 180° from optics? (Y) N

Parameter	Initial Reading	Calibrated Reading	Cal Constants	Calibration Data (acceptable range)
Conductivity (mS/cm)	48.67	50.00		Cell constant should be between 4.55 – 5.45
pH 4 ± 1	~~0.67~~ 4.05	4.00		180 ± 50 MV (span from pH7 should be ~165 to 180 MV)
pH 7 ± 1	7.05	7.00		0 MV ± 50 MV
pH 10 ± 1	9.73	9.95		-180 ± 50 MV (span from pH7 should be ~165 to 180 MV)
pH - General	NA	NA	NA	pH offset -400 to 400; pH gain between -6.07 and -4.22
Depth (ft)	1.01	0.000		System is vented, acceptable offset is -6 to 6
Turbidity (NTU) 0	-0.2	0.0		Turbidity Offset: -10 to 10
Turbidity (NTU) 123	124.5	123.0		Range is ratio of M1 to A1 = 0.6 to 1.5
D.O. (% Sat)	100.0% / 9.55 mg/l	100.0% / 9.55 mg/l		D.O. Gain (0.5 – 2.0)
Field Activities / Comments / Observations:				
Chl	0.2	0.0		

(1) WN M.WALSH 5/15/08

(3) MPM - renamed to match deployment - 08/25/08

(2) MPM 5/15/08 - redeployed 6920 sensor (SN 02B0071AA) b/c the Battelle sonde (above) was providing inconsistent data. Installed new batteries in 6920 and started new data file (ST03F) - see previous log

~~Attachment 1.~~
Battelle
Applied Coastal and Environmental Services

Deployment/Retrieval Log and Calibration Form

Project No. 6606422	Date: 5/27/08	Recorded By: MW
Station ID: ST03	On Station: (local) 1513	Off Station: (local) 1525

Latitude/Northing (circle one)	Longitude/Easting (circle one)	Navigation System (datum, units)	DGPS Accuracy Estimate (units± m):

Water depth (ft):	Sample Platform: (Vessel) Wading	Deployment/Retrieval Time: 05/30/08 (local) Deploy 15:20 / Rec. 06/11/08 13:20
Sensor Depth (ft):		
Data File Name: ~~ST03 4C~~ ① ST03-5B	Instrument Model / SN: 0100474 AA	

General Water Description-*Option* (from back-up meter if available)	
Temperature (°C):	Other:
Salinity (‰):	D.O. (mg/L)
Turbidity (NTU):	pH (pH units):

CALIBRATION and MAINTENANCE

DO membrane changed? (Y) N	Turbidity Wiper Changed? (Y) N	Chlorophyll Wiper Changed? Y N NA
Battery Voltage:	Turbidly wiper parks 180° from optics? (Y) N	Chlorophyll Wiper Parks 180° from optics? Y N NA

Parameter	Initial Reading	Calibrated Reading	Cal Constants	Calibration Data (acceptable range)
Conductivity (mS/cm)	~~9.74~~ 1023	1000		Cell constant should be between 4.55 – 5.45
pH 4 ± 1	3.85	3.98		180 ± 50 MV (span from pH 7 should be ~165 to 180 MV)
pH 7 ± 1	6.94	7.00		0 MV ± 50 MV
pH 10 ± 1	9.83	10.00		-180 ± 50 MV (span from pH7 should be ~165 to 180 MV)
pH - General	NA	NA	NA	pH offset -400 to 400; pH gain between -6.07 and -4.22
Depth (ft)	1.074	0.000		System is vented, acceptable offset is -6 to 6
Turbidity (NTU) 0	0.9	0.0		Turbidity Offset: -10 to 10
Turbidity (NTU) 123	128.6	123.0		Range is ratio of M1 to A1 = 0.6 to 1.5
D.O. (% Sat)	107.0	100.0		D.O. Gain (0.5 – 2.0)

Field Activities / Comments / Observations:

Battelle

Sediment Trap Deployment (G606422)

In situ Data Field Form

Dredging Location	NA
Dredging Description	NA
Survey Vessel	Gale Force
Chief Scientist	Mike McKee
Sampling Technician	
Vessel Captain	Mike Walsh
Other Personnel	
Weather conditions	65°F / overcast / Winds 10 kts S

Date	05/15/08
Page	1 of 1

Tide information	
High	3.3' @ 05:11
Low	0.4' @ 11:23
High	4.0' @ 17:36
Low	

PDOP	Station Number	Time	Latitude	Longitude	Water depth	Sample Depth	Turbidity NTU	Salinity ppt	DO mg/L	Temp °C	Notes pH
2.97	ST-04	1438	2707860'	815634'	3.0'	1.0'	-0.7	21.36	6.2	15.92	7.65
1.92	ST-03	1459	2708173'	815557'	4.3'	1.0'	-0.2	5.53	7.27	15.84	7.73
	↓	↓	↓	↓	↓	2.0'	-0.6	21.85	6.30	15.85	7.70
3.20	ST-02	1536	2708405'	815428'	6.0'	1.0'	-0.5	11.48	7.54	15.80	7.84
	↓	↓	↓	↓	↓	2.0'	-0.9	23.03	6.55	15.86	7.77
						3.0'	-0.7	24.75	6.09	15.71	7.78
						4.0'	-0.4	26.28	5.79	15.58	7.73
2.43	ST-01	1552	2708617'	815408'	4.4'	1.0'	-0.8	17.41	6.88	15.91	7.63
	↓	↓	↓	↓	↓	2.0'	-0.9	23.02	6.48	15.83	7.72

Signature of Data recorder: [illegible]

YSI Calibration Form for Water Quality Surveys

Project No. G606422	**Date:** 6/6/08	**Recorded By:** REM
Data File Name: ST03_6A	**Instrument Model / SN:** 02B0071AA	

CALIBRATION and MAINTENANCE

DO membrane changed? Y (N)	Turbidity Wiper Changed? Y (N)
Battery Voltage: 12.2	Turbidly wiper parks 180° from optics? (Y) N

Parameter	Initial Reading	Calibrated Reading	Calibration Data (acceptable range)
Conductivity (mS/cm)	0.910	1.000	Cell constant (4.55 – 5.45)
Depth (ft)	0.334	0.005	Pressure offset, vented (0 ± 6)
Turbidity (NTU) 0	-0.2	0.0	Turbidity Offset:
Turbidity (NTU) 123	121.9	123.0	
D.O. (% Sat) 101.1	101.1%	101.1%	D.O. Gain (0.7 - 1.4)
pH 4	3.68	3.95	
pH 7	6.95	7.0	
pH 10	9.80	10.1	

Comments:

Post-Cal

YSI Calibration Form for Water Quality Surveys

Project No. G606422	**Date:** 6/6/08	**Recorded By:** REM
Data File Name: ST03_7A	**Instrument Model / SN:** 98L0757AA	

CALIBRATION and MAINTENANCE

DO membrane changed? Y (N)	Turbidity Wiper Changed? Y (N)
Battery Voltage: 12.2	Turbidly wiper parks 180° from optics? (Y) N

Parameter	Initial Reading	Calibrated Reading	Calibration Data (acceptable range)
Conductivity (mS/cm)	1002	1000	Cell constant (4.55 – 5.45)
Depth (ft)	0.268	0.002	Pressure offset, vented (0 ± 6)
Turbidity (NTU) 0	0.7	0.0	Turbidity Offset:
Turbidity (NTU) 123	122.8	123.0	
D.O. (% Sat)	100.9%	100.9%	D.O. Gain (0.7 - 1.4)
pH 4	Rem ~~7.17~~ 3.72	Rem ~~7.04~~ 3.96	
pH 7	Rem ~~9.82~~ 7.17	7.00	
pH 10	9.82	10.00	

Comments:

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Deployment No. 6

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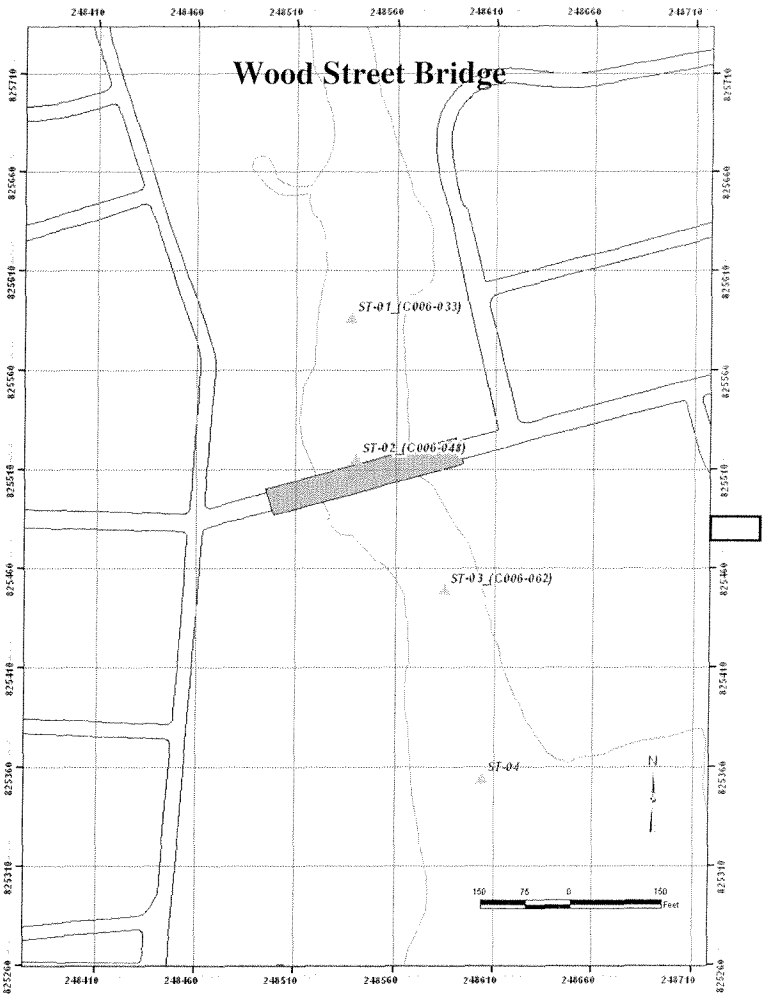
Battelle Sediment Trap Deployment (G606422)

Field Daily Log Form

Date: 06/11/08 **Weather:** 80°F / sunny / winds 5-10 NW

Tides:

0.5' @ 0844
3.8' @ 1519
0.7 @ 2158



Monitoring Period:
From: 11:15 **To:** 14:30
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:

shoreline dredging w/ back hoe at Aerovox site

Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST-01	19.3	3'
ST-02	20.7	5'
ST-03	19.6	3.7'
ST-04	~~27~~ 19.3	2.7'

Oil sheen/ Debris: none
Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) ST ## MMDDYY - REP
PCB (Surface Grab) NA
Turbidity (500ml) NA
Dissolved PCB (2x1L) NA
Notes:

Sampling Crew: Mike Walsh / Mike McKee

Chief Scientist Signature: [signature]

Battelle **Sediment Trap Deployment (G606422)**

dGPS Calibration Form

Project #: G606422

INITIALS MPM

CHECK GPS against at least one reference checkpoint at beginning of each day.

GPS Reference Checkpoint Name NBH Trailer (NW corner)
Benchmark Location:

Time	Units and Datum	Northing / Latitude	Easting / Longitude
Beginning of day	MA SP 2001 NAD83 / U.S. Feet	2701154.11'	814564.23'

Comments -

Date/Time 06/11/08 Vessel Gale Force

Unit Make/Model ~~Garmin~~ Trimble GeoXT

Battelle

Sediment Trap Deployment (G606422)

In situ Data Field Form

Dredging Location	Aerovox
Dredging Description	shoreline dredging w/ back hoe
Survey Vessel	Gale Force
Chief Scientist	Mike McKee
Sampling Technician	
Vessel Captain	Mike Walsh
Other Personnel	
Weather conditions	80°F / sunny / 5-10 kts NW

Date	06/11/08
Page	1 of 1

Tide information	
High	3.4' @ 0245
Low	0.5' @ 0844
High	3.8' @ 1519
Low	0.7 @ 2158

Station Number	Time	Latitude	Longitude	Water depth	Sample Depth	Turbidity NTU	Salinity PPT	DO mg/L	Temp °C	pH	Notes
ST-01	1215	2708615.92	815410.41	3'	1.007'	19.3	31.60	10.12	26.73	7.86	PDOP 3.30
ST-02	1224	2708318.69	815423.23	5'	1.039'	20.7	31.44	8.56	26.24	7.85	PDOP 3.85
↓	↓	↓	↓	↓	2.012'	21.3	32.31	7.88	25.90	7.82	
↓	↓	↓	↓	↓	3.022'	21.7	32.56	7.64	25.79	7.81	
ST-04	1248	2707859.91	815632.91	2.7'	1.062	19.3	32.82	10.69	26.59	8.05	PDOP 2.29
ST-03	1310	2708166.92	815572.28	3.7'	1.066	19.6	32.83	10.46	26.41	7.98	PDOP 2.85
↓	↓	↓	↓	↓	2.030	19.3	32.97	9.43	26.07	7.92	
		~~2708166.92~~	~~815572.28~~								

Signature of Data recorder: Michael D. M

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Deployment No. 7

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Battelle **Sediment Trap Deployment (G606422)**

Field Daily Log Form

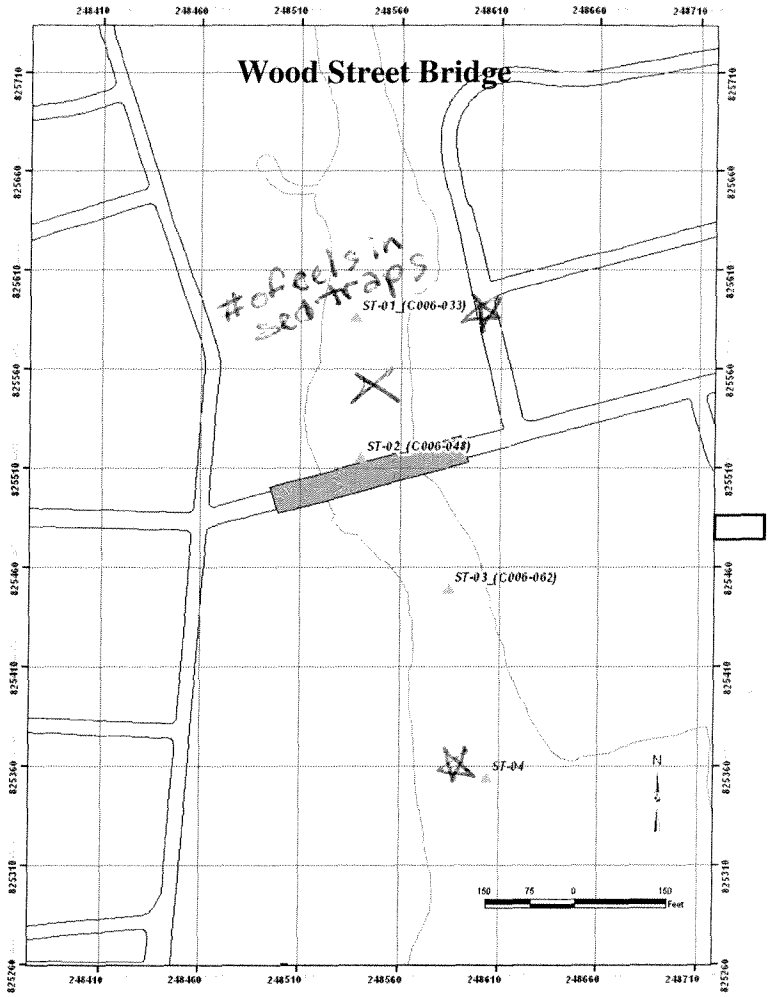
Date: 07/10/08 **Weather:** Sunny/85°F/Winds light

Tides:

L 0.6' @ 0737
H 3.8' @ 1440
L 1.6' @ 2056

Monitoring Period:
From: 11:15 **To:** 1445
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:

shoreline dredging at Aeroxox



Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST01	7.1	2'
ST02	7.1	4'
ST04	5.9	2'
ST03	7.8	3'

Oil sheen/ Debris: yes
Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) ST-##-MMDDYY-REP
PCB (Surface Grab) NA
Turbidity (500ml) NA
Dissolved PCB (2x1L) NA
Notes:
* noticed oily sheen on deck after redeploying traps.
X at least 20 dead fish (1-2") floating on surface
slight oily sheen in ST-04-071008-A

Sampling Crew: Mike Walsh / Mike McKee

Chief Scientist Signature: [signature]

Battelle **Sediment Trap Deployment (G606422)**

dGPS Calibration Form

Project #: G606422-07SEDTRAP

INITIALS MPM

CHECK GPS against at least one reference checkpoint at beginning of each day.

GPS Reference Checkpoint Name NBH Trailer Porch (NW corner)
Benchmark Location:

PDOP 4.57

Time	Units and Datum	Northing / Latitude	Easting / Longitude
Beginning of day	MA SP 2001 NAD 83 (US ft)	270 1155.42'	814566.12'

Comments -

Date/Time 07/10/08 11:07 Vessel Gale Force

Unit Make/Model Trimble XRS Pro

Battelle

Sediment Trap Deployment (G606422)

In situ Data Field Form

Dredging Location	Aerovox
Dredging Description	shoreline dredging w/ back hoe
Survey Vessel	Gale Force
Chief Scientist	Mike McKee
Sampling Technician	
Vessel Captain	Mike Walsh
Other Personnel	
Weather conditions	Sunny / 85°F / light winds

Date	07/10/08
Page	1 of 1

Tide information	
High	
Low	0.6' @ 0737
High	3.8' @ 1440
Low	1.0' @ 2056

Station Number	Time	Latitude	Longitude	Water depth	Sample Depth	Turbidity	Salinity	DO	Temp	pH	Notes
ST01	11.58	2708612.85	815409.43	3.3'	1.01'	6.4	26.62	9.86	28.01	8.11	PDOP 1.94
"	"	"	"	↓	2.00'	7.1	27.93	8.08	27.72	7.97	
ST02	12:19	2708403.50	815422.84	5.6'	1.00'	9.8	26.62	11.76	28.27	8.25	PDOP-2.99
↓	↓	↓	↓	↓	2.00	7.6	28.33	9.34	27.72	8.05	
					3.00'	7.3	28.41	9.34	27.68	8.03	
					4.00'	7.1	28.42	9.31	27.67	8.03	
ST04	1242	2707856.18	815629.38	3.2'	1.06'	6.5	27.99	11.74	28.40	8.22	PDOP-2.47
"	"	"	"		2.00' ①	~~7.1~~ 5.9	28.51	11.17	28.11	8.16	
ST03	1317	2708160.11	815567.56	4.4	1.008	7.1	27.73	12.66	28.49	8.24	PDOP-1.86
↓	↓	↓	↓	↓	2.009	7.2	28.34	12.27	28.34	8.23	
					3.009	7.8	28.50	11.24	27.94	8.10	

Signature of Data recorder:

① MPM 07/10/08 - reading stabilized

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Deployment No. 8

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Battelle

Sediment Trap Study (G606422)

Field Daily Log Form

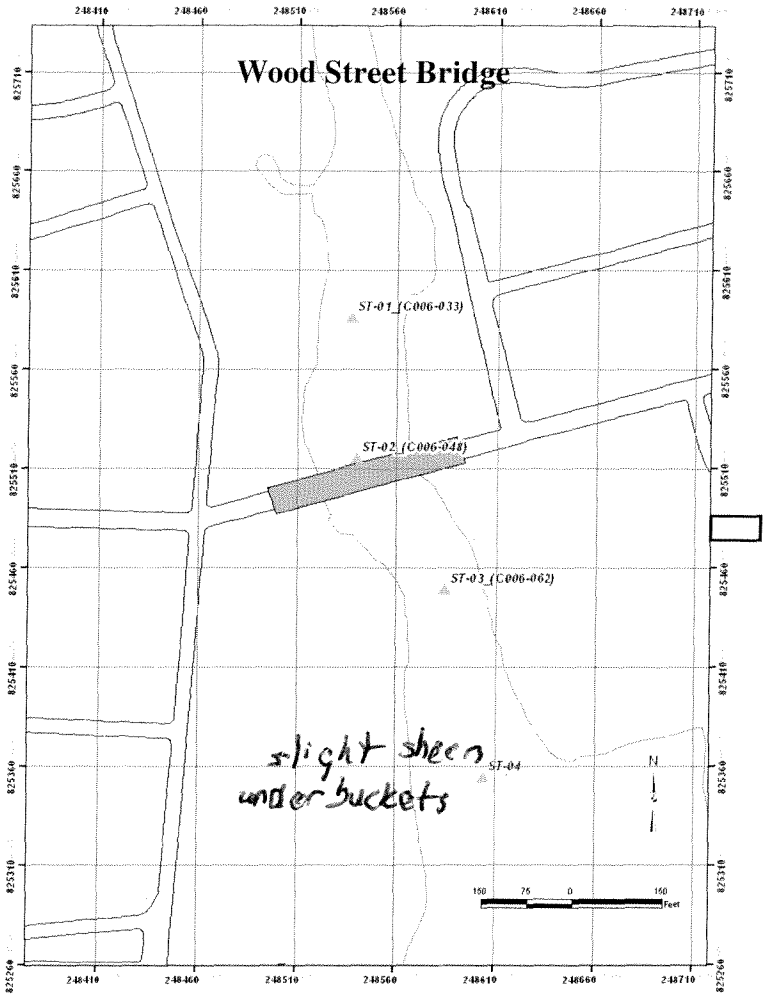
Date: 07/31/08 **Weather:** overcast / 75°F /

Tides:

4.2'	H	@	07:31
-0.2'	L	@	12:56
4.9'	H	@	19:58

Monitoring Period:
From: 0800 **To:** 1200
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:

shoreline demobing at Aerovox



Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST-04	0.6	1'
ST-01	2.7	1'
ST-02	8.4	1'
ST-03	7.0	1'

Oil sheen/ Debris: yes

Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) ST-##-MMDDYY-REP
PCB (Surface Grab) NA
Turbidity (500ml) NA
Dissolved PCB (2x1L) NA
Notes: ~~small baitfish schooling~~ ①

Sampling Crew: Mike McKee / Jess Fahey / Matt Fitzpatrick

Chief Scientist Signature: [signature]

① upon closer observation, water dripping from overhead utility cable - MPM 07/31/08

Battelle

Sediment Trap Deployment (G606422)

Mooring Deployment/Retrieval Log and Calibration Form

Project No. G606422	**Date:** 07/31/08	**Recorded By:** MPM
Station ID: STØ3	**On Station:** (local)	**Off Station:** (local)
Northing (NAD83, feet) 270816 6.92'	**Easting** (NAD83, feet) 815572.28'	**DGPS Accuracy Estimate** (± m):
Water depth (ft): 4.3' **Sensor Depth** (ft): 2.3'	**Sample Platform:** Vessel Wading	**Deployment/Retrieval Time:** (local) Deployed 09:35 / Retrieved 08/25/0 1435
Data File Name: STØ3_08A	**Instrument Model / SN:**	
General Water Description-*Option* (from back-up meter)		
Temperature (°C): 28.14	**Other:**	
Salinity (‰): 26.75	**D.O.** (mg/L) 1.07	
Turbidity (NTU): 7.0	**pH** (pH units): 7.19	

CALIBRATION and MAINTENANCE

DO membrane changed? Y N	Turbidity Wiper Changed? Y N	Chlorophyll Wiper Changed? Y N N/A
Battery Voltage: 12.7 v	Turbidly wiper parks 180° from optics? Y N	Chlorophyll Wiper Parks 180° from optics? Y N N/A

Parameter	Initial Reading	Calibrated Reading	Calibration Data (acceptable range)
Conductivity (mS/cm)	0.968	1.001	Cell constant (4.55 – 5.45)
pH 4 ± 1	3.97	4.00	MV (0 ± 50)
pH 7 ± 1	7.06	7.00	MV (+ ~172 ± 7 from 7 buffer)
pH 10 ± 1	9.68	9.95	
Depth (ft)	0.105'	-0.001'	Pressure offset, vented (0 ± 6)
Turbidity (NTU) 0	-2.6	0.0	Turbidity Offset:
Turbidity (NTU) 123	124.5	123.0	
D.O. (% Sat)	100%	8.91 mg/L	D.O. Gain (0.7 - 1.4)

Field Activities / Comments / Observations:

Battelle

Sediment Trap Study (G606422)

In situ Data Field Form

Dredging Location	N/A
Dredging Description	demobing from Aerovox
Survey Vessel	Gale Force
Chief Scientist	Mike McKee
Sampling Technician	Jess Fahey
Vessel Captain	Matt Fitzpatrick
Other Personnel	
Weather conditions	

Date	07/31/08
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Tide information	
High	
Low	
High	
Low	

Station Number	Time	Latitude	Longitude	Water depth	Sample Depth	Turbidity NTU	Salinity	DO mg/L	Temp	Notes
ST04	0828			4.9						
					1.01	0.6 NTU	29.11	2.04	28.03	pH 7.41
					2.04	-0.1	28.65	2.23	27.63	pH 7.47
					3.08	0.2	28.81	2.18	27.49	pH 7.47
ST01	0854			5.0	1.02	2.7	27.37	1.26	28.21	pH 7.27
					2.01	5.5	27.89	1.30	28.21	pH 7.34
					3.01	2.8	28.29	1.02	28.05	pH 7.32
ST02	0913			6.9	1.03	8.4	27.62	1.07	28.27	pH 7.22
					2.02	3.6	28.08	1.36	28.26	pH 7.30
					3.01	1.7	28.36	1.35	28.14	pH 7.33
					4.01	0.4	28.70	1.14	27.87	pH 7.30
					5.02	-0.1	28.67	1.31	27.76	pH 7.33
ST03	0935			4.3	1.01	7.0	~~28.19~~ ①	1.07	28.14 ②	pH 7.19
					2.01	3.4	27.94	1.23	28.16	pH 7.29

Signature of Data recorder:

① 26.75 ② 28.14

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Deployment No. 9

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Battelle Sediment Trap Study (G606422)

Field Daily Log Form

Date: 08/25/08 **Weather:** 78°F / Winds 10-15 kts SW / cloudy

Tides:

L 0.4'	@	0820
H 4.1'	@	1551
L 0.7'	@	2215

Monitoring Period:
From: 12:30 **To:** 15:00
Tidal Stage: HWS Ebb LWS (Flood)
Dredging Activity:

- Dredging at Sawyer St. Cove

Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST-01	6.0	1'
ST-02	7.1	1'
ST-04	2.4	1'
ST-03	4.4	1'

Oil sheen/ Debris: none
Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) ST-~~4F~~-MMDDYY-REP
PCB (Surface Grab) NA
Turbidity (500ml) NA
Dissolved PCB (2x1L) NA
Notes:

Sampling Crew: Matt Fitzpatrick / Mike McKee

Chief Scientist Signature: [signature]

Battelle **Sediment Trap Deployment (G606422)**

dGPS Calibration Form

Project #:

INITIALS Matt Fitzpatrick

CHECK GPS against at least one reference checkpoint at beginning of each day.

GPS Reference Checkpoint Name Outside of lab trailer
Benchmark Location:

Time	Units and Datum	Northing / Latitude	Easting / Longitude
Beginning of day	NAD83 Mass St plane	2701156.06	814565.35

Comments -
3.58' from target

Date/Time 8/25/08 1147 Vessel Gale Force
Unit Make/Model Trimble GeoXT

Battelle

Sediment Trap Study

Mooring Deployment/Retrieval Log and Calibration Form

Project No. G606422	Date: 08/25/08	Recorded By: MPM
Station ID: ST03	On Station: (local)	Off Station: (local)
Northing (NAD83, feet) N2708162.8'	Easting (NAD83, feet) E815570.9'	DGPS Accuracy Estimate (± m): PDOP - 2.93
Water depth (ft): 5.0'	Sample Platform: Vessel Wading	Deployment/Retrieval Time: (local) 1445
Sensor Depth (ft): 3.0'		
Data File Name: ST03-09A	Instrument Model / SN:	
General Water Description-*Option* (from back-up meter)		
Temperature (°C): 25.22	Other:	
Salinity (‰): 25.75	D.O. (mg/L) 10.65	
Turbidity (NTU): 4.4	pH (pH units): 8.30	

CALIBRATION and MAINTENANCE

DO membrane changed? Y N	Turbidity Wiper Changed? Y N	Chlorophyll Wiper Changed? Y N NA
Battery Voltage: 12.4 v	Turbidly wiper parks 180° from optics? Y N	Chlorophyll Wiper Parks 180° from optics? Y N NA

Parameter	Initial Reading	Calibrated Reading	Calibration Data (acceptable range)
Conductivity (mS/cm)	1002	1000	Cell constant (4.55 – 5.45)
pH 4 ± 1	4.03	4.00	MV (0 ± 50)
pH 7 ± 1	7.10	7.00	MV (+ ~172 ± 7 from 7 buffer)
pH 10 ± 1	9.64	9.93	
Depth (ft)	-0.624	0.002	Pressure offset, vented (0 ± 6)
Turbidity (NTU) 0	1.2	0.0	Turbidity Offset:
Turbidity (NTU) 123	123.9	123.1	
D.O. (% Sat)	98.8	98.8	D.O. Gain (0.7 - 1.4)

Field Activities / Comments / Observations:

Battelle

Sediment Trap Study (G606422)

In situ Data Field Form

Dredging Location	Sawyer St. Cove
Dredging Description	hydraulic dredge & debris removal
Survey Vessel	Gale Force
Chief Scientist	Mike McKee
Sampling Technician	
Vessel Captain	Matt Fitzpatrick
Other Personnel	
Weather conditions	78°F / cloudy / winds 10-15 SW

Date	08/25/08
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Tide information	
High	
Low	0.4' @ 08:20
High	4.1' @ 1551
Low	0.7' @ 2215

DDCP	Station Number	Time	Latitude	Longitude	Water depth	Sample Depth	Turbidity NTU	Salinity ppt	DO mg/L	Temp °C	pH	Notes
2.61	ST-01	13:07	N2708605.2'	E815399.69	3.6'	1'	6.0	24.20	10.49	24.81	8.13	
"	"	"	"	"	"	2'	6.7	25.80	5.53	25.28	7.69	
2.28	ST-02	13:30	N2708398.6'	E815422.65'	5.5'	1'	7.1	24.13	11.05	24.9	8.19	
						2'	4.8	25.30	10.57	24.94	8.18	
						3'	5.4	27.11	8.29	25.08	7.97	
						4'	5.9	27.35	7.52	25.11	7.93	
1.78	ST-04	13:56	N2707855.5'	E815630.0'	3.8'	1'	2.4	26.05	9.46	25.20	8.18	
"	"	"	"	"	"	2'	2.2	27.39	8.82	25.29	8.14	
2.93	ST-03	14:18	N2708162.8	E815570.9'	5.0'	1'	4.4	25.25	10.65	25.22	8.30	
						2'	4.1	25.75	10.35	25.23	8.26	
						3'	3.8	27.2	9.15	25.25	8.13	

Signature of Data recorder: [illegible]

Battelle

Sediment Trap Study

Mooring Deployment/Retrieval Log and Calibration Form

Project No. G606422	**Date:** 9/16/08	**Recorded By:** MRF
Station ID: ST03	**On Station:** (local)	**Off Station:** (local)
Northing (NAD83, feet)	**Easting** (NAD83, feet)	**DGPS Accuracy Estimate** (± m):
Water depth (ft):	**Sample Platform:** Vessel Wading	**Deployment/Retrieval Time:** (local) YSI 6920 98107557AA
Sensor Depth (ft): ~2.0 from bottom		
Data File Name: ST10A	**Instrument Model / SN:**	
General Water Description-*Option* (from back-up meter)		
Temperature (°C):	**Other:**	
Salinity (‰):	**D.O.** (mg/L)	
Turbidity (NTU):	**pH** (pH units):	

CALIBRATION and MAINTENANCE

DO membrane changed? Y (N)	Turbidity Wiper Changed? Y (N)	Chlorophyll Wiper Changed? Y (N) NA
Battery Voltage: 12.2	Turbidly wiper parks 180° from optics? (Y) N	Chlorophyll Wiper Parks 180° from optics? Y (N) NA

Parameter	Initial Reading	Calibrated Reading	Calibration Data (acceptable range)
Conductivity (mS/cm)	50.097	50.000	Cell constant (4.55 – 5.45)
pH 4 ± 1	4.02	4.00	MV (0 ± 50)
pH 7 ± 1	7.11	7.00	MV (+ ~172 ± 7 from 7 buffer)
pH 10 ± 1	9.81	9.97	
Depth (ft)	-.331	.001	Pressure offset, vented (0 ± 6)
Turbidity (NTU) 0	5.0	0	Turbidity Offset: 0.0
Turbidity (NTU) 123	123.2	123.0	
D.O. (% Sat)	100.6	100	D.O. Gain (0.7 - 1.4)

Field Activities / Comments / Observations:

Battelle

Sediment Trap Study (G606422)

In situ Data Field Form

Dredging Location	Cove Area
Dredging Description	
Survey Vessel	Gale Force
Chief Scientist	Matt Fitzpatrick
Sampling Technician	Jess Fahey
Vessel Captain	Matt Fitzpatrick
Other Personnel	—
Weather conditions	Overcast

Date	9/16/08
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Tide information	
High	
Low	
High	
Low	

	Station Number	Time	Latitude	Longitude	Water depth	Sample Depth	Turbidity	Salinity	DO	Temp	Notes %	Notes pH	
not enough material	ST04	0808	2707854.28	815631.89	4.75	1.03	2.0	23.55	4.43	21.17	57.3	7.59	POOP 1.98
	↓	↓	↓	↓	↓	2.06	1.7	25.06	3.79	21.82	50.0	7.55	
						3.02	1.7	25.65	3.13	21.82	41.4	7.50	
not enough material	ST03	0846	2708150.30	815577.70	5.3	1.0	1.6	24.73	3.31	21.46	44.3	7.53	POOP 2.18
	↓	↓	↓	↓	↓	2.0	1.6	25.22	3.21	21.66	41.1	7.51	
						3.0	1.6	25.62	3.19	21.84	40.9	7.53	

Signature of Data recorder:

Deployment No. 10

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Battelle

Sediment Trap Study (G606422)

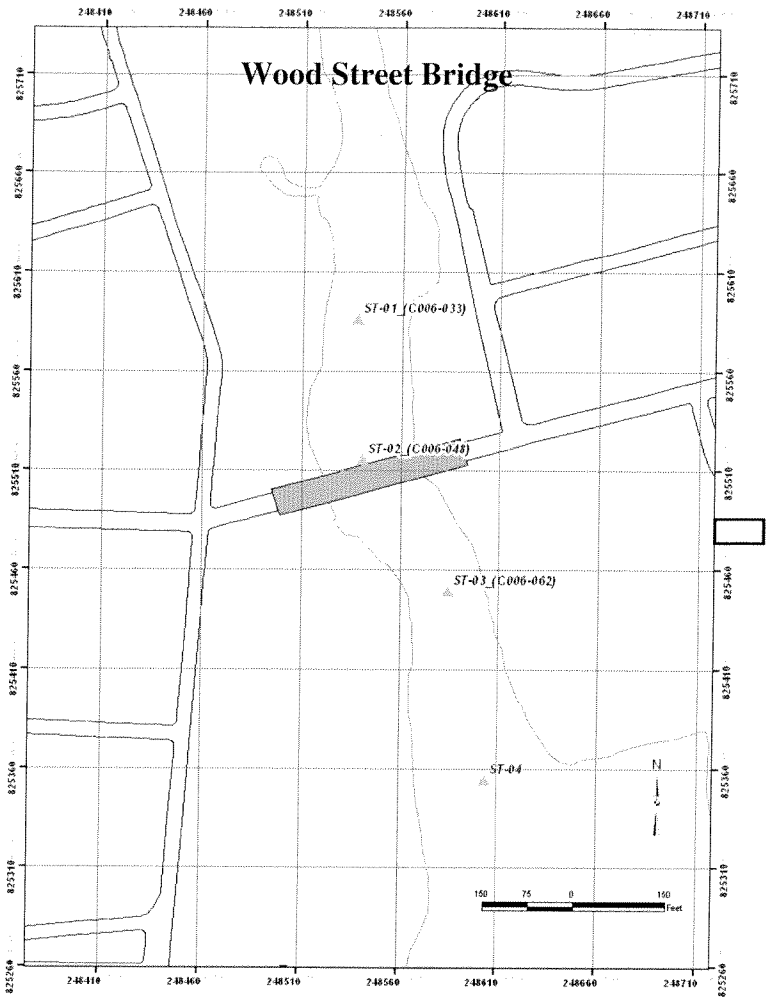
Field Daily Log Form

Date: 10/2/08 **Weather:** Rain then clearing

Tides:

Low @ 03:30
High @ 10:21
Low @ 16:08

Monitoring Period:
From: 0900 **To:** 11:30
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:
Active dredging in Cove Area



Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST01	3.4-4.5	1-4' / 5.4'
ST02	3.6-5.3	1-6' / 6.9'
ST04	3.5-4.5	1-4' / 5.2'
ST03	3.2-47	1-4' / ~~47~~ 5.5'

Oil sheen/ Debris: None
Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) ST xx - MMDDYY - REP
PCB (Surface Grab) NA
Turbidity (500ml) NA
Dissolved PCB (2x1L) NA
Notes:
Very strong out going current observed throughout the monitoring period
large schools of adult

Sampling Crew: Matt Fitzpatrick + Annie Murphy

Chief Scientist Signature: [signature]

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Project No. G606422	**Date:** 10/2/08	**Recorder:** AEM
DGPS (make/model/SN): Trimble/GeoXT/4701415091	**Coordinate System and units:** NAD83 Mass State Plane feet	

Morning dGPS Check

Time of check (local): 7:54	**DGPS Estimate of Accuracy** (PDOP): 4.69
Benchmark or Reference Point ID: corner of stairs outside trailer	**Benchmark or Reference Point Established By:** MPM/Jacobs
Established Latitude/Northing: 2701154.11	**Established Longitude/Easting:** 814564.23
Measured Latitude/Northing: 2701154.45	**Measured Longitude/Easting:** 814563.37
Instrument Measured Displacement ~~(meters)~~ feet: 1.14 ft	
Displacement Acceptable? (≤3 m): (YES) NO	

Afternoon dGPS Check

Time of check (local): 12:00	**DGPS Estimate of Accuracy** (PDOP): 2.88
Benchmark or Reference Point ID: corner of stairs outside trailer	**Benchmark or Reference Point Established By:** MPM/Jacobs
Established Latitude/Northing: 2701154.11	**Established Longitude/Easting:** 814564.23
Measured Latitude/Northing: 2701156.96	**Measured Longitude/Easting:** 814565.10
Instrument Measured Displacement ~~(meters)~~ feet: 2.92 ft	
Displacement Acceptable? (≤3 m): (YES) NO	

Field Activities / Comments / Observations:

Field Team Leader Signature _____

Battelle

~~Water Quality Monitoring~~ Sediment Trap Study (G6006422)
In situ Data Field Form

Dredging Location	Cove Area
Dredging Description	Active dredging
Survey Vessel	Gale Force
Chief Scientist	Matt Fitzpatrick
Sampling Technician	Annie Murphy
Vessel Captain	Annie Murphy
Other Personnel	
Weather conditions	AM showers clearing by 9AM

Date	10/2/08
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Tide information	
High	10:21
Low	03:30
High	~~10:20~~ 22:39
Low	16:08

Station Name	Time ①	Latitude	Longitude	Water depth (ft)	Sample Depth (ft)	Turbidity (NTU)	Salinity (PSU)	DO (mg/L)	DO (% sat)	Temp (° C)	ph	Notes
ST01	~~7:01~~	270861307	815397.71	5.4	1.0	3.4	1.30	7.62	80.5	17.57	6.35	Flood Tide
	9:29				2.0	4.3	15.35	4.71	54.8	19.0	6.82	
	9:30				3.0	4.5	18.90	3.72	44.6	19.25	6.98	
	9:31				4.0	4.2	19.72	3.04	36.8	19.27	7.05	
ST02	10:00	270 8398.80	815420.80	6.9	1.0	3.6	3.0	6.82	71.8	17.95	6.76	
	10:01				2.0	4.2	15.43	4.62	54.6	19.7	6.98	
	10:02				3.0	4.2	19.24	3.46	41.1	19.29	7.07	
	10:03				4.0	4.2	20.09	2.84	34.5	19.31	7.12	
	10:04				5.0	5.3	20.84	2.19	26.5	19.31	7.12	
	10:05				6.0	5.1	21.34	2.6	25.5	19.33	7.14	
~~ST03~~ ③	10:28	270784623	815630.45	5.2	1.0	3.5	3.20	6.94	75.3	18.02	6.81	
	10:29				2.0	4.3	18.62	4.65	55.6	19.21	7.13	
	10:30				3.0	4.3	20.86	4.28	52.9	19.31	7.26	
	10:31				4.0	4.5	21.72	3.62	44.7	19.36	7.22	
~~ST04~~ ④	10:52	270 8166.2	815568.82	5.5	1.0	3.2	4.05	6.69	72.6	17.99	6.74	
	10:53				2.0	4.4	~~18.~~ ②	4.24	51.0	19.5	7.05	
	10:54				3.0	4.2	20.14	4.07	49.2	19.25	7.20	
	10:55				4.0	4.7	21.64	3.09	35.8	19.37	7.17	

① s/b 9:28 AEM 10/2/08

② s/b 17.73 AEM 10/2/08

③ s/b ST04 AEM 10/2/08

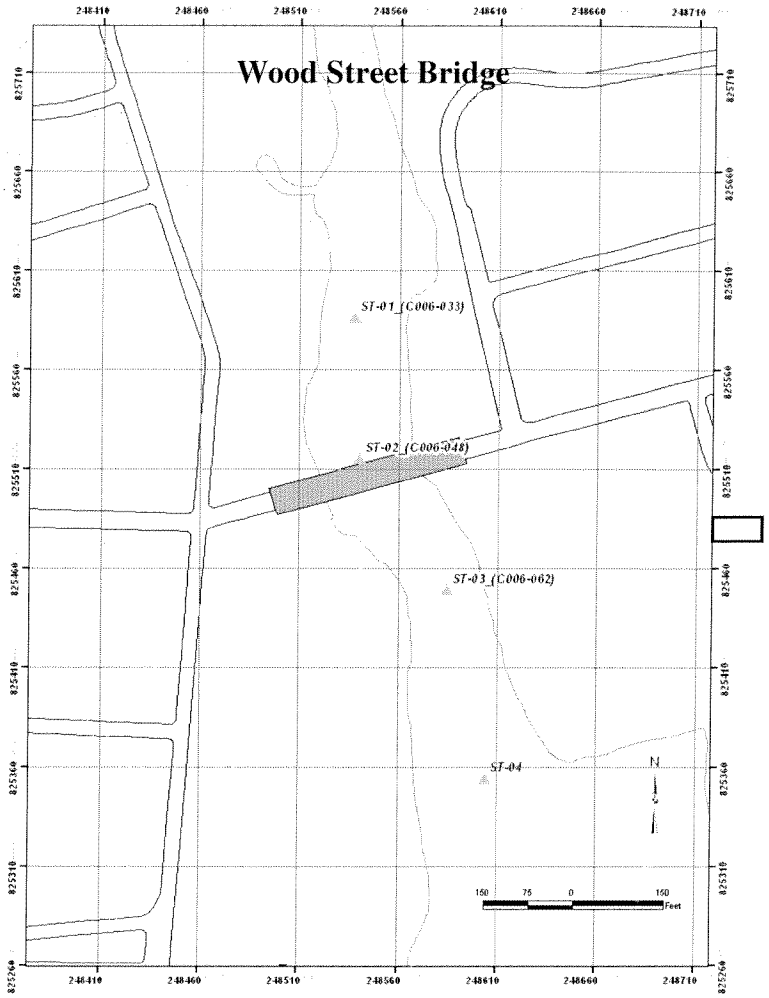
Battelle Sediment Trap Study (G606422)

Field Daily Log Form

Date: 10/30/08 **Weather:** Sunny NW wind ~10kts

Tides:
High @ 913
Low @ 1510
High @ 2132

Monitoring Period:
From: 900 **To:** 1100
Tidal Stage: HWS Ebb LWS Flood
Dredging Activity:
Active dredging, Demob in Pierce Mill Cove Area



Turbidity Summary

Location	Turbidity (NTU)	Sensor/water Depth (ft)
ST01	2.0-1.9	1'-4' / 5.1'
ST02	1.7-2.2	1'-5' / 6.3'
ST03	1.6-3.4	1'-4' / 5.0'
ST04	2.1-2.3	1'-3' / 4.5'

Oil sheen/ Debris:
Samples Collected for Laboratory Analysis
Sample IDs:
PCB (Sediment Trap) STXX-MMDDYY-REP
PCB (Surface Grab) NA
Turbidity (500ml) NA
Dissolved PCB (2x1L) NA
Notes:

Sampling Crew: Matt Fitzpatrick, Annie Murphy, Patrick Curran

Chief Scientist Signature:

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Project No. G606422	**Date:** 10/30/08	**Recorder:** MRF
DGPS (make/model/SN): Trimble/GeoXT/4701415091	**Coordinate System and units:** NAD83 Ma St plane feet	

Morning dGPS Check

Time of check (local): 0820	**DGPS Estimate of Accuracy** (PDOP): 2.63
Benchmark or Reference Point ID: Outside Lab trailer	**Benchmark or Reference Point Established By:** McKee / Jacobs
Established Latitude/Northing: 2701154.11	**Established Longitude/Easting:** 814564.23
Measured Latitude/Northing: 2701154.00	**Measured Longitude/Easting:** 814562.53

Instrument Measured Displacement (~~meters~~ feet): 1.66

Displacement Acceptable? (≤3 m): (YES) NO

Afternoon dGPS Check

Time of check (local): 1206	**DGPS Estimate of Accuracy** (PDOP): 2.45
Benchmark or Reference Point ID: outside lab trailer	**Benchmark or Reference Point Established By:** McKee/Jacobs
Established Latitude/Northing: 2701154.11	**Established Longitude/Easting:** 814564.23
Measured Latitude/Northing: 2701159.13	**Measured Longitude/Easting:** ~~515~~ 5/6 814564.76

Instrument Measured Displacement (~~meters~~ feet): 5.15

Displacement Acceptable? (≤3 m): (YES) NO

Field Activities / Comments / Observations:

Field Team Leader Signature _____

Mooring Deployment/Retrieval Log and Calibration Form

Project No. G606422	**Date:** 10/30/08	**Recorded By:** AEM
Station ID:	**On Station:** (local)	**Off Station:** (local)
Northing (NAD83, feet)	**Easting** (NAD83, feet)	**DGPS Accuracy Estimate** (± m):
Water depth (ft):	**Sample Platform:** *Gale Force*	**Deployment/Retrieval Time:** (local)
Sensor Depth (ft):		
Data File Name:	**Instrument Model / SN:**	
General Water Description-*Option* (from back-up meter)		
Temperature (°C):	**D.O.** (mg/L):	
Salinity (psu):	**pH :**	
Turbidity (NTU):		

CALIBRATION and MAINTENANCE

DO membrane changed? Y (N)	Turbidity Wiper Changed? Y (N)
Battery Voltage: 10.8	Turbidly wiper parks 180° from optics? (Y) N

Parameter	Initial Reading	Calibrated Reading	Calibration Data (acceptable range)
Conductivity (mS/cm)	50.102	50.008	Cell constant (4.55 – 5.45)
Depth (ft)	-0.031	0.0	Pressure offset, vented (0 ± 6)
Turbidity (NTU) 0	0.1	0.0	Turbidity Offset:
Turbidity (NTU) 123	124.4	123.0	
D.O. (% Sat)	102.7	100.6	D.O. Gain (0.7 - 1.4)
pH 4	4.03	4.00	
pH 7	6.92	7.00	
pH 10	10.13	10.03	

Field Activities / Comments / Observations:

End of day Readings

Conductivity – 50.065

Depth – 0.066

Turbidity (0) – 0.6

" (123) – 127.7

DO % – 88.0%

pH 4 – 4.03

pH 10 – 10.01

pH 7 – 6.93

Battelle

Sediment Trap ~~Deployment~~ Study (G606422)

In situ Data Field Form

Dredging Location	Cove Area
Dredging Description	Demobilization
Survey Vessel	Gale Force
Chief Scientist	Matt Fitzpatrick
Sampling Technician	Annie Murphy / Patrick Curran
Vessel Captain	Matt Fitzpatrick
Other Personnel	—
Weather conditions	Sunny NW winds ~10 kts

Date	10/30/08
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Tide information	
High	913
Low	1510
High	2132
Low	

Arrival Time	Station Number	Time	Latitude	Longitude	Water depth	Sample Depth	Turbidity	Salinity	DO (mg/l)	Temp	Notes pH	Notes % DO sat.
900	ST01	09"	27086.63	815410.7	5.1	1.0	2.0	18.0	6.83	10.64	7.44	68.9
						2.0	2.0	20.97	6.42	11.23	7.52	66.8
						3.0	2.0	22.75	5.98	11.67	7.57	63.8
						4.0	1.9	23.39	5.9	11.88	7.64	63.2
928	ST02	930	27084601.7	815422.9	6.3	1.0	2.2	17.1	6.71	10.36	7.45	67.2
						2.0	1.8	21.6	6.29	11.37	7.56	66.4
						3.0	1.8	23.43	6.05	11.81	7.65	64.9
						4.0	1.8	24.04	5.97	12.04	7.71	64.5
						5.0	1.7	24.29	5.92	12.11	7.75	64.3
944	ST03	950	27081662.4	815566.9	5.0	1.0	1.6	18.30	8.12	9.10	7.43	~~64.0~~ s/b 74.8 AEM
						2.0	2.0	23.7	5.94	11.97	7.57	~~63.9~~ s/b 64.0
						3.0	1.7	24.41	5.88	12.18	7.69	63.9
						4.0	3.4	24.73	6.04	12.23	7.76	66.0
1003	ST04	1010	27078850.2	815630.2	4.5	1.0	2.3	23.9	6.25	12.0	7.79	67.0
						2.0	2.1	24.9	6.12	12.23	7.83	66.9
						3.0	2.2	25.01	6.06	12.26	7.85	66.2

Signature of Data recorder: [signature]