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Sevenson Environmental Services, Inc.

JACOBS

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NEW ENGLAND DISTRICT
Total Environmental Restoration Contract
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2007 DREDGE SEASON DATA SUBMITTAL
NEW BEDFORD HARBOR
REMEDIAL ACTION

New Bedford Harbor Superfund Site
New Bedford, MA

January 2008

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DATA SUBMITTAL SUMMARY

The purpose of this 2007 Dredge Season Data Submittal is to provide documentation regarding key activities from the New Bedford Harbor Superfund Site 2007 field season. As directed by the U.S. Environmental Protection Agency (EPA) this submittal, similar to the 2006 Dredge Season Data Submittal, does not contain a text summary section; information is summarized in tabular or graphic format.

The following bullets will explain the significance or intended use of the various tables, figures and attachments that comprise the 2007 Dredge Season Data Submittal.

Tables 1 and 2 analyze the post dredge bathymetric survey data to quantify the dredge control.

Attachment A is composed of 21 figures; the figures are more easily described individually rather than as one attachment.

- Figure A-1 illustrates the dredge areas proposed for dredging in the Addendum No. 3 to Execution Plan, New Bedford Harbor Remedial Action. The actual dredge area was modified prior to the commencement of dredging activities.
- Figure A-2 depicts the areas dredged during the 2004-2007 field seasons; bathymetry is provided only for areas actually dredged.
- Figures A-3 and A-4 show the Area G and Area H dredge areas, respectively, as proposed for the 2007 field season. The actual dredge areas differed slightly from those pictured due to revisions.
- Figure A-5 shows the pipeline and booster pump locations from the dredge areas to the Area C desanding plant.
- Figures A-6 through A-9 detail the final dredge areas, quantity of sediment targeted for removal, the target elevations and the "rod readings". The rod readings are a tool the dredge engineer used to check the dredge elevation using a shore-based laser reference station.
- Figures A-10 through A-14 are selected copies of daily dredge progress figures. The progress figure documents the daily dredging activities; the figure is based on GPS dredge tracking and dredge operator's cut sheets.
- Figures A-15 and A-16 are examples of periodic sediment elevation checks by Jacobs. The elevation checks are performed via rod and plate with GPS.

- Figure A-17 compares actual post dredge sediment elevations to target sediment elevations in Area G.
- Figure A-18 graphically depicts Area G post dredge bathymetry.
- Figure A-19 compares actual post dredge sediment elevations to target sediment elevations in Area H.
- Figure A-20 graphically depicts Area H post dredge bathymetry.

Attachment B is a brief description of major events associated with the 2007 field season, arranged chronologically by activity type.

Attachment C is a collection of analytical data from the 2007 field season. The seven tables characterize the various process waste or treatment streams.

Attachment D is a record of transportation and disposal activities for materials generated or disposed of during the 2007 field season. Copies of manifests and Certificates of Disposal are maintained in the project file.

Attachment E is a table of airborne PCB data which was collected during the 2007 field season to evaluate worker exposure.

Attachment F is a summary of PCB air sampling events and the associated Personal Exposure Tracking System (PETS) Curves.

Attachment G contains the mass balance tabulations and calculations. The data is based on actual quantities as well as calculated quantities and provides a way to account for process inputs process outputs. PCB mass removed calculations are also provided in Attachment G. This calculation utilizes production quantities and analytical data to estimate the mass of PCBs contained in the various solid waste streams generated during the 2007 field season. PCB mass removed tables for 2004 through 2006 are included for comparison.

Attachment H is a copy of the final "Sevenson Operational Monitoring Data Report". This table was updated and distributed daily by Sevenson during the 2007 field season to track and illustrate progress.

Attachment I is a summarization of data collected for the purpose of process improvement. A project note summarizing 2007 iron testing activities conducted during the 2007 field season is attached. The iron testing was conducted to evaluate the ferric dosing regimen. Air Filtration Sampling Data for 2007 is included in the process improvement attachment as well; this data was used to evaluate the effectiveness of the air filtration equipment during the 2007 field season.

Attachment J is a summary of lessons learned and conclusions reached during the 2007 field season for the purpose of future process improvement.

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TABLES

Table 1
Area G Dredge Plan Compliance Review
New Bedford Harbor Superfund Site - 2007 Season

Under-Dredged Z Blocks

Cell	Dredged Elevation	Target Elevation	Under-Dredge Tolerence Elevation	Difference from Tolerence Elevation	ft^2 of Z-Block	ft^3 of Material	yd^3 of Material
M5	-1.4	-2.0	-1.5	0.1	625	62.5	2.3
I11	-2.0	-2.6	-2.1	0.1	625	62.5	2.3
J18	-2.7	-3.3	-2.8	0.1	625	62.5	2.3
J19	-3.0	-3.6	-3.1	0.1	625	62.5	2.3
K19	-2.8	-3.4	-2.9	0.1	625	62.5	2.3
M19	-3.0	-3.7	-3.2	0.2	625	125	4.6
K20	-3.0	-4.0	-3.5	0.5	625	312.5	11.6
J21	-3.9	-5.0	-4.5	0.6	625	375	13.9
K21	-3.5	-4.4	-3.9	0.4	625	250	9.3
					Total	1375	51

Total Volume Removed from Area G (Bathymetric Survey)	5,539
Volume of Material Under-Dredged	51
Under-Dredged Percent of Total Dredged Volume	0.9%

Dredge Plan Volume for the Same Area	6,037
Under-Dredged Percent of Dredge Plan Volume	0.8%

Note:
Elevations are referenced to NGVD 29 - ft
Volumes in cubic yards unless otherwise noted
ft^2 = square feet
ft^3 = cubic feet
yd^3 = cubic yards

Over-Dredged Z Blocks

Cell	Dredged Elevation	Target Elevation	Over-Dredge Tolerence Elevation	Difference from Tolerence Elevation	ft^2 of Z-Block	ft^3 of Material	yd^3 of Material
L1	-2.4	-1.6	-2.1	0.3	625	187.5	6.9
N1	-2.6	-1.6	-2.1	0.5	625	312.5	11.6
O1	-2.1	-1.4	-1.9	0.2	625	125	4.6
P1	-2.4	-1.4	-1.9	0.5	625	312.5	11.6
Q1	-2.0	-1.4	-1.9	0.1	625	62.5	2.3
L2	-2.3	-1.6	-2.1	0.2	625	125	4.6
M2	-2.2	-1.5	-2.0	0.2	625	125	4.6
N2	-2.6	-1.5	-2.0	0.6	625	375	13.9
O2	-2.6	-1.5	-2.0	0.6	625	375	13.9
P2	-2.3	-1.3	-1.8	0.5	625	312.5	11.6
Q2	-2.2	-1.3	-1.8	0.4	625	250	9.3
J3	-2.3	-1.7	-2.2	0.1	625	62.5	2.3
N3	-2.8	-1.6	-2.1	0.7	625	437.5	16.2
O3	-2.3	-1.7	-2.2	0.1	625	62.5	2.3
J4	-2.1	-1.5	-2.0	0.1	625	62.5	2.3
K4	-2.1	-1.5	-2.0	0.1	625	62.5	2.3
N4	-2.8	-1.7	-2.2	0.6	625	375	13.9
N5	-2.8	-1.8	-2.3	0.5	625	312.5	11.6
N6	-2.6	-1.8	-2.3	0.3	625	187.5	6.9
O6	-2.4	-1.8	-2.3	0.1	625	62.5	2.3
N7	-2.6	-1.9	-2.4	0.2	625	125	4.6
O7	-2.8	-2.0	-2.5	0.3	625	187.5	6.9
Q7	-2.7	-2.0	-2.5	0.2	625	125	4.6
K8	-2.7	-1.9	-2.4	0.3	625	187.5	6.9
K9	-2.6	-2.0	-2.5	0.1	625	62.5	2.3
M9	-2.6	-2.0	-2.5	0.1	625	62.5	2.3
M10	-2.6	-2.0	-2.5	0.1	625	62.5	2.3
N10	-2.7	-2.0	-2.5	0.2	625	125	4.6
O10	-2.8	-2.1	-2.6	0.2	625	125	4.6
Q10	-2.6	-2.0	-2.5	0.1	625	62.5	2.3
N11	-3.2	-2.0	-2.5	0.7	625	437.5	16.2
O11	-2.9	-2.0	-2.5	0.4	625	250	9.3
P11	-2.8	-2.1	-2.6	0.2	625	125	4.6
M12	-3.3	-2.6	-3.1	0.2	625	125	4.6
N14	-3.5	-2.8	-3.3	0.2	625	125	4.6
					Total	6375	236

Total Volume Removed from Area G (Bathymetric Survey)	5,539
Volume of Material Over-Dredged	236
Over-Dredging Percent of Total Dredged Volume	4.3%

Dredge Plan Volume for the Same Area	6,037
Over-Dredged Percent of Dredge Plan Volume	3.9%

Table 2
Area H Dredge Plan Compliance Review
New Bedford Harbor Superfund Site - 2007 Season

Under-Dredged Z Blocks

Cell	Dredged Elevation	Target Elevation	Under-Dredge Tolerence Elevation	Difference from Tolerence Elevation	ft^2 of Z-Block	ft^3 of Material	yd^3 of Material
CC22	-5.6	-7.6	-7.1	1.5	625	937.5	34.7
CC23	-5.7	-7.7	-7.2	1.5	625	937.5	34.7
DD22	-5.9	-7.2	-6.7	0.8	625	500	18.5
DD23	-5.8	-6.8	-6.3	0.5	625	312.5	11.6
DD31	-6.1	-7.2	-6.7	0.6	625	375	13.9
DD39	-8.6	-9.2	-8.7	0.1	625	62.5	2.3
DD40	-8.4	-9.5	-9.0	0.6	625	375	13.9
DD41	-7.6	-8.4	-7.9	0.3	625	187.5	6.9
EE23	-6.1	-6.8	-6.3	0.2	625	125	4.6
EE37	-7.0	-7.7	-7.2	0.2	625	125	4.6
EE38	-6.9	-7.8	-7.3	0.4	625	250	9.3
EE39	-7.5	-9.3	-8.8	1.3	625	812.5	30.1
EE40	-7.6	-8.4	-7.9	0.3	625	187.5	6.9
EE41	-7.6	-8.4	-7.9	0.3	625	187.5	6.9
FF22	-5.5	-6.7	-6.2	0.7	625	437.5	16.2
FF23	-5.5	-6.3	-5.8	0.3	625	187.5	6.9
FF24	-4.9	-6.3	-5.8	0.9	625	562.5	20.8
FF39	-6.9	-7.6	-7.1	0.2	625	125	4.6
GG22	-5.6	-6.7	-6.2	0.6	625	375	13.9
GG24	-5.4	-6.2	-5.7	0.3	625	187.5	6.9
GG25	-5.2	-5.8	-5.3	0.1	625	62.5	2.3
GG39	-6.2	-6.9	-6.4	0.2	625	125	4.6
GG42	-6.4	-7.0	-6.5	0.1	625	62.5	2.3
HH22	-5.8	-6.7	-6.2	0.4	625	250	9.3
II26	-5.2	-5.8	-5.3	0.1	625	62.5	2.3
JJ30	-5.3	-6.0	-5.5	0.2	625	125	4.6
NN31	-4.7	-5.9	-5.4	0.7	625	437.5	16.2
NN32	-5.4	-6.0	-5.5	0.1	625	62.5	2.3
OO31	-5.2	-5.9	-5.4	0.2	625	125	4.6
OO32	-5.1	-5.9	-5.4	0.3	625	187.5	6.9
OO35	-5.9	-6.5	-6.0	0.1	625	62.5	2.3
PP31	-5.2	-5.8	-5.3	0.1	625	62.5	2.3
QQ26	-2.4	-5.4	-4.9	2.5	625	1562.5	57.9
RR22	-4.9	-5.5	-5.0	0.1	625	62.5	2.3
RR35	-4.9	-5.8	-5.3	0.4	625	250	9.3
RR40	-5.2	-5.8	-5.3	0.1	625	62.5	2.3
RR41	-5.0	-5.9	-5.4	0.4	625	250	9.3
UU25	-4.7	-5.3	-4.8	0.1	625	62.5	2.3
UU26	-4.7	-5.3	-4.8	0.1	625	62.5	2.3
UU27	-4.7	-5.3	-4.8	0.1	625	62.5	2.3
WW29	-3.2	-4.7	-4.2	1.0	625	625	23.1
XX29	-4.1	-4.7	-4.2	0.1	625	62.5	2.3
XX30	-4.0	-4.7	-4.2	0.2	625	125	4.6
ZZ32	-3.4	-4.2	-3.7	0.3	625	187.5	6.9
ZZ33	-3.5	-4.1	-3.6	0.1	625	62.5	2.3
ZZ41	-2.5	-3.4	-2.9	0.4	625	250	9.3
ZZ42	-1.2	-3.5	-3.0	1.8	625	1125	41.7
AAA40	-2.2	-3.3	-2.8	0.6	625	375	13.9
AAA41	-2.1	-3.4	-2.9	0.8	625	500	18.5
BBB38	-2.2	-2.8	-2.3	0.1	625	62.5	2.3
					Total	14,625	542

Total Volume Removed from Area H (Bathymetric Survey)	17,768
Less Estimated Amount Under CDF on Western Side	760
Volume of Material Under-Dredged	542
Under-Dredged Percent of Total Dredged Volume	3.2%

Dredge Plan Volume for the Same Area	22,894
Under-Dredged Percent of Dredge Plan Volume	2.4%

Note:
Elevations are referenced to NGVD 29 - ft
Volumes in cubic yards unless otherwise noted
CDF = confined disposal facility
ft^2 = square feet
ft^3 = cubic feet
yd^3 = cubic yards

Over-Dredged Z Blocks

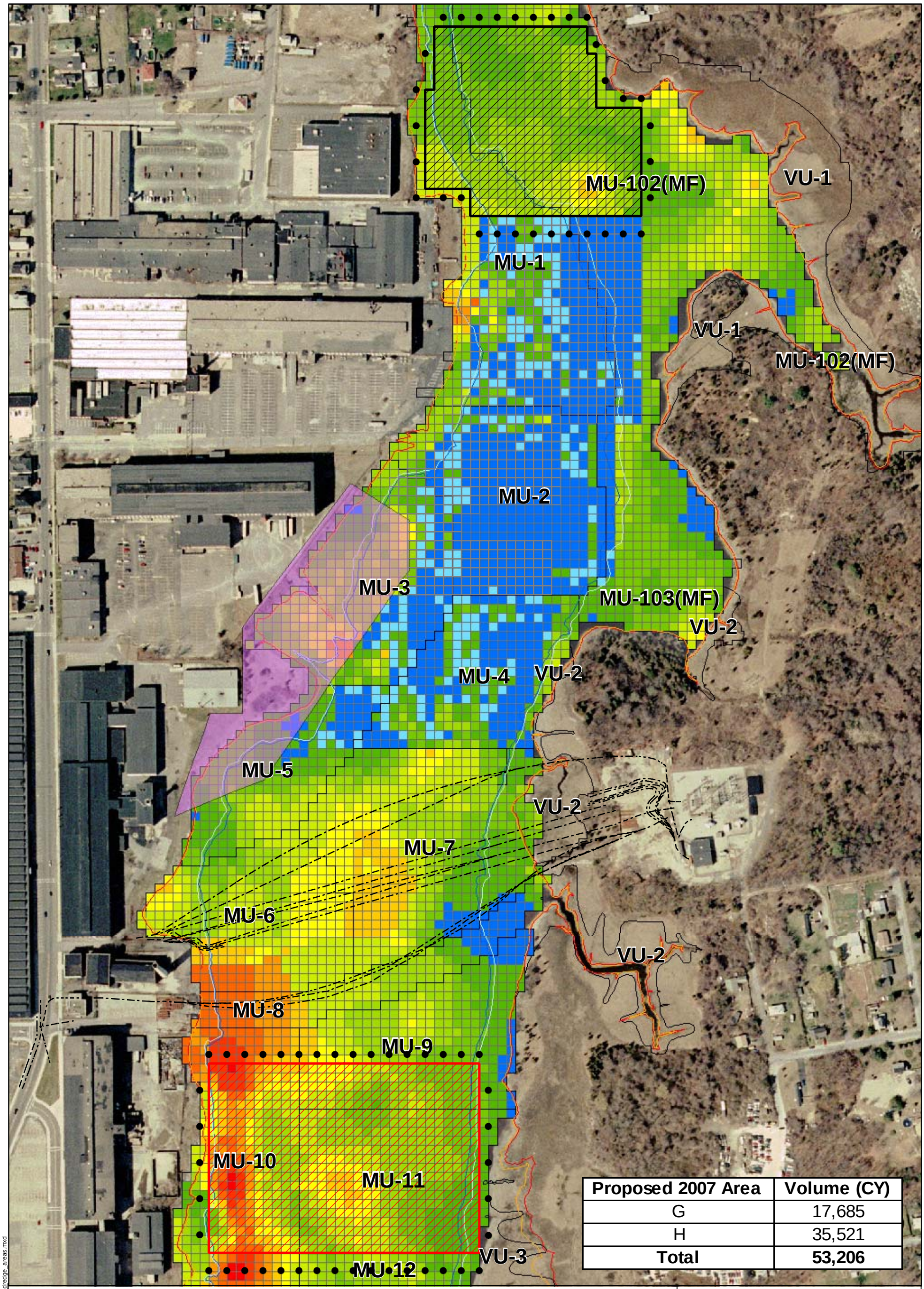
Cell	Dredged Elevation	Target Elevation	Over-Dredge Tolerence Elevation	Difference from Tolerence Elevation	ft^2 of Z-Block	ft^3 of Material	yd^3 of Material
DD32	-8.1	-7.5	-8.0	0.1	625	62.5	2.3
DD33	-8.9	-7.7	-8.2	0.7	625	437.5	16.2
DD34	-9.0	-8.0	-8.5	0.5	625	312.5	11.6
DD42	-9.1	-8.4	-8.9	0.2	625	125	4.6
EE26	-6.4	-5.8	-6.3	0.1	625	62.5	2.3
EE27	-6.3	-5.3	-5.8	0.5	625	312.5	11.6
EE28	-6.3	-5.4	-5.9	0.4	625	250	9.3
EE29	-6.1	-5.4	-5.9	0.2	625	125	4.6
EE30	-6.2	-5.5	-6.0	0.2	625	125	4.6
EE31	-6.7	-5.5	-6.0	0.7	625	437.5	16.2
EE33	-7.0	-6.1	-6.6	0.4	625	250	9.3
EE34	-6.9	-6.2	-6.7	0.2	625	125	4.6
FF32	-7.0	-5.5	-6.0	1.0	625	625	23.1
FF33	-7.0	-5.6	-6.1	0.9	625	562.5	20.8
FF34	-6.7	-5.7	-6.2	0.5	625	312.5	11.6
FF35	-6.8	-6.2	-6.7	0.1	625	62.5	2.3
FF37	-6.8	-5.8	-6.3	0.5	625	312.5	11.6
GG32	-6.4	-5.5	-6.0	0.4	625	250	9.3
GG33	-6.6	-5.5	-6.0	0.6	625	375	13.9
HH33	-6.3	-5.5	-6.0	0.3	625	187.5	6.9
HH34	-6.2	-5.6	-6.1	0.1	625	62.5	2.3
HH36	-6.0	-5.1	-5.6	0.4	625	250	9.3
II39	-6.0	-5.3	-5.8	0.2	625	125	4.6
II40	-6.0	-5.4	-5.9	0.1	625	62.5	2.3
JJ23	-5.6	-5.0	-5.5	0.1	625	62.5	2.3
JJ24	-5.9	-5.0	-5.5	0.4	625	250	9.3
JJ33	-6.2	-5.3	-5.8	0.4	625	250	9.3
JJ34	-6.0	-5.4	-5.9	0.1	625	62.5	2.3
KK22	-6.1	-5.1	-5.6	0.5	625	312.5	11.6
KK23	-5.9	-4.9	-5.4	0.5	625	312.5	11.6
KK24	-5.8	-4.9	-5.4	0.4	625	250	9.3
KK30	-6.1	-5.4	-5.9	0.2	625	125	4.6
KK32	-6.2	-5.3	-5.8	0.4	625	250	9.3
KK33	-6.1	-5.4	-5.9	0.2	625	125	4.6
KK34	-6.1	-5.4	-5.9	0.2	625	125	4.6
KK35	-6.2	-5.5	-6.0	0.2	625	125	4.6
KK36	-6.3	-5.5	-6.0	0.3	625	187.5	6.9
KK39	-6.4	-5.8	-6.3	0.1	625	62.5	2.3
LL23	-5.5	-4.8	-5.3	0.2	625	125	4.6
LL24	-5.7	-4.9	-5.4	0.3	625	187.5	6.9
LL33	-6.1	-5.4	-5.9	0.2	625	125	4.6
LL34	-6.2	-5.5	-6.0	0.2	625	125	4.6
LL35	-6.2	-5.5	-6.0	0.2	625	125	4.6
LL36	-6.3	-5.5	-6.0	0.3	625	187.5	6.9
LL37	-6.3	-5.6	-6.1	0.2	625	125	4.6
LL42	-6.3	-5.5	-6.0	0.3	625	187.5	6.9
MM23	-5.8	-4.9	-5.4	0.4	625	250	9.3
MM25	-6.2	-5.3	-5.8	0.4	625	250	9.3
MM26	-6.0	-5.3	-5.8	0.2	625	125	4.6
MM27	-5.9	-5.3	-5.8	0.1	625	62.5	2.3
MM33	-6.0	-5.4	-5.9	0.1	625	62.5	2.3
MM37	-6.3	-5.6	-6.1	0.2	625	125	4.6
MM38	-6.3	-5.6	-6.1	0.2	625	125	4.6
NN27	-5.4	-4.8	-5.3	0.1	625	62.5	2.3
OO25	-5.6	-4.7	-5.2	0.4	625	250	9.3
OO26	-5.5	-4.7	-5.2	0.3	625	187.5	6.9
OO27	-5.4	-4.7	-5.2	0.2	625	125	4.6
OO39	-6.1	-5.5	-6.0	0.1	625	62.5	2.3
PP24	-5.7	-5.1	-5.6	0.1	625	62.5	2.3
PP25	-5.8	-4.7	-5.2	0.6	625	375	13.9
PP26	-5.7	-4.7	-5.2	0.5	625	312.5	11.6
PP27	-5.8	-4.7	-5.2	0.6	625	375	13.9
PP28	-5.7	-4.7	-5.2	0.5	625	312.5	11.6
PP29	-5.6	-4.8	-5.3	0.3	625	187.5	6.9
PP34	-6.1	-5.5	-6.0	0.1	625	62.5	2.3
PP37	-6.2	-5.5	-6.0	0.2	625	125	4.6
QQ23	-5.8	-5.1	-5.6	0.2	625	125	4.6
QQ24	-5.5	-4.6	-5.1	0.4	625	250	9.3
QQ25	-5.4	-4.6	-5.1	0.3	625	187.5	6.9
QQ28	-5.5	-4.7	-5.2	0.3	625	187.5	6.9
QQ35	-6.2	-5.4	-5.9	0.3	625	187.5	6.9
QQ38	-6.5	-5.9	-6.4	0.1	625	62.5	2.3
RR27	-5.2	-4.6	-5.1	0.1	625	62.5	2.3
TT38	-5.4	-4.5	-5.0	0.4	625	250	9.3
TT39	-5.4	-4.5	-5.0	0.4	625	250	9.3
TT40	-5.2	-4.5	-5.0	0.2	625	125	4.6
					Total	14,688	544

Total Volume Removed from Area H (Bathymetric Survey)	17,768
Less Estimated Amount Under CDF on Western Side	760
Volume of Material Over-Dredged	544
Over-Dredging Percent of Total Dredged Volume	3.2%

Dredge Plan Volume for the Same Area	22,894
Over-Dredged Percent of Dredge Plan Volume	2.4%

ATTACHMENT A

Dredge Planning and Progress Figures



Proposed 2007 Area	Volume (CY)
G	17,685
H	35,521
Total	**53,206**

Legend

Area G

Area H

Management Units

2007 Proposed Sheet Piles

Z Blocks (ft)

0
0.1 - 0.5
0.6 - 1.0
1.1 - 1.5
1.6 - 2.0
2.1 - 2.5
2.6- 3.0
3.1 - 3.5
3.6 - 4.0
4.1- 4.5
4.6- 5.0
5.1 - 5.5

MLLW
MLW
MHW
MHHW

Cable Crossing

0 125 250 Feet

1:3,000

Aerial Photography MASSGIS 2003

JACOBS

2007 Execution Plan

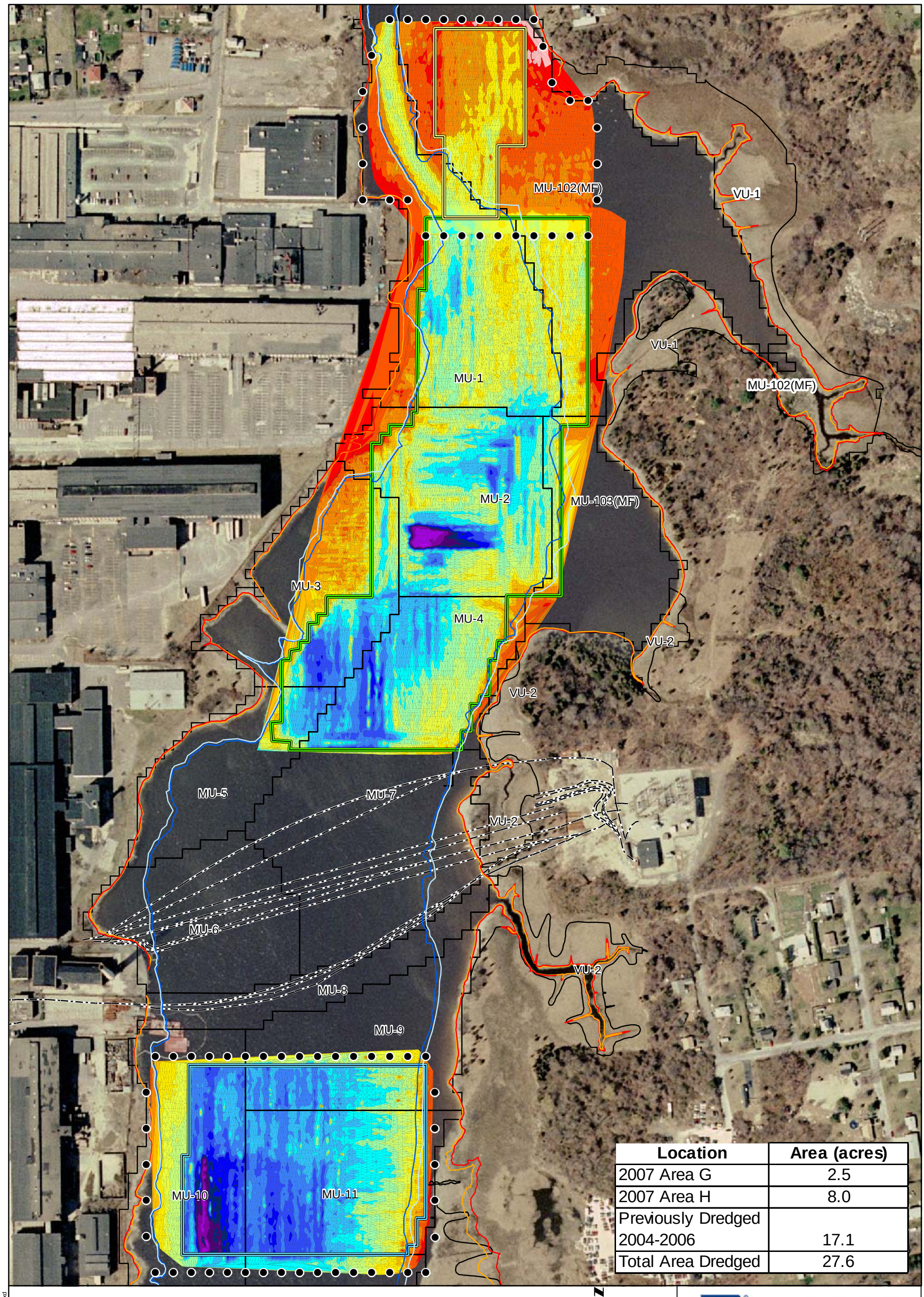
2007 Proposed Dredge Areas

New Bedford Harbor Superfund Site

NAME: croberts DATE: 3/20/2007

Figure A-1

Y:\NBH\Projects\35BG0101\08\20070320\ArcGIS\Fig1-1_2007_dredge_areas.mxd



Location	Area (acres)
2007 Area G	2.5
2007 Area H	8.0
Previously Dredged 2004-2006	17.1
Total Area Dredged	27.6

Legend

- 2007 Area G
- 2007 Area H
- 2004-2006 Previously Dredged Area
- 2007 Sheet Piles
- Management Units
- Cable Crossing
- MLLW
- MLW
- MHW
- MHHW

Bathymetry
Elevation (ft)

-1.000 - -0.5
-1.500 - -1
-2.000 - -1.5
-2.500 - -2
-3.000 - -2.5
-3.500 - -3
-4.000 - -3.5
-4.500 - -4
-5.000 - -4.5
-5.500 - -5
-6.000 - -5.5
-6.500 - -6
-7.000 - -6.5
-7.500 - -7
-8.000 - -7.5
-8.500 - -8
-9.000 - -8.5
-9.500 - -9

N

1:3,000

0 125 250 Feet

JACOBS

2004 through 2007 Dredged Areas

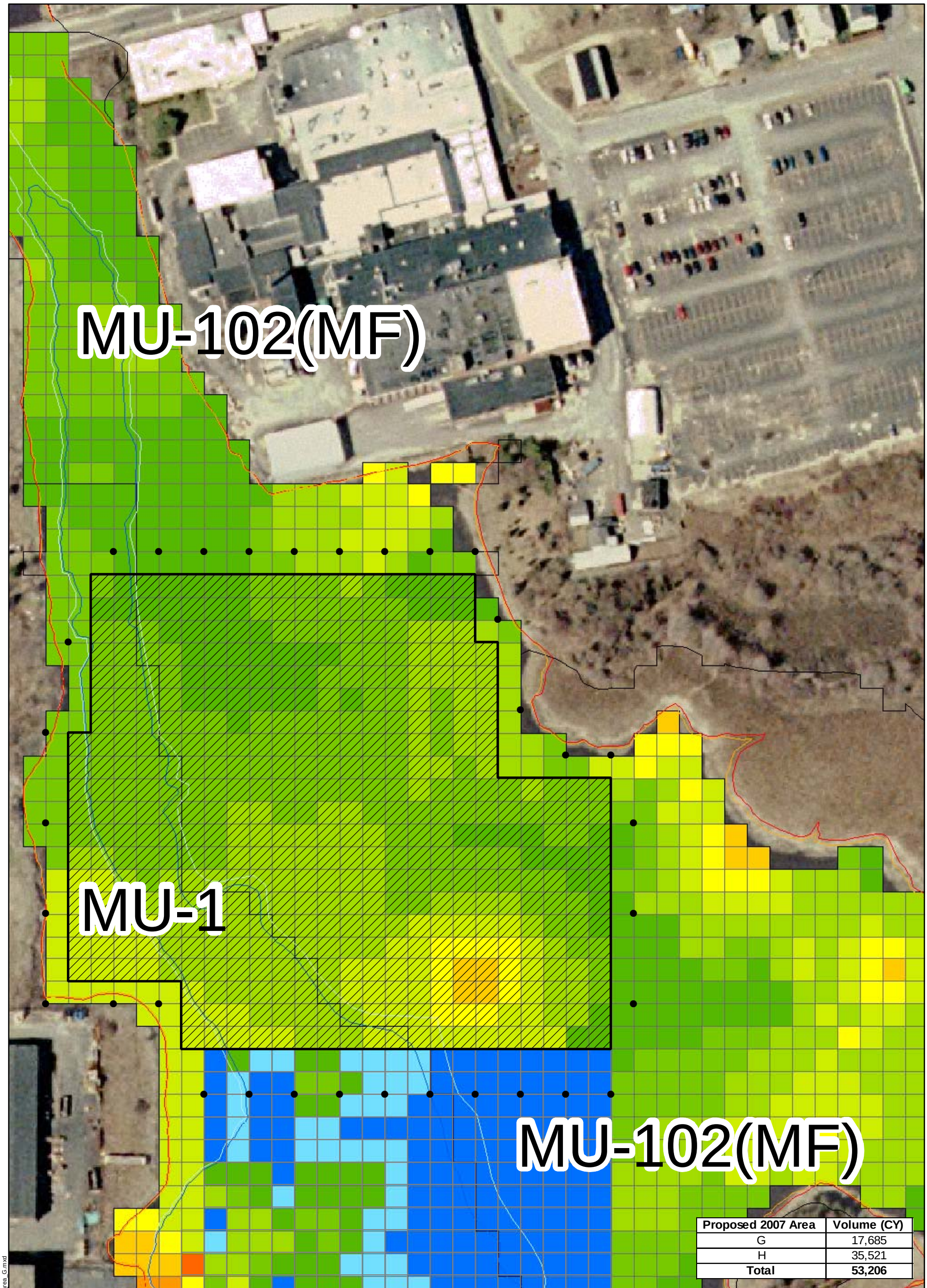
New Bedford Harbor Superfund Site

NAME: croberts DATE: 12/31/2007

Figure A-2

Aerial Photography MASSGIS 2003

Y:\NBH\Projects\35BG0101\08\20071231\ArcGIS\Fig_A-2.mxd



Proposed 2007 Area	Volume (CY)
G	17,685
H	35,521
Total	**53,206**

Legend

Area G

Management Units

2007 Proposed Sheet Piles

Z Blocks (ft)

0
0.1 - 0.5
0.6 - 1.0
1.1 - 1.5
1.6 - 2.0
2.1 - 2.5
2.6- 3.0
3.1 - 3.5
3.6 - 4.0
4.1- 4.5
4.6- 5.0
5.1 - 5.5

MLLW
MLW
MHW
MHHW

0 50 100 Feet 1:1,200

Aerial Photography MASSGIS 2003

Y:\NBH\Projects\35BG0101\08\20070320\ArcGIS\2007_dredge_area_G.mxd

JACOBS

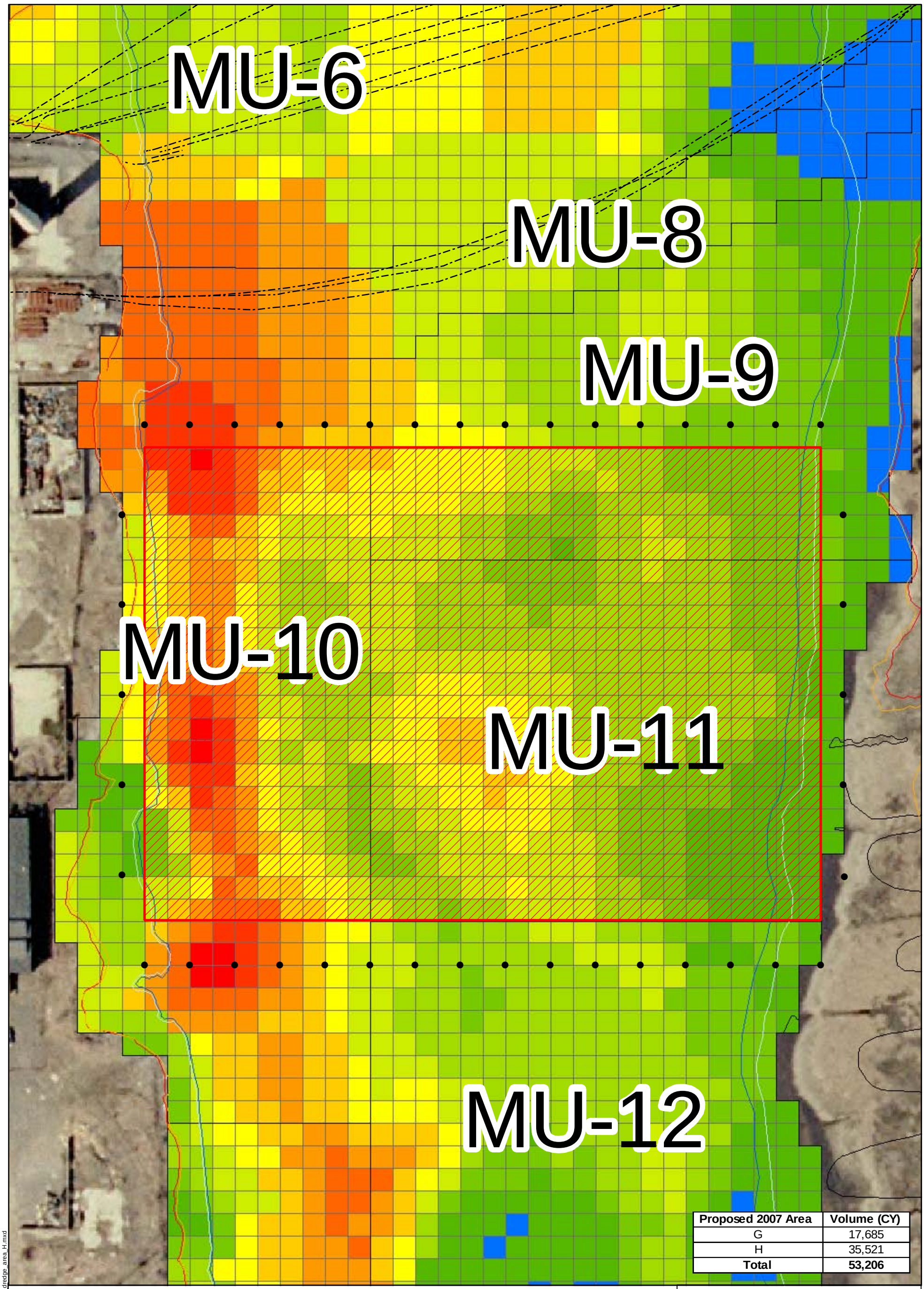
2007 Execution Plan

2007 Proposed Dredge Area G

New Bedford Harbor Superfund Site

NAME: croberts DATE: 03/20/2007

Figure A-3



Proposed 2007 Area	Volume (CY)
G	17,685
H	35,521
Total	**53,206**

Legend

Area H

Management Units

2007 Proposed Sheet Piles

Z Blocks (ft)

- 0
- 0.1 - 0.5
- 0.6 - 1.0
- 1.1 - 1.5
- 1.6 - 2.0
- 2.1 - 2.5
- 2.6- 3.0
- 3.1 - 3.5
- 3.6 - 4.0
- 4.1- 4.5
- 4.6- 5.0
- 5.1 - 5.5

- MLLW
- MLW
- MHW
- MHHW

0 50 100 Feet 1:1,200

N

Aerial Photography MASSGIS 2003

Y:\NBH\Projects\35BG0101\08\20070320\ArcGIS\Fig3-2_2007_dredge_area_H.mxd

JACOBS

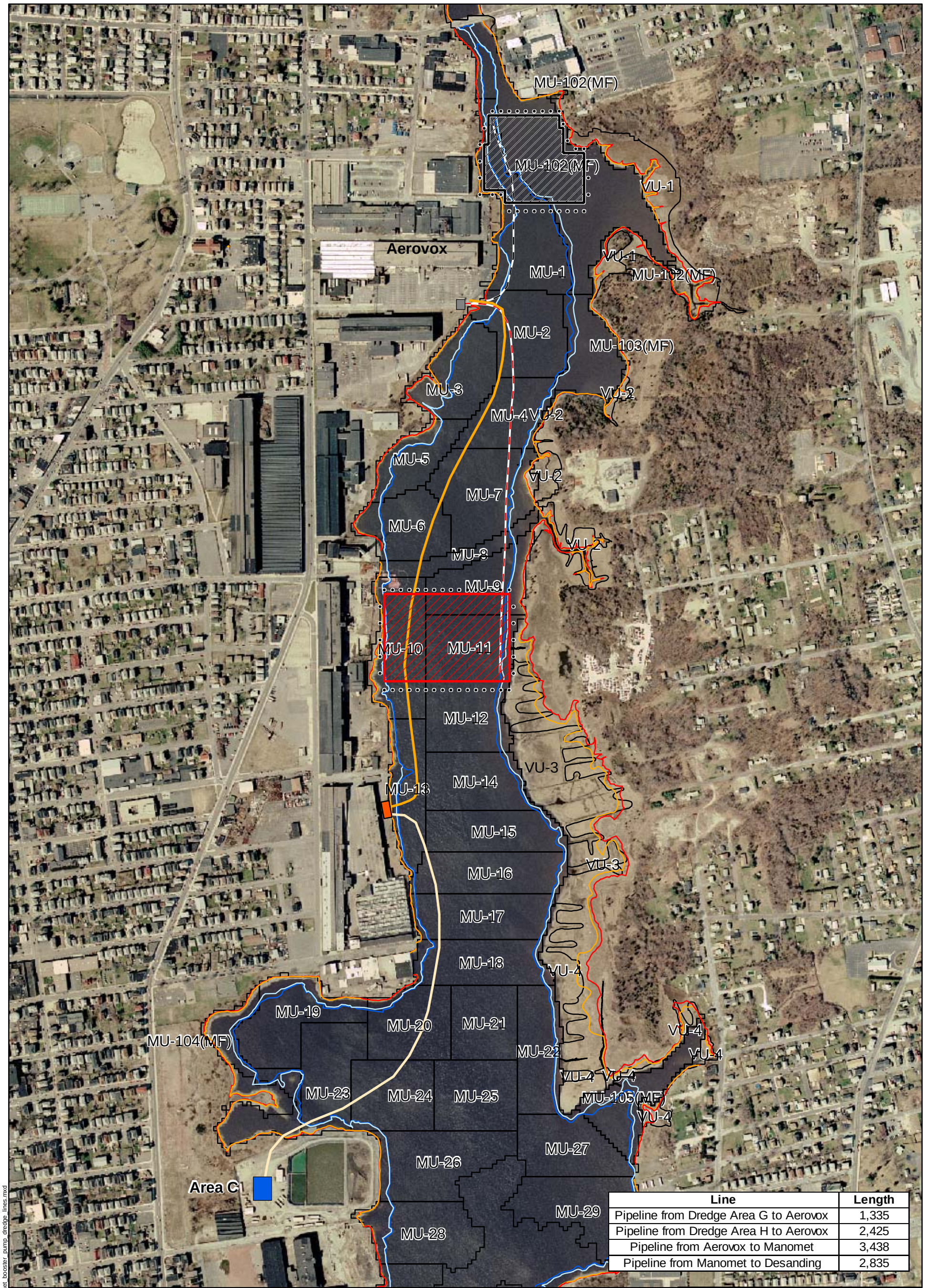
2007 Execution Plan

2007 Proposed Dredge Area H

New Bedford Harbor Superfund Site

NAME: croberts DATE: 03/20/2007

Figure A-4



Line	Length
Pipeline from Dredge Area G to Aerovox	1,335
Pipeline from Dredge Area H to Aerovox	2,425
Pipeline from Aerovox to Manomet	3,438
Pipeline from Manomet to Desanding	2,835

Legend

- Management Units
- MLLW
- MLW
- MHW
- MHHW
- 2007 Dredge Area G
- 2007 Dredge Area H
- Pipeline from Dredge Area G to Aerovox Ferric Sulfate Injection/In-line Grinder
- Pipeline from Dredge Area H to Aerovox Ferric Sulfate Injection/In Line Grinder
- Aerovox Ferric Sulfate Injection/In-Line Grinder
- Manomet Booster Pump
- Pipeline from Aerovox to Manomet
- Pipeline from Manomet to Desanding
- Desanding Facility

Aerial Photography MASSGIS 2003

N

0 275 550 Feet

1:6,600

JACOBS

2007 Execution Plan

Booster Pump Locations, Ferric Sulfate Location, Dredge Pipeline Routes (Manomet Property Option)

New Bedford Harbor Superfund Site

NAME: croberts DATE: 03/20/2007

Figure A-5

Y:\NBH\Projects\35BG0101\08\20070320\ArcGIS\Fig3-3_manomet_booster_pump_dredge_lines.mxd

Legend

Area G

2007 Sheet Piles

Management Units

MLLW

MLW

MHW

MHHW

Aerial Photography MASSGIS 2003

2007 Dredge Area G Grid Blocks

2.1
-3.9
13.2

Feet of sediment to remove and actual z* (relative to May 2007 Bathymetric Survey; NGVD 29 - ft)

Target Elevations in feet (relative to May 2007 Bathymetric Survey; NGVD 29 - ft)

SES Rod Reading in feet (relative to May 2007 Bathymetric Survey; NGVD 29 - ft)
Note: SES rod readings are based on an instrument height of 9.3', NGVD 29 - ft.

2.1
-3.9
13.2

Z-blocks changed due to Battelle core data

Z Blocks (ft)

- 0
- 0.1 - 0.5
- 0.6 - 1.0
- 1.1 - 1.5
- 1.6 - 2.0
- 2.1 - 2.5
- 2.6 - 3.0
- 3.1 - 3.5
- 3.6 - 4.0
- 4.1- 4.5
- 4.6- 5.0
- 5.1 - 5.5

0 22.5 45 Feet 1:540

N

JACOBS

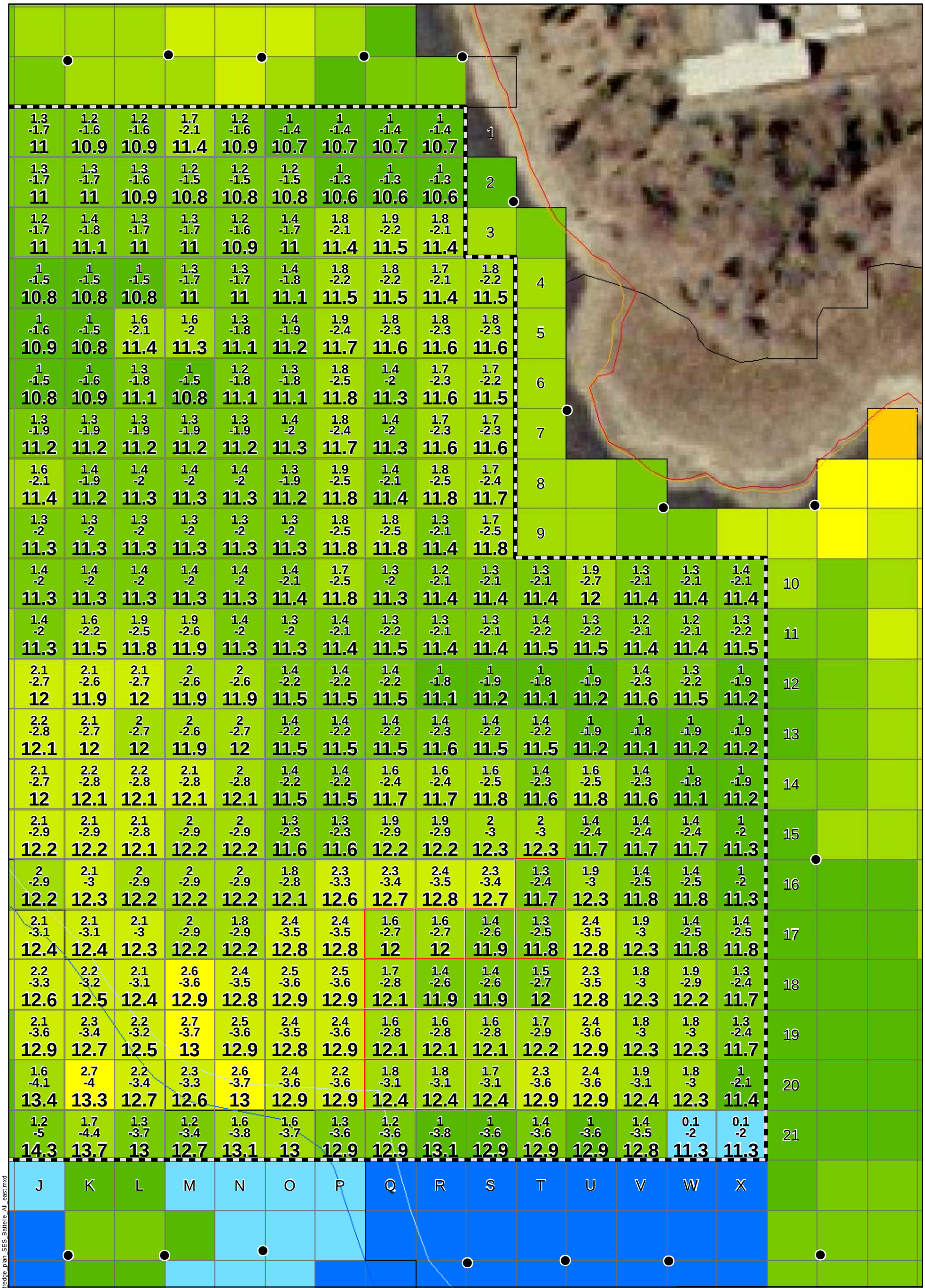
Targeted Sediment for Removal: Dredge Area G and SES Rod Readings (west side)

New Bedford Harbor Superfund Site

NAME: croberts DATE: 08/16/2007

Figure A-6

Y:\NBH\Projects\35BG0101\08\20070816\ArcGIS\2007_areaG_dredge_plan_SES_Battelle_All_west.mxd



Legend

Area G

2007 Sheet Piles

Management Units

MLLW

MLW

MHW

MHHW

Aerial Photography MASSGIS 2003

2007 Dredge Area G Grid Blocks

2.1
-3.9
13.2

Feet of sediment to remove and actual z* (relative to May 2007 Bathymetric Survey; NGVD 29 - ft)

Target Elevations in feet (relative to May 2007 Bathymetric Survey; NGVD 29 - ft)

SES Rod Reading in feet (relative to May 2007 Bathymetric Survey; NGVD 29 - ft)

Note: SES rod readings are based on an instrument height of 9.3', NGVD 29 - ft.

2.1
-3.9
13.2

Z-blocks changed due to Battelle core data

Z Blocks (ft)

- 0
- 0.1 - 0.5
- 0.6 - 1.0
- 1.1 - 1.5
- 1.6 - 2.0
- 2.1 - 2.5
- 2.6 - 3.0
- 3.1 - 3.5
- 3.6 - 4.0
- 4.1- 4.5
- 4.6- 5.0
- 5.1 - 5.5

N

0 22.5 45 Feet 1:540

JACOBS

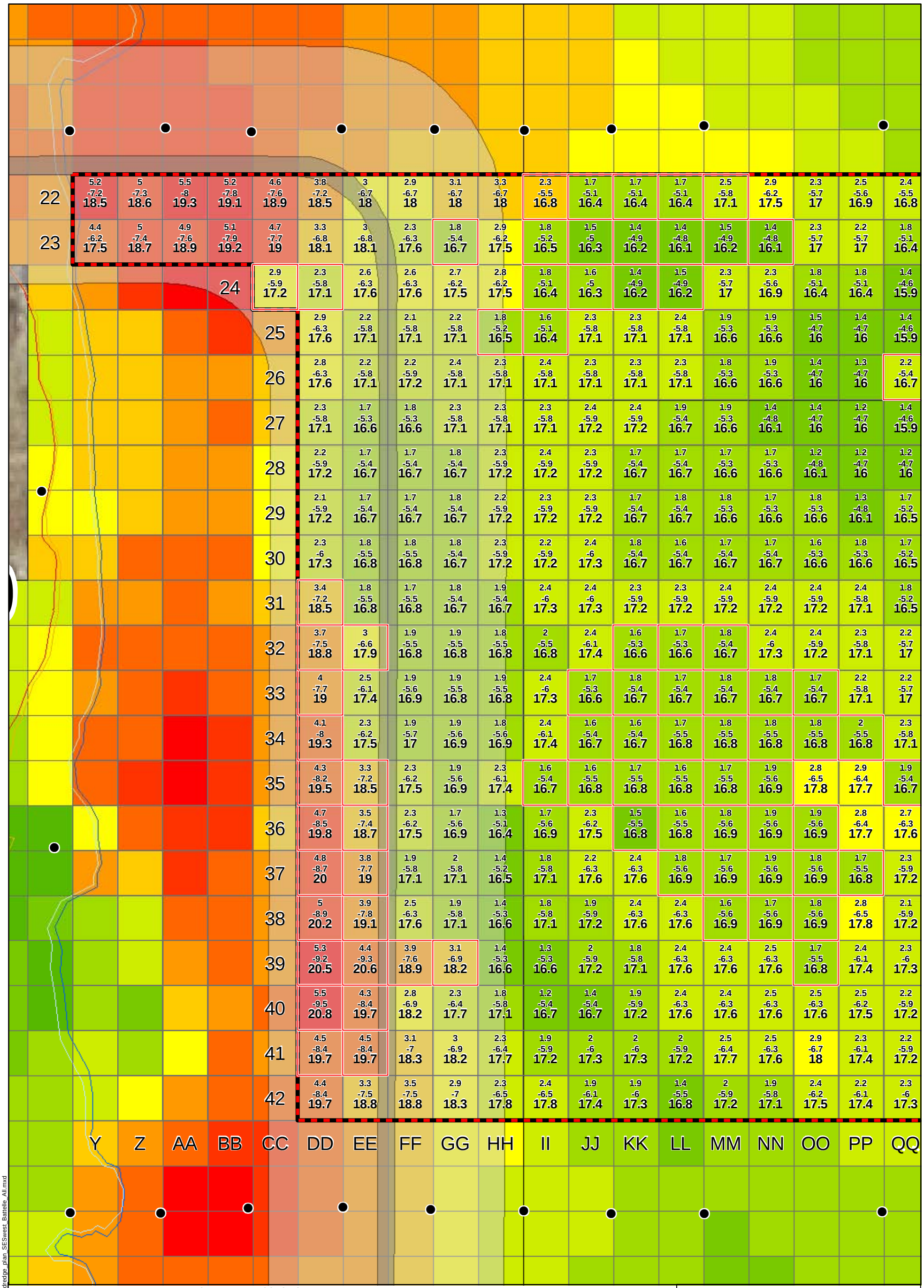
Targeted Sediment for Removal: Dredge Area G and SES Rod Readings (east side)

New Bedford Harbor Superfund Site

NAME: croberts DATE: 08/16/2007

Figure A-7

Y:\NBH\Projects\35BG0101\08\20070816\ArcGIS\2007_areaG_dredge_plan_SES_Battelle_All_east.mxd



Legend

Area H

2007 Sheet Piles

Management Units

Proposed CDF-B Location

CDF-B Road

CDF-B Dike

Aerial Photography MASSGIS 2003

2007 Dredge Area G Grid Blocks

2.1
-3.9
13.2

Feet of sediment to remove and actual z* (relative to May 2007 Bathymetric Survey; NGVD 29 - ft)

Target Elevations in feet (relative to May 2007 Bathymetric Survey; NGVD 29 - ft)

SES Rod Reading in feet (relative to May 2007 Bathymetric Survey; NGVD 29 - ft)

Note: SES rod readings are based on an instrument height of 11.3', NGVD 29 - ft.

2.1
-3.9
13.2

Z-blocks changed due to Battelle core data

Z Blocks (ft)

0
0.1 - 0.5
0.6 - 1.0
1.1 - 1.5
1.6 - 2.0
2.1 - 2.5
2.6- 3.0
3.1 - 3.5
3.6 - 4.0
4.1- 4.5
4.6- 5.0
5.1 - 5.5

MLLW
MLW
MHW
MHHW

N

0 25 50 Feet 1:600

JACOBS

Dredge Work Plan Addendum #3

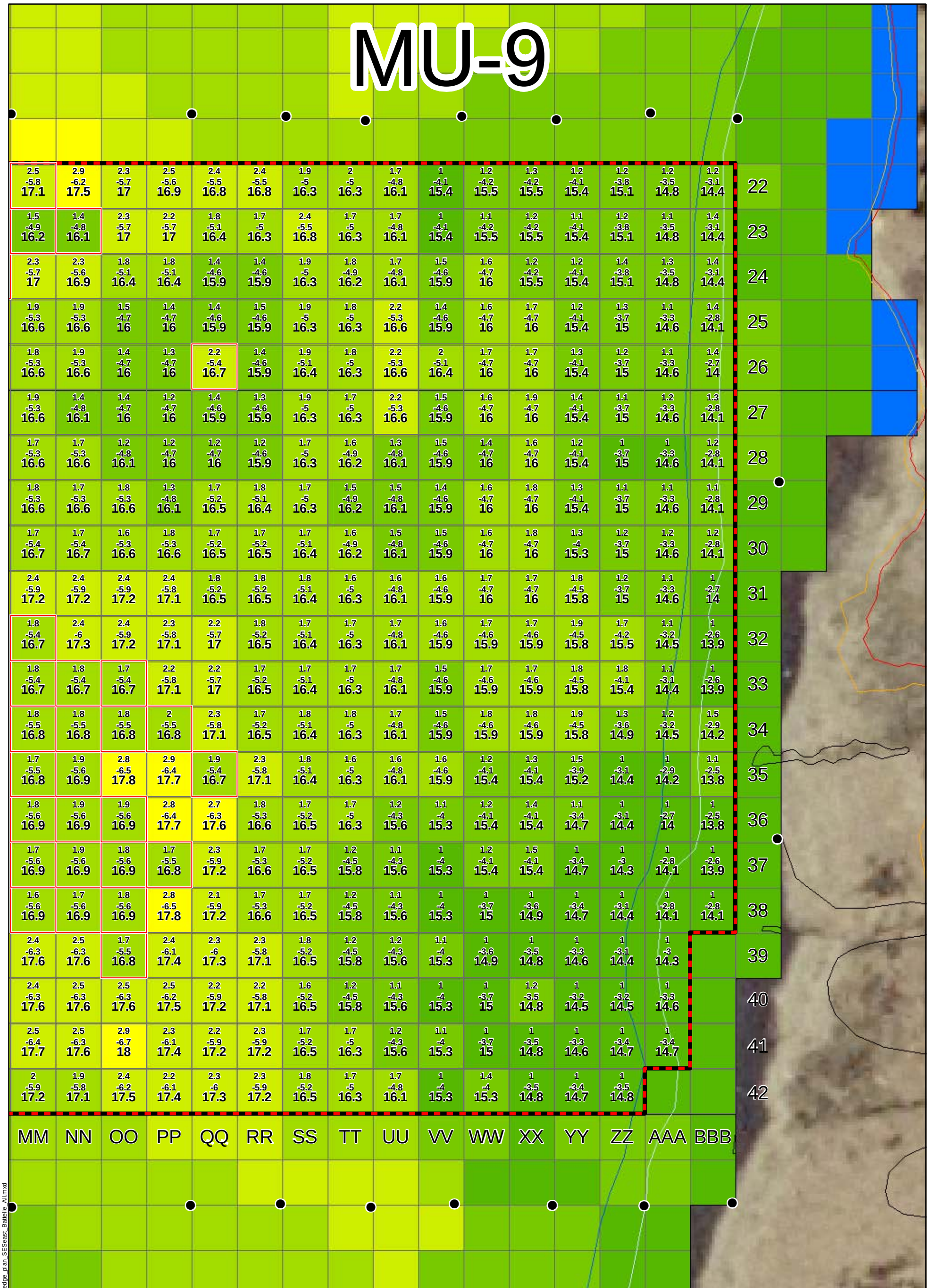
Targeted Sediment for Removal: Dredge Area H and SES Rod Readings (west side)

New Bedford Harbor Superfund Site

NAME: croberts DATE: 08/06/2007

Figure A-8

Y:\NBH\Projects\35BG0101\08\20070806\ArcGIS\2007_areaH_dredge_plan_SESwest_Battelle_All.mxd



Legend

Area H

2007 Sheet Piles

Management Units

MLLW

MLW

MHW

MHHW

Aerial Photography MASSGIS 2003

2007 Dredge Area G Grid Blocks

2.1
-3.9
13.2

Feet of sediment to remove and actual z* (relative to May 2007 Bathymetric Survey; NGVD 29 - ft)

Target Elevations in feet (relative to May 2007 Bathymetric Survey; NGVD 29 - ft)

SES Rod Reading in feet (relative to May 2007 Bathymetric Survey; NGVD 29 - ft)

Note: SES rod readings are based on an instrument height of 11.3', NGVD 29 - ft.

2.1
-3.9
13.2

Z-blocks changed due to Battelle core data

Z Blocks (ft)

- 0
- 0.1 - 0.5
- 0.6 - 1.0
- 1.1 - 1.5
- 1.6 - 2.0
- 2.1 - 2.5
- 2.6- 3.0
- 3.1 - 3.5
- 3.6 - 4.0
- 4.1- 4.5
- 4.6- 5.0
- 5.1 - 5.5

N

0 25 50 Feet 1:600

JACOBS

Dredge Work Plan Addendum #3

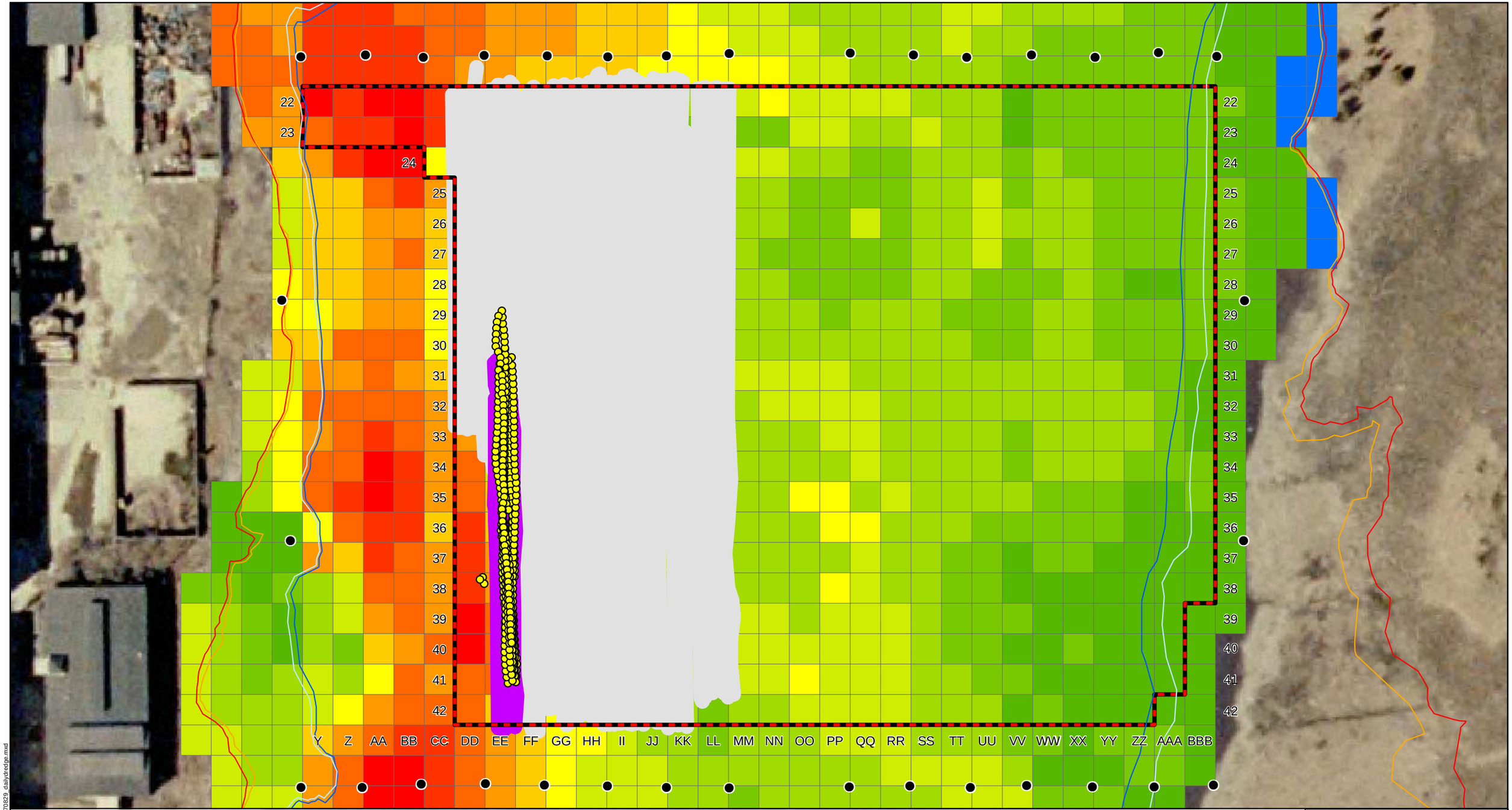
Targeted Sediment for Removal: Dredge Area H and SES Rod Readings (east side)

New Bedford Harbor Superfund Site

NAME: croberts DATE: 08/06/2007

Figure A-9

Y:\NBH\Projects\35BG0101\08\20070806\ArcGIS\2007_areaH_dredge_plan_SESeast_Battelle_All.mxd



Legend

- Management Units
- 2007 Surveyed Sheet Piles
- Area H
- Actual GPS points from dredge for 08/29/07
- 8 foot buffer represending area of cut for 08/29/07
- 8 foot buffer representing area of cut from previous 2007 dredging activities

Z Blocks

- 0
- 0.1 - 1.0
- 1.1 - 1.5
- 1.6 - 2.0
- 2.1 - 2.5
- 2.6 - 3.0
- 3.1 - 3.5
- 3.6 - 4.0
- 4.1 - 4.5
- 4.6 - 5.0
- 5.1 - 5.5

- MLLW
- MLW
- MHW
- MHHW

0 75 Feet 1:900

N

JACOBS

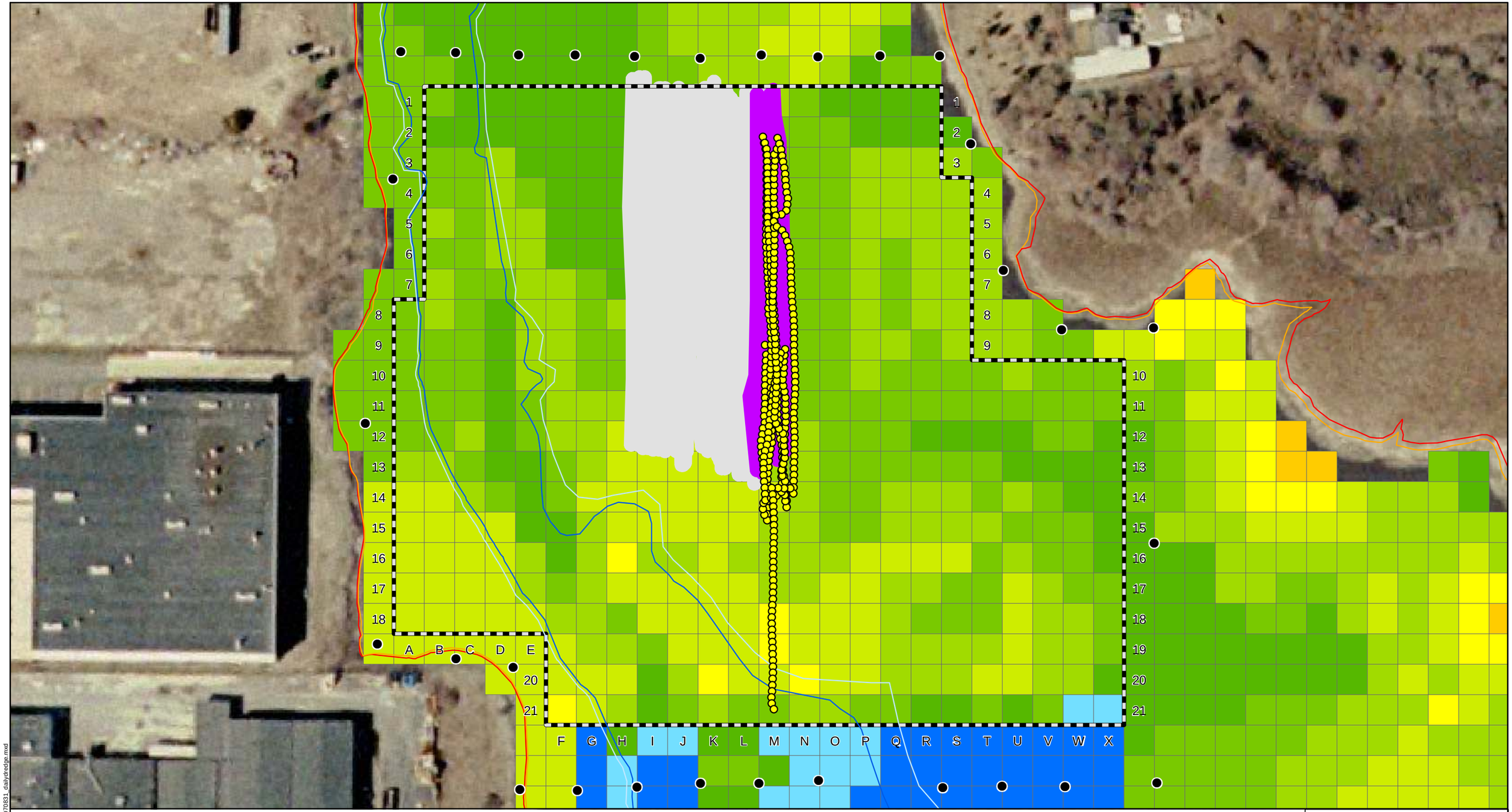
08/29/07 Dredging with GPS Locations (area of dredging was interpreted)

New Bedford Harbor Superfund Site

NAME: croberts DATE: 08/29/2007

Figure A-10

Y:\NBH\Projects\35BG0101\08\20070829\ArcGIS\20070829_dailydredge.mxd



Legend

- Management Units
- 2007 Surveyed Sheet Piles
- Area G
- Actual GPS points from dredge for 08/31/07
- 8 foot buffer represending area of cut for 08/31/07
- 8 foot buffer representing area of cut from previous 2007 dredging activities

Z Blocks

- 0
- 0.1 - 1.0
- 1.1 - 1.5
- 1.6 - 2.0
- 2.1 - 2.5
- 2.6 - 3.0
- 3.1 - 3.5
- 3.6 - 4.0
- 4.1 - 4.5
- 4.6 - 5.0
- 5.1 - 5.5

- MLLW
- MLW
- MHW
- MHHW

0 75 Feet 1:900

N

JACOBS

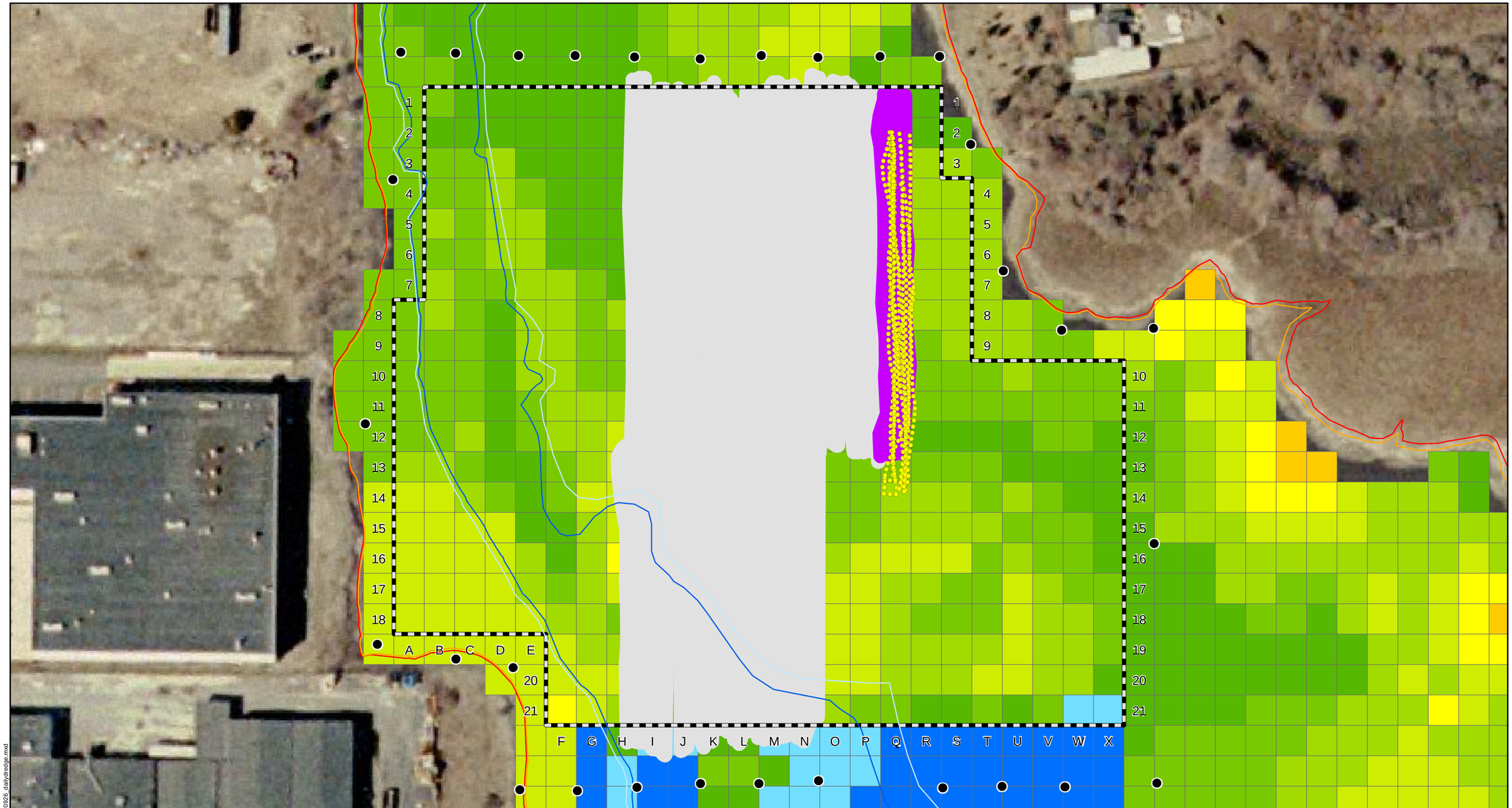
08/31/07 Dredging with GPS Locations (area of dredging was interpreted)

New Bedford Harbor Superfund Site

NAME: croberts DATE: 08/31/2007

Figure A-11

Y:\NBH\Projects\35BG0101\08\20070831\ArcGIS\20070831_dailydredge.mxd



Legend

- Management Units
- 2007 Surveyed Sheet Piles
- Area G
- Actual GPS points from dredge for 09/26/07
- 8 foot buffer represending area of cut for 09/26/07
- 8 foot buffer representing area of cut from previous 2007 dredging activities

Z Blocks

- 0
- 0.1 - 1.0
- 1.1 - 1.5
- 1.6 - 2.0
- 2.1 - 2.5
- 2.6 - 3.0
- 3.1 - 3.5
- 3.6 - 4.0
- 4.1 - 4.5
- 4.6 - 5.0
- 5.1 - 5.5

- MLLW
- MLW
- MHW
- MHHW

N

0 75 Feet 1:900

JACOBS

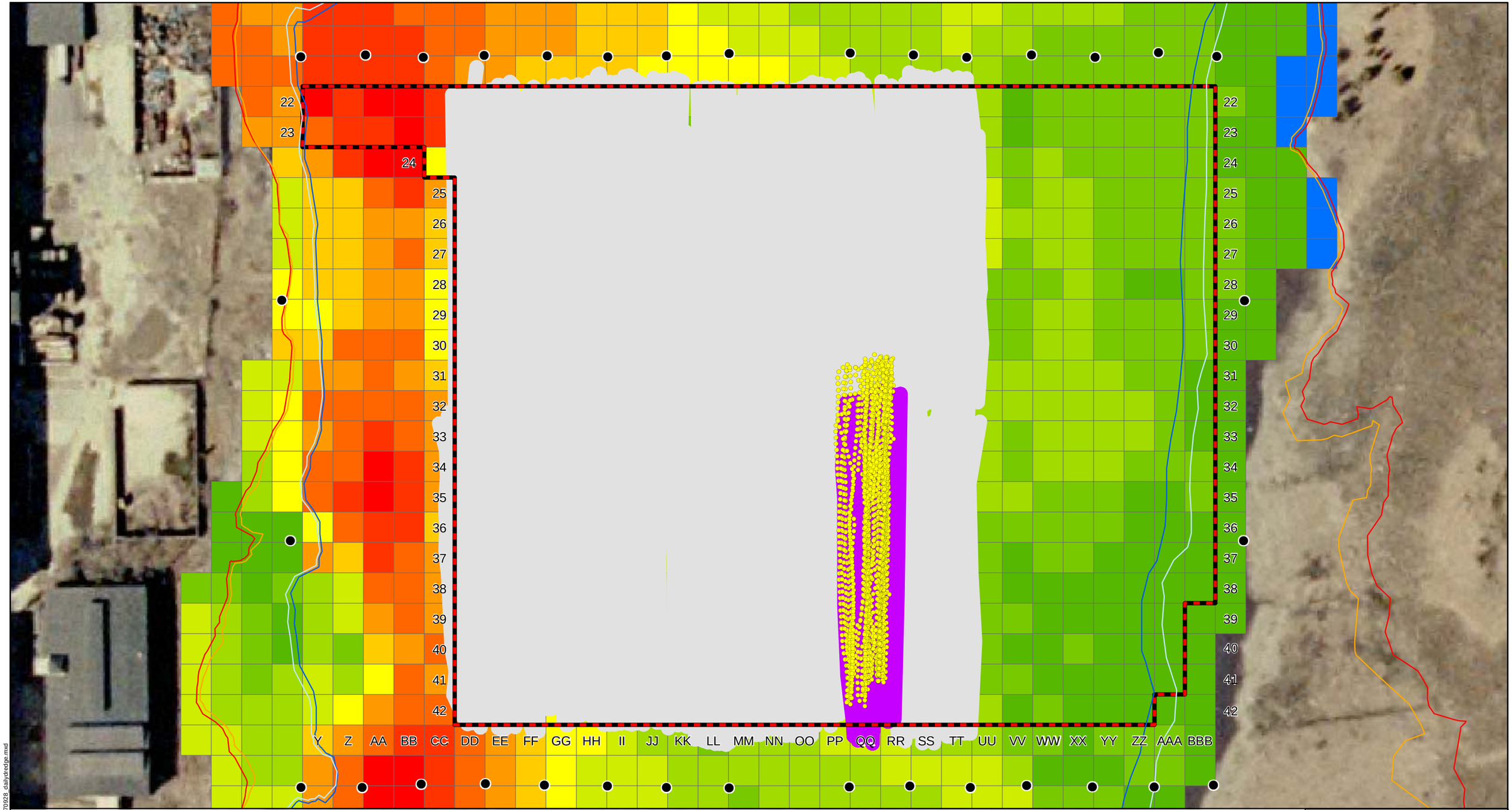
09/26/07 Dredging with GPS Locations (area of dredging was interpreted)

New Bedford Harbor Superfund Site

NAME: croberts DATE: 09/26/2007

Figure A-12

Y:\NBH\Projects\35BG0101\08\20070926\ArcGIS\20070926_dailydredge.mxd



Legend

- Management Units
- 2007 Surveyed Sheet Piles
- Area H
- Actual GPS points from dredge for 09/28/07
- 8 foot buffer represending area of cut for 09/28/07
- 8 foot buffer representing area of cut from previous 2007 dredging activities

Z Blocks

- 0
- 0.1 - 1.0
- 1.1 - 1.5
- 1.6 - 2.0
- 2.1 - 2.5
- 2.6 - 3.0
- 3.1 - 3.5
- 3.6 - 4.0
- 4.1 - 4.5
- 4.6 - 5.0
- 5.1 - 5.5

- MLLW
- MLW
- MHW
- MHHW

0 75 Feet 1:900

N

JACOBS

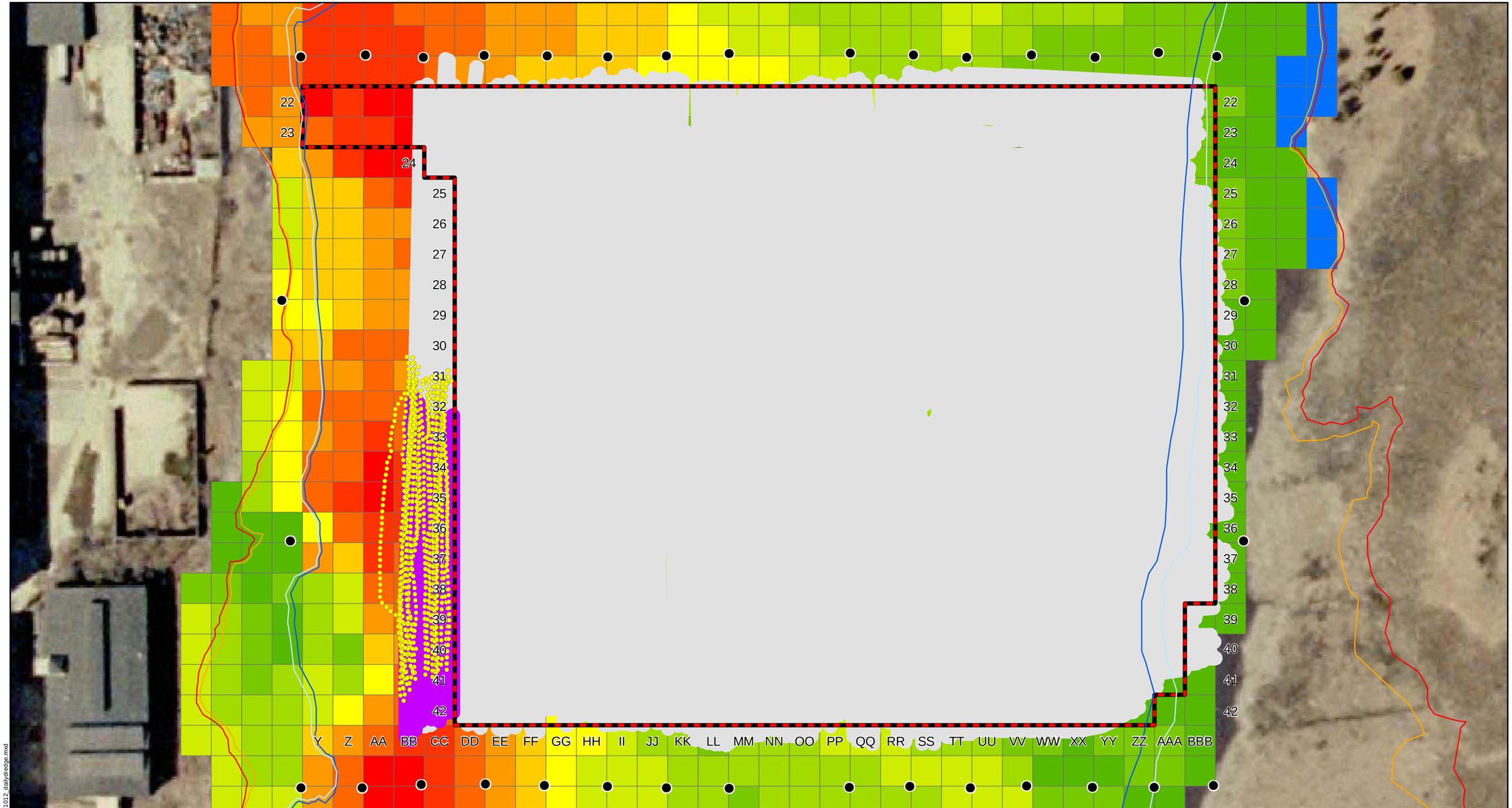
09/28/07 Dredging with GPS Locations (area of dredging was interpreted)

New Bedford Harbor Superfund Site

NAME: croberts DATE: 09/28/2007

Figure A-13

Y:\NBH\Projects\35BG0101\08\20070928\ArcGIS\20070928_dailydredge.mxd



Legend

- Management Units
- 2007 Surveyed Sheet Piles
- Area H
- Actual GPS points from dredge for 10/12/07
- 8 foot buffer represending area of cut for 10/12/07
- 8 foot buffer representing area of cut from previous 2007 dredging activities

Z Blocks

- 0
- 0.1 - 1.0
- 1.1 - 1.5
- 1.6 - 2.0
- 2.1 - 2.5
- 2.6 - 3.0
- 3.1 - 3.5
- 3.6 - 4.0
- 4.1 - 4.5
- 4.6 - 5.0
- 5.1 - 5.5

- MLLW
- MLW
- MHW
- MHHW

0 75 Feet 1:900

N

JACOBS

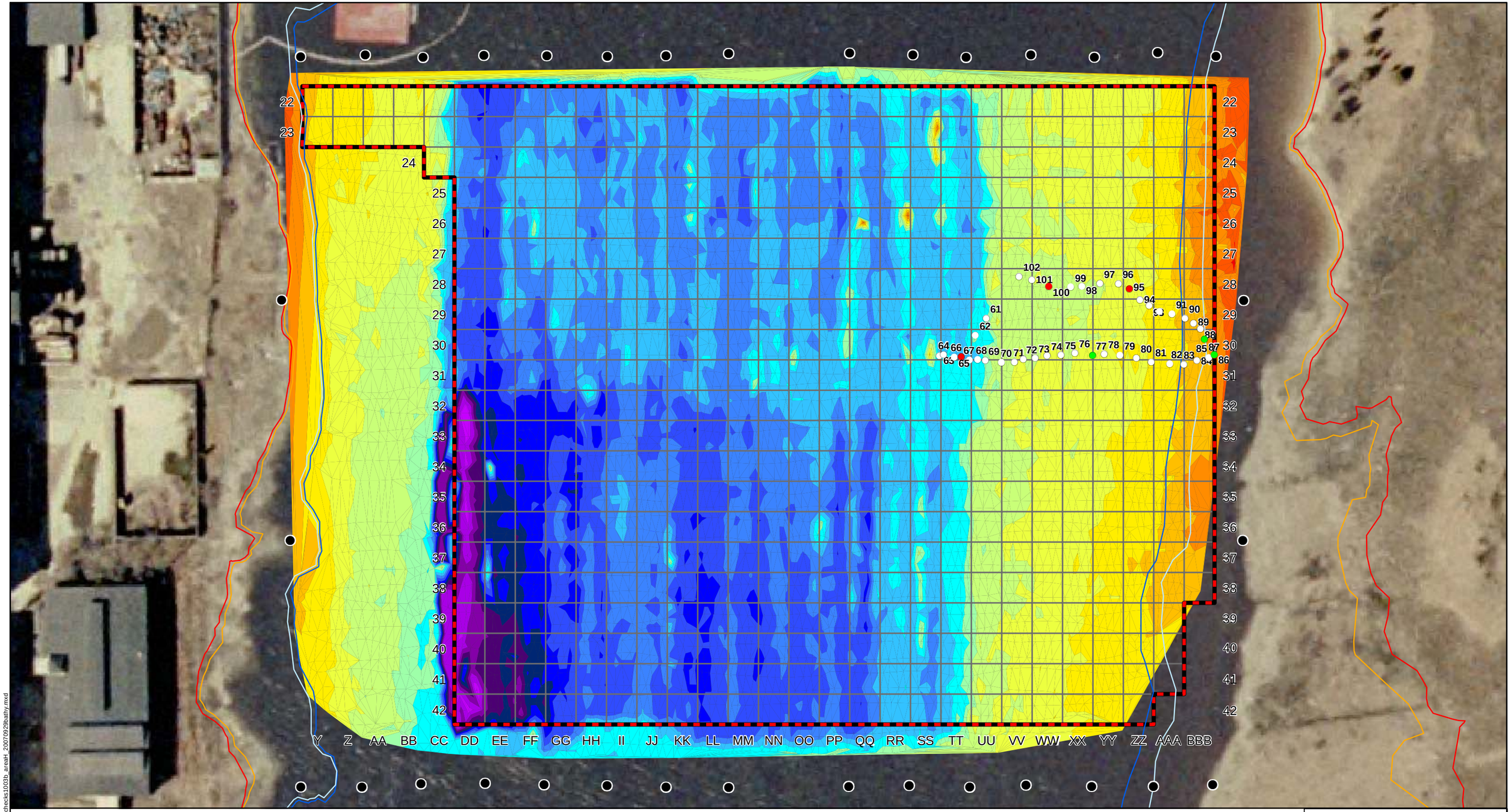
10/12/07 Dredging with GPS Locations (area of dredging was interpreted)

New Bedford Harbor Superfund Site

NAME: croberts DATE: 10/12/2007

Figure A-14

Y:\NBH\Projects\35BG0101\08\20071012\ArcGIS\20071012_dailydredge.mxd



Legend

- 2007 Surveyed Sheet Piles
- Area H

Bathymetry (09/29/07 Survey)

NGVD 29 - Feet

Elevation (ft)

-1 - -0.88
-1.5 - -1
-2 - -1.5
-2.5 - -2
-3 - -2.5
-3.5 - -3
-4 - -3.5
-4.5 - -4
-5 - -4.5
-5.5 - -5
-6 - -5.5
-6.5 - -6
-7 - -6.5
-7.5 - -7
-8 - -7.5
-8.5 - -8
-9 - -8.5
-9.5 - -9

- 10/03/07 Elevation Checks showing under-dredging
- 10/03/07 Elevation Checks showing dredge area within tolerance
- 10/03/07 Elevation Checks showing over-dredging

- MLLW
- MLW
- MHW
- MHHW

0 75 Feet 1:900

JACOBS

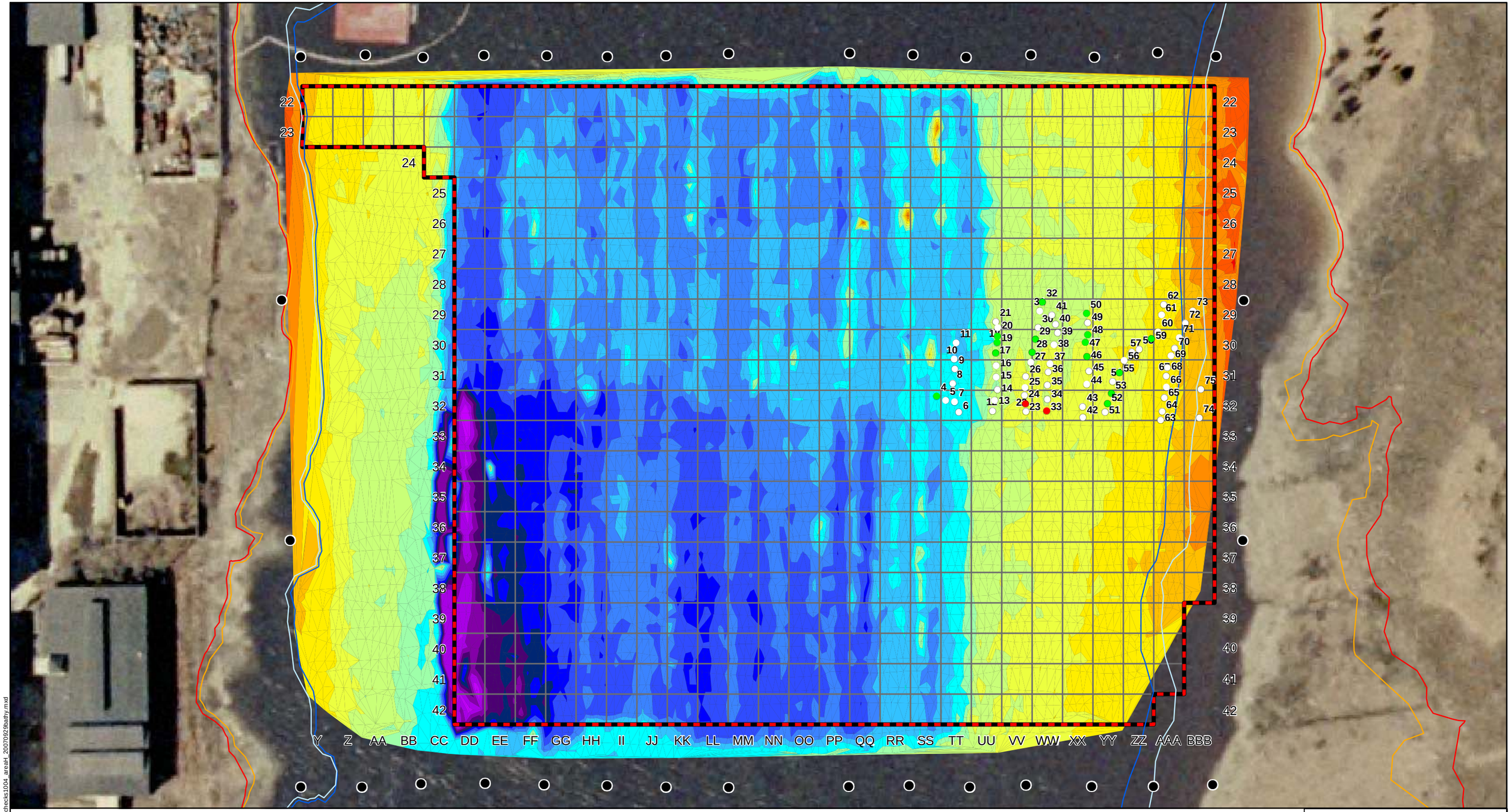
Elevation Checks on 10/03/07; 09/29/07 Bathymetry Survey

New Bedford Harbor Superfund Site

NAME: croberts DATE: 10/03/2007

Figure A-15

Y:\NBH\Projects\35BG0101\08\20071005\ArcGIS\elechecks1003b_areaH_20070929bathy.mxd



Legend

- 2007 Surveyed Sheet Piles
- Area H

Bathymetry (09/29/07 Survey)

NGVD 29 - Feet

Elevation (ft)

- -1 - -0.88
- -1.5 - -1
- -2 - -1.5
- -2.5 - -2
- -3 - -2.5
- -3.5 - -3
- -4 - -3.5
- -4.5 - -4
- -5 - -4.5
- -5.5 - -5
- -6 - -5.5
- -6.5 - -6
- -7 - -6.5
- -7.5 - -7
- -8 - -7.5
- -8.5 - -8
- -9 - -8.5
- -9.5 - -9

- 10/04/07 Elevation Checks showing under-dredging
- 10/04/07 Elevation Checks showing dredge area within tolerance
- 10/04/07 Elevation Checks showing over-dredging

- MLLW
- MLW
- MHW
- MHHW

0 75 Feet 1:900

JACOBS

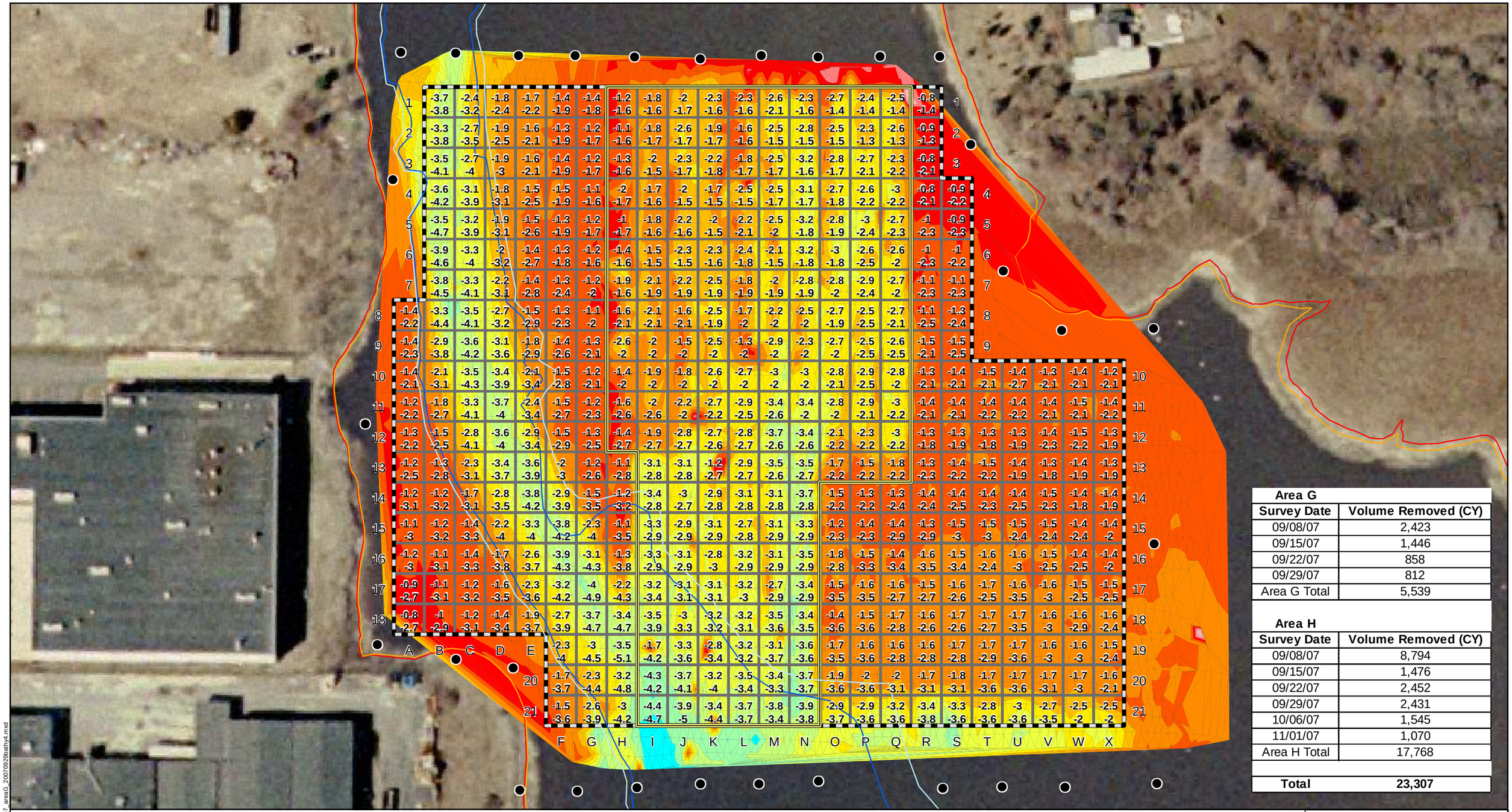
Elevation Checks on 10/04/07; 09/29/07 Bathymetry Survey

New Bedford Harbor Superfund Site

NAME: croberts DATE: 10/04/2007

Figure A-16

Y:\NBH\Projects\35BG0101\08\20071005\ArcGIS\elechecks1004_areaH_20070929bathy.mxd



Area G	
Survey Date	**Volume Removed (CY)**
09/08/07	2,423
09/15/07	1,446
09/22/07	858
09/29/07	812
Area G Total	5,539

Area H	
Survey Date	**Volume Removed (CY)**
09/08/07	8,794
09/15/07	1,476
09/22/07	2,452
09/29/07	2,431
10/06/07	1,545
11/01/07	1,070
Area H Total	17,768
Total	**23,307**

Legend

- Management Units
- 2007 Surveyed Sheet Piles
- Area G
- Portion of Area G Actually Dredged During 2007

Bathymetry (09/29/07 Survey)

NGVD 29 - Feet

Elevation (ft)

- 0 - 0.5
- -0.5 - 0
- -1 - -0.5
- -1.5 - -1
- -2 - -1.5
- -2.5 - -2
- -3 - -2.5
- -3.5 - -3
- -4 - -3.5
- -4.5 - -4
- -5 - -4.5
- -5.5 - -5

2007 Dredge Area G Grid Blocks

-3.5
-3.9

Actual Elevations in feet relative to composite data sets from 09/08/07 to 09/29/07 bathymetric surveys; NGVD 29 - ft)

Target Elevations in feet (relative to May 2007 Bathymetric Survey; NGVD 29 - ft)

Note: The actual elevations are based on a merged data set from the 09/08/07, 09/15/07, 09/22/07, and 09/29/07 bathymetry surveys.

- MLLW
- MLW
- MHW
- MHHW

N

0 75 Feet 1:900

JACOBS

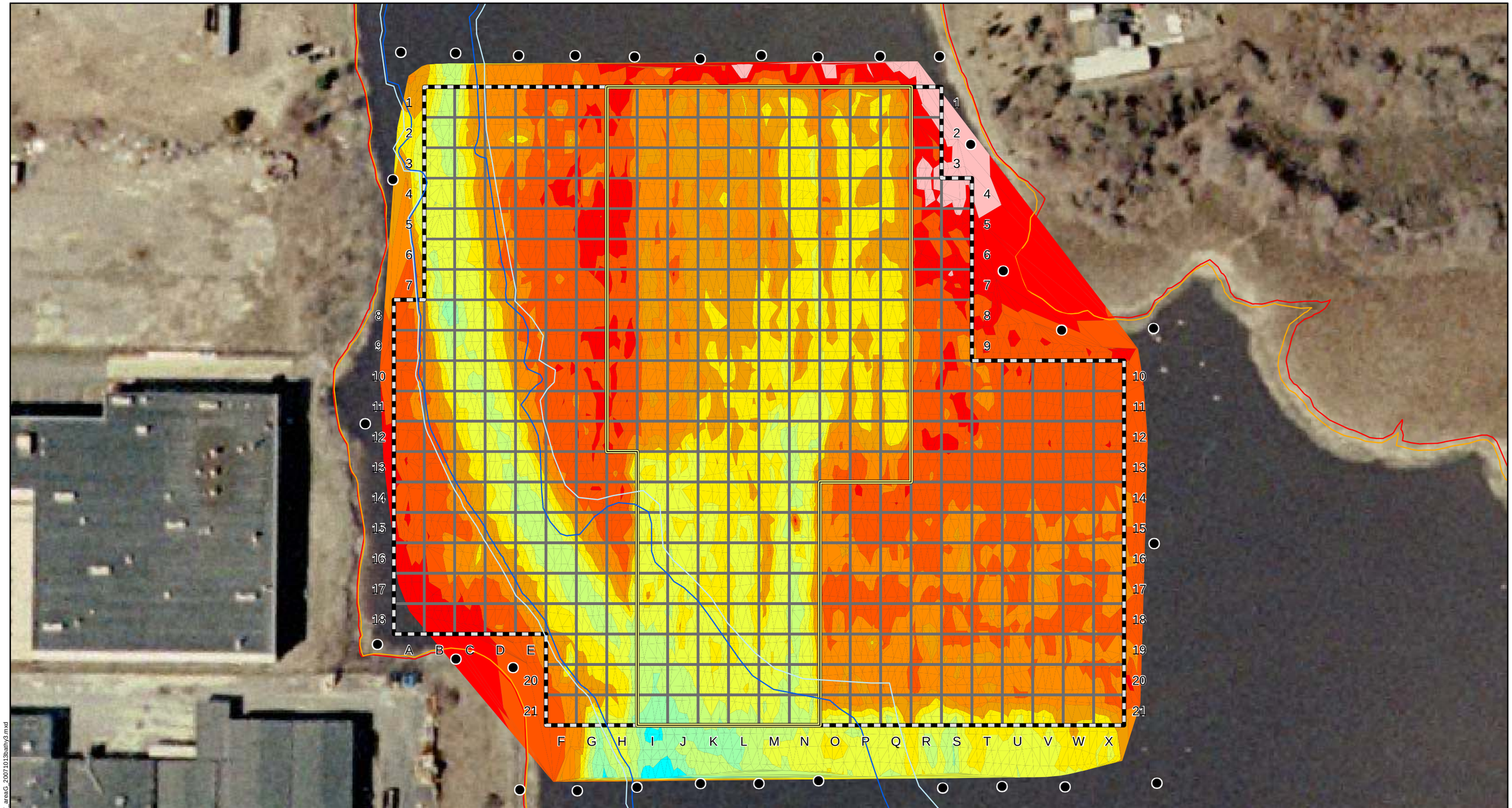
Actual Elevations vs Target Elevations: Based on Composite Bathymetric Surveys in Dredge Area G

New Bedford Harbor Superfund Site

NAME: croberts DATE: 11/30/2007

Figure A-17

Y:\NBH\Projects\35BG0101\08\20071130\ArcGIS\2007_areaG_20070929bathy4.mxd



Legend

- Management Units
- 2007 Surveyed Sheet Piles
- Area G
- Portion of Area G Actually Dredged During 2007

Bathymetry (10/13/07 Survey)

NGVD 29 - Feet

Elevation (ft)

- 0 - 0.5
- -0.5 - 0
- -1 - -0.5
- -1.5 - -1
- -2 - -1.5
- -2.5 - -2
- -3 - -2.5
- -3.5 - -3
- -4 - -3.5
- -4.5 - -4
- -5 - -4.5
- -5.5 - -5

- MLLW
- MLW
- MHW
- MHHW

N

0 75 Feet 1:900

JACOBS

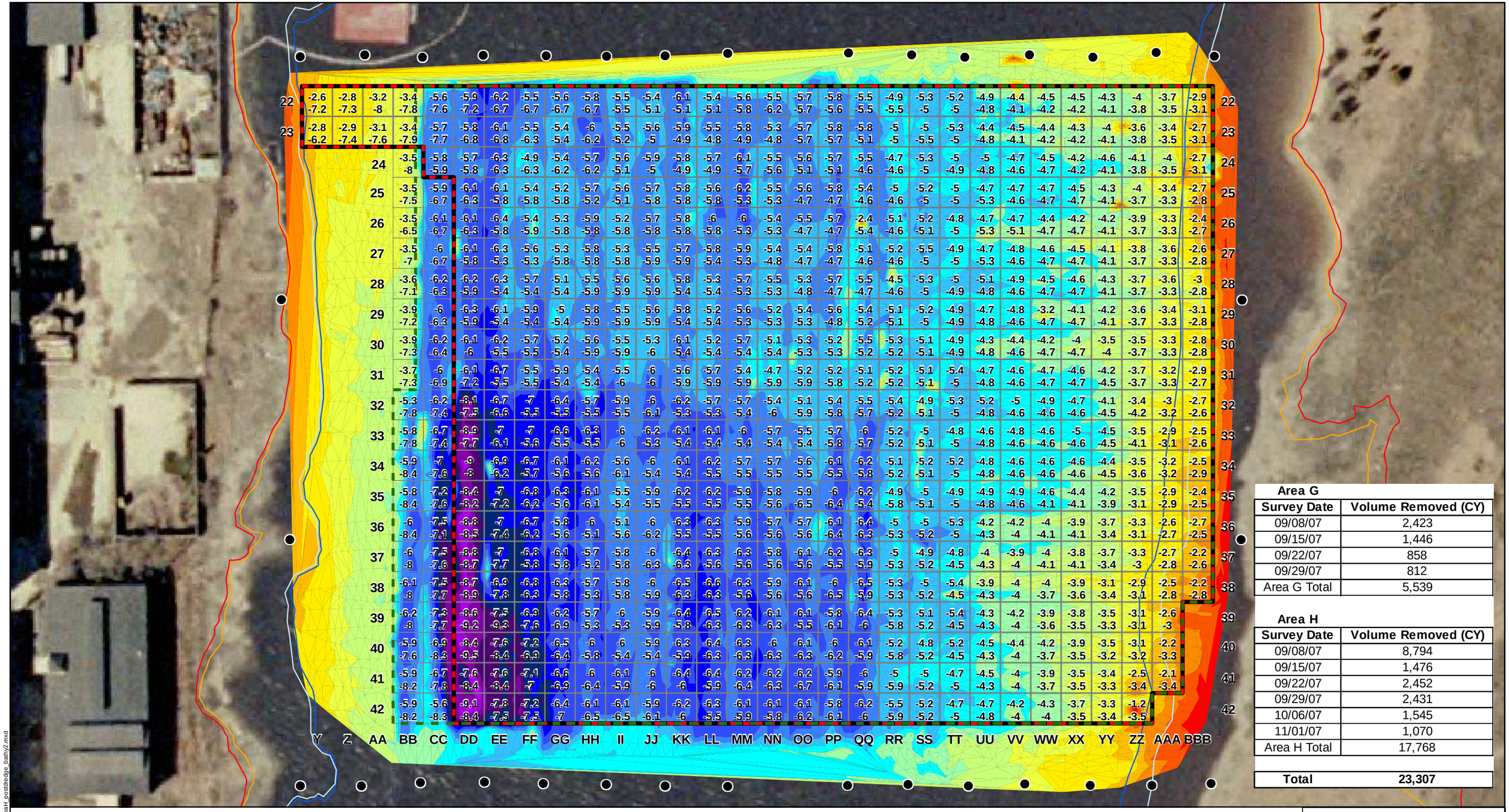
Area G Bathymetric Survey (10/13/07)

New Bedford Harbor Superfund Site

NAME: croberts DATE: 11/30/2007

Figure A-18

Y:\NBH\Projects\35BG0101\08\20071130\ArcGIS\2007_areaG_20071013bathy3.mxd



Survey Date	Volume Removed (CY)
09/08/07	2,423
09/15/07	1,446
09/22/07	858
09/29/07	812
Area G Total	5,539

Area H

Survey Date	Volume Removed (CY)
09/08/07	8,794
09/15/07	1,476
09/22/07	2,452
09/29/07	2,431
10/06/07	1,545
11/01/07	1,070
Area H Total	17,768
Total	**23,307**

Legend

- 2007 Surveyed Sheet Piles
- Area H
- Portion of Area H Actually Dredged During 2007

Bathymetry (11/01/07 Survey)

NGVD 29 - Feet
Elevation (ft)

-1 - -0.88
-1.5 - -1
-2 - -1.5
-2.5 - -2
-3 - -2.5
-3.5 - -3
-4 - -3.5
-4.5 - -4
-5 - -4.5
-5.5 - -5
-6 - -5.5
-6.5 - -6
-7 - -6.5
-7.5 - -7
-8 - -7.5
-8.5 - -8
-9 - -8.5
-9.5 - -9

2007 Dredge Area H Grid Blocks

-3.5
-3.9

Actual Elevations in feet relative to composite data sets from 09/08/07 to 11/01/07 bathymetric surveys; NGVD 29 - ft)

Target Elevations in feet (relative to May 2007 Bathymetric Survey; NGVD 29 - ft)

Note: The actual elevations are based on a merged data set from the 09/08/07, 09/15/07, 09/22/07, 09/29/07, and 11/01/07 bathymetry surveys.

MLLW
MLW
MHW
MHHW

0 75
Feet 1:900

JACOBS

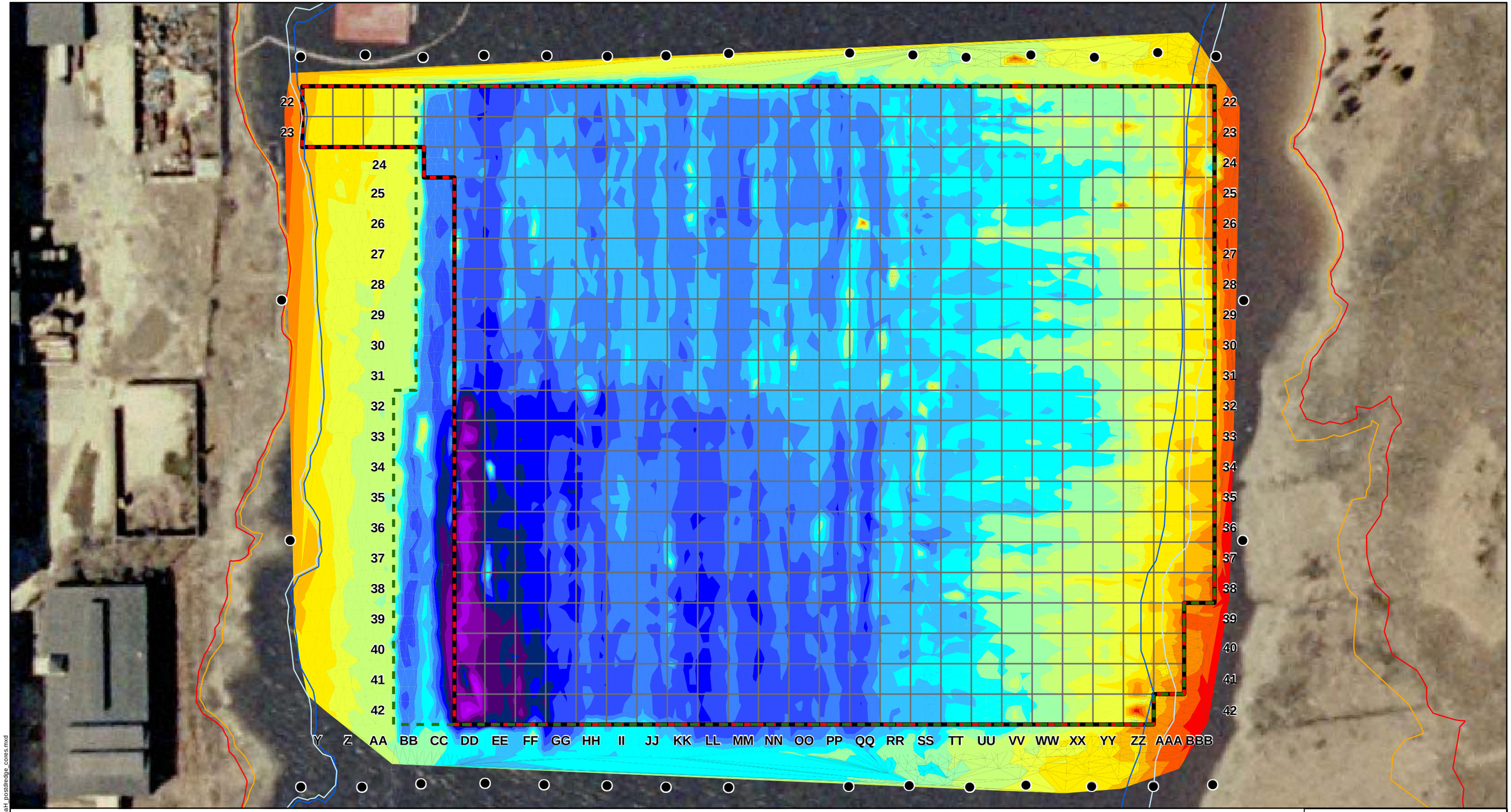
Actual Elevations vs Target Elevations: Based on Composite Bathymetric Surveys in Dredge Area H

New Bedford Harbor Superfund Site

NAME: croberts DATE: 11/30/2007

Figure A-19

Y:\NBH\Projects\35BG0101\08\20071130\ArcGIS\areaH_postdredge_bathy2.mxd



Legend

- 2007 Surveyed Sheet Piles
- Area H
- Portion of Area H Actually Dredged During 2007

Bathymetry (11/01/07 Survey)

NGVD 29 - Feet

Elevation (ft)

-1 - -0.88
-1.5 - -1
-2 - -1.5
-2.5 - -2
-3 - -2.5
-3.5 - -3
-4 - -3.5
-4.5 - -4
-5 - -4.5
-5.5 - -5
-6 - -5.5
-6.5 - -6
-7 - -6.5
-7.5 - -7
-8 - -7.5
-8.5 - -8
-9 - -8.5
-9.5 - -9

MLLW
MLW
MHW
MHHW

N

0 75 Feet 1:900

JACOBS

Area H Bathymetric Survey (11/01/07)

New Bedford Harbor Superfund Site

NAME: croberts DATE: 11/30/2007

Figure A-20

Y:\NBH\Projects\35BG0101\08\20071130\ArcGIS\areaH_postdredge_cores.mxd

ATTACHMENT B

Summary of 2007 Activities

Attachment B
Summary of 2007 Activities
New Bedford Harbor Superfund Site - 2007 Season

Date	Activity	Summary
Revise/Submit Planning Documents		
Draft April 2004, Final July 2004, Addendum No. 1 May 2005 Addendum No. 2 April 2006 Addendum No. 3 March 2007	Prepare and submit revised plan.	Preparation and submittal of *Addendum No. 3 to the Execution Plan* outlining the remediation of the New Bedford Harbor Superfund Site to be accomplished for the 2007 field season.
Draft April 2004, Final September 2004 Revised August 2007	Prepare and submit revised plan.	Preparation and submittal of Site Specific Safety & Health Plan
Draft May 2004, Final September 2004 Revised June 2007	Prepare and submit revised plan.	Preparation and submittal of Emergency Response Contingency Plan
Draft May 2004, Final August 2004, Revised August 2005, Revised December 2005 Revised June 2007	Prepare and submit revised plan.	Preparation and submittal of Field Sampling Plan
Draft July 2004, Final November 2004, Revised August 2005, Revised May 2007	Prepare and submit revised plan.	Preparation and submittal of Regulatory Compliance Plan
Draft May 2007 Final June 2007	Prepare and submit plan	Preparation and submittal of Fish Migration Impact Plan
Submittal of Initial Task Order/Subsequent Modifications		
2/9/2007	Modification 21	**Tasks under Modification 21 were for the following:** Planning and sampling activities associated with Aerovox Facility.
3/15/2007	Modification 22	**Tasks under Modification 22 were for the following:** Change POP to 6/30/2007; deobligate funds and move in order to open TO 5.
6/5/2007	Modification 23	**Tasks under Modification 23 were for the following:** Increase O&M funding for the period of 7/1/2007 - 12/31/2007.
10/17/2007	Modification 24	**Tasks under Modification 24 were for the following:** Incentive fee for project 03.
7/10/2007	D0006	**Tasks under TO 6 were for the following:** Original funding TO 6 and Project 35BG0601 (Tasks 1, 2, 3 - The mobilization, demobilization, T&D costs associated with the first 20 days of dredging in 2007 and Area D Settlement Repairs).

Attachment B
Summary of 2007 Activities
New Bedford Harbor Superfund Site - 2007 Season

Date	Activity	Summary
Submittal of Initial Task Order/Subsequent Modifications (Continued)		
8/21/2007	Modification 1	**Tasks under Modification 1 were for the following:** Task 4 - an additional 20 days of processing and the associated T&D of dredged material; Task 10 - T&D of 350 cy of TSCA Debris and 100 cy of Non-TSCA Coarse material from Area C; and FCN 51 - placement of coarse grained material from Area C's DDA into CDF cell 1.
9/12/2007	Modification 2	**Tasks under Modification 2 were for the following:** Task 8 - An additional 5 days of dredging.
10/5/2007	Modification 3	**Tasks under Modification 3 were for the following:** Additional T&D associated with higher production rates, FCNs 47, 48, 50, 52, 54 (GPS replacement, sampling prior to debris removal, Area D Settlement Area Repair, OU3 Bathymetric Survey and 2 week rental of GPS).
11/6/2007	Modification 4	**Tasks under Modification 4 were for the following:** No cost POP extension.
11/30/2007	Modification 5	**Tasks under Modification 5 were for the following:** 35BG0602 original (off season work and O&M for the first half of 2008).
Mobilization Activities		
July/August 2007	Mobilization of Equipment and Personnel Associated with 2007 Dredging Activities	The 2007 remobilization activities included the installation of sheet piles in Dredge Areas G and H, mobilizing the dredges and associated dredge pipelines, staging the combined booster pump/ferric injection system at Aerovox, and the staging of a second booster pump station at Manomet Street. At Area D, the major activities were the rebuilding of the conveyor belts at the filter presses and the replacement of granular activated carbon in air filtration vessel and water treatment GAC vessels. The remainder of the mobilization activities involved general maintenance and repair activities.
July/August 2007	Booster Pumps and Ferric System Setup	Assemble combination of booster pump and ferric sulfate injection system at Aerovox and the associated booster pump station at Manomet Street. Installed in-line grinder 8/2/07. Preparatory meeting (7/24/07). Quality Control Report (QCR #39 Ferric Injection Pump)
July/August 2007	Service Test Pipelines Preparation and Shakedown.	Preparatory meeting (7/24/07), Initial Inspection (7/30/07) and Follow-up Inspection & Quality Control Reports (QCR #37 - Pipeline Re-assembly and QCR #34 - Scale Inspections 2007, and QCR #38 - Pipeline Service Test).
August 2007	Transportation & Disposal Preparation	Preparatory meeting (8/2/07), liner training (8/2/07), rail worker training (8/3/07).

Attachment B
Summary of 2007 Activities
New Bedford Harbor Superfund Site - 2007 Season

Date	Activity	Summary
Dredging and Associated Activities		
7/25 - 10/23/2007	Area D bulkhead repairs.	Preparatory meeting (7/18/07), remove asphalt (7/27/07), drill concrete and set rebar (8/2/07), pour concrete (8/13/07), complete drainage trench and re-pave (10/23/07).
8/2/2007	Initiated debris removal activities.	Mobilized scows, flexi-floats, excavator with add-a-stick and debris rake.
8/9/2007	Initiated dredging activities in the southern dredge area, Dredge Area H, primarily Dredge Management Unit-11 (DMU-11) also included DMU-9, and DMU-10.	Waste water treatment plant on-line (8/1/07). Begin pumping mud 8/8/07, begin full scale dredging 8/9/07. QCR #41 dredge plan compliance. Post dredge harbor elevation checks performed regularly.
8/16/2007	Initiate loading of Rail Cars with Filter Cake at Area D	First railcar loaded with filter cake.
8/17/2007	Initiated dredging activities in the northern Dredge Area G (primarily MU-102 (MF), and DMU-1.	Dredging of Area G partially completed during 2007 season. (see Figure A-19)
9/26/2007	Debris removal activities were completed in the 2007 Dredge Footprint.	On 9/26/07, debris removal activities in the active dredge areas were completed for the 2007 season, portions of Area G not completed. In addition, at the direction of the EPA and NAE, debris removal activities were conducted on the eastern boundary of proposed CDF B, along the western boundary of Dredge Area H.
September	Sand and coarse materials were transferred to Cell #1 at Area C	During this period, coarse material generated during the 2005, 2006, and 2007 dredging seasons and stockpiled in the DDA was placed in Cell #1 at Area C and covered with approximately 6 inches of clean dense grade.
10/4 - 10/18/2007	Transportation and Disposal of Debris from Area C DDA	During this period, H & S, the subcontracted transportation and disposal subcontractor, removed approximately 175 tons of debris, oil booms and other dredging generated waste that was stored at the Area C DDA. The debris was disposed of in the Romulus landfill as TSCA material.
8/8 - 10/4/2007	Completed the first 40 days of Dredging	Dredging activities completed under Modifications 15 and 17, which each included 20 days of dredging.
10/15 - 10/12/2007	Completed the 2007 Dredge Season	Dredging activities completed under Modification 19.
Air Monitoring Activities		
Not Conducted in 2007	Pre-Dredge Background Sampling	In 2007 pre-dredge sampling activities were not conducted.
8/20-21/2007	1st Round of Monthly Air Sampling	Air samples collected per site Sampling and Analysis Plan. Seven samples collected in first round. Preparatory Meeting (8/2/07), Initial Inspection 8/20/07, and the follow-up Inspection Quality & Control Report (QCR #26 - Air Sampling Audit).
9/17-18/2007	2nd Round of Monthly Air Sampling	Air samples were collected from seven sampling locations.
11/8-9/2007	Post Dredge 3rd Round of Air Sampling	Air samples were collected from six sampling locations.

Attachment B
Summary of 2007 Activities
New Bedford Harbor Superfund Site - 2007 Season

Date	Activity	Summary
Bathymetric Survey		
5/16-17/07	Pre-Dredge Survey in Dredge Areas G and H	Pre-dredge survey conducted.
6/22/2007	Pre-Dredge Survey in Dredge Areas G and H	Additional pre-dredge survey performed.
8/19/2007	Progress survey in Dredge Area H	Survey conducted by Apex. Preparatory Meeting (7/25/07).
8/25/2007	Progress survey in Dredge Areas G and H	Survey conducted by Apex.
8/31/2007	Progress survey in Dredge Area H	Survey conducted by Apex.
9/8/2007	Progress survey in Dredge Areas G and H	Survey conducted by Apex.
9/15/2007	Progress survey in Dredge Areas G and H	Survey conducted by Apex.
9/22/2007	Progress survey in Dredge Areas G and H	Survey conducted by Apex.
9/29/2007	Progress survey in Dredge Areas G and H	Survey conducted by Apex.
10/6/2007	Progress survey in Dredge Area H	Survey conducted by Apex.
10/13/2007	Post Dredge Survey in Dredge Area G	Survey conducted by Apex.
11/1/2007	Post Dredge Survey in Dredge Area H	Survey conducted by Apex.
Winterization Activities		
10/13-10/25/07	Winterization and Demobilization	Demobilization and winterization activities were completed for all operations. Preparatory Meeting (10/11/07). Completed 10/25/07.

CDF = confined disposal facility
DDA = dredge disposal area
EPA = U.S. Environmental Protection Agency
FCN = field change notice
GAC = granular activated carbon
NAE = U.S. Army Corps of Engineers - New England District
O&M = operations and maintenance
POP = period of performance
QCR = quality control report
T&D = transportation and disposal
TSCA = Toxic Substances Control Act

ATTACHMENT C

Sample Analytical Summary Tables

Table C-1
Summary of Area C Sand and Oversize Screened Material Analytical Data
New Bedford Harbor Superfund Site - 2007 Season

Location ID	Control number	Total Aroclors (mg/kg)[1, 2]	Oil and Grease (ppm)[3]	Antimony (mg/kg)	Arsenic (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Zinc (mg/kg)	Total Cyanide (mg/kg)	% Solids
V1-081307[4]	NB-F000401	48.0	2100	0.10U[5]	2.6	0.26B[6]	2.1	80.7	120	96.3	0.19	12.8	0.53B	0.61B	0.08U	195	0.50U	75.8
V3-081307[7]	NB-F000501	79.0	1200	0.12U	1.4	0.09B	1.0B	25.0	47.3	24.7	0.07	5.0B	0.21U	0.06U	0.21B	66.0	0.75U	62.4
V1-081607[8]	NB-F000801	23.0	840	0.21B	3.0	0.19B	0.95B	23.6	69.7	50.5	0.06	7.9	0.28B	0.25B	0.34B	72.6	0.65U	77.3
V1-081707	NB-F001301	30.0	1200	0.13B	2.1	0.20B	0.54B	19.8	96.3	132	0.12	7.3	0.41B	0.36B	0.07U	103	0.55U	81.3
V1-082107	NB-F001601	26.7	670	0.13B	2.1	0.22B	1.4	36.3	96.1	71.3	0.05	8.6	0.38B	0.15B	0.13B	135	0.50U	82.0
V1-082207	NB-F002101	5.99	500	0.07U	1.9	0.14B	0.41B	11.7	22.0	37.8	0.04	3.8	0.13U	0.04U	0.06U	68.1	0.060U	83.0
V1-082407	NB-F002401	12.70	1200	1.4	1.6	0.16B	0.49B	18.2	30.5	141	0.07	5.4	0.15B	0.12B	0.28B	92	0.50U	81.0
V1-082807	NB-F002501	11.66	820	0.38B	1.6	0.14B	0.53B	19.0	52.0	82.0	0.07	6.7	0.25B	0.25B	0.15B	108	0.65U	86.5
V1-083107	NB-F002801	62.8	5700	0.49B	2.4	0.22B	1.6	45.8	99.9	105	0.18	10.4	0.17U	0.50B	0.39B	189.0	0.67	75.8
V1-090507	NB-F003401	8.43	4700	0.50B	2.0	0.18B	0.38B	12.8	51.6	84.5	0.09	5.6	0.20B	0.03U	0.35B	128	0.60U	80.4
V1-090707	NB-F003801	13.71	830	0.30B	1.9	0.18B	0.28B	16.5	34.5	98.6	0.13	5.2	0.24B	0.04U	0.38B	93.6	0.60U	81.2
V1-091107	NB-F004001	11.7	580	0.80U	1.74	0.50U	1.00U	15.8	46.2	36.3	0.058	5.24	1.0U	1.50U	1.50U	63.8	0.50U	79.9
V1-091307	NB-F004301	23.0	960	0.80U	1.77	0.50U	1.00U	18.7	42.2	76.8	0.094	7.88	1.0U	1.50U	1.50U	94.9	0.60U	78.5
V1-091707	NB-F004801	33.0	950	0.23B	2.1	0.17B	0.67B	24.9	234	97.0	0.08	7.0	0.37B	1.2B	0.1B	108	0.50U	81.5
V1-091907	NB-F005001	50.0	1400	0.80U	1.54	0.50U	1.00U	34.5	70.5	78.2	0.269	8.87	1.0U	1.50U	1.50U	81.0	0.50U	81.8
V1-092407	NB-F005401	35.3	1300	0.19B	3.4	0.24B	0.59B	39.3	60.2	169	0.17	18.0	0.36B	0.35B	0.20B	596	0.50U	81.0
V1-092707	NB-F005901	17.78	1000	0.19B	1.9	0.07B	0.72B	21.2	54.2	92.2	0.12	6.3	0.18B	0.33B	0.23B	178	0.55U	80.2
V1-100207	NB-F006101	9.52	470	0.80U	1.42	0.50U	1.00U	14.4	34.3	27.2	0.042U	4.18	1.0U	1.50U	1.50U	56.3	0.50U	83.4
V1-100407	NB-F006401	6.35	300	0.80U	1.79	0.50U	1.00U	13.4	29.6	14.3	0.045U	5.04	1.0U	1.50U	1.50U	42.4	0.55U	85.4
V1-100507	NB-F006701	6.95	460	0.91U	1.38	0.57U	1.14U	13.0	30.2	18.4	0.042U	4.54U	1.1U	1.70U	1.70U	44.2	0.50U	83.9
V1-100907	NB-F007001	8.74	470	0.84U	1.56	0.52U	1.04U	16.5	37.0	19.0	0.044U	4.68	1.0U	1.57U	1.57U	46.9	0.50U	84.7
V1-101207	NB-F007201	110.44	650	0.12B	1.5	0.12B	0.50B	17.1	44.5	25.8	0.04	6.4	0.29B	0.18B	0.07U	53.9	0.50U	88.0

Notes:
[1] mg/kg = milligrams per kilogram
[2] Aroclors originally reported as individual Aroclors in lab reports; shown here as sum total of Aroclors.
[3] Oil and grease originally reported on a percent by weight basis; converted to parts per million (ppm).
[4] Composite sand sample only.
[5] "U" qualifier indicates analyte not detected above method detection limit (MDL).
[6] "B" qualifier on metals results indicates an estimated concentration above MDL but below reporting limit.
[7] Composite oversize material sample only.
[8] From V1-081607 sample collection on all Area C material sampled was a composite sand + oversize mixture, mixture represented Area C production.
The Toxic Substances Control Act (TSCA) threshold concentration for polychlorinated biphenyls (PCBs) is 50 mg/kg.
Composite samples were collected approximately every 100 tons of sand generated.

Table C-2
Area C and D Sieve Samples Geotechnical Summary
New Bedford Harbor Superfund Site - 2007 Season

Area C			
Desander Material			
ID	**% Gravel**	**% Sand**	**% Silt and Clay**
V1-081607	0.0	78.1	21.9
Oversize Material			
ID	**% Gravel**	**% Sand**	**% Silt and Clay**
V3-081607	75.4	20.2	4.4
Desander and Oversize Mixture			
ID	**% Gravel**	**% Sand**	**% Silt and Clay**
V1-082107	5.1	80.3	14.6
V1-082807	11.4	75.2	13.4
V1-090507	6.3	93.1	0.6
V1-091107	1.6	74.6	23.8
V1-091707	0.0	80.6	19.4
V1-092407	6.6	91.7	1.7
V1-100407	10.8	81.2	8.0
V1-100907	4.1	86.6	9.3

Area D			
Filter Cake			
ID	**% Gravel**	**% Sand**	**% Silt and Clay**
V2-081507	0.0	8.4	91.6
V2-082007	0.0	17.3	82.7
V2-082307	0.0	6.5	93.5
V2-082707	0.0	11.4	88.6
V2-083007	0.0	2.8	97.2
V2-090707	0.0	2.9	97.1
V2-091207	0.0	5.2	94.8
V2-091707	0.0	6.2	93.8
V2-091907	0.0	5.7	94.3
V2-100307	0.2	2.6	97.2
V2-101107	0.9	12.1	87.0

Table C-3
Summary of Analytical Data for Area D Filter Cake
New Bedford Harbor Superfund Site - 2007 Season

Location ID	Control Number	Drops		Total Aroclors[1] (mg/kg)[2]	Oil and Grease (ppm)[3]	Antimony (mg/kg)	Arsenic (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Zinc (mg/kg)	Total Cyanide (mg/kg)	% Solids
V2-081007	NB-F000402	1	55	370.0	16000	0.31U[4]	12.4	0.76	22.2	426	915	487	1.1	69.4	1.3	3.7	0.64B[5]	1480	0.70U	58.8
V2-081507	NB-F000802	56	110	130.0	3600	0.13U	11.5	0.92	13.9	302	596	280	0.98	50.0	0.72B	2.3	0.78B	847	0.75U	57.2
V2-081607	NB-F001201	111	165	66.0	3700	0.13U	10.4	0.87	12.4	248	456	198	0.56	42.0	0.71B	1.8B	0.57B	654	0.60U	60.8
V2-081707	NB-F001401	166	221	88.0	3300	0.13U	10.4	0.89	9.6	233	415	187	0.62	39.3	0.88B	0.89B	0.37B	628	0.80U	59.8
V2-082007	NB-F001501	222	277	147.0	6100	0.46B	12.2	0.84	8.3	202	586	465	1.1	37.4	0.96B	1.5B	0.43B	1430	0.65U	62.8
V2-082207	NB-F001701	278	333	116.2	7600	0.70B	12.4	0.85	9.3	213	629	484	1.2	37.4	1.5	1.6B	0.71B	1640	0.65U	60.9
V2-082307	NB-F002201	334	389	90.1	4200	0.24B	10.3	0.82	9.4	220	440	233	0.81	36.5	0.87B	1.3B	0.52B	775	0.50U	62.4
V2-082407	NB-F002601	390	445	114.7	5200.0	2.9	11.2	0.86	11.4	243	503	309	0.84	40.0	0.54B	1.4B	0.99B	994	0.55U	59.9
V2-082707	NB-F002701	446	500	125.0	4900	3.3	11.0	0.79	13.0	248	532	329	0.91	42.3	0.48B	2.1	0.44B	1070	0.95U	60.3
V2-082907	NB-F002901	501	555	125.1	6000	3.5	12.0	0.79	12.8	256	615	411	1.4	45.2	0.82B	2.5	0.54B	1280	0.90U	60.7
V2-083007	NB-F003201	556	610	208.2	11000	3.8	13.1	0.88	19.6	394	855	450	1.8	66.8	1.4B	3.4	0.95B	1510	0.80U	58.7
V2-090507	NB-F003501	611	665	188.0	12000	2.9	16.1	0.96	17.8	394	1130	608	2.2	71.7	2.3	3.0	1.4B	2140	0.80U	61.5
V2-090707	NB-F004101	666	720	156.6	8100	3.3	14.4	0.82	12.4	259	830	604	1.8	49.6	1.5	3.1	0.85B	2060	0.75U	58.7
V2-091007	NB-F004401	731	785	146.3	5800	0.52B	12.8	0.90	10.3	249	717	415	1.3	46.7	1.5	1.9B	0.26B	1430	0.75U	57.5
V2-091207	NB-F004601	786	840	100.3	3400	0.25B	10.0	0.84	6.5	160	402	239	0.84	30.5	1.2B	0.55B	0.25B	854	0.60U	59.9
V2-091407	NB-F004901	841	895	124.5	3900	0.28B	10.8	0.90	8.7	225	513	303	0.98	39.4	1.2B	0.93B	0.29B	995	0.60U	60.4
V2-091707	NB-F003901	896	950	314.7	6800	0.23U	10.7	0.83	10.5	255	534	346	1.1	44.2	1.1B	1.7B	0.54B	1110	0.65U	60.3
V2-091807	NB-F005101	951	1005	244.0	4600	0.12U	10.2	0.91	14.0	310	551	258	0.74	48.1	0.75B	1.6B	0.49B	805	0.60U	58.6
V2-091907	NB-F005301	1006	1060	213.4	3900	0.27U	10.1	0.90	0.4	234	400	193	0.62	40.0	0.97B	1.3B	0.46B	613	0.75U	59.4
V2-092107	NB-F005501	1061	1115	183.5	5000	0.11U	10.8	0.86	8.1	210	473	286	0.88	37.0	0.92B	1.3B	0.46B	979	0.60U	61.3
V2-092407	NB-F005701	1161	1170	85.0	6200	0.22B	14.0	0.59B	7.4	171	567	418	1.4	33.2	1.9	1.4B	0.74B	1530	0.70U	60.9
V2-092607	NB-F006001	1171	1225	88.8	6800	0.38B	14.1	0.60B	7.6	189	531	364	1.2	34.8	1.8	1.4B	0.73B	1500	0.60U	60.2
V2-092707	NB-F006201	1226	1280	136.1	5100	0.13U	12.2	0.58B	13.4	307	659	340	1.2	46.3	1.4B	1.9B	0.69B	1230	0.80U	60.0
V2-092807	NB-F006301	1281	1335	197.2	4400	0.25U	10.9	0.62B	16.2	376	648	238	0.84	53.2	1.5	1.9B	0.63B	796	0.82	58.5
V2-100307	NB-F006501	1336	1390	115.4	2300	0.25U	12.1	0.73	10.0	290	595	242	0.93	43.7	0.83B	0.07U	0.75B	774	0.70U	58.6
V2-100507	NB-F006801	1391	1445	105.7	6100	0.26U	11.5	0.75B	10.2	272	555	217	0.73	42.7	1.2B	1.4B	0.58B	704	0.70U	59.4
V2-101107	NB-F007101	1446	1500	135	4700	0.12U	12.6	0.90	10.5	355	663	248	0.90	50.1	0.96B	1.6B	0.10U	777	0.70U	59.7
V2-101507	NB-F007401	1501	1553	394	16000	0.14U	15.4	0.80	40.4	778	1510	814	2.3	137	1.3B	6.9	0.48B	2500	0.80U	54.7

Notes:
[1] Aroclors originally reported in lab reports as individual Aroclors, shown here as sum total of Aroclors.
[2] mg/kg = milligrams per kilogram
[3] Oil and grease originally reported in lab reports on a percent by weight basis, converted to parts per million (ppm).
[4] "U" qualifier indicates analyte not detected above method detection limit (MDL).
[5] "B" qualifier on metals results indicates an estimated concentration above MDL but below reporting limit.
The Toxic Substances Control Act (TSCA) threshold concentration for polychlorinated biphenyls (PCBs) is 50 mg/kg.
Composite samples were collected approximately every 550 tons of filter cake generated.

Table C-4
Summary Of WWTP Analytical Results
New Bedford Harbor Superfund Site - 2007 Season

2007 Area D Waste Water Treatment Plant
Laboratory: Test America

		Concentration Units µg/L [2]											
		Effluent					Midpoint		Influent				
Sample Date	COC Number[3]	Total Aroclors[1]	Copper	Cadmium	Chromium	Lead	Total Aroclors[1]	Copper	Total Aroclors[1]	Copper	Cadmium	Chromium	Lead
8/9/2007	NB-F0002	0.049U[4]	7.8B	0.88B[5]	0.90U	3.5U	0.048U	11.0B	38	19.2B	1.3B	6.7B	8.5B
8/10/2007	NB-F0006	0.050U	4.8B	0.50U	0.90U	3.5U							
8/13/2007	NB-F0007	0.053U	2.3U	0.50U	0.90U	3.5U	0.051U	7.1B	35	34.5	0.50U	6.0B	9.9B
8/14/2007	NB-F0010	0.053U	4.3B	0.66B	1.0B	3.5U							
8/15/2007	NB-F0011	0.048U	2.3U	7.4	1.1B	3.5U	0.047U	4.3B	32	19.5B	0.50U	6.0B	7.6B
8/21/2007	NB-F0019	0.047U	3.2B	1.1B	0.90U	3.5U	0.047U	4.1B					
8/29/2007	NB-F0023	0.047U	2.3U	6.2	0.90U	3.5U	0.047U	2.6B					
9/6/2007	NB-F0033	0.047U	3.1U	0.74B	1.5U	2.5B	0.047U	3.1U					
First Month's Average		**<0.049**	**<3.76**	**<2.25**	**<1.0**	**<3.4**							
9/27/2007	NB-F0058	0.047U	3.1U	0.67B	1.5U	1.9U	0.049U	0.57B	25	22.0B	1.2	12.0	5.0
Second Month's Average		**<0.047**	**<3.1**	**0.67B**	**<1.5**	**<1.9**							
Field Duplicate													
9/6/2007	NB-F0033	0.047U	3.1U	0.62B	1.5U	3.9B	0.047U	3.1U					

Notes:
[1] Aroclors originally reported as individual Aroclors, shown here as sum total of Aroclors.
[2] µg/L = micrograms per liter
[3] COC Number = chain of custody number
[4] "U" suffix indicates analyte not detected above method detection limit (MDL).
[5] "B" suffix on metals results indicates an estimated concentration above MDL

but below reporting limit.

ROD Discharge Goals:

PCB Aroclor	0.065 µg/L per Aroclor
Copper	5.6 µg/L
Cadmium	9.3 µg/L
Chromium	50 µg/L
Lead	8.5 µg/L

Discharge limits based on monthly average.

Table C-5
WWTP Effluent Water Quality Data
New Bedford Harbor Superfund Site - 2007 Season

Date [1,2]	Time	Temp (°C)	SpC (µS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU) [3]
8/9/2007	14:30	27.10	38981	5.99	6.31	261.0	3.9
8/9/2007	15:00	27.09	38028	5.89	6.28	265.1	4.0
8/9/2007	15:30	27.24	37873	5.05	6.29	174.3	6.2
8/9/2007	16:00	27.35	37776	4.37	6.28	229.0	8.8
8/9/2007	16:30	27.10	37690	4.74	6.31	179.3	9.0
8/9/2007	17:00	27.29	37750	3.98	6.30	184.2	9.7
8/9/2007	17:30	27.47	37183	4.40	6.35	153.1	8.6
8/9/2007	18:00	27.37	38210	4.92	6.35	166.0	8.7
8/9/2007	18:30	22.26	38679	4.78	6.38	174.8	8.0
8/10/2007	9:50	26.14	40321	5.28	6.48	261.1	2.7
8/10/2007	10:20	26.63	40530	5.55	6.55	257.4	3.1
8/10/2007	10:50	26.74	40810	5.90	6.57	205.1	2.4
8/10/2007	11:20	26.40	41230	5.63	6.67	189.0	1.4
8/10/2007	12:05	26.12	41250	5.09	6.59	205.1	1.5
8/10/2007	13:55	25.34	40610	5.75	6.75	195.1	0.1
8/10/2007	14:25	25.80	40440	5.89	6.66	194.0	0.4
8/10/2007	14:55	25.63	40700	5.58	6.64	202.7	0.6
8/10/2007	15:25	25.64	40720	5.14	6.64	206.5	0.3
8/10/2007	16:00	25.08	40440	5.78	6.72	227.5	2.5
8/10/2007	17:00	25.31	40080	5.93	6.75	241.7	4.2
8/10/2007	17:40	24.95	40270	5.88	6.80	252.0	4.2
8/10/2007	18:20	25.15	40100	5.87	6.81	273.5	3.3
8/13/2007	10:00	24.78	39260	6.13	6.63	234.0	-0.4
8/13/2007	10:30	25.37	38960	6.28	6.79	212.5	0.3
8/13/2007	11:00	25.68	38960	6.32	6.78	117.6	-0.7
8/13/2007	11:30	26.01	38570	5.16	6.74	133.4	1.2
8/13/2007	12:00	26.11	38135	5.20	6.66	157.1	-0.5
8/13/2007	12:30	26.15	38240	5.16	6.68	162.2	-0.2
8/13/2007	13:00	26.25	39061	5.22	6.60	166.0	-0.1
8/13/2007	13:30	26.18	39877	5.24	6.61	177.5	-0.2
8/13/2007	14:00	26.38	40602	4.49	6.59	182.6	-0.1
8/13/2007	14:30	26.36	41003	5.52	6.61	176.2	-0.2
8/13/2007	15:00	26.56	41925	4.17	6.62	189.3	-0.6
8/13/2007	15:30	26.57	42516	4.98	6.65	168.2	-0.5
8/13/2007	16:00	26.85	43376	4.22	6.64	179.1	-0.6
8/13/2007	16:30	26.80	43522	4.95	6.64	182.4	-0.3
8/13/2007	17:00	26.75	43501	4.24	6.63	272.6	-0.4
8/13/2007	17:30	26.75	43435	3.52	6.68	142.9	0.1
8/13/2007	18:00	26.77	43415	3.98	6.64	150.1	-0.2
8/13/2007	18:30	26.75	43471	4.12	6.65	162.1	-0.1
8/14/2007	13:30	25.79	42337	5.56	6.72	180.7	0.3
8/14/2007	14:00	26.43	42251	5.57	6.72	117.5	0.3
8/14/2007	14:30	26.52	42167	4.91	6.70	216.1	0.0
8/14/2007	15:00	26.40	42153	4.95	6.71	142.3	0.4
8/14/2007	15:30	26.51	41611	4.34	6.69	152.2	0.3
8/14/2007	16:00	26.24	41062	4.80	6.70	142.1	0.3
8/14/2007	16:30	26.34	40471	4.80	6.67	151.1	0.3
8/14/2007	17:00	26.37	40546	5.25	6.67	170.1	0.5
8/14/2007	17:30	26.24	40021	5.58	6.70	157.4	0.2
8/14/2007	18:00	26.29	39802	5.49	6.68	149.2	0.3
8/14/2007	18:30	26.22	39645	5.35	6.65	212.6	0.2
8/14/2007	19:00	26.34	39574	3.81	6.63	149.4	0.0
8/15/2007	9:45	26.10	39543	6.02	6.49	244.3	1.6

Table C-5
WWTP Effluent Water Quality Data
New Bedford Harbor Superfund Site - 2007 Season

Date [1,2]	Time	Temp (°C)	SpC (µS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU) [3]
8/15/2007	10:15	26.47	39348	5.45	6.57	169.4	0.6
8/15/2007	10:45	26.35	39569	5.11	6.55	176.7	0.5
8/15/2007	11:15	26.78	39686	4.16	6.53	153.6	0.7
8/15/2007	11:45	26.77	39979	5.61	6.55	153.2	0.6
8/15/2007	12:15	26.62	40092	5.20	6.55	171.2	0.5
8/15/2007	12:45	26.49	40568	5.11	6.56	154.3	0.6
8/15/2007	13:15	26.63	41227	4.40	6.56	177.6	0.7
8/15/2007	13:45	26.46	41773	4.30	6.58	150.2	0.6
8/15/2007	14:15	26.44	42353	4.93	6.63	162.3	0.5
8/15/2007	14:45	26.41	42562	4.82	6.66	176.4	0.6
8/15/2007	15:15	26.45	42841	4.13	6.65	154.3	0.9
8/15/2007	15:45	26.36	42762	4.53	6.69	162.4	0.8
8/15/2007	16:15	26.39	42673	4.58	6.71	167.7	0.7
8/15/2007	16:45	26.36	42431	4.35	6.73	150.1	0.8
8/15/2007	17:15	26.51	42267	3.68	6.75	153.7	0.7
8/15/2007	18:15	26.64	42081	4.44	6.88	149.5	0.7
8/15/2007	18:45	26.74	42421	2.55	6.81	156.7	0.5
8/15/2007	19:15	26.70	42412	4.03	6.83	160.2	0.5
8/21/2007	8:25	25.09	41906	5.33	7.15	226.0	1.3
8/21/2007	10:45	24.87	41472	5.36	7.42	159.1	0.3
8/21/2007	11:15	24.63	41629	5.16	7.44	62.8	-1.0
8/21/2007	11:45	24.31	41571	5.14	7.45	130.3	-1.0
8/21/2007	12:15	24.34	41549	3.77	7.46	121.1	-1.0
8/21/2007	12:45	34.39	41786	3.07	7.48	127.3	-1.0
8/21/2007	13:15	24.42	41802	2.99	7.52	123.2	-1.0
8/21/2007	13:45	24.41	41909	2.54	7.56	140.5	-1.0
8/21/2007	14:15	24.57	42176	1.72	7.61	154.0	-1.0
8/21/2007	14:45	24.29	42181	0.35	7.67	147.5	-1.0
8/21/2007	15:15	24.53	42592	0.35	7.71	143.9	-1.0
8/21/2007	15:45	24.65	42666	4.49	7.75	157.4	-1.0
8/21/2007	16:15	24.67	42809	0.62	7.77	158.2	-1.0
8/21/2007	16:45	24.60	43023	0.75	7.81	153.6	-0.3
8/21/2007	17:15	24.67	43368	0.28	7.86	160.8	-1.2
8/21/2007	17:45	24.34	43142	4.56	7.88	189.6	-1.1
8/21/2007	18:15	24.67	43105	0.67	7.92	168.5	-1.1
8/21/2007	18:45	24.66	43017	-0.13	7.95	76.7	-1.1
8/29/2007	9:05	26.24	40532	-11.10	7.78	261.5	1.5
8/29/2007	9:35	26.82	40567	-18.29	7.77	205.4	2.1
8/29/2007	10:25	26.80	40839	-12.53	7.77	198.4	2.0
8/29/2007	10:55	26.96	41293	-7.23	7.76	243.0	-1.0
8/29/2007	11:25	26.52	41297	-12.88	7.76	195.8	-1.1
8/29/2007	11:55	27.02	41458	-6.47	7.74	213.0	-0.9
8/29/2007	12:45	26.72	42209	4.48	7.77	276.6	0.6
8/29/2007	13:30	26.69	42902	4.54	7.78	191.8	-0.7
8/29/2007	14:00	26.80	43284	4.65	7.82	180.7	-0.6
8/29/2007	14:30	26.75	43501	3.61	7.84	175.9	-0.3
8/29/2007	15:00	26.68	43597	4.43	7.85	176.9	-0.2
8/29/2007	15:30	26.76	43584	4.56	7.88	180.2	0.2
8/29/2007	16:00	26.74	43592	4.44	7.89	181.5	-0.2
8/29/2007	17:00	26.90	43605	4.34	7.94	214.7	-0.5
8/29/2007	17:30	26.90	43596	4.00	7.94	215.8	-0.2
8/29/2007	18:00	27.03	43512	3.59	7.98	156.1	-0.5
8/29/2007	18:35	27.13	43474	3.55	8.01	205.4	0.5

Table C-5
WWTP Effluent Water Quality Data
New Bedford Harbor Superfund Site - 2007 Season

Date [1,2]	Time	Temp (°C)	SpC (µS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU) [3]
8/29/2007	19:00	27.08	43456	3.64	8.00	177.6	0.3
9/6/2007	8:50	24.32	42607	6.56	7.59	195.8	1.4
9/6/2007	9:20	25.39	42453	4.25	7.94	145.6	1.7
9/6/2007	9:55	25.78	42177	3.26	7.94	149.7	0.3
9/6/2007	10:25	24.40	41917	-1.70	7.91	165.8	0.4
9/6/2007	11:05	25.49	28047	3.48	7.93	139.4	0.1
9/6/2007	11:45	25.51	32907	0.16	7.95	148.9	0.0
9/6/2007	12:30	25.27	42623	-6.16	7.97	137.2	0.1
9/6/2007	13:30	25.47	43510	-7.09	8.02	149.6	-0.4
9/6/2007	14:30	25.32	43757	-4.77	8.04	121.4	-0.1
9/6/2007	15:00	25.22	43986	-6.93	8.07	138.0	-0.1
9/6/2007	15:35	25.29	44122	-7.21	8.08	154.9	0.0
9/6/2007	16:25	25.18	44152	-12.04	8.09	139.6	0.0
9/6/2007	16:55	25.25	44201	-11.50	8.09	140.6	0.0
9/6/2007	17:30	25.31	44276	-11.57	8.10	149.7	0.0
9/6/2007	18:00	25.21	44399	-11.63	8.10	159.6	-0.1
9/27/2007	9:55	23.16	39463	5.83	7.05	238.8	8.1
9/27/2007	10:25	24.80	39727	4.88	7.46	231.3	0.8
9/27/2007	11:05	24.95	39669	4.65	7.75	195.4	0.1
9/27/2007	11:35	24.99	39523	4.77	7.73	188.2	0.1
9/27/2007	12:05	25.09	39302	4.93	7.72	154.9	0.3
9/27/2007	12:35	25.07	39287	5.06	7.71	162.3	0.3
9/27/2007	13:05	24.90	39360	5.27	7.68	181.9	0.3
9/27/2007	13:35	25.01	39501	5.01	7.67	182.7	0.3
9/27/2007	14:05	24.97	39642	4.88	7.67	191.4	0.3
9/27/2007	14:35	25.06	39726	4.63	7.67	192.2	0.3
9/27/2007	15:05	25.00	39809	4.70	7.66	184.4	0.1
9/27/2007	15:35	24.92	39943	4.75	7.65	174.2	0.0
9/27/2007	16:05	24.95	40071	4.77	7.65	179.1	0.1
9/27/2007	16:35	25.01	40140	4.80	7.65	164.2	0.1
9/27/2007	17:05	24.99	40268	4.81	7.68	163.6	0.0
9/27/2007	17:35	24.96	40245	5.16	7.70	175.0	0.0
9/27/2007	18:05	25.03	40229	4.42	7.74	162.4	-0.2

Notes:
[1] All measurements were taken on a YSI 650/6920, calibrated daily.
[2] A flow-through cell connected to effluent autosampler was used to collect sample for readings.
[3] A negative turbidity reading indicates measured sample exhibited less turbidity than 0 NTU calibration standard.
0 NTU turbidity standard used was deionized Poland Springs bottled water.

°C = degrees Celsius
DO = dissolved oxygen
mg/L = milligrams/Liter
mV = millivolts
NTU = nephelometric turbidity units
ORP = oxidation reduction potential
SpC = specific conductivity
WWTP = waste water treatment plant
µs/cm = microsiemens per centimeter

Table C-6
WWTP Midpoint and Influent Water Quality Data
New Bedford Harbor Superfund Site - 2007 Season

Influent Water Quality Monitoring							
Date [1,2]	Time	Temp (°C)	SpC (µS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU) [3]
8/9/2007	17:10	22.78	39353	1.60	6.41	225.3	9.9
8/13/2007	17:25	27.22	43426	5.56	7.05	110.7	14.6
8/15/2007	17:45	26.63	42319	5.76	7.02	-7.7	18.9
9/27/2007	18:25	24.94	40053	6.01	7.19	-49.8	21.1

Midpoint Water Quality Monitoring							
Date [1,2]	Time	Temp (°C)	SpC (µS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU) [3]
8/9/2007	17:20	28.62	40882	5.76	6.96	-83.9	23.1
8/13/2007	17:15	27.22	44543	0.70	6.70	274.6	0.2
8/15/2007	17:35	26.71	42001	0.23	6.99	165.1	0.7
8/21/2007	17:05	24.90	43365	-0.05	8.08	156.0	-1.2
8/29/2007	18:30	27.32	43414	-0.08	8.12	175.9	-0.6
9/6/2007	18:25	25.33	44515	-6.81	7.98	147.2	-0.1
9/27/2007	18:15	25.03	40148	3.99	7.80	183.4	-0.2

Notes:
1) All measurements were taken on a YSI 650/6920, calibrated daily.
2) A flow-through cell connected to effluent autosampler was used to collect sample for readings.
3) A negative turbidity reading indicates measured sample exhibited less turbidity than 0 NTU calibration standard.
0 NTU turbidity standard used was deionized Poland Springs bottled water.
WWTP = waste water treatment plant
°C = degrees Celsius
SpC = specific conductivity
µs/cm = microsiemens per centimeter
DO = dissolved oxygen
mg/L = milligrams/Liter
ORP = oxidation reduction potential
mV = millivolts
NTU = nephelometric turbidity units

ATTACHMENT D

Transportation and Disposal Reports

Table D-1
Sand and Oversize Screenings Transport Log - Area C
New Bedford Harbor Superfund Site - 2007 Season

	Sand and Debris		Totals	
Date	Net Weight (lb)	Net Weight (tons)	Daily Total (tons)	Running Total (tons)
8/14/2007	25060	12.53		
	44380	22.19		
	42760	21.38		
	41160	20.58		
	45860	22.93		
	48980	24.49	124.1	124.1
8/16/2007	29700	14.85		
	35900	17.95		
	46800	23.4		
	29500	14.75		
	41400	20.7		
	45020	22.51	114.16	238.26
8/18/2007	39960	19.98		
	44160	22.08		
	46980	23.49		
	45720	22.86		
	38400	19.2		
	45740	22.87		
	43100	21.55	152.03	390.29
8/21/2007	40760	20.38		
	18340	9.17		
	45640	22.82		
	35960	17.98		
	43440	21.72	92.07	482.36
8/23/2007	38720	19.36		
	35920	17.96		
	44180	22.09		
	40080	20.04		
	42940	21.47		
	45520	22.76		
	41400	20.7		
	47580	23.79	168.17	650.53
8/27/2007	45220	22.61		
	47640	23.82		
	36860	18.43		
	46040	23.02		
	40640	20.32		
	40580	20.29		650.53
	40280	20.14	148.63	799.16
8/30/2007	47480	23.74		
	39860	19.93		
	45940	22.97		
	44420	22.21		
	39760	19.88		
	39640	19.82		
	44700	22.35		
	46920	23.46	174.36	973.52
9/4/2007	45080	22.54		
	41260	20.63		
	38680	19.34		
	43580	21.79		
	44660	22.33	106.63	1080.15
9/6/2007	49280	24.64		
	40800	20.4		
	35380	17.69		
	42140	21.07		
	47480	23.74		
	44420	22.21		
	45840	22.92	152.67	1232.82
9/12/2007	31580	15.79		
	41940	20.97		

Table D-1
Sand and Oversize Screenings Transport Log - Area C
New Bedford Harbor Superfund Site - 2007 Season

	Sand and Debris		Totals	
Date	Net Weight (lb)	Net Weight (tons)	Daily Total (tons)	Running Total (tons)
	41060	20.53		
	48320	24.16		
	43460	21.73	103.18	1336
9/14/2007	42320	21.16		
	36440	18.22		
	41040	20.52		
	40640	20.32		
	44460	22.23		
	46000	23	125.45	1461.45
9/18/2007	44120	22.06		
	38420	19.21		
	43580	21.79		
	45120	22.56		
	44240	22.12		
	41400	20.7		
	44180	22.09		
	42580	21.29	171.82	1633.27
9/20/2007	42920	21.46		
	47940	23.97		
	42640	21.32		
	42900	21.45		
	43740	21.87		
	40220	20.11		
	39580	19.79	149.97	1783.24
9/24/2007	44360	22.18		
	45020	22.51		
	50280	25.14		
	47960	23.98		
	51020	25.51		
	47200	23.6		
	44660	22.33		
	45340	22.67		
	39100	19.55	207.47	1990.71
9/27/2007	46800	23.4		
	45700	22.85		
	46540	23.27		
	44520	22.26		
	45500	22.75		
	48300	24.15	138.68	2129.39
10/2/2007	42860	21.43		
	47420	23.71		
	49180	24.59		
	47120	23.56		
	48600	24.3		
	44280	22.14		
	43680	21.84		
	46720	23.36		
	43140	21.57		
	44800	22.4	228.9	2358.29
10/4/2007	47480	23.74		
	48580	24.29		
	43540	21.77		
	54280	27.14		
	48420	24.21		
	48980	24.49		
	45400	22.7		
	49960	24.98		
	50660	25.33		
	53560	26.78		
	49200	24.6		
	52340	26.17		

Table D-1
Sand and Oversize Screenings Transport Log - Area C
New Bedford Harbor Superfund Site - 2007 Season

	Sand and Debris		Totals	
Date	Net Weight (lb)	Net Weight (tons)	Daily Total (tons)	Running Total (tons)
	49280	24.64		
	51700	25.85		
	50080	25.04		
	46900	23.45		
	49660	24.83	420.01	2778.3
10/5/2007	47140	23.57		
	42780	21.39		
	46320	23.16	68.12	2846.42
10/8/2007	50360	25.18		
	54100	27.05		
	51720	25.86		
	48620	24.31		
	56160	28.08		
	42020	21.01		
	41800	20.9		
	43500	21.75		
	47600	23.8		
	37280	18.64		
	34400	17.2		
	47500	23.75	277.53	3123.95
10/10/2007	49120	24.56		
	51560	25.78		
	53180	26.59		
	49620	24.81		
	47200	23.6		
	46520	23.26		
	45940	22.97		
	52940	26.47		
	52940	26.47		
	47920	23.96		
	45320	22.66	271.13	3395.08
10/12/2007	44640	22.32		
	54120	27.06		
	49160	24.58		
	50700	25.35		
	51540	25.77		
	51980	25.99		
	49980	24.99		
	40980	20.49	196.55	3591.63
			Total Sand and Oversize Material	**3591.63**

Table D-2
TSCA Debris Transport Log for Material Shipped from Area C (Truck to Rail)
New Bedford Harbor Superfund Site - 2007 Season

Date Shipped	Manifest Number	Manifest Document Number	Truck Number	Estimated Cubic Yards	Waste Stream	Estimated Net Pounds	Estimated Net Tons	TSDF	Date Received
10/04/07	002863581JJK	7C001	44273	50.00	TSCA Debris	29,660.00	14.83	WDI	10/12/07
10/04/07	002863579JJK	7C003	69891	50.00	TSCA Debris	20,400.00	10.20	WDI	10/12/07
10/05/07	002863582JJK	7C002	76100	50.00	TSCA Debris	33,120.00	16.56	WDI	10/16/07
10/05/07	002863580JJK	7C004	44273	50.00	TSCA Debris	28,420.00	14.21	WDI	10/16/07
10/05/07	002863584JJK	7C006	69891	50.00	TSCA Debris	28,940.00	14.47	WDI	10/12/07
10/05/07	002863583JJK	7C005	76100	50.00	TSCA Debris	11,080.00	5.54	WDI	10/12/07
10/05/07	002851908JJK	7C007	44273	50.00	TSCA Debris	27,140.00	13.57	WDI	10/12/07
10/05/07	002851909JJK	7C008	69891	50.00	TSCA Debris	30,740.00	15.37	WDI	10/12/07
10/11/07	002851912JJK	7C009	44273	50.00	TSCA Debris	19,920.00	9.96	WDI	10/17/07
10/11/07	002851913JJK	7C010	76100	50.00	TSCA Debris	18,280.00	9.14	WDI	10/17/07
10/11/07	002851915JJK	7C011	69891	50.00	TSCA Debris	29,120.00	14.56	WDI	10/17/07
10/11/07	002851916JJK	7C012	44273	50.00	TSCA Debris	31,740.00	15.87	WDI	10/17/07
10/18/07	002851917JJK	7C013	44273	50.00	TSCA Debris	22,560.00	11.28	WDI	10/25/07
10/18/07	002851918JJK	7C014	69891	50.00	TSCA Debris	18,800.00	9.40	WDI	10/25/07
			Total Estimated Cubic Yards	**700.00**		**Total Estimated Tons**	**174.96**		

Notes:
TSDF = transportation storage and disposal facility
WDI = Wayne Disposal Facility, Inc.

Table D-3
TSCA Filter Cake Waste Transport Log - Area D (Rail)
New Bedford Harbor Superfund Site - 2007 Season

Date Loaded	Date Shipped	Railcar Number	Manifest Number	Tare Weight (pounds)	Net Weight (tons)	Net Weight (pounds)	Gross Weight (pounds)
08/10/07	08/10/07	JTLX 4063	002865865JJK	65,850	98.48	196,950	262,800
08/10/07	08/10/07	CEFX 32723	002865885JJK	65,050	98.95	197,900	262,950
08/10/07	08/10/07	CEFX 33461	002865884JJK	67,050	97.83	195,650	262,700
08/13/07	08/13/07	GBRX 227	002865883JJK	65,900	98.35	196,700	262,600
08/13/07	08/13/07	GBRX 229	002865882JJK	65,850	98.45	196,900	262,750
08/13/07	08/13/07	GBRX 244	002865881JJK	65,650	98.65	197,300	262,950
08/13/07	08/17/07	GBRX 211	002865880JJK	68,950	96.85	193,700	262,650
08/15/07	08/16/07	GBRX 194	002865886JJK	67,100	97.75	195,500	262,600
08/16/07	08/16/07	CEFX 32757	002865878JJK	65,800	98.58	197,150	262,950
08/16/07	08/17/07	CEFX32719	002865877JJK	65,500	98.62	197,250	262,750
08/16/07	08/17/07	GBRX 220	002865876JJK	67,200	97.87	195,750	262,950
08/16/07	08/17/07	GBRX 195	002865875JJK	67,100	97.80	195,600	262,700
08/16/07	08/17/07	GBRX 213	002865874JJK	66,400	98.27	196,550	262,950
08/16/07	08/17/07	GBRX 238	002865873JJK	66,150	98.42	196,850	263,000
08/16/07	08/20/07	GBRX 249	002865872JJK	65,350	98.75	197,500	262,850
08/16/07	08/20/07	GBRX 218	002865871JJK	66,900	98.00	196,000	262,900
08/17/07	08/20/07	GBRX 241	002865870JJK	65,200	98.90	197,800	263,000
08/17/07	08/20/07	GBRX236	002865869JJK	65,350	98.72	194,450	262,800
08/17/07	08/20/07	GBRX245	002865868JJK	65,950	98.52	197,050	263,000
08/17/07	08/20/07	GBRX 212	002865867JJK	67,350	97.75	195,000	262,850
08/20/07	08/21/07	GBRX 247	002865866JJK	66,150	98.28	196,550	262,700
08/20/07	08/21/07	GBRX 248	002865888JJK	66,000	98.35	196,750	262,750
08/20/07	08/21/07	GBRX 246	002865887JJK	65,900	98.55	197,100	263,000
08/20/07	08/21/07	GBRX 228	002865889JJK	65,850	98.33	89,183	262,500
08/21/07	08/21/07	GBRX 231	002865890JJK	65,900	98.48	196,950	262,850
08/21/07	08/21/07	GBRX239	002865891JJK	66,900	98.13	196,250	262,550
08/21/07	08/23/07	GBRX 250	002865892JJK	66,100	98.40	196,800	262,900
08/21/07	08/23/07	GBRX 217	002865893JJK	67,200	97.78	195,550	262,750
08/21/07	08/23/07	GBRX 222	002865894JJK	67,000	98.00	196,000	263,000
08/22/07	08/23/07	GBRX 203	002865895JJK	67,200	97.80	195,600	263,000
08/22/07	08/23/07	GBRX 191	002865896JJK	66,750	98.10	196,150	262,000
08/22/07	08/23/07	GBRX 204	002865897JJK	66,550	98.15	196,300	262,850
08/22/07	08/23/07	GBRX 235	002865898JJK	65,950	98.50	197,000	262,950
08/22/07	08/23/07	GBRX 237	002865899JJK	65,650	98.63	197,250	262,900
08/23/07	08/27/07	GBRX 192	002865900JJK	66,300	98.20	196,400	262,700
08/23/07	08/27/07	GBRX 230	002865901JJK	66,200	98.32	196,650	262,850
08/23/07	08/27/07	GBRX 233	002865902JJK	65,300	98.68	197,350	262,850
08/23/07	08/27/07	GBRX 240	002865903JJK	64,750	99.13	198,250	263,000
08/24/07	08/27/07	GBRX 215	002865904JJK	67,150	97.88	195,750	263,000
08/24/07	08/27/07	GBRX 197	002865905JJK	66,250	98.38	196,750	263,000

Table D-3
TSCA Filter Cake Waste Transport Log - Area D (Rail)
New Bedford Harbor Superfund Site - 2007 Season

Date Loaded	Date Shipped	Railcar Number	Manifest Number	Tare Weight (pounds)	Net Weight (tons)	Net Weight (pounds)	Gross Weight (pounds)
08/27/07	08/27/07	GBRX 206	002865906JJK	66,550	98.15	196,300	262,850
08/27/07	08/27/07	GBRX214	002865907JJK	67,500	97.55	195,100	262,600
08/27/07	08/28/07	GBRX 207	002865908JJK	66,300	98.28	196,550	262,850
08/27/07	08/28/07	GBRX 199	002865909JJK	66,000	98.45	196,900	262,900
08/27/07	08/28/07	GBRX 242	002865910JJK	66,250	98.30	196,600	262,850
08/28/07	08/29/07	GBRX 202	002865911JJK	67,400	97.80	195,600	263,000
08/28/07	08/29/07	GBRX 201	002865912JJK	66,250	98.18	196,350	262,600
08/28/07	08/29/07	GBRX 234	002865913JJK	65,500	98.75	197,500	263,000
08/28/07	08/29/07	GBRX 225	002865914JJK	67,200	97.78	195,550	262,750
08/28/07	08/29/07	GBRX 221	002865915JJK	67,200	97.83	195,650	262,850
08/29/07	08/29/07	GBRX 193	002865446JJK	66,800	98.10	196,200	263,000
08/29/07	09/04/07	GBRX 205	002865447JJK	67,150	97.78	195,550	262,700
08/29/07	09/04/07	GBRX 198	002865448JJK	66,150	98.10	196,200	262,350
08/30/07	09/04/07	GBRX 200	002865449JJK	66,350	98.28	196,550	262,900
08/30/07	09/04/07	GBRX 226	002865450JJK	65,500	98.70	197,400	262,900
08/30/07	09/04/07	GBRX 243	002865451JJK	65,600	98.68	197,350	262,950
08/30/07	09/04/07	GBRX 208	002865452JJK	67,150	97.93	195,850	263,000
08/31/07	09/04/07	CEFX 32756	002865453JJK	64,900	98.85	197,700	262,600
09/04/07	09/06/07	GBRX 224	002865454JJK	67,050	97.95	195,900	262,950
09/05/07	09/06/07	GBRX 209	002865455JJK	67,400	97.80	195,600	263,000
09/05/07	09/06/07	GBRX 196	002865456JJK	67,000	97.90	195,800	262,800
09/05/07	09/06/07	GBRX 227	002865457JJK	65,900	98.38	196,750	262,650
09/06/07	09/06/07	CEFX 33461	002865458JJK	67,050	97.85	195,700	262,750
09/06/07	09/10/07	JTLX 4063	002865459JJK	65,850	98.35	196,700	262,550
09/06/07	09/10/07	CEFX 33408	002865460JJK	66,800	98.00	196,000	262,800
09/06/07	09/10/07	CEFX 555332	002865461JJK	65,850	98.50	197,000	262,850
09/07/07	09/10/07	CEFX 555328	002865462JJK	66,200	98.40	196,800	263,000
09/07/07	09/10/07	JTLX 4050	002865463JJK	65,550	98.73	197,450	263,000
09/07/07	09/10/07	CEFX 30295	002865464JJK	65,800	98.60	197,200	263,000
09/07/07	09/10/07	CEFX 32723	002865465JJK	65,050	98.80	197,600	262,650
09/10/07	09/13/07	GBRX 229	002865466JJK	65,850	98.55	197,100	262,950
09/10/07	09/13/07	CEFX 555347	002865467JJK	66,400	98.30	196,600	263,000
09/10/07	09/13/07	CEFX 555334	002865469JJK	66,600	98.20	196,400	263,000
09/11/07	09/13/07	CEFX 33406	002865470JJK	66,500	98.25	196,500	263,000
09/12/07	09/13/07	CEFX 30279	002865471JJK	66,050	98.33	196,650	262,700
09/12/07	09/13/07	CEFX 32766	002865472JJK	65,200	98.85	197,700	262,900
09/12/07	09/13/07	CEFX 32727	002865473JJK	64,950	98.85	197,700	262,650
09/13/07	09/17/07	CEFX 32733	002865474JJK	65,250	98.73	197,450	262,700
09/13/07	09/17/07	GBRX 244	002865475JJK	65,650	98.55	197,100	262,750
09/13/07	09/17/07	CEFX 30286	002865476JJK	65,750	98.55	197,100	262,850

Table D-3
TSCA Filter Cake Waste Transport Log - Area D (Rail)
New Bedford Harbor Superfund Site - 2007 Season

Date Loaded	Date Shipped	Railcar Number	Manifest Number	Tare Weight (pounds)	Net Weight (tons)	Net Weight (pounds)	Gross Weight (pounds)
09/14/07	09/17/07	GBRX 217	002865477JJK	66,600	98.15	196,300	262,900
09/14/07	09/17/07	GBRX 219	002865478JJK	67,000	97.83	195,650	262,650
09/14/07	09/17/07	GBRX 210	002865479JJK	67,050	97.98	195,950	263,000
09/14/07	09/17/07	GBRX232	002865480JJK	66,100	98.43	196,850	262,950
09/14/07	09/17/07	GBRX 223	002865495JJK	67,450	97.78	195,550	263,000
09/17/07	09/17/07	GBRX 222	002865481JJK	67,000	97.88	195,750	262,750
09/17/07	09/18/07	GBRX 231	002865482JJK	65,900	98.38	196,750	262,650
09/17/07	09/18/07	GBRX 213	002865483JJK	66,400	98.28	196,550	262,950
09/17/07	09/18/07	GBRX 238	002865484JJK	66,150	98.38	196,750	262,900
09/18/07	09/18/07	GBRX 247	002865485JJK	66,150	98.38	196,750	262,900
09/18/07	09/19/07	GBRX 248	002865486JJK	65,600	98.70	197,400	263,000
09/18/07	09/19/07	CEFX 32757	002865487JJK	65,500	98.63	197,250	262,750
09/18/07	09/19/07	GBRX 203	002865488JJK	67,200	97.75	195,500	262,700
09/19/07	09/19/07	GBRX 191	002865489JJK	66,750	98.13	195,250	263,000
09/19/07	09/20/07	GBRX 216	002865490JJK	67,200	97.90	195,800	263,000
09/19/07	09/20/07	GBRX 220	002865491JJK	67,200	97.73	195,450	262,650
09/19/07	09/20/07	CEFX 32719	002865492JJK	65,500	98.68	197,350	262,850
09/20/07	09/21/07	GBRX 211	002865493JJK	65,950	98.30	196,600	262,550
09/20/07	09/21/07	GBRX 245	002865494JJK	65,950	98.45	196,900	262,850
09/20/07	09/21/07	GBRX 236	002865496JJK	65,350	98.73	197,450	262,800
09/20/07	09/21/07	GBRX 249	002865497JJK	65,350	98.83	197,650	263,000
09/21/07	09/24/07	GBRX 218	002865498JJK	66,900	98.00	196,000	262,900
09/21/07	09/24/07	GBRX 204	002865499JJK	66,500	98.10	196,200	262,750
09/21/07	09/24/07	GBRX 235	002865500JJK	65,950	98.45	196,900	262,850
09/21/07	09/24/07	GBRX 246	003278002JJK	65,900	98.53	197,050	262,950
09/21/07	09/24/07	GBRX 228	003278003JJK	65,850	98.45	196,900	262,750
0924/07	09/25/07	GBRX 195	003278004JJK	67,100	97.78	195,550	262,650
09/24/07	09/25/07	GRBX 221	003278005JJK	67,300	97.68	195,350	262,650
09/24/07	09/25/07	GBRX 193	003278006JJK	66,800	97.98	195,950	262,750
09/24/07	09/25/07	GBRX 234	002851501JJK	65,500	98.43	196,850	262,350
09/25/07	09/26/07	GBRX 225	002851502JJK	67,150	97.93	195,850	263,000
09/25/07	09/26/07	GBRX 250	002851503JJK	66,200	98.20	196,400	262,600
09/25/07	09/26/07	GBRX 194	002851504JJK	67,300	97.83	195,650	262,950
09/25/07	09/26/07	GBRX 212	002851505JJK	67,350	97.70	195,400	262,750
09/25/07	09/26/07	GBRX 241	002851506JJK	65,200	98.65	197,300	262,500
09/26/07	09/27/07	CEFX 555332	002851507JJK	65,850	98.35	196,700	262,550
09/26/07	09/27/07	GBRX 201	002851508JJK	66,250	98.18	196,350	262,600
09/26/07	09/27/07	GBRX 197	002851509JJK	66,250	98.25	196,500	262,750
09/26/07	09/27/07	GBRX 206	002851510JJK	66,550	98.18	196,500	262,900
0927/07	10/01/07	JTLX 4063	002851511JJK	65,850	98.53	197,050	262,900

Table D-3
TSCA Filter Cake Waste Transport Log - Area D (Rail)
New Bedford Harbor Superfund Site - 2007 Season

Date Loaded	Date Shipped	Railcar Number	Manifest Number	Tare Weight (pounds)	Net Weight (tons)	Net Weight (pounds)	Gross Weight (pounds)
0927/07	10/01/07	GBRX 215	002851512JJK	67,350	97.83	195,650	263,000
0927/07	10/01/07	GBRX 230	002851513JJK	66,200	98.35	196,700	262,900
0927/07	10/01/07	GBRX 233	002851514JJK	65,300	98.65	197,300	262,600
09/28/07	10/01/07	GBRX 192	002851515JJK	66,300	98.30	196,600	262,900
09/28/07	10/01/07	GBRX 214	002851516JJK	67,500	97.63	195,250	262,750
09/28/07	10/01/07	GBRX 242	002851517JJK	66,250	98.28	196,550	262,800
09/28/07	10/01/07	GBRX 237	002851518JJK	65,600	98.50	197,000	262,650
10/01/07	10/02/07	GBRX 209	002851519JJK	67,400	97.78	195,550	262,950
10/01/07	10/02/07	CEFX 30295	002851520JJK	65,800	98.53	197,050	262,850
10/01/07	10/02/07	CEFX 32723	002851521JJK	65,050	98.95	197,900	262,950
10/02/07	10/04/07	CEFX 555328	002851522JJK	66,200	98.25	196,500	262,700
10/02/07	10/04/07	GBRX 207	002851523JJK	66,300	98.15	196,300	262,600
10/02/07	10/04/07	GBRX 199	002851524JJK	66,000	98.35	196,700	262,700
10/02/07	10/04/07	GBRX 202	002851525JJK	67,400	97.60	195,200	262,600
10/03/07	10/04/07	JTLX 4050	002851526JJK	65,550	98.68	197,350	262,900
10/03/07	10/04/07	CEFX 32756	002851527JJK	64,900	98.90	197,800	262,700
10/04/07	10/04/07	GBRX 208	002851528JJK	67,150	97.73	195,450	262,600
10/04/07	10/08/07	CEFX 30279	002851529JJK	66,050	98.33	196,650	262,700
10/04/07	10/08/07	CEFX 555347	002851530JJK	66,400	98.10	196,200	262,600
10/05/07	10/08/07	CEFX 555334	002851563JJK	66,600	97.98	195,950	262,550
10/05/07	10/08/07	GBRX 229	002851564JJK	65,850	98.48	196,900	262,800
10/08/07	10/08/07	GBRX 223	002851565JJK	67,200	97.75	195,500	262,950
10/08/07	10/08/07	GBRX 222	002861566JJK	67,000	97.95	195,900	262,900
10/08/07	10/16/07	GBRX 200	002851567JJK	66,350	98.15	196,300	262,650
10/09/07	10/16/07	CEFX 33406	002851568JJK	66,500	98.13	196,250	262,750
10/10/07	10/16/07	CEFX 32727	002851569JJK	64,950	98.88	197,750	262,700
10/12/07	10/16/07	CEFX 33408	002851570JJK	66,800	97.83	195,650	262,450
10/12/07	10/16/07	GBRX 205	002851571JJK	67,150	97.75	195,500	262,650
10/15/07	10/16/07	GBRX 198	002851572JJK	66,150	98.20	196,400	262,550
10/15/07	10/16/07	GBRX 224	002851573JJK	67,050	97.98	195,950	263,000
10/16/07	10/16/07	GBRX 196	002851574JJK	67,400	97.58	195,150	262,550
10/16/07	10/17/07	CEFX 32766	002851575JJK	65,300	95.40	190,800	256,100
10/25/07	10/25/07	CEFX 30286	002851576JJK	65,750	95.48	190,950	256,700
			TOTALS		**15,026.39**	**29,940,383**	

Notes:
TSCA = Toxic Substances Control Act

ATTACHMENT E

NBH Occupational PCB Exposure Evaluation for 2007 Season

Table E-1
NBH Occupational PCB Exposure Evaluation for 2007 Season
New Bedford Harbor Superfund Site - 2007 Season

Location	Date Sampled	Results (mg/m^3)(1)	12-Hour TWA (mg/m^3) (2), (3)	Results (ng/m^3)(4)	% of 12-Hour TWA
Dredge	8/16/2007	0.0020	0.375	2000	0.53
	8/23/2007	0.0024	0.375	2400	0.64
	8/30/2007	0.0021	0.375	2100	0.56
	9/6/2007	0.0019	0.375	1900	0.51
	9/13/2007	0.0029	0.375	2900	0.77
	9/20/2007	0.0026	0.375	2600	0.69
	9/27/2007	0.0036	0.375	3600	0.96
	10/4/2007	0.0019	0.375	1900	0.51
	10/11/2007	0.0023	0.375	2300	0.61
Excavator - Debris Removal	8/16/2007	0.0019	0.375	1900	0.51
	8/23/2007	0.0023	0.375	2300	0.61
	8/30/2007	0.0030	0.375	3000	0.80
	9/6/2007	0.0020	0.375	2000	0.53
	9/13/2007	0.0018	0.375	1800	0.48
	9/20/2007	0.0037	0.375	3700	0.99
	9/27/2007	0.0027	0.375	2700	0.72
	10/4/2007	0.0026	0.375	2600	0.69
	10/11/2007	N/A(5)	0.375	N/A	N/A
Dewatering Mix Tank	8/16/2007	0.0071	0.375	7100	1.89
	8/23/2007	N/A	0.375	N/A	N/A
	8/30/2007	0.0035	0.375	3500	0.93
	9/6/2007	0.0025	0.375	2500	0.67
	9/13/2007	0.0026	0.375	2600	0.69
	9/20/2007	0.0036	0.375	3600	0.96
	9/27/2007	0.0020	0.375	2000	0.53
	10/4/2007	0.0060	0.375	6000	1.60
	10/11/2007	0.0023	0.375	2300	0.61
Filter Press	8/16/2007	N/A	0.375	N/A	N/A
	8/23/2007	N/A	0.375	N/A	N/A
	8/30/2007	0.0064	0.375	6400	1.71
	9/6/2007	0.0035	0.375	3500	0.93
	9/13/2007	0.0030	0.375	3000	0.80
	9/20/2007	0.0046	0.375	4600	1.23
	9/27/2007	0.0041	0.375	4100	1.09
	10/4/2007	0.0101	0.375	10100	2.69
	10/11/2007	0.0034	0.375	3400	0.91
Desanding	8/16/2007	N/A	0.375	N/A	N/A
	8/23/2007	N/A	0.375	N/A	N/A
	8/30/2007	0.0024	0.375	2400	0.64
	9/6/2007	0.0041	0.375	4100	1.09
	9/13/2007	0.0033	0.375	3300	0.88
	9/20/2007	0.0036	0.375	3600	0.96
	9/27/2007	0.0040	0.375	4000	1.07
	10/4/2007	0.0029	0.375	2900	0.77
	10/11/2007	0.0039	0.375	3900	1.04

Notes:
(1) mg/m^3 = miligrams per cubic meter
(2) TWA = Time Weighted Average Exposure Limit
(3) TWA adjusted for 12-hour shift
(4) ng/m^3 = nanograms per cubic meter
(5) N/A = not applicable

ATTACHMENT F

Ambient Air Monitoring Information

Legend

Aerial Photography MASSGIS 2005

Ambient Air Sampling Locations

Sample Station

0 750 1,500 Feet

1:18,000

JACOBS

2007 Ambient Air Sampling Station Locations

New Bedford Harbor Superfund Site

NAME: croberts DATE: 1/8/2008

Figure F-1

Y:\NBHP\Projects\338\02\00\2\20080108\ArcGIS\2007_ambient_sampling_stations.mxd

Table F-1
Ambient Monitoring Program - Total Detectable PCBs (Homologues) in Air
New Bedford Harbor Superfund Site - 2007 Season

	Station 24	Station 55	Station 25	Station 42	Station 46	Station 47	Station 48	Station 49	Station 50	Station 51	Station 52	Station 53	Station 56	Blank	
Sampling [1] Period	**Aerovox [2] (ng/m^3)**	**Aerovox West Upwind (ng/m^3)**	**Cliftex (ng/m3)**	**Nstar (ng/m^3)**	**Coffin Avenue (ng/m^3)**	**Area C Downwind (ng/m^3)**	**Area C [3] Crosswind (ng/m^3)**	**Area C Downwind (ng/m^3)**	**Area D Downwind (ng/m^3)**	**Area D Downwind (ng/m^3)**	**Area D (ng/m^3)**	**Dredge (ng/m^3)**	**Acushnet Park (ng/m^3)**	**(ng/m^3) Sample**	**Comments**
2005 Events															
8/10 to 8/11	216	42.1	103	25.9	37.2	NS [4]	NS	29.3	NS	NS	21.3	NS	49.9	0.32	
Round 1 2005		44.1													Field Duplicate
9/14 to 9/15	1,490	37.6	58.2	22.5	99.8	NS	14.9	83.6	0.52	NS	NS	1,280	102	0.26	
Round 2 2005															No Duplicate Sample
9/22 to 9/23	178	2.64	35.2	83.3	115	NS	19.1	97	0.26	NS	NS	780	23.9	0.54	
Round 3 2005							18.8								Field Duplicate
9/28 to 9/29	383	87	104	5.28	124	NS	17.3	44.2	24.2	NS	NS	391	77.9	1.16	
Round 4 2005															NAE Duplicate [7]
10/5 to 10/6	1,822	222	251	119	130	NS	60.1	114	81.7	NS	NS	6,315	180	0.96	
Round 5 2005	1708														Field Duplicate
10/27 to 10/28	15.4	3.97	NA [5]	32.3	2.06	NS	4.61	12.3	0.01	NS	NS	505	2.73	0.42	
Round 6 2005															NAE Duplicate [7]
11/17 to 11/18	15.9	0.12	0.12	63.6	0.14	NS	0.139	3.71	NA [6]	NS	NS	913	3.76	1.73	
Round 7 2005	14.9														Field Duplicate
12/28 to 12/29	83.2	10.8	10.9	21.4	65.1	7.42	NS	NS	NS	2.18	NS	NS	13.5	0.33	
Round 8 2005															NAE Duplicate [7]
2006 Events															
8/30 to 8/31	1,629	NS	176	NS	70.4	39.2	NS	NS	NS	67.3	NS	2,336	NS	1.57	
Round 1 2006	1,387														Field Duplicate
10/4 to 10/6	2,357	NS	451 [8]	NS	108	NS	NS	157	NS	NS	197	13,430	NS	6.65	
Round 2 2006															NAE Duplicate [7]
11/18 to 11/19	41.1	NS	0.14	NS	4.05	NS	NS	81.4	2.6	NS	NS	NS	NS	0.74	
Round 3 2006	0.25														Field Duplicate
2007 Events															
8/20 to 8/21	282	NS	147	19.2	36.1	46.9	NS	NS	36.7	NS	NS	138	NS	1.81	
Round 1 2007	291														Field Duplicate
9/17 to 9/18	176	NS	120	16.3	21.4	57.1	NS	NS	48.7	NS	NS	130	NS	1.66	
Round 2 2007															NAE Duplicate [7]
11/8 to 11/9	19.7	NS	20.2	15.7	1.86	9.29	NS	NS	NS	4.39	NS	NS	NS	0.376	
Round 3 2007	19.4														Field Duplicate

Notes:
[1] Sampled and analyzed using EPA Method TO-10A (modified for low flow).
[2] All results reported for 24-hour time-weighted average in nanograms per cubic meter of air (ng/m ^{3}).
[3] Station 48 was a cross-wind location for the 2004 and 2005 season and is no longer sampled.
[4] NS = not sampled.
[5] NA = not analyzed, sample tube for Station 25 was broken during transport.
[6] NA = not analyzed, sample tube for Station 50 was broken during analysis preparation.
[7] Duplicate sent to USACE laboratory, no results provided.
[8] During the first day of sampling in 2006, the duplicate sample was to be collected at Station 25. However, one of the two sampling pumps failed at Station 25, and neither sample were not submitted for analysis. Therefore, the sample and associated duplicate sample were collected on the following day from Station 25 and submitted for analysis.

Air Sampling Status Reports (PETS Curves)

Air Sampling Status Report

New Bedford Harbor Superfund Site

Station #: 24 Aerovox
Exposure Budget Slope (EBS) = 344 nanograms per cubic meter per day (ng/m^3-day)

Collection Date: 11/30/2007

Construction Activity: The 2007 dredging activities were initiated on August 7, 2007 and demobilization activities were completed on October 25, 2007.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Volume sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Harbor Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

Summary of This Sampling Period:

The results from the Foster Wheeler, Baseline Ambient Air Sampling program (June 1999 through May 2000) were used to assign background concentrations for each air sampling location. For Station 24 Aerovox, the Foster Wheeler quarterly average ambient air PCB concentrations for the June 1999 through May 2000 baseline sampling were used as background concentrations. These background concentrations were used to project the PCB concentrations during for the inactive field times from 11/12/02 through 9/8/04, for the period from 12/4/04 through 8/10/05, from 12/28/05 through 8/15/06, and from 11/19/06 through 8/6/07 to close the recent inactive field season. In addition, to better simulate the 2006 dredging season, the ambient air concentrations from the August 31, 2006 sampling event were used as the concentrations detected at Station 24 Aerovox from August 16, 2006 (the start of dredging activities). To better simulate the 2007 dredging season, the ambient air concentrations from the August 21, 2007 sampling event were used as the concentrations detected at Station 24 Aerovox from August 7, 2007 (the start of dredging activities).

Coordinating the sampling date with the start of dredging better simulates the ambient air PCB concentrations present at Station 24 Aerovox during the active dredging season. For the first month of the 2004 and 2005 seasons, the sampling was conducted on a weekly basis. However, since monthly sampling was conducted in 2006, and the first 2006 sampling event was conducted two weeks after the start of dredging, this new variation of the PETs curve was used. Also, the background concentrations were projected to be at background levels at Station 24 Aerovox on October 19, 2006, which is the day after the 2006 dredging activities were completed. For the 2007 season, the PCB concentrations were projected to be at background levels at Station 24 Aerovox on October 13, 2007, which is the day after the 2007 dredging activities were completed. These changes in the background concentrations and associated active dredging concentrations better match the actual 2006 and 2007 dredging activities. No triggers were identified, therefore, no action is required.

Monitoring Station		24 Aerovox
Exposure Budget Slope	[ng/m^3-day]	344
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date (Per EPA)	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	75
Notes:		
TEL - Threshold Effects Exposure Limit		
NTEL - Non-Threshold Effects Exposure Limits		
The EPA periodically assesses this Projected Work End Date, which is subject to change.		

Sample Results, Calculated Budget and Exposure Values
24 Aerovox Location

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#}	[month/day/year]	[days]	Running Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	67	67.00	67.00	NC	NC	NC	NC	NC	NC
2	11/30/2002	18	18	9477	67	67.00	67.00	6192	6192	1206.0	1,206.0	19.5%	19.5%
3	12/1/2002	1	19	9476	32	49.50	66.08	344	6536	49.5	1,255.5	14.4%	19.2%
4	2/28/2003	89	108	9387	32	32.00	38.00	30616	37152	2848.0	4,103.5	9.3%	11.0%
5	5/31/2003	92	200	9295	76	54.00	45.36	31648	68800	4968.0	9,071.5	15.7%	13.2%
6	8/31/2003	92	292	9203	130	103.00	63.52	31648	100448	9476.0	18,547.5	29.9%	18.5%
7	11/30/2003	91	383	9112	67	98.50	71.83	31304	131752	8963.5	27,511.0	28.6%	20.9%
8	2/28/2004	90	473	9022	32	49.50	67.58	30960	162712	4455.0	31,966.0	14.4%	19.6%
9	5/31/2004	93	566	8929	76	54.00	65.35	31992	194704	5022.0	36,988.0	15.7%	19.0%
10	8/31/2004	92	658	8837	130	103.00	70.61	31648	226352	9476.0	46,464.0	29.9%	20.5%
11	9/8/2004	8	666	8829	67	98.50	70.95	2752	229104	788.0	47,252.0	28.6%	20.6%
12	9/9/2004	1	667	8828	1024	545.50	71.66	344	229448	545.5	47,797.5	158.6%	20.8%
13	9/14/2004	5	672	8823	1449	1236.50	80.33	1720	231168	6182.5	53,980.0	359.4%	23.4%
14	9/23/2004	9	681	8814	588	1018.50	92.73	3096	234264	9166.5	63,146.5	296.1%	27.0%
15	9/27/2004	4	685	8810	9557	5072.50	121.81	1376	235640	20290.0	83,436.5	1474.6%	35.4%
16	10/19/2004	22	707	8788	559	5058.00	275.41	7568	243208	111276.0	194,712.5	1470.3%	80.1%
17	11/5/2004	17	724	8771	578	568.50	282.29	5848	249056	9664.5	204,377.0	165.3%	82.1%
18	12/3/2004	28	752	8743	30	304.00	283.10	9632	258688	8512.0	212,889.0	88.4%	82.3%
19	2/28/2005	87	839	8656	32	31.00	256.96	29928	288616	2697.0	215,586.0	9.0%	74.7%
20	5/31/2005	92	931	8564	76	54.00	236.90	31648	320264	4968.0	220,554.0	15.7%	68.9%
21	8/10/2005	71	1002	8493	130	103.00	227.41	24424	344688	7313.0	227,867.0	29.9%	66.1%
22	8/11/2005	1	1003	8492	216	173.00	227.36	344	345032	173.0	228,040.0	50.3%	66.1%
23	9/15/2005	35	1038	8457	1490	853.00	248.45	12040	357072	29855.0	257,895.0	248.0%	72.2%
24	9/23/2005	8	1046	8449	178	834.00	252.93	2752	359824	6672.0	264,567.0	242.4%	73.5%
25	9/29/2005	6	1052	8443	383	280.50	253.09	2064	361888	1683.0	266,250.0	81.5%	73.6%
26	10/6/2005	7	1059	8436	1822	1102.50	258.70	2408	364296	7717.5	273,967.5	320.5%	75.2%
27	10/28/2005	22	1081	8414	15.4	918.70	272.14	7568	371864	20211.4	294,178.9	267.1%	79.1%
28	11/18/2005	21	1102	8393	15.9	15.65	267.25	7224	379088	328.7	294,507.6	4.5%	77.7%
29	12/29/2005	41	1143	8352	83.2	49.55	259.44	14104	393192	2031.6	296,539.1	14.4%	75.4%
30	2/28/2006	61	1204	8291	32	57.60	249.21	20984	414176	3513.6	300,052.7	16.7%	72.4%
31	5/31/2006	92	1296	8199	76	54.00	235.36	31648	445824	4968.0	305,020.7	15.7%	68.4%
32	8/15/2006	76	1372	8123	130	103.00	228.02	26144	471968	7828.0	312,848.7	29.9%	66.3%
33	8/16/2006	1	1373	8122	1629	879.50	228.50	344	472312	879.5	313,728.2	255.7%	66.4%
34	8/31/2006	15	1388	8107	1629	1629.00	243.63	5160	477472	24435.0	338,163.2	473.5%	70.8%
35	10/5/2006	35	1423	8072	2357	1993.00	286.66	12040	489512	69755.0	407,918.2	579.4%	83.3%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Sample Results, Calculated Budget and Exposure Values
24 Aerovox Location

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#]	[month/day/year]	[days]	Running Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
36	10/19/2006	14	1437	8058	41.1	1199.05	295.55	4816	494328	16786.7	424,704.9	348.6%	85.9%
37	11/19/2006	31	1468	8027	41.1	41.10	290.18	10664	504992	1274.1	425,979.0	11.9%	84.4%
38	11/30/2006	11	1479	8016	67	54.05	288.42	3784	508776	594.6	426,573.6	15.7%	83.8%
39	2/28/2007	90	1569	7926	32	49.50	274.72	30960	539736	4455.0	431,028.6	14.4%	79.9%
40	5/31/2007	92	1661	7834	76	54.00	262.49	31648	571384	4968.0	435,996.6	15.7%	76.3%
41	8/6/2007	67	1728	7767	130	103.00	256.31	23048	594432	6901.0	442,897.6	29.9%	74.5%
42	8/7/2007	1	1729	7766	282	206.00	256.28	344	594776	206.0	443,103.6	59.9%	74.5%
43	8/21/2007	14	1743	7752	282	282.00	256.48	4816	599592	3948.0	447,051.6	82.0%	74.6%
44	9/18/2007	28	1771	7724	176	229.00	256.05	9632	609224	6412.0	453,463.6	66.6%	74.4%
45	10/13/2007	25	1796	7699	67	121.50	254.18	8600	617824	3037.5	456,501.1	35.3%	73.9%
46	11/9/2007	27	1823	7672	19.7	43.35	251.05	9288	627112	1170.5	457,671.5	12.6%	73.0%
47	11/30/2007	21	1844	7651	67	43.35	248.69	7224	634336	910.4	458,581.9	12.6%	72.3%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

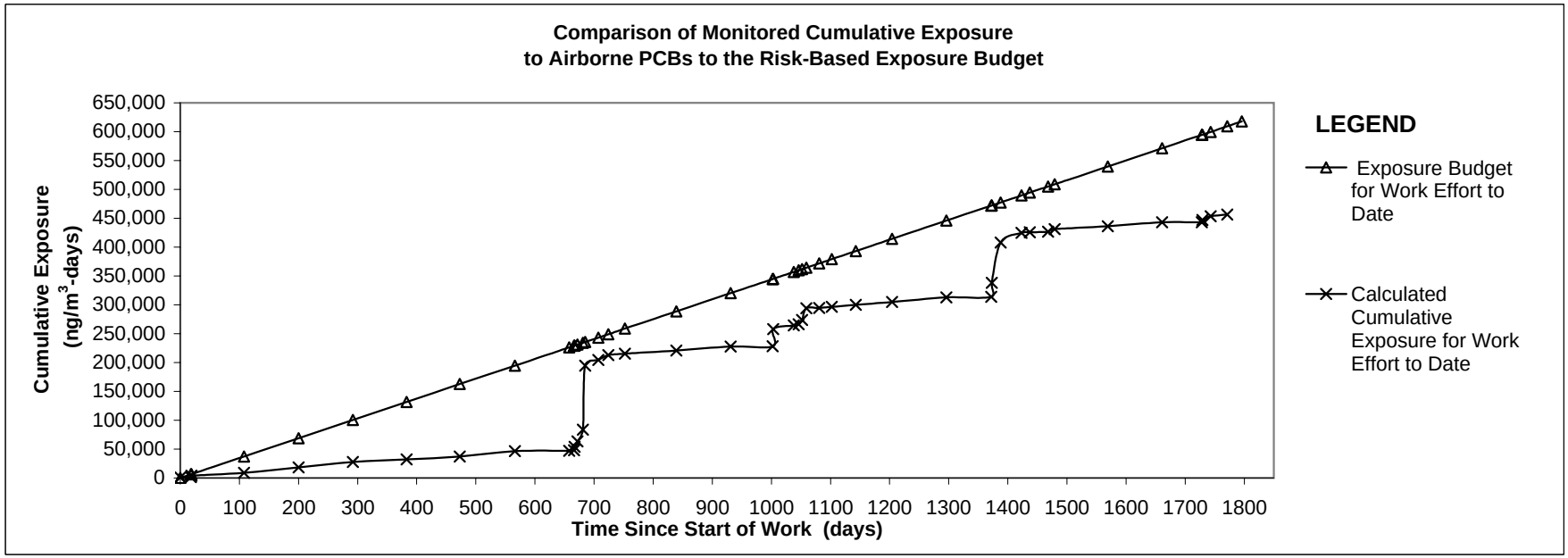
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	24 Aerovox
Collection Date:	11/30/2007
Measured PCB Concentration (ng/m^3):	67
Exposure Budget Expended During This Period:	12.6%
Cumulative Exposure Budget Expended to Date:	72.3%
Response Level:	No Triggers Identified
Response:	No Response Necessary

Triggers:



Notes:

a) 2004 dredge season, including pre- and post-dredging sampling events, were from 667 to 752 days since start of work (September 9 through December 3, 2004).
b) 2005 dredge season, including pre-and post-dredging sampling events, were from 1003 to 1143 days since start of work (August 11 through December 29, 2005).
c) 2006 dredge season, which did not include a pre-dredge sampling event, was from 1388 to 1468 days since start of work (August 16 through October 18, 2006).
d) 2007 dredge season, which did not include a pre-dredge sampling event, was from 1729 to 1823 days since start of work (August 7 through November 9, 2007).

Air Sampling Status Report

New Bedford Harbor Superfund Site

Station #: 25 Cliftex
Exposure Budget Slope (EBS) = 202 nanograms per cubic meter per day (ng/m^3-day)

Collection Date: 11/30/2007

Construction Activity: The 2007 dredging activities were initiated on August 7, 2007 and demobilization activities were completed on October 25, 2007.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Volume sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Harbor Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

Summary of This Sampling Period:

The results from the Foster Wheeler Baseline Ambient Air Sampling program (June 1999 through May 2000) were used to assign background concentrations for each air sampling location. For Station 25 Cliftex, the quarterly average ambient air PCB concentrations were used as a background concentration, which represent the quarterly baseline averages for the period of June 1999 through May 2000. These background concentrations were used to project the PCB concentrations during the inactive field times from 11/12/02 through 9/8/04, for the period from 12/4/04 through 8/10/05, from 12/28/05 through 8/15/06, and from 11/19/06 through 8/6/07 to close the recent inactive field season. In addition, to better simulate the 2006 dredging season, the ambient air concentrations from the August 31, 2006 sampling event were used as the concentrations detected at Station 25 Cliftex from August 16, 2006 (the start of dredging activities). To better simulate the 2007 dredging season, the ambient air concentrations from the August 21, 2007 sampling event were used as the concentrations detected at Station 25 Cliftex from August 7, 2007 (the start of dredging activities).

Coordinating the sampling date with the start of dredging better simulates the ambient air PCB concentrations at Station 25 Cliftex during the active dredging season. For the first month of the 2004 and 2005 seasons, the sampling was conducted on a weekly basis. However, since monthly sampling was conducted in 2006, and the first 2006 sampling event was conducted two weeks after the start of dredging, this new variation of the PETs curve was used. Also, the concentrations were projected to be at background levels at Station 25 Cliftex on October 19, 2006, which is the day after the 2006 dredging activities were completed. For the 2007 season, the PCB concentrations were projected to be at background levels at Station 25 Cliftex on October 13, 2007, which is the day after the 2007 dredging activities were completed. These changes in the background concentrations and associated active dredging concentrations better match the actual 2006 and 2007 dredging activities. No triggers were identifed, therefore, no action is required.

Monitoring Station		25 Cliftex
Exposure Budget Slope	[ng/m^3-day]	202
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date (Per EPA)	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	23
Notes:		
TEL - Threshold Effects Exposure Limit		
NTEL - Non-Threshold Effects Exposure Limit		
The EPA periodically assesses this Projected Work End Date, which is subject to change.		

Sample Results, Calculated Budget and Exposure Values
25 Cliftex Location

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#]	[month/day/year]	[days]	Running Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	22	22.00	22.00	NC	NC	NC	NC	NC	NC
2	11/30/2002	18	18	9477	22	22.00	22.00	3636	3636	396.0	396.0	10.9%	10.9%
3	12/1/2002	1	19	9476	3.2	12.60	21.51	202	3838	12.6	408.6	6.2%	10.6%
4	2/28/2003	89	108	9387	3.2	3.20	6.42	17978	21816	284.8	693.4	1.6%	3.2%
5	5/31/2003	92	200	9295	35	19.10	12.25	18584	40400	1757.2	2,450.6	9.5%	6.1%
6	8/31/2003	92	292	9203	46	40.50	21.15	18584	58984	3726.0	6,176.6	20.0%	10.5%
7	11/30/2003	91	383	9112	22	34.00	24.21	18382	77366	3094.0	9,270.6	16.8%	12.0%
8	2/28/2004	90	473	9022	3.2	12.60	22.00	18180	95546	1134.0	10,404.6	6.2%	10.9%
9	5/31/2004	93	566	8929	35	19.10	21.52	18786	114332	1776.3	12,180.9	9.5%	10.7%
10	8/31/2004	92	658	8837	46	40.50	24.17	18584	132916	3726.0	15,906.9	20.0%	12.0%
11	9/8/2004	8	666	8829	22	34.00	24.29	1616	134532	272.0	16,178.9	16.8%	12.0%
12	9/9/2004	1	667	8828	167	94.50	24.40	202	134734	94.5	16,273.4	46.8%	12.1%
13	9/14/2004	5	672	8823	229	198.00	25.69	1010	135744	990.0	17,263.4	98.0%	12.7%
14	9/23/2004	9	681	8814	97	163.00	27.50	1818	137562	1467.0	18,730.4	80.7%	13.6%
15	9/28/2004	5	686	8809	423	260.00	29.20	1010	138572	1300.0	20,030.4	128.7%	14.5%
16	10/19/2004	21	707	8788	259	341.00	38.46	4242	142814	7161.0	27,191.4	168.8%	19.0%
17	11/15/2004	27	734	8761	61	160.00	42.93	5454	148268	4320.0	31,511.4	79.2%	21.3%
18	12/3/2004	18	752	8743	27	44.00	42.96	3636	151904	792.0	32,303.4	21.8%	21.3%
19	2/28/2005	87	839	8656	3.2	15.10	40.07	17574	169478	1313.7	33,617.1	7.5%	19.8%
20	5/31/2005	92	931	8564	35	19.10	38.00	18584	188062	1757.2	35,374.3	9.5%	18.8%
21	8/10/2005	71	1002	8493	46	40.50	38.17	14342	202404	2875.5	38,249.8	20.0%	18.9%
22	8/11/2005	1	1003	8492	103	74.50	38.21	202	202606	74.5	38,324.3	36.9%	18.9%
23	9/15/2005	35	1038	8457	58.2	80.60	39.64	7070	209676	2821.0	41,145.3	39.9%	19.6%
24	9/23/2005	8	1046	8449	35.2	46.70	39.69	1616	211292	373.6	41,518.9	23.1%	19.7%
25	9/29/2005	6	1052	8443	104	69.60	39.86	1212	212504	417.6	41,936.5	34.5%	19.7%
26	10/6/2005	7	1059	8436	251	177.50	40.77	1414	213918	1242.5	43,179.0	87.9%	20.2%
27	11/18/2005	43	1102	8393	0.12	125.56	44.08	8686	222604	5399.1	48,578.1	62.2%	21.8%
28	12/29/2005	41	1143	8352	10.9	5.51	42.70	8282	230886	225.9	48,804.0	2.7%	21.1%
29	2/28/2006	61	1204	8291	3.2	7.05	40.89	12322	243208	430.1	49,234.0	3.5%	20.2%
30	5/31/2006	92	1296	8199	35	19.10	39.35	18584	261792	1757.2	50,991.2	9.5%	19.5%
31	8/15/2006	76	1372	8123	46	40.50	39.41	15352	277144	3078.0	54,069.2	20.0%	19.5%
32	8/16/2006	1	1373	8122	176	111.00	39.46	202	277346	111.0	54,180.2	55.0%	19.5%
33	8/31/2006	15	1388	8107	176	176.00	40.94	3030	280376	2640.0	56,820.2	87.1%	20.3%
34	10/5/2006	35	1423	8072	451	313.50	47.64	7070	287446	10972.5	67,792.7	155.2%	23.6%
35	10/19/2006	14	1437	8058	0.14	225.57	49.37	2828	290274	3158.0	70,950.7	111.7%	24.4%
36	11/19/2006	31	1468	8027	0.14	0.14	48.33	6262	296536	4.3	70,955.1	0.1%	23.9%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Sample Results, Calculated Budget and Exposure Values
25 Cliftex Location

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#}	[month/day/year]	[days]	Running Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
37	11/30/2006	11	1479	8016	22	11.07	48.06	2222	298758	121.8	71,076.8	5.5%	23.8%
38	2/28/2007	90	1569	7926	3.2	12.60	46.02	18180	316938	1134.0	72,210.8	6.2%	22.8%
39	5/31/2007	92	1661	7834	35	19.10	44.53	18584	335522	1757.2	73,968.0	9.5%	22.0%
40	8/6/2007	67	1728	7767	46	40.50	44.38	13534	349056	2713.5	76,681.5	20.0%	22.0%
41	8/7/2007	1	1729	7766	147	96.50	44.41	202	349258	96.5	76,778.0	47.8%	22.0%
42	8/21/2007	14	1743	7752	147	147.00	45.23	2828	352086	2058.0	78,836.0	72.8%	22.4%
43	9/18/2007	28	1771	7724	120	133.50	46.63	5656	357742	3738.0	82,574.0	66.1%	23.1%
44	10/13/2007	25	1796	7699	22	71.00	46.96	5050	362792	1775.0	84,349.0	35.1%	23.2%
45	11/9/2007	27	1823	7672	20.2	21.10	46.58	5454	368246	569.7	84,918.7	10.4%	23.1%
46	11/30/2007	21	1844	7651	22	21.10	46.29	4242	372488	443.1	85,361.8	10.4%	22.9%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

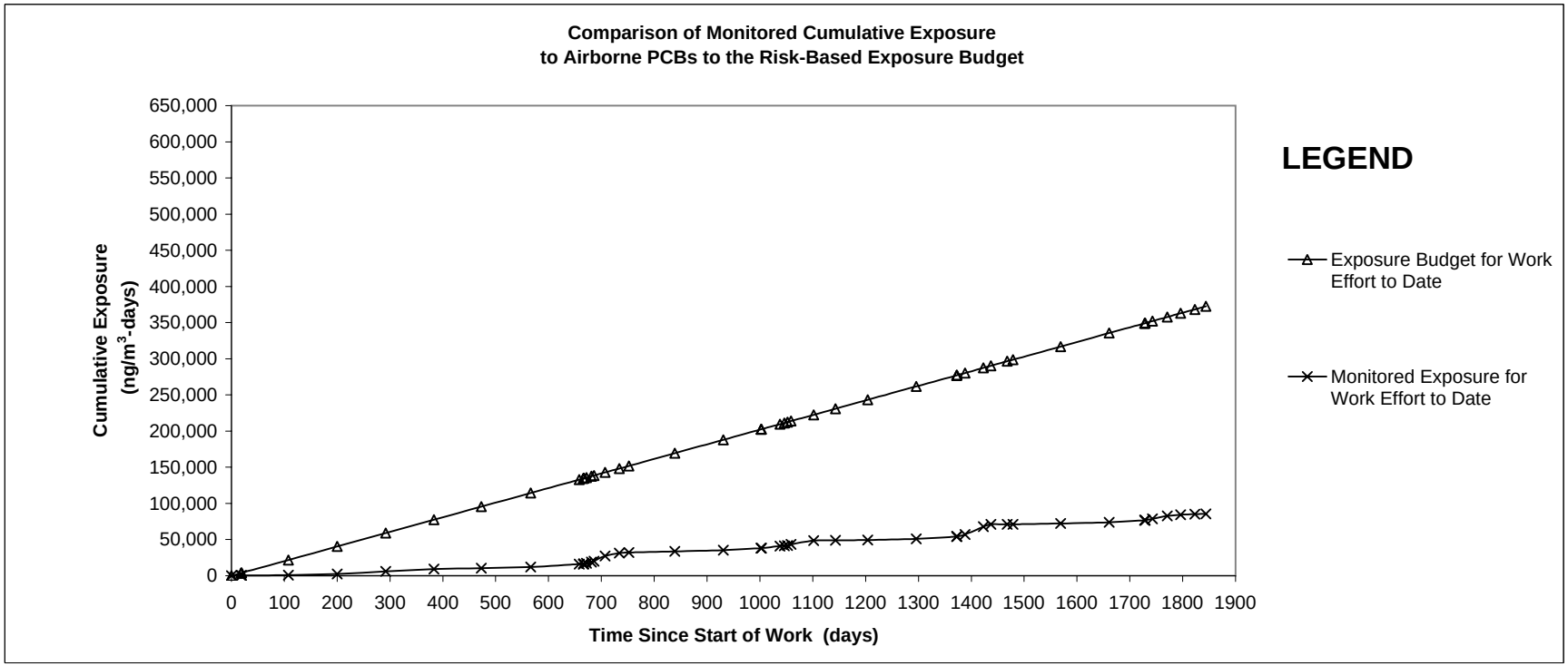
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	25 Cliftex
Collection Date:	11/30/2007
Measured PCB Concentration (ng/m^3):	22
Exposure Budget Expended During This Period:	10.4%
Cumulative Exposure Budget Expended to Date:	22.9%
Response Level:	No Triggers Identified
Response:	No Response Necessary

Triggers:



Notes:
a) 2004 dredge season, including pre- and post-dredging sampling events, were from 667 to 752 days since start of work (September 9 through December 3, 2004).
b) 2005 dredge season, including pre- and post-dredging sampling events, were from 1003 to 1143 days since start of work (August 11 through December 29, 2005).
c) 2006 dredge season, which did not include a pre-dredge sampling event, was from 1388 to 1468 days since start of work (August 16 through October 18, 2006).
d) 2007 dredge season, which did not include a pre-dredge sampling event, was from 1729 to 1823 days since start of work (August 7 through November 9, 2007).

Air Sampling Status

New Bedford Harbor Superfund Site

Station #: 42 NSTAR N
Exposure Budget Slope (EBS) = 202 (ng/m^3-day)

Collection Date: 11/30/2007

Construction Activity: The 2007 dredging activities were initiated on August 7, 2007 and demobilization activities were completed on October 25, 2007.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Volume sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Harbor Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

Summary of This Sampling Period:

The results from the Foster Wheeler Baseline Ambient Air Sampling program (June 1999 through May 2000) were used to assign background concentrations for each air sampling location. For Station 42 NSTAR N, the quarterly average ambient air PCB concentrations were used as a background concentration, which represent the quarterly baseline averages from Station 23 - Achusnet Substation, for the period of June 1999 through May 2000. These background concentrations were used to project the PCB concentrations during the inactive field times from 11/12/02 through 9/8/04, for the period from 12/4/04 through 8/10/05, 12/28/05 through 8/15/07, and from 11/19/06 through 8/6/07 to close the recent inactive field season. In addition, to better simulate the 2007 dredging season, the ambient air concentrations from the August 21, 2007 sampling event were used as the concentrations detected at Station 42 NSTAR from August 7, 2007 (the start of dredging activities).

Coordinating the sampling date with the start of dredging better simulates the ambient air PCB concentrations present at Station 42 during the active dredging season. For the first month of the 2004 and 2005 seasons, the sampling was conducted on a weekly basis. However, since monthly sampling was conducted in 2006 and 2007, this new variation of the PETs curve was used for 2007. For the 2007 season, the PCB concentrations were projected to be at background levels at Station 42 NSTAR on October 13, 2007, which is the day after the 2007 dredging activities were completed. These changes in the background concentrations and associated active dredging concentrations better match the actual 2007 dredging activities. No triggers were identified, therefore, no action is necessary.

Monitoring Station		42 NSTAR N
Exposure Budget Slope	[ng/m^3-day]	202
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	23

Sample Results, Calculated Budget and Exposure Values
42 NSTAR North

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#}	[month/day/year]	[days]	Running Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	24	24.00	24.00	NC	NC	NC	NC	NC	NC
2	11/30/2002	18	18	9477	24	24.00	24.00	3636	3636	432.0	432.0	11.9%	11.9%
3	12/1/2002	1	19	9476	9.9	16.95	23.63	202	3838	17.0	449.0	8.4%	11.7%
4	2/28/2003	89	108	9387	9.9	9.90	12.32	17978	21816	881.1	1,330.1	4.9%	6.1%
5	5/31/2003	92	200	9295	29	19.45	15.60	18584	40400	1789.4	3,119.5	9.6%	7.7%
6	8/31/2003	92	292	9203	31	30.00	20.14	18584	58984	2760.0	5,879.5	14.9%	10.0%
7	11/30/2003	91	383	9112	24	27.50	21.88	18382	77366	2502.5	8,382.0	13.6%	10.8%
8	2/28/2004	90	473	9022	9.9	16.95	20.95	18180	95546	1525.5	9,907.5	8.4%	10.4%
9	5/31/2004	93	566	8929	29	19.45	20.70	18786	114332	1808.9	11,716.3	9.6%	10.2%
10	8/31/2004	92	658	8837	31	30.00	22.00	18584	132916	2760.0	14,476.3	14.9%	10.9%
11	11/4/2004	65	723	8772	24	27.50	22.49	13130	146046	1787.5	16,263.8	13.6%	11.1%
12	11/5/2004	1	724	8771	73	48.50	22.53	202	146248	48.5	16,312.3	24.0%	11.2%
13	12/3/2004	28	752	8743	40	56.50	23.80	5656	151904	1582.0	17,894.3	28.0%	11.8%
14	2/28/2005	87	839	8656	9.9	24.95	23.92	17574	169478	2170.7	20,065.0	12.4%	11.8%
15	5/31/2005	92	931	8564	29	19.45	23.47	18584	188062	1789.4	21,854.4	9.6%	11.6%
16	8/10/2005	71	1002	8493	31	30.00	23.94	14342	202404	2130.0	23,984.4	14.9%	11.8%
17	8/11/2005	1	1003	8492	25.9	28.45	23.94	202	202606	28.5	24,012.8	14.1%	11.9%
18	9/15/2005	35	1038	8457	22.5	24.20	23.95	7070	209676	847.0	24,859.8	12.0%	11.9%
19	9/23/2005	8	1046	8449	83.3	52.90	24.17	1616	211292	423.2	25,283.0	26.2%	12.0%
20	9/29/2005	6	1052	8443	5.28	44.29	24.29	1212	212504	265.7	25,548.7	21.9%	12.0%
21	10/6/2005	7	1059	8436	119	62.14	24.54	1414	213918	435.0	25,983.7	30.8%	12.1%
22	10/28/2005	22	1081	8414	32.3	75.65	25.58	4444	218362	1664.3	27,648.0	37.5%	12.7%
23	11/18/2005	21	1102	8393	64.1	48.20	26.01	4242	222604	1012.2	28,660.2	23.9%	12.9%
24	12/29/2005	41	1143	8352	21.4	42.75	26.61	8282	230886	1752.8	30,413.0	21.2%	13.2%
25	2/28/2006	61	1204	8291	9.9	15.65	26.05	12322	243208	954.7	31,367.6	7.7%	12.9%
26	5/31/2006	92	1296	8199	29	19.45	25.58	18584	261792	1789.4	33,157.0	9.6%	12.7%
27	8/31/2006	92	1388	8107	31	30.00	25.88	18584	280376	2760.0	35,917.0	14.9%	12.8%
28	11/30/2006	91	1479	8016	24	27.50	25.98	18382	298758	2502.5	38,419.5	13.6%	12.9%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Sample Results, Calculated Budget and Exposure Values
42 NSTAR North

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#}	[month/day/year]	[days]	Running Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
29	2/28/2007	90	1569	7926	9.9	16.95	25.46	18180	316938	1525.5	39,945.0	8.4%	12.6%
30	5/31/2007	92	1661	7834	29	19.45	25.13	18584	335522	1789.4	41,734.4	9.6%	12.4%
31	8/6/2007	67	1728	7767	31	30.00	25.32	13534	349056	2010.0	43,744.4	14.9%	12.5%
32	8/7/2007	1	1729	7766	19.2	25.10	25.31	202	349258	25.1	43,769.5	12.4%	12.5%
33	8/21/2007	14	1743	7752	19.2	19.20	25.27	2828	352086	268.8	44,038.3	9.5%	12.5%
34	9/18/2007	28	1771	7724	16.3	17.75	25.15	5656	357742	497.0	44,535.3	8.8%	12.4%
35	10/13/2007	25	1796	7699	24	20.15	25.08	5050	362792	503.8	45,039.1	10.0%	12.4%
36	11/9/2007	27	1823	7672	15.7	19.85	25.00	5454	368246	536.0	45,575.0	9.8%	12.4%
37	11/30/2007	21	1844	7651	24	19.85	24.94	4242	372488	416.9	45,991.9	9.8%	12.3%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

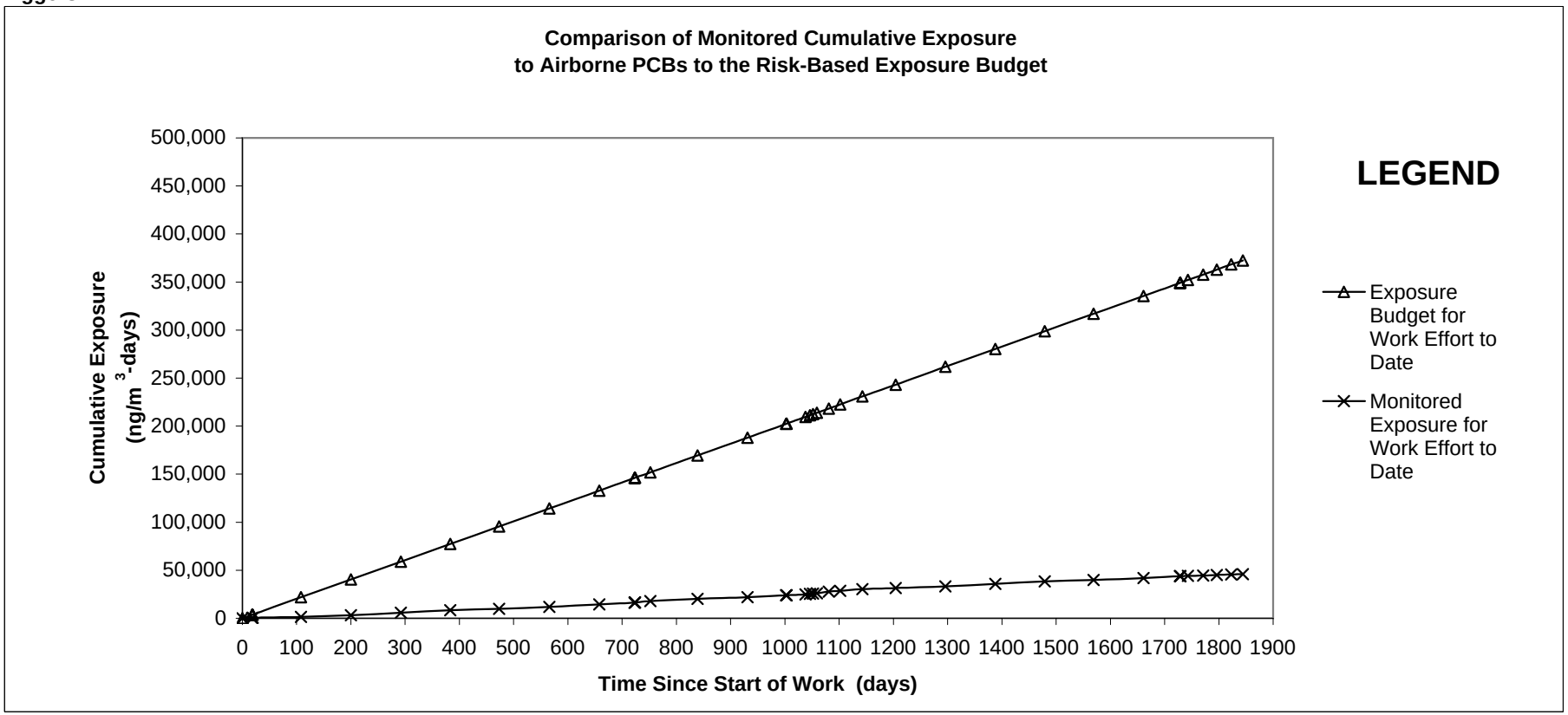
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	42 NSTAR N
Collection Date:	11/30/2007
Measured PCB Concentration (ng/m^3):	24
Exposure Budget Expended During This Period:	9.8%
Cumulative Exposure Budget Expended to Date:	12.3%
Response Level:	No Triggers Identified
Response:	No Response Necessary

Triggers:



Notes:
a) 2004 dredge season, including pre- and post-dredging sampling events, were from 667 to 752 days since start of work (September 9 through December 3, 2004).
b) 2005 dredge season, including pre- and post-dredging sampling events, were from 1003 to 1143 days since start of work (August 11 through December 29, 2005).
c) 2006 dredge season, which did not include a pre-dredge sampling event, was from 1388 to 1468 days since start of work (August 16 through October 18, 2006).
d) 2007 dredge season, which did not include a pre-dredge sampling event, was from 1729 to 1823 days since start of work (August 7 through November 9, 2007).

Air Sampling Status Report

New Bedford Harbor Superfund Site

Station #: 46 Coffin Avenue
Exposure Budget Slope (EBS) = 202 nanograms per cubic meter per day (ng/m^3-day)

Collection Date: 11/30/2007

Construction Activity: The 2006 dredging activities were initiated on August 7, 2007 and demobilization activities were completed on October 25, 2007.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Volume sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Harbor Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

Summary of This Sampling Period:

The results from the Foster Wheeler Baseline Ambient Air Sampling program (June 1999 through May 2000) were used to assign background concentrations for each air sampling location. For Station 46 Coffin Ave., the quarterly ambient air PCB concentrations were used for background concentrations. These values represent the quarterly baseline averages from Stations 21 and 25 - Cliftex, for the period of June 1999 through May 2000. These background concentrations were used to project the PCB concentrations for the inactive field times from 11/12/02 through 9/8/04, for the period from 12/4/04 through 8/10/05, from 12/28/05 through 8/15/06, and from 11/19/06 through 8/6/07 to close the inactive field season. In addition, to better simulate the 2006 dredging season, the ambient air concentrations from the August 31, 2006 sampling event were used as the concentrations detected at Station 46 Coffin Ave from August 16, 2006 (the start of dredging activities). To better simulate the 2007 dredging season, the ambient air concentrations from the August 21, 2007 sampling event were used as the concentrations detected at Station 46 Coffin Avenue from August 7, 2007

(the start of dredging activities). Coordinating the sampling data with the start of dredging better simulates the ambient air PCB concentrations at Station 46 Coffin Avenue during the active dredging season. For the first month of the 2004 and 2005 seasons, the sampling was conducted on a weekly basis. However, since monthly sampling was conducted in 2006, and the first 2006 sampling event was conducted two weeks after the start of dredging, this new variation of the PETs curve was used. Also, the PCB concentrations were projected to be at background levels at Station 46 Coffin Avenue on October 19, 2006, which is the day after the 2006 dredging activities were completed. For the 2007 season, the PCB concentrations were projected to be at background levels at Station 46 Coffin Avenue on October 13, 2007, which is the day after the 2007 dredging activities were completed. These changes in the background concentrations and associated active dredging concentrations better match the actual 2006 and 2007 dredging activities. No triggers were identified, therefore, no action is required.

Monitoring Station		46 Coffin Ave
Exposure Budget Slope	[ng/m^3-day]	202
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date (Per EPA)	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	26.1
Notes:		
TEL - Threshold Effects Exposure Limit		
NTEL - Non-Threshold Effects Exposure Limit		
The EPA periodically assesses this Projected Work End Date, which is subject to change.		

Sample Results, Calculated Budget and Exposure Values
46 Coffin Avenue

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#}	[month/day/year]	[days]	Running Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	22	22.00	22.00	NC	NC	NC	NC	NC	NC
2	11/30/2002	18	18	9477	22	22.00	22.00	3636	3636	396.0	396.0	10.9%	10.9%
3	12/1/2002	1	19	9476	3.2	12.60	21.51	202	3838	12.6	408.6	6.2%	10.6%
4	2/28/2003	89	108	9387	3.2	3.20	6.42	17978	21816	284.8	693.4	1.6%	3.2%
5	5/31/2003	92	200	9295	35	19.10	12.25	18584	40400	1757.2	2,450.6	9.5%	6.1%
6	8/31/2003	92	292	9203	46	40.50	21.15	18584	58984	3726.0	6,176.6	20.0%	10.5%
7	11/30/2003	91	383	9112	22	34.00	24.21	18382	77366	3094.0	9,270.6	16.8%	12.0%
8	2/28/2004	90	473	9022	3.2	12.60	22.00	18180	95546	1134.0	10,404.6	6.2%	10.9%
9	5/31/2004	93	566	8929	35	19.10	21.52	18786	114332	1776.3	12,180.9	9.5%	10.7%
10	8/31/2004	92	658	8837	46	40.50	24.17	18584	132916	3726.0	15,906.9	20.0%	12.0%
11	9/8/2004	8	666	8829	22	34.00	24.29	1616	134532	272.0	16,178.9	16.8%	12.0%
12	9/9/2004	1	667	8828	145	83.50	24.38	202	134734	83.5	16,262.4	41.3%	12.1%
13	9/14/2004	5	672	8823	48	96.50	24.92	1010	135744	482.5	16,744.9	47.8%	12.3%
14	9/23/2004	9	681	8814	5	26.50	24.94	1818	137562	238.5	16,983.4	13.1%	12.3%
15	9/28/2004	5	686	8809	342	173.50	26.02	1010	138572	867.5	17,850.9	85.9%	12.9%
16	10/19/2004	21	707	8788	36	189.00	30.86	4242	142814	3969.0	21,819.9	93.6%	15.3%
17	11/5/2004	17	724	8771	80	58.00	31.50	3434	146248	986.0	22,805.9	28.7%	15.6%
18	12/3/2004	28	752	8743	15	47.50	32.10	5656	151904	1330.0	24,135.9	23.5%	15.9%
19	2/28/2005	87	839	8656	3.2	9.10	29.71	17574	169478	791.7	24,927.6	4.5%	14.7%
20	5/31/2005	92	931	8564	35	19.10	28.66	18584	188062	1757.2	26,684.8	9.5%	14.2%
21	8/10/2005	71	1002	8493	46	40.50	29.50	14342	202404	2875.5	29,560.3	20.0%	14.6%
22	8/11/2005	1	1003	8492	37.2	41.60	29.51	202	202606	41.6	29,601.9	20.6%	14.6%
23	9/15/2005	35	1038	8457	99.8	68.50	30.83	7070	209676	2397.5	31,999.4	33.9%	15.3%
24	9/23/2005	8	1046	8449	115	107.40	31.41	1616	211292	859.2	32,858.6	53.2%	15.6%
25	9/29/2005	6	1052	8443	124	119.50	31.92	1212	212504	717.0	33,575.6	59.2%	15.8%
26	10/6/2005	7	1059	8436	130	127.00	32.54	1414	213918	889.0	34,464.6	62.9%	16.1%
27	10/28/2005	22	1081	8414	2.06	66.03	33.23	4444	218362	1452.7	35,917.3	32.7%	16.4%
28	11/18/2005	21	1102	8393	0.14	1.10	32.61	4242	222604	23.1	35,940.4	0.5%	16.1%
29	12/29/2005	41	1143	8352	65.1	32.62	32.61	8282	230886	1337.4	37,277.8	16.1%	16.1%
30	2/28/2006	61	1204	8291	3.2	34.15	32.69	12322	243208	2083.2	39,360.9	16.9%	16.2%
31	5/31/2006	92	1296	8199	35	19.10	31.73	18584	261792	1757.2	41,118.1	9.5%	15.7%
32	8/15/2006	76	1372	8123	46	40.50	32.21	15352	277144	3078.0	44,196.1	20.0%	15.9%
33	8/16/2006	1	1373	8122	70.4	58.20	32.23	202	277346	58.2	44,254.3	28.8%	16.0%
34	8/31/2006	15	1388	8107	70.4	70.40	32.64	3030	280376	1056.0	45,310.3	34.9%	16.2%
35	10/5/2006	35	1423	8072	108	89.20	34.04	7070	287446	3122.0	48,432.3	44.2%	16.8%
36	10/19/2006	14	1437	8058	4.05	56.03	34.25	2828	290274	784.4	49,216.7	27.7%	17.0%
37	11/19/2006	31	1468	8027	4.05	4.05	33.61	6262	296536	125.6	49,342.2	2.0%	16.6%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Sample Results, Calculated Budget and Exposure Values
46 Coffin Avenue

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#}	[month/day/year]	[days]	Running Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
38	11/30/2006	11	1479	8016	22	13.03	33.46	2222	298758	143.3	49,485.5	6.4%	16.6%
39	2/28/2007	90	1569	7926	3.2	12.60	32.26	18180	316938	1134.0	50,619.5	6.2%	16.0%
40	5/31/2007	92	1661	7834	35	19.10	31.53	18584	335522	1757.2	52,376.7	9.5%	15.6%
41	8/6/2007	67	1728	7767	46	40.50	31.88	13534	349056	2713.5	55,090.2	20.0%	15.8%
42	8/7/2007	1	1729	7766	36.1	41.05	31.89	202	349258	41.1	55,131.3	20.3%	15.8%
43	8/21/2007	14	1743	7752	36.1	36.10	31.92	2828	352086	505.4	55,636.7	17.9%	15.8%
44	9/18/2007	28	1771	7724	21.4	28.75	31.87	5656	357742	805.0	56,441.7	14.2%	15.8%
45	10/13/2007	25	1796	7699	22	21.70	31.73	5050	362792	542.5	56,984.2	10.7%	15.7%
46	11/9/2007	27	1823	7672	1.86	11.93	31.44	5454	368246	322.1	57,306.3	5.9%	15.6%
47	11/30/2007	21	1844	7651	22	11.93	31.21	4242	372488	250.5	57,556.8	5.9%	15.5%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

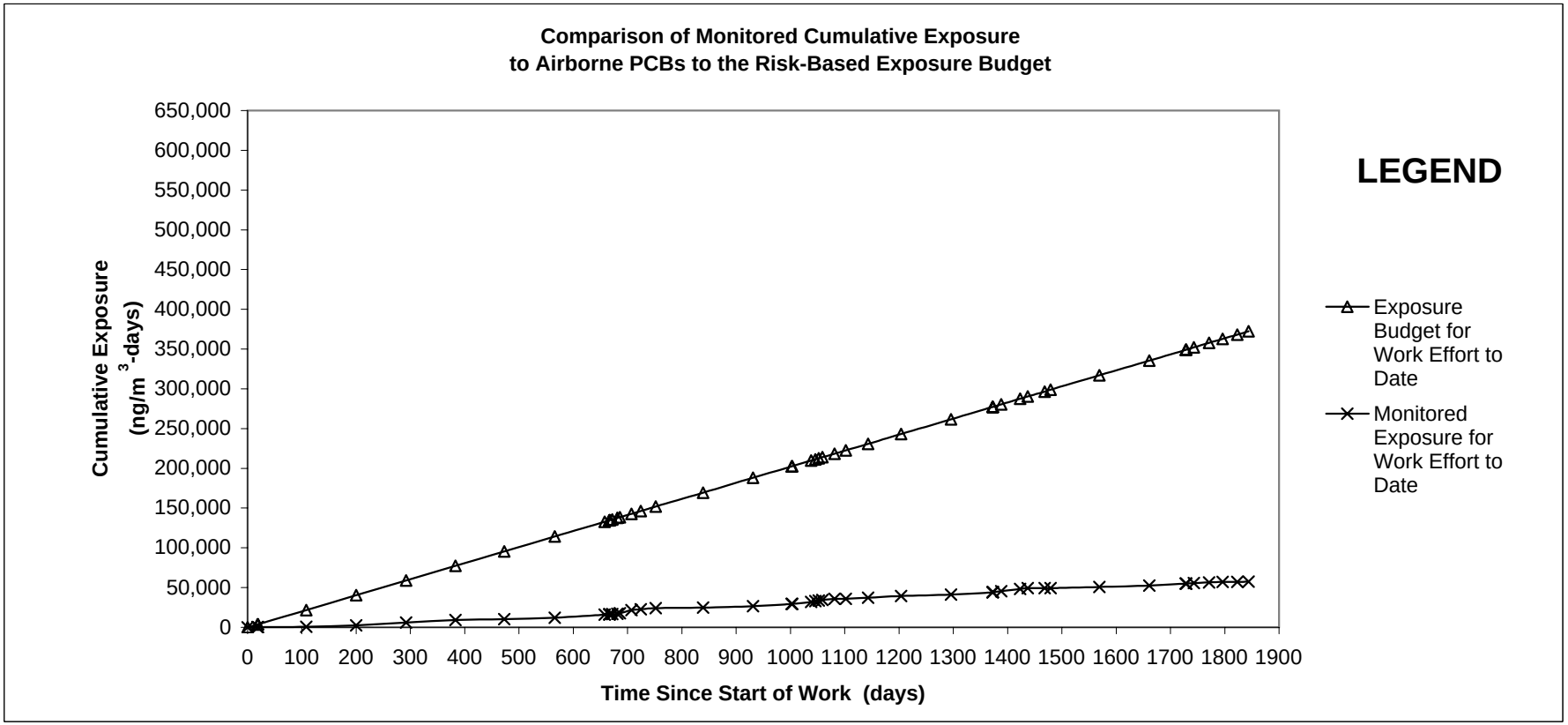
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	46 Coffin Ave
Collection Date:	11/30/2007
Measured PCB Concentration (ng/m^3):	22
Exposure Budget Expended During This Period:	5.9%
Cumulative Exposure Budget Expended to Date:	15.5%
Response Level:	No Triggers Identified
Response:	No Response Necessary

Triggers:



Notes:

a) 2004 dredge season, including pre- and post-dredging sampling events, were from 667 to 752 days since start of work (September 9 through December 3, 2004).
b) 2005 dredge season, including pre- and post-dredging sampling events, were from 1003 to 1143 days since start of work (August 11 through December 29, 2005.
c) 2006 dredge season, which did not include a pre-dredge sampling event, was from 1388 to 1468 days since start of work (August 16 through October 18, 2006).
d) 2007 dredge season, which did not include a pre-dredge sampling event, was from 1729 to 1823 days since start of work (August 7 through November 9, 2007).

Air Sampling Status Report

New Bedford Harbor Superfund Site

Station #: 49 Area C Downwind

Exposure Budget Slope (EBS) = 202 nanograms per cubic meter per day (ng/m^3-day)

Collection Date: 11/30/2007

Construction Activity: The 2007 dredging activities were initiated on August 7, 2007 and demobilization activities were completed on October 25, 2007.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Volume sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Harbor Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

The results from the Foster Wheeler Baseline Ambient Air Sampling program (June 1999 through May 2000) were used to assign background concentrations for each air sampling location. For Station 49 Area C Downwind, the quarterly average ambient air PCB concentrations were used for background. These represent the average quarterly baseline averages from Station 26 - Sawyer Street, for the period of June 1999 through May 2000. These background concentrations were used for the inactive field times from 11/12/02 through 9/8/04, for the period from 12/4/04 through 8/10/05, from 12/28/05 through 8/15/06, and from 11/19/06 through 8/6/07 to close the recent inactive field season. For the December 2005 sampling event, based on wind direction for that day, the results from Station 47 were used to represent Area C downgradient air PCB concentrations. In 2006 and 2007, during each sampling event, ambient air data was collected from only one air sampling station at Area C. The location was selected based upon the predicted wind direction for that sampling event and was placed along the downwind portion of Area C.

Please refer to Table F-1 for the Area C stations used during the 2006 and 2007 sampling events. For the first month of the 2004 and 2005 seasons, the sampling was conducted on a weekly basis. However, since 2006, the active field season sampling has been conducted on a monthly basis. In addition, since the 2006 and 2007 first sampling events were conducted about two weeks after the start of dredging, a new variation of the PETs curve was used. To better simulate the 2006 dredging season, the sambient air concentrations from the August 31, 2006 sampling event were used as the concentrations detected at Station 47 from August 16, 2006 (start of dredging activities). For the 2007 dredge season, the August 21, 2007 sampling event was used as the concentrations detected downwind at Area C from August 7, 2007 (the start of dredging activities). Also, the background concentrations were used as the PCB concentration at Area C on October 19, 2006, which is the day after the 2006 dredging activities were completed.

For the 2007 season, the concentrations were projected to be at background levels at Area C from October 13, 2007, (the day after dredging activities were completed). Coordinating the sampling date with the start of dredging better simulates the ambient air PCB concentrations at Area C during active dredging season. No triggers were identified, therefore, no action is necessary.

Monitoring Station		49 Area C Downwind
Exposure Budget Slope	[ng/m^3-day]	202
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date (Per EPA)	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	56
Notes:		
TEL - Threshold Effects Exposure Limit		
NTEL - Non-Threshold Effects Exposure Limit		
The EPA periodically assesses this Projected Work End Date, which is subject to change.		

Sample Results, Calculated Budget and Exposure Values
49 Area C Downwind

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#]	[month/day/year]	[days]	Running Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	43	43.00	43.00	NC	NC	NC	NC	NC	NC
2	11/30/2002	18	18	9477	43	43.00	43.00	3636	3636	774.0	774.0	21.3%	21.3%
3	12/1/2002	1	19	9476	89	66.00	44.21	202	3838	66.0	840.0	32.7%	21.9%
4	2/28/2003	89	108	9387	89	89.00	81.12	17978	21816	7921.0	8,761.0	44.1%	40.2%
5	5/31/2003	92	200	9295	61	75.00	78.31	18584	40400	6900.0	15,661.0	37.1%	38.8%
6	8/31/2003	92	292	9203	33	47.00	68.44	18584	58984	4324.0	19,985.0	23.3%	33.9%
7	11/30/2003	91	383	9112	43	38.00	61.21	18382	77366	3458.0	23,443.0	18.8%	30.3%
8	2/28/2004	90	473	9022	89	66.00	62.12	18180	95546	5940.0	29,383.0	32.7%	30.8%
9	5/31/2004	93	566	8929	61	75.00	64.24	18786	114332	6975.0	36,358.0	37.1%	31.8%
10	8/31/2004	92	658	8837	33	47.00	61.83	18584	132916	4324.0	40,682.0	23.3%	30.6%
11	9/8/2004	8	666	8829	43	38.00	61.54	1616	134532	304.0	40,986.0	18.8%	30.5%
12	9/9/2004	1	667	8828	56	49.50	61.52	202	134734	49.5	41,035.5	24.5%	30.5%
13	9/14/2004	5	672	8823	86	71.00	61.59	1010	135744	355.0	41,390.5	35.1%	30.5%
14	9/23/2004	9	681	8814	17	51.50	61.46	1818	137562	463.5	41,854.0	25.5%	30.4%
15	9/28/2004	5	686	8809	207	112.00	61.83	1010	138572	560.0	42,414.0	55.4%	30.6%
16	10/19/2004	21	707	8788	66	136.50	64.05	4242	142814	2866.5	45,280.5	67.6%	31.7%
17	11/5/2004	17	724	8771	28	47.00	63.65	3434	146248	799.0	46,079.5	23.3%	31.5%
18	12/3/2004	28	752	8743	26	27.00	62.28	5656	151904	756.0	46,835.5	13.4%	30.8%
19	2/28/2005	87	839	8656	89	57.50	61.79	17574	169478	5002.5	51,838.0	28.5%	30.6%
20	5/31/2005	92	931	8564	61	75.00	63.09	18584	188062	6900.0	58,738.0	37.1%	31.2%
21	8/10/2005	71	1002	8493	33	47.00	61.95	14342	202404	3337.0	62,075.0	23.3%	30.7%
22	8/11/2005	1	1003	8492	29.3	31.15	61.92	202	202606	31.2	62,106.2	15.4%	30.7%
23	9/15/2005	35	1038	8457	83.6	56.45	61.74	7070	209676	1975.8	64,081.9	27.9%	30.6%
24	9/23/2005	8	1046	8449	97	90.30	61.95	1616	211292	722.4	64,804.3	44.7%	30.7%
25	9/29/2005	6	1052	8443	44.2	70.60	62.00	1212	212504	423.6	65,227.9	35.0%	30.7%
26	10/6/2005	7	1059	8436	114	79.10	62.12	1414	213918	553.7	65,781.6	39.2%	30.8%
27	10/28/2005	22	1081	8414	12.3	63.15	62.14	4444	218362	1389.3	67,170.9	31.3%	30.8%
28	11/18/2005	21	1102	8393	3.71	8.01	61.11	4242	222604	168.1	67,339.0	4.0%	30.3%
29	12/29/2005	41	1143	8352	7.42	5.57	59.11	8282	230886	228.2	67,567.2	2.8%	29.3%
30	2/28/2006	61	1204	8291	89	48.21	58.56	12322	243208	2940.8	70,508.0	23.9%	29.0%
31	5/31/2006	92	1296	8199	61	75.00	59.73	18584	261792	6900.0	77,408.0	37.1%	29.6%
32	8/15/2006	76	1372	8123	31	46.00	58.97	15352	277144	3496.0	80,904.0	22.8%	29.2%
33	8/16/2006	1	1373	8122	39.2	35.10	58.95	202	277346	35.1	80,939.1	17.4%	29.2%
34	8/31/2006	15	1388	8107	39.2	39.20	58.74	3030	280376	588.0	81,527.1	19.4%	29.1%
35	10/5/2006	35	1423	8072	157	98.10	59.71	7070	287446	3433.5	84,960.6	48.6%	29.6%
36	10/19/2006	14	1437	8058	81.4	119.20	60.28	2828	290274	1668.8	86,629.4	59.0%	29.8%
37	11/19/2006	31	1468	8027	81.4	81.40	60.73	6262	296536	2523.4	89,152.8	40.3%	30.1%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Sample Results, Calculated Budget and Exposure Values
49 Area C Downwind

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#}	[month/day/year]	[days]	Running Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
38	11/30/2006	11	1479	8016	43	62.20	60.74	2222	298758	684.2	89,837.0	30.8%	30.1%
39	2/28/2007	90	1569	7926	89	66.00	61.04	18180	316938	5940.0	95,777.0	32.7%	30.2%
40	5/31/2007	92	1661	7834	61	75.00	61.82	18584	335522	6900.0	102,677.0	37.1%	30.6%
41	8/6/2007	67	1728	7767	31	46.00	61.20	13534	349056	3082.0	105,759.0	22.8%	30.3%
42	8/7/2007	1	1729	7766	46.9	38.95	61.19	202	349258	39.0	105,797.9	19.3%	30.3%
43	9/18/2007	42	1771	7724	57.1	52.00	60.97	8484	357742	2184.0	107,981.9	25.7%	30.2%
44	10/13/2007	25	1796	7699	43	50.05	60.82	5050	362792	1251.3	109,233.2	24.8%	30.1%
45	11/9/2007	27	1823	7672	9.29	26.15	60.31	5454	368246	705.9	109,939.1	12.9%	29.9%
46	11/30/2007	21	1844	7651	43	26.15	59.92	4242	372488	549.0	110,488.1	12.9%	29.7%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

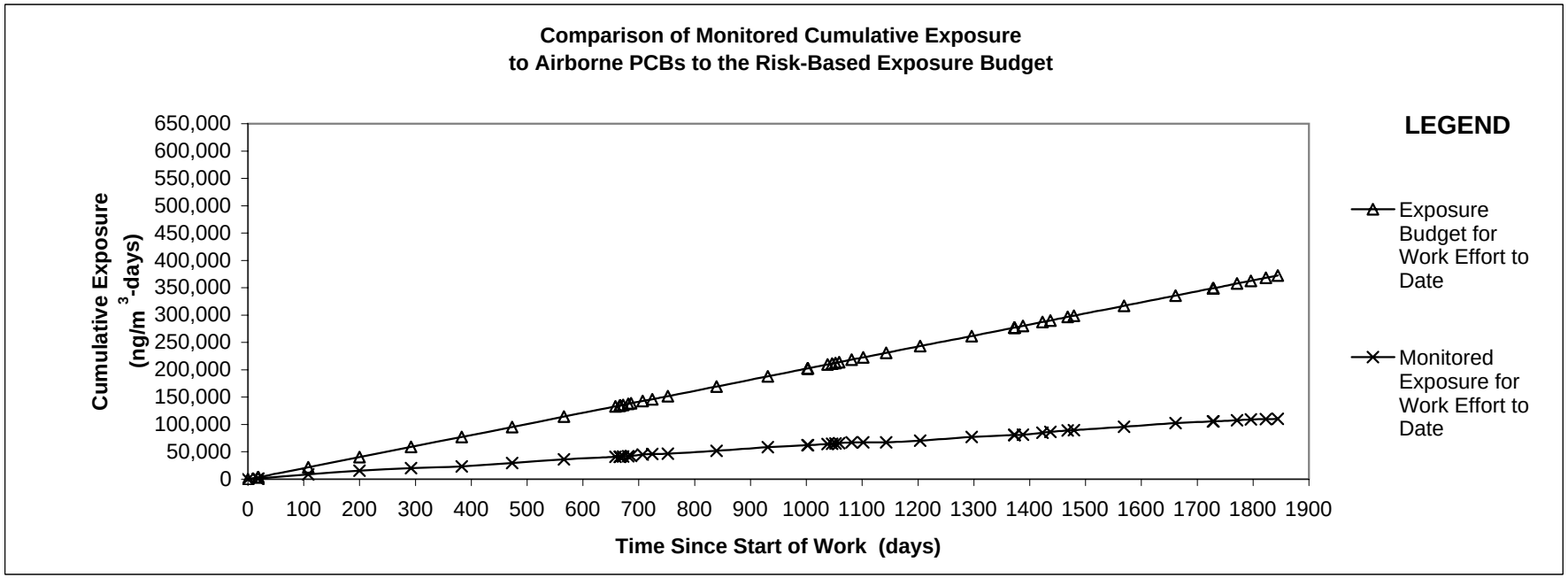
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	49 Area C Downwind
Collection Date:	11/30/2007
Measured PCB Concentration (ng/m^3):	43
Exposure Budget Expended During This Period:	12.9%
Cumulative Exposure Budget Expended to Date:	29.7%
Response Level:	No Triggers Identified
Response:	No Response Necessary

Triggers:



Notes:

a) 2004 dredge season, including pre- and post-dredging sampling events, were from 667 to 752 days since start of work (September 9 through December 3, 2004).
b) 2005 dredge season, including pre- and post-dredging sampling events, were from 1003 to 1143 days since start of work (August 11 through December 29, 2005).
c) 2006 dredge season, which did not include a pre-dredge sampling event, was from 1388 to 1468 days since start of work (August 16 through October 18, 2006).
d) 2007 dredge season, which did not include a pre-dredge sampling event, was from 1729 to 1823 days since start of work (August 7 through November 9, 2007).

Air Sampling Status Report

New Bedford Harbor Superfund Site

Station #: 50 Area D Downwind
Exposure Budget Slope (EBS) = 344 nanograms per cubic meter per day (ng/m^3-day)

Collection Date: 11/30/2007

Construction Activity: The 2007 dredging activities were initiated on August 7, 2007 and demobilization activities were completed on October 25, 2007.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Volume sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Harbor Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

Summary of This Sampling Period:

The results from the Foster Wheeler Baseline Ambient Air Sampling program (June 1999 through May 2000) were used to assign background concentrations for each air sampling location. However, for the August 2005 background sampling event, based on wind direction for that day, the results from Station 52 were used to represent Area D downgradient air PCB concentrations. For Station 50 Area D, the average quarterly air PCB concentrations were used as background concentrations, which represent the average quarterly from Station 21 - New Bedford Welding, for the period of June 1999 through May 2000. These background concentrations were used for the inactive field times from 11/12/02 to 9/8/04, from 12/4/04 to 8/10/05, from 12/28/05 to 8/15/06, and from 11/19/06 to 8/6/07 to close the recent inactive field season. For the December 2005 post-dredging sampling event, based on wind direction for the day, the results from Station 51 were used to represent Area D downwind air PCB concentrations. In 2006 and 2007, during each sampling event, ambient air data was collected from only one air sampling station, which was placed downwind of Area D, based upon the predicted wind direction for the sampling event.

Please refer to Table F-1 for the Area D stations used during the 2006 and 2007 sampling events. In 2004 and 2005, air sampling was conducted on a weekly basis during the first month. However, since 2006, during the active field season, sampling has been conducted on a monthly basis. Since the first 2006 and 2007 sampling events were conducted about two weeks after the start of dredging, a new variation of the PETs curve was used. Therefore, to better simulate the 2006 dredging season, the ambient air concentrations from the August 31, 2006 sampling event were used to as the concentrations detected at Station 50 from August 16, 2006 (the start of dredging activities). For the 2007 dredge season, the August 21, 2007 sampling event was used to project concentrations detected downwind at Area D on August 7, 2007 (the start of dredging activities). Also, the PCB concentrations were projected to be at background levels at Station 50 Area D on October 19, 2006, which is the day after the 2006 dredging activities were completed.

For the 2007 season, the concentrations were used as the background levels at Area D from October 13, 2007, (the day after dredging activities were completed). Coordinating the sampling date with the start of dredging better simulates the actual 2006 and 2007 dredging activities. No triggers were identified, therefore, no action is necessary.

Monitoring Station		50 Area D Downwind
Exposure Budget Slope	[ng/m^3-day]	344
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date (Per EPA)	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	16.7
Notes:		
TEL - Threshold Effects Exposure Limit		
NTEL - Non-Threshold Effects Exposure Limit		
The EPA periodically assesses this Projected Work End Date, which is subject to change.		

Sample Results, Calculated Budget and Exposure Values
50 Area D Downwind

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#]	[month/day/year]	[days]	Running Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	5.9	5.90	5.90	NC	NC	NC	NC	NC	NC
2	11/30/2002	18	18	9477	5.9	5.90	5.90	6192	6192	106.2	106.2	1.7%	1.7%
3	12/1/2002	1	19	9476	3.4	4.65	5.83	344	6536	4.7	110.9	1.4%	1.7%
4	2/28/2003	89	108	9387	3.4	3.40	3.83	30616	37152	302.6	413.5	1.0%	1.1%
5	5/31/2003	92	200	9295	6.8	5.10	4.41	31648	68800	469.2	882.7	1.5%	1.3%
6	8/31/2003	92	292	9203	12	9.40	5.98	31648	100448	864.8	1,747.5	2.7%	1.7%
7	11/30/2003	91	383	9112	5.9	8.95	6.69	31304	131752	814.5	2,561.9	2.6%	1.9%
8	2/28/2004	90	473	9022	3.4	4.65	6.30	30960	162712	418.5	2,980.4	1.4%	1.8%
9	5/31/2004	93	566	8929	6.8	5.10	6.10	31992	194704	474.3	3,454.7	1.5%	1.8%
10	8/31/2004	92	658	8837	12	9.40	6.56	31648	226352	864.8	4,319.5	2.7%	1.9%
11	9/8/2004	8	666	8829	5.9	8.95	6.59	2752	229104	71.6	4,391.1	2.6%	1.9%
12	9/9/2004	1	667	8828	20	12.95	6.60	344	229448	13.0	4,404.1	3.8%	1.9%
13	9/14/2004	5	672	8823	38	29.00	6.77	1720	231168	145.0	4,549.1	8.4%	2.0%
14	9/23/2004	9	681	8814	6	22.00	6.97	3096	234264	198.0	4,747.1	6.4%	2.0%
15	9/28/2004	5	686	8809	80	43.00	7.23	1720	235984	215.0	4,962.1	12.5%	2.1%
16	10/19/2004	21	707	8788	17	48.50	8.46	7224	243208	1018.5	5,980.6	14.1%	2.5%
17	12/3/2004	45	752	8743	22	19.50	9.12	15480	258688	877.5	6,858.1	5.7%	2.7%
18	2/28/2005	87	839	8656	3.4	12.70	9.49	29928	288616	1104.9	7,963.0	3.7%	2.8%
19	5/31/2005	92	931	8564	6.8	5.10	9.06	31648	320264	469.2	8,432.2	1.5%	2.6%
20	8/10/2005	71	1002	8493	12	9.40	9.08	24424	344688	667.4	9,099.6	2.7%	2.6%
21	8/11/2005	1	1003	8492	21.3	16.65	9.09	344	345032	16.7	9,116.2	4.8%	2.6%
22	9/15/2005	35	1038	8457	0.52	10.91	9.15	12040	357072	381.9	9,498.1	3.2%	2.7%
23	9/23/2005	8	1046	8449	0.26	0.39	9.08	2752	359824	3.1	9,501.2	0.1%	2.6%
24	9/29/2005	6	1052	8443	24.2	12.23	9.10	2064	361888	73.4	9,574.6	3.6%	2.6%
25	10/6/2005	7	1059	8436	81.7	52.95	9.39	2408	364296	370.7	9,945.2	15.4%	2.7%
26	10/28/2005	22	1081	8414	0.01	40.86	10.03	7568	371864	898.8	10,844.0	11.9%	2.9%
27	12/29/2005	62	1143	8352	2.18	1.10	9.55	21328	393192	67.9	10,911.9	0.3%	2.8%
28	2/28/2006	61	1204	8291	3.4	2.79	9.20	20984	414176	170.2	11,082.1	0.8%	2.7%
29	5/31/2006	92	1296	8199	6.8	5.10	8.91	31648	445824	469.2	11,551.3	1.5%	2.6%
30	8/15/2006	76	1372	8123	12	9.40	8.94	26144	471968	714.4	12,265.7	2.7%	2.6%
31	8/16/2006	1	1373	8122	67.3	39.65	8.96	344	472312	39.7	12,305.3	11.5%	2.6%
32	8/31/2006	15	1388	8107	67.3	67.30	9.59	5160	477472	1009.5	13,314.8	19.6%	2.8%
33	10/5/2006	35	1423	8072	197	132.15	12.61	12040	489512	4625.3	17,940.1	38.4%	3.7%
34	10/19/2006	14	1437	8058	2.6	99.80	13.46	4816	494328	1397.2	19,337.3	29.0%	3.9%
35	11/19/2006	31	1468	8027	2.6	2.60	13.23	10664	504992	80.6	19,417.9	0.8%	3.8%
36	11/30/2006	11	1479	8016	5.9	4.25	13.16	3784	508776	46.8	19,464.6	1.2%	3.8%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Sample Results, Calculated Budget and Exposure Values
50 Area D Downwind

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#}	[month/day/year]	[days]	Running Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
37	2/28/2007	90	1569	7926	3.4	4.65	12.67	30960	539736	418.5	19,883.1	1.4%	3.7%
38	5/31/2007	92	1661	7834	6.8	5.10	12.25	31648	571384	469.2	20,352.3	1.5%	3.6%
39	8/6/2007	67	1728	7767	31	18.90	12.51	23048	594432	1266.3	21,618.6	5.5%	3.6%
40	8/7/2007	1	1729	7766	36.7	33.85	12.52	344	594776	33.9	21,652.5	9.8%	3.6%
41	8/21/2007	14	1743	7752	36.7	36.70	12.72	4816	599592	513.8	22,166.3	10.7%	3.7%
42	9/18/2007	28	1771	7724	48.7	42.70	13.19	9632	609224	1195.6	23,361.9	12.4%	3.8%
43	10/13/2007	25	1796	7699	43	45.85	13.65	8600	617824	1146.3	24,508.1	13.3%	0.0
44	11/9/2007	27	1823	7672	4.39	23.70	13.79	9288	627112	639.8	25,147.9	6.9%	0.0
45	11/30/2007	21	1844	7651	5.9	5.15	13.70	7224	634336	108.0	25,256.0	1.5%	0.0

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

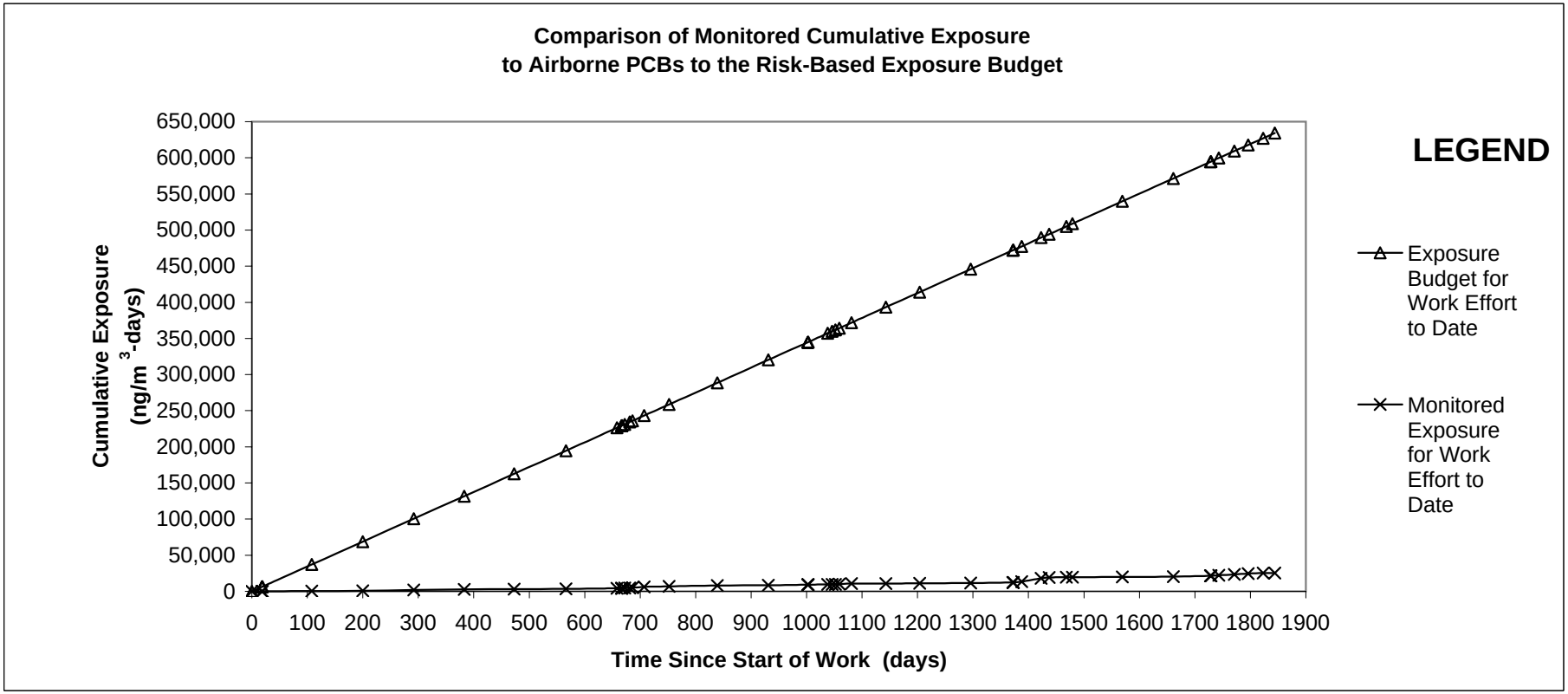
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	50 Area D Downwind
Collection Date:	11/30/2007
Measured PCB Concentration (ng/m^3):	5.9
Exposure Budget Expended During This Period:	1.5%
Cumulative Exposure Budget Expended to Date:	4.0%
Response Level:	No Triggers Identified
Response:	No Response Necessary

Triggers:



Notes:

a) 2004 dredge season, including pre- and post-dredging sampling events, were from 667 to 752 days since start of work (September 9 through December 3, 2004).
b) 2005 dredge season, including pre- and post-dredging sampling events, were from 1003 to 1143 days since start of work (August 11 through December 29, 2005).
c) 2006 dredge season, which did not include a pre-dredge sampling event, was from 1388 to 1468 days since start of work (August 16 through October 18, 2006).
d) 2007 dredge season, which did not include a pre-dredge sampling event, was from 1729 to 1823 days since start of work (August 7 through November 9, 2007).

ATTACHMENT G

Jacobs Solids and Water Balance and PCB Mass Removal Calculations

Table G-1
Jacobs Solids and Water Balance
New Bedford Harbor Superfund Site - 2007 Season

Date	Area C						Area D														Miscellaneous Calculations				
	Slurry In		Sand and Oversize Out				Feed In		Filter Cake Out										Area D Effluent						
	Area C Totalized Slurry Flow		Sand and Oversize Material Transferred from Building C to DDA Storage				Totalized Wastewater Treatment Plant Influent		Filter Cake Production										Totalized Wastewater Treatment Plant Effluent						
	YTD Totalized Slurry Flow (gal)	YTD Totalized Slurry Flow (tons)	YTD Wet Solids (tons)	Average % Dry Solids	YTD Dry Solids (tons)	YTD Water (tons)	Totalized Plant Influent (gal)	Totalized Plant Influent (tons)	Daily Press Drops	YTD Number of Press Drops	YTD Cake Volume (cy)	Filter Cake Density (tons/cy)	Daily Wet Solids (tons)	YTD Wet Solids (tons)	Daily Average % Dry Solids	Daily Dry Solids (tons)	YTD Dry Solids (tons)	YTD Water (tons)	Totalized Plant Effluent (gal)	Totalized Plant Effluent (tons)	Area C Influent Calculated Average % Dry Solids	Press Influent Calculated Average % Dry Solids	Press Influent Diluted Average % Dry Solids	Sand & Oversize as % of All Dry Solids YTD	Cake as % of All Dry Solids YTD
8/8/2007	246,954	1,163	0	80	0	0	188,200	805	6	6	49	1.21	59	59	60.05	35	35	23	142,000	608	3.0	5.1	4.5	0	100
8/9/2007	812,710	3,826	0	80	0	0	495,000	2,119	27	33	267	1.22	267	326	60.12	160	196	130	408,000	1,746	5.1	8.5	7.6	0	100
8/10/2007	1,349,904	6,355	0	80	0	0	953,400	4,081	40	73	591	1.22	395	721	59.99	237	433	288	815,000	3,488	6.8	11.3	10.1	0	100
8/13/2007	1,651,537	7,775	0	80	0	0	1,482,200	6,344	27	100	810	1.23	269	990	61.29	165	598	392	1,231,000	5,269	7.7	12.7	11.3	0	100
8/14/2007	1,930,603	9,089	124	80	99	25	1,713,700	7,335	12	112	907	1.22	119	1108	60.81	72	670	439	1,440,000	6,163	8.5	12.4	11.0	13	87
8/15/2007	2,665,897	12,551	124	80	99	25	2,304,700	9,864	48	160	1,296	1.22	474	1583	61.91	294	963	619	1,987,000	8,504	8.5	12.7	11.3	9	91
8/16/2007	3,341,927	15,734	238	80	191	48	2,935,100	12,562	48	208	1,685	1.23	478	2061	62.49	299	1,262	799	2,590,000	11,085	9.2	13.3	11.8	13	87
8/17/2007	3,986,937	18,770	238	80	191	48	3,613,700	15,467	40	248	2,009	1.22	395	2456	62.38	247	1,509	947	3,233,000	13,837	9.1	13.3	11.8	11	89
8/20/2007	4,586,937	21,595	390	80	312	78	4,334,900	18,553	37	285	2,309	1.22	366	2822	61.84	226	1,735	1,087	3,830,000	16,392	9.5	13.3	11.8	15	85
8/21/2007	5,291,655	24,913	482	80	386	96	5,002,100	21,409	43	328	2,657	1.21	421	3243	61.29	258	1,993	1,250	4,485,000	19,196	9.6	13.3	11.8	16	84
8/22/2007	6,021,332	28,348	482	80	386	96	5,661,100	24,230	51	379	3,070	1.22	504	3747	62.91	317	2,310	1,437	5,090,000	21,785	9.5	13.4	12.0	14	86
8/23/2007	6,775,093	31,897	651	80	520	130	6,371,500	27,270	48	427	3,459	1.22	474	4222	63.15	300	2,610	1,612	5,839,000	24,991	9.8	13.5	12.0	17	83
8/24/2007	7,279,952	34,274	651	80	520	130	6,974,400	29,850	46	473	3,831	1.23	458	4680	65.39	300	2,910	1,770	6,320,000	27,050	10.0	13.9	12.4	15	85
8/27/2007	7,888,523	37,139	799	80	639	160	7,752,300	33,180	36	509	4,123	1.22	356	5036	63.65	226	3,136	1,900	6,866,000	29,386	10.2	13.9	12.3	17	83
8/28/2007	8,374,323	39,426	799	80	639	160	8,293,500	35,496	35	544	4,406	1.21	343	5379	63.03	216	3,352	2,027	7,445,000	31,865	10.1	13.9	12.4	16	84
8/29/2007	9,108,479	42,883	799	80	639	160	8,935,300	38,243	40	584	4,730	1.22	395	5774	60.47	239	3,591	2,183	8,028,000	34,360	9.9	13.7	12.2	15	85
8/30/2007	9,731,309	45,815	974	80	779	195	9,580,100	41,003	36	620	5,022	1.22	356	6130	59.12	210	3,802	2,328	8,621,000	36,898	10.0	13.7	12.2	17	83
8/31/2007	9,867,058	46,454	974	80	779	195	9,783,100	41,872	14	634	5,135	1.23	139	6269	58.56	82	3,883	2,386	8,807,000	37,694	10.0	13.8	12.3	17	83
9/4/2007	10,281,251	48,404	1,080	80	864	216	10,166,600	43,513	12	646	5,233	1.22	119	6388	61.17	73	3,956	2,432	9,105,000	38,969	10.0	13.5	12.0	18	82
9/5/2007	10,845,162	51,059	1,080	80	864	216	10,762,000	46,061	31	677	5,484	1.21	304	6692	60.40	184	4,139	2,552	9,692,000	41,482	9.8	13.4	11.9	17	83
9/6/2007	11,484,211	54,068	1,233	80	986	247	11,369,800	48,663	39	716	5,800	1.22	385	7077	59.90	231	4,370	2,707	10,293,000	44,054	9.9	13.4	11.9	18	82
9/7/2007	12,557,802	59,122	1,233	80	986	247	11,978,200	51,267	38	754	6,107	1.22	376	7453	61.11	229	4,600	2,853	10,848,000	46,429	9.4	12.9	11.5	18	82
9/10/2007	13,191,498	62,106	1,233	80	986	247	12,974,700	55,532	30	784	6,350	1.23	299	7752	61.11	183	4,782	2,969	11,479,000	49,130	9.3	12.7	11.3	17	83
9/11/2007	13,784,743	64,899	1,233	80	986	247	13,573,100	58,093	29	813	6,585	1.22	287	8038	62.06	178	4,960	3,078	12,069,000	51,655	9.2	12.6	11.2	17	83
9/12/2007	14,428,707	67,930	1,336	80	1,069	267	14,223,600	60,877	36	849	6,877	1.21	353	8391	61.66	218	5,178	3,213	12,716,000	54,424	9.2	12.6	11.2	17	83
9/13/2007	15,051,807	70,864	1,336	80	1,069	267	14,835,100	63,494	39	888	7,193	1.22	385	8776	61.82	238	5,416	3,360	13,327,000	57,040	9.2	12.6	11.2	16	84
9/14/2007	15,583,986	73,369	1,461	80	1,169	292	15,396,600	65,897	47	935	7,574	1.22	464	9241	61.26	285	5,701	3,540	13,869,000	59,359	9.4	12.9	11.4	17	83
9/17/2007	16,253,496	76,521	1,461	80	1,169	292	16,068,600	68,774	37	972	7,873	1.23	369	9609	61.68	227	5,928	3,682	14,438,000	61,795	9.3	12.8	11.4	16	84
9/18/2007	16,836,923	79,268	1,633	80	1,307	327	16,647,500	71,251	46	1018	8,246	1.22	455	10064	61.43	279	6,207	3,857	15,003,000	64,213	9.5	13.0	11.5	17	83
9/19/2007	17,421,419	82,020	1,633	80	1,307	327	17,191,100	73,578	42	1060	8,586	1.21	412	10476	61.73	254	6,461	4,014	15,540,000	66,511	9.5	13.0	11.6	17	83
9/20/2007	17,977,038	84,636	1,783	80	1,427	357	17,712,100	75,808	35	1095	8,870	1.22	346	10822	63.19	219	6,680	4,142	16,041,000	68,655	9.6	13.1	11.6	18	82
9/21/2007	18,426,502	86,752	1,783	80	1,427	357	18,211,000	77,943	43	1138	9,218	1.22	425	11246	62.54	266	6,946	4,301	16,541,000	70,795	9.7	13.2	11.8	17	83
9/24/2007	18,884,499	88,908	1,991	80	1,593	398	18,915,800	80,960	36	1174	9,509	1.21	353	11599	62.75	221	7,167	4,432	17,058,000	73,008	9.9	13.3	11.9	18	82
9/25/2007	19,406,477	91,366	1,991	80	1,593	398	19,405,100	83,054	48	1222	9,898	1.23	478	12078	62.47	299	7,466	4,612	17,532,000	75,037	9.9	13.5	12.0	18	82
9/26/2007	19,814,755	93,288	1,991	80	1,593	398	19,850,900	84,962	38	1260	10,206	1.21	372	12450	61.70	230	7,695	4,754	17,993,000	77,010	10.0	13.6	12.1	17	83
9/27/2007	20,261,514	95,391	2,129	80	1,704	426	20,270,900	86,759	35	1295	10,490	1.21	343	12793	61.44	211	7,906	4,887	18,395,000	78,731	10.1	13.7	12.2	18	82
9/28/2007	20,753,410	97,707	2,129	80	1,704	426	20,799,900	89,024	43	1338	10,838	1.23	428	13221	61.42	263	8,169	5,052	18,905,000	80,913	10.1	13.8	12.3	17	83
10/1/2007	21,183,844	99,734	2,129	80	1,704	426	21,328,000	91,284	19	1357	10,992	1.21	186	13408	62.04	116	8,285	5,123	19,325,000	82,711	10.0	13.7	12.2	17	83
10/2/2007	21,696,450	102,147	2,358	80	1,887	472	21,803,400	93,319	25	1382	11,194	1.21	245	13653	60.82	149	8,434	5,219	19,816,000	84,812	10.1	13.7	12.2	18	82
10/3/2007	22,232,642	104,671	2,358	80	1,887	472	22,306,300	95,471	28	1410	11,421	1.22	277	13929	61.01	169	8,603	5,327	20,302,000	86,893	10.0	13.6	12.1	18	82
10/4/2007	22,821,602	107,444	2,778	80	2,223	556	22,849,300	97,795	27	1437	11,640	1.21	265	14194	61.45	163	8,765	5,429	20,852,000	89,247	10.2	13.6	12.1	20	80
10/5/2007	23,268,550	109,548	2,846	80	2,277	569	23,362,300	99,991	17	1454	11,777	1.23	169	14363	60.41	102	8,868	5,496	21,281,000	91,083	10.2	13.5	12.0	20	80
10/8/2007	23,833,622	112,209	3,124	80	2,499	625	24,236,600	103,733	18	1472	11,923	1.21	176	14540	61.55	109	8,976	5,563	21,871,000	93,608	10.2	13.3	11.9	22	78
10/9/2007	24,452,833	115,124	3,124	80	2,499	625	24,842,700	106,327	14	1486	12,037	1.22	138	14678	60.90	84	9,060	5,618	22,461,000	96,133	10.0	13.1	11.7	22	78
10/10/2007	24,998,622	117,694	3,395	80	2,716	679	25,382,700	108,638	11	1497	12,126	1.21	108	14786	61.76	67	9,127	5,659	22,992,000	98,406	10.1	12.9	11.5	23	77
10/11/2007	25,495,222	120,032	3,395	80	2,716	679	25,880,700	110,769	26	1523	12,336	1.21	255	15041	58.71	150	9,277	5,764	23,483,000	100,507	10.0	12.9	11.5	23	77
10/12/2007	25,844,718	121,677	3,592	80	2,873	718	26,300,300	112,565	22	1545	12,515	1.21	216	15256	57.27	123	9,400	5,856	23,891,000	102,253	10.1	12.9	11.5	23	77
10/18/2007	25,844,718	121,677	3,592	80	2,873	718	27,254,700	116,650	13	1558	12,620	1.21	127	15384	62.82	80	9,480	5,904	24,213,000	103,632					
														Average of Daily Average Percent Solids	61.42					Seasonal Percent Dry Solids	10.1	12.9	11.5		
														Seasonal AveragePercent Solids	61.62								Seasonal Percentage of Dry Solids	23.3	76.7

Table G-1
Jacobs Solids and Water Balance
New Bedford Harbor Superfund Site - 2007 Season

Notes

Notes [a] through [f] estimate the overall reduction in dry solids between the Area C influent and the Area D press feed tanks.

a. Average slurry flow =	574,327	gal/day	=				2,871,635	gal/wk
b. Area C Dilution Water Flows [floor wash water]								
	50,736	gal/wk, less 2,200 gal/wk sanitary us		436,820	total	=	48,536	gal/wk
c. Area D Dilution Water Flows								
1. Process water meter [hi and lo flows] was 456,620 gal from 7-20-07 to 10-19-07 =				305,164	gal/wk			
1. Process water meter [hi and lo flows] was 2,746,477 gal from 7-18-07 to 10-24-07, 2,746,477						=	32,400	gal/wk
2. Polymer make-up water rate is 1.5 gpm/feed pump, six pumps,						=	120,000	gal/wk
3. Sand filter backwash water use is 30,000 gal/vessel/wk, for four vessels						=	0	gal/wk
4. Pipeline flush water included in Area C slurry inflow			=			=	108,000	gal/wk
5. Wash water is the difference between process meter flow minus the polymer make-up water, backwash water and filtrate monitoring water						=	44,764	gal/wk
6. **Total polymer, wash, backwash, flush water, filtrate monitoring water (Area C & D) =**						=	**353,700**	**gal/wk**
d. Solids Dilution due to process water								
1. The solids dilution ratio from Area C influent to Area D influent is (avg weekly slurry flow) / (avg weekly slurry flow+ avg weeklyArea C wash water)						=	0.98	2
2. The solids dilution ratio from Area D influent to Area D effluent is (avg weekly slurry flow + Area C wash water) / (avg weekly slurry + Area C wash water + avg weekly Area D process water usage)						=	0.91	9
3. The total solids dilution ratio is (avg weekly slurry flow) / (average weekly slurry flow + avg weekly Area C wash water + avg weekly Area D process water)						=	0.89	11

Process Inputs	tons	Process Outputs	tons
Slurry into Area C	121677	Desander Material (wet)	3592
Area C Process Water	1905	Filter Cake (wet)	15384
Area D Process Water	11457	WWTP Effluent	103632
Ferric Sulfate	79		
Polymer	123		
Total	**135241**	**Total**	**122608**
Process Inputs to Process Outputs Percent Difference			**9.8%**

% reduction of solids concentration from Area C influent to Area D influent

% reduction of solids concentration due to Area D dilution (all sources listed)

% reduction of solids concentration from Area C influent to Area D effluent.

e. Press Influent Calculated, Average % Dry Solids column - These percentages are derived from mass balance calculations by Jacobs. These calculations used tonnages of screened material, filter cake, and dredge slurry as measured and estimated throughout the year.
f. Press Influent Diluted, Average % Dry Solid column - These percentages are derived from % solids calculated in the previous column with a dilution factor applied as presented in the calculations below the main body of the table.
g. Area C sand and oversize weights obtained from weigh tickets; Area D filter cake weights calculated.
h. Filter cake % solids and density values provided by SES as measured during production.
h. Gallons per week calculations assume a 5 day work week, 45 working dredge days.

Notes:

cy = cubic yards
DDA = Debris Disposal Area
gal = gallon
gpm = gallons per minute
hrs = hours
wk = week
YTD = year to date
avg = average

Table G-2
Pre-Season and Post-Season Production Quantities
New Bedford Harbor Superfund Site - 2007 Season

Pre-Season Production Quantities (Theoretical) [1]							
Amount Insitu Material Dredged	20,000	cy	207,900	wet tons	9,979	dry tons	4.8% solids
Sand and Oversize Removed at Area C			2,994	wet tons	2,395	dry tons	24% of total solids
Feed % Solids	4.80	%					599 tons of water in sand & debris
Filter Cake Produced			12,640	wet tons	7,584	dry tons	76% of total solids
Filter Cake % Solids	60.00	%					5,056 tons of water in filter cake
Filtrate Effluent	46,106,935	gal					

Post-Season Production Quantities (Actual)							
Amount Insitu Material Dredged	23,307	cy	119,855	wet tons[2]	12,353	dry tons	10.3% solids (as dredged)
Sand and Oversize Removed at Area C			3,592	wet tons[3]	2,873	dry tons[5]	23% of total solids
Feed % Solids	8.04	%					719 tons of water in sand & debris
Filter Cake Produced			15,384	wet tons[4]	9,480	dry tons[5]	77% of total solids
Filter Cake % Solids[6]	61.62	%					5,904 tons of water in filter cake
Filtrate Effluent	23,891,000	gal					

Notes:
[1] Theoretical Quantities taken from 2007 execution plan, SES calculations.
[2] Tons of insitu material dredged has 1822 tons of water booster pump contribution removed. (Table G-3)
[3] Wet tonnage of sand and oversize mixture based on actual weigh tickets.
[4] Wet tonnage of filter cake from JE Solids and Water Balance, Table G-1.
[5] Dry tonnage of dredged solids calculated on JE Solids and Water Balance, Table G-1.
[6] Average filter cake % solids value from JE Solids and Water Balance Table; weighted average based on SES production numbers.
cy = cubic yards
gal = gallons

Table G-3
New Bedford Harbor Dredge Season Water Usage
New Bedford Harbor Superfund Site - 2007 Season

2007 Water Usage							
Location	**Pre-Season Meter (cf)**	**Post Season Meter (cf)**	**Total Usage (cf)**	**Gallons**	**Tons**	**Area Total (Tons)**	
Area C 1	237500	261150	23650	176889	738	1905	
Area C2	249300	286700	37400	279731	1167		
Manomet St	NA	NA	29189	218317	911	911	
Aerovox	NA	NA	29189	218317	911	911	
Area D process	347100	686900	339800	2541511	10602	10602	
Area D process	32000	59400	27400	204936	855	855	
			486628	3639700		15183	Total Water added

Conversions used, Notes:
cf = cubic feet
1 cf = 0.1337 gallons
1 cf fresh water = 62.40 pounds at 50°F. Source: USCG CHRIS
NA = Booster pump station water not metered; 2006 daily usage rate used to estimate 2007 usage.

Table G-4
PCB Mass Removed for 2004 Season
New Bedford Harbor Superfund Site

2004 Filter Cake			
Sample ID	**Date**	**Total Aroclors (mg/kg)**	
V2-091604	9/16/2004	133	
V2-100104	10/1/2004	1070	
V2-100504	10/5/2004	790	
V2-100704	10/7/2004	450	
V2-101204	10/12/2004	248	
V2-101904	10/19/2004	1650	
V2-102204	10/22/2004	1270	
V2-102704	10/27/2004	1180	
V2-110204	11/2/2004	550	
V2-110804	11/8/2004	171	
	Average Aroclors	751.2	
	Average % solids	62%	
	Total cake	7067	wet tons
	Total cake	4382	dry tons
	Total cake	3974933.09	dry kg
	Calculated Aroclor Mass	3000	kg

2004 Oversize			
Sample ID	**Date**	**Total Aroclors (mg/kg)**	
V3-04-062106	6/21/2006	294	
	Average Aroclors	294	
	Average % solids	64.8	
	Total Oversize	326	wet tons
	Total Oversize	211.248	dry tons
	Total Oversize	191641	dry kg
	Calculated Aroclor Mass	56	kg

2004 Sand			
Sample ID	**Date**	**Total Aroclors (mg/kg)**	
V1-091004	9/10/2004	18.3	
V1-092204	9/22/2004	9	
V1-092704	9/27/2004	108	
V1-100404	10/4/2004	142	
V1-100604	10/6/2004	168	
V1-101104	10/11/2004	125	
V1-101304	10/13/2004	109	
V1-102004	10/20/2004	235	
V1-102704	10/27/2004	132	
V1-110304	11/3/2004	142	
V1-111004	11/10/2004	36.2	
	Average Aroclors	111	
	Average % solids	84%	
	Total Sand	1346	wet tons
	Total Sand	1130.64	dry tons
	Total Sand	1025716.61	dry kg
	Calculated Aroclor Mass	110	kg

Total Aroclor Mass Removed In Solid Materials, 2004			
Filter Cake	3000 kg		
Sand	110 kg		
Oversize	56 kg		
Total	3200 kg	3.5	tons

Notes:
kg = kilograms
mg/kg = miligrams per kilogram

Table G-5
PCB Mass Removed for 2005 Season
New Bedford Harbor Superfund Site

2005 Filter Cake			
Sample ID	**Date**	**Total Aroclors (mg/kg)**	**% Solids**
V2-091405	09/14/05	355.6	57.8
V2-092005	09/20/05	239.6	61.3
V2-092205	09/22/05	316.1	60.1
V2-092705	09/27/05	207.4	61.5
V2-093005	09/30/05	310.6	61.1
V2-100405	10/04/05	157.8	62.6
V2-100704	10/07/05	1002	58.1
V2-101105	10/11/05	727.9	59.8
V2-101305	10/13/05	1961	57.9
V2-101805	10/18/05	1240	57.8
V2-102105	10/21/05	520	62.4
V2-102805	10/28/05	669.5	59.8
V2-110105	11/01/05	1088.6	55.2
V2-110305	11/03/05	1763	58.2
V2-110805	11/08/05	1975	59.4
V2-110905	11/09/05	1571.3	59.2
V2-111105	11/11/05	750	59.0
V2-111605	11/16/05	1130	57.4
V2-111705	11/17/05	1498	59.0
V2-111805	11/18/05	1334	56.8
	Weighted Average	901.6	59.6
	Total Cake	16070	wet tons
	Total Cake	9578	dry tons
	Total Cake	8688761	dry kg
	Calculated Aroclor Mass	7830	kg

2005 Sand			
Sample ID	**Date**	**Total Aroclors (mg/kg)**	**% Solids**
V1-091505	09/15/05	51.8	80.6
V1-092105	09/21/05	12.0	76.4
V1-092605	09/26/05	66.5	77.4
V1-092805	09/28/05	46.0	78.1
V1-100505	10/05/05	179.7	62.9
V1-101105	10/11/05	208.7	81.9
V1-101305	10/13/05	439.1	85.0
V1-101405	10/14/05	122.3	85.5
V1-101805	10/18/05	232.3	88.4
V1-101905	10/19/05	46.9	83.8
V1-102105	10/21/05	117.8	87.7
V1-102605	10/26/05	94.0	81.3
V1-110205	11/02/05	371.7	82.6
V1-110805	11/08/05	485.4	83.0
V1-111405	11/14/05	173.0	81.3
V1-111605	11/16/05	465.6	76.5
V1-111805	11/18/05	172.7	82.4
Straight Average (mg/kg)		193	80.9
Weight of Wet Sand (tons)		2508	wet tons
Weight of Dry Sand (tons)		2029	dry tons
Weight of Dry Sand (kg)		1840652	dry kg
Calculated Aroclor Mass		356	kg

2005 Oversize			
Sample ID	**Date**	**Total Aroclors (mg/kg)**	**% Solids**
V3-05-062106-S	6/21/2006	1239	63.5
V3-05-062106-N	6/21/2006	884	86
	Straight Average (mg/kg)	1062	75
	Weight of Wet Oversize (tons)	488	wet tons
	Weight of Dry oversize (tons)	366	dry tons
	Weight of Dry oversize (kg)	332029	dry kg
	Calculated Aroclor Mass	350	kg

Total Aroclor Mass Removed In Solid Materials, 2005

Filter Cake	7830		
Sand	356		
Oversize	350		
Total	8536	9.4	tons

Notes:
kg = kilograms
mg/kg = miligrams per kilogram

Table G-6
PCB Mass Removed for 2006 Season
New Bedford Harbor Superfund Site

2006 Filter Cake			
Sample ID	**Date**	**Total Aroclors (mg/kg)**	**% Solids**
V2-081806	8/18/2006	420.0	60.0
V2-082206	8/22/2006	245.1	61.7
V2-082406	8/24/2006	203.6	62.7
V2-082806	8/28/2006	346.6	59.1
V2-083006	8/30/2006	541.0	58.5
V2-090706	9/7/2006	470.7	60.4
V2-091206	9/12/2006	480.0	58.9
V2-091506	9/15/2006	440.0	58.4
V2-092006	9/20/2006	970.0	56.9
V2-092506	9/25/2006	1457.0	56.6
V2-100306	10/3/2006	2893.0	57.5
V2-100606	10/6/2006	1114.0	57.9
V2-101106	10/11/2006	1636.0	58.9
V2-101606	10/16/2006	1743.0	60.2
V2-102006	10/20/2006	2549.0	60.4
	Weighted Average	1118.4	59.2
	Total Cake	13454	wet tons
	Total Cake	7960	dry tons
	Total Cake	7220977	dry kg
	Calculated Aroclor Mass	8076	kg

2006 Sand			
Sample ID	**Date**	**Total Aroclors (mg/kg)**	**% Solids**
V1-081706	8/17/2006	142.4	81.5
V1-081806	8/18/2006	113.3	78.6
V1-082306	8/23/2006	48.0	81.0
V1-082506	8/25/2006	48.0	73.6
V1-082906	8/29/2006	57.0	74.4
V1-083106	8/31/2006	93.1	80.6
V1-090806	9/8/2006	124.5	80.0
V1-091206	9/12/2006	44.1	81.5
V1-091406	9/14/2006	68.0	81.8
V1-091906	9/19/2006	170.0	82.0
V1-092206	9/22/2006	180.0	81.4
V1-092806	9/28/2006	419.0	82.7
V1-100406	10/4/2006	124.2	82.4
V1-100906	10/9/2006	175.2	83.5
V1-101206	10/12/2006	554.0	83.0
V1-101606	10/16/2006	588.0	85.1
	Straight Average (mg/kg)	184.3	80.8
	Weight of Wet Sand (tons)	2443	wet tons
	Weight of Dry Sand (tons)	1974	dry tons
	Weight of Dry Sand (kg)	1791147	dry kg
	Calculated Aroclor Mass	330	kg

2006 Oversize[1]		
No analytical available		
Weight of Wet Oversize (tons)	870	wet tons
Weight of Dry oversize (tons)	653	dry tons
Weight of Dry oversize (tons)	591938	dry kg
Estimated Aroclor Mass	629	kg

Total Aroclor Mass Removed In Solid Materials, 2006			
Filter Cake	8076	kg	
Sand	330	kg	
Oversize	629	kg	
Total	9035 kg	10.0	tons

Notes:
[1] Oversize material had no analytical, 2005 season average concentration and percent solids used to estimate PCB mass.
kg = kilograms
mg/kg = miligrams per kilogram

Table G-7
PCB Mass Removed for 2007 Season
New Bedford Harbor Superfund Site - 2007 Season

2007 Filter Cake		
Sample ID	**Total Aroclors (mg/kg)**	**% Solids**
V2-081007	370.0	58.8
V2-081507	130.0	57.2
V2-081607	66.0	60.8
V2-081707	88.0	59.8
V2-082007	147.0	62.8
V2-082207	116.2	60.9
V2-082307	90.1	62.4
V2-082407	114.7	59.9
V2-082707	125.0	60.3
V2-082907	125.1	60.7
V2-083007	208.2	58.7
V2-090507	188.0	61.5
V2-090707	156.6	58.7
V2-091007	146.3	57.5
V2-091207	100.3	59.9
V2-091407	124.5	60.4
V2-091707	314.7	60.3
V2-091807	244.0	58.6
V2-091907	213.4	59.4
V2-092107	183.5	61.3
V2-092407	85.0	60.9
V2-092607	88.8	60.2
V2-092707	136.1	60.0
V2-092807	197.2	58.5
V2-100307	115.4	58.6
V2-100507	105.7	59.4
V2-101107	135	59.7
V2-101507	394	54.7
Average	161.0	59.7
Total Cake	15384	wet tons
Total Cake	9480	dry tons
Total Cake	8600111	dry kg
Calculated Aroclor Mass	1385	kg

2007 Sand and Oversize		
Location ID	**Total Aroclors (mg/kg)**	**% Solids**
V1-081307	48.0	75.8
V1-081607	23.0	77.3
V1-081707	30.0	81.3
V1-082107	26.7	82.0
V1-082207	5.99	83.0
V1-082407	12.70	81.0
V1-082807	11.66	86.5
V1-083107	62.8	75.8
V1-090507	8.43	80.4
V1-090707	13.71	81.2
V1-091107	11.7	79.9
V1-091307	23.0	78.5
V1-091707	33.0	81.5
V1-091907	50.0	81.8
V1-092407	35.3	81.0
V1-092707	17.78	80.2
V1-100207	9.52	83.4
V1-100407	6.35	85.4
V1-100507	6.95	83.9
V1-100907	8.74	84.7
V1-101207	110.44	88.0
Average	26.5	81.6
Total Sand / Oversize	3592	wet tons
Total Sand / Oversize	2873	dry tons
Total Sand / Oversize	2606342	dry kg
Calculated Aroclor Mass	69	kg

Total Aroclor Mass Removed in Solid Materials, 2007		
Filter Cake	1385 kg	
Sand / Oversize	69 kg	
Total	1454 kg	1.6 tons

Notes:
kg = kilograms
mg/kg = miligrams per kilogram
Straight average used to calculate average Aroclor concentrations.
Wet and dry weights of material taken from 2007 JE Solids and Water Balance, Table G-1.

ATTACHMENT H

Sevenson Operational Monitoring Data

Attachment H
Sevenson Operational Monitoring Data
New Bedford Harbor Superfund Site - 2007

							Building C	Building D															Influent		Effluent	
DMU Area	Day # Prod.	Date	Daily Dredged Gallons	Dredged Gallons to Date	DMU Estimated In-Situ CY Dredged	DMU In-Situ CY to Date	Average % Solids Dredged DMU	Average % Solids Press Feed	Average % Solids Filter Cake	# Press On Line	Hours of Operation	# Press Drops	Total Drops to Date	Avg. Cycle Time (min)	Daily CY Filter Cake	CY Filter Cake to Date	Tons/C.Y of Filter Cake	Daily Tons of Filter Cake	Tons of Filter Cake to Date	Sludge Gal/Day	Total Sludge Gal to Date	Total Gal Water/Day	Total Gal Water to Date	Gallons of Water Discharged	Total Gallons of Water Discharged
1	Shakedown-3	8-Aug	246,954	246,954	93	93	0.00%	6.6%	60.05%	5	12	6	6	600	48.60	48.60	1.21	58.81	58.81	202,059	202,059	188,200	188,200	142,000	142,000
1	1	9-Aug	565,756	812,710	420	513	0.0%	12.8%	60.12%	6	12	27	33	160	218.70	267.30	1.22	266.81	325.62	355,252	557,311	306,800	495,000	266,000	408,000
1	2	10-Aug	537,194	1,349,904	628	1,141	17.7%	10.6%	59.99%	6	12	40	73	108	324.00	591.30	1.22	395.28	720.90	565,362	1,122,673	458,400	953,400	407,000	815,000
1	3	13-Aug	301,633	1,651,537	420	1,561	0.00%	10.53%	61.29%	6	11	27	100	147	218.70	810.00	1.23	269.00	989.90	615,428	1,738,101	528,800	1,482,200	416,000	1,231,000
1	4	14-Aug	279,066	1,930,603	183	1,744	0.00%	8.70%	60.81%	6	12	12	112	360	97.20	907.20	1.22	118.58	1,108.49	250,084	1,988,185	231,500	1,713,700	209,000	1,440,000
1	5	15-Aug	735,294	2,665,897	711	2,455	12.94%	12.15%	61.91%	6	12	48	160	90	388.80	1,296.00	1.22	474.34	1,582.82	700,110	2,688,295	591,000	2,304,700	547,000	1,987,000
1	6	16-Aug	676,030	3,341,927	718	3,173	14.29%	11.65%	62.49%	6	12	48	208	90	388.80	1,684.80	1.23	478.22	2,061.05	708,185	3,396,480	630,400	2,935,100	603,000	2,590,000
1	7	17-Aug	645,010	3,986,937	616	3,789	7.84%	10.55%	62.38%	6	12	40	248	108	324.00	2,008.80	1.22	395.28	2,456.33	884,577	4,281,057	678,600	3,613,700	643,000	3,233,000
1	8	20-Aug	600,000	4,586,937	561	4,350	12.68%	9.34%	61.84%	6	12	37	285	117	299.70	2,308.50	1.22	365.63	2,821.96	639,697	4,920,754	721,200	4,334,900	597,000	3,830,000
1	9	21-Aug	704,718	5,291,655	634	4,984	15.09%	13.16%	61.29%	6	12	43	328	100	348.30	2,656.80	1.21	421.44	3,243.40	749,457	5,670,211	667,200	5,002,100	655,000	4,485,000
1	10	22-Aug	729,677	6,021,332	745	5,729	10.53%	12.88%	62.91%	6	12	51	379	85	413.10	3,069.90	1.22	503.98	3,747.38	794,106	6,464,317	659,000	5,661,100	605,000	5,090,000
1	11	23-Aug	753,761	6,775,093	704	6,433	15.75%	10.68%	63.15%	6	12	48	427	90	388.80	3,458.70	1.22	474.34	4,221.72	797,173	7,261,490	710,400	6,371,500	749,000	5,839,000
1	12	24-Aug	504,859	7,279,952	738	7,171	15.44%	14.07%	65.39%	6	12	46	473	94	372.60	3,831.30	1.23	458.30	4,680.02	825,476	8,086,966	602,900	6,974,400	481,000	6,320,000
1	13	27-Aug	608,571	7,888,523	538	7,709	14.33%	11.44%	63.65%	6	12	36	509	120	291.60	4,122.90	1.22	355.75	5,035.77	823,989	8,910,955	777,900	7,752,300	546,000	6,866,000
1	14	28-Aug	485,800	8,374,323	531	8,240	0.00%	10.08%	63.03%	6	12	35	544	123	283.50	4,406.40	1.21	343.04	5,378.81	580,666	9,491,621	541,200	8,293,500	579,000	7,445,000
1	15	29-Aug	734,156	9,108,479	575	8,815	12.31%	10.49%	60.47%	6	12	40	584	108	324.00	4,730.40	1.22	395.28	5,774.09	742,007	10,233,628	641,800	8,935,300	583,000	8,028,000
1	16	30-Aug	622,830	9,731,309	543	9,358	11.05%	8.16%	59.12%	6	12	36	620	120	291.60	5,022.00	1.22	355.75	6,129.84	697,059	10,930,687	644,800	9,580,100	593,000	8,621,000
1	16.5	31-Aug	135,749	9,867,058	226	9,584	0.00%	9.34%	58.56%	6	5	14	634	309	113.40	5,135.40	1.23	139.48	6,269.32	223,348	11,154,035	203,000	9,783,100	186,000	8,807,000
1	17	4-Sep	414,193	10,281,251	194	9,778	7.76%	6.96%	61.17%	6	6	12	646	360	97.20	5,232.60	1.22	118.58	6,387.90	429,386	11,583,421	383,500	10,166,600	298,000	9,105,000
1	18	5-Sep	563,911	10,845,162	473	10,251	11.11%	8.40%	60.40%	6	12	31	677	139	251.10	5,483.70	1.21	303.83	6,691.73	639,938	12,223,359	595,400	10,762,000	587,000	9,692,000
1	19	6-Sep	639,049	11,484,211	599	10,850	9.98%	9.31%	59.90%	6	12	39	716	111	315.90	5,799.60	1.22	385.40	7,077.13	670,360	12,893,719	607,800	11,369,800	601,000	10,293,000
1	20	7-Sep	1,073,591	12,557,802	587	11,437	10.21%	9.09%	61.11%	6	12	38	754	114	307.80	6,107.40	1.22	375.52	7,452.65	1,025,432	13,919,151	608,400	11,978,200	555,000	10,848,000
1	21	10-Sep	633,696	13,191,498	444	11,881	7.39%	9.84%	61.11%	6	12	30	784	144	243.00	6,350.40	1.23	298.89	7,751.54	699,895	14,619,046	996,500	12,974,700	631,000	11,479,000
1	22	11-Sep	593,245	13,784,743	442	12,323	16.20%	8.45%	62.06%	6	12	29	813	149	234.90	6,585.30	1.22	286.58	8,038.12	664,950	15,283,996	598,400	13,573,100	590,000	12,069,000
1	23	12-Sep	643,964	14,428,707	552	12,875	13.81%	9.35%	61.66%	6	12	36	849	120	291.60	6,876.90	1.21	352.84	8,390.95	697,561	15,981,557	650,500	14,223,600	647,000	12,716,000
1	24	13-Sep	623,100	15,051,807	576	13,451	12.37%	8.86%	61.82%	6	12	39	888	111	315.90	7,192.80	1.22	385.40	8,776.35	659,411	16,640,968	611,500	14,835,100	611,000	13,327,000
1	25	14-Sep	532,179	15,583,986	697	14,148	13.41%	11.09%	61.26%	6	12	47	935	92	380.70	7,573.50	1.22	464.45	9,240.80	772,826	17,413,794	561,500	15,396,600	542,000	13,869,000
1	26	17-Sep	669,510	16,253,496	529	14,677	15.45%	10.21%	61.68%	6	12	37	972	117	299.70	7,873.20	1.23	368.63	9,609.44	654,720	18,068,514	672,000	16,068,600	569,000	14,438,000
1	27	18-Sep	583,427	16,836,923	648	15,325	17.53%	11.12%	61.43%	6	12	46	1018	94	372.60	8,245.80	1.22	454.57	10,064.01	644,800	18,713,314	578,900	16,647,500	565,000	15,003,000
1	28	19-Sep	584,496	17,421,419	605	15,930	12.19%	11.96%	61.73%	6	12	42	1060	103	340.20	8,586.00	1.21	411.64	10,475.65	611,231	19,324,545	543,600	17,191,100	537,000	15,540,000
1	29	20-Sep	555,619	17,977,038	525	16,455	9.25%	11.47%	63.19%	6	12	35	1095	123	283.50	8,869.50	1.22	345.87	10,821.52	649,791	19,974,336	521,000	17,712,100	501,000	16,041,000
1	30	21-Sep	449,464	18,426,502	656	17,111	22.93%	12.66%	62.54%	6	12	43	1138	100	348.30	9,217.80	1.22	424.93	11,246.45	785,820	20,760,156	498,900	18,211,000	500,000	16,541,000
1	31	24-Sep	457,997	18,884,499	544	17,655	13.82%	10.40%	62.75%	6	12	36	1174	120	291.60	9,509.40	1.21	352.84	11,599.28	668,055	21,428,211	704,800	18,915,800	517,000	17,058,000
1	32	25-Sep	521,978	19,406,477	722	18,377	18.60%	11.40%	62.47%	6	12	48	1222	90	388.80	9,898.20	1.23	478.22	12,077.51	583,223	22,011,434	489,300	19,405,100	474,000	17,532,000
1	33	26-Sep	408,278	19,814,755	572	18,949	9.44%	12.60%	61.70%	6	12	38	1260	114	307.80	10,206.00	1.21	372.44	12,449.94	505,774	22,517,208	445,800	19,850,900	461,000	17,993,000
1	34	27-Sep	446,759	20,261,514	521	19,470	16.62%	13.10%	61.44%	6	12	35	1295	123	283.50	10,489.50	1.21	343.04	12,792.98	508,858	23,026,066	420,000	20,270,900	402,000	18,395,000
1	35	28-Sep	491,896	20,753,410	640	20,110	6.90%	12.51%	61.42%	6	12	43	1338	100	348.30	10,837.80	1.23	428.41	13,221.39	715,875	23,741,941	529,000	20,799,900	510,000	18,905,000
1	36	1-Oct	430,434	21,183,844	282	20,392	7.46%	7.57%	62.04%	6	12	19	1357	227	153.90	10,991.70	1.21	186.22	13,407.61	438,872	24,180,813	528,100	21,328,000	420,000	19,325,000
1	37	2-Oct	512,606	21,696,450	371	20,763	17.41%	10.33%	60.82%	6	12	25	1382	173	202.50	11,194.20	1.21	245.03	13,652.63	535,923	24,716,736	475,400	21,803,400	491,000	19,816,000
1	38	3-Oct	536,192	22,232,642	417	21,180	10.42%	9.98%	61.01%	6	12	28	1410	154	226.80	11,421.00	1.22	276.70	13,929.33	557,958	25,274,694	502,900	22,306,300	486,000	20,302,000
1	39	4-Oct	588,960	22,821,602	397	21,577	14.97%	9.34%	61.45%	6	12	27	1437	160	218.70	11,639.70	1.21	264.63	14,193.95	611,162	25,885,856	543,000	22,849,300	550,000	20,852,000
1	40	5-Oct	446,948	23,268,550	261	21,838	5.78%	7.71%	60.41%	6	12	17	1454	254	137.70	11,777.40	1.23	169.37	14,363.33	742,176	26,628,032	513,000	23,362,300	429,000	21,281,000
1	41	8-Oct	565,072	23,833,622	275	22,113	12.30%	8.89%	61.55%	6	12	18	1472	240	145.80	11,923.20	1.21	176.42	14,539.74	543,055	27,171,087	874,300	24,236,600	590,000	21,871,000
1	42	9-Oct	619,211	24,452,833	208	22,321	10.00%	7.09%	60.90%	6	12	14	1486	309	113.40	12,036.60	1.22	138.35	14,678.09	641,978	27,813,065	606,100	24,842,700	590,000	22,461,000
1	43	10-Oct	545,789	24,998,622	165	22,486	12.71%	8.38%	61.76%	6	12	11	1497	393	89.10	12,125.70	1.21	107.81	14,785.90	588,490	28,401,555	540,000	25,382,700	531,000	22,992,000
1	44	11-Oct	496,600	25,495,222	374	22,860	9.83%	9.98%	58.71%	6	12	26	1523	166	210.60	12,336.30	1.21	254.83	15,040.73	532,609	28,934,164	498,000	25,880,700	491,000	23,483,000
1	45	12-Oct	349,496	25,844,718	320	23,180	12.22%	7.03%	57.27%	6	12	22	1545	196	178.20	12,514.50	1.21	215.62	15,256.35	657,896	29,592,060	419,600	26,300,300	408,000	23,891,000
	DEMOB	18-Oct							62.82%			13	1558		105.30	12,619.80	1.21	127.41	15,383.76			954,400	27,254,700		
			Cell D13 was estimated due to flow meter complications																						
DMU 1 AVG	AVERAGE>				513		12.63%	10.26%	61.45%			34					1.22	326.06		638,913					

Attachment H
Sevenson Operational Monitoring Data
New Bedford Harbor Superfund Site - 2007

		Build C	Build C	CY x 1.9	Cummulative	Build C Tons	Build C	Build C	Build C	Build C	Build C	Cummulative	Area D	Area D	Area D	Area D	Area D	Area D		Area D	Area D	Pumps	Area D
Date	Average WWT GPM/Day	Estimated Daily Sand/ Mix CY	Estimated Sand/Mix to Date CY	Tons Per Day of Sand/Mix	Total Tons of Sand/ Mix	Total Tons Sand/Mix Removed	Daily Truckloads Sand/Mix Removed	Estimated Daily CY of Oversize	Estimated CY of Oversize To Date	Total Tons of Oversize Removed	Daily Truckload Oversize Removed	Total Truckload of Oversize Removed	No. of Rail Cars	Daily Tonnage of Rail Cars	Total Tonnage of Rail Cars	No. of Trucks of Filter Cake	Average Tons/Load of Filter Cake	Truck Tonnage of Filter Cake	Sand Trucked to area D	Total Tons of Filter Cake to Date	Remaining Tons of Filter Cake to Date	Ferric Sulfate in Gallons	Polymer useage in gallons
8-Aug	261.39	6.9	6.9	13.1	13.1	0.0	0	1.39	1.39	0.00	0	0	0	0.00	0	0	0.0	0.00	0.00	0.00	58.8	168.00	63.00
9-Aug	426.11	9.0	15.9	17.1	30.2	0.0	0	15.2	16.59	0.00	0	0	0	0.00	0	0	0.0	0.00	0.00	0.00	325.6	126.00	150.50
10-Aug	636.67	18.5	34.4	35.2	65.4	0.0	0	31.4	47.99	0.00	0	0	3	295.26	295.3	0	98.4	0.00	0.00	295.26	425.6	294.00	444.50
13-Aug	734.44	12.0	46.4	22.8	88.2	0.0	0	4.0	51.99	0.00	0	0	4	392.30	687.6	0	98.1	0.00	0.00	687.56	302.3	210.00	329.00
14-Aug	321.53	13.5	59.9	25.7	113.8	124.1	5	4.0	55.99	0.00	1	1	2	196.33	883.9	0	98.2	0.00	0.00	883.89	224.6	210.00	201.25
15-Aug	820.83	21.8	81.7	41.4	155.2	0.0	0	11.0	66.99	0.00	0	1	1	98.62	982.5	0	98.6	0.00	0.00	982.51	600.3	392.00	622.50
16-Aug	875.56	16.0	97.7	30.4	185.6	114.2	5	7.1	74.09	0.00	1	2	3	293.94	1276.5	0	98.0	0.00	0.00	1,276.45	784.6	294.00	581.25
17-Aug	942.50	35.0	132.7	66.5	252.1	0.0	0	2.5	76.59	0.00	0	2	5	492.79	1769.2	0	98.6	0.00	0.00	1,769.24	687.1	294.00	738.75
20-Aug	1,001.67	29.5	162.2	56.1	308.2	152.0	7	0.0	76.59	0.00	0	2	6	589.78	2359.0	0	98.3	0.00	0.00	2,359.02	462.9	294.00	573.75
21-Aug	926.67	19.0	181.2	36.1	344.3	92.1	5	0.0	76.59	0.00	0	2	5	490.79	2849.8	0	98.2	0.00	0.00	2,849.81	393.6	343.00	607.50
22-Aug	915.28	27.5	208.7	52.3	396.5	0.0	0	0.0	76.59	0.00	0	2	5	491.18	3341.0	0	98.2	0.00	0.00	3,340.99	406.4	539.00	907.50
23-Aug	986.67	25.8	234.5	49.0	445.6	168.2	8	0.0	76.59	0.00	0	2	4	394.33	3735.3	0	98.6	0.00	0.00	3,735.32	486.4	490.00	843.75
24-Aug	837.36	25.0	259.5	47.5	493.1	0.0	0	0.0	76.59	0.00	0	2	2	196.26	3931.6	0	98.1	0.00	0.00	3,931.58	748.4	294.00	686.25
27-Aug	1,080.42	38.9	298.4	73.9	567.0	148.6	7	0.0	76.59	0.00	0	2	5	490.73	4422.3	0	98.1	0.00	0.00	4,422.31	613.5	245.00	637.50
28-Aug	751.67	40.6	339.0	77.1	644.1	0.0	0	0.0	76.59	0.00	0	2	5	490.34	4912.7	0	98.1	0.00	0.00	4,912.65	466.2	196.00	776.25
29-Aug	891.39	15.0	354.0	28.5	672.6	0.0	0	0.0	76.59	0.00	0	2	3	293.98	5206.6	0	98.0	0.00	0.00	5,206.63	567.5	392.00	866.25
30-Aug	895.56	21.5	375.5	40.9	713.5	174.4	8	0.0	76.59	0.00	0	2	4	393.59	5600.2	0	98.4	0.00	0.00	5,600.22	529.6	343.00	761.25
31-Aug	281.94	10.5	386.0	20.0	733.4	0.0	0	0.0	76.59	0.00	0	2	1	98.85	5699.1	0	98.9	0.00	0.00	5,699.07	570.2	49.00	251.25
4-Sep	532.64	20.8	406.8	39.5	772.9	106.6	5	0.0	76.59	0.00	0	2	1	97.95	5797.0	0	98.0	0.00	0.00	5,797.02	590.9	147.00	371.25
5-Sep	826.94	30.2	437.0	57.4	830.3	0.0	0	0.0	76.59	0.00	0	2	3	294.08	6091.1	0	98.0	0.00	0.00	6,091.10	600.6	294.00	686.25
6-Sep	844.17	23.0	460.0	43.7	874.0	152.7	7	0.0	76.59	0.00	0	2	4	392.70	6483.8	0	98.2	0.00	0.00	6,483.80	593.3	392.00	690.00
7-Sep	845.00	12.7	472.7	24.1	898.1	0.0	0	0.0	76.59	0.00	0	2	4	394.53	6878.3	0	98.6	0.00	0.00	6,878.33	574.3	245.00	922.50
10-Sep	1,384.03	27.5	500.2	52.3	950.4	0.0	0	0.0	76.59	0.00	0	2	3	295.05	7173.4	0	98.4	0.00	0.00	7,173.38	578.2	245.00	611.25
11-Sep	831.11	30.2	530.4	57.4	1007.8	0.0	0	0.0	76.59	0.00	0	2	1	98.25	7271.6	0	98.3	0.00	0.00	7,271.63	766.5	245.00	697.50
12-Sep	903.47	29.7	560.1	56.4	1064.2	103.2	5	0.0	76.59	0.00	0	2	3	296.08	7567.7	0	98.7	0.00	0.00	7,567.71	823.2	245.00	851.25
13-Sep	849.31	25.8	585.9	49.0	1113.2	0.0	0	0.0	76.59	0.00	0	2	3	295.83	7863.5	0	98.6	0.00	0.00	7,863.54	912.8	343.00	825.00
14-Sep	779.86	87.8	673.7	166.8	1280.0	125.5	6	0.0	76.59	0.00	0	2	5	490.17	8353.7	0	98.0	0.00	0.00	8,353.71	887.1	245.00	915.00
17-Sep	933.33	137.3	811.0	260.9	1540.9	0.0	0	0.0	76.59	0.00	0	2	4	392.92	8746.6	0	98.2	0.00	0.00	8,746.63	862.8	245.00	735.00
18-Sep	804.03	28.4	839.4	54.0	1594.9	171.8	8	0.0	76.59	0.00	0	2	4	393.46	9140.1	0	98.4	0.00	0.00	9,140.09	923.9	294.00	727.50
19-Sep	755.00	22.3	861.7	42.4	1637.2	0.0	0	0.0	76.59	0.00	0	2	4	392.44	9532.5	0	98.1	0.00	0.00	9,532.53	943.1	294.00	570.00
20-Sep	723.61	12.7	874.4	24.2	1661.4	150.0	7	0.0	76.59	0.00	0	2	4	394.31	9926.8	0	98.6	0.00	0.00	9,926.84	894.7	196.00	558.75
21-Sep	692.92	19.3	893.7	36.7	1698.1	0.0	0	0.0	76.59	0.00	0	2	5	491.53	10418.4	0	98.3	0.00	0.00	10,418.37	828.1	245.00	637.50
24-Sep	978.89	29.5	923.2	56.1	1754.1	207.5	9	0.0	76.59	0.00	0	2	4	391.86	10810.2	0	98.0	0.00	0.00	10,810.23	789.1	245.00	510.00
25-Sep	679.58	35.4	958.7	67.3	1821.4	0.0	0	0.0	76.59	0.00	0	2	5	490.26	11300.5	0	98.1	0.00	0.00	11,300.49	777.0	294.00	731.25
26-Sep	619.17	19.3	977.9	36.6	1858.0	0.0	0	0.0	76.59	0.00	0	2	4	392.96	11693.5	0	98.2	0.00	0.00	11,693.45	756.5	392.00	626.25
27-Sep	583.33	27.4	1005.3	52.1	1910.1	138.7	6	0.0	76.59	0.00	0	2	4	393.36	12086.8	0	98.3	0.00	0.00	12,086.81	706.2	392.00	641.25
28-Sep	734.72	14.9	1020.2	28.3	1938.4	0.0	0	0.0	76.59	0.00	0	2	4	392.71	12479.5	0	98.2	0.00	0.00	12,479.52	741.9	245.00	873.50
1-Oct	733.47	22.3	1042.5	42.4	1980.8	0.0	0	0.0	76.59	0.00	0	2	3	295.26	12774.8	0	98.4	0.00	0.00	12,774.78	632.8	343.00	468.75
2-Oct	660.28	21.9	1064.4	41.6	2022.4	228.9	10	0.0	76.59	0.00	0	2	4	392.30	13167.1	0	98.1	0.00	0.00	13,167.08	485.6	294.00	693.75
3-Oct	698.47	50.4	1114.8	95.8	2118.2	0.0	0	0.0	76.59	0.00	0	2	2	197.58	13364.7	0	98.8	0.00	0.00	13,364.66	564.7	294.00	596.25
4-Oct	754.17	127.8	1242.6	242.8	2361.0	420.0	17	0.0	76.59	0.00	0	2	3	294.16	13658.8	0	98.1	0.00	0.00	13,658.82	535.1	196.00	738.75
5-Oct	712.50	33.4	1276.0	63.5	2424.5	68.1	3	0.0	76.59	0.00	0	2	2	196.46	13855.3	0	98.2	0.00	0.00	13,855.28	508.0	98.00	480.00
8-Oct	1,214.31	44.3	1320.4	84.2	2508.7	277.5	12	0.0	76.59	0.00	0	2	3	293.85	14149.1	0	98.0	0.00	0.00	14,149.13	390.6	294.00	517.50
9-Oct	841.81	44.7	1365.1	84.9	2593.6	0.0	0	0.0	76.59	0.00	0	2	1	98.13	14247.3	0	98.1	0.00	0.00	14,247.26	430.8	269.50	322.50
10-Oct	750.00	45.9	1411.0	87.2	2680.8	271.1	11	0.0	76.59	0.00	0	2	1	98.88	14346.1	0	98.9	0.00	0.00	14,346.14	439.8	294.00	165.00
11-Oct	691.67	10.8	1421.7	20.5	2701.3	0.0	0	0.0	76.59	0.00	0	2	0	0.00	14346.1	0		0.00	0.00	14,346.14	694.6	294.00	525.00
12-Oct	582.78	7.1	1428.8	13.5	2714.8	196.6	8	0.0	76.59	0.00	0	2	2	195.58	14541.7	0	97.8	0.00	0.00	14,541.72	714.6	294.00	656.25
18-Oct	1,325.56												2	196.18	14737.9		98.1			14,737.90			
RUNNING TOTALS>						3,591.6				0.0			150	14,737.90								13,086.50	28,386.75

ATTACHMENT I

Process Improvement Data

JACOBS

Document Control Number:

Client, Project and Location	Project Note	Delivery Order/Task Order **TO 0006** Project No. **35-BG06-01**
USACE New Bedford Resident Office **New Bedford Harbor Superfund Site** **New Bedford, Massachusetts** **USACE Contract Number** **DACW33-03-D-0006**	**Note No.:** 003	

Confirmation of ☒ Project note-P1 ☐ Client Meeting-P4 ☐ Other	Date: 07 January 2008 Issued Recorded: Anita Rigassio Smith By
Subject **Results of Iron Testing 2007**	Issued By Mike Anderson Jacobs Project Manager

Item	Remarks	Action Required By
1	**Purpose:** During the 2007 dredge season, Jacobs performed tests for various forms of iron throughout the process train. The intention of the data collection was several-fold: • Obtain information on the effectiveness of the ferric sulfate dosing at the Aerovox booster pump station. This would be evaluated by looking at the relative ferric iron and ferrous iron concentrations at various sampling points from the dredge to the Area C desanding building. • Obtain information on the presence of ferric iron in the WWTP for the purpose of co-precipitating metals to remove them from the waste stream. This would be evaluated by looking at the relative ferric iron and ferrous iron concentrations at various sampling points from the Area D influent through water treatment and the effluent. • Evaluate the effectiveness of the Hach test kit for analyzing slurry and water samples for total iron and ferrous iron. This would be evaluated by comparing Hach test kit results to off-site laboratory results for split samples. To perform these evaluations, actual field results were compared to expected results and also evaluated with respect to each other.	
2	**Background:** In order to collect the necessary data, designated sampling locations and analyses were established. Seven sampling locations were identified to provide information at key points of the process stream. The sampling locations and the justification	

Distribution: USACE: KC Mitkevicius, Paul L'Heuruex; Jacobs: Mike Anderson, Mark Gouveia, Anita Rigassio Smith, Project File, Document Control File.

Item	Remarks	Action Required By

for each location are provided in Table 1.

Table 1	
Location	Purpose of Sampling at Location
Aerovox Pre-Ferric	Baseline. The sample was collected from a port upstream of the in-line grinder and ferric sulfate injection port. The sample at this location represented the dredge slurry.
Aerovox Post-Ferric	Ferric Sulfate Dosage. The sample was collected from a port downstream from both the ferric sulfate injection point and the booster pump (to allow mixing). The sample at this location reflected the effective dose of ferric iron into the dredge slurry.
Area C Influent	Ferric Sulfate Consumption. The sample was collected from a port immediately upstream of the coarse screen shaker (where the slurry is first exposed to the atmosphere and workers), and represented the dosed dredge slurry as it entered the Desanding Building.
Area D Influent	Ferric Sulfate Consumption. The sample was collected from feed tank #8. The sample at this location reflected the ferric iron available for metals co-precipitation.
WWTP Influent	Ferric Sulfate Consumption. The sample was collected from a port upstream of the WWTP equalization tanks, and reflected the ferric iron available for metals co-precipitation prior to DAF filtration.
GAC Influent	Iron Removal. The sample was collected from a port immediately upstream of the GAC filters (post-sand filters). The sample at this location reflected the efficacy of the bag filters and sand filters for removing iron from the waste stream.
WWTP Effluent	Presence/Absence of metals. The sample was collected from a port in the effluent pipeline and demonstrated removal of iron.

Four parameters were measured at each sample location. Oxidation-Reduction Potential (ORP) and pH were measured at the time of sample collection with the YSI instrument (calibrated daily). Ferrous iron (Fe^{+2}) was also measured at the time of sample collection with the Hach test kit. One preserved (HNO_3) sample container was collected for digestion and measurement of total iron (total Fe) by the Hach test kit at the site laboratory. The ferric iron (Fe^{+3}) concentration result was obtained by subtracting the Fe^{+2} concentration from the total Fe concentration. The test parameters and the justification for each parameter are provided in Table 2.

Table 2	
Parameter	Purpose of Analyzing the Parameter
pH	Aerovox to Area C: pH of 7.0-8.5 shifts sulfide equilibrium to 99% hydrosulfide anion (HS^{-1}) [Jacobs 2005]. WWTP: pH >8.5 improves metal co-precipitation.
ORP (mV)	Gives an indication of the relative ratio of Fe^{+2} to Fe^{+3} in solution, and thus the potential efficacy of the Fe^{+3}. An

Item	Remarks	Action Required By

	ORP >250 mV should indicate relatively higher concentration of Fe^{+3}.
Fe^{+2} (mg/L)	Iron in this oxidation state is a byproduct of H_2S oxidation, and thus indicates relative Fe^{+3} consumption and, inversely, availability.
Total Fe (mg/L)	Total Fe is determined in order to calculate the Fe^{+3} concentration. Aerovox to Area C: Iron in the Fe^{+3} oxidation state will react with H_2S to form FeS, S^{-2}, and H_2SO_4, which are not lethal chemicals at the concentrations produced. WWTP: Iron in the Fe^{+3} oxidation state will react with metals to form insoluble metal hydroxide salts, which precipitate.

Eight split samples were sent to an off-site laboratory for total Fe analysis to compare with the Hach test kit results. Split sample results are included in Attachment 1.

3 **Results and Observations:**

The test results are tabulated and attached to this project note as Attachment 1. The table includes pertinent notes for the samples and analyses.

Samples were collected over seven events. For the first and third events the YSI meter was unavailable. ORP was not measured for either event; pH was measured using pH paper for the first event.

Total Fe samples were not digested for the first and second events. As a result, the total Fe results were low, and a mild digestion procedure was put in place for subsequent events. The mild digestion procedure improved the total Fe results; however it is evident from the results that the sample matrix affected the analyses.

At first the samples were collected by allowing the slurry samples to settle and the decanting the liquid as the sample. There was concern that during the time required for sufficient decant to develop the iron would undergo oxidation, and bias the results. Therefore, for the last three events, the decant was separated more rapidly with a vacuum filter apparatus.

Because test results were affected by the sample matrix, trends were observed. The following trends were noted:

- Fe^{+2} concentrations at the WWTP influent were approximately that of the pre-Ferric injection.
- Fe^{+2} concentrations increased from the pre-Ferric injection port (baseline) through Area C influent, and then from Area D influent through GAC influent. The break in the concentration trend between Area C influent and Area D influent is probably due to dilution at Area C (floor washing) and dilution at Area D (all floor wash and backwash water goes into the mix tanks) and 23% of mass removal at Area C in the form of oversize material.
- There was no Fe present (in any form) once the waste water passed through the sand filters.
- At the WWTP influent, any Fe^{+3} is excess (i.e., serves no purpose), since the precipitate is removed by the filter press step.
- Actual baseline total Fe concentrations were greater than expected by 10x

Item	Remarks	Action Required By
	to 100x. • pH results were consistent with expected results through the treatment process. In the WWTP, the results were consistent once caustic was added in the process. • ORP results were highly variable and inconclusive.	
4	**Conclusions and Recommendations:** The ferric sulfate solution is possibly overdosed at the Aerovox booster pump station. This is evidenced by the high concentration of Fe^{+3} measured at the Area C Influent port. However, for event #4, the Fe^{+3} concentration is similar to that measured pre-Ferric (baseline). Because of the critical Health & Safety nature of the ferric sulfate injection, the fact that the ferric sulfate is not grossly overdosed, and the limited data collected over the 2007 season, it is not recommended to alter the ferric sulfate injection rates. The high concentrations of Fe^{+3} in the Area D Influent support the theory that there is sufficient oxidizing potential to precipitate out the metals in the waste stream. This conclusion is further supported by the low concentrations of dissolved metals in the WWTP effluent. The WWTP effluent data will be presented in the 2007 Data Summary Report. The Hach test kit is probably inadequate for determining accurate iron results given the dredge slurry matrix, but is suitable for evaluating trends. The slurry itself is heterogeneous, the high solids content will affect the adsorption of all forms of Fe, and most likely there are compounds in the slurry competing for the oxidation provided by the Fe^{+3}. Although the Hach tests, being spectrometric, are affected by the presence of suspended solids, the Hach measurement procedures allow zero-ing out of the suspended solids. However, with the field test kit, this may be oversimplified and the suspended solids may have a variable affect on the readings. Suggestions to overcome the inaccuracies of the Hach methods are to: • Perform a series of tests at each location several times over an entire day to watch variability and possibly draw correlations. • Use the test kit results for screening or evaluating trends only. • Try a more aggressive digestion procedure and/or a better filtration method. • Only test for soluble Fe components by filtering all samples prior to preserving and analyzing, to reduce or eliminate matrix interferences. It is recommended to continue the iron and pH tests during the next dredge season to add to the data set. More frequent analysis plus a sampling routine that allows for more complete data sets should be considered; however, interruptions in sample collection are most often caused by operational shut-down, and are not within the control of the samplers. The Hach tests could also include an analysis for total copper (Cu) at the WWTP effluent port. This would provide early detection of a co-precipitation problem more directly than using an indirect measurement of Fe.	
5	**References:** Jacobs 2005 (October). *Final 2004 After-Action Report New Bedford Harbor Remedial Action.* ACE-J23-35BG0105-M17-0005. Attachment D.	

Attachment 1, Iron Test Results 2007

PN-003 Attachment 1
Iron Test Results 2007

Event	Date/Time	Parameter	pre-Ferric	post-Ferric	Area C Influent	Area D Influent	WWTP Influent	GAC Influent	WWTP Effluent	Notes
1	8/14/2007 pm	pH	NA	6	NA	5 - 6	4	4	7	pH tested with pH paper strips. YSI not available; no ORP.
		ORP (mV)	NA	NA	NA	NA	NA	NA	NA	Ed Hathaway (SES) reports not adding caustic yet in WWTP.
		Fe+2 (mg/L)	NA	2.21	NA	0.26	2.47	0.03	0.03	Checked WWTP Infl. Value by performing a dilution.
		Total Fe (mg/L)	NA	5.80	NA	0.341	1.185	0.009	0.039	Analyzed decant for Total Fe 2 days after collection.
		Fe+3 (mg/L)	NA	3.59	NA	0.081	NC	0.000	0.009	No digestion for Total Fe; NC = not calculable
	Date/Time	Parameter	pre-Ferric	post-Ferric	Area C Influent	Area D Influent	WWTP Influent	GAC Influent	WWTP Effluent	Notes
2	8/21/2007 am WWT pm Aero	pH	NA	NA	NA	7.12	7.29	8.22	7.42	Area D Influent Total Fe split sample analyzed at STL = 128 mg/L
		ORP (mV)	NA	NA	NA	NA	5.4	140	159.1	
		Fe+2 (mg/L)	NA	5.00	NA	NA	0.18	0.00	0.00	
		Total Fe (mg/L)	NA	2.16	NA	NA	0.357	0.034	0.043	No digestion for Total Fe
		Fe+3 (mg/L)	NA	NC	NA	NA	0.177	0.034	0.043	NC = not calculable
	Date/Time	Parameter	pre-Ferric	post-Ferric	Area C Influent	Area D Influent	WWTP Influent	GAC Influent	WWTP Effluent	Notes
3	8/29/07 pm	pH	NA	NA	NA	NA	NA	NA	NA	YSI not available.
		ORP (mV)	NA	NA	NA	NA	NA	NA	NA	
		Fe+2 (mg/L)	3.29	2.45	9.25	NA	NA	NA	NA	Post-Ferric sample sat 30 min. for settling; tested decant.
		Total Fe (mg/L)	380.00	1038.55	NA*	NA	NA	NA	NA	*Analyses discontinued due to dredging shut down.
		Fe+3 (mg/L)	376.71	1041.00	NA*	NA	NA	NA	NA	Mild acid digestion for Total Fe
	Date/Time	Parameter	pre-Ferric	post-Ferric	Area C Influent	Area D Influent	WWTP Influent	GAC Influent	WWTP Effluent	Notes
4	9/5/2007 am Aero pm WWT	pH	6.94	5.5	5.63	6.32	6.81	8.44	7.66	N. dredge area mat'l very silty at Area C (extremely slow settling).
		ORP (mV)	-240	113	-25	-97.0	-72.9	-15*	82	* Increasing rapidly
		Fe+2 (mg/L)	0.15	2.54	9.10	80.00	3.23	0.01	0.02	Area D samples collected while dredging S. Area (H) in pm
		Total Fe (mg/L)	232.5	161.0	210.0	415.5	10.7	2.395	0.065	
		Fe+3 (mg/L)	232.35	158.46	200.90	335.50	7.51	2.39	0.05	Mild acid digestion for Total Fe
		STL Total Fe	641	252	3720	2590	19.1	NA	NA	Split samples for Total Fe analyzed at STL.
	Date/Time	Parameter	pre-Ferric	post-Ferric	Area C Influent	Area D Influent	WWTP Influent	GAC Influent	WWTP Effluent	Notes
5	9/20/2007 am Aero am WWT pm AreaC	pH	6.74	6.66	6.77	7.27	6.99	NA	7.77	Dredging S. Area
		ORP (mV)	-163.5	-106.6	-90.1	43.5	-38.9	NA	35.5	Vacuum filter samples prior to Fe+2 test.
		Fe+2 (mg/L)	0.32	2.56	2.78	0.10	0.35	NA	0.00	
		Total Fe (mg/L)	913.00	1002.00	814.00	974.00	6.30	NA	0.08	
		Fe+3 (mg/L)	912.68	999.44	811.22	973.90	5.95	NA	0.08	
	Date/Time	Parameter	pre-Ferric	post-Ferric	Area C Influent	Area D Influent	WWTP Influent	GAC Influent	WWTP Effluent	Notes
6	10/4-10/9	pH	4.98	2.34	5.3	6.81	6.6	7.61	NA	Pre-ferric sample appears watery.
		ORP (mV)	200	556	140	94	-5.7	53.8	NA	
		Fe+2 (mg/L)	2.38	2.17	4.40	0.76	2.25	0.00	NA	
		Total Fe (mg/L)	937.00	97.10	375.00	684.00	3.81	1.29	NA	
		Fe+3 (mg/L)	934.62	94.93	370.60	683.24	1.56	1.29	NA	
	Date/Time	Parameter	pre-Ferric	post-Ferric	Area C Influent	Area D Influent	WWTP Influent	GAC Influent	WWTP Effluent	Notes
7	10/11/2007	pH	7.33	6.87	6.56	6.77	6.9	8.1	NA	
		ORP (mV)	-60.6	-78	-66.8	-69.2	-73.1	70.6	NA	
		Fe+2 (mg/L)	0.20	3.90	1.90	2.35	3.58	0.01	NA	
		Total Fe (mg/L)	127.00	816.00	1053.00	893.00	7.96	0.56	NA	
		Fe+3 (mg/L)	126.80	812.10	1051.10	890.65	4.38	0.55	NA	

PN-003 Attachment 1
Iron Test Results 2007

Expected Results	Date/Time	Parameter	pre-Ferric	post-Ferric	Area C Influent	Area D Influent	WWTP Influent	GAC Influent	WWTP Effluent	Notes
	NA	pH	7.5 - 8.0 (1)	6.0 - 6.5	6.5 - 7.0	6.5 - 7.0	6.5 - 7.0	> 8.5	7.5 - 8.0	(1) http://intraweb.stockton.edu/marine_fieldstation/MERP/inst_modules/seawater/pH.htm
		ORP (mV)	0 - 100	> 250	> 250	> 250	100 - 200	0 - 100	0 - 100	
		Fe+2 (mg/L)	0 - 5 (2)	5 - 10	40 - 60	40 - 60	45 - 75	0	0	(2) Assume sediment contains 10-25 mg/L Fe+3 and 5-10 mg/L Fe+2
		Total Fe (mg/L)	10 - 30	55 - 85	55 - 85	55 - 85	45 - 85	0	0	
		Fe+3 (mg/L)	10 - 25 (2)	50 - 75	15 - 25	15 - 25	< 10	0	0	Assume a 50% Fe2(SO4)3 solution contains 40 mg/L Fe+3 and 0.5 mg/L Fe+2
Actual Results 2006	**Date/Time**	**Parameter**	**pre-Ferric**	**post-Ferric**	**Area C Influent**	**Area D Influent**	**WWTP Influent**	**GAC Influent**	**WWTP Effluent**	**Notes**
	over dredge season	pH	NA (3)	NA	NA	NA	6.80 - 7.20	6.80 - 7.07	6.87 - 7.50	(3) NA = not analyzed
		ORP (mV)	NA	NA	NA	NA	-100 - 0	0 - 100	0 - 100	
		Fe+2 (mg/L)	NA	NA	NA	NA	NA	NA	NA	
		Total Fe (mg/L)	NA	NA	NA	NA	NA	NA	NA	
		Fe+3 (mg/L)	NA	NA	NA	NA	NA	NA	NA	

Table I-1
Air Filtration Sampling Data AREA C
New Bedford Harbor Superfund Site - 2007 Season

Location	Date/Time	Event Type	Parameter	Method	Sample Duration	Result	Notes
Area C	8/10/2007		VOCs	TO-15 (Summa)	NS	NS	
Shaker		Baseline	VOCs	Multi-RAE	NS	NS	
GAC		Operational	H_2S	GasTech*	5.5 hour	9.1 ppm/hr	*GasTech Passive Dositube for H_2S (DL=0.2-200 ppm @ 48 hour)
Influent		Final	PCBs	5503 (Florosil)	NS	NS	50 ppm/5.5 hour = 9.1 ppm/hour. Correct cfm by (30,000/125) for passive result.
			Moisture	Met. Station	wx underground	79%	Met station was down - use data from New Bedford airport as
			Temperature	Met. Station	wx underground	60 F	reported by www. wunderground.com
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Southern	8/17/2007		VOCs	TO-15 (Summa)	NS	NS	Collected in Tedlar bag at 4 lpm.
Pre-		Baseline	VOCs	Multi-RAE	grab	0 ppm	Draeger: PCE<2 ppm, TCE<2 ppm, vinyl chloride<0.5 ppm
carbon		Operational	H_2S	Multi-RAE	grab	0 ppm	
		Final	PCBs	5503 (Florosil)	NS	NS	
Dredge			Moisture	Met. Station	12-hour average	51%	
Area G			Temperature	Met. Station	12-hour average	77 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area C	8/30/2007		VOCs	TO-15 (Summa)	NS	NS	
Shaker		Baseline	VOCs	Multi-RAE	NA	NA	See 9/5/07 results
GAC		Operational	H_2S	Multi-RAE	NA	NA	See 9/5/07 results
Influent		Final	PCBs	5503 (Florosil)	153 min (934 liters)	0.091 ppmv	Sampled at Shaker Hood; sent to EMSL for analysis.
			Moisture	Met. Station	12-hour average	55%	
			Temperature	Met. Station	12-hour average	79 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area C	9/5/2007		VOCs	TO-15 (Summa)	NS	NS	
Shaker		Baseline	VOCs	Multi-RAE	grab	0 ppm	CO=1-3 ppm
GAC		Operational	H_2S	Multi-RAE	grab	0 ppm	
Influent		Final	PCBs	5503 (Florosil)	NS	NS	
			Moisture	Met. Station	wx underground	76%	Met station was down - use data from New Bedford airport as
			Temperature	Met. Station	wx underground	61 F	reported by www. wunderground.com
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area C	9/28/2007		VOCs	TO-15 (Summa)	NS	NS	
Southern		Baseline	VOCs	Multi-RAE	grab	0 ppm	No individual analysis for PCE, TCE and vinyl chloride.
Shaker		Operational	H_2S	Multi-RAE	grab	0 ppm	
GAC		Final	PCBs	5503 (Florosil)	NS	NS	
Influent			Moisture	Met. Station	12-hour average	69%	
			Temperature	Met. Station	12-hour average	74 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area C	10/9/2007		VOCs	TO-15 (Summa)	NS	NS	
Southern		Baseline	VOCs	Multi-RAE	grab	0 ppm	No individual analysis for PCE, TCE and vinyl chloride.
Shaker		Operational	H_2S	Multi-RAE	grab	0 ppm	
GAC		Final	PCBs	5503 (PUF)	NS	NS	
Influent			Moisture	Met. Station	12-hour average	69%	
			Temperature	Met. Station	12-hour average	58 F	

Table I-1
Air Filtration Sampling Data AREA C
New Bedford Harbor Superfund Site - 2007 Season

Location	Date/Time	Event Type	Parameter	Method	Sample Duration	Result	Notes
Area C	10/12/2007		VOCs	TO-15 (Summa)	NS	NS	Area H dredging, West bank.
Southern		Baseline	VOCs	Multi-RAE	grab	0 ppm	
Shaker		Operational	H_2S	Multi-RAE	grab	0 ppm	
GAC		Final	PCBs	5503 (Florosil)	461 minutes*	ND	*=51.1 liters; DL=0.00098 ppm
Influent			Moisture	Met. Station	12-hour average	72%	
			Temperature	Met. Station	12-hour average	60 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area C	10/12/2007		VOCs	TO-15 (Summa)	NS	NS	Area H dredging, West bank.
Southern	Duplicate	Baseline	VOCs	Multi-RAE	grab	0 ppm	
Shaker		Operational	H_2S	Multi-RAE	grab	0 ppm	
GAC		Final	PCBs	5503 (Florosil)	461 minutes*	ND	*=51.1 liters; DL=0.00098 ppm
Influent			Moisture	Met. Station	12-hour average	72%	
Field Dup			Temperature	Met. Station	12-hour average	60 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area C	10/12/2007		VOCs	TO-15 (Summa)	NS	NS	
Eastern		Baseline	VOCs	Multi-RAE	NA	NA	VOC analysis not necessary since influent concentrations. Low (0 ppm).
(Short)		Operational	H_2S	Multi-RAE	NA	NA	
Effluent		Final	PCBs	5503 (Florosil)	233 minutes*	ND	*=46.85 liters; DL = 0.0011 ppm
Stack			Moisture	Met. Station	12-hour average	72%	Note: carbon fines blowing through; observed at this stack.
			Temperature	Met. Station	12-hour average	60 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area C	10/12/2007		VOCs	TO-15 (Summa)	NS	NS	
Western		Baseline	VOCs	Multi-RAE	NA	NA	VOC analysis not necessary since influent concentrations. Low (0 ppm).
(Tall)		Operational	H_2S	Multi-RAE	NA	NA	
Effluent		Final	PCBs	5503 (Florosil)	449 minutes*	ND	*=57.75 liters; DL=0.00087 ppm
Stack			Moisture	Met. Station	12-hour average	72%	
			Temperature	Met. Station	12-hour average	60 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area C	10/12/2007		VOCs	TO-15 (Summa)	NS	NS	
Western	Duplicate	Baseline	VOCs	Multi-RAE	NA	NA	VOC analysis not necessary since influent concentrations. Low (0 ppm).
(Tall)		Operational	H_2S	Multi-RAE	NA	NA	
Effluent		Final	PCBs	5503 (Florosil)	449 minutes*	ND	*=57.75 liters; DL=0.00087 ppm
Stack			Moisture	Met. Station	12-hour average	72%	
Field Dup			Temperature	Met. Station	12-hour average	60 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area C	10/12/2007		VOCs	TO-15 (Summa)	NS	NS	
Field	Blank	Baseline	VOCs	Multi-RAE	NA	0	There is no blank analysis using the Multi-RAE.
Blank		Operational	H_2S	Multi-RAE	NA	0	There is no blank analysis using the Multi-RAE.
		Final	PCBs	5503 (Florosil)	NA	ND	DL=0.000050 ppm.
			Moisture	Met. Station	12-hour average	72%	
			Temperature	Met. Station	12-hour average	60 F	

Notes:
cfm = cubic feet per minute
CO = carbon monoxide
DL = detection limit
Field Dup = field duplicate
GAC = granular activated carbon
H2S = hydrogren sulfide
lpm = liters per million
NA = not analyzed. See Notes for specific reason.
ND = not detected. Sample was analyzed but no results were detected.

NS = not sampled. Per the 2007 Field Sampling Plan, VOCs by TO-15 would be sampled only when the 20 ppmv threshold was exceeded by PID, and PCBs would be sampled only as final samples due to expected concentrations.

PCB = polychlorinated biphenyls
PCE = tetrachloroethene
PID = photoionization detector
ppm = parts per million
ppmv = parts per million by volume
TCE = trichloroethene
VOC = volatile organic compound

Table I-2
Air Filtration Sampling Data AREA D
New Bedford Harbor Superfund Site - 2007 Season

Location	Date/Time	Event Type	Parameter	Method	Sample Duration	Result	Notes
Pre-	8/17/2007		VOCs	TO-15 (Summa)	NS	NS	Collected in Tedlar bag at 4 lpm.
carbon	1530	Baseline	VOCs	Multi-RAE	grab	2.65 ppm	Draeger: PCE<2 ppm, TCE<2 ppm, vinyl chloride<0.5 ppm
		Operational	H_2S	Multi-RAE	grab	0 ppm	
Dredge		Final	PCBs	5503 (Florosil)	NS	NS	
Area G			Moisture	Met. Station	`	51%	
			Temperature	Met. Station	12-hour average	77 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Post-	8/17/2007		VOCs	TO-15 (Summa)	NS	NS	Collected in Tedlar bag at 4 lpm.
carbon	1500	Baseline	VOCs	Multi-RAE	grab	2.5 ppm	Draeger: PCE<2 ppm, TCE<2 ppm, vinyl chloride<0.5 ppm
		Operational	H_2S	Multi-RAE	grab	0 ppm	
Dredge		Final	PCBs	5503 (Florosil)	NS	NS	
Area G			Moisture	Met. Station	12-hour average	51%	
			Temperature	Met. Station	12-hour average	77 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area D	8/22/2007		VOCs	TO-15 (Summa)	NS	NS	Collected in Tedlar bag at 4 lpm.
GAC		Baseline	VOCs	Multi-RAE	grab	0 ppm	PCE<2 ppm; TCE<2 ppm; vinyl chloride<0.5 ppm
Influent		Operational	H_2S	Multi-RAE	grab	0 ppm	
		Final	PCBs	5503 (Florosil)	NS	NS	
			Moisture	Met. Station	12-hour average	62%	
			Temperature	Met. Station	12-hour average	67 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area D	8/22/2007		VOCs	TO-15 (Summa)	NS	NS	Collected in Tedlar bag at 4 lpm.
GAC		Baseline	VOCs	Multi-RAE	grab	0 ppm	PCE<2 ppm; TCE<2 ppm; vinyl chloride<0.5 ppm
Effluent		Operational	H_2S	Multi-RAE	grab	0 ppm	
		Final	PCBs	5503 (Florosil)	NS	NS	
			Moisture	Met. Station	12-hour average	62%	
			Temperature	Met. Station	12-hour average	67 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area D	9/5/2007		VOCs	TO-15 (Summa)	NS	NS	CO=6 ppm
GAC		Baseline	VOCs	Multi-RAE	grab	0.8 ppm	PCE<2 ppm; TCE<2 ppm; vinyl chloride<0.5 ppm
Influent		Operational	H_2S	Multi-RAE	grab	0 ppm	
		Final	PCBs	5503 (Florosil)	NS	NS	
			Moisture	Met. Station	wx underground	76%	Met station was down - use data from New Bedford airport as
			Temperature	Met. Station	wx underground	61 F	reported by www. wunderground.com
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area D	9/5/2007		VOCs	TO-15 (Summa)	NS	NS	CO=3-4 ppm
GAC		Baseline	VOCs	Multi-RAE	grab	0.1 ppm	No individual analysis for PCE, TCE and vinyl chloride
Effluent		Operational	H_2S	Multi-RAE	grab	0 ppm	
		Final	PCBs	5503 (Florosil)	NS	NS	
			Moisture	Met. Station	wx underground	76%	Met station was down - use data from New Bedford airport as
			Temperature	Met. Station	wx underground	61 F	reported by www. wunderground.com
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area D	9/28/2007		VOCs	TO-15 (Summa)	NS	NS	
GAC		Baseline	VOCs	Multi-RAE	grab	0.5 ppm	PCE<2 ppm; TCE<2 ppm; vinyl chloride<0.5 ppm
Influent		Operational	H_2S	Multi-RAE	grab	0 ppm	
		Final	PCBs	5503 (Florosil)	NS	NS	
			Moisture	Met. Station	12-hour average	69%	
			Temperature	Met. Station	12-hour average	74 F	

Table I-2
Air Filtration Sampling Data AREA D
New Bedford Harbor Superfund Site - 2007 Season

Location	Date/Time	Event Type	Parameter	Method	Sample Duration	Result	Notes
Area D	9/28/2007		VOCs	TO-15 (Summa)	NS	NS	
GAC		Baseline	VOCs	Multi-RAE	grab	1.0 ppm	PCE<2 ppm; TCE<2 ppm; vinyl chloride<0.5 ppm
Effluent		Operational	H_2S	Multi-RAE	grab	0 ppm	
		Final	PCBs	5503 (Florosil)	NS	NS	
			Moisture	Met. Station	12-hour average	69%	
			Temperature	Met. Station	12-hour average	74 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area D	10/9/2007		VOCs	TO-15 (Summa)	NS	NS	
GAC		Baseline	VOCs	Multi-RAE	grab	0.6 ppm	No individual analysis for PCE and TCE; vinyl chloride<0.5 ppm
Influent		Operational	H_2S	Multi-RAE	grab	0 ppm	
		Final	PCBs	5503 (Florosil)	NS	NS	
			Moisture	Met. Station	12-hour average	69%	
			Temperature	Met. Station	12-hour average	58 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area D	10/9/2007		VOCs	TO-15 (Summa)	NS	NS	
GAC		Baseline	VOCs	Multi-RAE	grab	0.3 ppm	No individual analysis for PCE and TCE; vinyl chloride<0.5 ppm
Effluent		Operational	H_2S	Multi-RAE	grab	0 ppm	
		Final	PCBs	5503 (Florosil)	NS	NS	
			Moisture	Met. Station	12-hour average	69%	
			Temperature	Met. Station	12-hour average	58 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area D	10/12/2007		VOCs	TO-15 (Summa)	NS	NS	
GAC		Baseline	VOCs	Multi-RAE	grab	2.2 ppm	PCE<2 ppm; TCE<2 ppm; vinyl chloride<0.5 ppm
Influent		Operational	H2S	Multi-RAE	grab	0 ppm	
		Final	PCBs	5503 (Florosil)	NA	NA	No influent readings at Area C, so no need to test at Area D
			Moisture	Met. Station	12-hour average	72%	
			Temperature	Met. Station	12-hour average	60 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area D	10/12/2007		VOCs	TO-15 (Summa)	NS	NS	
GAC		Baseline	VOCs	Multi-RAE	grab	0.8 ppm	PCE<2 ppm; TCE<2 ppm; vinyl chloride<0.5 ppm
Effluent		Operational	H_2S	Multi-RAE	grab	0 ppm	
		Final	PCBs	5503 (Florosil)	233 minutes*	ND	*=57.45 liters; DL=0.00087 ppm
			Moisture	Met. Station	12-hour average	72%	
			Temperature	Met. Station	12-hour average	60 F	
Location	**Date/Time**	**Event Type**	**Parameter**	**Method**	**Sample Duration**	**Result**	**Notes**
Area D	10/12/2007		VOCs	TO-15 (Summa)	NS	NS	
GAC	Duplicate	Baseline	VOCs	Multi-RAE	NA	0	There is no blank analysis using the Multi-RAE
Effluent		Operational	H_2S	Multi-RAE	NA	0	There is no blank analysis using the Multi-RAE
Field		Final	PCBs	5503 (Florosil)	233 minutes*	ND	*=57.45 liters; DL=0.00087 ppm
Dup			Moisture	Met. Station	12-hour average	72%	
			Temperature	Met. Station	12-hour average	60 F	

Notes:
cfm = cubic feet per minute
CO = carbon monoxide
DL = detection limit
Field Dup = field duplicate
GAC = granular activated carbon
H_2S = hydrogren sulfide
lpm = liters per million
NA = not analyzed. See Notes for specific reason.
ND = not detected. Sample was analyzed but no results were detected.
NS = not sampled. Per the 2007 Field Sampling Plan, VOCs by TO-15 would be sampled only when the 20 ppmv threshold was exceeded by PID, and PCBs would be sampled only as final samples due to expected concentrations.
PCB = polychlorinated biphenyls
PCE = tetrachloroethene
PID = photoionization detector
ppm = parts per million
ppmv = parts per million by volume
TCE = trichloroethene
VOC = volatile organic compound

ATTACHMENT J

2007 Lessons Learned/Conclusions

Attachment J
Lessons Learned/Conclusions
New Bedford Harbor Superfund Project - 2007 Season

Operation	Activity	Conclusions and Recommendations
Mobilization		
Constructing Pipeline	Fabricate the HDPE pipeline during mobilization.	**Conclusion** - The process can be improved to eliminate pinch points created by moving pipeline sections while fabricating the pipeline on the barge in the harbor. **Recommendation** - It is recommended that pipe stands be used to secure both ends of the floating HDPE pipeline while the pipelines are being bolted together. This will insure that the pipes will not move during this process thereby eliminating a potential pinch point hazard.
Dredging and Associated Activities		
Debris Removal Activities	Removal of debris prior to dredging	**Conclusion -** During the 2007 season, the debris removal crew submitted a daily record of the footprint of that day's debris removal activities. This daily record allowed better tracking of the debris removal activities. **Recommendation** - During the 2008 season, the daily footprint of the debris removal activities will continue to be illustrated the following day, in the same manner as the dredge tracking.
Operation of In-Line Grinder	In-line grinder was operated upstream of the ferric sulfate injection point at the Aerovox booster pump station.	**Conclusion** - 2007 was the first season that the in-line grinder was used. The purpose of installing the in-line grinder was to reduce the size of the material entering the pipelines and Area C so as to ultimately prevent pipeline obstruction and breakage. In the 2007 season, no pipeline clogs downstream of the in-line grinder were experienced. The in-line grinder experienced some down time occasionally when large rocks accumulated in the grinder inlet. A manual bypass was installed to allow dredging to continue while the obstructions were removed. During the 2007 season the in-line grinder experienced a pressure related seal failure. **Recommendation -** To overcome the down-time associated with obstructions or mechanical failure, it is recommended to purchase a second in-line grinder, and install it in parallel as a back-up. To prevent pressure related seal failures it is recommended to closely monitor dredge pipeline pressure in future seasons.
Dredging Operations	Dredging adjacent to Areas that were previously dredged	**Conclusion -** During dredging operations the operator will often use the midline of a dredge area as the cut start point. The practice of dredging from midline to one end reduces deflection of the dredge along the traverse cable. A side effect of using the midline as a starting point is that the operator may inadvertently redredge a previously covered area. Placing survey poles at the exact start point of the cut gives the operator a nearby reference point to prevent redredging and aid precision. **Recommendation** - Continue the use of survey poles to delineate areas that have been dredged to prevent redredging.

Attachment J
Lessons Learned/Conclusions
New Bedford Harbor Superfund Project - 2007 Season

Operation	Activity	Conclusions and Recommendations
Air Emission Filtration	Air samples were collected to evaluate effectiveness of Area C and Area D air filters	**Conclusion -** Because carbon was changed out prior to the 2007 dredge season, no baseline samples were required. Operational and final samples showed that the filters were capturing the contaminants entering the filters, and that no breakthrough occurred. Calculations were made based on the influent contaminant concentrations to estimate the lifetime of the carbon filters. Assuming the air-borne contaminant concentrations in future dredge seasons are similar to those measured in 2007, the Area C carbon should last approximately 3 seasons, and the Area D carbon should last approximately 4 seasons. **Recommendation -** Use the existing carbon beds for the next dredge season, and continue to collect samples to monitor filter effectiveness and longevity.
Operation of Ferric Sulfate Injection System		
Ferric Sulfate Addition	Hach test kit analysis of ferrous iron and total iron at various locations throughout the process train.	**Conclusion** - Ferric sulfate is needed in the process operations at NBH for hydrogen sulfide removal and for metals co-precipitation. A ferric sulfate solution is injected into the process at the first booster pump station. During the 2007 season, Jacobs performed seven sampling events during which samples were collected at seven pre-set locations and analyzed for ferric iron and ferrous iron to verify that the ferric sulfate concentrations were effective for both purposes. The results of the ferric testing, along with the metals analysis of the WWTP effluent, indicate that the ferric sulfate concentration at the point of injection is sufficient to remove hydrogen sulfide and co-precipitate the metals. **Recommendation -** Continue to dose the ferric sulfate at the prescribed concentrations, as long as the dredge material properties do not change significantly.
Automated Ferric Sulfate Injection	Use of a nuclear densitometer and flow meter to regulate ferric sulfate injection concentration	**Conclusion -** The automated system has required a lot of maintenance in the past two dredge seasons. Because the automated system incorporates nuclear energy sources, there are inherent regulatory safety and personnel safety requirements that must be monitored and met. Given the results of the iron testing (see Ferric Sulfate Addition, Lessons Learned), it was determined that there was no added benefit to keeping the automated injection system. The automated system was dismantled, and the nuclear energy sources were removed from the site. **Recommendation -** Continue to dose ferric sulfate manually.

Attachment J
Lessons Learned/Conclusions
New Bedford Harbor Superfund Project - 2007 Season

Operation	Activity	Conclusions and Recommendations
Area D Operations		
Repetitive Operational Tasks	Bag filter replacement and filter press plate operation (Ergonomics)	**Conclusion** - These two activities represent repetitive lifting or pulling operations that can lead to worker injuries. **Recommendation** - Prior to the initiation of 2008 operations, Jacobs should conduct an ergonomic assessment of these two operations, and work with Sevenson to make necessary changes to avoid repetitive stress injuries.
All Operations	Foot Traffic	**Conclusion** - The use of non-slip paint on high traffic sections of the Area D floor was successful in reducing slip hazards and delineating pedestrian areas. **Recommendation** - Repaint the areas painted in 2007 and paint new areas as required.
Storage of Filter Cake	Storage of filter cake adjacent to the GAC vessels	**Conclusion** - Along the northern boundary of the WWTP section of Area D, a small leak occurred at a joint in the HDPE pipeline coming from the carbon vessels to the effluent equalization tank. This leak was caused by pressure on the pipe created by filter cake that had overflowed from the adjacent conveyor belt drop area. **Recommendation** - During the 2008 mobilization for dredging activities, a barrier should be constructed to keep the filter cake off the HDPE pipes to prevent another leak.
Winterization Activities		
Storage of Floating Pipeline in Area C DDA	All of the floating pipeline from Area C to the dredge areas was removed from the river and stored at the Area C DDA.	**Conclusion** - Prior to the 2007 dredge season, the majority of the floating pipeline was left in the water and secured adjacent to the Area C dock. However, with the sand and debris removed from the Area C DDA during the 2007 season, this area was available to lay out the pipeline. Removing the pipeline from the water will allow Sevenson and Jacobs to inspect the pipeline joints prior to placing the pipeline in the water, minimize risk of loss of pipeline during storage, eliminates a navigational hazard, and simplifies pipeline deployment during mobilization. **Recommendation** - This practice should be continued every season if space is available in the DDA.