Weekly Field Report Week: 04-20-14 through 04-26-14 New Bedford Harbor Lower Harbor CAD Cell (LHCC)

This Weekly Field Report was prepared to serve as a summary of field activities conducted throughout the week for Phase I dredging of the New Bedford Harbor Lower Harbor CAD Cell (LHCC) in New Bedford, Massachusetts.

1. Introduction:

The weekly field report describes the activities carried out by the Contractor (Cashman), the Owner's Representative (Apex Companies, LLC), and any subcontractors completing work within the scope of the project requirements.

This Weekly Field Report represents the twenty fifth Report associated with Phase I dredging of the LHCC in New Bedford Harbor, and the associated handling and disposal of dredged materials at CAD cells within the Harbor, and at designated open-water disposal sites approved for this Project.

This 25th Report for the LHCC dredging activities includes:

- Daily Inspection Reports from the dredging oversight performed during the week of April 20th through April 26th, 2014. These reports include notes on the equipment used on site, and a summary of contractor activities. (See Attachment 1);
- Water Quality Monitoring Forms completed for the week of April 20th through April 26th, 2014, (Attachment 2) summarizing monitoring survey data recorded during active dredging. Included with the attached forms is Figure 1 Lower Harbor CAD Cell Phase I Water Quality Monitoring Plan, which shows the locations of the water quality monitoring events conducted during this reporting period. Per the approved Water Quality Monitoring Plan and associated performance standards for the dredging efforts being conducted during this reporting period, Apex has:
 - Conducted water quality monitoring a minimum of one day per week
 - Performed visual inspections of dredged materials before the disposal of a scow for any visible debris or other items that could potentially become a hazard to navigation prior to the scow's departure for the offshore disposal site.

Summary:

The Contractor, Cashman Dredging and Marine Contracting, Co. LLC (Cashman) resumed dredging activities at the LHCC on April 23rd after a brief hiatus, during which the dredge plant, Bobby D, underwent repairs for damages to its stick cylinder. Dredging was conducted on April 23rd, 24th, 25th, and 26th. Dredging operations focused on the removal of Phase I Bottom of CAD Cell sediments. During this reporting period, dredging operations were conducted using a conventional digging bucket, with dredged materials being disposed offshore at the Rhode Island Sound Disposal Site (RISDS). Cashman was observed conducting these activities during the authorized operational window of 7 AM until sunset, utilizing a single dredge plant — the Bobby D; two tugs — Ellsea and Lucinda Smith; a 2800 cubic yard split scow — Eddie Carroll; and two small utility boats.

With time of year restrictions now in place (January 15th through June 15th) all dredging activities were conducted within a silt curtain perimeter surrounding the LHCC.

2. Operational Notes:

Dredging:

Dredging of LHCC Phase I Bottom of CAD sediments continued during the week. Apex conducted one day of water quality monitoring on April 23rd while dredging was being performed to ensure that this activity did not result in an exceedance of any project-specific water quality standards.

Offshore Disposal:

Offshore disposal for LHCC Phase I Bottom of CAD sediments is scheduled and permitted for the Rhode Island Sound Disposal Site. Two offshore disposal events, using the split scow Eddie Carroll, were recorded during the week and occurred on April 24th and 26th.

Table 1 – Cumulative Dredging Progress

Period of Activity	Volume (cy)
Approximate Top of CAD Volume Dredged to Date*	24,890
Approximate Bottom of CAD Volume Dredged this Reporting Period	2,770
Approximate Bottom of CAD Volume Dredged to Date*	44,970

^{*} Dredge volume quantities are estimated based on observed scow draft marks and an assumed density of the materials dredged. Given the uncertainty in the density of a composite mix of sediments being dredged, all volumes are confirmed and adjusted as necessary using bathymetric survey data.

3. Monitoring Summary

There were no water quality exceedances observed during this reporting period related to dredging operations. No water quality samples were collected.

Prepared by:

Apex Companies, LLC

John B. McAllister, P.E. Senior Project Engineer

Attachment 1 Daily Inspection Reports



					speci	ion Keport				
Inspector:	Adam Hart						Date:	4/20/2014		
Contractor:	Cashman/W	eeks				Foreman/Supt:		-		
Weather	AM: PM:		Clea			Temperature	AM: PM:	38 51		
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Tides	High		000)7	AM	1241	PM			
	Low		054	10	AM	1743	PM			
Manpower O	nsite					Equipment Ons	ite			
	Foreman	0	@	0	Hrs	Description:			Hrs.	0
	Operators	0	@ _	0	— Hrs	·	Eddie Carro	oll	Hrs.	0
	Laborers	0	@	0	— Hrs		Ellsea	_	Hrs.	0
	Drivers	0	@	0	Hrs		Lucinda Sm	nith	Hrs.	0
	Other:		@		Hrs		Red Skiff		Hrs.	0
	-						SEI 2000		Hrs.	0
Contractor Ac	tivities: (Atta	ch Ado	dition	al Sheet	s as Ne	cessary)				
				equipm	ient wa	s inactive, and no	o crews wei	re onsite.		
Problems/Issu None / N/A	Jes of Action i	items.	•							
None / N/A										
Visitors:										
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					speci	ion Report				
Inspector:	Brett Young						Date:	4/21/2014		
Contractor:	Cashman/W	eeks/				Foreman/Supt: _				
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None / N/A										
Visitors:										
Signature: Title: Copy to:	Environmen File	tal Scie	entist	;			Page:	4/21/2014 1of1 DIR_LHCC_04		



Inspector:							Date:	4/22/2014			
Contractor:	Cashman/W	/eeks				Foreman/Supt:					
Weather	AM: PM:					Temperature	AM: PM:				
Tides	High Low				AM AM		PM PM				
Manpower O	nsite					Equipment Ons	ite				
Contractor Ac	Foreman Operators Laborers Drivers Other:				Hrs Hrs Hrs Hrs Hrs Hrs	Description:	Bobby D Eddie Carro Ellsea Lucinda Smi Red Skiff SEI 2000	th	Hrs Hrs Hrs Hrs Hrs	0 0 0 0 0	
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				ins	spect	ion Report				
Inspector:	Kyle Miller						Date	: 4/23/2014		
Contractor:	Cashman					Foreman/Supt:	Horac	e Huggins		
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Manpower O	nsite					Equipment Ons	ite			
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	Operators	1	@ _	11	Hrs		Eddie Carı	roll	Hrs	12
	Deckhand	1	@_	11	Hrs		Henri		Hrs	1
	Mate	1	@_	3.5	Hrs		Lucinda Sr	mith	Hrs	11
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				Ins	spect	ion Report				
Inspector:	Chris Stillma	า					Date:	4/24/2014		
Contractor:	Cashman					Foreman/Supt:	Paul	Poirier		
Weather	AM: PM:		Clo	udy udy	_	Temperature	AM: PM:	<u>42</u> 60		
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Visitors:										
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Inspector:	Chris Stillma	n					Date:	4/25/2014		
Contractor:	Cashman/W	eeks				Foreman/Supt:	Paul	Poirier		
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Manpower O	nsite					Equipment Ons	ite			
	Captain:	1	@	8	Hrs	Description:			Hrs.	3
	Operator:	1	@	8	Hrs		Eddie Carr		Hrs.	3
	Engineer:	1	@ _	8	Hrs		Lucinda Sn	nith	Hrs	1
	Mate:	1	_ @ _	8	Hrs		Red Skiff		Hrs	3
	Deck Hand:	1		8	Hrs				Hrs	
	Other:		@_		Hrs				Hrs	
Contractor Ac	tivities: (Attac	ch Ad	ditior	al Sheet	s as Ne	cessary)				
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Problems/Issu	ies or Action I	tems	:							
None / N/A										
Visitors:										
Signature: Title: Copy to:	Chapa Environment File	tal Sci	entis	t			Page:	04/25/2014 1of1 _DIR_LHCC_04		



				Ins	spect	ion Report				
Inspector:	Kaios Ryan						Date	4/26/2014		
Contractor:	Cashman					Foreman/Supt:	Paul	Poirier		
Weather	AM: PM:		Ra Ra		_	Temperature	AM: PM:	52 39		
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Manpower Oi	nsite					Equipment Ons	ite			
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Problems/Issu	ies or Action I	Items	:							
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Signature: Title: Copy to:	Environment File	tal Sci	ientist	t			Page	: 04/26/2014 :1of2 : DIR_LHCC_0		



				ins	spect	on Report			
Inspector:	Kaios Ryan						Date: 4/26/2014		
Contractor:	Cashman					Foreman/Supt:	Paul Poirier		
Weather	AM: PM:		Rai Rai		_	Temperature	AM: 52 PM: 39		
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Manpower O	nsite					Equipment Ons	site		
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	Operator: _	1	@	13	Hrs		Eddie Carroll	Hrs.	12
	Engineer:	1	@ _	13	Hrs_		Lucinda Smith	Hrs.	12
	Mate:	1	@ _	12	Hrs		Red Skiff	Hrs.	12
	Deck Hand:	1	@_	13	Hrs			Hrs.	
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Contractor Ac	tivities: (Conti	nued	from	Page 1)				
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Problems/Issu	ies or Action I	tems:							
None / N/A									
Visitors:									
Signature: Title:	Roi o	al Scie	Pur entist				Date: <u>04/26/2014</u> Page: <u>2</u> of	3	
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Inspection Report

Inspector:	Kaios Ryan	Date:	4/26/2014
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Contractor: Cashman Foreman/Supt: Paul Poirier



Bobby D Dredging into the Eddie Carroll



Bobby D Dredging into the Eddie Carroll



Bobby D Dredging into the Eddie Carroll



Lucinda Smith Preparing to take the Eddie Carroll out to the Off Shore Disposal Site

Visitors:		
Signature: Title:	Raion Por Environmental Scientist	Date: April 26, 2014 Page:3 of3
riue.	Environmental Scientist	rage5015
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Attachment 2 Water Quality Monitoring Forms

PROJECT: New Bedford Harbor Lower Harbor CAD Cell

JOB NUMBER: 6724 DATE: 4/23/2014

MONITORS: Kaios Ryan
WEATHER CONDITIONS: High: 55 Low: 45

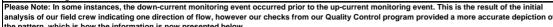
WIND: 6-17 mph Northwest

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING EVENT: TOP CAD Dredging / BTM CAD Dredging / Disposal

TIDE High: 0308/1541 Low: 0928/2153





					UP-CURRI	<u>ENT</u>			
Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOUR DREDGING
042314-00-1-1 042314-00-1-3.5	815063, 2696369	847 849	7.2	1 3.5	2.12 1.62		Ebbing	15' S of Silt Curtain	00
42314-00-1-7		851	AVERAGE T	7	2.18 1.97				
	-			-		<u> </u>			
42314-02-1-1	815057, 2692011	1102	ͺͺͺ <u>ͺ</u>	11	2.07		Flooding	15' N of Silt Curtain	02
42314-02-1-3.5 42314-02-1-7	-	1104 1106	7.8	3.5 7	2.18 2.3	-			
142014-02-1-7		1100	AVERAGE T		2.18			L	
42314-04-1-1		1253		1	2.11				
42314-04-1-4	815126, 2696371	1255	9.1	4	3.34		Flooding	15' S of Silt Curtain	04
42314-04-1-8		1257		8	2.52	<u> </u>			
			AVERAGE T	OKBIDITY:	2.66	_			
942314-06-1-1	045450 0000463	1455		1	2.85		Florida	451.0 -/ 071.0 1	22
)42314-06-1-10.5)42314-06-1-21	815459, 2696403	1457 1459	21.8	10.5 21	3.08 2.33	-	Flooding	15' S of Silt Curtain	06
142314-00-1-21	<u> </u>	1459	AVERAGE T		2.75				
42314-08-1-1		1652		1	2.71			1	
42314-08-1-12	814670, 2696903	1654	24.4	12	3.24	1	Ebbing	15' N of Silt Curtain	08
			-1 1	24	2.9	1			
		1656	AVERAGE T		2.95 Down-Curr	rent_			
	NORTHING/ EASTING	1656	AVERAGE T TOTAL WATER DEPTH (ft)		2.95	rent GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOUR DREDGING
Monitoring ID #		TIME 907	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	2.95 Down-Curr TURBIDITY (NTUs) 1.85			DREDGE/SILT CURTAIN	DREDGING
Monitoring ID # 042314-00-9-1 042314-00-9-4	NORTHING/ EASTING 815053, 2697012	TIME 907 909	TOTAL WATER	SAMPLE DEPTH (ft)	Down-Curr TURBIDITY (NTUs) 1.85 2.1		TIDAL STAGE Ebbing	DREDGE/SILT	
Monitoring ID # 142314-09-1 142314-00-9-1 142314-00-9-4		TIME 907	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft) 1 4 8	2.95 Down-Curr TURBIDITY (NTUs) 1.85			DREDGE/SILT CURTAIN	DREDGING
Monitoring ID # 142314-09-1 142314-00-9-1 142314-00-9-4		TIME 907 909	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft) 1 4 8 URBIDITY:	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48			DREDGE/SILT CURTAIN	DREDGING
Monitoring ID # #2314-00-9-1 #2314-00-9-4 #2314-00-9-8	815053, 2697012	TIME 907 909	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T	SAMPLE DEPTH (ft) 1 4 8 URBIDITY:	2.95 Down-Curi TURBIDITY (NTUs) 1.85 2.1 2.48 2.14			DREDGE/SILT CURTAIN 15' N of Silt Curtain	DREDGING 00
Monitoring ID # 142314-08-1-24 Monitoring ID # 142314-00-9-1 142314-00-9-8 142314-02-9-1 142314-02-9-3		907 909 911	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T	SAMPLE DEPTH (ft) 1 4 8 TURBIDITY: NCREASE: 1 3	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48 2.14 0.17 2.59 2.72			DREDGE/SILT CURTAIN	DREDGING
Monitoring ID # 142314-00-9-1 142314-00-9-8 142314-02-9-1 142314-02-9-1 142314-02-9-3	815053, 2697012	907 909 911	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T TURBIDITY I	SAMPLE DEPTH (ft) 1 4 8 TURBIDITY: NCREASE: 1 3 6	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48 2.14 0.17 2.59 2.72 3.08		Ebbing	DREDGE/SILT CURTAIN 15' N of Silt Curtain	DREDGING 00
Monitoring ID # 42314-09-9-1 42314-00-9-8 42314-02-9-1 42314-02-9-3	815053, 2697012	907 909 911	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T TURBIDITY I	SAMPLE DEPTH (ft) 1 4 8 TURBIDITY: NCREASE: 1 3 6 TURBIDITY:	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48 2.14 0.17 2.59 2.72		Ebbing	DREDGE/SILT CURTAIN 15' N of Silt Curtain	DREDGING 00
Monitoring ID # 142314-08-1-24 Monitoring ID # 142314-00-9-1 142314-00-9-8 142314-02-9-1 142314-02-9-3 142314-02-9-6	815053, 2697012	907 909 911	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T TURBIDITY I 7.1 AVERAGE T	SAMPLE DEPTH (ft) 1 4 8 TURBIDITY: NCREASE: 1 3 6 TURBIDITY:	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48 2.14 0.17 2.59 2.72 3.08 2.80		Ebbing	DREDGE/SILT CURTAIN 15' N of Silt Curtain	DREDGING 00
Monitoring ID # 142314-00-9-1 142314-00-9-8 142314-02-9-1 142314-02-9-6 142314-04-9-1 142314-04-9-1 142314-04-9-2.5	815053, 2697012	907 909 911 1043 1045 1047	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T TURBIDITY I 7.1 AVERAGE T	SAMPLE DEPTH (ft) 1 4 8 TURBIDITY: NCREASE: 1 3 6 TURBIDITY:	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48 2.14 0.17 2.59 2.72 3.08 2.80 0.61		Ebbing	DREDGE/SILT CURTAIN 15' N of Silt Curtain	OO OO
Monitoring ID # 42314-08-1-24 Monitoring ID # 42314-00-9-1 42314-00-9-8 42314-02-9-1 42314-02-9-6 42314-02-9-6	815053, 2697012 815174, 2696377	907 909 911 1043 1045 1047	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T TURBIDITY I 7.1 AVERAGE T TURBIDITY I	SAMPLE DEPTH (ft) 1 4 8 TURBIDITY: NCREASE: 1 3 6 TURBIDITY: NCREASE: 1 2.5 5	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48 2.14 0.17 2.59 2.72 3.08 2.80 0.61 3.8 4.64 3.99		Ebbing	DREDGE/SILT CURTAIN 15' N of Silt Curtain 15' S of Silt Curtain	00 02
Monitoring ID # 42314-08-1-24 Monitoring ID # 42314-00-9-1 42314-00-9-8 42314-02-9-1 42314-02-9-6 42314-02-9-6	815053, 2697012 815174, 2696377	907 909 911 1043 1045 1047	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T TURBIDITY I 7.1 AVERAGE T TURBIDITY I	SAMPLE DEPTH (ft) 1 4 8 FURBIDITY: NCREASE: 1 3 6 FURBIDITY: NCREASE: 1 2.5 5 FURBIDITY:	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48 2.14 0.17 2.59 2.72 3.08 2.80 0.61 3.8 4.64		Ebbing	DREDGE/SILT CURTAIN 15' N of Silt Curtain 15' S of Silt Curtain	00 02
Monitoring ID # 142314-08-1-24 Monitoring ID # 142314-00-9-1 142314-00-9-8 142314-02-9-1 142314-02-9-3 142314-02-9-6 142314-04-9-1 142314-04-9-1 142314-04-9-5	815053, 2697012 815174, 2696377	907 909 911 1043 1045 1047	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T TURBIDITY I 7.1 AVERAGE T TURBIDITY I 6.1 AVERAGE T	SAMPLE DEPTH (ft) 1 4 8 FURBIDITY: NCREASE: 1 3 6 FURBIDITY: NCREASE: 1 2.5 5 FURBIDITY:	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48 2.14 0.17 2.59 2.72 3.08 2.80 0.61 3.8 4.64 3.99 4.14		Ebbing	DREDGE/SILT CURTAIN 15' N of Silt Curtain 15' S of Silt Curtain	00 02
Monitoring ID # 042314-00-9-1 042314-00-9-4 042314-00-9-8 042314-02-9-1 042314-02-9-6 042314-04-9-1 042314-04-9-5 042314-04-9-5 042314-06-9-1 042314-06-9-3	815053, 2697012 815174, 2696377	TIME 907 909 911 1043 1045 1047 1301 1303 1305	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T TURBIDITY I 7.1 AVERAGE T TURBIDITY I 6.1 AVERAGE T	SAMPLE DEPTH (ft) 1 4 8 TURBIDITY: NCREASE: 1 3 6 TURBIDITY: NCREASE: 1 2.5 5 TURBIDITY: NCREASE: 1 1 2.5 5 TURBIDITY: NCREASE: 1 3 1 3 6 TURBIDITY: NCREASE: 1 3 1 3 1 3 1 3 1 3	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48 2.14 0.17 2.59 2.72 3.08 2.80 0.61 3.8 4.64 3.99 4.14 1.49 2.86 4.83		Ebbing	DREDGE/SILT CURTAIN 15' N of Silt Curtain 15' S of Silt Curtain	00
Monitoring ID # 142314-00-9-1 142314-00-9-4 142314-00-9-8 142314-02-9-1 142314-02-9-6 142314-04-9-1 142314-04-9-5 142314-04-9-5 142314-06-9-1 142314-06-9-3	815053, 2697012 815174, 2696377 815307, 2697095	907 909 911 1043 1045 1047 1301 1303 1305	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T TURBIDITY I 7.1 AVERAGE T TURBIDITY I 6.1 AVERAGE T TURBIDITY I	SAMPLE DEPTH (ft) 1 4 8 FURBIDITY: NCREASE: 1 3 6 FURBIDITY: NCREASE: 1 2.5 5 FURBIDITY: NCREASE: 1 2.5 5 FURBIDITY: NCREASE: 1 3 6	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48 2.14 0.17 2.59 2.72 3.08 2.80 0.61 3.8 4.64 3.99 4.14 1.49 2.86 4.83 5.3		Ebbing Flooding Flooding	DREDGE/SILT CURTAIN 15' N of Silt Curtain 15' S of Silt Curtain	00 02 04
Monitoring ID # 142314-00-9-1 142314-00-9-4 142314-00-9-8 142314-02-9-1 142314-02-9-6 142314-04-9-1 142314-04-9-5 142314-04-9-5 142314-06-9-1 142314-06-9-3	815053, 2697012 815174, 2696377 815307, 2697095	TIME 907 909 911 1043 1045 1047 1301 1303 1305	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T TURBIDITY I 7.1 AVERAGE T TURBIDITY I 6.1 AVERAGE T TURBIDITY I	SAMPLE DEPTH (ft) 1 4 8 8 TURBIDITY: NCREASE: 1 3 6 TURBIDITY: NCREASE: 1 2.5 5 TURBIDITY: NCREASE: 1 3 6 TURBIDITY: NCREASE: 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48 2.14 0.17 2.59 2.72 3.08 2.80 0.61 3.8 4.64 3.99 4.14 1.49 2.86 4.83		Ebbing Flooding Flooding	DREDGE/SILT CURTAIN 15' N of Silt Curtain 15' S of Silt Curtain	00 02 04
Monitoring ID # 42314-00-9-1 42314-00-9-8 42314-02-9-1 42314-02-9-6 42314-04-9-1 42314-04-9-1 42314-04-9-5 42314-06-9-1 42314-06-9-3 42314-06-9-6	815053, 2697012 815174, 2696377 815307, 2697095	1043 1045 1047 1301 1303 1305 1506 1508 1510	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T TURBIDITY I 7.1 AVERAGE T TURBIDITY I 6.1 AVERAGE T TURBIDITY I 7 AVERAGE T AVERAGE T TURBIDITY I	SAMPLE DEPTH (ft) 1 4 8 8 TURBIDITY: NCREASE: 1 3 6 TURBIDITY: NCREASE: 1 2.5 5 TURBIDITY: NCREASE: 1 3 6 TURBIDITY: NCREASE: 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48 2.14 0.17 2.59 2.72 3.08 2.80 0.61 3.8 4.64 3.99 4.14 1.49 2.86 4.83 5.3 4.33 1.58		Ebbing Flooding Flooding	DREDGE/SILT CURTAIN 15' N of Silt Curtain 15' S of Silt Curtain	00 02 04
Monitoring ID # 142314-08-1-24 Monitoring ID # 142314-00-9-1 142314-00-9-8 142314-00-9-8 142314-02-9-6 142314-02-9-6 142314-04-9-1 142314-04-9-5 142314-06-9-1 142314-06-9-6 142314-06-9-6	815053, 2697012 815174, 2696377 815307, 2697095	TIME 907 909 911 1043 1045 1047 1301 1303 1305	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T TURBIDITY I 7.1 AVERAGE T TURBIDITY I 6.1 AVERAGE T TURBIDITY I 7 AVERAGE T AVERAGE T TURBIDITY I	SAMPLE DEPTH (ft) 1 4 8 "URBIDITY: NCREASE: 1 3 6 "URBIDITY: NCREASE: 1 2.5 5 "URBIDITY: NCREASE: 1 3 6 "URBIDITY: NCREASE: 1 CREASE:	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.18 2.14 0.17 2.59 2.72 3.08 2.80 0.61 3.8 4.64 3.99 4.14 1.49 2.86 4.83 5.3 4.33		Ebbing Flooding Flooding	DREDGE/SILT CURTAIN 15' N of Silt Curtain 15' S of Silt Curtain	00 02 04
Monitoring ID # 142314-08-1-24 Monitoring ID # 142314-00-9-1 142314-00-9-8 142314-00-9-8 142314-02-9-1 142314-02-9-6 142314-04-9-1 142314-04-9-5 142314-06-9-1 142314-06-9-6 142314-08-9-1 142314-08-9-1 142314-08-9-1 142314-08-9-1	815053, 2697012 815174, 2696377 815307, 2697095	TIME 907 909 911 1043 1045 1047 1301 1303 1305 1506 1508 1510	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T TURBIDITY I 7.1 AVERAGE T TURBIDITY I 7 AVERAGE T TURBIDITY I 7 AVERAGE T TURBIDITY I 8.7	SAMPLE DEPTH (ft) 1 4 8 8 TURBIDITY: NCREASE: 1 3 6 TURBIDITY: NCREASE: 1 2.5 5 TURBIDITY: NCREASE: 1 3 6 TURBIDITY: NCREASE: 1 4 8	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48 2.14 0.17 2.59 2.72 3.08 2.80 0.61 3.8 4.64 3.99 4.14 1.49 2.86 4.83 5.3 4.33 1.58		Ebbing Flooding Flooding	DREDGE/SILT CURTAIN 15' N of Silt Curtain 15' S of Silt Curtain 15' N of Silt Curtain	00 00 02 04 04
042314-08-1-24	815053, 2697012 815174, 2696377 815307, 2697095	TIME 907 909 911 1043 1045 1047 1301 1303 1305 1506 1508 1510	TOTAL WATER DEPTH (ft) 8.3 AVERAGE T TURBIDITY I 7.1 AVERAGE T TURBIDITY I 6.1 AVERAGE T TURBIDITY I 7 AVERAGE T TURBIDITY I	SAMPLE DEPTH (ft) 1 4 8 URBIDITY: NCREASE: 1 3 6 URBIDITY: NCREASE: 1 2.5 5 URBIDITY: NCREASE: 1 3 6 URBIDITY: NCREASE: 1 4 8 URBIDITY: NCREASE: 1 4 8 URBIDITY:	2.95 Down-Curr TURBIDITY (NTUs) 1.85 2.1 2.48 2.14 0.17 2.59 2.72 3.08 2.80 0.61 3.8 4.64 3.99 4.14 1.49 2.86 4.83 5.3 4.33 1.58		Ebbing Flooding Flooding	DREDGE/SILT CURTAIN 15' N of Silt Curtain 15' S of Silt Curtain 15' N of Silt Curtain	00 00 02 04 06

* Turbidity Increase = Down-Current Average Turbidity - Up-Current Average Turbidity

Figure 1 Lower Harbor CAD Cell Phase I – Water Quality Monitoring

