Report

Remedial Action Certification of Completion

Lower Fox River Operable Unit 1

Project I.D.: 08G007

GW Partners, LLC

(a partnership of Glatfelter and WTM I Company)

Neenah, Wisconsin

November 2010

November 15, 2010

Mr. James Hahnenberg (SR-6J)
EPA Project Coordinator
U.S. Environmental Protection Agency
77 W. Jackson Blvd.
Chicago IL 60604-3590

Mr. Bruce Baker
Project Coordinator
Wisconsin Department of Natural Resources
101 S. Webster St.
Madison WI 53703

Dear Jim and Bruce:

RE: Remedial Action Certification of Completion, Lower Fox River Operable Unit 1

On behalf of GW Partners, LLC, attached is the *Lower Fox River Operable Unit 1, Remedial Action Certification of Completion Report.*

This *Certification of Completion Report* summarizes the remedial action construction and operations completed from 2004 through 2009 at Operable Unit 1 of the Lower Fox River Site (OU1). Remedial action activities included dredging, placement of engineered caps and sand covers, sediment dewatering, treatment of carriage water, transportation and disposal of dewatered sediment, environmental monitoring, and site restoration.

If you have any questions, please contact Mr. Bill Hartman, GW Partner's Project Manager, at (920) 209-2016.

Sincerely,

Michael Jury, P.E.
CH2M HILL, Inc.

Denis Roznowski, P.E.
Foth Infrastructure & Environment, LLC

Bill Hartman
GW Partners, LLC

Remedial Action Certification of Completion

Lower Fox River Operable Unit 1

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Lower Fox River Operable Unit 1

Project ID: 08G007

Prepared for

GW Partners, LLC

Neenah, Wisconsin

Prepared by

Foth Infrastructure & Environment, LLC

CH2M HILL, Inc.

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List of Abbreviations, Acronyms, and Symbols

ac	acre
ACH	aluminum chlorohydrate
Agencies	U.S. Environmental Protection Agency and Wisconsin Department of Natural Resources
AOC	Administrative Order on Consent
A/OT	Agencies Oversight Team
BMP	best management practices
BOD	biochemical oxygen demand
Brennan	J.F. Brennan Co., Inc.
CCU	cap certification unit
CD	Consent Decree
CH2M HILL	CH2M HILL, Inc.
cm	centimeter
CMMP	Lower Fox River Operable Unit 1, Cap Monitoring and Maintenance Plan
cy	cubic yard
DAF	dissolved air flotation
DMU	dredge management unit
Foth	Foth Infrastructure & Environment, LLC
Foth & Van Dyke	Foth & Van Dyke and Associates, Inc.
ft	feet/foot
GAC	granular activated carbon
Glatfelter	P.H. Glatfelter Company
GMS-SED	Groundwater Modeling Software
gpm	gallons per minute
GPS	global positioning system
GW Partners	GW Partners, LLC
ICIAP	Lower Fox River Operable Unit 1, Institutional Control Implementation and Assurance Plan
kg	kilogram
lbs	pound(s)
LFR	Lower Fox River
LLBdM	Little Lake Butte des Morts
LL Hg	low-level mercury
LOD	limit of detection
LTMP	Lower Fox River Operable Unit 1, Long-term Monitoring Plan
m	meter
mg/l	milligrams per liter
mg/kg	milligrams per kilogram
msl	mean sea level
ng/L	nanogram per liter
NTU	nephelometric turbidity unit
NPDES	National Pollutant Discharge Elimination System
OU	Operable Unit

PCB	polychlorinated biphenyls
ppm	parts per million
PUF	polyurethane foam
PVC	polyvinyl chloride
QA	quality assurance
QC	quality control
RA	Remedial Action
RAL	Remedial Action Level
RAO	Remedial Action Objectives
RD	Remedial Design
ROD	Record of Decision
RTK-GPS	real-time kinematic global positioning system
SCU	sand certification unit
SOW	Statement of Work
STS/AECOM	STS Consultants, Ltd/AECOM
SWAC	surface weighted average concentration
TOC	total organic carbon
TSCA	Toxic Substances Control Act
TSS	total suspended solids
µg/m	micrograms per cubic meter
USEPA	U.S. Environmental Protection Agency
Veolia	Veolia Environmental Services
VPC	vacuum push corer
WDNR	Wisconsin Department of Natural Resources
WisDOT	Wisconsin Department of Transportation
Wild Ones	Wild Ones Natural Landscapers, Inc
Work Plan	Pre-Final Design and Draft Remedial Action Work Plan for Post-2009 Response Work Draft
WTP	water treatment plant
WTM I	WTM I Company

Remedial Action Certification of Completion

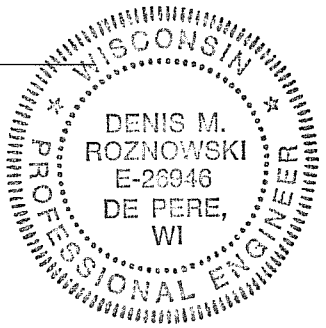
Lower Fox River Operable Unit 1

Certifications

"I, Denis Roznowski, hereby certify that I am a registered professional engineer in the state of Wisconsin and that, to the best of my knowledge, information, and belief, certify that the Response Work *Lower Fox River Operable Unit 1, Certification of Completion Report,* has been completed in full satisfaction of the requirements of the Amended Decree."

Denis Roznowski, P.E.
Foth Infrastructure & Environment, LLC

11-15-10
Date



"I, Michael Jury, hereby certify that I am the Project Coordinator for Operable Unit 1 of the Lower Fox River and that, to the best of my knowledge, information, and belief, certify that the Response Work *Lower Fox River Operable Unit 1, Certification of Completion Report,* has been completed in full satisfaction of the requirements of the Amended Decree."

Michael Jury, P.E.
CH2M HILL, Inc.

11-15-10
Date

To the best of my knowledge, after thorough investigation, I, William Hartman, hereby certify that the information contained in or accompanying this submission is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

William Hartman
GW Partners, LLC

11-15-10
Date

1 Introduction

The Lower Fox River (LFR) and Green Bay Site (the "Site" or the "Fox River Site") covers approximately 39 miles of the LFR from Lake Winnebago to and including all of Green Bay. The river portion of the Site has been divided into "operable units" (OUs). OU1 extends from the Lake Winnebago outlet to the Appleton Dam, covering all of Little Lake Butte des Morts (LLBdM). OU2 extends from the Appleton Dam to the Little Rapids Dam.

The U.S. Environmental Protection Agency (USEPA), in conjunction with the Wisconsin Department of Natural Resources (WDNR) (together, the "Agencies"), issued a Record of Decision (USEPA, 2002a) (ROD), in December 2002, describing remedial measures intended to address risks to human and ecological receptors associated with polychlorinated biphenyls (PCB) in OUs 1 and 2. Following issuance of the 2002 *ROD*, WTM I Company (WTM I) executed a 2003 Administrative Order on Consent (AOC) with the USEPA and WDNR to perform the Remedial Design (RD) for OU1. Shortly thereafter, P.H. Glatfelter Company (Glatfelter) and WTM I entered into a Consent Decree (USEPA, 2004) (CD) with the United States (acting through USEPA) and the State of Wisconsin (acting through WDNR) requiring Glatfelter and WTM I to implement remedial measures in OU1 consistent with the ROD. The CD was entered in the U.S. District Court for the Eastern District of Wisconsin on April 12, 2004. The two companies formed GW Partners, LLC (GW Partners) to facilitate joint performance of the work required by the CD.

In June 2008, USEPA issued a Record of Decision Amendment (USEPA, 2008a) (ROD Amendment) selecting and explaining an "Amended Remedy." The Amended Remedy was adopted in response to new information collected and analyzed after release of the original ROD in 2002. Subsequently, the parties to the CD entered into an Amended Consent Decree (USEPA, 2008b) (Amended CD) under which Glatfelter and WTM I agreed to implement the Amended Remedy pursuant to the ROD Amendment. The Amended CD was entered by the same district court on August 13, 2008.

Section XIV, Paragraph 44.a, of the Amended CD requires that, upon the conclusion of "Remedial Action (RA)," Glatfelter and WTM I prepare a written report to USEPA and WDNR requesting certification that the RA for OU1 has been successfully completed (hereinafter referred to as the *Certification of Completion Report)*. "RA" is defined in the Amended CD as "those activities (except for Operation and Maintenance, Post-Remedy Institutional Controls Work, and Post-Remedy Monitoring), to be undertaken by the Settling Defendants [Glatfelter and WTM I] to implement the ROD requirements for OU1 …."

This document constitutes the *Certification of Completion Report* for OU1 prepared on behalf of Glatfelter and WTM I. The purpose of this Report is to document that necessary remedial measures have been implemented in OU1 to remediate sediments exceeding the 1.0 ppm PCB Remedial Action level (RAL), and that the surface weighted average concentration (SWAC) goal of 0.25 ppm PCBs has been achieved. Pursuant to Section XIV of the Amended CD, Glatfelter and WTM I request that the Agencies issue a Certification of Completion of the RA for OU1 based on this Report, the annual RA Summary Reports to which this Report refers, and the pre-certification inspection.

The long-term response work requirements of the ROD Amendment and the Amended CD, including ongoing monitoring and maintenance requirements and contingencies, will continue to apply after Certification of Completion of the RA.

1.1 Project Background

The LFR is the most industrialized river in Wisconsin. It has experienced water quality problems since the early 1900s. PCBs were discovered in the LFR in the 1970s.

The LFR's most southerly section, from the outlet of Lake Winnebago to the Upper Appleton Dam, consisting mostly of LLBdM, is also known as OU1. The ROD established cleanup standards to reduce risks to an acceptable level. The ROD established the SWAC of 0.25 parts per million (ppm) PCBs as the fundamental measure of the effectiveness of the remedy. The SWAC is a measure of the average surface (top 10 centimeters [cm]) PCB concentration in a given area of river bottom. In order to attain this SWAC, the ROD provided for a RAL of 1.0 ppm PCBs in OU1, meaning that sediment with PCB concentrations greater than 1.0 ppm would be targeted for removal from the river by dredging. If post-dredge sampling showed that the 1.0 ppm PCB RAL was not achieved after completing sediment removal (i.e., dredging), then the ROD provided that meeting a SWAC of 0.25 ppm PCBs could be used to demonstrate the effectiveness of remediation in OU1. If the SWAC of 0.25 ppm PCBs was not achieved, then the ROD provided for either further dredging, or the placement of a sand cover over dredged areas in order to meet the SWAC standard and to complete the RA. The ROD further described the use of capping as a contingent remedy, supplementing sediment removal to achieve the ROD requirements, if specified criteria were determined by the Agencies.

Based on new information collected and analyzed after the 2002 ROD was issued, the 2008 ROD Amendment subsequently provided that, while dredging remained the primary remedial approach for OU1, alternate approaches, including engineered caps, sand covers, and modified remedial approaches in exceptional areas approved by the Agencies, could be used under certain specified conditions. The ROD Amendment establishes two standards to be used to judge the completion of the OU1 RA: a RAL Performance Standard and a SWAC goal. The RAL Performance Standard is met if all sediment exceeding the 1.0 ppm PCB RAL is removed and/or contained using the primary remedial approach and/or the alternate remedial approaches. If the RAL Performance Standard has not been met throughout the OU, but all sediment exceeding the RAL has been addressed using the primary remedial approach and/or the alternate remedial approaches, the RA will be deemed complete if the Agencies determine that the SWAC goal of 0.25 ppm PCBs has been achieved. As is discussed in this *Certification of Completion Report*, while the RAL Performance Standard has not been met in all of OU1, the 0.25 ppm SWAC goal has been attained and OU1 sediments above the 1.0 ppm RAL have been remediated by way of dredging or the alternate remedial methods. For this reason, Glatfelter and WTM I hereby request that the Agencies certify the completion of the RA for OU1 pursuant to the ROD Amendment and the Amended CD.

1.2 Summary of LFR OU1 RA

The OU1 RA was undertaken from 2004 through 2009. Key components included dredging, placement of engineered caps, and placement of sand covers. Figure 1-1 and Table 3-1 provide a

detailed schedule of key components from 2004 through 2009. Sediment removal was accomplished using hydraulic dredges followed by sediment dewatering, water treatment, and off-site landfill disposal of the dewatered sediment. Engineered caps involved the placement of a sand layer covered with armor stone, where a post-cap water depth equal to or greater than 6.0 feet could be attained. Refer to Figures 1-2 and 1-3 for an overview of remedial alternative locations. Sand covers were placed in two specific applications: 1) to manage dredge residuals and 2) to cover areas of very low concentrations (less than 2 ppm PCBs) in locations that were not dredged, all consistent with the requirements set forth in the ROD Amendment.

As required by the CD and the Amended CD, Glatfelter and WTM I prepared an RA Work Plan each calendar year specifying activities to be undertaken during the forthcoming construction season. Upon review and approval by the Agencies, the work was performed by qualified contractors with oversight by representatives of USEPA and WDNR. Refer to Table 3-24 for a list of parties responsible for all facets of work. At the conclusion of each construction season, an RA Summary Report was prepared for review and approval by the Agencies. These reports should be consulted for further detail regarding RA activities undertaken in any given year from 2004 through 2009.

To summarize the OU1 remedial activities completed in OU1 from 2004 through 2009, the annual results for dredging, engineered cap placement, and sand cover placement are provided in Tables 1-1, 1-2, and 1-3, below.

Table 1-1

OU1 RA Dredging Summary Including Re-dredge and Overcut Allowance

Year	Surface Area Dredged (ac)[1]	Volume Dredged to 1.0 ppm PCB Target (cy)[2]	Volume Dredged Including Overcut (cy)
2004	6.8	12,300	18,000[3]
2005	57.0	53,700	88,200
2006	69.6	85,400	102,100
2007	94.0	84,900	121,800
2008	29.6	32,700	41,500
2009	--	--	--
TOTAL	257.0	269,000	371,600

1. Total area dredged includes all re-dredge and residual dredge areas.
2. Total volume dredged to the 1.0 ppm PCB target. PCB target includes all volume removed from re-dredge and residual dredge areas.
3. Volume includes approximately 2,400 cubic yards (cy) of native clay removed for the installation of the water treatment plant (WTP) effluent discharge line.

Prepared by: TAG
Checked by: SGL

Table 1-2

OU1 RA Engineered Cap Placement Summary

Year	Total Acreage Covered
2007	4.0
2008	77.7
2009	32.2
TOTAL	113.9

Prepared by: TAG
Checked by: SGL

Table 1-3

OU1 RA Sand Cover Placement Summary

Year	3" Sand Cover (ac)	6" Sand Cover (ac)	6" Residual Sand Cover (ac)	9" Residual Sand Cover (ac)
2007			5.4	
2008	56.8	43.9	26.6	4.5
2009	3.7	2.7		
TOTAL	60.5	46.6	32.0	4.5

Prepared by: TAG
Checked by: SGL

1.3 Criteria for Judging the RA

The purpose of this *Certification of Completion Report* is to demonstrate that the RA has been successfully completed in OU1 such that the Performance Standards defined in the Amended CD have been achieved. The Amended CD defines Performance Standards as "the selected remedy requirements and cleanup standards for measuring the achievement of the goals of the Remedial Action, as set forth in Section XI of the 2008 ROD Amendment and Section II of the SOW for Remedial Action." The ROD Amendment, in turn, establishes the standards that will be used to judge the completion of the RA: a RAL Performance Standard and a SWAC goal.

1.3.1 RAL Performance Standard – Remediate PCBs Greater than 1 ppm

The ROD Amendment calls for the removal or containment of all sediment in OU1 with PCB concentrations greater than 1.0 ppm. Through pre-remediation sampling and characterization, a spatial footprint (both horizontally and vertically) of sediment containing PCB concentrations greater than 1.0 ppm was to be identified. This footprint was subsequently targeted for remediation. If dredging could remove all sediment with PCB concentrations greater than 1.0 ppm, or if an alternative remedy could be implemented in approved areas to contain the PCB

concentrations greater than 1.0 ppm (after meeting eligibility criteria), then the RA would be deemed complete.

1.3.2 SWAC Goal – Less than 0.25 ppm PCB

Even if the RAL Performance Standard is not met, the RA in OU1 would still be deemed complete if the Agencies determine that the SWAC goal has been achieved, after the primary remedial approach and/or the alternative remedial approaches have been employed throughout OU1. Under the ROD Amendment, the PCB SWAC goal for OU1 is 0.25 ppm.

The Agencies determined that a 0.25 ppm SWAC would be protective and would achieve the Remedial Action Objectives (RAO) set forth in the ROD Amendment. Therefore, if a SWAC of 0.25 ppm is achieved in OU1 after the conclusion of the in-river work specified by the ROD Amendment, then the RA would be deemed complete.

1.3.3 Relationship Between the RAL Performance Standard and SWAC Goal

As noted above, if all sediment exceeding the 1.0 ppm PCB RAL within OU1 were removed using dredging and/or contained using the alternate remedial approaches, the RA in OU1 would be deemed complete based on achievement of the RAL Performance Standard. In practice, however, concentrations of PCBs in sediment sometimes remain above 1.0 ppm after dredging and re-dredging the spatial footprint identified by pre-design sampling and analysis. The dredging process itself often re-suspends contaminated sediments that are then re-deposited in a thin layer on top of the newly-dredged area. This re-deposited, low solids content, PCB-impacted sediment is commonly referred to as "generated residuals." In OU1, the generated residuals sometimes contained PCB concentrations above 1.0 ppm. In these circumstances, the ROD Amendment provides that generated residuals can be addressed by re-dredging and/or placement of sand cover over-dredged areas. Further, after all sediment with PCB concentrations above 1.0 ppm has been addressed through dredging or an alternate remedial approach, the RA will be deemed complete upon the Agencies' determination that the SWAC goal has been achieved, even if the RAL Performance Standard has not been met.

The ROD Amendment, thus, allows a combination of dredging, engineered caps, and sand cover to achieve the SWAC of 0.25 ppm or less. More information on the implementation of these specific remedial measures in OU1 can be found in the annual RA Summary Reports and in the remainder of this Report.

1.4 Results Achieved in OU1

As documented in the annual RA Summary Reports, this Report, and the pre-certification inspection, necessary remedial measures have been implemented in OU1 to remediate sediments exceeding the 1.0 ppm PCB RAL. In addition, a SWAC calculation has been performed based on all post-dredge PCB data collected through 2008, when OU1 dredging was completed, and on actual implementation of capping and covering performed in OU1 through the 2009 season. Using the SWAC calculation procedures described in this Report, the post-remedy OU1 SWAC has been calculated to be 0.23 ppm PCBs, below the OU1 SWAC goal of 0.25 ppm PCBs set in the ROD Amendment. SWAC determination is discussed in Section 5.

2 Chronology of Key Events

This section contains a year-by-year summary of the OU1 remedial activities conducted pursuant to the 2002 ROD and the 2008 ROD Amendment. In-river remedial activities began in 2004 and ended in 2009. Restoration of the staging areas was completed in June 2010.

2.1 2004 RA

The intent of the 2004 RA was to test dredging, geotextile tube dewatering, and water treatment systems under several different conditions. The *Lower Fox River Operable Unit 1 Remedial Action – 2004 Remedial Summary Report* (CH2M HILL, 2006) (hereinafter referred to as *2004 RA Summary Repor*t) contains details of the 2004 remedial activities, which are summarized as follows:

- Determined reasonable dredging, treatment, and dewatering operating parameters for future dredging seasons.
- Dredging operations started August 20, 2004.
- Confirmed the cost-effectiveness and implementability of dewatering OU1 dredged sediments with geotextile tubes by dewatering dredged sediments from Sub-areas A, D, and E.
- Tested serrated and high viscosity dredge cutterheads, and determined that the high viscosity type of cutter head would be used for production dredging where large amounts of rock or clay are anticipated at the bottom of the dredge cut.
- Deployed and evaluated best management practices (BMP) that successfully reduced total suspended solids (TSS) in the river during dredging and re-contamination of the sediment.
- Completed site infrastructure construction to allow production dredging to begin in the spring of 2005 instead of later in the year.
- Successfully implemented the hydraulic placement of sand, proving that a sand cover can be placed without disturbing the soft sediment beneath.
- Disposed of non-Toxic Substance Control Act (non-TSCA) dewatered sediment at the Veolia Environmental Services (Veolia) Hickory Meadows Landfill, in the town of Chilton, Wisconsin. (Note: No TSCA sediments were dredged in 2004.)
- Monitored RA activities and their impacts (sediment removal verification, water treatment, and air/water quality).

2.2 2005 RA

Large scale production dredging, sediment dewatering, water treatment and permanent landfilling to meet the requirements of the ROD began in 2005. The *Lower Fox River Operable Unit 1 Remedial Action – 2005 Remedial Summary Report* (Foth & Van Dyke and Associates, Inc., et al., 2007) (hereinafter referred to as *2005 RA Summary Repor*t) contains details of the 2005 remedial activities, which are summarized as follows:

- Modified the WTP to accommodate two 8-inch dredges operating simultaneously 24 hours per day, 5 days per week by installing two granular activated carbon (GAC) units with associated electrical and mechanical upgrades.
- Completed the expansion of the geotextile tube dewatering pad from 1.8 acres to 5.3 acres.
- Completed operational modifications to the piping manifold system and site access routes to accommodate increased dredging activities.
- Dredged Sub-areas A, C/D2S, and POG1 while optimizing dredging operations to minimize turbidity, overdredging, and residual PCB concentrations.
- Dewatered sediment in geotextile tubes, optimizing dewatering by stacking geotextile tubes, blending coarse-grained and fine-grained sediment, and reducing chemical usage while increasing dewatered percent solids prior to dewatered sediment load-out.
- WTP successfully met WDNR effluent treatment expectations for PCBs, TSS, biochemical oxygen demand (BOD), and ammonia; treatment for mercury did not meet WDNR performance expectations, but 2005 RA effluent low-level mercury concentrations were on average an order of magnitude less than background river water concentrations.
- Disposed of non-TSCA dewatered sediment at the Veolia Hickory Meadows Landfill and TSCA dewatered sediment at EQ Wayne Disposal, in Belleville, Michigan.
- Monitored RA activities and their impacts (sediment removal verification, water treatment, and air/water quality).

2.3 2006 RA

Large scale production dredging, sediment dewatering, water treatment and permanent landfilling to meet the requirements of the ROD continued during 2006. The *Lower Fox River Operable Unit 1 Remedial Action – 2006 Remedial Summary Report* (Foth et al., 2007) (hereinafter referred to as *2006 RA Summary Report*) contains details of the 2006 remedial activities, which are summarized as follows:

- Installed screening and thickener unit to increase the percent solids in the sediment slurry fed to the geotextile tubes.

- Dredged Sub-areas C/D2S North, POG2, POG3 South, a portion of POG3 North, POG4 South, and E1 South.

- Optimized dredging operations to minimize turbidity, over-dredging and residual PCB concentrations.

- Installed bag filters downstream of the Krofta sand float and upstream of the GAC units in an attempt to meet the Agencies' mercury performance expectation. However, after rigorous testing and evaluation, the Agencies' performance expectation could not be met using the bag filters, and the Agencies approved discontinuance of the bag filters by memo dated September 27, 2006. The 2006 RA effluent low-level mercury concentration were on average an order of magnitude less than background river water concentrations.

- Optimized dewatering and water treatment operations by monitoring and adjusting chemical usage, adding a rotating Trommel screen at the influent end of each thickener, passing thickener effluent through filter fabric, and stacking geotextile tubes; thus, increasing dewatered percent solids while minimizing operating costs and meeting environmental standards.

- Disposed of non-TSCA dewatered sediment at the Veolia Hickory Meadows Landfill and TSCA dewatered sediment at EQ Wayne Disposal.

- Monitored RA activities and their impacts (sediment removal verification, water treatment, and air/water quality).

2.4 2007 RA

Large scale production dredging, sediment dewatering, water treatment, and permanent landfilling to meet the requirements of the ROD continued during 2007. Additionally, selected areas meeting specific characteristics were re-dredged. Residual sand cover was placed over selected dredged and re-dredged areas to reduce the SWAC and test sand cover placement operations. An Engineered Cap Placement Test was performed over approximately 4 acres in Sub-area E2. The *Lower Fox River Operable Unit 1 –* 2007 *Remedial Action Summary Report* (Foth et al., 2008) (hereinafter referred to as *2007 RA Summary Repor*t) contains details of the 2007 remedial activities, which are summarized as follows:

- Re-dredged seven sub-areas (A, C, POG1, POG2, POG3 North, POG3 South, and POG4 South) that had been previously dredged in 2004, 2005, or 2006 and contained residual PCBs above selected levels, or included shoreline areas not previously dredged due to inadequate water depth.

- Dredged eight sub-areas (D1, E1, E2, E3S, E3N, E5, E6, and F) for the first time.

- Dredged areas in Sub-areas E3S and E1 where future activities (e.g., bridge construction) would likely disturb alternative remedies.

- Optimized dredging and re-dredging operations to minimize turbidity, over-dredging, and residual PCB concentrations.

- Sand covered select dredged and re-dredged areas in Sub-area POG3 (approximately 5.4 acres) with PCBs less than 5.0 ppm to reduce the SWAC and to test sand placement operations.

- Performed an Engineered Cap Placement Test (4 acres) to evaluate proposed cap placement specifications and operations.

- Optimized and upgraded dewatering and water treatment operations to increase dewatered percent solids, while minimizing operations costs and meeting environmental standards.

- Disposed of non-TSCA dewatered sediment at the Veolia Hickory Meadows Landfill.

- Monitored RA activities and their impacts (sediment removal verification, sand placement verification, water treatment effluent, surface water quality, and air quality).

2.5 2008 RA

2008 was the final season of dredging and re-dredging, sediment dewatering, water treatment and permanent landfilling to meet the requirements of the ROD. Additionally, as authorized by the 2008 ROD Amendment, sand covers and engineered caps were placed in selected areas meeting specific characteristics. Residual sand cover was placed over selected dredged and re-dredged areas to reduce the SWAC. The *Lower Fox River Operable Unit 1 – 2008 Remedial Action Summary Report* (Foth and J.F. Brennan Co., Inc. [Brennan], 2009) (hereinafter referred to as *2008 RA Summary Repor*t) contains the details of the 2008 remedial activities, which are summarized as follows:

- Dredged or re-dredged ten sub-areas (C, D1, D2N, E3N, E3S, E4, POG1, POG2, POG3, and POG4), portions of which had been previously dredged in 2004, 2005, 2006, or 2007 and contained residual PCBs above specified levels, or included shoreline areas not previously dredged due to inadequate water depth.

- Dredged all remaining areas otherwise suitable for capping, where pre-cap water depth was less than 7.08 feet, unless operational efficiencies dictate otherwise.

- As necessary to achieve a 0.25 ppm SWAC, placed 26.6 acres of a 6-inch thick minimum residual sand cover in select dredged and re-dredged areas with post-dredge residual PCBs less than 5.0 ppm and, as part of a modified remedial approach, in select areas within Sub-areas A and C with post-dredged and re-dredged residual PCBs greater than or equal to 5.0 ppm.

- Placed 56.8 acres of an average 3-inch thick sand cover in areas with an average PCB concentration between 1.0 ppm and 1.4 ppm in any single 8-inch interval and where there is no other 8-inch interval with average PCB concentrations greater than 1.0 ppm.

- Placed 43.9 acres of an average 6-inch thick sand cover in areas with an average PCB concentration between 1.4 ppm and 2.0 ppm in any single 8-inch interval and where there is no other 8-inch interval with average PCB concentrations greater than 1.0 ppm.

- As part of the above 43.9 acres, placed an average 6-inch thick sand cover in select undredged near shore areas within Sub-area A and in areas near utilities within Sub-areas C, D1, D2 South, E1, E3 South, and POG4 as part of a modified remedial approach.

- Placed 4.5 acres of a 9-inch thick minimum sand cover in portions of Sub-area POG2 that were re-dredged during 2008 RA activities as part of a modified remedial approach.

- Placed 77.6 acres of an engineered cap in areas with an average PCB concentration between 2.0 ppm and 10 ppm in the top 8-inch interval, no interval with PCB concentrations of 50 ppm or greater, and a post-cap water depth equal to or greater than 6.0 feet in Sub-areas E1, E2, E3N, E3S, E4, E5, and POG4.

- Optimized dewatering and water treatment operations to increase dewatered percent solids, while minimizing operations costs and meeting environmental standards.

- Disposed of non-TSCA dewatered sediment at the Veolia Hickory Meadows Landfill Facility.

- Monitored RA activities and their impacts (sediment removal verification, water treatment effluent, surface water, air quality, sand cover thickness verification, and armored cap thickness verification).

2.6 2009 RA

2009 was the final season of in-river remedial activities in OU1. The *Lower Fox River Operable Unit 1 Remedial Action* – 2009 *RA Summary Report* (Foth and Brennan, 2010) (hereinafter referred to as *2009 RA Summary Report*) contains details of the 2009 remedial activities, which are summarized as follows:

- Placed 3.7 acres of an average 3-inch thick sand cover in areas with an average PCB concentration between 1.0 ppm and 1.4 ppm in any single 8-inch interval and where there is no other 8-inch interval with average PCB concentrations greater than 1.0 ppm in Sub-areas E2, E3N, and E5.

- Placed 2.7 acres of an average 6-inch thick sand cover in areas with an average PCB concentration between 1.4 ppm and 2.0 ppm in any single 8-inch interval and where there is no other 8-inch interval with average PCB concentrations greater than 1.0 ppm in Sub-areas E2, E3N, and E5.

- Placed 32.2 acres of an engineered cap in areas with an average PCB concentration between 2.0 ppm and 10 ppm in the top 8-inch interval, no interval with PCB concentrations of 50 ppm or greater, and a post-cap water depth equal to or greater than 6.0 feet in Sub-areas E2, E3N, and E5.

- Monitored RA activities and their impacts (water treatment effluent, surface water, sand cover thickness verification, and armored cap thickness verification).

- Completion of in-river cleanup work was May 18, 2009.

- Performed site restoration activities including effluent pipe removal and partial restoration of upland areas.

3 Summary of RA Activities for OU1

The following report section summarizes the RA activities for OU1. Associated record drawings and data summary tables are described in Sections 3.4 and 3.5, respectively and provided behind tabs following the text. The following RA activities described in this section were completed to satisfy the conditions of the ROD Amendment and Amended SOW. In the following sub-sections, the italicized introductory paragraph is an excerpt from the Amended SOW explaining the remedial requirements for OU1. Additional supporting paragraphs explain how the RA activities performed in OU1 met the requirements of the Amended SOW.

3.1 Primary Remedial Approach

The remedial action adopts sediment removal as the primary remedial approach for sediment exceeding the 1.0 ppm PCB RAL. The primary remedial approach must be used to remediate such sediment unless the eligibility criteria for employing an alternate remedial approach in the specific area can be met and the alternate remedial approach is more feasible and more cost effective in that area.

During the 2004 through 2008 RA construction seasons, hydraulic dredging techniques were employed to remove PCB contaminated sediments exceeding 1.0 ppm. Early in the construction project history, it was noted that hydraulic dredging was successful in removing contaminated sediments from OU1. Post-dredge confirmatory sediment sampling (as discussed in Section 3.1.6) results indicate, that in most areas, PCB residual contaminant levels are below 1.0 ppm. However, certain areas required additional dredging (re-dredging) or sand cover to remediate generated residuals. Through post-dredge confirmation samples, it was estimated that 1,826 pounds (lbs) or 826 kilogram (kg) of PCBs were removed from OU1. Table 3-3 summarizes the estimated PCB mass removal by year.

3.1.1 Site Mobilization and Preparation

Staging area(s) will be required for facilities associated with sediment dewatering, sediment handling, water treatment, and material handling for cap and cover operations. Specific staging areas will likely be facilities previously utilized for the OU 1 project from 2004 to 2007. Docking facilities for dredging equipment and ancillary equipment for capping or sand covers at the existing facility will also likely be utilized.

Annually, contractors and sub-contractors mobilized major equipment prior to the beginning of operations. Generally, dredging equipment (dredges, booster pumps, various barges, and support watercraft) and major parts of the spreading equipment were mobilized/de-mobilized on an annual basis. Support equipment, such as barges, pipelines, water marking buoys, office trailers, dewatering equipment, and water treatment equipment remained on site throughout the project history.

Staging area(s) were required for facilities associated with sediment dewatering, sediment temporary storage, water treatment, and storage for engineered cap and sand cover materials. Three land-side mainstays of the project were the WTP, sediment dewatering pad, and the marine staging area, all of which were located at the main staging area on the western shore of LLBdM, just south of the U.S. Highway 10/State Highway 441 bridge, at 1475 North Lake

Street, Neenah, Wisconsin. The main staging area properties are owned by GW Partners, except for the northernmost parcel, which is owned by the Wisconsin Department of Transportation (WisDOT property). The WisDOT property was made available for the project pursuant to an Environmental Indemnification and Access Agreement between WisDOT and GW Partners (WisDOT Agreement). Two auxiliary staging areas were also utilized in 2008 and 2009. These five areas are detailed below and shown on Figure 1-16.

Dewatering Pad

Located in the main staging area's northeast corner, the sediment dewatering containment cell (dewatering pad) constructed in 2004, was approximately 2.5 acres in size. The dewatering pad was constructed with containment berms on the perimeter. The bottom of the sediment containment cell consisted of compacted clay. The cell bottom and berm sides were lined with two liners to prevent water migration. The two-liner system consisted of a geosynthetic clay liner beneath a PVC membrane liner. The liner system was then overlain with a cushioning geotextile and 3-inch clear stone to provide a drainage layer over the containment cell. The bottom of the pad was sloped towards the center with a drainage ditch which fed a large circular concrete carriage water sump. The WTP influent pumps withdrew the carriage water from the sump and treated the water which was discharged back to the LFR. Prior to the 2005 RA season, the dewatering pad was expanded from 2.5 acres to approximately 5 acres. Included in this expansion was the construction of a north-south haul road through the center of the pad with ramps on each end to enter and exit the pad. The dewatering pad expansion also included construction of a PVC-lined truck decontamination area where the haul road exits the pad. Asphalt and a temporary wash bay were installed to improve decontamination procedures. The Dewatering Pad As-Built Plan View is provided as Figure 1-29.

Water Treatment Plant

Located on the property's northwest corner, the WTP was constructed in 2004. Water from the carriage water sump was pumped to the WTP, which consisted of a chemical conditioning system, a Krofta Sandfloat SAF-BP unit (combined dissolved air flotation [DAF] clarifier and sand media bed filter), GAC vessels, a sludge tank, and a non-potable water tank. In 2005, the WTP was expanded from a capacity of 2,000 gallons per minute (gpm) to 3,000 gpm by installing an additional set of two GAC contactors in series. During the 2006 operations, five bag filter units were added to the process. In addition, injection points for the introduction of chlorine were installed at several locations in the treatment plant. The Water Treatment Plant As-Built Process Flow Diagram is provided as Figure 1-30.

Marine Staging Area

Constructed in 2004, the marine staging area was located south of the dewatering pad on the adjacent GW Partners-owned property. The marine staging area served as the main staging area for dredging operations. The marine staging area also served as a sand and armor stone storage area for associated land-based placement operations. During the 2007 RA season, the marine staging area was expanded to include an asphalt pad suitable for storage of sand and armor stone. Prior to the initiation of the 2008 RA sand placement activities, another haul road was constructed to accommodate the high volume of traffic associated with placement of sand and armor stone.

Glatfelter Property
This property is located at the southern tip of LLBdM, 230 West Wisconsin Avenue, Neenah, Wisconsin, and was utilized for staging of sand materials and sand cover placement activities in the southernmost reaches of LLBdM, located south of the trestle bridge. Preparation at this property began after the appropriate permits were secured and was completed on April 9, 2008, when the delivery of sand to the property began. Support sand cover placement activities occurred at this property from April 28, 2008 through May 23, 2008. De-mobilization of the land-based sand placement equipment began on May 27, 2008 and was completed by the end of May 2008.

Wild Ones Property
GW Partners secured a 2-year lease on this property, located at 2285 Butte des Morts Beach Road, Neenah, Wisconsin. It was leased from Wild Ones Natural Landscapers, Inc. (Wild Ones) to allow sand and armor stone placement activities to proceed more efficiently and cost effectively in the northern portions of the 2008 and 2009 OU1 RA areas. Appropriate permits were secured for this property in mid-August 2008. Construction activities of the Wild Ones staging area occurred in late August and early September 2008 and were completed on September 10, 2008 when Brennan personnel began mobilizing the land-based plant to the property. The mobilization was completed on September 17, 2008 when sand placement from the property commenced. Sand cover and engineered cap placement activities at this property continued until May 19, 2009.

3.1.2 Sediment Removal Requirements

All sediment with PCB concentrations exceeding the 1.0 ppm RAL will be targeted for removal in all areas within OU1 unless use of an alternate remedial approach is approved by the Agencies for a particular area under the eligibility criteria listed below (in Section 3.3). *More specifically, in each sediment removal area, sediment shall be removed to a target elevation that:*

1) Encompasses all contaminated sediment exceeding the 1.0 ppm PCB RAL (as determined from 2003-2004, 2006-2007, and 2008 sampling data and data interpolation), including an overdredge allowance, as appropriate; and

2) Includes any remaining sediments with PCB concentrations greater or equal to 50 ppm.

Hydraulic dredging (Photograph 1, Appendix A) was used to address areas within OU1 where PCB concentrations exceeded 1.0 ppm except in areas where use of an alternative approach was approved by the Agencies. All known areas with PCB concentrations greater than or equal to 50 ppm were dredged. The extent of dredging completed in OU1 is shown in Figures 1-2 and 1-3. The volume of sediment removed is shown in Table 3-2. The total PCB mass removed from OU1 is shown in Table 3-3.

As described in Section 3.2 of this Report, alternate remedial methods were used in many areas within OU1 where the eligibility criteria of the ROD Amendment were met and the alternate remedial approaches were more feasible and more cost-effective in those areas.

3.1.3 Sediment Removal Methods and Precautions

Sediment removal will be conducted using a dredge appropriate to site conditions. In-water pipelines or other appropriate methods will transport the dredged sediment from the dredge to the staging area(s). Dredging experience at OU1 from 2004 – 2007 has shown that with careful operation of environmental dredges, silt curtains or other containment devices generally are not necessary during dredging activities. However, if future operations indicate that controls are necessary to ensure protectiveness, then additional measures or modifications to the dredging process will be employed, as appropriate. Turbidity will be monitored during dredging operations. Buoys and other waterway markers will be installed around the perimeter of the in-water work area.

BMPs were employed during dredging operations. These practices were put in place to ensure minimal effects on surface water quality. Such practices included, but were not limited to, reverse cutter head operation and development and use of the Vic Vac, a shrouded open-suction device, which targeted thin layers of sediment above a firm substrate with minimal disturbance (Photograph 2, Appendix A).

During dredging, sand placement operations, and armor stone placement operations surface water turbidity was monitored. Turbidity was reported as nephelometric turbidity units (NTU) continuously measured in the river at three locations, one upstream and two downstream of in-river RA activities (Photograph 3, Appendix A). The upstream monitoring location was between 100 feet and 500 feet from the RA activities. The goal for the downstream locations was within 500 feet or less of RA activities. The monitoring locations were adjusted as needed to reflect the changing locations of the RA activities.

Turbidity was measured using three in-stream, real-time turbidity meters which took four successive readings per hour at 0, 15, 30, and 45 minutes. Turbidity data was collected by the base station every 15 minutes from each meter. The data was digitally recorded and stored with time and date for downloading via radio modem to an onsite PC located in the field office.

The three real-time in-river turbidity meter rafts were used to detect exceedances of the 38 NTU above background action level or the potential shut-down level of a difference of greater than 78 NTU above background. Table 3-9 summarizes turbidity and TSS monitoring results for dredging operations by year.

Results for turbidity monitoring during sand and armor stone placement operations are summarized by year in Table 3-19.

If turbidity readings exceeding the action level were noted over an extended duration from the real-time turbidity data, hand-held turbidity data, or by visual inspections, the leverman was contacted. The leverman would then implement operational procedures to minimize the turbidity. Over the duration of project, RA-induced turbidity did not reach a level that required equipment shut down.

3.1.4 Sediment Dewatering and Disposal

Sediment dewatering will be employed at the staging facility for dredged sediment. The dewatering will be accomplished using processes such as plate and frame presses, belt filter presses, or geotextile tubes to remove water from PCB contaminated sediment before disposal. Based on dredging and dewatering from 2004 – 2007, it is expected that geotextile tubes will likely be used to complete the dewatering of dredged sediments for the remainder of the project. Dewatered contaminated sediment will be transported by truck, rail, and/or barge to a dedicated engineered landfill or another suitable upland disposal facility, consistent with applicable federal and state requirements. Based on previous experience at OU 1, it is anticipated that trucks would be utilized to transport dredged PCB-contaminated sediments to an approved upland disposal facility. All known TSCA sediments were removed during dredging operations from 2004 to 2006. Although only non-TSCA sediments are expected to remain at OU 1, if TSCA sediments were found to still remain at OU 1, dewatered sediments subject to TSCA disposal requirements must be transported consistent with TSCA requirements by truck, rail, and/or barge to a landfill facility appropriately permitted to receive TSCA waste.

Sediment dewatering was employed at the sediment dewatering containment cell for dredged sediment. The dewatering was accomplished using geotextile tubes to remove water from PCB-impacted sediment prior to disposal (Photograph 4, Appendix A). Sediment thickeners and chemical sediment conditioners (polymers and/or coagulants) were used to aide in the dewatering process.

The dewatering system was made up of a manifold system, thickener system, geotextile tubes, dewatering pad, and carriage water sump as shown on Figure 1-29. The process flow diagram for the sediment dewatering system is shown on Figure 1-31. A conditioning chemical (polymer) and a coagulant (aluminum chlorohydrate [ACH]) were added to the sediment slurry prior to discharge into the trammel screens. The dosing rate was based on the dredge slurry flow rate, the slurry solids content, and resulting visual floc characteristics. The material was then screened and allowed to settle before being pumped to the geotextile tubes. Carriage water from the geotextile tubes wept through the geotextile fabric, percolated through the dewatering pad gravel, and flowed to the carriage water sump before being pumped to the water treatment system.

Two sediment screening and thickening units were added upstream of the geotextile tubes in 2006 and provided the following benefits:

- Screening debris larger than 1/8 inch resulted in improved sediment dewatering and decreased the potential for geotextile tube ruptures.

- Thickening the sediment slurry, prior to its introduction into the geotextile tubes, reduced the hydraulic loading on the geotextile tubes, reduced the number of tubes online at one time, provided a uniform slurry for dewatering, and reduced the amount of time required for the tubes to dewater to a desired consistency.

- As a result of pumping material to the screens, rather than pumping directly into the geotextile tube header system, the dredge pump discharge pressure was decreased. This resulted in the overall effect of improving dredge efficiency, while minimizing the amount of carriage water that was delivered to the dewatering pad with the dredge slurry.

- The dewatering time was reduced and allowed stacking of the geotextile tubes sooner.

Dewatered sediment was sampled from the geotextile tubes in order to determine percent solids (moisture content) and landfill geotechnical data (Photograph 5, Appendix A). Table 3-4 summarizes this information by year. Dewatered non-TSCA sediment was transported by truck (Photograph 6, Appendix A) to the Veolia Hickory Meadows Landfill. Table 3-5 presents a summary of the volume of sediments disposed in each monofill at the landfill.

All previously identified TSCA sediment was removed during dredging operations from 2005 to 2006 and disposed of at the EQ Wayne Disposal facility. The Amended SOW incorrectly indicates that TSCA material was removed in 2004; however, TSCA materials were only removed in 2005 and 2006. Table 3-6 presents a summary of the TSCA sediments that were hauled and disposed.

Air samples were collected and analyzed for PCBs to assess possible airborne concentrations of PCBs when dewatered sediment was being removed from the geotextile tubes during loading for off-site disposal. Air sampling was limited to periods of excavation and load-out since PCBs were not detected at any of the four air samplers during the 2004 remedial activities.

Four (4) high-volume samplers were used to measure possible PCB emissions leaving the site as shown on Figure 1-16. A photograph of one of the air sampling locations is presented in Photograph 7, Appendix A). Locations, on and adjacent to the site, were selected based on potential residential receptors, site topography, site operations, and prevailing wind directions. Three of the high-volume samplers were located in close proximity to the dewatering pad: on the north berm of the pad, east of the pad between the pad and the river, and west of the pad between the pad and the house on-site (O'Keefe House). The fourth high-volume sampler was located between the dewatering pad and the house adjacent to the former Huber property on North Lake Street.

All PCB samples were collected using a high-volume sampler (Tisch Environmental model number TE-PUF) loaded with a combination quartz filter and polyurethane foam (PUF) cartridge, following USEPA TO-4A protocols. Air was drawn through each sampler at about 8 cubic feet (226 liters) per minute. Sampling periods were 72 hours in length to allow for sufficient sample and volume to permit detection of PCBs at low concentrations. Sample results from the laboratory, field data with respect to flow and sample collection times, and meteorological conditions during sample collection were used to calculate PCB concentrations. Air monitoring results are summarized by year in Table 3-10.

3.1.5 Water Treatment

Superfund cleanups are required to meet the substantive discharge requirements of the Clean Water Act, but National Pollutant Discharge Elimination System (NPDES) permits are not required for on-site work. Thus, water generated by dredging and dewatering operations will be treated prior to discharge back to the river and will meet all state and federal water quality standards. This may include (but not be limited to) bag filter and sand filtration and granulated activated carbon (GAC) treatment. Treated water will be sampled and analyzed to verify compliance with the appropriate discharge requirements according to plans that will be developed in the design phase and approved by the Agencies.

As previously stated in Section 3.1.1, in 2004, the WTP was constructed to treat water associated with dredging operations. The operations of the WTP included chemical conditioning system, a Krofta Sandfloat SAF-BP unit (combined DAF clarifier and sand media bed filter), GAC vessels, a sludge tank, and a non-potable water tank. In 2005, the WTP was expanded from a capacity of 2,000 gpm to 3,000 gpm by adding a set of two GAC contactors in series. During the 2006 operations, five bag filter units were added to the process. In addition, injection points for the introduction of chlorine were installed at several locations in the treatment plant.

Prior to discharging treated water back to the river the effluent was sampled and analyzed for a number of parameters. These parameters included total PCBs, BOD, TSS, ammonia, and low level mercury. Tables 3-7 and 3-8 summarize these results. Sampling was conducted to ensure that all treated water discharges met requirements that were developed in the project design phase and approved by the Agencies.

3.1.6 Post-Removal Confirmatory Surveys and Sampling

After removal of sediments from a particular area, a survey and sampling activities will be performed to: 1) determine whether the sediment removal requirements previously specified above were met; and/or 2) determine whether there is a need for post-removal residuals management measures, as specified below.

If the survey and/or sampling results show that the sediment removal requirements were not met in an area, then additional sediment in the area shall be removed until compliance with the sediment removal requirements is achieved. If the survey and/or sampling results in a particular area show that post-removal dredge residuals management measures are needed, then those measures shall be implemented. The post-removal surveys and sampling will be done when the initial round of dredging in a particular area is completed.

During project operations, post-dredging quality assurance (QA) hydrographic surveys were performed in dredge management units (DMU) that Brennan indicated had attained the target elevations, or encountered high subgrade areas. The DMUs provided a means to divide a larger sub-area into discrete dredging units. The post-dredge QA hydrographic surveys were performed as requested by Brennan.

Post-dredge QA hydrographic surveys were conducted by Brennan with direct oversight provided by Foth, who was on-board the survey vessel for all pre-and post-dredge QA surveys (Photograph 8, Appendix A). Equipment calibration, survey check to benchmarks, and

hydrographic surveying procedures were observed and documented by Foth. Upon completion of each QA survey, Brennan provided Foth with the complete unedited raw data files. Post-dredge raw data were processed by Foth to create contoured surfaces. Post-dredge contoured surfaces were compared to the 1 ppm target elevations to determine if target elevation had been attained. Figures 1-4 through 1-8 present sediment isopach maps which show where target elevation was attained and where high subgrade was encountered. In all DMUs, target elevation (including verified high subgrade) was attained in at least 95% of the DMU, meeting project requirements.

Post-dredge QA survey raw data files were also processed by Foth and used to create top of riverbed elevation maps. These maps were used to establish a record of post-dredge elevations for the RA. Figures 1-9 through 1-13 present the post-dredge top of riverbed elevations in OU1.

Real-time kinematic global positioning system (RTK-GPS) was utilized by Brennan to make highly accurate positional (horizontal) and vertical measurements. All measurements were referenced to WDNR established survey monuments for the LFR. The positional data were recorded in NAVD 83, U.S. State Plane, Wisconsin Central for horizontal measurements, and NAVD 88 for vertical measurements. The measurement units for both coordinate systems are the U.S. Survey Foot. During the post-dredge surveys, polings were completed by Foth to verify the accuracy of the hydrographic survey procedure. The polings were completed in QA survey areas at random locations at a frequency of approximately one poling per hour of operation, with a minimum of three per survey event, with depths recorded to the nearest 0.1 foot. The pole was fitted with a standard 6-inch diameter poling disc to limit settling into soft sediments. Depth readings from poling were compared to readings being recorded by the fathometer on the hydrographic survey boat at the time of the polings. The coordinates of each poling location were obtained from the HYPACK® navigational system and recorded by Foth for future use.

The calibration techniques used for the QA surveys were in accordance with the *U.S. Army Corps of Engineer, Engineering and Design Hydrographic Surveying Manual No. 1110-2-1003* (April 2004).

An initial calibration check included verifying the GPS accuracy. The GPS survey equipment used for the hydrographic survey was checked against land-based WDNR benchmarks located adjacent to OU1. The coordinates and elevations of the benchmarks acquired in the field were checked against published values. Discrepancies outside of normal survey tolerances were addressed prior to proceeding. This check to known benchmarks occurred at the start and at the end of each QA survey event.

A latency test was also performed periodically to align sonar depth soundings with the horizontal GPS coordinates. This calibration technique verifies that sonar depth soundings being recorded are at the same horizontal location being tracked by the GPS.

Finally, bar checks were performed at the start and at the end of each QA survey (pre-dredge and post-dredge surveys). A bar is lowered beneath the transducer to a measured depth from the water surface. At the 2-foot depth, soundings were used to adjust the draft value of the transducer. This value was entered into the fathometer settings when polings were taken. Past

2 feet, at regular intervals, the bar was lowered to measured depths and the sound velocity adjusted at each depth. The final depth for sound velocity adjustment was made at 1 foot from the top of sediment or the first 1-foot increment from top of sediment. For example, if the bar hit bottom at 10.5 feet, then the bar would be raised to 10 feet and that would be the greatest depth that sound velocity would be adjusted to. Then the bar would be raised at the same increments as it was deployed to verify that the values entered into the fathometer for sound velocity and draft were satisfactory. The resulting sound velocity value and draft value were entered into a standard field notebook for record.

Following a QA hydrographic survey, indicating that targeted dredge elevations were achieved for a DMU, post-dredge verification sediment sampling for PCB analysis was completed in each DMU by Foth. Refer to Figures 1-14 and 1-15 for post-dredge sample locations by sub-area. Post-dredge verification PCB results are summarized in tables included as Appendix B.

The post-dredge primary PCB sampling locations were located at the pre-design sample location nearest the center of each grid unit. If a pre-design sample did not exist within a grid unit, then the primary core sample was taken at the center of the grid unit. If the center of the grid unit fell outside of the 1.0 ppm PCB dredge cut limit of the sub-area, then the primary sample location was selected randomly inside of the 1.0 ppm PCB limit within that grid unit.

Secondary samples typically consisted of four individual core samples, which were homogenized to form one composite sample. The number of secondary samples was proportional to the area of each grid unit. Typically, grid units were split into four equal quadrants, though some grid units had less than four complete quadrants. One secondary sample was collected from each quadrant. The locations of the individual secondary samples were randomly selected within a quadrant.

Post dredge confirmation sampling was performed based on a 230-foot triangular grid. As described above, 5 cores, 1 primary, and 4 secondary locations were collected within each 230-foot triangular grid. With this configuration, the average sample density was approximately 9 cores per acre.

Sediment sampling stations were located by Foth using RTK GPS capable of locating stations with an absolute and repeatable horizontal accuracy of ± 1 meter and a vertical accuracy of ± 5 cm. The RTK GPS was referenced to onshore, WDNR established survey monuments to ensure accuracy in the station location determination. The coordinate system used during the sampling activities was the NAVD 88 Datum (vertical) and Geodetic (WGS/NAD83) Datum (horizontal).

Once a sampling station was located, the sampling platform (boat) was anchored or spudded in place (Photograph 9, Appendix A). The coordinates of the sample location and the water surface elevation were obtained and recorded in a core collection and processing field log (field log). The actual sampling location for first attempt samples was typically within 3 feet of the proposed location for primary samples and 10 feet for secondary samples. Water depth was obtained using a surveyor's rod attached to a 6-inch diameter metal plate. Thickness of the soft sediment was

estimated using a range pole fitted with 0.5 inch diameter threaded rod. Water depth and sediment thickness were recorded on the field log.

Hand-coring techniques were used to obtain the post-dredge core samples. The coring device consisted of a 2-foot long, 2-inch inside diameter core barrel with a T-bar (push rod) (Photograph 10, Appendix A). The core barrel was pushed into the sediment until refusal with an attempt to obtain a clay plug. Once the coring device was pushed to refusal, the depth of core penetration was noted and documented on the field log.

The thickness of the sediment recovered in the core tube was measured and recorded in the field, and the contents of the core tube were described and documented on the field log (Photograph 11, Appendix A). Since it was not considered in the post-dredge elevation confirmation measurements, the majority of the light, suspended solids on top of the surficial sediment layer (sometimes referred to as a fluff layer), was removed with the water on top of the sediment in the core and was not included in the total sediment thickness recorded. The core was then secured in an upright position to minimize disturbance until it was processed.

If sampling activities did not yield at least 3 inches of recovery inside the core on the first attempt, a second attempt was made to obtain a sediment core by relocating the vessel between 5 feet and 10 feet from the location of the first attempt with the intent to keep the second sampling effort within the same grid unit as the first attempt. If the second attempt failed to yield at least 3 inches of recovery, this information was recorded on the field log and no additional attempts were made to sample this location.

The PCB concentration value assigned to locations where no recovery or less than 3 inches of sample recovery occurred after two attempts was 0.0168 milligrams per kilogram (mg/kg). This value is the average PCB concentration of 12 native clay samples from different sub-areas within OU1 collected during the 2003-2004 pre-design sampling season.

3.1.7 Post-Removal Residuals Management

The 2008 ROD Amendment uses the term "generated residuals" for sediment that is re-suspended and re-deposited on the surface of a newly-dredged area (i.e., within the top six inches of the sediment), and it uses the term "undisturbed residuals" for sediment that is more than six inches below the surface of the newly-dredged sediment. If post-removal confirmatory sampling in a sediment removal area reveals post-removal generated residuals or undisturbed residuals with PCB concentrations exceeding the 1.0 ppm PCB RAL, then one or more remedial approaches must be taken as described below.

Throughout the project history, an active approach to dredge residuals management was taken. Generated and undisturbed residuals were addressed using a combination of re-dredging and various sand covers. Details of dredge residuals management are provided below.

3.1.7.1 Management of Generated Residuals

- *Generated residuals with a PCB concentration equal to or greater than 5.0 ppm must either be: (1) removed (typically by re-dredging) in accordance with the sediment removal requirements specified above; or (2) capped, if the eligibility criteria for that alternate remedial approach can be met, as specified below.*

- *Generated residuals with a PCB concentration between 1.0 ppm and 5.0 ppm must be covered with at least 6 inches of clean sand from an off-Site source (referred to as a "residual sand cover").*

- *Place a residual sand cover as necessary to meet the SWAC goal for the OU of 0.25 ppm.*

Generated residuals in OU1 with a PCB concentration equal to or greater than 5.0 ppm were redredged, with only two exceptions. First, in select small dredged and re-dredged areas within Sub-areas A and C, a 6-inch thick residual sand cover was placed on residuals greater than 5.0 ppm as part of a modified remedial approach approved by the Agencies (further discussed in Section 3.2.3). (Photograph 12 Appendix A) Second, a 9-inch thick minimum residual sand cover was placed on areas in POG2 that were re-dredged in 2008 as part of a modified remedial approach approved by the Agencies (further discussed in Section 3.2.3). Residual sand cover was not placed over any area with undisturbed residuals, unless approved by the Agencies as exceptional areas, as described in Section 3.2.3.

Figures 1-2 and 1-3 depict the extent of residual sand cover placement in OU1. Refer to Table 3-11 for a complete list of 6-inch and 9-inch residual sand cover areas.

Residual sand placement was deemed completed to the satisfaction of the specification when sufficient material was applied. Sufficient material application was satisfied by meeting approved statistical criteria based on measurements taken by sediment cores. Results of these sediment cores collected are presented in Tables 3-12 and 3-13. Figures 1-17 and 1-18 depict the locations of these residual sand thickness measurements.

3.1.7.2 Management of Undisturbed Residuals

Unless EPA and WDNR approve use of a different residuals management approach in a particular area within OU1, undisturbed residuals with a PCB concentration exceeding the 1.0 ppm PCB RAL must be removed (typically by re-dredging) in accordance with the sediment removal requirements specified above. EPA and WDNR may evaluate and approve the use of a different residuals management approach (such as a cap or a sand cover) for undisturbed residuals in limited areas if the eligibility criteria are met.

As approved by EPA and WDNR, small areas of undredged or sand covered undisturbed residuals are present in post-RA OU1 in portions of the “exceptional areas” more fully described in Section 3.2.3. The undredged and sand covered undisturbed residual areas total approximately 1.9 acres (based on core sample PCB results and associated Thiessen polygons) within the approximate 430 acre OU1 RA footprint.

3.2 Specific Standards for Alternate Remedial Approaches

As noted above, the primary remedial approach was used to remediate sediment with a PCB concentration exceeding the 1.0 ppm PCB RAL, unless the eligibility criteria for employing an alternate remedial approach in the specific area can be met and the alternate remedial approach is more feasible and more cost-effective in that area. The Agencies have already determined that alternate remedial approaches are more feasible and more cost-effective than dredging in certain areas identified in the November 2007 OU1 Design Supplement (the "Design Supplement"), but the Design Supplement did not make final recommendations for all areas.

The Design Supplement included alternate remedial approaches in some areas, but more specific plans for any alternate remedial approaches in OU1 will be developed before or during completion of the remedial action. All final remedial action incorporated the following minimum standards:

The Amended SOW provides standards for the following alternative remedial approaches: engineered caps, sand covers in undredged areas, and exceptional areas. Each of these alternative remedial approaches was utilized as part of the OU1 RA, and each is discussed below.

3.2.1 Engineered Caps

An engineered cap consisting of a sand layer and an armor stone layer may be installed in an area if the following eligibility criteria are satisfied:

- *Minimum water depth criteria for capping.*
  - *Capping will not be allowed in areas within the federally-authorized navigation channels. (Note: Sand covering will be allowed in the navigation channel(s) to manage dredged residuals. These sand covers must be at least 6 inches thick and must not impede navigation.)*
  - *Capping will be allowed in areas outside of the federally authorized navigation channel only if the top of the cap is at least 6 feet below the low water datum.*
- *Engineered caps of 13 inches in thickness. This type of cap may be used in areas outside of the federally authorized navigational channel if the minimum water depth criteria for capping and all of the following additional criteria are met:*
  - *The cap shall be constructed of at least 3 inches of clean sand covered by at least 4 inches of armor stone, with an overplacement allowance of 3 inches of sand and 3 inches of armor stone.*
  - *The PCB concentration in the sediment in the eight inches immediately beneath the cap shall not exceed an average of 10.0 ppm.*

To meet the standards of the Amended SOW, a nominal 13-inch thick engineered cap was only placed in areas of OU1 with an average PCB concentration between 2.0 ppm and 10 ppm in the top 8-inch interval. No caps were placed where the sediment in the 8 inches immediately beneath the cap exceeded an average of 10.0 ppm PCBs. In addition, no capping was performed within the federally-authorized navigation channels. A total of 113.9 acres of engineered cap was placed in OU1 as shown on Figures 1-2 and 1-3. Refer to Table 3-16 for a complete list of engineered cap placement areas.

3.2.1.1 Minimum Water Depth

Engineering capping materials were placed only in areas where the top of the cap would be at least 6 feet below the low water datum of 736.23. Statistical calculations of the post-placement water depth in the engineered cap areas for OU1 are provided in Table 3-21 to demonstrate that the minimum water depth standard has been met.

Figures 1-20 and 1-21 show the top of engineered cap final elevations south and north, while Figures 1-22 and 1-23 show the engineered cap areas' water depths south and north.

3.2.1.2 Cap Thickness

The engineered cap was constructed of a minimum of 3 inches of sand covered by a minimum of 4 inches of armor stone, with an overplacement allowance of 3 inches of sand and 3 inches of armor stone for a nominal thickness of 13 inches (Photograph 12, Appendix A). Quality assurance verification results demonstrating that the cap thickness standards were met throughout the capped areas of OU1 can be found in Appendices C and D of this Report.

For statistical analysis of cap areas by year in OU1, refer to Table 3-20.

3.2.1.3 Initial Post Construction Cap Monitoring

Immediately after completion of capping construction activities for both sand and then separately for armor layers, a hydrographic survey shall be performed, and direct cap thickness verification sampling shall be conducted. The post–construction thickness sampling will verify that cap placement specifications and cap construction criteria have been met, including an evaluation of whether the installed cap is sufficient in aerial coverage and thickness, and whether the cap material meets all applicable physical and chemical design standards. If the initial post-construction cap monitoring in a particular area shows that the cap placement specifications and cap construction criteria have not been met, then the cap in that area shall be augmented or replaced to meet the applicable specifications and criteria.

For the cap placement verification work, a variety of methods were used to measure placed thickness of sand and armor stone to ensure that the cap thickness standard was met. The primary thickness measurement tool for the sand layers was a vacuum push corer (VPC) (Photograph 13, Appendix A) and for the armor stone layer, sediment traps (Photograph 14, Appendix A). Thickness verification sampling for both layers was conducted at a frequency of six to nine locations per acre. (See sampling locations on Figures 1-17, 1-18, and 1-19.) When sufficient material application was satisfied by meeting approved statistical criteria based on field measurements taken with the VPC or sediment traps, the engineered capping work was

deemed complete. Refer to Tables 3-17 and 3-18 for a complete list of summarized results per sand certification unit (SCU) and cap management unit (CCU), respectively.

Hydrographic surveys of each completed CCU were also performed comparing the post-placement surveys to the pre-placement surveys for each layer of the cap. Survey-generated cap layer thickness data was used as a secondary measurement tool to visually assess horizontal extent of cap placement and to assess cap consolidation.

Further, geotechnical testing of both the sand and armor stone was completed to ensure that the physical and chemical properties of the engineered capping materials met design standards. The sand material suppliers were required to provide source quality control (QC) gradation analysis to ensure the product specifications were being met during delivery. This included gradation analyses conducted by an on-site laboratory. Once the sand material was delivered to on-site stockpiles, QA testing was completed to ensure the materials being tested were the materials applied to the armored cap. WisDOT-certified aggregates technicians from AECOM collected all QA gradation samples. Foth field technicians collected select samples for PCB and total organic carbon (TOC) analysis.

The armor stone suppliers were also required to provide source QC testing to ensure the product gradation specifications were being met during production. This included analyses conducted by an on-site laboratory (QC testing). QA gradation (collected from on-site stockpiles), soundness, and LA abrasion (collected from source pit) samples were collected by a WisDOT certified aggregate sampling technician from AECOM. QA gradation sampling was completed on-site, rather than at the source (quarry), to ensure the materials being tested were the materials applied to the armored cap. Foth field technicians collected select samples for PCB and TOC analysis.

3.2.2 Sand Cover in Undredged Areas

A cover composed of at least an average of 6 inches (3-inch minimum thickness) of uncontaminated sand from an off-site source may be placed over certain undredged areas that have low PCB concentrations in a relatively thin layer of PCB-contaminated sediment exceeding the 1.0 ppm PCB RAL if both of the following criteria are met:

- *The sediment beneath the sand cover must not exceed 2.0 ppm at any depth within the sediment profile.*
- *The sediment profile shall contain only one 8-inch interval with PCB concentrations between 1.4 – 2.0 ppm.*

A cover composed of at least an average of 3 inches (1.5-inch minimum) of uncontaminated sand from an off-site source may be placed over certain undredged areas that have low PCB concentrations in a relatively thin layer of PCB-contaminated sediment exceeding the 1.0 ppm PCB RAL if both of the following criteria are met:

- *The sediment beneath the sand cover must not exceed 1.4 ppm at any depth within the sediment profile.*

- *The sediment profile shall contain only one 8-inch interval with PCB concentrations between 1.0 – 1.4 ppm.*

Immediately after completion of sand cover placement activities, sand cover cores shall be collected. These initial post-construction cores will verify that sand cover placement specifications have been met, including an evaluation of whether the sand cover is sufficient in real coverage and thickness. If the initial post-construction sand cover monitoring in a particular area shows that the sand cover placement specifications have not been met, then the sand cover in that area shall be augmented or replaced to meet the applicable specifications and criteria.

A 6-inch minimum sand cover, meeting the applicable standards described above, was applied to 46.6 acres in OU1. A 3-inch minimum sand cover, meeting the applicable standards described above, was applied to 60.5 acres in OU1. Undredged areas receiving sand covers in OU1 are shown on Figures 1-2 and 1-3.

Post-placement measurements of sand cover were taken to demonstrate achievement of the applied material specifications. For 3-inch and 6-inch sand cover areas, the Agencies agreed to base attainment of the thickness metric on average thickness with limits on minimum thickness. In 3-inch sand cover areas, all samples were to be a minimum of 1.5 inches with an average (based on five samples in approximately 3.0 acres) of no less than 3 inches. For 6-inch sand cover areas, a minimum of 3 inches with an average (based on five samples in approximately 3.0 acres) of no less than 6 inches was to be applied. The verification sampling was performed in such a way as to provide statistical confidence that specifications had been met.

Results of the sand thickness verification measurements collected are presented in Tables 3-14 and 3-15. Figures 1-17 and 1-18 show the locations of sand thickness verification samples collected in each area.

3.2.3 Exceptional Areas

EPA and WNDR may approve use of modified remedial approaches or other remedial approaches in exceptional areas at the site. Based upon showing that application of another remedial approach in an exceptional area is sufficiently protective, more feasible, and more cost effective than the primary remedial approach or any of the alternate remedial approaches described above. EPA and WDNR expect that there will only be a relatively small number of areas at the Site that will need to be treated as exceptional areas, including some shallower near shore areas or areas near utilities. The specific remedial approach for each exceptional area will be subject to review and approval by EPA and WDNR, and will be included in the final remedial design.

Modified Remedial Approach – Sub-area A and C Residual Sand Cover

During the beginning of the 2007 RA, in order to reduce the SWAC, areas within Sub-area A with post-dredge residual PCBs greater than or equal to 10.0 ppm were re-dredged. In addition, many areas with PCB concentrations between 5.0 and 10.0 ppm within Sub-area A were also re-dredged as was practical for operational efficiencies. Following the 2007 re-dredging in Sub-areas A and C/D2S, the dredge and its associated pipeline were remobilized for dredging

and re-dredging sub-areas north of the trestle trail. Rather than remobilizing the dredging operation south of the trestle trail late in 2007 RA to again re-dredge the relatively small areas in Sub-area A that remained greater than or equal to 5.0 ppm PCBs, a 6-inch residual sand cover was placed, with the Agencies' approval, in conjunction with the other Sub-area A residual sand cover operations during 2008. The area remediated in this manner was approximately 3.8 acres and contains about 8.8 kg of PCB mass above 1 ppm. This modified remedial approach was more feasible and cost-effective than re-dredging because it was accomplished without separate remobilizations in widely dispersed areas.

Similarly, two small areas totaling 0.2 acres in Sub-area C (one that was initially dredged in 2008 and one that was re-dredged in 2008) received a 6-inch residual sand cover. These two small areas do not contain undisturbed residuals and have surface PCB concentrations of approximately 13 ppm. The Agencies approved the use of residual sand cover in these two small areas. The PCB mass above 1 ppm in these areas is approximately 0.6 kg.

Modified Remedial Approach – Sub-area POG2 Residual Sand Cover

Sub-area POG2 was initially dredged in 2006. Areas with residual sediment PCB concentrations equal to or greater than 5.0 ppm were re-dredged in 2008. Because of the difficult-to-dredge Sub-area POG2 sediment characteristics (soft clay) and the uncertainty that multiple re-dredging would remove undredged inventory greater than 1.0 ppm, the Agencies approved a modified remedial approach to complete the remediation in Sub-area POG2. A 9-inch residual sand cover was placed over the sediments that were re-dredged in 2008. The modified remedial approach is protective as it provides an additional mass of clean material (as compared to the normal 6-inch residual sand cover) to cover both generated and undisturbed residual PCBs in POG2. The placement of a 9-inch residual sand cover following re-dredging was more feasible and cost-effective than attempting a second re-dredging of the difficult to dredge Sub-area POG2 sediment. Refer to Figure 1-24 for the POG2 top of sand final elevation map and Figure 1-25 for the 2008 final water depth map.

Modified Remedial Approach – No Action

Dredging, placing sand cover, or placing a cap near certain utilities (e.g., gas pipelines and wastewater effluent pipelines) or structures (e.g., bridge piers or areas with potential archeological significance) cannot be accomplished without the risk of damaging the utility or structure, which would pose an unacceptable safety risk to workers and the general public or potentially destroy artifacts. Because of these concerns, lateral offsets were established in which no action was taken adjacent to utilities and other structures located in Sub-areas A, C, D1, D2 South, E1, E2, E3 South, POG2, and POG4. The Agencies approved this exception as part of a modified remedial approach. The sediment PCB concentrations within the lateral offsets are accounted for in the calculation of the overall OU1 SWAC with the approval of the Agencies.

Modified Remedial Approach – Equipment Access Limitations

Dredge equipment water depth limitations restricted access to certain shallow areas in Sub-areas A, C, and D1 during the 2007 RA. Small areas with PCB concentrations greater than 1 ppm, that were too shallow to dredge or place sand cover in, remain along the Sub-areas A, C,

and D1 shorelines. These areas, totaling approximately 0.8 acres were accounted for in the calculation of the overall OU1 SWAC.

3.3 Demobilization and Staging Area Restoration

Demobilization, Staging area(s) restoration, and decontamination of all equipment will require removing all equipment from the staging and work areas and restoring the staging area(s) as needed to meet the legal requirements or any agreement with the property owner.

3.3.1 Dewatering Pad Decommissioning at Main Staging Area

At the completion of the 2009 remedial activities and as part of the site restoration activities, the decommissioning of the dewatering pad commenced on May 21, 2009. The dewatering pad was located on the western shore of LLBdM, at the main staging area. The pad was constructed to contain the dewatering operations associated with the dredging of contaminated sediment from OU1, including screening and thickening equipment, associated piping and the geotextile tubes into which the dredge slurry was pumped for dewatering. A truck wash area was located adjacent to the pad and was decommissioned as part of the dewatering pad area. The pad was constructed by grading an approximate 5-acre area to specifications, placing three synthetic liners (top to bottom: non-woven geotextile fabric, PVC liner, and geo-synthetic clay liner) on the graded area to prevent seepage into the soil below and covering the liners with washed gravel. The gravel protected the liners, provided storage capacity in the free space for the water from dewatered sediment, and provided water conveyance to a central sump area. A road was constructed within the pad using crusher run gravel.

The decommissioning work consisted of excavating and washing all gravel contained in the 5-acre area. Gravel was washed so that the P_{200} was equal to, or less than, 1.0%. The washing process consisted of a washing unit comprised of a Cedar Rapids wet screen equipped with wash showers located above the screen (Photograph 15, Appendix A). The unit was capable of washing up to 250 tons of gravel per hour and averaged a production rate of approximately 200 tons per hour during an 8 to 10 hour day. Washed gravel exited the screen via a chute and dropped on to a conveyor. The washed gravel was then conveyed to the sand storage pad in the marine staging area and was stockpiled there (Photograph 16, Appendix A) and at a nearby pit, until analytical results were received to indicate that the material was "clean" (<0.05 mg/kg PCBs).

The wash water from the process exited the screens and flowed to a tank with an approximate 2,000 gallon capacity. The process water from the bottom of this tank was then pumped, via an 8-inch line, to geotextile tubes located in the northwest corner of the pad. Water exiting the geotextile tubes flowed to the dewatering pad sump where it was recycled back to the washing operation using one of the WTP influent pumps. As needed to lower the water level in the dewatering pad, as well as to provide clean wash water to the screens, the water from the geotextile bags was pumped from the sump and treated in the WTP prior to discharge to LLBdM. The sediment in the geotextile tubes was allowed to dry so that there was no free water present. After several weeks, it was loaded, transported, and disposed of at Veolia Hickory Meadows Landfill.

The operator of the washing equipment collected an approximate 3-gallon grab sample every hour of washing operation from the conveyor used to transport the washed gravel to the stockpile area. Individual samples were composited the next day and a sub-sample from the daily composite was collected by Foth personnel at a frequency of 1 sample per 1,000 cy for the first 10,000 cy of gravel washed and then 1 sample per 10,000 cy for the remainder of the material (Photograph 17, Appendix A). The samples were analyzed for the following chemical and physical parameters:

a. Total PCBs (Fox River Method)
b. Arsenic (preparation - EPA 3010, analytical - EPA 6010)
c. Lead (preparation - EPA 3010, analytical - EPA 6010)
d. Mercury (preparation and analytical - EPA 7470)
e. Grain size (through P_{200})

In addition, after the first 10,000 cy of gravel were washed, Foth personnel continued to collect a sub-sample from the daily composite at the frequency of approximately 1 sample per 1,000 cy, to be analyzed only for Total PCBs (Fox River Method). Results of these samples are summarized in Table 3-22.

Washing operations continued until complete on June 25, 2009. All material was deemed clean and was identified for un-restricted use.

Once the washing operations were complete and all water from this process had been treated through the water treatment facility, the sediment in the geotextile tubes was allowed to continue to dewater. In conjunction with the washing operation, the removal of the liners, on the top portion of the berms, began on June 15, 2009 and sediment loading, transport, and disposal activities began on July 6, 2009. This work continued until July 15, 2009 when all sediment had been removed from the site. The work to remove the remainder of the liner materials continued and was completed on July 27, 2009. The final materials from the pad and concrete from the sump pit structure were removed on August 6, 2009. These materials were all transported to Veolia Hickory Meadow Landfill for disposal.

3.3.2 Site Decommissioning at Main Staging Area

Following the dewatering pad decommissioning, the decommissioning on the remainder of the site was performed. This included the removal of the underground sludge tank adjacent to the WTP, the removal of the decontamination structure and its associated driveway, the removal of the WTP effluent line and diffuser, as well as the remainder of the gravel to the north of the WTP. In addition, Brennan personnel completed the demobilization of all their equipment by July 27, 2009. Once this work was completed, soil sampling at areas of the site that may have been exposed to the PCB-impacted sediments was performed by Foth personnel. The samples were sent in for analysis for total PCBs. The sample results indicated that there were no detectable levels of PCBs remaining at the dewatering pad site following restoration activities. Results of these samples are summarized in Table 3-23.

3.3.3 Site Grading at Main Staging Area

Site restoration activities, following the decommissioning work, began on August 24, 2009 and continued into November, 2009 when work was halted for the year due to inclement weather. Work began again on May 18, 2010 and was completed on June 25, 2010. These activities included:

1. Eradication of a resident invasive population of reed canary grass;

2. Removal of approximately 18,000 cy of compacted clay on the northern area of the site. This material had been placed on the soil surface prior to the installation of the synthetic liners during the construction of the dewatering pad on the northern area of the site;

3. Relocating approximately 8,000 cy from the wetland area to the upland area on the northern portion of the property;

4. Removal of approximately 11,500 cy of pre-existing fill material from the southern area of the site;

5. Cutting in a meandering channel that connected an existing drainage ditch to LLBdM;

6. Final grading with previously excavated hydric and topsoil, to return the site to pre-existing elevations on the northern area of the site;

7. The removal of non-native fill material, down to native elevations, in the wetland area on the southern portion of the property and final grading on the upland area of this portion that included the placement of imported topsoil; and

8. Creating additional wetland areas on the southern area of the property.

It should be noted that the final elevations in this wetland area (i.e., elevations 742.00 msl and below) were found to be different than those elevations that had been previously identified as the original pre-existing elevations on the pre-remedial as-built drawings prepared by CH2M HILL, in 2004. In 2003, WTM I purchased several properties, which were then transferred to GW Partners and used for the remedial activities that occurred at OU1 from 2004 through 2009. A portion of these properties contained an area where non-native fill had been placed prior to the purchase of the properties by GW Partners. Subsequently, at the time that the pre-remedial as-built drawings were generated, the original native elevations, beneath the non-native fill, were estimated. In 2009, when the restoration work in this area was performed, material was removed down to these pre-fill native elevations. Differences between these newly cut elevations and the 2003 estimated elevations were observed to be in excess of 1.0 feet in some locations. These newly cut native elevations are those elevations that have been identified on the final as-built drawing as shown on Figures 1-32 through 1-35.

3.3.4 Site Landscaping at Main Staging Area

In conjunction with the final site grading work performed in 2010, site landscaping occurred in areas that were disturbed during the remedial activities performed at the site during 2004 through 2009. The landscaping work in 2010 included an additional herbicide treatment of the invasive reed canary grass population, seeding native mixes and nurse crops throughout the site, and planting of approximately 3,500 native shrubs in the wetland areas. While this work was completed on June 25, 2010, maintenance activities will continue to ensure and enhance the establishment of the desired grasses and shrubs.

3.3.5 Restoration at the WisDOT and Wild Ones Properties

Pursuant to the WisDOT Agreement, GW Partners was required to remove all facilities used during the project and to restore the WisDOT property to the same or better condition than existed prior to the beginning of the project itself. The WisDOT property was to be free of any and all impacts from activities conducted in conjunction with the project. Moreover, surficial and subsurface testing of the WisDOT property was required to confirm that no hazardous substance impacted the WisDOT property in violation of applicable laws. Through the work described above, including removal of the dewatering pad, site decommissioning, grading, and landscaping, all impacts of activities conducted in conjunction with the project were removed from the WisDOT property. Soil samples collected in conjunction with decommissioning the main staging area confirmed that no detectable levels of PCBs were left on the WisDOT property.

The Wild Ones property located at 2285 Butte des Morts Beach Road, Neenah, Wisconsin, was also restored in 2009 to substantially the same condition as existed prior to work on the project itself. Restoration included the removal of leftover sand and stone, the excavation and removal of base course stone and course rock (except as specifically requested by Wild Ones and approved by WDNR), the removal and disposal of engineered fabric, grading where required, and seeding. Since PCB-impacted materials were never placed on this property in conjunction with the project, no sampling was conducted as a part of final restoration.

3.4 Record Drawings

Each year, RA Summary Reports were written to present project objectives, quality assurance data, data summaries, and completed project goals. A major part of these summary reports were the associated project figures/drawings, which pictorially presented remedial types, remedial areas, and QA sampling locations.

For this *Certification of Completion Report*, 42 project figures/drawings have been prepared as a record of when and where each RA occurred, a record of attainment of dredging target elevations, a record of the resultant post-RA riverbed elevations and water depths are, and to document where all of the post-RA QA samples were obtained.

Figure 1-1, OU1 RA Project Schedule
Annually, in the RA Work Plan, Brennan developed a working project schedule for the upcoming construction season. Figure 1-1 presents a generic project schedule listing a timeline for the completion of critical RA activities from 2004 through 2010.

Figures 1-2 and 1-3, OU1 Location of Remedial Alternatives
OU1 optimized remedy drawings Figure 1-2 (South) and Figure 1-3 (North) show the as-built locations of all remedies used at OU1. The remedies depicted are dredging, engineered caps, sand covers (3-inch and 6-inch average), 6-inch-residual sand cover, and 9-inch residual sand cover. Sub-area boundaries are depicted in red.

Figures 1-4 through 1-8, OU1 Post-Dredge Sediment Isopach Maps
As explained in Section 3.1.6, hydrographic surveys were completed pre- and post-dredge. Once the contractor completed dredging in a DMU, the post-dredge QA hydrographic survey was completed. Survey surfaces were created from the raw data files and were compared to the 1.0 ppm target elevation. The comparison was completed to determine if the dredging contractor had attained the required target elevation. Figures 1-4 through 1-8 illustrate a comparison between the post-dredge survey elevation and the 1.0 ppm PCB design target elevation. Purple and magenta on these figures represent where the dredge contractor attained the 1.0 ppm target elevation. All other colors on the figures represent where high sub-grade was verified or where target elevation was not attained (less than 5% of any DMU).

Figures 1-9 through 1-13, OU1 Post-Dredge Top of Sediment Elevation Maps
Post-dredge hydrographic survey surfaces were converted to elevation in order to depict the post-dredge top of sediment (riverbed) elevations. Figures 1-9 to 1-13 show the post-dredge elevation of the top of sediment, prior to any residual sand covers being applied.

Figures 1-14 and 1-15, OU1 Post-Dredge Sampling Location Maps
Upon verification that the target elevation was obtained in at least 95% of the DMU (including areas that attained elevation and areas of verified high subgrade), post-dredge sediment samples were collected for PCB analysis using coring techniques. Figures 1-14 and 1-15 show the locations of all the primary and secondary samples collected over the course of the project. These figures are provided to show that all post-dredge areas were sampled on a consistent sampling grid.

Figure 1-16, OU1 Staging Areas and Air Monitoring Locations
Figure 1-16 shows the location of the five staging areas described in Section 3.1.1. In addition, Figure 1-16 shows the location of the four air monitoring stations that were placed around the sediment dewatering facility.

Figures 1-17 and 1-18, OU1 Sand Placement Thickness Verification Sample Locations
As described in Sections 3.1.7, 3.2.1.3, and 3.2.2, sand thickness verification cores were completed in each SCU upon placement completion. Figures 1-17 and 1-18 show the thickness verification locations and measured thicknesses covering all of the SCUs throughout the project history.

Figure 1-19, OU1 Armor Stone Thickness Verification Sample Locations
As described in Section 3.2.1.3, sediment traps were deployed prior to the placement of armor stone. Once a CCU was completely placed, Foth retrieved the sediment traps to measure armor stone placed thickness. Figure 1-19 depicts the thickness verification locations and measured thickness at each sediment trap during engineered cap placement throughout the project history.

Figure 1-20 and 1-21, OU1 Top of Engineered Cap Final Elevations
Post-placement QA hydrographic surveys were completed immediately after cap placement was complete in each CCU. Hydrographic survey raw data were converted into survey surfaces to create isopach maps and top of cap elevation maps. As explained previously, all engineered cap areas were required to have a minimum post-placement elevation of 6 feet below the low water datum of 736.23. Figures 1-20 and 1-21 show the post-placement top of engineered cap elevation prior to consolidation or accretion of new sediments.

Figures 1-22 and 1-23, OU1 Engineered Cap Areas Water Depth Maps
Figures 1-22 and 1-23 show the water depths after engineered cap placement based on low water datum. No engineered cap was placed in any area with less than 6.0 feet of post-cap water depth.

Figure 1-24, OU1 Sub-Area POG2 2008 Top of Sand Elevation Map
A post-sand-placement hydrographic survey was completed immediately after placement activities were completed in each SCU for work in POG2. Figure 1-24 shows the post-placement top of sand elevation prior to consolidation or accretion of new sediment.

Figure 1-25, OU1 Sub-Area POG2 2008 Water Depth Map
As explained in Section 3.2.3, a 9-inch thick-minimum residual sand cover was placed in areas of Sub-area POG2. POG2 is a known navigational channel and therefore had special provisions for dredging, sand covering, or capping. Federal law required that if covered or capped, the entire navigational channel had to remain at least 6.0 feet below the low water datum of 736.23. Figure 1-25 depicts the post-sand placement water depth map as compared to the low water datum. All areas of the navigational channel are at least 6.0 feet below the low water datum (excluding the side slopes).

Figures 1-26 and 1-27, OU1 SWAC Calculation Surficial PCB Concentrations
The ROD Amendment stated that the overall project SWAC goal was 0.25 ppm PCB. An overall final SWAC estimate was calculated and is presented in Section 5 of this Report. Figures 1-26 and 1-27 present the surficial PCB concentration ranges and Thiessen polygon areas used in the final SWAC estimate.

Figures 1-28A through 1-28H, OU1 SWAC Calculation Surficial Concentration – Numerical PCB Value at Locations
Sediment cores were collected from OU1 pre-remedy and post-remedy to identify the PCB concentrations, OU1 wide, with respect to location. Figures 1-28A through 1-28H present the actual surficial PCB concentration at each core location that were used in the final SWAC calculation.

Figure 1-29, OU1 Dewatering Pad As-Built Plan View
As described in Section 3.1.4, geotextile tubes were employed to assist in the dewatering process of dredge slurry. Dredge slurry was pumped through a sediment thickening system. Thickened sediment was then pumped to geotextile tubes for further dewatering. Figure 1-29 shows the basic layout of the dewatering pad facility. In addition, the marine access and cap and cover storage facility is also shown.

Figure 1-30, OU1 Water Treatment Plant As-Built Process Flow Diagram
As described in Section 3.1.5, weep water from the sediment dewatering process was captured in the geo-membrane lined dewatering pad and funneled into a collection sump. From the sump, weep water was pumped into the on-site WTP for treatment and eventual release to LLBdM. Figure 1-30 presents a flow diagram depicting equipment and flow during the treatment process.

Figure 1-31, OU1 Sediment Dewatering System As-Built Process Flow Diagram
As described in Section 3.1.4, geotextile tubes were employed to assist in the dewatering process of dredge slurry. Figure 1-31 is presented to show a closer view of the actual process flow of dredge sediment slurry and the process in which it was dewatered.

Figure 1-32, OU1 Dewatering Area Pre-Construction (2004) Site Conditions
Prior to any construction at the sediment processing facility, a topographic survey was completed to document the existing site conditions. Figure 1-32 is presented to show the pre-construction conditions.

Figure 1-33, OU1 Dewatering Area Restoration Final Restoration Elevations
Upon the completion of remediation at the OU1 project, site restoration of the affected properties was implemented. A final topographic survey was completed at the termination of site restoration activities to document the as-built restoration grades. Figure 1-33 shows the final site restoration surface elevations.

Figure 1-34, OU1 Dewatering Area Restoration Cross Sections
Three cross sections were developed to show the differences between pre-existing, remedial construction, and post-construction conditions. Figure 1-34 shows the differences in cross sectional view.

Figure 1-35, OU1 Dewatering Area Restoration Seed Mix and Shrub Plantings Location Map
As part of the site restoration, wetlands that were disturbed during the creation of the sediment processing facility were restored. Specialized wetland seeding and plantings were installed to the growth of a wetland environment. Figure 1-35 is an as-built to show the various seeding and plantings installed.

3.5 RA Summary Tables

Over the course of the project, QA sampling was completed to verify that parts of the RA were meeting project requirements including but not limited to, the Performance Standards in the ROD Amendment. Annually, upon the completion of each construction season, data from various QA measures were tabulated and provided in the annual RA Summary Reports. For this

Certification of Completion Report, 23 tables have been created to consolidate all of the critical QA data recorded throughout the RA. One additional table is provided summarizing project organization/responsibilities. These 24 tables are provided behind the Tables tab following the text.

Table 3-1, OU1 Remedial Action Schedule
RA activities scheduling was a task which proved to be critical in implementing the RA. Prior to start-up each construction season, Brennan provided a draft project schedule to manage the RA. The schedule was continually updated as the construction season progressed. Table 3-1 summarizes the actual start and end dates for each major RA activity, beginning with 2004 and ending in 2010.

Table 3-2, OU1 Dredge Removal Area and Volume Summary by Year
RA Summary Reports were provided annually as the record of what was accomplished for that construction season. One of the most important items tracked each year was the planned and actual volume of sediment removed. Table 3-2 summarizes the planned volume to be removed, and the actual volume removed (including overcut) on an annual basis.

Table 3-3, Total PCB Mass Removed from OU1
Post-dredge PCB sediment results were summarized in each of the annual RA Summary Reports for the five-year history of this project. Post-dredge PCB sediment results were used to calculate overall mass removed during dredging operations. Table 3-3 presents overall PCB mass removed each year as reported in annual RA Summary Reports.

Table 3-4, Dewatered Sediment Free Liquids and Percent Solids Data Summary
Dewatered sediment was sampled from the geotextile tubes to determine free liquids (standard paint filter test), percent solids (moisture content), and the required geotechnical data for landfill disposal requirements. Table 3-4 summarizes these geotextile tube sampling results by sub-area for each RA construction season.

Table 3-5, Summary of OU1 Non-TSCA Sediment Disposal (Veolia Hickory Meadows Landfill)
The majority of the sediment removed from OU1 was non-TSCA and could be disposed of at a special waste landfill. GW Partners contracted with Veolia (formerly Onyx) to dispose all non-TSCA dewatered sediment at the Veolia Hickory Meadows Landfill Facility. Dewatered sediments were hauled to the landfill via lined dump trucks and disposed of in monofills at the landfill site. Table 3-6 is a summary of the volume of sediments disposed on an annual basis.

Table 3-6, Summary of OU1 TSCA Sediment Disposal (EQ Wayne Disposal)
As presented in Section 3.1.4 of this Report, TSCA sediments were removed from OU1 in 2005 and 2006. TSCA sediments were hauled, via on-road dump trucks with special lined dump boxes, to the EQ Wayne Disposal facility in Belleville, Michigan - the closest hazardous waste landfill to OU1. Table 3-5 presents a summary of the TSCA sediments that were hauled and disposed.

Table 3-7, Summary of Laboratory Analytical Results for Water Treatment Plant Effluent
Treated effluent water was required to be sampled prior to discharge to the LFR and expected to meet the WDNR's effluent expectations. Table 3-7 summarizes the daily QA analytical results for the WTP effluent by year, excluding low level mercury analysis.

Table 3-8, Summary of Water Treatment Plant Final Effluent Low-Level Mercury and QC TSS Results
During fulltime WTP operations, effluent water was collected for low-level mercury (LL Hg) analysis, once per week, from a spigot in the effluent discharge pipe outside of the WTP. At the time of sample collection QC TSS samples were collected as well, to see if there was any correlation between increases in LL Hg and increases in TSS. Table 3-8 summarizes the LL Hg and QC TSS analytical results by each RA season.

Table 3-9, Summary of In-River Turbidity Monitoring and TSS Results During Dredging
Surface water grab samples were obtained two to three times weekly during dredging operations at the same location and time as the turbidity field measurements and real time turbidity meters to validate turbidity monitoring results. Table 3-9 summarizes the range of turbidity and TSS data obtained from the grab samples collected at these locations.

Table 3-10, Air Monitoring Results Summary
Four (4) high-volume air samplers were used to measure PCB emissions leaving the site during sediment dewatering and load out processes. Air monitoring was completed on a continual basis in 2004 and 2005 during the entire construction season. Due to the lack of PCB detections in the air, monitoring was decreased to only a week to two weeks per year during sediment load-out. When the high volume samplers operated, air samples were collected on a continuous basis, with sample durations of approximately 72 hours. Table 3-10 summarizes the air monitoring results for each RA season.

Table 3-11, OU1 Completed Sand Cover Placement Areas
As authorized by the 2008 ROD Amendment, sand placement was implemented, along with dredging and capping, as part of the overall remedy to achieve an OU1 area-wide SWAC of 0.25 ppm upon completion of the RA. Based on this criteria sand placement areas were segregated into 6-inch and 9-inch residual sand areas (where dredging had occurred) and 3-inch and 6-inch sand cover areas (where dredging did not occur because PCB levels were below specified thresholds). Total OU1 placement acreages by sub-area and placement type are summarized in Table 3-11.

Table 3-12, Quality Assurance 6-inch Residual Sand Cover Thickness Verification Results Summary
Upon completion of 6-inch residual sand cover placement in each SCU, QA thickness verification cores were collected to verify the sand cover thickness. Sand thickness verification cores were collected at a frequency of six to nine locations per acre. For an SCU to be considered complete, 11 of 11 or 17 of 18 (dependent on SCU acreage) sand thickness measurements needed to equal or exceed the minimum 6-inch requirement. Table 3-12 summarizes these results in each SCU by year.

Table 3-13, Quality Assurance 9-inch Residual Sand Cover Thickness Verification Results Summary
Upon completion of 9-inch residual sand cover placement in each SCU, QA thickness verification cores were collected to verify the sand cover thickness. Sand thickness verification cores were collected at a frequency of six to nine locations per acre. For an SCU to be considered complete, 11 of 11 or 17 of 18 (dependent on SCU acreage) sand thickness measurements needed to equal or exceed the minimum 9-inch requirement. Table 3-13 summarizes these results in each SCU by year.

Table 3-14, Quality Control 3-inch Sand Cover Thickness Verification Results Summary
Thickness verification for 3-inch sand cover was based on similar SCU delineations as residual sand cover SCUs, however, certification of these units was based on a different statistical approach. The statistical approach for 3-inch sand cover areas was based on average thickness rather than a minimum thickness. Because 3-inch sand cover areas have very low PCB concentrations (1.4 ppm maximum in the top 8-inch interval and no subsequent interval above 1.0 ppm), the frequency of samples collected for certification was reduced. These areas were deemed complete if the arithmetic average of the cores collected was equal to or greater than 3 inches and each core met a minimum 1.5 inches. Table 3-14 summarizes the individual SCU results by year.

Table 3-15, Quality Control 6-inch Sand Cover Thickness Verification Results Summary
Thickness verification for 6-inch sand cover was based on similar SCU delineations as residual sand cover SCUs, however, certification of these units was based on a different statistical approach. The statistical approach for 6-inch sand cover areas was based on average thickness rather than a minimum thickness. Because 6-inch sand cover areas have very low PCB concentrations (2.0 ppm maximum in the top 8-inch interval and no subsequent interval above 1.0 ppm), the frequency of samples collected for certification was reduced. These areas were deemed complete if the arithmetic average of the cores collected was equal to or greater than 6 inches and each core met a minimum 3.0 inches. Table 3-15 summarizes the individual SCU results by year.

Table 3-16, OU1 Completed Engineered Cap Placement Areas
As authorized by the 2008 ROD Amendment, engineered cap placement was implemented, along with dredging and sand placement, as part of the overall remedy to achieve an OU1 area-wide SWAC of 0.25 ppm upon completion of the RA. The engineered cap areas consisted of a minimum of 3 inches of sand overlain with a minimum of 4 inches of armor stone with a 3-inch overplacement allowance for each layer of the engineered cap. Total placed engineered cap acreages, by sub-area, are summarized in Table 3-16.

Table 3-17, Quality Assurance Sand Layer of the Cap Thickness Verification Results Summary
Upon completion of placement of the sand layer of the engineered cap, QA sand thickness verification cores were collected to verify the sand thickness at a frequency of six to nine locations per acre. Each sub-area was dividend into smaller areas referred to as SCUs. As with the residual sand cover statistical approach, for an SCU to be considered complete, 11 of 11 or

17 of 18 (dependent on SCU acreage) sand thickness measurements needed to equal or exceed the minimum 3-inch requirement. Table 3-17 summarizes the thickness results by year in each SCU.

Table 3-18, Quality Assurance Armor Stone Thickness Verification Results Summary
Sediment traps were used to measure the thickness of applied armor stone at a density of approximately six to nine locations per acre. The sampling locations were consistent with the sample locations for the sand layer of the engineered cap. A similar statistical approach was utilized to determine when a CCU was deemed complete. Table 3-18 summarizes the individual CCU thickness results in each CCU by year.

Table 3-19, Summary of Upstream vs. Downstream Turbidity Readings During Sand and Armor Stone Placement Activities
Turbidity was measured in the river at three locations, one upstream (background) and two downstream of RA activities during sand and armor stone placement. Turbidity measurements were collected two to three times per week during operations. A summary of the data collected by year for each RA activity is provided in Table 3-19.

Table 3-20, Applied Cap Thickness Statistical Analysis in OU1 Cap Areas
Applied cap thickness was tracked closely throughout the placement each construction season. Tracking of the applied thickness evaluated if the appropriate thickness was being placed. The tracking was also used to improve on estimating the amount of materials that would be needed for the next placement year. At the conclusion of each year, statistics were applied to the thickness measurement data set and presented in the annual RA Summary Reports. The results of the statistical calculations for the applied cap thickness in OU1 engineered cap areas are provided in Table 3-20.

Table 3-21, Post-Cap Placement Water Depths in OU1 Areas
As stated previously in Section 3.2.1.1 of this Report, an area could not be selected for an engineered cap unless the area would have a post-placement water depth of 6.0 feet or greater compared to the low water datum of 736.23. Areas for engineered capping were selected based on PCB concentration and water depth criteria. At the end of each construction season, the post-cap water depth was evaluated to ensure that all requirements had been met. Statistical calculations of the post-placement water depth in the engineered cap areas for OU1 are provided in Table 3-21.

Table 3-22, Site Restoration Gravel Washing Laboratory Analytical Results
During site restoration activities, gravel from the sediment containment cell drainage layer was washed and laboratory analyzed for PCBs, arsenic, lead, and mercury. As indicated in Section 3.3.1, if laboratory analytical data indicated that the gravel material had undetectable levels of PCBs, then the gravel could be beneficially re-used. Table 3-22 summarizes the analytical data results.

Table 3-23, Site Restoration Soil Sampling Laboratory Analytical Results
During site restoration activities, the gravel drainage layer, PVC liner, and geosynthetic liner were removed from the sediment containment cell. Soil samples of the compacted clay layer were collected for PCB laboratory analysis to determine if any residual PCB contaminants had leaked through the liner system. Similarly, soil samples were collected from the restored truck decontamination area on WisDOT property to the north of the dewatering pad. Table 3-23 presents the results of this laboratory analysis.

Table 3-24, OU1 Remedial Action Project Coordination
Throughout the project history, individual/companies were assigned responsibilities in terms of project coordination. Table 3-24 summarizes responsible parties and their rolls throughout the history of the OU1 project.

4 Summary of RA Pre-Certification Inspection

A pre-certification inspection took place at the site on May 3, 2010. The inspection included a walk-through of the site with personnel from the USEPA, WDNR, Boldt Oversight Team, GW Partners, CH2M HILL, and Foth. At the time of the site inspection, all remedial activities had been completed, as had the demobilization of all equipment used for the remedial activities. In addition, the majority of staging area restoration activities had been completed prior to the inspection, with only the final grading on the southern area of the site and the seeding and planting activities to be completed. After the final inspection, the building that housed the WTP (along with all piping and equipment in the building) was taken down and removed from the property, and the site restoration activities discussed in Section 3.3.3 of this Report were completed.

5 Compliance with Performance Standards

As stated previously in this Report, the ROD Amendment established a RAL of 1.0 ppm PCBs for the cleanup effort in OU1. The ROD Amendment provided that the pre-remediation sampling and characterization efforts would define the spatial footprint of sediments containing PCB concentrations greater than 1.0 ppm. The sediments within the footprint then were required to be remediated, either through the primary remedy of dredging or, if the eligibility criteria were met, through engineered capping, sand covering, or modified remedial approaches in exceptional areas as approved by the Agencies. In the case of dredging, if post-dredge sampling showed that the 1.0 ppm PCB RAL was not achieved, the ROD Amendment required management of post-removal residuals. Further, if all sediment above the 1.0 ppm RAL was addressed through dredging and/or the alternate remedial approaches, the ROD Amendment provided that the RA will be deemed complete if the SWAC goal of 0.25 ppm PCB has been achieved, as determined by the Agencies. If the SWAC has not been achieved, then the ROD provides for either further dredging, capping, or the placement of sand cover over dredged areas.

5.1 RA Results in Relation to the RAL Performance Standard of 1.0 ppm PCB

OU1 was subdivided into sub-areas at the beginning of the project for a means of tracking RA progress. Each sub-area was divided further into individual DMUs. Brennan up-loaded the DMU's boundaries (shape files) into their GPS navigational equipment and dredged each DMU individually. As dredging of the individual DMU was completed, Brennan would notify Foth, which would then trigger performance of QA bathymetric surveys for determination of target elevation attainment. Once it was determined that target 1.0 ppm elevations had been attained in at least 95% of a DMU, post-dredge sediment sampling could be completed. Post-dredge sediment sampling was used to evaluate the effectiveness of dredging in individual DMUs, and the analytical results from this sampling were compared to the RAL performance standard.

Over the course of the project, approximately 2,422 post-dredge locations for OU1 from 2005 through 2008 were advanced to evaluate the RAL performance standard. Sediment cores were processed in a laboratory, which included logging the sediment characteristics and type and dividing the core into 4 or 6-inch intervals. The core intervals were homogenized and bagged in Ziploc® bags. The top interval of each core was sent to Pace Analytical Services, located in Green Bay, Wisconsin, for PCB analysis. The remaining intervals were frozen for possible future use. If results from the analysis came back from the laboratory less than or equal to 1.0 ppm, the location was determined to have met the RAL performance standard and no additional intervals were analyzed. If the result of the laboratory analysis was above 1.0 ppm, additional deeper intervals were analyzed progressively until a concentration of 1.0 ppm or less was achieved.

If the top interval of the post-dredge sediment core was analyzed as having a PCB concentration greater than 1.0 ppm, additional RA was evaluated for those locations. Additional RAs evaluated included re-dredging or sand placement.

Following issuance of the ROD Amendment, engineering caps and sand covers were placed in areas of the 1.0 ppm PCB footprint consistent with the eligibility criteria of the ROD Amendment, and as approved by the Agencies. Engineered caps were used only in areas where the top 8-inch interval was contaminated with PCBs at a concentration 2.0 ppm to 10.0 ppm. In addition, engineered caps were placed only where the post-placement water depth would be at least 6.0 feet below the low water datum of 736.23. Sand covers were used to cover generated dredge residuals laboratory analyzed as being below 5.0 ppm PCB concentration, undisturbed inventory (Remedy Sand Cover) with PCB concentrations below 2.0 ppm, and in areas considered exceptional areas as discussed in Section 3.2.3.

In the great majority of areas within the 1.0 PCB footprint, the 1.0 ppm PCB RAL was achieved through dredging, re-dredging, engineered capping and sand covers. In certain exceptional areas where the ROD Amendment standards for management of post-dredge residuals were not feasibly met, or where remedial work could not be feasibly undertaken, the Agencies approved use of modified remedial approaches (described further in Section 3.2.3). Due to these exceptional areas, which do not meet the RAL Performance Standard, the standard under which completion of the OU1 RA is being sought is the SWAC goal of 0.25 ppm PCB.

5.2 Remedial Measures to Achieve the SWAC Goal of 0.25 ppm PCB

Before the 2008 RA season began, GW Partners performed a review of the remaining undredged regions of OU1 to determine the combination of remedial approaches that would achieve the SWAC goal, taking into account the ROD Amendment's provisions on alternate remedial approaches and compliance with the ROD Amendment. Sediments having a concentration of 10.0 ppm or less were a trigger for implementing a possible alternate remedial approach of capping or sand covers. In general, alternate remedial approaches consistent with the ROD Amendment were taken under the following circumstances to remediate the 1.0 ppm footprint and also to achieve a SWAC goal of 0.25 ppm PCBs:

- As necessary to achieve the 0.25 ppm SWAC, placed a 6-inch thick minimum residual sand cover in select dredged and re-dredged areas with post-dredge residual PCBs less than 5.0 ppm and, as part of an approved modified remedial approach, in select areas within Sub-areas A and C with post-dredged and re-dredged residual PCBs greater than or equal to 5.0 ppm;

- Placed an average 3-inch thick sand cover in areas with an average PCB concentration between 1.0 ppm and 1.4 ppm in any 8-inch interval and where there is no other 8-inch interval with average PCB concentrations greater than 1.0 ppm;

- Placed an average 6-inch thick sand cover in areas with average PCB concentration between 1.4 and 2.0 ppm in any 8-inch interval and where there is no other 8-inch interval with average PCB concentrations greater than 1.0 ppm; and

- Placed a nominal 13-inch thick engineered cap in areas with an average PCB concentration between 2.0 and 10.0 ppm in the top 8-inch interval, no interval with PCB concentrations of 50 ppm or greater, and a post-cap water depth equal to or greater than 6.0 feet below the low water datum (736.23 mean sea level [msl]).

In addition to these alternate remedial approaches, several other areas within OU1 were identified as exceptional areas where alternate remedial approaches could be used instead of dredging. The following remedial approaches were identified for exceptional areas where a modified remedial approach was approved by the Agencies:

- Placed an average 6-inch thick sand cover in select undredged, near shore areas within sub-area A and in areas near utilities within Sub-areas C, D1, D2 South, E1, E3 South, and POG4 as part of a modified remedial approach; and

- Placed a 9-inch thick minimum sand cover in portions of Sub-area POG2 that were re-dredged during the 2008 RA activities as part of a modified remedial approach.

Implementation of these alternate remedial measures, along with the dredging performed during the 2004 through 2008 seasons, resulted in a post-remediation SWAC of 0.23 ppm (as determined by GW Partners' Engineer, Foth) which is below the OU1 SWAC goal. The SWAC calculation is explained in the next section.

5.3 Calculation of Final SWAC

OU1 PCB SWAC calculation procedures were proposed in the June 20, 2007 SWAC Estimation Procedure memorandum (Boldt Oversight Team, 2007), prepared by the Boldt Oversight Team, subsequently adjusted by the OU1 SWAC Work Sub-Group, and documented in the Foth OU1 SWAC White Paper in Appendix C of the *Lower Fox River Operable OU1, OU1 Design Supplement* (Foth and CH2M HILL, 2007) (hereinafter referred to as *Design Supplement).* A memorandum to GW Partners was written by Foth, on November 16, 2009, and was subsequently revised on June 15, 2010 (Foth, 2010), to present an updated OU1 SWAC estimate incorporating all sediment re-characterization data from winter 2008 and post-dredge data collected through 2008. A copy of the June 15, 2010 memorandum is included as Appendix E to this Report. The post-dredge data used in the revised SWAC estimate reflect all OU1 post-dredge sampling results, as dredging was completed during June 2008. The SWAC estimate also reflects actual implementation of covering and capping performed through the 2009 construction season. Therefore, this revised SWAC estimate reflects the final post-remedy SWAC calculation for OU1.

The methodology of the SWAC calculation herein follows that outlined in the June 15, 2010 memorandum. The SWAC estimation procedure uses a stratified approach, dividing the study area into discrete strata based on sediment and remedy characteristics.

The decision rule for demonstrating the achievement of the 0.25 ppm SWAC goal was established by the SWAC Work Sub-Group. The statistical parameter of interest is defined to be the SWAC estimate with the procedure as outlined in the June 15, 2010 Foth memorandum included in Appendix E. Achievement of the SWAC goal would be demonstrated with a SWAC of less than or equal 0.25 ppm. A Statistical confidence limit on the SWAC estimate, with calculation methods also given in the June 15, 2010 Foth memorandum, was identified as a method to quantify uncertainty. Lower and upper 95% confidence limits close to the SWAC estimate indicate relatively low estimation error.

Figures depicting the OU1 surface concentrations used in the final SWAC calculation are provided as Figures 1-26, 1-27, and 1-28A through 1-28H.

The area associated with each SWAC stratum, along with corresponding SWAC contribution values, PCB mass, and volumes, are given in Table 5-1. The SWAC contribution gives the weighted average PCB concentration in the top 6 inches of sediment for each category, further described in Appendix E. Also as described in Appendix E, the SWAC contribution for the sand cover strata is calculated by reducing the top 6-inch average concentration by a relative factor. Specifically, reduction factors of 5, 10, and 15 are respectively used for the 3-inch, 6-inch, and 9-inch sand cover categories. Constant (imputed) values are assumed for the SWAC contribution of the engineered cap, void, and null strata.

The PCB mass given in Table 5-1 represents mass estimates as given by post-dredge conditions in the top 6 inches of sediment, disregarding cap or sand cover overlay. Likewise, volume in Table 5-1 represents the associated sediment volume of the top 6-inch sediment layer excluding cap or sand cover. The thickness of sediment used to calculate sediment volume and associated PCB mass in Table 5-1 may be less than 6 inches in certain areas and is given by the depth of remaining soft sediment above hard pan.

The Table 5-1 PCB mass for each SWAC stratum is calculated as:

$$\sum_i V_i \cdot \left(\frac{C_i}{10^6} \right) \cdot \frac{62.4}{\left(1/G_s + 100/PS_i - 1 \right)}$$

where i is the number of sample cores within stratum; V_i is the sediment volume (in ft^3) associated with core i; C_i is the 6-inch concentration associated with core i used for the SWAC calculation (as further detailed in Appendix E); G_s is the specific gravity taken as 2.5; and PS_i is the percent solids associated with core i. The associated volume, V_i, is calculated as the Thiessen polygon area surrounding the sample core multiplied by the minimum of either 6 inches or the depth of remaining soft sediment at the core location.

Table 5-1

Area, Concentration, PCB Mass and Volume by SWAC Category

SWAC Stratum	Area (Ac)	SWAC Contribution[1] (ppm)	PCB Mass[2] (lbs)	Volume[3] (cy)
Engineered Cap	114	0.0065	55	92000
Completed Dredge Areas (Excluding Residual Sand Cover)	173	0.415	44	112000
Interdeposit	456	0.390	138	352000
Void (Sampled Areas with No Sediment Recovery)[4]	224	0.0168	0	0
Null (No Soft Sediment - Unsampled)	247	0	0	0
3-Inch Sand Cover Only	60	0.248	23	47000
6-Inch Sand Cover Only	46	0.152	21	36000
Residual Sand Cover (6-Inch)	32	0.360	46	18000
Residual Sand Cover (9-Inch)	4.5	0.541	20	3000
Pipeline/Artifact/Shoreline (No Action in Unsampled Areas)	6.9	3.68	14	5400
Artifact/Shoreline (No Action in Sampled Areas)	1.3	0.983	1	900

1. SWAC contribution represents weighted PCB average of stratum with calculations detailed in Appendix E.
2. PCB mass represents mass estimated in top 6 inches of sediment (excluding cap and sand cover). In areas where less than 6 inches of sediment exists, PCB mass estimates correspond to existing sediment thicknesses.
3. Volume corresponds to existing sediment volume to a depth of 6 inches, excluding cap and sand cover.
4. While the SWAC concentration for this stratum is taken as 0.0168 ppm, no mass or sediment volume is assumed due to no soft-sediment recovery.

Prepared by: SGL
Checked by: GRE

In summary, using the SWAC calculation procedures described above and in Appendix E, the PCB data collected after dredging and the post-implementation measurement of the alternate RA areas, Foth calculates a post-remediation OU1 SWAC of 0.23 ppm PCB. Since the SWAC estimate is below 0.25 ppm, SWAC objective goals have been achieved. A 95% confidence interval on the SWAC estimate, calculated using procedures in Appendix E, is 0.22 ppm to 0.24 ppm. This very tight confidence interval implies a high degree of SWAC estimation accuracy.

6 Future Monitoring and Maintenance

Future monitoring and maintenance is an integrated deliverable of both the RD and RA as required by Section III.C.2., of the Amended SOW (Appendix I to the Amended CD for RD and RA at the OU1 site, which is outlined in the *Pre-Final Design and Draft Remedial Action Work Plan for Post-2009 Response Work Draft* (CH2M HILL and Foth, 2010) *(Work Plan)*. The *Lower Fox River Operable Unit 1, Long-term Monitoring Plan Draft (LTMP), Lower Fox River Operable Unit 1, Cap Monitoring and Maintenance Plan Draft (CCMP),* and the *Lower Fox River Operable Unit 1, Institutional Control Implementation and Assurance Plan Draft (ICIAP)* are included as appendices of the above referenced *Work Plan* and are intended to independently satisfy their respective requirements for the RD document preparation set forth in the AOC No. V-W-03-C-745 and accompanying Scope of Work. These plans are still under development and will be finalized as part of the final *Work Plan* submittal.

The *LTMP* has been developed to present a program for monitoring the post-remediation recovery of surface water and biota in OU1. Long-term monitoring will be performed to assess progress toward achieving the RAOs specified in the ROD.

The *CMMP* has been developed for OU1 describing post-placement cap monitoring activities that will be performed to ensure the cap retains its physical integrity and protectiveness over time. This *CMMP* also outlines contingency response actions that will be implemented if the engineered cap is found to be eroded or otherwise damaged.

The *ICIAP* has been developed for OU1 to present a plan to protect the integrity of the remedy by preventing interference with the engineered caps and reducing potential exposure for areas where residual contamination remains.

7 Project Costs

An annual summary of RA project costs is shown in Table 7-1. Costs are shown in the year in which the main activity was conducted (e.g., all disposal costs for dewatered sediment dredged in 2006 are shown as 2006 costs, even if a portion of the sediments dredged in 2006 were transported to the landfill in 2007). Design costs and long-term response costs are not included in the annual RA cost breakdown, but are included in the response cost breakdown by category that follows Table 7-1. Costs for the 2010 RA are estimated because all invoicing has not been received and paid as of the date of this Report.

Table 7-1

Remedial Action Cost per Year

Year	RA Cost
2004	$ 13,056,049
2005	$ 16,084,767
2006	$ 15,596,275
2007	$ 19,375,627
2008	$ 18,976,527
2009	$ 5,169,358
2010	$ 745,000
Total 2004 - 2010	$89,003,603

Prepared by: GW Partners
Checked by: GW Partners

The costs for all response actions performed, and to be performed in OU1, pursuant to the Amended CD are shown in Table 7-2. The costs presented in Table 7-2 include RD costs, RA costs, and Long-term Response Action costs. All RD and RA costs shown in Table 7-2 have already been incurred and paid except for the post-2010 RA Closeout costs (meaning miscellaneous costs incurred after October 2010 to attain Certification of Completion of the RA). The other remaining OU1 costs are post-2010 Long-term Fish and Water Monitoring costs and post-2010 Engineered Cap Monitoring and Maintenance costs. The post-2010 Long-term Fish and Water Monitoring costs assume 7 events, not including 2010 (2010 is year 0). Each annual event is estimated at $349,000 and assumes water and fish are sampled each event. The post-2010 Engineered Cap Monitoring and Maintenance costs include $1,660,000 for cap maintenance (replacement of 5% of the cap) in 2013 and $70,000 per cap monitoring event (assuming 7 events). A 10% allowance was included for all post-2010 costs to account for GW Partners management and A/OT oversight costs. The total post-2010 costs shown in Table 7-2 are presented as present values using a 4% discount rate.

Table 7-2

OU1 Response Action Costs by Category

Remedial Design Costs	
Design costs paid by OU1 Escrow Account	$2,000,000
Design cost paid directly by WTM I Company	$1,820,014
Total Remedial Design Costs	$3,820,014
Remedial Action Costs	
Upland Infrastructure - incl. purchase of staging area properties	$14,273,016
Dredging	$15,326,923
Dredging - TSCA	$176,867
Dewatering	$6,510,826
Water Treatment	$3,846,925
Loading & Transportation (non-TSCA)	$4,345,492
Disposal (non-TSCA)	$13,383,609
Loading & Transportation & Disposal (TSCA)	$632,818
QA Verification - Dredge	$4,790,573
Cap Sand (material & delivery)	$1,642,613
Cap Sand (placement)	$2,775,983
Stone (material & delivery)	$1,733,472
Stone (placement)	$3,341,080
QA Verification - Cap	$498,425
Sand cover (material & delivery)	$2,372,757
Sand cover (placement)	$4,193,219
QA Verification - Sand Cover	$450,969
Site Restoration	$1,087,629
Alternative Engineering Analyses	$1,274,723
Taxes, Insurance & Miscellaneous Charges	$1,309,588
Communications	$442,075
Project Management & Agency Oversight	$4,490,449
Post-10/2010 RA Closeout Costs	$103,572
Total Remedial Action Costs	$89,003,603
Long-term Response Costs	
Fish & Water Monitoring (estimated through 2010)	$349,000
Engineered Cap Monitoring & Maintenance (estimated through 2010)	$70,000
Post-2010 Fish & Water Monitoring (estimated)	$1,353,000
Post-2010 Engineered Cap Monitoring & Maintenance (estimated)	$1,894,000
Total Long-term Response Costs	$3,666,000
Total OU1 Costs	$96,489,617

For ease of review, the Response to Agency Comments for this *Certification of Completion Report* has been included as Appendix F.

8 References

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Tables

Figures

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Photo Log

Appendix B

Post-Dredge PCB Data

Appendix C

Sand Thickness Verification Results

Appendix D

Armor Stone Thickness Verification Results

Appendix E

OU1 Final Post Remedy SWAC Estimate

Appendix F

Response to Agencies/Boldt Oversight Team Comments for the Lower Fox River Operable Unit 1 Remedial Action Certificate of Completion Report Draft

Appendix A

Photo Log

Photo Log

Photograph 1: The dredge, *Fox River.*
Photograph 2: The Vic Vac attachment.
Photograph 3: Turbidity raft 902.
Photograph 4: Dewatering geotextile tubes on dewatering pad.
Photograph 5: Dewatering sediment coring.
Photograph 6: Dewatered sediment load-out.
Photograph 7: Air monitoring station.
Photograph 8: The hydrographic survey boat.
Photograph 9: Post-dredge coring with RTK GPS in foreground.
Photograph 10: Post-dredge sampling.
Photograph 11: Post-dredge core field preparation.
Photograph 12: J.F. Brennan's sand/armor stone spreader in operation.
Photograph 13: Logging a sand thickness verification sample with the VPC.
Photograph 14: Quality assurance armor stone sediment trap.
Photograph 15: Loading dewatering pad stone into the washing operations.
Photograph 16: Stockpile of washed dewatering pad stone.
Photograph 17: Quality assurance monitoring of washed dewatering pad stone.

Photographic Log

Client's Name:	Site Location:	Project No.
GW Partners, LLC	Lower Fox River OU1	08G007

Photo No. 1	Date:

Direction Photo Taken:
Northeast

Photo Taken By:

Description:
The dredge, *Fox River*

Photo No. 2	Date:

Direction Photo Taken:
East

Photo Taken By:

Description:
The Vic Vac attachment

Photographic Log

Client's Name:	Site Location:	Project No.
GW Partners, LLC	Lower Fox River OU1	08G007

Photo No. 3	Date:

Direction Photo Taken:
Southwest

Photo Taken By:

Description:
Turbidity raft 902

Photo No. 4	Date:

Direction Photo Taken:
East

Photo Taken By:

Description:
Dewatering geotextile tubes on dewatering pad

Photographic Log

Client's Name:	Site Location:	Project No.
GW Partners, LLC	Lower Fox River OU1	08G007

Photo No. 5	Date:

Direction Photo Taken:
Southeast

Photo Taken By:

Description:
Dewatered sediment coring

Photo No. 6	Date:

Direction Photo Taken:
Southeast

Photo Taken By:

Description:
Dewatered sediment load-out

Photographic Log

Client's Name:	Site Location:	Project No.
GW Partners, LLC	Lower Fox River OU1	08G007

Photo No. 7	Date:

Direction Photo Taken:
Southeast

Photo Taken By:

Description:
Air monitoring station

Photo No. 8	Date:

Direction Photo Taken:
Southwest

Photo Taken By:

Description:
The hydrographic survey boat

Photographic Log

Client's Name:	Site Location:	Project No.
GW Partners, LLC	Lower Fox River OU1	08G007

Photo No. 9	Date:

Direction Photo Taken:
North

Photo Taken By:

Description:
Post-dredge coring with RTK GPS in foreground

Photo No. 10	Date:

Direction Photo Taken:

Photo Taken By:

Description:
Post-dredge sampling

Photographic Log

Client's Name:	Site Location:	Project No.
GW Partners, LLC	Lower Fox River OU1	08G007

Photo No. 11	Date:
Direction Photo Taken: South	
Photo Taken By:	
Description: Post-dredge core field preparation	

Photo No. 12	Date:
Direction Photo Taken:	
Photo Taken By:	
Description: J.F. Brennan's sand/ armor stone spreader in operation	

Photographic Log

Client's Name:	Site Location:	Project No.
GW Partners, LLC	Lower Fox River OU1	08G007

Photo No. 13	Date:

Direction Photo Taken:
Northeast

Photo Taken By:

Description:
Logging a sand thickness verification sample with the VPC

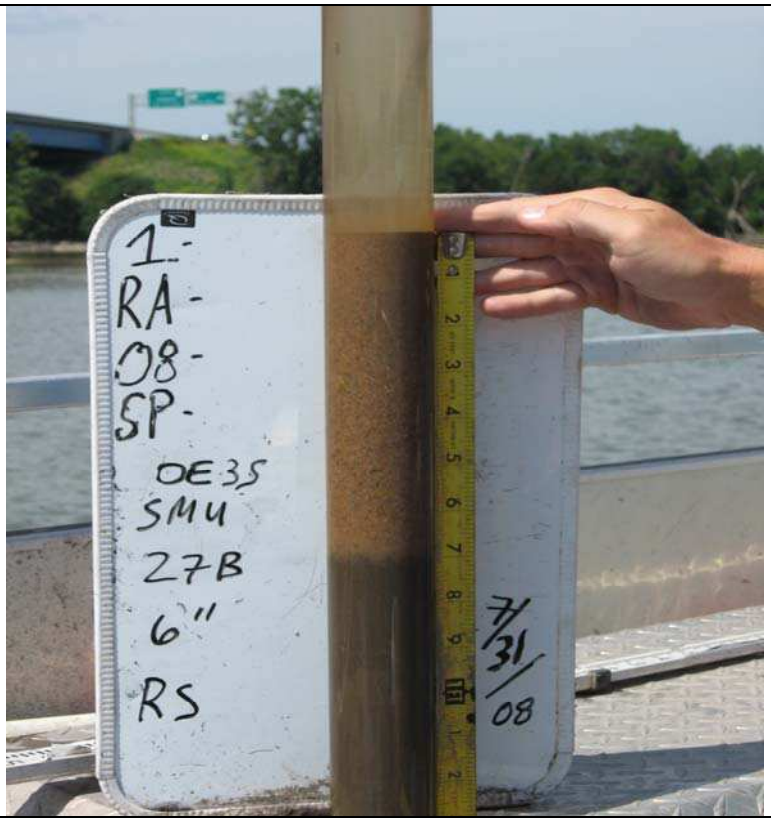

Photo No. 14	Date:

Direction Photo Taken:

Photo Taken By:

Description:
Quality assurance armor stone sediment trap

Photographic Log

Client's Name:	Site Location:	Project No.
GW Partners, LLC	Lower Fox River OU1	08G007

Photo No. 15	Date:
Direction Photo Taken: Southeast	
Photo Taken By:	
Description: Loading dewatering pad stone into the washing operations	

Photo No. 16	Date:
Direction Photo Taken: North	
Photo Taken By:	
Description: Stockpile of washed dewatering pad stone	

Photographic Log

Client's Name:	Site Location:	Project No.
GW Partners, LLC	Lower Fox River OU1	08G007

Photo No. 17	Date:
Direction Photo Taken:	
Photo Taken By:	
Description: Quality assurance monitoring of washed dewatering pad stone	

Table B-1

Lower Fox River - OU1 (Sub-area A)
2005 Actual Post-Dredge Sediment Sampling Core Locations
Percent Solids and PCB Results

ID	Sample ID	Sample Type (P/S/NSS)	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	PCB Results (ppb)	PCB Results (ppm)
2P	No Recovery	P/NSS	11/22/2005	804676	2369244	19A	NV	16.8	0.0168
3P	1-RA-05-000A-PS-3P	P	11/29/2005	804779	2369301	19A	63.6	130	0.13
4P	1-RA-05-000A-PS-4P	P	11/29/2005	804696	2369350	19A	79.1	390	0.39
7P	No Recovery	P/NSS	11/22/2005	804522	2369195	19A	NV	16.8	0.0168
8P	No Recovery	P/NSS	11/29/2005	804524	2369336	19A	NV	16.8	0.0168
9P	No Recovery	P/NSS	11/29/2005	804615	2369347	19A	NV	16.8	0.0168
10P	No Recovery	P/NSS	10/31/2005	804317	2369205	17A	NV	16.8	0.0168
11P	1-RA-05-000A-PS-11P	P	11/22/2005	804389	2369264	19A	70.2	370	0.37
12P	No Recovery	P/NSS	11/18/2005	804279	2369350	17A	NV	16.8	0.0168
13P	1-RA-05-000A-PS-13P	P	10/31/2005	804070	2369153	17A	71.1	750	0.75
13P	1-RA-05-000A-PS-13P Dup	P/DUP	10/31/2005	804070	2369153	17A	77.4	1000	1
14P	No Recovery	P/NSS	10/31/2005	804229	2369243	17A	NV	16.8	0.0168
15P	No Recovery	P/NSS	10/31/2005	804129	2369248	17A	NV	16.8	0.0168
16P	1-RA-05-000A-PS-16P	P	10/28/2005	804185	2369415	15A	41.2	4700	4.7
17P	1-RA-05-000A-PS-17P	P	10/28/2005	804139	2369470	15A	68.0	54	0.054
18P	No Recovery	P/NSS	10/31/2005	804019	2369144	17A	NV	16.8	0.0168
19P	1-RA-05-000A-PS-19P	P	11/1/2005	803913	2369260	17A	45.1	2600	2.6
20P	1-RA-05-000A-PS-20P	P	11/1/2005	803982	2369300	17A	37.5	5400	5.4
21P	1-RA-05-000A-PS-21P	P	11/18/2005	803921	2369374	17A	59.8	730	0.73
22P	1-RA-05-000A-PS-22P	P	10/28/2005	803930	2369519	15A	58.5	980	0.98
23P	1-RA-05-000A-PS-23P	P	10/28/2005	803927	2369612	15A	72.7	66	0.066
24P	No Recovery	P/NSS	11/22/2005	803682	2369132	18A	NV	16.8	0.0168
25P	1-RA-05-000A-PS-25P	P	11/14/2005	803823	2369126	18A	35.7	710	0.71
26P	1-RA-05-000A-PS-26P	P	11/14/2005	803700	2369301	18A	55.6	87	0.087
27P	1-RA-05-000A-PS-27P	P	10/31/2005	803782	2369417	15A	69.0	340	0.34
28P	1-RA-05-000A-PS-28P	P	10/31/2005	803788	2369531	15A	71.0	750	0.75
29P	No Recovery	P/NSS	11/31/2005	803830	2369582	15A	NV	16.8	0.0168
31P	1-RA-05-000A-PS-31P	P	11/17/2005	803470	2369049	16A	43.0	3200	3.2
31P	1-RA-05-000A-PS-31P Dup	P/DUP	11/17/2005	803470	2369049	16A	44.8	1600	1.6
32P	1-RA-05-000A-PS-32P	P	11/22/2005	803598	2369073	18A	37.2	2200	2.2
33P	1-RA-05-000A-PS-33P	P	11/17/2005	803471	2369118	16A	26.5	5500	5.5
34P	1-RA-05-000A-PS-34P	P	11/21/2005	803573	2369267	18A	68.8	430	0.43
35P	1-RA-05-000A-PS-35P	P	11/14/2005	803509	2369389	18A	66.3	1900	1.9
40P	1-RA-05-000A-PS-40P	P	11/17/2005	803388	2369011	16A	24.2	6200	6.2
41P	1-RA-05-000A-PS-41P	P	11/17/2005	803317	2369099	16A	21.8	1700	1.7
42P	1-RA-05-000A-PS-42P	P	11/17/2005	803418	2369197	16A	23.6	9400	9.4
43P	1-RA-05-000A-PS-43P	P	11/17/2003	803322	2369303	16A	70.2	410	0.41
44P	1-RA-05-000A-PS-44P	P	11/7/2005	803369	2369393	16A	72.0	440	0.44
45P	1-RA-05-000A-PS-45P	P	11/7/2005	803317	2369472	16A	63.0	220	0.22
49P	1-RA-05-000A-PS-49P	P	11/10/2005	803086	2368815	10A	22.4	14000	14
50P	1-RA-05-000A-PS-50P	P	11/10/2005	803211	2368900	10A	56.5	6700	6.7
51P	1-RA-05-000A-PS-51P	P	11/10/2005	803149	2369001	10A	21.4	2600	2.6
52P	1-RA-05-000A-PS-52P	P	11/10/2005	803132	2369094	10A	24.0	7900	7.9
53P	1-RA-05-000A-PS-53P	P	11/10/2005	803120	2369185	10A	48.7	880	0.88
53P	1-RA-05-000A-PS-53P Dup	P/DUP	11/10/2005	803120	2369185	10A	52.2	430	0.43
54P	1-RA-05-000A-PS-54P	P	11/21/2005	803163	2369359	14A	58.4	3000	3
55P	1-RA-05-000A-PS-55P	P	11/21/2005	803121	2369416	14A	59.3	310	0.31
56P	1-RA-05-000A-PS-56P	P	11/21/2005	803226	2369485	14A	65.7	180	0.18
57P	1-RA-05-000A-PS-57P	P	11/11/2005	802875	2368699	10A	38.3	6600	6.6
58P	1-RA-05-000A-PS-58P	P	11/11/2005	802949	2368682	10A	51.1	1000	1
59P	1-RA-05-000A-PS-59P	P	11/10/2005	802918	2368896	10A	25.4	690	0.69
60P	1-RA-05-000A-PS-60P	P	11/10/2005	803023	2368935	10A	60.4	57	0.057
61P	1-RA-05-000A-PS-61P	P	11/10/2005	802915	2369005	10A	58.3	160	0.16
62P	1-RA-05-000A-PS-62P	P	11/21/2005	802915	2369211	14A	58.0	710	0.71
62P	1-RA-05-000A-PS-62P Dup	P/DUP	11/21/2005	802915	2369211	14A	56.0	540	0.54
63P	1-RA-05-000A-PS-63P	P	11/21/2005	802948	2369241	14A	64.0	790	0.79
64P	1-RA-05-000A-PS-64P	P	11/1/2005	802987	2369388	14A	73.1	230	0.23
65P	1-RA-05-000A-PS-65P	P	11/1/2005	802922	2369490	14A	68.4	140	0.14
66P	1-RA-05-000A-PS-66P	P	11/11/2005	802841	2368698	10A	27.7	6800	6.8
66P	1-RA-05-000A-PS-66P Dup	P/DUP	11/11/2005	802841	2368698	10A	27.7	5400	5.4
67P	1-RA-05-000A-PS-67P	P	9/27/2005	802736	2368742	7A	25.0	10000	10
68P	1-RA-05-000A-PS-68P	P	11/11/2005	802787	2368841	10A	30.4	1700	1.7
69P	1-RA-05-000A-PS-69P	P	10/14/2005	802722	2368955	9A	35.0	2700	2.7
70P	1-RA-05-000A-PS-70P	P	11/11/2005	802819	2369027	10A	47.0	1500	1.5
71P	1-RA-05-000A-PS-71P	P	10/20/2005	802745	2369172	11A	57.6	530	0.53
72P	1-RA-05-000A-PS-72P	P	10/20/2005	802752	2369334	11A	65.6	1900	1.9
73P	1-RA-05-000A-PS-73P	P	10/21/2005	802693	2369389	13A	61.0	22000	22
74P	1-RA-05-000A-PS-74P	P	11/1/2005	802799	2369475	14A	78.7	350	0.35
75P	1-RA-05-000A-PS-75P	P	9/15/2005	802674	2369723	8A	70.5	110	0.11
76P	No Recovery	P/NSS	8/17/2005	802744	2369831	3A	NV	16.8	0.0168
77P	No Recovery	P/NSS	8/17/2005	802692	2369836	3A	NV	16.8	0.0168
78P	1-RA-05-000A-PS-78P	P	9/27/2005	802470	2368709	7A	64.8	460	0.46

ID	Sample ID	Sample Type (P/S/NSS)	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	PCB Results (ppb)	PCB Results (ppm)
79P	1-RA-05-000A-PS-79P	P	9/27/2005	802641	2368718	7A	22.5	9000	9
80P	1-RA-05-000A-PS-80P	P	9/27/2005	802473	2368918	7A	21.5	4800	4.8
81P	1-RA-05-000A-PS-81P	P	10/14/2005	802591	2368957	9A	20.0	13000	13
82P	1-RA-05-000A-PS-82P	P	8/17/2005	802500	2369054	2A	28.0	1400	1.4
83P	1-RA-05-000A-PS-83P	P	10/20/2005	802578	2369231	11A	60.1	3200	3.2
83P	1-RA-05-000A-PS-83P Dup	P/DUP	10/20/2005	802578	2369231	11A	60.6	4300	4.3
88P	1-RA-05-000A-PS-88P	P	8/17/2005	802524	2369761	3A	65.0	130	0.13
89P	1-RA-05-000A-PS-89P	P	8/17/2005	802610	2369831	3A	87.0	53	0.053
91P	1-RA-05-000A-PS-91P	P	9/27/2005	802319	2368757	7A	46.0	2700	2.7
92P	1-RA-05-000A-PS-92P	P	9/27/2005	802389	2368842	7A	20.4	5400	5.4
93P	1-RA-05-000A-PS-93P	P	8/31/2005	802310	2369003	6A	23.0	4100	4.1
94P	1-RA-05-000A-PS-94P	P	8/17/2005	802449	2369053	2A	62.0	53	0.053
95P	1-RA-05-000A-PS-95P	P	8/8/2005	802346	2369240	4A	33.4	33000	33
96P	1-RA-05-000A-PS-96P	P	10/20/2005	802352	2369271	11A	58.4	820	0.82
97P	1-RA-05-000A-PS-97P	P	10/21/2005	802293	2369453	13A	58.9	13000	13
98P	1-RA-05-000A-PS-98P	P	10/21/2005	802377	2369515	13A	78.6	1100	1.1
99P	1-RA-05-000A-PS-99P	P	9/15/2005	802350	2369603	8A	73.4	1300	1.3
99P	1-RA-05-000A-PS-99P dup	P/DUP	9/15/2005	802350	2369603	8A	72.4	1900	1.9
100P	No Recovery	P/NSS	8/18/2005	802422	2369711	3A	NV	16.8	0.0168
101P	No Recovery	P/NSS	11/29/2005	802240	2368834	7A	NV	16.8	0.0168
102P	1-RA-05-000A-PS-102P	P	9/28/2005	802092	2368887	7A	23.9	5600	5.6
103P	No Recovery	P/NSS	9/28/2005	802205	2368887	7A	NV	16.8	0.0168
104P	1-RA-05-000A-PS-104P	P	8/31/2005	802111	2368999	6A	21.0	4800	4.8
105P	1-RA-05-000A-PS-105P	P	8/17/2005	802145	2369141	2A	19.0	15000	15
106P	1-RA-05-000A-PS-106P	P	10/14/2005	802091	2369346	12A	26.0	6500	6.5
107P	1-RA-05-000A-PS-107P	P	10/21/2005	802163	2369440	13A	69.9	1400	1.4
107P	1-RA-05-000A-PS-107P Dup	P/DUP	10/21/2005	802163	2369440	13A	71.4	780	0.78
108P	1-RA-05-000A-PS-108P	P	10/24/2005	802123	2369532	13A	29.0	7600	7.6
109P	No Recovery	P/NSS	10/24/2005	802178	2369590	13A	NV	16.8	0.0168
110P	1-RA-05-000A-PS-110P	P	9/15/2005	802094	2369688	8A	79.3	4000	4
111P	1-RA-05-000A-PS-111P	P	11/15/2005	802006	2368833	20A	25.0	300	0.3
112P	1-RA-05-000A-PS-112P	P	11/15/2005	801938	2368887	20A	29.4	960	0.96
113P	1-RA-05-000A-PS-113P	P	11/15/2005	801949	2369023	20A	59.1	76	0.076
114P	1-RA-05-000A-PS-114P	P	11/15/2005	801999	2369199	20A	63.8	96	0.096
115P	1-RA-05-000A-PS-115P	P	11/14/2005	802017	2369300	20A	60.1	1300	1.3
116P	1-RA-05-000A-PS-116P	P	11/14/2005	802028	2369415	20A	32.4	24000	24
117P	1-RA-05-000A-PS-117P	P	11/14/2005	802015	2369446	20A	32.8	12000	12
118P	No Recovery	P/NSS	11/15/2005	802027	2369660	20A	NV	16.8	0.0168
119P	No Recovery	P/NSS	11/15/2005	802040	2369711	20A	NV	16.8	0.0168
3comp	1-RA-05-000A-PS-3(C)comp	C	11/29/2005	804768	2369273	19A	47.0	250	0.25
4comp	1-RA-05-000A-PS-4(B)comp	C	12/1/2005	804682	2369358	19A	71.8	290	0.29
9comp	1-RA-05-000A-PS-9(A)comp	C	12/1/2005	804592	2369348	19A	74.6	700	0.7
10comp	1-RA-05-000A-PS-10(B,C)comp	C	11/28/2005	804316	2369186	17A	70.4	2500	2.5
11comp	1-RA-05-000A-PS-11(C)comp	C	11/28/2005	804411	2369312	19A	59.1	980	0.98
15comp	1-RA-05-000A-PS-15(A-D)comp	C	11/23/2005	804117	2369301	17A	54.2	1600	1.6
16comp	1-RA-05-000A-PS-16(C,D)comp	C	11/23/2005	804183	2369416	15A	58.8	660	0.66
17comp	1-RA-05-000A-PS-17(A-D)comp	C	10/31/2005	804117	2369531	15A	65.6	1200	1.2
19comp	1-RA-05-000A-PS-19(B,C,D)comp	C	11/16/2005	803918	2369186	17A	76.5	710	0.71
20comp	1-RA-05-000A-PS-20(A)comp	C	11/23/2005	803984	2369301	17A	25.9	6700	6.7
21comp	1-RA-05-000A-PS-21(A,C,D)comp	C	11/23/2005	803918	2369416	15A	65.2	750	0.75
22comp	1-RA-05-000A-PS-22(A-D)comp	C	10/31/2005	803985	2369531	15A	72.6	430	0.43
23comp	1-RA-05-000A-PS-23(A,B)comp	C	11/21/2005	803918	2369646	15A	76.3	250	0.25
24comp	1-RA-05-000A-PS-24(B)comp	S	11/14/2005	803710	2369111	18A	13.0	14000	14
25comp	1-RA-05-000A-PS-25(A,B)comp	C	11/21/2005	803785	2369186	18A	42.2	5000	5
26comp	1-RA-05-000A-PS-26(A,C,D)comp	C	11/23/2005	803719	2369301	18A	67.7	570	0.57
27comp	1-RA-05-000A-PS-27(B,C)comp	C	11/16/2005	803785	2369416	15A	73.6	410	0.41
28comp	1-RA-05-000A-PS-28(A)comp	C	11/28/2005	803719	2369531	ECR	70.9	910	0.91
29comp	1-RA-05-000A-PS-29(A)comp	C	11/28/2005	803785	2369646	ECR	75.0	200	0.2
31comp	1-RA-05-000A-PS-31(A)comp	C	11/22/2005	803470	2369039	16A	31.0	620	0.62
32comp	1-RA-05-000A-PS-32(A,B,C)comp	C	11/28/2005	803536	2369071	18A	56.6	3400	3.4
33comp	1-RA-05-000A-PS-33(B,C,D)comp	C	11/28/2005	803519	2369186	18A	68.2	550	0.55
34comp	1-RA-05-000A-PS-34(D)comp	C	11/28/2005	803536	2369301	18A	53.9	1400	1.4
35comp	1-RA-05-000A-PS-35(A,B,C)comp	C	11/21/2005	803519	2369416	18A	66.8	6100	6.1
40comp	1-RA-05-000A-PS-40(A,B)comp	C	11/22/2005	803418	2369026	16A	27.4	28000	28
41comp	1-RA-05-000A-PS-41(A-D)comp	C	11/23/2005	803320	2369071	16A	24.8	1800	1.8
42comp	1-RA-05-000A-PS-42(A,C,D)comp	C	11/23/2005	803387	2369186	16A	31.7	1200	1.2
43comp	1-RA-05-000A-PS-43(A,B,C)comp	C	11/23/2005	803320	2369301	16A	60.1	530	0.53
43comp	1-RA-05-000A-PS-43(A,B,C)comp dup	C/DUP	11/23/2005	803320	2369301	16A	59.7	640	0.64
44comp	1-RA-05-000A-PS-44(A-D)comp	C	11/8/2005	803387	2369416	16A	69.0	350	0.35
45comp	1-RA-05-000A-PS-45(A-D)comp	C	11/8/2005	803321	2369531	16A	70.0	990	0.99
49comp	1-RA-05-000A-PS-49(A,B)comp	C	11/21/2005	803088	2368766	10A	42.3	8700	8.7
50comp	1-RA-05-000A-PS-50(A,C)comp	C	11/23/2005	803150	2368859	10A	35.6	5300	5.3
51comp	1-RA-05-000A-PS-51(A-D)comp	C	11/11/2005	803121	2368956	10A	29.1	2700	2.7
52comp	1-RA-05-000A-PS-52(A-D)comp	C	11/23/2005	803187	2369071	10A	36.6	950	0.95
53comp	1-RA-05-000A-PS-53(A-D)comp	C	11/23/2005	803121	2369186	10A	52.8	770	0.77
54comp	1-RA-05-000A-PS-54(A-D)comp	C	11/23/2005	803187	2369301	14A	64.3	770	0.77
55comp	1-RA-05-000A-PS-55(A-D)comp	C	11/23/2005	803121	2369416	14A	65.7	290	0.29
56comp	1-RA-05-000A-PS-56(A,C,D)comp	C	11/23/2005	803187	2369531	14A	73.0	190	0.19
57comp	1-RA-05-000A-PS-57(A,B)comp	C	11/21/2005	802893	2368669	10A	43.3	4900	4.9
58comp	1-RA-05-000A-PS-58(A-D)comp	C	11/16/2005	802988	2368726	10A	42.7	6400	6.4

ID	Sample ID	Sample Type (P/S/NSS)	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	PCB Results (ppb)	PCB Results (ppm)
59comp	1-RA-05-000A-PS-59(A-D)comp	C	11/16/2005	802922	2368841	10A	29.5	2100	2.1
60comp	1-RA-05-000A-PS-60(A-D)comp	C	11/16/2005	802988	2368956	10A	44.3	280	0.28
61comp	1-RA-05-000A-PS-61(A-D)comp	C	11/16/2005	802922	2369071	1A	55.3	390	0.39
62comp	1-RA-05-000A-PS-62(A-D)comp	C	11/23/2005	802988	2369186	10A	67.1	470	0.47
63comp	1-RA-05-000A-PS-63(A-D)comp	C	11/23/2005	802922	2369301	14A	67.0	1400	1.4
64comp	1-RA-05-000A-PS-64(A-D)comp	C	11/23/2005	802988	2369416	14A	65.3	380	0.38
67comp	1-RA-05-000A-PS-67(A-D)comp	C	9/30/2005	802723	2368726	7A	31.0	11000	11
68comp	1-RA-05-000A-PS-68(A-D)comp	C	11/16/2005	802789	2368841	10A	33.9	1900	1.9
68comp	1-RA-05-000A-PS-68(A-D)comp dup	C/DUP	11/16/2005	802789	2368841	10A	35.8	1300	1.3
69comp	1-RA-05-000A-PS-69(A-D)comp	C	11/16/2005	802723	2368956	9A	42.3	1100	1.1
70comp	1-RA-05-000A-PS-70(A-D)comp	C	11/16/2005	802789	2369071	10A	48.7	540	0.54
71comp	1-RA-05-000A-PS-71(A-D)comp	C	10/21/2005	802723	2369186	11A	57.2	580	0.58
71comp	1-RA-05-000A-PS-71(A-D)comp dup	C/DUP	10/21/2005	802723	2369186	11A	58.0	620	0.62
72comp	1-RA-05-000A-PS-72(A,B,C)comp	C	11/23/2005	802789	2369301	14A	66.7	800	0.8
73comp	1-RA-05-000A-PS-73(A-D)comp	C	11/2/2005	802723	2369416	13A	70.8	350	0.35
73comp	1-RA-05-000A-PS-73(A-D)comp dup	C/DUP	11/2/2005	802723	2369416	13A	68.4	470	0.47
74comp	1-RA-05-000A-PS-74(A,B)comp	C	11/21/2005	802784	2369480	14A	74.7	210	0.21
76comp	1-RA-05-000A-PS-76(A)comp	C	8/17/2005	804710	2369749	3A	75.0	210	0.21
78comp	1-RA-05-000A-PS-78(B)comp	C	11/21/2005	802490	2368691	7A	44.2	1100	1.1
79comp	1-RA-05-000A-PS-79(A-D)comp	C	9/30/2005	802590	2368726	7A	48.4	1000	1
79comp	1-RA-05-000A-PS-79(A-D)comp dup	C/DUP	9/30/2005	802590	2368726	7A	47.6	720	0.72
80comp	1-RA-05-000A-PS-80(A-D)comp	C	9/30/2005	802523	2368841	7A	26.0	6500	6.5
81comp	1-RA-05-000A-PS-81(A-D)comp	C	10/14/2005	802590	2368956	9A	29.0	2200	2.2
82comp	1-RA-05-000A-PS-82(A-D)comp	C	10/24/2005	802524	2369071	2A	37.1	3100	3.1
83comp	1-RA-05-000A-PS-83(A-D)comp	C	10/24/2005	802590	2369186	11A	45.3	2200	2.2
84comp	1-RA-05-000A-PS-84(A-D)comp	C	10/24/2005	802524	2369301	11A	58.3	1500	1.5
85comp	1-RA-05-000A-PS-85(A-D)comp	C	10/25/2005	802590	2369416	13A	67.0	1700	1.7
86comp	1-RA-05-000A-PS-86(A-D)comp	C	10/25/2005	802524	2369531	13A	83.0	160	0.16
86comp	1-RA-05-000A-PS-86(A-D)comp dup	C/DUP	10/25/2005	802524	2369531	13A	84.0	2800	2.8
87comp	1-RA-05-000A-PS-87(A,C)comp	C	11/16/2005	802590	2369646	8A	76.2	1100	1.1
88comp	1-RA-05-000A-PS-88(A-D)comp	C	10/21/2005	802524	2369761	3A	65.6	82	0.082
89comp	1-RA-05-000A-PS-89(A)comp	C	8/17/2005	802651.95	2369809	3A	78.0	110	0.11
91comp	1-RA-05-000A-PS-91(A,C)comp	C	12/1/2005	802340	2368759	7A	67.8	7600	7.6
91comp	1-RA-05-000A-PS-91(A,C)comp dup	C/DUP	12/1/2005	802340	2368759	7A	60.2	3700	3.7
92comp	1-RA-05-000A-PS-92(A-D)comp	C	9/30/2005	802391	2368841	7A	39.9	3500	3.5
93comp	1-RA-05-000A-PS-93(A-D)comp	C	9/30/2005	802325	2368956	7A	30.7	7000	7
94comp	1-RA-05-000A-PS-94(A-D)comp	C	9/12/2005	802391	2369067	2A	27.0	7600	7.6
95comp	1-RA-05-000A-PS-95(A-D)comp	C	10/24/2005	802325	2369186	11A	30.1	22000	22
96comp	1-RA-05-000A-PS-96(A-D)comp	C	10/21/2005	802391	2369301	4A	61.6	2700	2.7
97comp	1-RA-05-000A-PS-97(A-D)comp	C	10/26/2005	802325	2369416	13A	67.0	180	0.18
98comp	1-RA-05-000A-PS-98(A-D)comp	C	10/26/2005	802391	2369531	13A	79.0	2800	2.8
99comp	1-RA-05-000A-PS-99(A-D)comp	C	11/2/2005	802325	2369646	8A	72.5	5800	5.8
100comp	1-RA-05-000A-PS-100(A-D)comp	C	10/21/2005	802391	2369761	3A	72.7	110	0.11
101comp	1-RA-05-000A-PS-101(A)comp	C	11/29/2005	802223	2368783	7A	69.7	1200	1.2
102comp	1-RA-05-000A-PS-102(A-D)comp	C	11/21/2005	802125	2368841	7A	50.1	2400	2.4
103comp	1-RA-05-000A-PS-103(A-D)comp	C	9/30/2005	802192	2368956	7A	23.9	4300	4.3
104comp	1-RA-05-000A-PS-104(A-D)comp	C	9/12/2005	802126	2369071	6A	36.0	6900	6.9
105comp	1-RA-05-000A-PS-105(A-D)comp	C	10/21/2005	802192	2369186	12A	40.8	13000	13
106comp	1-RA-05-000A-PS-106(A-D)comp	C	10/26/2005	802126	2369301	12A	50.0	33000	33
107comp	1-RA-05-000A-PS-107(A-D)comp	C	10/26/2005	802192	2369416	13A	64.0	3900	3.9
108comp	1-RA-05-000A-PS-108(A-D)comp	C	10/25/2005	802126	2369531	13A	69.0	2900	2.9
109comp	1-RA-05-000A-PS-109(C,D)comp	C	9/16/2005	802192	2369646	8A	52.4	4700	4.7
110comp	1-RA-05-000A-PS-110(C)comp	C	8/17/2005	802133	2369778	3A	73.0	7700	7.7
111comp	1-RA-05-000A-PS-111(A-D)comp	C	11/16/2005	801992	2368841	20A	36.1	2100	2.1
112comp	1-RA-05-000A-PS-112(A-C)comp	C	11/16/2005	801926	2368956	20A	49.4	860	0.86
113comp	1-RA-05-000A-PS-113(A-D)comp	C	11/21/2005	801992	2369071	20A	51.3	3300	3.3
114comp	1-RA-05-000A-PS-114(A,B)comp	C	11/16/2005	801996	2369183	20A	54.2	4100	4.1
115comp	1-RA-05-000A-PS-115(A,B)comp	C	11/21/2005	802018	2369296	20A	64.0	420	0.42
116comp	1-RA-05-000A-PS-116(A)comp	C	11/21/2005	802023	2369417	20A	57.8	19000	19
117comp	1-RA-05-000A-PS-117(A,B,C)comp	C	11/21/2005	802032	2369529	20A	58.9	17000	17
117comp	1-RA-05-000A-PS-117(A,B,C)comp dup	C/DUP	11/21/2005	802032	2369529	20A	64.8	8100	8.1
119comp	1-RA-05-000A-PS-119(A)comp	C	11/21/2005	802038	2369726	20A	62.5	2800	2.8

NV = No Value

Sample Type Notes:
P = Primary
S = Secondary
C = Composite
DUP = Duplicates
NSS = No Soft Sediment

SPS = State Plane South
DMU = Dredge Management Unit
ppb = parts per billion
ppm = parts per million

Composite Samples Collection Date is the day the sample was sent to the Lab. Composite Samples Locations are the centroid of the sampling grid triangle.

Data from the *2005 RA Summary Report,* Appendix E, Table E-1.

Prepared by: TMK1
Checked by: SVF

Table B-2
Lower Fox River - OU1 (Sub-area C/D2S)
2005 Actual Post-Dredge Sediment Sampling Core Locations
Percent Solids and PCB Results

ID	Sample ID	Sample Type (P/S/NSS)	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	PCB Results (ppb)	PCB Results (ppm)
1P	1-RA-05-000C-PS-1P	P	11/24/2005	805637	2369208	1C	43.6	730	0.73
1P	1-RA-05-000A-PS-1PDup	P/DUP	11/24/2005	805637	2369208	1C	43.1	700	0.7
2P	1-RA-05-000C-PS-2P	P	11/24/2005	805577	2369094	1C	54.5	710	0.71
2P	1-RA-05-000D2S-PS-2P	P	11/30/2005	805918	2369245	2D2S	28.1	72	0.072
2P	1-RA-05-000D2S-PS-2P dup	P/DUP	11/30/2005	805577	2369094	2D2S	27.6	100	0.1
3P	1-RA-05-000C-PS-3P	P	11/24/2005	805642	2368977	1C	22.7	2700	2.7
4P	1-RA-05-000C-PS-4P	P	12/1/2005	805623	2368862	3C	36.4	610	0.61
5P	1-RA-05-000C-PS-5P	P	12/1/2005	805643	2368748	3C	55.9	440	0.44
6P	1-RA-05-000C-PS-6P	P	12/1/2005	805672	2368632	3C	32.7	1700	1.7
7P	1-RA-05-000C-PS-7P	P	11/30/2005	805752	2369152	2C	51.2	330	0.33
8P	1-RA-05-000C-PS-8P	P	11/30/2005	805843	2369103	2C	43.1	610	0.61
9P	1-RA-05-000C-PS-9P	P	11/30/2005	805778	2368978	2C	28.8	1600	1.6
10P	1-RA-05-000C-PS-10P	P	12/1/2005	805841	2368865	4C	22.8	1000	1
11P	1-RA-05-000C-PS-11P	P	12/20/2005	805779	2368748	5C	30.6	1300	1.3
11P	1-RA-05-000C-PS-11P dup	P/DUP	12/20/2005	805779	2368748	5C	31.0	1300	1.3
12P	1-RA-05-000C-PS-12P	P	12/20/2005	805847	2368626	5C	27.7	2500	2.5
13P	1-RA-05-000C-PS-13P	P	12/20/2005	805802	2368563	5C	51.1	380	0.38
14P	1-RA-05-000C-PS-14P	P	12/21/2005	805972	2369053	6C	50.7	59	0.059
14P	1-RA-05-000C-PS-14P dup	P/DUP	12/21/2005	805972	2369053	6C	51.2	70	0.07
15P	1-RA-05-000C-PS-15P	P	12/21/2005	806044	2368963	6C	25.7	870	0.87
16P	1-RA-05-000C-PS-16P	P	12/21/2005	805978	2368863	7C	25.4	150	0.15
17P	1-RA-05-000C-PS-17P	P	12/21/2005	806039	2368754	7C	33.7	200	0.2
18P	1-RA-05-000C-PS-18P	P	12/20/2005	806054	2368649	8C	26.7	690	0.69
19P	1-RA-05-000C-PS-19P	P	12/21/2005	806177	2368978	6C	20.2	3000	3
20P	1-RA-05-000C-PS-20P	P	12/20/2005	806233	2368865	9C	29.2	2500	2.5
21P	1-RA-05-000C-PS-21P	P	12/20/2005	806177	2368748	10C	18.4	2700	2.7
22P	1-RA-05-000C-PS-22P	P	12/20/2005	806248	2368632	10C	49.2	660	0.66
25P	1-RA-05-000C-PS-25P	P	12/20/2005	806353	2368833	9C	40.8	1700	1.7
26P	1-RA-05-000C-PS-26P	P	12/20/2005	806435	2368755	9C	25.8	2900	2.9
27P	1-RA-05-000C-PS-27P	P	12/20/2005	806364	2368640	10C	55.7	90	0.09
1comp	1-RA-05-000C-PS-1(A-C)comp	C	12/2/2005	805639	2369188	1C	53.3	350	0.35
2comp	1-RA-05-000C-PS-2(A-D)comp	C	12/2/2005	805585	2369092	1C	46.5	750	0.75
2comp	1-RA-05-000C-PS-2(A-D)comp dup	C/DUP	12/2/2005	805585	2369092	1C	56.7	680	0.68
2comp	1-RA-05-000D2S-PS-2(A-C)comp	C	12/1/2005	805888	2369216	2D2S	23.0	3100	3.1
2comp	1-RA-05-000D2S-PS-2(A-C)comp dup	C/DUP	12/1/2005	805888	2369216	2D2S	23.6	3400	3.4
3comp	1-RA-05-000C-PS-3(A-D)comp	C	12/5/2005	805652	2368981	1C, 3C	24.2	2300	2.3
4comp	1-RA-05-000C-PS-4(A-D)comp	C	12/5/2005	805604	2368863	3C	50.9	610	0.61
5comp	1-RA-05-000C-PS-5(A-D)comp	C	12/5/2005	805655	2368750	3C	48.4	390	0.39
6comp	1-RA-05-000C-PS-6(A)comp	C	12/5/2005	805671	2368627	3C	42.2	3000	3
7comp	1-RA-05-000C-PS-7(A,B)comp	C	12/2/2005	805763	2369170	2C	35.8	690	0.69
8comp	1-RA-05-000C-PS-8(A-D)comp	C	12/2/2005	805845	2369090	2C	28.8	1200	1.2
9comp	1-RA-05-000C-PS-9(A-D)comp	C	12/5/2005	805794	2368978	2C, 4C	39.4	580	0.58
10comp	1-RA-05-000C-PS-10(A-D)comp	C	12/5/2005	805845	2368865	4C	24.4	740	0.74
11comp	1-RA-05-000C-PS-11(A-D)comp	C	12/21/2005	805789	2368748	4C, 5C	33.8	940	0.94
11comp	1-RA-05-000C-PS-11(A-D)comp dup	C/DUP	12/21/2005	805789	2368748	4C, 5C	33.5	1100	1.1
12comp	1-RA-05-000C-PS-12(A-D)comp	C	12/22/2005	805840	2368627	5C	48.2	250	0.25
13comp	1-RA-05-000C-PS-13(A,B)comp	C	12/21/2005	805789	2368563	5C	45.2	610	0.61
14comp	1-RA-05-000C-PS-14(A,B,C)comp	C	12/22/2005	805980	2369080	6C	22.5	1000	1
15comp	1-RA-05-000C-PS-15(A-D)comp	C	12/22/2005	806036	2368983	6C, 7C	37.6	280	0.28
16comp	1-RA-05-000C-PS-16(A-D)comp	C	12/22/2005	805993	2368860	7C	28.3	480	0.48
16comp	1-RA-05-000C-PS-16(A-D)comp dup	C/DUP	12/22/2005	805993	2368860	7C	28.1	440	0.44
17comp	1-RA-05-000C-PS-17(A-D)comp	C	12/22/2005	806039	2368745	7C, 8C	25.5	1900	1.9
18comp	1-RA-05-000C-PS-18(A-D)comp	C	12/21/2005	805982	2368627	8C	31.0	1400	1.4
19comp	1-RA-05-000C-PS-19(A-D)comp	C	12/22/2005	806169	2368989	6C	29.8	1300	1.3
20comp	1-RA-05-000C-PS-20(A-D)comp	C	12/22/2005	806236	2368860	7C, 9C	37.4	1200	1.2
21comp	1-RA-05-000C-PS-21(A-D)comp	C	12/22/2005	806185	2368748	7C, 8C, 9C, 10C	30.7	2200	2.2
22comp	1-RA-05-000C-PS-22(A-D)comp	C	12/21/2005	806239	2368641	10C	41.2	2800	2.8
25comp	1-RA-05-000C-PS-25(A,B)comp	C	12/21/2005	806354	2368836	9C	66.4	1100	1.1
26comp	1-RA-05-000C-PS-26(A,B,C)comp	C	12/21/2005	806424	2368742	9C, 10C	34.0	800	0.8
27comp	1-RA-05-000C-PS-27(A-D)comp	C	12/21/2005	806370	2368651	10C	48.3	480	0.48

NV = No Value

Sample Type Notes:
P = Primary
S = Secondary
C = Composite
DUP = Duplicates
NSS = No Soft Sediment

SPS = State Plane South
DMU = Dredge Management Unit
ppb = parts per billion
ppm = parts per million

Composite Samples Collection Date is the day the sample was sent to the lab.
Data from the *2005 RA Summary Report,* Appendix E, Table E-2

Prepared by: TMK1
Checked by: SVF

Table B-3
Lower Fox River - OU1 (Sub-area POG1)
2005 Actual Post-Dredge Sediment Sampling Core Locations
Percent Solids and PCB Results

ID	Sample ID	Sample Type (P/S/NSS)	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	PCB Results (ppb)	PCB Results (ppm)
1P	No Recovery	NSS	12/13/2005	806663	2371763	POG-1	NV	16.8	0.0168
2P	1-RA-05-000POG1-PS-2P	P	12/13/2005	806627	2371851	POG-1	30.4	230	0.23
3P	1-RA-05-000POG1-PS-3P	P	12/13/2005	806670	2371981	POG-1	20.0	1200	1.2
4P	1-RA-05-000POG1-PS-4P	P	11/23/2005	806605	2372040	POG-1	56.4	420	0.42
5P	1-RA-05-000POG1-PS-5P	P	12/15/2005	806519	2371231	POG-1	32.9	4500	4.5
6P	1-RA-05-000POG1-PS-6P	P	12/15/2005	806445	2371282	POG-1	16.4	1400	1.4
7P	No Recovery	NSS	12/15/2005	806453	2371372	POG-1	NV	16.8	0.0168
8P	1-RA-05-000POG1-PS-8P	P	12/15/2005	806431	2371508	POG-1	16.4	41000	41
9P	No Recovery	NSS	12/15/2005	806479	2371651	POG-1	NV	16.8	0.0168
10P	No Recovery	NSS	12/15/2005	806447	2371742	POG-1	NV	16.8	0.0168
11P	1-RA-05-000POG1-PS-11P	P	12/16/2005	806528	2371865	POG-1	29.5	3800	3.8
12P	1-RA-05-000POG1-PS-12P	P	12/13/2005	806436	2371969	POG-1	44.9	510	0.51
12P	1-RA-05-000POG1-PS-12P dup	P/DUP	12/13/2005	806436	2371969	POG-1	48.7	240	0.24
13P	1-RA-05-000POG1-PS-13P	P	11/23/2005	806541	2372019	POG-1	15.2	1700	1.7
14P	No Recovery	NSS	12/15/2005	806360	2371350	POG-1	NV	16.8	0.0168
15P	1-RA-05-000POG1-PS-15P	P	12/19/2005	806273	2371441	POG-1	49.7	11000	11
16P	1-RA-05-000POG1-PS-16P	P	12/19/2005	806336	2371565	POG-1	18.3	2700	2.7
17P	1-RA-05-000POG1-PS-17P	P	12/16/2005	806294	2371646	POG-1	41.8	550	0.55
18P	1-RA-05-000POG1-PS-18P	P	12/16/2005	806323	2371797	POG-1	39.8	440	0.44
18P	1-RA-05-000POG1-PS-18P dup	P/DUP	12/16/2005	806323	2371797	POG-1	44.1	300	0.3
19P	1-RA-05-000POG1-PS-19P	P	12/16/2005	806246	2371857	POG-1	24.4	30	0.03
20P	1-RA-05-000POG1-PS-20P	P	12/13/2005	806320	2371940	POG-1	42.3	150	0.15
21P	1-RA-05-000POG1-PS-21P	P	12/16/2005	806150	2371671	POG-1	27.8	1200	1.2
22P	1-RA-05-000POG1-PS-22P	P	12/16/2005	806079	2371761	POG-1	35.3	340	0.34
23P	1-RA-05-000POG1-PS-23P	P	12/16/2005	806119	2371841	POG-1	17.3	<27	<0.027
1comp	1-RA-05-000POG1-PS-1(A)comp	C	12/14/2005	806662	2371762	POG-1	26.3	910	0.91
2comp	1-RA-05-000POG1-PS-2(D)comp	C	12/20/2005	806636	2371859	POG-1	30.0	2100	2.1
3comp	1-RA-05-000POG1-PS-3(A,B)comp	C	12/14/2005	806661	2371971	POG-1	34.1	280	0.28
3comp	1-RA-05-000POG1-PS-3(A,B)comp dup	C/DUP	12/14/2005	806661	2371971	POG-1	30.4	320	0.32
4comp	1-RA-05-000POG1-PS-4(A,B)comp	C	12/19/2005	806615	2372028	POG-1	19.8	1100	1.1
5comp	No Recovery	NSS	12/15/2005	806532	2371230	POG-1	NV	16.8	0.0168
6comp	1-RA-05-000POG1-PS-6(B,C,D)comp	C	12/19/2005	806446	2371286	POG-1	23.9	12000	12
7comp	1-RA-05-000POG1-PS-7(D)comp	C	12/19/2005	806497	2371393	POG-1	21.3	4400	4.4
8comp	1-RA-05-000POG1-PS-8(B,C,D)comp	C	12/19/2005	806433	2371512	POG-1	18.6	12000	12
9comp	1-RA-05-000POG1-PS-9(C)comp	C	12/20/2005	806488	2371643	POG-1	34.6	730	0.73
10comp	1-RA-05-000POG1-PS-10(B,D)comp	C	12/19/2005	806452	2371743	POG-1	35.9	740	0.74
11comp	1-RA-05-000POG1-PS-11(B,D)comp	C	12/19/2005	806510	2371857	POG-1	27.1	6000	6
12comp	1-RA-05-000POG1-PS-12(B,C,D)comp	C	12/19/2005	806461	2371979	POG-1	30.3	4000	4
12comp	1-RA-05-000POG1-PS-12(B,C,D)comp dup	C/DUP	12/19/2005	806461	2371979	POG-1	33.6	800	0.8
13comp	1-RA-05-000POG1-PS-13(A,B)comp	C	12/19/2005	806531	2372026	POG-1	14.1	450	0.45
14comp	1-RA-05-000POG1-PS-14(A)comp	C	12/20/2005	806351	2371342	POG-1	29.4	15000	15
15comp	1-RA-05-000POG1-PS-15(A,B)comp	C	12/20/2005	806321	2371404	POG-1	39.3	23000	23
15comp	1-RA-05-000POG1-PS-15(A,B)comp dup	C/DUP	12/20/2005	806321	2371404	POG-1	44.1	9400	9.4
16comp	1-RA-05-000POG1-PS-16(B,D)comp	C	12/20/2005	806322	2371512	POG-1	25.4	1300	1.3
17comp	1-RA-05-000POG1-PS-17(A-D)comp	C	12/20/2005	806258	2371631	POG-1	26.3	7400	7.4
18comp	1-RA-05-000POG1-PS-18(A,D)comp	C	12/20/2005	806316	2371739	POG-1	29.0	680	0.68
19comp	1-RA-05-000POG1-PS-19(A,B,D)comp	C	12/20/2005	806256	2371859	POG-1	53.6	120	0.12
20comp	1-RA-05-000POG1-PS-20(A,C)comp	C	12/14/2005	806338	2371950	POG-1	46.4	95	0.095
21comp	1-RA-05-000POG1-PS-21(A,B)comp	C	12/20/2005	806143	2371664	POG-1	26.2	25000	25
22comp	1-RA-05-000POG1-PS-22(A,B,C)comp	C	12/19/2005	806106	2371745	POG-1	40.9	110	0.11
23comp	1-RA-05-000POG1-PS-23(A-D)comp	C	12/19/2005	806126	2371847	POG-1	38.8	96	0.096

NV = No Value

Sample Type Notes:
P = Primary
S = Secondary
C = Composite
DUP = Duplicates
NSS = No Soft Sediment

SPS = State Plane South
DMU = Dredge Management Unit
ppb = parts per billion
ppm = parts per million

Composite Samples Collection Date is the day the sample was sent to the lab.
Data from the *2005 RA Summary Report,* Appendix E, Table E-3

Prepared by: TMK1
Checked by: SVF

Table B-4
Lower Fox River - OU1
Summary of 2006 Post-Dredge Sediment Sampling Results

ID	Sample ID	Sample Type (P/S/NSS)	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	PCB Results (ppb)	PCB Results (ppm)	Comments
CD2S-North Primary Samples										
1P	1-RA-06-0D2S-PS-1P (0-4)	P	5/23/2006	805954	2369415	3D2S	54.0	600	0.6	
1P Dup	1-RA-06-0D2S-PS-1P (0-4) (DUP)	P/DUP	5/23/2006	805954	2369415	3D2S	54.4	530	0.53	
3P	No Recovery	P/NSS	5/23/2006	806091	2369483	3D2S	NA	16.8	0.0168	
4P	No Recovery	P/NSS	5/24/2006	806195	2369382	4D2S	NA	16.8	0.0168	
5P	1-RA-06-0D2S-PS-5P (0-4)	P	5/23/2006	806058	2369307	3D2S	18.3	2900	2.9	
5P	1-RA-06-0D2S-PS-5P (4-8)	P	5/23/2006	806058	2369307	3D2S	24.6	1800	1.8	
5P	1-RA-06-0D2S-PS-5P(8-12)	P	5/23/2006	806058	2369307	3D2S	29.4	67	0.067	
6P	1-RA-06-0D2S-PS-6P (0-4)	P	5/24/2006	806289	2369103	5D2S	18.9	900	0.9	
7P	1-RA-06-0D2S-PS-7P (0-4)	P	5/24/2006	806369	2369346	6D2S	22.7	360	0.36	
8P	1-RA-06-0D2S-PS-8P (0-4)	P	5/24/2006	806443	2369207	6D2S	19.2	1100	1.1	
8P	1-RA-06-0D2S-PS-8P (4-8)	P	5/25/2006	806443	2369207	6D2S	24.0	120	0.12	
9P	1-RA-06-0D2S-PS-9P (0-4)	P	6/8/2006	806657	2369301	7D2S	32.4	1100	1.1	
23P	1-RA-06-000C-PS-23P (0-4)	P	6/8/2006	806394	2369074	11C	24.2	1100	1.1	
23P	1-RA-06-000C-PS-23P (4-8)	P	6/8/2006	806394	2369074	11C	43.9	480	0.48	
24P	1-RA-06-000C-PS-24P (0-4)	P	6/8/2006	806443	2368975	11C	21.6	6600	6.6	
24P	1-RA-06-000C-PS-24P (4-8)	P	6/8/2006	806443	2368975	11C	41.7	980	0.98	
28P	1-RA-06-000C-PS-28P (0-4)	P	6/9/2006	806649	2369219	13C	37.4	680	0.68	
29P	1-RA-06-000C-PS-29P (0-4)	P	6/9/2006	806632	2369094	13C	47.0	900	0.9	
30P	1-RA-06-000C-PS-30P (0-4)	P	6/8/2006	806576	2368956	12C	28.6	1400	1.4	
30P Dup	1-RA-06-000C-PS-30P (0-4) (DUP)	P/DUP	6/8/2006	806576	2368956	12C	35.8	960	0.96	
30P	1-RA-06-000C-PS-30P (4-8)	P	6/8/2006	806576	2368956	12C	49.1	280	0.28	
30P Dup	1-RA-06-000C-PS-30P (4-8) (DUP)	P/DUP	6/8/2006	806576	2368956	12C	50.4	330	0.33	
31P	1-RA-06-000C-PS-31P (0-4)	P	6/9/2006	806657	2368868	14C	49.8	4200	4.2	
32P	1-RA-06-000C-PS-32P (0-4)	P	6/9/2006	806742	2369204	13C	49.2	660	0.66	
33P	1-RA-06-000C-PS-33P (0-4)	P	6/9/2006	806737	2369024	14C	55.0	330	0.33	
CD2S-North Composite Secondary Samples										
1BC	1-RA-06-0D2S-PS-1BC (0-4)	S	6/2/2006	805971	2369412	3D2S	37.7	800	0.8	
3A	1-RA-06-0D2S-PS-3A (0-4)	S	5/25/2006	806068	2369471	4D2S	74.3	<27	<0.027	
4ABC	1-RA-06-0D2S-PS-4ABC (0-4)	S	5/25/2006	806175	2369407	4D2S/5D2S	50.2	230	0.23	
4ABC Dup	1-RA-06-0D2S-PS-4ABC (0-4) (DUP)	S/DUP	5/25/2006	806175	2369407	4D2S/5D2S	39.7	420	0.42	
5A-D	1-RA-06-0D2S-PS-5A-D (0-4)	S	6/2/2006	806135	2369262	4D2S/5D2S	23.2	1900	1.9	
5ACD	1-RA-06-0D2S-PS-5ACD (4-8)	S	6/21/2006	806135	2369262	4D2S/5D2S	23.0	1200	1.2	
6AB	1-RA-06-0D2S-PS-6AB (0-4)	S	5/25/2006	806318	2369139	5D2S	17.8	1000	1	
7ABC	1-RA-06-0D2S-PS-7ABC (0-4)	S	6/12/2006	806423	2369340	7D2S	46.5	64	0.064	
8ABC	1-RA-06-0D2S-PS-8ABC (0-4)	S	6/12/2006	806449	2369224	7D2S	20.2	1100	1.1	
8ABC	1-RA-06-0D2S-PS-8ABC (4-8)	S	6/30/2006	806449	2369224	7D2S	24.8	300	0.3	
8ABC Dup	1-RA-06-0D2S-PS-8ABC (4-8) (DUP)	S/DUP	6/30/2006	806449	2369224	7D2S	24.3	330	0.33	
9AB	1-RA-06-0D2S-PS-9AB (0-4)	S	6/9/2006	806667	2369310	7D2S	42.2	470	0.47	
23A-D Dup	1-RA-06-000C-PS-23A-D (0-4) (DUP)-RE	S/DUP	6/9/2006	806400	2369092	11C/12C	21.9	1000	1	
23A-D	1-RA-06-000C-PS-23A-D (0-4)	S	6/9/2006	806400	2369092	11C/12C	21.9	1600	1.6	
23A-D	1-RA-06-000C-PS-23A-D (4-8)	S	6/30/2006	806400	2369092	11C/12C	27.8	1200	1.2	
23A-D Dup	1-RA-06-000C-PS-23A-D (4-8) (DUP)	S/DUP	6/30/2006	806400	2369092	11C/12C	28.1	1000	1	
23ABC	1-RA-06-000C-PS-23ABC (8-12)	S	7/19/2006	806400	2369092	11C/12C	48.4	54	0.054	
24A-D	1-RA-06-000C-PS-24A-D (0-4)	S	6/12/2006	806451	2368990	11C/12C	40.6	960	0.96	
28A-D	1-RA-06-000C-PS-28A-D (0-4)	S	6/12/2006	806607	2369182	12C/13C	37.3	670	0.67	
29A-D	1-RA-06-000C-PS-29A-D (0-4)	S	6/13/2006	806664	2369092	12C/13C/14C	59.8	390	0.39	
30A-D	1-RA-06-000C-PS-30A-D (0-4)	S	6/13/2006	806586	2368978	12C/14C	35.8	3000	3	
30BCD	1-RA-06-000C-PS-30BCD (4-8)	S	6/30/2006	806557	2368979	12C/14C	40.6	810	0.81	
31A-D	1-RA-06-000C-PS-31A-D (0-4)	S	6/13/2006	806628	2368867	12C/14C	33.2	3100	3.1	
31ABD	1-RA-06-000C-PS-31AB (4-8) 31D (4-7 1/4)	S	6/30/2006	806628	2368867	12C/14C	43.2	27000	27	
31A	1-RA-06-000C-PS-31A (8-12)	S	6/9/2006	806628	2368867	14C	63.5	14000	14	
32A	1-RA-06-000C-PS-32A (0-4)	S	6/14/2006	806758	2369148	13C	75.2	130	0.13	
33B	1-RA-06-000C-PS-33B (0-4)	S	6/14/2006	806720	2369017	13C	76.4	110	0.11	

ID	Sample ID	Sample Type (P/S/NSS)	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	PCB Results (ppb)	PCB Results (ppm)	Comments
E1-South Primary Samples										
1P	1-RA-06-00E1-PS-1P(0-4)	P	11/9/2006	810430	2371680	E1	22	1100	1.1	
1P	1-RA-06-00E1-PS-1P(4-8)	P	11/9/2006	810430	2371680	E1	64.6	43	0.043	
2P	1-RA-06-00E1-PS-2P(0-4)	P	11/9/2006	810424	2371740	E1	21.6	2200	2.2	
2P	1-RA-06-00E1-PS-2P(4-8)	P	11/9/2006	810424	2371740	E1	23.4	600	0.6	
E1-South Secondary Samples										
1ABC	1-RA-06-00E1-PS-1ABC(0-4	S	11/10/2006	810412	2371661	E1	37.9	740	0.74	
2ABC	1-RA-06-00E1-PS-2ABC(0-4	S	11/10/2006	810408	2371790	E1	18.6	790	0.79	
POG2 Primary Samples										
1P	1-RA-06-POG2-PS-1P(0-4)	P	10/12/2006	806760	2372180	1POG2	71.9	110	0.11	
2P	1-RA-06-POG2-PS-2P(0-4)	P	10/23/2006	806895	2372114	1POG2	23.6	13000	13	
2P	1-RA-06-POG2-PS-2P(4-8)	P	10/12/2006	806895	2372114	1POG2	29.0	4100	4.1	
2P	1-RA-06-POG2-PS-2P(8-11½)	P	10/12/2006	806895	2372114	1POG2	33.3	2700	2.7	
3P	1-RA-06-POG2-PS-3P(0-4)	P	10/16/2006	807237	2372158	3POG2	29.2	420	0.42	
4P	1-RA-06-POG2-PS-4P(0-4)	P	10/16/2006	807431	2372079	4POG2	18.7	1900	1.9	
4P	1-RA-06-POG2-PS-4P(4-8)	P	10/16/2006	807431	2372079	4POG2	31.3	1300	1.3	
4P	1-RA-06-POG2-PS-4P(8-12)	P	10/16/2006	807431	2372079	4POG2	26.8	1900	1.9	
5P	1-RA-06-POG2-PS-5P(0-4)	P	9/29/2006	807616	2372074	4POG2	18.1	4100	4.1	
5P	1-RA-06-POG2-PS-5P(4-8)	P	9/29/2006	807616	2372074	4POG2	24.7	6800	6.8	
5P	1-RA-06-POG2-PS-5P(8-11¾)	P	9/25/2006	807616	2372074	4POG2	29.8	3800	3.8	
6P	1-RA-06-POG2-PS-6P(0-4)	P	10/16/2006	807833	2372087	5POG2	25.4	1900	1.9	
6P	1-RA-06-POG2-PS-6P(4-8)	P	10/16/2006	807833	2372087	5POG2	31.3	710	0.71	
7P	1-RA-06-POG2-PS-7P(0-4)	P	10/16/2006	808030	2371968	5POG2	23.7	7100	7.1	
7P	1-RA-06-POG2-PS-7P(4-7)	P	10/16/2006	808030	2371968	5POG2	30.5	5500	5.5	
8P	1-RA-06-POG2-PS-8P(0-4)	P	11/6/2006	808234	2371994	6POG2	19.4	22000	22	
8P	1-RA-06-POG2-PS-8P(4-8)	P	11/6/2006	808234	2371994	6POG2	29.6	13000	13	
8P	1-RA-06-POG2-PS-8P(8-12)	P	11/6/2006	808234	2371994	6POG2	55.8	1800	1.8	
9P	1-RA-06-POG2-PS-9P(0-4)	P	11/6/2006	808639	2371948	7POG2	25.2	73000	73	
9P	1-RA-06-POG2-PS-9P(4-8)	P	11/6/2006	808639	2371948	7POG2	51.5	1300	1.3	
9P Dup	1-RA-06-POG2-PS-9P(4-8)(Dup)	P/DUP	11/6/2006	808639	2371948	7POG2	53.2	4300	4.3	
9P RD	1-RA-06-POG2-PSRD-9P(0-4)	P	11/17/2006	808638	2371949	7POG2	47.9	2700	2.7	
10P	1-RA-06-POG2-PS-10P(0-4)	P	11/14/2006	808765	2371925	8POG2	22.7	8200	8.2	
10P	1-RA-06-POG2-PS-10P(4-8)	P	11/14/2006	808765	2371925	8POG2	36.4	2000	2	
10P	1-RA-06-POG2-PS-10P(8-11½)	P	11/14/2006	808765	2371925	8POG2	51.1	190	0.19	
11P	1-RA-06-POG2-PS-11P(0-4)	P	11/15/2006	809026	2371855	9POG2	26.4	620	0.62	
12P	1-RA-06-POG2-PS-12P(0-4)	P	11/16/2006	809211	2371939	9POG2	25.2	1900	1.9	
12P	1-RA-06-POG2-PS-12P(4-8)	P	11/16/2006	809211	2371939	9POG2	29.5	2500	2.5	
13P	1-RA-06-POG2-PS-13P(0-4)	P	11/15/2006	809427	2371856	10POG2	24.7	3800	3.8	
13P	1-RA-06-POG2-PS-13P(4-8)	P	11/15/2006	809427	2371856	10POG2	33.6	650	0.65	
14P	1-RA-06-POG2-PS-14P(0-4)	P	11/14/2006	810025	2371747	11POG2	19.7	3700	3.7	
14P	1-RA-06-POG2-PS-14P(4-8)	P	11/14/2006	810025	2371747	11POG2	22.0	6400	6.4	
14P	1-RA-06-POG2-PS-14P(8-12)	P	11/14/2006	810025	2371747	11POG2	24.0	40	0.04	
15P	1-RA-06-POG2-PS-15P(0-4)	P	11/6/2006	810210	2371730	12POG2	20.4	490	0.49	
16P	1-RA-06-POG2-PS-16P(0-4)	P	11/6/2006	810222	2371858	12POG2	19.2	1300	1.3	
16P	1-RA-06-POG2-PS-16P(4-8)	P	11/6/2006	810222	2371858	12POG2	33.6	2200	2.2	
16P	1-RA-06-POG2-PS-16P(8-11½)	P	11/6/2006	810222	2371858	12POG2	26.0	200	0.2	
POG2 Composite Secondary Samples										
1AD	1-RA-06-POG2-PS-1A(0-3½)1D(0-3)	S	10/12/2006	806747	2372179	1POG2	49.7	210	0.21	
2A-D	1-RA-06-POG2-PS-2A-D(0-4)	S	11/7/2006	806925	2372155	1POG2, 2POG2	28.1	1500	1.5	
2A-D Dup	1-RA-06-POG2-PS-2A-D(0-4)(Dup)	S/DUP	11/7/2006	806925	2372155	1POG2, 2POG2	26.4	1300	1.3	
2D	1-RA-06-POG2-PS-2D(4-7¼)	S	10/12/2006	806925	2372155	1POG2	87.4	26	0.026	
3A-D	1-RA-06-POG2-PS-3A-D(0-4)	S	11/7/2006	807155	2372125	2POG2	24.0	1100	1.1	
3A-D Dup	1-RA-06-POG2-PS-3A-D(0-4)(Dup)	S/DUP	11/7/2006	807155	2372125	2POG2	22.8	1200	1.2	
3ACD	1-RA-06-POG2-PS-3ACD(4-8)3B(4-7½)	S	11/17/2006	807155	2372125	2POG2	36.4	880	0.88	
4A-D	1-RA-06-POG2-PS-4A-D(0-4)	S	10/17/2006	807385	2372095	3POG2	37.4	750	0.75	
5A-D	1-RA-06-POG2-PS-5A-D(0-4)	S	10/2/2006	807590	2372075	4POG2	21.7	2900	2.9	
5A-D Dup	1-RA-06-POG2-PS-5A-D(0-4)(Dup)	S/DUP	10/2/2006	807590	2372075	4POG2	21.7	3200	3.2	
5A-D	1-RA-06-POG2-PS-5A-D(4-8)	S	10/11/2006	807590	2372075	4POG2	27.4	2800	2.8	

ID	Sample ID	Sample Type (P/S/NSS)	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	PCB Results (ppb)	PCB Results (ppm)	Comments
5A-D	1-RA-06-POG2-PS-5A-D(8-12)	S	10/23/2006	807590	2372075	4POG2	32.2	2300	2.3	
6A-D	1-RA-06-POG2-PS-6ACD(0-4)6B(0-3)	S	10/17/2006	807845	2372045	4POG2, 5POG2	22.4	2900	2.9	
6CD	1-RA-06-POG2-PS-6D(4-8)/1-RA-06-POG2-PS-6C(4-8)	S	9/29/06 10/16/2006	807845	2372045	4POG2, 5POG2	25.4	2550	2.55	Secondary samples sent in as discrete samples, reported result is the average from C and D.
7A-D	1-RA-06-POG2-PS-7A-D(0-4)	S	11/7/2006	808075	2372015	5POG2, 6POG2	32.4	3000	3	
8A-D	1-RA-06-POG2-PS-8A-D(0-4)	S	11/7/2006	808305	2371975	6POG2	20.7	15000	15	
8A-D Dup	1-RA-06-POG2-PS-8A-D(0-4)(Dup)	S/DUP	11/7/2006	808305	2371975	6POG2	20.6	14000	14	
8BCD	1-RA-06-POG2-PS-8BCD(4-8)	S	11/14/2006	808305	2371975	6POG2	47.6	10000	10	
9A-D	1-RA-06-POG2-PS-9A-D(0-4)	S	11/8/2006	808535	2371945	7POG2	27.4	6200	6.2	
9A-D	1-RA-06-POG2-PS-9A-D(4-8)	S	11/14/2006	808535	2371945	7POG2	38.2	6000	6	
9AC	1-RA-06-POG2-PS-9A(8-12)9C(8-11¾)	S	11/17/2006	808535	2371945	7POG2	33.4	4500	4.5	
10A-D	1-RA-06-POG2-PS-10A-D(0-4)	S	11/15/2006	808765	2371925	8POG2	36.6	9400	9.4	
10ABD	1-RA-06-POG2-PS-10ABD(4-8)	S	11/28/2006	808765	2371925	8POG2	44.2	5000	5	
11A-D	1-RA-06-POG2-PS-11A-D(0-4)	S	11/17/2006	808995	2371895	8POG2, 9POG2	31.1	6600	6.6	
11AB	1-RA-06-POG2-PS-11AB(4-8)	S	11/27/2006	808995	2371895	9POG2	23.9	9400	9.4	
12A-D	1-RA-06-POG2-PS-12A-D(0-4)	S	11/17/2006	809225	2371885	9POG2, 10POG2	40.8	2000	2	
12BD	1-RA-06-POG2-PS-12BD(4-8)	S	11/27/2006	809225	2371885	9POG2	30.4	1600	1.6	
12D	1-RA-06-POG2-PS-12D(8-12)	S	11/15/2006	809225	2371885	9POG2	41.3	530	0.53	
13A-D	1-RA-06-POG2-PS-13A-D(0-4)	S	11/17/2006	809455	2371855	10POG2	39.8	1300	1.3	
13A-D	1-RA-06-POG2-PS-13A-D(4-8)	S	11/27/2006	809455	2371855	10POG2	46.9	250	0.25	
13A-D Dup	1-RA-06-POG2-PS-13A-D(4-8)(Dup)	S/DUP	11/27/2006	809455	2371855	10POG2	41.7	250	0.25	
14A-D	1-RA-06-POG2-PS-14A-D(0-4)	S	11/15/2006	809965	2371805	11POG2	35.2	1800	1.8	
14A-D Dup	1-RA-06-POG2-PS-14A-D(0-4)(Dup)	S/DUP	11/15/2006	809965	2371805	11POG2	35.2	1500	1.5	
14ACD	1-RA-06-POG2-PS-14ACD(4-8)	S	11/28/2006	809965	2371805	11POG2	50.8	600	0.6	
15ABC	1-RA-06-POG2-PS-15ABC(0-4)	S	11/8/2006	810191	2371717	12POG2	20.4	1100	1.1	
15ABC	1-RA-06-POG2-PS-15ABC(4-8)	S	11/14/2006	810191	2371717	12POG2	21.9	310	0.31	
16ABC	1-RA-06-POG2-PS-16ABC(0-4)	S	11/15/2006	810199	2371853	11POG2, 12POG2	24.0	980	0.98	
POG3-North Primary Samples										
88P	1-RA-06-POG3-PS-88P(0-4)	P	9/7/2006	808400	2371880	25POG3	52.5	1300	1.3	
88P	1-RA-06-POG3-PS-88P(4-8)	P	9/7/2006	808400	2371880	25POG3	63.9	<27	<0.027	
89P	1-RA-06-POG3-PS-89P (0-4)	P	7/14/2006	808921	2371821	28POG3	62.5	140	0.14	
90P	1-RA-06-POG3-PS-90P (0-4)	P	7/14/2006	809131	2371801	28POG3	30.1	4600	4.6	
90P	1-RA-06-POG3-PS-90P(4-8)	P	7/14/2006	809131	2371801	28POG3	42.1	4300	4.3	
91P	1-RA-06-POG3-PS-91P (0-4)	P	7/14/2006	809020	2371807	28POG3	58.2	200	0.2	
92P	1-RA-06-POG3-PS-92P (0-4)	P	7/14/2006	809308	2371668	28POG3	36.6	350	0.35	
93P	1-RA-06-POG3-PS-93P (0-4)	P	7/14/2006	809229	2371738	28POG3	59.7	<27	<0.027	
93P Dup	1-RA-06-POG3-PS-93P (0-4)(Dup)	P/DUP	7/14/2006	809229	2371738	28POG3	57.6	<27	<0.027	
94P	1-RA-06-POG3-PS-94P (0-4)	P	7/18/2006	809337	2371783	28POG3	26.9	1800	1.8	
94P	1-RA-06-POG3-PS-94P(4-8)	P	7/18/2006	809337	2371783	28POG3	35.4	490	0.49	
94P RD	1-RA-06-POG3-PSRD-94P(0-4)	P	10/10/2006	809337	2371783	28POG3	32.2	1500	1.5	
94P RD	1-RA-06-POG3-PSRD-94P(4-8)	P	10/10/2006	809337	2371783	28POG3	34.6	11000	11	
95P	1-RA-06-POG3-PS-95P (0-4)	P	7/14/2006	809417	2371676	28POG3	24.6	36	0.036	
96P	1-RA-06-POG3-PS-96P(0-4)	P	10/26/2006	809500	2371729	29POG3	43.1	110	0.11	
97P	1-RA-06-POG3-PS-97P (0-4)	P	7/14/2006	809391	2371763	28POG3	40.6	2600	2.6	
97P	1-RA-06-POG3-PS-97P(4-8)	P	7/14/2006	809391	2371763	28POG3	45.2	880	0.88	
98P	1-RA-06-POG3-PS-98P(0-4)	P	10/26/2006	809670	2371661	29POG3	18.8	4100	4.1	
98P	1-RA-06-POG3-PS-98P(4-8)	P	10/26/2006	809670	2371661	29POG3	27.8	1400	1.4	
98P	1-RA-06-POG3-PS-98P(8-11½)	P	10/26/2006	809670	2371661	29POG3	24.2	<27	<0.027	
99P	1-RA-06-POG3-PS-99P(0-4)	P	10/26/2006	809619	2371747	29POG3	19.1	5200	5.2	
99P	1-RA-06-POG3-PS-99P(4-8)	P	10/26/2006	809619	2371747	29POG3	39.5	4100	4.1	
99P	1-RA-06-POG3-PS-99P(8-11½)	P	10/26/2006	809619	2371747	29POG3	30.3	2100	2.1	
100P	1-RA-06-POG3-PS-100P(0-4)	P	10/26/2006	809879	2371728	29POG3	15.2	510	0.51	
101P	1-RA-06-POG3-PS-101P(0-4)	P	10/27/2006	810138	2371694	29POG3	16.7	920	0.92	
102P	1-RA-06-POG3-PS-102P(0-4)	P	10/27/2006	810019	2371720	29POG3	22.9	390	0.39	
103P	1-RA-06-POG3-PS-103P(0-4)	P	10/27/2006	810221	2371651	29POG3	22.9	1800	1.8	
103P	1-RA-06-POG3-PS-103P(4-8)	P	10/27/2006	810221	2371651	29POG3	25.3	900	0.9	
104P	1-RA-06-POG3-PS-104P(0-4)	P	10/27/2006	808529	2371629	30POG3N	33.4	780	0.78	
105P	1-RA-06-POG3-PS-105P(0-4)	P	11/1/2006	808720	2371520	31POG3N	83.1	<27	<0.027	
106P	1-RA-06-POG3-PS-106P(0-4)	P	10/27/2006	808631	2371627	30POG3N	40.4	220	0.22	
106P Dup	1-RA-06-POG3-PS-106P(0-4)(Dup)	P/DUP	10/27/2006	808631	2371627	30POG3N	41.0	290	0.29	

ID	Sample ID	Sample Type (P/S/NSS)	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	PCB Results (ppb)	PCB Results (ppm)	Comments
107P	1-RA-06-POG3-PS-107P(0-4)	P	11/1/2006	808700	2371720	31POG3N	65.1	<27	<0.027	
108P	1-RA-06-POG3-PS-108P(0-4)	P	11/1/2006	808900	2371420	32POG3N	47.8	1400	1.4	
109P	1-RA-06-POG3-PS-109P(0-4)	P	11/2/2006	808827	2371504	32POG3N	23.1	120	0.12	
110P	1-RA-06-POG3-PS-110P(0-4)	P	11/2/2006	808901	2371627	32POG3N	19.0	57	0.057	
111P	1-RA-06-POG3-PS-111P(0-4)	P	11/2/2006	808860	2371740	32POG3N	63.5	45	0.045	
112P	1-RA-06-POG3-PS-112P(0-4)	P	11/9/2006	809000	2371475	33POG3N	27.2	2200	2.2	
112P Dup	1-RA-06-POG3-PS-112P(0-4)(Dup)	P/DUP	11/15/2006	809000	2371475	33POG3N	25.9	560	0.56	
112P	1-RA-06-POG3-PS-112P(4-8)	P	11/9/2006	809000	2371475	33POG3N	25.6	42	0.042	
113P	1-RA-06-POG3-PS-113P(0-4)	P	11/16/2006	809101	2371524	34POG3N	37.6	<13	<0.013	
114P	1-RA-06-POG3-PS-114P(0-4)	P	11/15/2006	809024	2371620	33POG3N	25.1	4400	4.4	
114P	1-RA-06-POG3-PS-114P(4-8)	P	11/9/2006	809024	2371620	33POG3N	36.3	180	0.18	
POG3-North Composite Secondary Samples										
87C	1-RA-06-POG3-PS-87C(0-4)	S	10/27/2006	808479	2371540	30POG3N	61.2	3800	3.8	
88A	1-RA-06-POG3-PS-88A(0-4)	S	9/7/2006	808388	2371860	25POG3	68.8	790	0.79	
89A	1-RA-06-POG3-PS-89A (0-4)	S	7/14/2006	808929	2371821	28POG3	64.5	48	0.048	
90A	1-RA-06-POG3-PS-90A (0-4)	S	7/14/2006	809118	2371800	28POG3	59.5	610	0.61	
90BCD	1-RA-06-POG3-PS-90BCD(0-4)	S	11/20/2006	809093	2371721	33POG3N, 34POG3N	69.8	190	0.19	
91A	1-RA-06-POG3-PS-91A (0-4)	S	7/14/2006	809033	2371805	28POG3	57.0	210	0.21	
92AB	1-RA-06-POG3-PS-92AB (0-4)	S	7/18/2006	809302	2371658	28POG3	43.3	270	0.27	
93A-D	1-RA-06-POG3-PS-93A-D (0-4)	S	7/18/2006	809212	2371741	28POG3	57.3	610	0.61	
93A-D Dup	1-RA-06-POG3-PS-93A-D (0-4)(Dup)	S/DUP	7/18/2006	809212	2371741	28POG3	60.0	660	0.66	
94A	1-RA-06-POG3-PS-94A (0-4)	S	7/14/2006	809347	2371782	28POG3	27.8	5800	5.8	
94A	1-RA-06-POG3-PS-94A (4-8)	S	7/14/2006	809347	2371782	28POG3	39.6	4100	4.1	
94A RD	1-RA-06-POG3-PSRD-94A(0-4)	S	10/9/2006	809347	2371782	28POG3	56.0	490	0.49	
96ABC	1-RA-06-POG3-PS-96ABC(0-4)	S	10/27/2006	809496	2371713	29POG3	38.7	4100	4.1	
96AB	1-RA-06-POG3-PS-96-AB(4-8)	S	11/3/2006	809496	2371713	29POG3	29.4	6300	6.3	
97A	1-RA-06-POG3-PS-97A (0-4)	S	7/14/2006	809383	2371772	28POG3	36.7	4700	4.7	
97A	1-RA-06-POG3-PS-97A(4-8)	S	7/14/2006	809383	2371772	28POG3	34.0	850	0.85	
99ABC	1-RA-06-POG3-PS-99ABC(0-4)	S	10/27/2006	809634	2371725	29POG3	20.8	1400	1.4	
99A	1-RA-06-POG3-PS-99A(4-8)	S	10/26/2006	809634	2371725	29POG3	26.9	6900	6.9	
104ABC	1-RA-06-POG3-PS-104AB(0-4)104C(0-3)	S	10/30/2006	808520	2371627	30POG3N	45.2	180	0.18	
105A-D	1-RA-06-POG3-PS-105A-D(0-4)	S	11/2/2006	808711	2371496	30POG3N, 31POG3N	67.8	<27	<0.027	
106A-D	1-RA-06-POG3-PS-106A-D(0-4)	S	11/2/2006	808645	2371626	30POG3N, 31POG3N	39.1	6200	6.2	
106AC	1-RA-06-POG3-PS-106AC(4-8)	S	11/8/2006	808645	2371626	30POG3N, 31POG3N	28.1	1800	1.8	
106AC	1-RA-06-POG3-PS-106A(8-11¼)106C(8-11½)	S	12/1/2006	808645	2371626	30POG3N, 31POG3N	40.7	25	0.025	
107AC	1-RA-06-POG3-PS-107AC(0-4)	S	11/2/2006	808684	2371712	30POG3N, 31POG3N	67.0	140	0.14	
108ABC	1-RA-06-POG3-PS-108AC(0-4)108B(0-3¼)	S	11/10/2006	808922	2371449	32POG3N, 33POG3N	73.6	600	0.6	
109ACD	1-RA-06-POG3-PS-109A(0-3¼)109CD(0-4)	S	11/2/2006	808849	2371503	30POG3N, 31POG3N	75.0	130	0.13	
110A-D	1-RA-06-POG3-PS-110A-D(0-4)	S	11/10/2006	808914	2371626	31POG3N, 32POG3N	40.9	1500	1.5	
110A-D Dup	1-RA-06-POG3-PS-110A-D(0-4)(Dup)	S/DUP	11/10/2006	808914	2371626	31POG3N, 32POG3N	38.0	57	0.057	
110AC	1-RA-06-POG3-PS-110AC(4-8)	S	11/21/2006	808914	2371626	32POG3N, 33POG3N	50.0	<13	<0.013	
111ABC	1-RA-06-POG3-PS-111ABC(0-4)	S	11/10/2006	808850	2371748	32POG3N, 33POG3N	68.4	270	0.27	
112A	1-RA-06-POG3-PS-112A(0-4)	S	11/9/2006	808991	2371476	33POG3N	22.5	340	0.34	
113A-D	1-RA-06-POG3-PS-113A-D(0-4)	S	11/20/2006	809104	2371510	33POG3N, 34POG3N	25.9	340	0.34	
113A-D Dup	1-RA-06-POG3-PS-113A-D(0-4)(Dup)	S/DUP	11/20/2006	809104	2371510	33POG3N, 34POG3N	25.2	420	0.42	
114A-D	1-RA-06-POG3-PS-114A-D(0-4)	S	11/20/2006	809049	2371630	33POG3N, 34POG3N	54.8	450	0.45	
POG3-South Primary Samples										
1P	1-RA-06-POG3-PS-1P (0-4)	P	6/1/2006	806548	2371143	1POG3	67.2	150	0.15	
2P	1-RA-06-POG3-PS-2P (0-4)	P	6/1/2006	806559	2371459	2POG3	37.8	8200	8.2	
2P RD	1-RA-06-POG3-PSRD-2P(0-4)	P	10/9/2006	806559	2371459	2POG3	72.2	<27	<0.027	
2P Dup RD	1-RA-06-POG3-PSRD-2P(0-4)(Dup)	P/DUP	10/9/2006	806559	2371459	2POG3	81.3	<27	<0.027	
3P	1-RA-06-POG3-PS-3P (0-4)	P	6/5/2006	806540	2371513	3POG3	22.2	390	0.39	
4P	1-RA-06-POG3-PS-4P (0-4)	P	6/5/2006	806538	2371598	3POG3	65.5	3400	3.4	
5P	1-RA-06-POG3-PS-5P (0-4)	P	6/20/2006	806718	2370857	5POG3	74.5	28	0.028	
5P Dup	1-RA-06-POG3-PS-5P (0-4)(DUP)	P/DUP	6/20/2006	806718	2370857	5POG3	71.6	28	0.028	
6P	1-RA-06-POG3-PS-6P (0-4)	P	6/1/2006	806691	2370932	1POG3	34.8	210	0.21	
7P	1-RA-06-POG3-PS-7P (0-4)	P	6/20/2006	806709	2371053	5POG3	54.5	4100	4.1	
8P NSS	No Recovery	P/NSS	6/1/2006	806642	2371172	1POG3	NA	16.8	0.0168	
9P NSS	No Recovery	P/NSS	6/20/2006	806717	2371276	5POG3	NA	16.8	0.0168	

ID	Sample ID	Sample Type (P/S/NSS)	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	PCB Results (ppb)	PCB Results (ppm)	Comments
10P	1-RA-06-POG3-PS-10P (0-4)	P	6/1/2006	806658	2371417	2POG3	28.7	1200	1.2	
10P Dup	1-RA-06-POG3-PS-10P (0-4) (DUP)	P/DUP	6/1/2006	806658	2371417	2POG3	26.2	7800	7.8	
10P	1-RA-06-POG3-PS-10P (4-8)	P	6/1/2006	806658	2371417	2POG3	34.2	7100	7.1	
10P NSS RD	No Recovery	P/NSS	10/9/2006	806656	2371418	2POG3	NA	16.8	0.0168	
11P	1-RA-06-POG3-PS-11P (0-4)	P	6/29/2006	806713	2371514	4POG3	47.4	790	0.79	
12P	1-RA-06-POG3-PS-12P (0-4)	P	6/5/2006	806638	2371624	3POG3	57.5	180	0.18	
13P	1-RA-06-POG3-PS-13P (0-4)	P	6/29/2006	806723	2371717	4POG3	36.0	1100	1.1	
14P	1-RA-06-POG3-PS-14P (0-4)	P	6/20/2006	806800	2370900	5POG3	65.7	41	0.041	
15P	1-RA-06-POG3-PS-15P (0-4)	P	6/29/2006	806910	2370935	6POG3	47.6	280	0.28	
16P	1-RA-06-POG3-PS-16P (0-4)	P	6/29/2006	806829	2371051	6POG3	34.3	7800	7.8	
16P	1-RA-06-POG3-PS-16P (4-8)	P	6/29/2006	806829	2371051	6POG3	63.7	300	0.3	
16P RD	No Recovery	P/NSS	10/9/2006	806830	2371038	6POG3	NA	16.8	0.0168	
16P RD2	1-RA-06-POG3-PSRD-16P(0-4)	P	11/14/2006	806830	2371038	6POG3	74.3	240	0.24	
17P	1-RA-06-POG3-PS-17P (0-3 1/2)	P	6/29/2006	806910	2371169	6POG3	62.7	25000	25	
17P RD	1-RA-06-POG3-PSRD-17P(0-4)	P	9/14/2006	806909	2371169	6POG3	75.4	4400	4.4	
18P	1-RA-06-POG3-PS-18P (0-4)	P	6/29/2006	806840	2371279	6POG3	70.6	1700	1.7	
18P Dup	1-RA-06-POG3-PS-18P (0-4) (DUP)	P/DUP	6/29/2006	806840	2371279	6POG3	68.1	260	0.26	
19P	1-RA-06-POG3-PS-19P (0-3 1/2)	P	6/28/2006	806908	2371394	7POG3	53.5	6400	6.4	
19P NSS RD	No Recovery	P	9/14/2006	806908	2371394	7POG3	NA	16.8	0.0168	
20P NSS	No Recovery	P/NSS	6/28/2006	806826	2371510	7POG3	NA	16.8	0.0168	
21P	1-RA-06-POG3-PS-21P (0-4)	P	6/28/2006	806880	2371617	7POG3	53.4	39000	39	
21P	1-RA-06-POG3-PS-21P (4-7)	P	6/28/2006	806880	2371617	7POG3	81.2	91	0.091	
21P RD	1-RA-06-POG3-PSRD-21P (0-4)	P	8/30/2006	806880	2371645	7POG3	85.3	49	0.049	
22P	1-RA-06-POG3-PS-22P (0-4)	P	6/28/2006	806836	2371737	7POG3	62.5	130	0.13	
23P NSS	No Recovery	P/NSS	6/28/2006	806874	2371830	7POG3	NA	16.8	0.0168	
24P	1-RA-06-POG3-PS-24P(0-4)	P	8/15/2006	807108	2370871	10POG3	65.8	650	0.65	
25P	1-RA-06-POG3-PS-25P (0-4)	P	7/20/2006	807034	2370936	9POG3	27.7	430	0.43	
26P	1-RA-06-POG3-PS-26P(0-4)	P	8/15/2006	807110	2371050	10POG3	49.8	390	0.39	
27P	1-RA-06-POG3-PS-27P (0-4)	P	7/20/2006	807036	2371163	9POG3	26.2	230	0.23	
28P	1-RA-06-POG3-PS-28P(0-4)	P	8/3/2006	807109	2371284	11POG3	59.1	510	0.51	
29P NSS	No Recovery	P/NSS	7/20/2006	807037	2371391	8POG3	NA	16.8	0.0168	
30P NSS	No Recovery	P/NSS	6/22/2006	807108	2371512	11POG3	NA	16.8	0.0168	
31P NSS	No Recovery	P/NSS	6/22/2006	807157	2371626	11POG3	NA	16.8	0.0168	
32P NSS	No Recovery	P/NSS	9/5/2006	807161	2371821	12POG3	NA	16.8	0.0168	
33P	1-RA-06-POG3-PS-33P(0-4)	P	9/6/2006	807360	2371040	15POG3	72.5	39	0.039	
34P	1-RA-06-POG3-PS-34P(0-4)	P	8/15/2006	807244	2371046	14POG3	54.2	160	0.16	
35P	1-RA-06-POG3-PS-35P(0-4)	P	8/15/2006	807308	2371167	14POG3	59.2	950	0.95	
36P	1-RA-06-POG3-PS-36P(0-4)	P	8/15/2006	807238	2371275	14POG3	40.1	92000	92	
36P	1-RA-06-POG3-PS-36P(4-8)	P	8/15/2006	807238	2371275	14POG3	75.9	220	0.22	
36P RD	1-RA-06-POG3-PSRD-36P(0-4)	P	10/6/2006	807237	2371275	14POG3	63.9	<27	<0.027	
37P	1-RA-06-POG3-PS-37P(0-4)	P	8/30/2006	807306	2371398	13POG3	82.4	64	0.064	
38P	1-RA-06-POG3-PS-38P(0-4)	P	8/30/2006	807235	2371509	13POG3	64.8	5100	5.1	
38P RD	1-RA-06-POG3-PSRD-38P(0-4)	P	10/9/2006	807234	2371508	13POG3	75.4	<27	<0.027	
39P	1-RA-06-POG3-PS-39P(0-4)	P	8/30/2006	807299	2371599	13POG3	58.2	170	0.17	
39P Dup	1-RA-06-POG3-PS-39P(0-4)(Dup)	P/DUP	8/30/2006	807299	2371599	13POG3	63.2	110	0.11	
40P NSS	No Recovery	P/NSS	9/5/2006	807254	2371799	12POG3	NA	16.8	0.0168	
41P	1-RA-06-POG3-PS-41P(0-4)	P	9/5/2006	807309	2371850	12POG3	69.8	85	0.085	
42P	1-RA-06-POG3-PS-42P(0-4)	P	9/6/2006	807421	2371019	15POG3	60.2	220	0.22	
43P	1-RA-06-POG3-PS-43P(0-4)	P	9/6/2006	807508	2371052	15POG3	70.3	83	0.083	
43P Dup	1-RA-06-POG3-PS-43P(0-4)(Dup)	P/DUP	9/6/2006	807508	2371052	15POG3	70.5	83	0.083	
44P	1-RA-06-POG3-PS-44P(0-4)	P	9/6/2006	807439	2371164	15POG3	47.6	540	0.54	
45P	1-RA-06-POG3-PS-45P(0-4)	P	9/13/2006	807507	2371282	16POG3	66.8	84	0.084	
46P	1-RA-06-POG3-PS-46P(0-4)	P	9/13/2006	807436	2371394	16POG3	69.2	<27	<0.027	
47P	1-RA-06-POG3-PS-47P(0-4)	P	9/14/2006	807511	2371509	16POG3	74.2	250	0.25	
47P	1-RA-06-POG3-PS-47P(0-4)(Dup)	P/DUP	9/14/2006	807511	2371509	16POG3	76.4	220	0.22	
48P	1-RA-06-POG3-PS-48P (0-4)	P	6/22/2006	807434	2371618	17POG3	68.6	45	0.045	Vic Vac
49P	1-RA-06-POG3-PS-49P(0-4)	P	8/1/2006	807475	2371743	17POG3	53.2	30000	30	
49P	1-RA-06-POG3-PS-49P(4-8)	P	8/1/2006	807434	2371622	17POG3	65.9	71	0.071	
49P RD	1-RA-06-POG3-PSRD-49P(0-4)	P	9/20/2006	807509	2371723	17POG3	69.4	2600	2.6	
49P RD	1-RA-06-POG3-PSRD-49P(4-8)	P	9/20/2006	807509	2371723	17POG3	64.8	<27	<0.027	

ID	Sample ID	Sample Type (P/S/NSS)	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	PCB Results (ppb)	PCB Results (ppm)	Comments
50P	1-RA-06-POG3-PS-50P(0-4)	P	8/1/2006	807601	2371118	19POG3	63.8	940	0.94	
50P Dup	1-RA-06-POG3-PS-50P(0-4)(DUP)	P/DUP	8/1/2006	807601	2371118	19POG3	64.6	3000	3	
50P	1-RA-06-POG3-PS-50P(4-8)	P	8/1/2006	807601	2371118	19POG3	51.1	46	0.046	
50P RD	1-RA-06-POG3-PSRD-50P(0-4)	P	9/20/2006	807602	2371122	19POG3	41.0	<27	<0.027	
51P	1-RA-06-POG3-PS-51P(0-4)	P	8/2/2006	807707	2371188	20POG3	68.8	1100	1.1	
51P Dup	1-RA-06-POG3-PS-51P(0-4)(DUP)	P/DUP	8/2/2006	807707	2371188	20POG3	67.0	840	0.84	
51P	1-RA-06-POG3-PS-51P(4-8)	P	8/2/2006	807707	2371188	20POG3	59.5	49	0.049	
51P RD	1-RA-06-POG3-PSRD-51P(0-4)	P	10/9/2006	807708	2371186	20POG3	69.1	550	0.55	
52P	1-RA-06-POG3-PS-52P(0-4)	P	8/6/2006	807642	2371276	19POG3	70.0	1200	1.2	
53P	1-RA-06-POG3-PS-53P(0-4)	P	8/2/2006	807708	2371397	20POG3	74.8	11000	11	
53P RD	1-RA-06-POG3-PSRD-53P(0-4)	P	9/20/2006	807708	2371398	20POG3	73.0	700	0.7	
53P RD DUP	1-RA-06-POG3-PSRD-53P(0-4)(Dup)	P/DUP	9/20/2006	807708	2371398	20POG3	72.1	410	0.41	
54P	1-RA-06-POG3-PS-54P(0-4)	P	8/31/2006	807599	2371580	18POG3	71.9	<27	<0.027	
55P	1-RA-06-POG3-PS-55P(0-4)	P	8/31/2006	807660	2371649	18POG3	69.6	57000	57	
55P Dup	1-RA-06-POG3-PS-55P(0-4)(Dup)	P/DUP	8/31/2006	807660	2371649	18POG3	69.3	25000	25	
55P	1-RA-06-POG3-PS-55P(4-8)	P	8/31/2006	807660	2371649	18POG3	69.6	51	0.051	
55P	1-RA-06-POG3-PS-55P(8-11)	P	8/31/2006	807660	2371649	18POG3	65.1	<27	<0.027	
55P RD	1-RA-06-POG3-PSRD-55P(0-4)	P	10/9/2006	807660	2371649	18POG3	72.7	<27	<0.027	
56P	1-RA-06-POG3-PS-56P(0-4)	P	8/31/2006	807630	2371747	18POG3	73.7	150	0.15	
57P	1-RA-06-POG3-PS-57P(0-4)	P	8/31/2006	807708	2371857	18POG3	62.8	11000	11	
57P	1-RA-06-POG3-PS-57P(4-8)	P	8/31/2006	807708	2371857	18POG3	65.0	<27	<0.027	
57P RD	1-RA-06-POG3-PSRD-57P(0-4)	P	10/6/2006	807709	2371856	18POG3	69.0	<27	<0.027	
58P	1-RA-06-POG3-PS-58P(0-4)	P	8/31/2006	807642	2371921	18POG3	47.3	<27	<0.027	
59P	1-RA-06-POG3-PS-59P(0-4)	P	8/2/2006	807869	2371200	20POG3	73.8	230	0.23	
60P	1-RA-06-POG3-PS-60P(0-4)	P	8/17/2006	807906	2371279	21POG3	70.0	310	0.31	
61P	1-RA-06-POG3-PS-61P(0-4)	P	8/2/2006	807838	2371405	20POG3	56.7	250	0.25	
62P	1-RA-06-POG3-PS-62P(0-3¼)	P	7/31/2006	807931	2371515	22POG3	67.5	120	0.12	
63P	1-RA-06-POG3-PS-63P(0-4)	P	8/17/2006	807930	2371630	21POG3	73.4	810	0.81	
64P	1-RA-06-POG3-PS-64P (0-4)	P	7/13/2006	808153	2370789	26POG3	61.1	<27	<0.027	
65P	1-RA-06-POG3-PS-65P (0-4)	P	7/13/2006	808122	2370750	26POG3	62.6	60	0.06	
66P	1-RA-06-POG3-PS-66P(0-4)	P	8/23/2006	808110	2371200	23POG3	69.6	200	0.2	
67P	1-RA-06-POG3-PS-67P(0-4)	P	8/23/2006	808032	2371278	23POG3	70.3	28000	28	
67P	1-RA-06-POG3-PS-67P(4-7½)	P	8/23/2006	808032	2371278	23POG3	78.4	<27	<0.027	
67P RD	1-RA-06-POG3-PSRD-67P(0-3½)	P	10/9/2006	808030	2371277	23POG3	77.4	84	0.084	
68P	1-RA-06-POG3-PS-68P(0-3½)	P	8/23/2006	808106	2371399	23POG3	68.9	1700	1.7	
69P	1-RA-06-POG3-PS-69P(0-4)	P	7/31/2006	808037	2371513	22POG3	76.8	120	0.12	
70P	1-RA-06-POG3-PS-70P(0-3½)	P	9/14/2006	808106	2371625	24POG3	67.1	190	0.19	
71P	1-RA-06-POG3-PS-71P(0-4)	P	8/17/2006	808051	2371690	21POG3	78.0	110	0.11	
72P	1-RA-06-POG3-PS-72P(0-4)	P	9/14/2006	808121	2371860	24POG3	57.0	<27	<0.027	
73P	1-RA-06-POG3-PS-73P(0-4)	P	9/14/2006	808069	2371930	24POG3	49.1	<27	<0.027	
74P	1-RA-06-POG3-PS-74P (0-4)	P	7/13/2006	808187	2370792	26POG3	70.8	68	0.068	
75P	1-RA-06-POG3-PS-75P (0-4)	P	7/18/2006	808298	2370850	27POG3	58.2	<27	<0.027	
76P	1-RA-06-POG3-PS-76P (0-4)	P	7/18/2006	808233	2370932	27POG3	70.8	240	0.24	
77P	1-RA-06-POG3-PS-77P (0-4)	P	7/18/2006	808277	2371020	27POG3	77.8	65	0.065	
78P	1-RA-06-POG3-PS-78P(0-4)	P	8/23/2006	808200	2371230	23POG3	74.2	280	0.28	
79P	1-RA-06-POG3-PS-79P(0-4)	P	8/23/2006	808258	2371301	23POG3	65.3	340	0.34	
79P Dup	1-RA-06-POG3-PS-79P(0-4)(Dup)	P/DUP	8/23/2006	808258	2371301	23POG3	66.5	190	0.19	
80P	1-RA-06-POG3-PS-80P(0-4)	P	8/23/2006	808224	2371400	23POG3	58.4	2400	2.4	
80P	1-RA-06-POG3-PS-80P(4-8)	P	8/23/2006	808224	2371400	23POG3	69.3	98	0.098	
81P	1-RA-06-POG3-PS-81P(0-4)	P	9/13/2006	808311	2371531	25POG3	16.2	150	0.15	
82P	1-RA-06-POG3-PS-82P(0-4)	P	9/14/2006	808230	2371622	24POG3	57.6	900	0.9	
83P	1-RA-06-POG3-PS-83P(0-4)	P	9/6/2006	808300	2371739	25POG3	71.4	170	0.17	
84P	1-RA-06-POG3-PS-84P(0-4)	P	9/14/2006	808232	2371857	24POG3	60.4	<27	<0.027	
85P	1-RA-06-POG3-PS-85P(0-4)	P	9/7/2006	808340	2371899	25POG3	34.3	28000	28	
85P RD	1-RA-06-POG3-PSRD-85P(0-3½)	P	10/9/2006	808341	2371901	25POG3	68.4	<27	<0.027	
86P	1-RA-06-POG3-PS-86P (0-4)	P	7/18/2006	808399	2370882	25POG3	61.5	32	0.032	
87P	1-RA-06-POG3-PS-87P(0-4)	P	9/7/2006	808401	2371562	25POG3	17.2	1600	1.6	
87P RD	1-RA-06-POG3-PSRD-87P(0-4)	P	10/9/2006	808401	2371564	25POG3	64.5	<27	<0.027	
VV1	1-RA-06-POG3-PS-VV1 (0-4)	P/VV	6/22/2006	807188	2371487	11POG3	73.1	170	0.17	Vic Vac
VV2	No Recovery	P/VV/NSS	6/22/2006	807149	2371563	11POG3	NA	16.8	0.0168	Vic Vac
VV3	No Recovery	P/VV/NSS	6/22/2006	807366	2371534	17POG3	NA	16.8	0.0168	Vic Vac

ID	Sample ID	Sample Type (P/S/NSS)	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	PCB Results (ppb)	PCB Results (ppm)	Comments
VV4	1-RA-06-POG3-PS-VV4 (0-4)	P/VV	6/22/2006	807436	2371543	17POG3	65.9	32	0.032	Vic Vac
VV5	1-RA-06-POG3-PS-VV5 (0-4)	P/VV	6/22/2006	807403	2371605	17POG3	84.6	68	0.068	Vic Vac
VV6	1-RA-06-POG3-PS-VV6 (0-4)	P/VV	6/22/2006	807431	2371680	17POG3	75.8	<27	<0.027	Vic Vac
POG3-South Composite Secondary Samples										
1AB	1-RA-06-POG3-PS-1AB (0-4)	S	6/2/2006	806552	2371127	1POG3	44.2	110	0.11	
2A	1-RA-06-POG3-PS-2A (0-4)	S	6/2/2006	806556	2371447	2POG3	24.2	420	0.42	
3A	1-RA-06-POG3-PS-3A (0-4)	S	6/5/2006	806531	2371510	3POG3	20.9	380	0.38	
4A	1-RA-06-POG3-PS-4A (0-4)	S	6/5/2006	806545	2371569	3POG3	28.5	690	0.69	
5AB	1-RA-06-POG3-PS-5AB (0-4)	S	6/21/2006	806731	2370861	5POG3	75.1	53	0.053	
6AB	1-RA-06-POG3-PS-6AB (0-4)	S	6/2/2006	806681	2370940	1POG3	73.0	1200	1.2	
6AB Dup	1-RA-06-POG3-PS-6AB (0-4) (DUP)	S/DUP	6/2/2006	806681	2370940	1POG3	80.8	180	0.18	
6B	1-RA-06-POG3-PS-6B (4-8)	S	5/24/2006	806647	2370934	1POG3	66.4	<27	<0.027	
7A-D	1-RA-06-POG3-PS-7A-D (0-4)	S	6/21/2006	806697	2371053	1POG3, 5POG3	70.3	1300	1.3	
7C	1-RA-06-POG3-PS-7C(4-8)	S	6/1/2006	806697	2371053	1POG3	73.7	<27	<0.027	
8D	1-RA-06-POG3-PS-8D (0-4)	S	6/1/2006	806608	2371223	2POG3	33.8	8500	8.5	
8D	1-RA-06-POG3-PS-8D (4-8)	S	6/1/2006	806608	2371223	2POG3	73.8	110	0.11	
8D RD	1-RA-06-POG3-PSRD-8D(0-4)	S	10/9/2006	806608	2371223	2POG3	72.2	<27	<0.027	
9ABD	1-RA-06-POG3-PS-9ABD (0-4)	S	7/5/2006	806674	2371281	2POG3, 4POG3, 5POG3	30.2	3600	3.6	
10AB	1-RA-06-POG3-PS-10AB (0-4)	S	7/5/2006	806679	2371370	2POG3, 4POG3	25.5	780	0.78	
11BCD	1-RA-06-POG3-PS-11BCD (0-4)	S	7/5/2006	806687	2371537	4POG3	47.4	170	0.17	
12A-D	1-RA-06-POG3-PS-12A-D (0-4)	S	7/5/2006	806661	2371625	2POG3, 4POG3	32.6	370	0.37	
12A-D Dup	1-RA-06-POG3-PS-12A-D (0-4) (DUP)	S/DUP	7/5/2006	806661	2371625	2POG3, 4POG3	38.9	360	0.36	
13A-D	1-RA-06-POG3-PS-13A-D (0-4)	S	7/5/2006	806710	2371743	2POG3, 4POG3	39.1	510	0.51	
14A	1-RA-06-POG3-PS-14A (0-4)	S	6/20/2006	806809	2370896	5POG3	73.4	62	0.062	
15ACD	1-RA-06-POG3-PS-15ACD (0-4)	S	7/21/2006	806895	2370940	6POG3, 9POG3	56.7	500	0.5	
16A-D	1-RA-06-POG3-PS-16A-D (0-4)	S	7/21/2006	806846	2371050	5POG3, 6POG3, 9POG3	61.5	4500	4.5	
16A-D Dup	1-RA-06-POG3-PS-16A-D (0-4)(Dup)	S/DUP	7/21/2006	806846	2371050	5POG3, 6POG3, 9POG3	61.7	2400	2.4	
16BD	1-RA-06-POG3-PS-16BD(4-8)	S	8/2/2006	806846	2371050	5POG3, 9POG3	77.7	290	0.29	
16C RD	1-RA-06-POG3-PSRD-16C(0-4)	S	10/9/2006	806846	2371050	6POG3	74.8	15000	15	
16ABC RD	1-RA-06-POG3-PSRD-16ABC(0-4)	S	11/15/2006	806846	2371050	5POG3, 6POG3, 9POG3	81.0	380	0.38	
17ABD	1-RA-06-POG3-PS-17ABD (0-4)	S	7/21/2006	806900	2371166	6POG3, 8POG3	64.4	5500	5.5	
17D	1-RA-06-POG3-PS-17D(4-8)	S	6/29/2006	806900	2371166	6POG3	68.5	5200	5.2	
17D	1-RA-06-POG3-PS-17D(8-12)	S	6/29/2006	806900	2371166	6POG3	59.1	<27	<0.027	
17ABD RD	1-RA-06-POG3-PSRD-17ABD(0-4)	S	9/18/2006	806900	2371166	6POG3, 8POG3	71.9	250	0.25	
17ABD RD	1-RA-06-POG3-PSRD-17ABD(0-4)(Dup)	S/DUP	9/18/2006	806900	2371166	6POG3, 8POG3	75.6	150	0.15	
18A-D	1-RA-06-POG3-PS-18A-D (0-4)	S	7/21/2006	806856	2371280	4POG3, 5POG3, 6POG3,	56.0	1000	1	
19A	1-RA-06-POG3-PS-19A (0-4)	S	7/20/2006	806897	2371398	8POG3	57.4	11000	11	
19A RD	1-RA-06-POG3-PSRD-19A(0-4)	S	9/14/2006	806897	2371398	8POG3	81.6	14600	14.6	Weighted average (60x1 + 3.2 x4)/5 = 14.6 ppm.
19A RD	1-RA-06-POG3-PSRD-19A-1-4	S	9/26/2006	806897	2371398	8POG3	73.5	3200	3.2	
19A RD2	1-RA-06-POG3-PSRD-19A(0-3¼)	S	11/14/2006	806897	2371398	8POG3	70.5	12000	12	
20B	1-RA-06-POG3-PS-20B (0-3 1/2)	S	6/29/2006	806829	2371454	4POG3	64.0	1400	1.4	
21ACD	1-RA-06-POG3-PS-21A(0-3)21CD (0-4)	S	7/21/2006	806888	2371629	7POG3, 8POG3	49.2	3000	3	
21D	1-RA-06-POG3-PS-21D(4-7¼)	S	6/28/2006	806888	2371629	7POG3	82.0	82	0.082	
21ACD RD	1-RA-06-POG3-PSRD-21ACD(0-4)	S	8/31/2006	806888	2371629	7POG3, 8POG3	81.4	780	0.78	
22A-D	1-RA-06-POG3-PS-22ABC (0-4) 22D (0-3 1/2)	S	7/5/2006	806853	2371742	4POG3, 7POG3	59.8	100	0.1	
23A NSS	No Recovery	S/NSS	6/28/2006	806885	2371805	7POG3	NA	16.8	0.0168	
24AB	1-RA-06-POG3-PS-24AB(0-4)	S	8/16/2006	807112	2370862	10POG3	69.4	37	0.037	
25A-D	1-RA-06-POG3-PS-25A-D(0-4)	S	8/16/2006	807060	2370937	9POG3, 10POG3	44.2	3800	3.8	
25ABC	1-RA-06-POG3-PS-25AB(4-8)25C(4-7½)	S	8/30/2006	807060	2370937	9POG3, 10POG3	76.0	<27	<0.027	
26A-D	1-RA-06-POG3-PS-26A-D(0-4)	S	8/17/2006	807088	2371053	10POG3	48.4	2800	2.8	
26ACD	1-RA-06-POG3-PS-26ACD(4-8)	S	8/30/2006	807088	2371053	10POG3	75.7	1300	1.3	
26ACD	1-RA-06-POG3-PS-26ACD(8-12)	S	9/14/2006	807088	2371053	10POG3	64.1	<27	<0.027	
27ABC	1-RA-06-POG3-PS-27ABC(0-4)	S	8/16/2006	807070	2371168	9POG3, 10POG3	62.9	920	0.92	
28ACD	1-RA-06-POG3-PS-28A(0-4)28CD(0-3½)	S	8/4/2006	807125	2371281	8POG3, 11POG3	65.8	1100	1.1	
29A-D	1-RA-06-POG3-PS-29AD(0-4)29B(0-3¼)29C(0-3¾)	S	8/4/2006	807053	2371396	8POG3, 11POG3	68.1	15000	15	
29AB RD	1-RA-06-POG3-PSRD-29AB(0-4)	S	9/18/2006	807053	2371396	8POG3, 11POG3	86.8	44	0.044	
30A-D	1-RA-06-POG3-PS-30ACD(0-4)30B(0-3¼)	S	8/4/2006	807099	2371510	8POG3, 11POG3	82.0	69	0.069	
31A	1-RA-06-POG3-PS-31A(0-3)	S	7/20/2006	806993	2371539	8POG3	81.7	120	0.12	
32A	1-RA-06-POG3-PS-32A(0-4)	S	9/5/2006	807160	2371828	12POG3	81.2	<27	<0.027	
33AB	1-RA-06-POG3-PS-33AB(0-4)	S	8/17/2006	807270	2370971	14POG3, 15POG3	62.1	<27	<0.027	
34A-D	1-RA-06-POG3-PS-34A-D(0-4)	S	8/17/2006	807255	2371052	10POG3, 14POG3, 15POG3	58.7	210	0.21	

ID	Sample ID	Sample Type (P/S/NSS)	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	PCB Results (ppb)	PCB Results (ppm)	Comments
34A-D Dup	1-RA-06-POG3-PS-34A-D(0-4)Dup	S/DUP	8/17/2006	807255	2371052	10POG3, 14POG3, 15POG3	59.4	210	0.21	
35A-D	1-RA-06-POG3-PS-35A-D(0-4)	S	9/7/2006	807285	2371167	14POG3	52.6	940	0.94	
35A-D Dup	1-RA-06-POG3-PS-35A-D(0-4)(Dup)	S/DUP	9/7/2006	807285	2371167	14POG3	51.8	3100	3.1	
36ACD	1-RA-06-POG3-PS-36ACD(0-4)	S	9/1/2006	807255	2371297	13POG3, 14POG3	69.2	600	0.6	
37A-D	1-RA-06-POG3-PS-37ABD(0-4)37C(0-3¾)	S	9/14/2006	807253	2371396	13POG3, 16POG3	76.8	210	0.21	
38A-D	1-RA-06-POG3-PS-38ABC(0-4)38D(0-3)	S	9/1/2006	807253	2371510	11POG3, 13POG3	74.7	58	0.058	
39AB	1-RA-06-POG3-PS-39AB(0-4)	S	9/1/2006	807280	2371612	13POG3	83.4	<27	<0.027	
40ABC	1-RA-06-POG3-PS-40ABC(0-4)	S	9/6/2006	807253	2371774	12POG3	78.9	<27	<0.027	
41ABC	1-RA-06-POG3-PS-41ABC(0-4)	S	9/6/2006	807296	2371840	12POG3	57.8	590	0.59	
42A	1-RA-06-POG3-PS-42A(0-4)	S	9/6/2006	807412	2371019	15POG3	68.7	32	0.032	
43A-D	1-RA-06-POG3-PS-43A-D(0-4)	S	9/7/2006	807488	2371051	19POG3	69.0	300	0.3	
44A-D	1-RA-06-POG3-PS-44A-D(0-4)	S	9/12/2006	807462	2371169	15POG3	56.4	2300	2.3	
44A-D	1-RA-06-POG3-PS-44A-D(4-8)	S	9/20/2006	807462	2371169	15POG3	61.8	140	0.14	
45A-D	1-RA-06-POG3-PS-45ABC(0-4)45D(0-3¾)	S	9/14/2006	807498	2371284	15POG3, 16POG3	73.4	590	0.59	
46A-D	1-RA-06-POG3-PS-46ACD(0-4)46B(0-3½)	S	9/14/2006	807454	2371392	16POG3	71.1	350	0.35	
47A-D	1-RA-06-POG3-PS-47A-D(0-4)	S	9/15/2006	807505	2371510	16POG3, 17POG3, 19POG3	73.2	560	0.56	
48A-D	1-RA-06-POG3-PS-48ACD(0-4)48B(0-3½)	S	8/2/2006	807450	2371629	17POG3	72.8	330	0.33	
49ABC	1-RA-06-POG3-PS-49A(0-3½)49BC(0-4)	S	8/2/2006	807494	2371723	17POG3	44.6	15000	15	
49BC	1-RA-06-POG3-PS-49BC(4-8)	S	8/17/2006	807494	2371723	17POG3	70.2	1600	1.6	
49BC	1-RA-06-POG3-PS-49B(8-11¾)49C(8-12)	S	8/30/2006	807494	2371723	17POG3	69.5	<27	<0.027	
49ABC RD	1-RA-06-POG3-PSRD-49ABC(0-4)	S	9/21/2006	807494	2371723	17POG3	71.7	100	0.1	
50A	1-RA-06-POG3-PS-50A(0-3)	S	8/1/2006	807597	2371111	19POG3	61.4	13000	13	
50A RD	1-RA-06-POG3-PSRD-50A(0-4)	S	9/20/2006	807597	2371111	19POG3	66.9	840	0.84	
51ABC	1-RA-06-POG3-PS-51ABC(0-4)	S	8/3/2006	807695	2371186	19POG3	66.8	5900	5.9	
51ABC Dup	1-RA-06-POG3-PS-51ABC(0-4)(DUP)	S/DUP	8/3/2006	807695	2371186	19POG3	66.0	1500	1.5	
51BC	1-RA-06-POG3-PS-51BC(4-8)	S	8/17/2006	807695	2371186	19POG3	64.7	140000	140	
51BC	1-RA-06-POG3-PS-51BC(8-12)	S	8/28/2006	807665	2371171	19POG3	60.2	<27	<0.027	
51ABC RD	1-RA-06-POG3-PSRD-51ABC(0-4)	S	10/11/2006	807695	2371186	19POG3	57.8	48	0.048	
51ABC RD Dup	1-RA-06-POG3-PSRD-51ABC(0-4)(Dup)	S/DUP	10/11/2006	807695	2371186	19POG3	57.8	850	0.85	
52ABD	1-RA-06-POG3-PS-52A(0-4)52B(0-3¾)52D(0-3½)	S	8/4/2006	807682	2371281	19POG3	69.1	620	0.62	
53A-D	1-RA-06-POG3-PS-53ABD(0-4)53C(0-3½)	S	8/4/2006	807712	2371397	19POG3, 20POG3	71.8	430	0.43	
54AB	1-RA-06-POG3-PS-54AB(0-4)	S	9/6/2006	807595	2371556	18POG3, 19POG3	57.2	700	0.7	
55AB	1-RA-06-POG3-PS-55A(0-3¾)55B(0-4)	S	9/6/2006	807659	2371635	18POG3	65.4	920	0.92	
56A-D	1-RA-06-POG3-PS-56A-D(0-4)	S	9/6/2006	807650	2371745	18POG3	67.2	260	0.26	
56A-D Dup	1-RA-06-POG3-PS-56A-D(0-4)(Dup)	S/DUP	9/6/2006	807650	2371745	18POG3	67.3	970	0.97	
57A-D	1-RA-06-POG3-PS-57A-D(0-4)	S	9/6/2006	807694	2371856	18POG3	66.0	12000	12	
57BCD	1-RA-06-POG3-PS-57BCD(4-8)	S	9/20/2006	807694	2371856	18POG3	71.9	460	0.46	
57A-D RD	1-RA-06-POG3-PSRD-57A-D(0-4)	S	10/9/2006	807694	2371856	18POG3	64.4	<27	<0.027	
57A-D Dup RD	1-RA-06-POG3-PSRD-57A-D(0-4)(Dup)	S/DUP	10/9/2006	807694	2371856	18POG3	64.9	<27	<0.027	
58A	1-RA-06-POG3-PS-58A(0-4)	S	8/31/2006	807621	2371909	18POG3	44.5	36	0.036	
59AB	1-RA-06-POG3-PS-59AB(0-4)	S	8/18/2006	807872	2371196	20POG3, 21POG3	76.6	150	0.15	
60A-D	1-RA-06-POG3-PS-60A-D(0-4)	S	8/18/2006	807890	2371281	20POG3, 21POG3	69.4	1200	1.2	
60A	1-RA-06-POG3-PS-60A(4-8)	S	8/17/2006	807940	2371220	21POG3	71.6	110	0.11	
61A-D	1-RA-06-POG3-PS-61A-D(0-4)	S	8/18/2006	807850	2371396	20POG3, 21POG3	68.3	930	0.93	
62A-D	1-RA-06-POG3-PS-62A-D(0-4)	S	8/3/2006	807903	2371509	20POG3, 22POG3	73.3	2500	2.5	
62C	1-RA-06-POG3-PS-62C(4-8)	S	8/2/2006	807903	2371509	20POG3	76.3	35	0.035	
63A	1-RA-06-POG3-PS-63A(0-4)	S	8/17/2006	807928	2371625	21POG3	64.7	460	0.46	
64A	1-RA-06-POG3-PS-64A (0-4)	S	7/13/2006	808149	2370776	26POG3	68.2	<27	<0.027	
65ABC	1-RA-06-POG3-PS-65ABC (0-4)	S	7/17/2006	808130	2370938	26POG3	73.4	63	0.063	
66ABC	1-RA-06-POG3-PS-66ABC(0-4)	S	8/25/2006	808085	2371189	21POG3, 23POG3	69.6	240	0.24	
67A-D	1-RA-06-POG3-PS-67ACD(0-4)67B(0-3½)	S	8/28/2006	808044	2371281	21POG3, 23POG3	72.7	610	0.61	
67A-D Dup	1-RA-06-POG3-PS-67ACD(0-4)67B(0-3½)(Dup)	S/DUP	8/28/2006	808044	2371281	21POG3, 23POG3	71.4	220	0.22	
68A-D	1-RA-06-POG3-PS-68A-D(0-4)	S	8/25/2006	808031	2371397	22POG3, 23POG3	70.8	290	0.29	
68A-D Dup	1-RA-06-POG3-PS-68A-D(0-4)(Dup)	S/DUP	8/23/2006	808031	2371397	22POG3, 23POG3	71.4	200	0.2	
69A-D	1-RA-06-POG3-PS-69AB(0-3¾)69CD(0-4)	S	8/1/2006	807931	2371512	22POG3	70.6	190	0.19	
70A-D	1-RA-06-POG3-PS-70AD(0-3½)70BC(0-4)	S	9/15/2006	808095	2371624	21POG3, 24POG3	76.1	290	0.29	
71AB	1-RA-06-POG3-PS-71AB(0-4)	S	9/15/2006	808064	2371692	21POG3, 24POG3	71.5	52	0.052	
72ABC	1-RA-06-POG3-PS-72ABC(0-4)	S	9/15/2006	808134	2371859	24POG3	67.9	280	0.28	
73A	1-RA-06-POG3-PS-73A(0-4)	S	9/14/2006	808057	2371926	24POG3	65.1	490	0.49	
74A	1-RA-06-POG3-PS-74A (0-4)	S	7/13/2006	808196	2370779	26POG3	66.4	140	0.14	
75ABC	1-RA-06-POG3-PS-75ABC (0-4)	S	7/19/2006	808290	2370844	27POG3	70.4	37	0.037	

ID	Sample ID	Sample Type (P/S/NSS)	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	PCB Results (ppb)	PCB Results (ppm)	Comments
76A-D	1-RA-06-POG3-PS-76A-D(0-4)	S	7/19/2006	808248	2370942	27POG3	72.2	33	0.033	
77AB	1-RA-06-POG3-PS-77AB (0-4)	S	7/19/2006	808268	2371029	27POG3	72.4	210	0.21	
78A	1-RA-06-POG3-PS-78A(0-4)	S	8/23/2006	808212	2371224	23POG3	77.9	180	0.18	
79AB	1-RA-06-POG3-PS-79AB(0-4)	S	8/23/2006	808252	2371288	23POG3	70.4	410	0.41	
80ABC	1-RA-06-POG3-PS-80ABC(0-4)	S	9/15/2006	808245	2371376	23POG3, 24POG3	67.3	480	0.48	
81ABCD	1-RA-06-POG3-PS-81A(0-3)81BCD(0-4)	S	9/15/2006	808295	2371512	24POG3, 25POG3	33.4	15000	15	
81BC	1-RA-06-POG3-PS-81BC(4-8)	S	10/2/2006	808295	2371512	24POG3, 25POG3	51.0	48	0.048	
81A-D RD	1-RA-06-POG3-PSRD-81A-D(0-4)	S	10/10/2006	808295	2371512	24POG3, 25POG3	57.0	200	0.2	
82ACD	1-RA-06-POG3-PS-82ACD(0-4)	S	9/15/2006	808246	2371627	24POG3, 25POG3	47.6	1300	1.3	
82ACD	1-RA-06-POG3-PS-82ACD(4-8)	S	10/2/2006	808246	2371627	24POG3, 25POG3	50.1	3700	3.7	
83A-D	1-RA-06-POG3-PS-83A-D(0-4)	S	9/12/2006	808296	2371745	25POG3	71.0	250	0.25	
84A-D	1-RA-06-POG3-PS-84A-D(0-4)	S	9/15/2006	808247	2371858	24POG3, 25POG3	65.1	180	0.18	
84A-D Dup	1-RA-06-POG3-PS-84A-D(0-4)(Dup)	S/DUP	9/15/2006	808247	2371858	24POG3, 25POG3	65.8	180	0.18	
85A	1-RA-06-POG3-PS-85A(0-4)	S	9/7/2006	808350	2371882	25POG3	45.1	2200	2.2	
85A	1-RA-06-POG3-PS-85A(4-8)	S	9/7/2006	808350	2371882	25POG3	48.0	1600	1.6	
85A	1-RA-06-POG3-PS-85A(8-12)	S	9/7/2006	808350	2371882	25POG3	54.9	1400	1.4	
85A RD	1-RA-06-POG3-PSRD-85A(0-4)	S	10/9/2006	808350	2371882	25POG3	55.9	89	0.089	
86A	1-RA-06-POG3-PS-86A (0-4)	S	7/18/2006	808410	2370875	27POG3	63.1	<27	<0.027	
87AB	1-RA-06-POG3-PS-87AB(0-4)	S	9/14/2006	808390	2371549	25POG3	28.1	13000	13	
87AB	1-RA-06-POG3-PS-87A(4-7¾)87B(4-8)	S	9/21/2006	808390	2371549	25POG3	39.2	36	0.036	
87AB RD	1-RA-06-POG3-PSRD-87AB(0-4)	S	10/11/2006	808390	2371549	25POG3	45.9	42	0.042	
POG4-South Primary Samples										
1P	1-RA-06-POG4-PS-1P(0-4)	P	8/31/2006	806908	2372611	1POG4	33.0	250	0.25	
2P	1-RA-06-POG4-PS-2P(0-4)	P	8/31/2006	806971	2372548	1POG4	78.8	<27	<0.027	
3P	1-RA-06-POG4-PS-3P(0-4)	P	9/13/2006	807111	2372637	2POG4	83.2	<27	<0.027	
4P	1-RA-06-POG4-PS-4P(0-4)	P	8/30/2006	807036	2372863	3POG4	34.8	680	0.68	
5P	1-RA-06-POG4-PS-5P(0-4)	P	8/23/2006	807117	2372986	4POG4	23.5	3100	3.1	
5P	1-RA-06-POG4-PS-5P(4-8)	P	8/23/2006	807117	2372986	4POG4	25.2	750	0.75	
6P	1-RA-06-POG4-PS-6P(0-4)	P	8/30/2006	807291	2372708	4POG4	76.0	110	0.11	
7P	1-RA-06-POG4-PS-7P(0-4)	P	8/23/2006	807417	2372807	4POG4	71.9	<27	<0.027	
7P Dup	1-RA-06-POG4-PS-7P(0-4)(Dup)	P/DUP	8/23/2006	807417	2372807	4POG4	71.8	<27	<0.027	
8P	1-RA-06-POG4-PS-8P(0-4)	P	8/23/2006	807249	2372961	4POG4	22.9	3700	3.7	
8P	1-RA-06-POG4-PS-8P(4-8)	P	8/23/2006	807249	2372961	4POG4	27.4	960	0.96	
9P	1-RA-06-POG4-PS-9P(0-4)	P	9/13/2006	807470	2373090	5POG4	57.0	130	0.13	
9P Dup	1-RA-06-POG4-PS-9P(0-4)(Dup)	P/DUP	9/13/2006	807470	2373090	5POG4	57.7	47	0.047	
POG4-South Composite Secondary Samples										
1A	1-RA-06-POG4-PS-1A(0-4)	S	8/31/2006	806906	2372596	1POG4	32.5	820	0.82	
2A	1-RA-06-POG4-PS-2A(0-4)	S	8/31/2006	806963	2372554	1POG4	68.4	87	0.087	
3ABC	1-RA-06-POG4-PS-3ABC(0-4)	S	9/18/2006	807103	2372670	2POG4	62.1	<27	<0.027	
4A-D	1-RA-06-POG4-PS-4A-D(0-4)	S	9/18/2006	807049	2372807	1POG4, 2POG4, 3POG4	31.4	590	0.59	
5A-D	1-RA-06-POG4-PS-5A-D(0-4)	S	8/31/2006	807145	2372941	4POG4	32.9	1500	1.5	
5A-D Dup	1-RA-06-POG4-PS-5A-D(0-4)(Dup)	S/DUP	8/31/2006	807145	2372941	4POG4	33.7	1300	1.3	
5BC	1-RA-06-POG4-PS-5BC(4-8)	S	9/14/2006	807145	2372941	4POG4	34.8	820	0.82	
6AB	1-RA-06-POG4-PS-6AB(0-4)	S	8/31/2006	807313	2372712	3POG4	67.2	81	0.081	
7A-D	1-RA-06-POG4-PS-7A-D(0-4)	S	9/18/2006	807400	2372807	4POG4, 5POG4	70.9	<27	<0.027	
8ABCD	1-RA-06-POG4-PS-8ABC(0-4)8D(0-3½)	S	9/18/2006	807366	2372975	4POG4, 5POG4	53.3	390	0.39	
9AB	1-RA-06-POG4-PS-9AB(0-4)	S	9/18/2006	807441	2373074	5POG4	33.6	450	0.45	

SPS = State Plane South
DMU = Dredge Management Unit
ppb = parts per billion
ppm = parts per million
VV - Vic Vac

Data from the *2006 RA Summary Report,* Appendix F, Table F-1.

Prepared by: SVF
Checked by: PRB

Table B-5

Lower Fox River - OU1

Summary of 2007 Post-Dredge Sediment Sampling Results

ID	Sample ID	Sample Type	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	Total PCB (ppb)	Total PCB (ppm)	Comments
Subarea A Primary Samples										
1P	1-RA-07-000A-RD-1P0-.45	P	4/27/2007	802355	2368785	1A	70.9	250	0.25	
2P	1-RA-07-000A-RD-2P0-.45	P	4/27/2007	802389	2368841	1A	67.9	23	0.023	
3P	1-RA-07-000A-RD-3P0-.41	P	4/27/2007	802641	2368716	2A	72	35	0.035	
4P	1-RA-07-000A-RD-4P0-.47	P	4/27/2007	802667	2368818	2A	51.5	180	0.18	
5P	1-RA-07-000A-RD-5P0-.67	P	5/10/2007	802949	2368681	3A	50.5	82	0.082	
6P	1-RA-07-000A-RD-6P0-.5	P	5/10/2007	802874	2368699	3A	47.1	570	0.57	
7P	1-RA-07-000A-RD-7P0-.66	P	5/10/2007	803209	2368901	4A	50	190	0.19	
7P/Dup.	1-RA-07-000A-RD-7P0-.66-Dup	P/Dup.	5/10/2007	803209	2368901	4A	53.4	150	0.15	
8P	1-RA-07-000A-RD-8P0-.5	P	5/10/2007	803392	2369015	4A	42.2	230	0.23	
9P	1-RA-07-000A-RD-9P0-.49	P	5/10/2007	803473	2369118	4A	77.1	<13	<0.013	
9P/Dup.	1-RA-07-000A-RD-9P0-.49-Dup	P/Dup.	5/10/2007	803473	2369118	4A	77.4	<13	<0.013	
10P	1-RA-07-000A-RD-10P0-.25	P	5/10/2007	802219	2368810	5A	80	370	0.37	
11P	1-RA-07-000A-RD-11P0-.5	P	5/24/2007	801994	2369063	6A	56.3	250	0.25	
12P	1-RA-07-000A-RD-12P0-.38	P	5/11/2007	801991	2369261	6A	66	300	0.3	
13P	1-RA-07-000A-RD-13P0-.64	P	5/11/2007	802020	2369445	6A	50.1	11000	11	
14P	1-RA-07-000A-RD-14P0-.5	P	5/11/2007	802143	2369138	7A	41.6	46	0.046	
15P	1-RA-07-000A-RD-15P0-.5	P	5/11/2007	802092	2369345	7A	61	370	0.37	
16P	1-RA-07-000A-RD-16P0-.74	P	5/11/2007	802249	2369123	8A	65.5	<13	<0.013	
17P	1-RA-07-000A-RD-17P0-.39	P	5/11/2007	802194	2369274	8A	66.2	1200	1.2	
18P	1-RA-07-000A-RD-18P0-.58	P	5/24/2007	802383	2369172	9A	30	3300	3.3	
19P	1-RA-07-000A-RD-19P0-.5	P	5/24/2007	802344	2369236	9A	54.1	320	0.32	
20P	1-RA-07-000A-RD-20P0-.64	P	5/24/2007	802293	2369453	9A	64.5	7900	7.9	
21P	1-RA-07-000A-RD-21P0-.47	P	5/24/2007	802590	2368955	10A	55.7	1100	1.1	
22P	1-RA-07-000A-RD-22P0-.67	P	5/25/2007	802695	2369388	10A	68.2	160	0.16	
Subarea A Composite Secondary Samples										
1ABCD	1-RA-07-000A-RD-1A0-.62,B0-.48,C0-.47,D0-.53	S	4/30/2007	802419	2368721	1A	64.7	390	0.39	
2ABCD	1-RA-07-000A-RD-2AB0-.45,C0-.48,D0-.46	S	4/30/2007	802422	2368852	1A	59.5	250	0.25	
3ABCD	1-RA-07-000A-RD-3AB0-.35,C0-.48,D0-.38	S	5/3/2007	802631	2368689	2A	63.9	370	0.37	
4ABCD	1-RA-07-000A-RD-4A0-.53,B0-.50,C0-.57,D0-.38	S	4/30/2007	802627	2368810	2A	53	230	0.23	
5ABCD	1-RA-07-000A-RD-5A0-.34,BCD0-.5	S	5/10/2007	802995	2368743	3A	47.9	890	0.89	
6ABCD	1-RA-07-000A-RD-6A0-.59,B0-.73,C0-.62,D0-.66	S	5/11/2007	802829	2368723	3A	52.1	810	0.81	
6ABCD/Dup.	1-RA-07-000A-RD-6A0-.59,B0-.73,C0-.62,D0-.66-Dup	S/Dup.	5/11/2007	802829	2368723	3A	54.9	900	0.9	
7ABC	1-RA-07-000A-RD-7A0-.5,B0-.56,C0-.63	S	5/11/2007	803138	2368843	4A	54.2	2100	2.1	
7ABC/Dup.	1-RA-07-000A-RD-7A0-.5,B0-.56,C0-.63-Dup	S/Dup.	5/11/2007	803138	2368843	4A	54.6	1900	1.9	
7A	1-RA-07-000A-RD-7A.5-1.1	S	5/10/2007	803138	2368843	4A	58	2600	2.6	
8ABC	1-RA-07-000A-RD-8AB0-.5,C0-.49	S	5/14/2007	803328	2369012	4A	56.1	130	0.13	
9ABCD	1-RA-07-000A-RD-9A0-.57,B0-.69,C0-.51,D0-.5	S	5/15/2007	803453	2369133	4A	55.4	380	0.38	
10ACD	1-RA-07-000A-RD-10A0-.41,CD0-.5	S	5/14/2007	802063	2368798	5A	54	750	0.75	
11ABCD	1-RA-07-000A-RD-11ABD0-.5,C0-.56	S	5/30/2007	801997	2369065	6A	49.3	4700	4.7	
11ABCD/Dup.	1-RA-07-000A-RD-11ABD0-.5,C0-.56-Dup	S/Dup.	5/30/2007	801997	2369065	6A	49.7	2800	2.8	
11ABD	1-RA-07-000A-RD-11AB.5-1,D.5-.94	S	6/7/2007	801997	2369065	6A	54.7	3500	3.5	
11AB	1-RA-07-000A-RD-11A1-1.5,B1-1.42	S	7/10/2007	801997	2369065	6A	66.8	100	0.1	
12ABC	1-RA-07-000A-RD-12AB0-.5,C0-.45	S	5/14/2007	802019	2369270	6A	62.1	570	0.57	
13ABC	1-RA-07-000A-RD-13A0-.71,B0-.52,C0-.38	S	5/14/2007	802033	2369503	6A	60.8	15000	15	
14ABCD	1-RA-07-000A-RD-14A-D0-.5	S	5/14/2007	802120	2369156	7A	57.4	9200	9.2	
14ABCD/Dup.	1-RA-07-000A-RD-14A-D0-.5-Dup	S/Dup.	5/14/2007	802120	2369156	7A	58.8	650	0.65	
14ABCD	1-RA-07-000A-RD-14A.5-.99,B.5-.9,C.5-1.22,D.5-1	S	5/23/2007	802120	2369156	7A	62.8	50	0.05	
15ABCD	1-RA-07-000A-RD-15AB0-.5,C0-.43,D0-.74	S	5/16/2007	802121	2369370	7A	67.2	110	0.11	
16ABCD	1-RA-07-000A-RD-16A0-.67,BD0-.5,C0-.54	S	5/16/2007	802250	2369122	8A	55.9	1700	1.7	
16BD	1-RA-07-000A-RD-16B.5-.87,D.5-1	S	5/23/2007	802250	2369122	8A	61.3	150	0.15	

ID	Sample ID	Sample Type	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	Total PCB (ppb)	Total PCB (ppm)	Comments
17ABCD	1-RA-07-000A-RD-17A-D0-.5	S	5/17/2007	802244	2369276	8A	49.5	7900	7.9	
17ABCD/Dup.	1-RA-07-000A-RD-17A-D0-.5-Dup	S/Dup.	5/17/2007	802244	2369276	8A	52.7	3600	3.6	
17ABCD	1-RA-07-000A-RD-17A.5-1.14,B.5-1.2,C.5-.75,D.5-1.02	S	5/29/2007	802244	2369276	8A	58	190	0.19	
18ABC	1-RA-07-000A-RD-18AC0-.5,B0-.7	S	5/30/2007	802388	2369148	9A	47.6	920	0.92	
19ABC	1-RA-07-000A-RD-19AC0-.5,B0-.6	S	5/30/2007	802387	2369297	9A	58.5	1800	1.8	
19AC	1-RA-07-000A-RD-19A.5-.97,C.5-.91	S	6/7/2007	802387	2369297	9A	65	230	0.23	
20ABC	1-RA-07-000A-RD-20A0-.7,B0-.37,C0-.6	S	5/30/2007	802287	2369492	9A	74.4	520	0.52	
21ABC	1-RA-07-000A-RD-21A0-.5,B0-.53,C0-.66	S	5/30/2007	802578	2368955	10A	46.2	2000	2	
21A	1-RA-07-000A-RD-21A.5-1.07	S	5/24/2007	802578	2368955	10A	62	<13	<0.013	
22ABC	1-RA-07-000A-RD-22AB0-.5,C0-.42	S	5/30/2007	802692	2369390	10A	71.4	600	0.6	
Subarea C Primary Samples										
1P	1-RA-07-000C-RD-1P0-.5	P	5/25/2007	805673	2368633	1C	56.5	30	0.03	
2P	1-RA-07-000C-RD-2P0-.5	P	5/30/2007	805642	2368977	2C	61.6	<13	<0.013	
3P	1-RA-07-000C-RD-3P0-.5	P	5/25/2007	806100	2368776	3C	37.6	260	0.26	
4P	1-RA-07-000C-RD-4P0-.5	P	5/25/2007	806178	2368747	3C	54.9	<13	<0.013	
5P	1-RA-07-000C-RD-5P0-.6	P	5/25/2007	806276	2368598	4C	62.9	<13	<0.013	
5P/Dup.	1-RA-07-000C-RD-5P0-.6-Dup	P/Dup.	5/25/2007	806276	2368598	4C	62.8	<13	<0.013	
6P	1-RA-07-000C-RD-6P0-.37	P	5/30/2007	806659	2368866	5C-A	78.4	110	0.11	
7P	1-RA-07-000C-RD-7P0-.66	P	5/30/2007	806612	2368931	5C-B	65.4	530	0.53	
8P	1-RA-07-000C-RD-8P0-.41	P	5/25/2007	806440	2368978	6C	70	250	0.25	
9P	1-RA-07-000C-RD-9P0-.5	P	5/30/2007	806575	2368978	6C	44.2	660	0.66	
Subarea C Composite Secondary Samples										
1ABCD	1-RA-07-000C-RD-1A0-.43,B0-.58,C0-.5,D0-.51	S	5/30/2007	805697	2368707	1C	58.3	230	0.23	
2ABCD	1-RA-07-000C-RD-2AC0-.5,B0-.72,D0-.27	S	5/31/2007	805729	2368899	2C	53	77	0.077	
2ABCD/Dup.	1-RA-07-000C-RD-2AC0-.5,B0-.72,D0-.27-Dup	S/Dup.	5/31/2007	805729	2368899	2C	53	59	0.059	
3ABCD	1-RA-07-000C-RD-3A0-.69,B0-.62,C0-.68,D0-.5	S	5/30/2007	806069	2368762	3C	42.4	100	0.1	
3ABCD/Dup.	1-RA-07-000C-RD-3A0-.69,B0-.62,C0-.68,D0-.5-Dup	S/Dup.	5/30/2007	806069	2368762	3C	42.9	87	0.087	
4ABCD	1-RA-07-000C-RD-4ABC0-.5,D0-.56	S	5/31/2007	806271	2368729	3C	37.5	980	0.98	
5AB	1-RA-07-000C-RD-5A0-.47,B0-.58	S	5/30/2007	806262	2368604	4C	59.6	220	0.22	
6B	1-RA-07-000C-RD-6B.5-.88	S	5/30/2007	806695	2368898	5C-A	53.4	50000	50	
6B	1-RA-07-000C-RD-6B0-.5	S	5/30/2007	806695	2368898	5C-A	38.4	59000	59	
6B SOC	1-RA-07-000C-RD-6B-SOC	S	6/20/2007	806664	2368845	5C-A	--	48100	48.1	Total PCB result based on core averaging. See App. B for calculations.
7AB	1-RA-07-000C-RD-7A0-.5,B0-.61	S	5/31/2007	806608	2368925	5C-B	37	1100	1.1	
7A	1-RA-07-000C-RD-7A.5-.78	S	5/30/2007	806608	2368925	5C-B	46.4	1300	1.3	
8ABC	1-RA-07-000C-RD-8A0-.5,B0-.55,C0-.46	S	5/31/2007	806432	2368997	6C	36.6	430	0.43	
9ABC	1-RA-07-000C-RD-9AB0-.5,C0-.36	S	5/31/2007	806506	2369069	6C	38.7	890	0.89	
Subarea D1 Primary Samples										
1P	1-RA-07-00D1-PS-1P0-.39	P	6/27/2007	811694	2370929	21D1	64.3	84	0.084	
2P	1-RA-07-00D1-PS-2P0-.5	P	6/27/2007	811610	2371052	21D1	39.8	500	0.5	
3P	1-RA-07-00D1-PS-3P0-.34	P	6/27/2007	811529	2370883	21D1	59.5	450	0.45	
4P	1-RA-07-00D1-PS-4P0-.53	P	6/22/2007	811421	2370934	20D1	55.2	220	0.22	
5P	1-RA-07-00D1-PS-5P0-.63	P	6/27/2007	811544	2370951	21D1	61	62	0.062	
5P/Dup.	1-RA-07-00D1-PS-5P0-.63-Dup	P/Dup.	6/27/2007	811544	2370951	21D1	56	120	0.12	
6P	1-RA-07-00D1-PS-6P0-.42	P	6/22/2007	811262	2370842	19D1	35.1	22	0.022	
7P	1-RA-07-00D1-PS-7P0-.62	P	6/22/2007	811289	2370934	19D1	60.2	44	0.044	
8P	1-RA-07-00D1-PS-8P0-.5	P	6/22/2007	811270	2371060	19D1	43.6	160	0.16	
8P/Dup.	1-RA-07-00D1-PS-8P0-.5-Dup	P/Dup.	6/22/2007	811270	2371060	19D1	45	110	0.11	
9P	1-RA-07-00D1-PS-9P0-.48	P	6/27/2007	811108	2370834	18D1	30.5	1300	1.3	
10P	1-RA-07-00D1-PS-10P0-.58	P	9/4/2007	810793	2370432	14AD1	54	720	0.72	
11P	1-RA-07-00D1-PS-11P0-.51	P	8/23/2007	810820	2370596	14BD1	52.6	14	0.014	
12P	1-RA-07-00D1-PS-12P0-.45	P	8/23/2007	810892	2370702	16D1	51.2	74	0.074	
13P	1-RA-07-00D1-PS-13P0-.42	P	8/10/2007	810822	2370823	17D1	65.9	37	0.037	
14P	1-RA-07-00D1-PS-14P0-.5	P	8/8/2007	810883	2370892	17D1	--	16.8	0.0168	
15P	1-RA-07-00D1-PS-15P0-.73	P	8/22/2007	810622	2370482	13D1	52.7	59	0.059	
16P	1-RA-07-00D1-PS-16P0-.47	P	8/23/2007	810692	2370589	14BD1	61.3	270	0.27	

ID	Sample ID	Sample Type	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	Total PCB (ppb)	Total PCB (ppm)	Comments
17P	1-RA-07-00D1-PS-17P0-.5	P	8/23/2007	810613	2370707	15D1	57.5	39	0.039	
18P	1-RA-07-00D1-PS-18P0-.5	P	8/23/2007	810700	2370804	15D1	63.7	170	0.17	
19P	1-RA-07-00D1-PS-19P0-.5	P	8/10/2007	810501	2370488	12D1	56.4	<13	<0.013	
20P	1-RA-07-00D1-PS-20P0-.5	P	8/10/2007	810418	2370586	12D1	53.5	750	0.75	
21P	1-RA-07-00D1-PS-21P0-.5	P	8/22/2007	810503	2370718	13D1	61.8	94	0.094	
22P	1-RA-07-00D1-PS-22P0-.54	P	8/13/2007	810299	2370592	11D1	73.9	270	0.27	
23P	1-RA-07-00D1-PS-23P0-.38	P	8/13/2007	810243	2370677	11D1	71.8	64	0.064	
24P	1-RA-07-00D1-PS-24P0-.5	P	7/25/2007	810094	2370475	10D1	65	99	0.099	
25P	1-RA-07-00D1-PS-25P0-.25	P	7/27/2007	810027	2370591	10D1	39.2	480	0.48	
26P	1-RA-07-00D1-PS-26P0-.32	P	5/15/2007	809854	2370373	2D1	51.3	50	0.05	
27P	1-RA-07-00D1-PS-27P0-.5	P	7/25/2007	809826	2370464	10D1	65	<13	<0.013	
27P	1-RA-07-00D1-PS-27P.5-.93	P	7/25/2007	809826	2370464	10D1	31.8	1600	1.6	
28P	1-RA-07-00D1-PS-28P0-.25	P	7/26/2007	809918	2370547	10D1	25.9	1700	1.7	
28P	1-RA-07-00D1-PS-28P.5-1	P	7/26/2007	809918	2370547	10D1	58.8	<13	<0.013	
29P	1-RA-07-00D1-PS-29P0-.42	P	4/27/2007	809728	2370311	1D1	38.8	27000	27	
29P	1-RA-07-00D1-PSRD-29P0-.5	P	9/7/2007	809721	2370307	1D1	--	16.8	0.0168	Redredge result
30P	1-RA-07-00D1-PS-30P0-.5	P	5/15/2007	809629	2370358	2D1	43.2	170	0.17	
31P	1-RA-07-00D1-PS-31P0-.5	P	5/15/2007	809718	2370387	2D1	61.7	350	0.35	
32P	1-RA-07-00D1-PS-32P0-.4	P	5/16/2007	809550	2370204	6D1	40	79	0.079	
33P	1-RA-07-00D1-PS-33P0-.5	P	7/25/2007	809479	2370389	9D1	25.8	970	0.97	
34P	1-RA-07-00D1-PS-34P0-.5	P	5/17/2007	809321	2370057	6D1	--	16.8	0.0168	
35P	1-RA-07-00D1-PS-35P0-.5	P	7/11/2007	809229	2370130	7D1	37.2	2200	2.2	
35P	1-RA-07-00D1-PS-35P.5-.92	P	7/11/2007	809229	2370130	7D1	73.9	<13	<0.013	
36P	1-RA-07-00D1-PS-36P0-.26	P	7/11/2007	809272	2370259	7D1	51.9	520	0.52	
37P	1-RA-07-00D1-PS-37P0-.5	P	8/6/2007	809230	2370363	8D1	54.6	260	0.26	
38P	1-RA-07-00D1-PS-38P0-.67	P	7/11/2007	809125	2370143	7D1	58.4	18	0.018	
39P	1-RA-07-00D1-PS-39P0-.5	P	8/6/2007	809027	2370272	8D1	53.3	33	0.033	
40P	1-RA-07-00D1-PS-40P0-.5	P	5/16/2007	808898	2369842	3D1	18.8	79	0.079	
41P	1-RA-07-00D1-PS-41P0-.7	P	5/16/2007	808830	2369904	3D1	23.5	27	0.027	
42P	1-RA-07-00D1-PS-42P0-.5	P	7/10/2007	808892	2370005	5D1	23.4	6100	6.1	
42P	1-RA-07-00D1-PS-42P.5-1	P	7/10/2007	808892	2370005	5D1	47	770	0.77	
42P	1-RA-07-00D1-PSRD-42P0-.5	P	10/17/2007	808894	2370003	5D1	43.2	<64	<0.064	Redredge result
43P	1-RA-07-00D1-PS-43P0-.5	P	7/10/2007	808883	2370160	5D1	45.6	28	0.028	
44P	1-RA-07-00D1-PS-44P0-.5	P	7/10/2007	808880	2370215	5D1	52	22	0.022	
45P	1-RA-07-00D1-PS-45P0-.56	P	5/16/2007	808733	2369927	3D1	37	68	0.068	
46P	1-RA-07-00D1-PS-46P0-.63	P	7/9/2007	808724	2370144	4D1	38.8	120	0.12	
47P	1-RA-07-00D1-PS-47P0-.48	P	9/21/2007	811055	2370618	25D1	49.5	170	0.17	
48P	1-RA-07-00D1-PS-48P0-.49	P	9/21/2007	811014	2370706	25D1	37.7	560	0.56	
49P	1-RA-07-00D1-PS-49P0-.54	P	10/24/2007	810293	2370414	24D1	43.2	13	0.013	
50P	1-RA-07-00D1-PS-50P0-.6	P	8/13/2007	810228	2370472	24D1	63.5	60	0.06	
51P	1-RA-07-00D1-PS-51P0-.42	P	7/27/2007	810022	2370368	23D1	44.6	350	0.35	
52P	1-RA-07-00D1-PS-52P0-.5	P	9/24/2007	808867	2370313	26D1	38.4	430	0.43	
53P	1-RA-07-00D1-PS-53P0-.5	P	9/24/2007	809217	2370402	26D1	23.6	53	0.053	
54P	1-RA-07-00D1-PS-54P0-.5	P	9/21/2007	809693	2370561	27D1	22.2	880	0.88	
55P	1-RA-07-00D1-PS-55P0-.5	P	9/21/2007	810232	2370701	27D1	--	16.8	0.0168	
56P	1-RA-07-00D1-PS-56P0-.5	P	9/24/2007	808567	2370339	29D1	36	1600	1.6	
56P	1-RA-07-00D1-PS-56P.5-.87	P	9/24/2007	808567	2370339	29D1	37.4	42	0.042	
57P	1-RA-07-00D1-PS-57P0-.5	P	9/24/2007	808827	2370368	29D1	26.3	61	0.061	
58P	1-RA-07-00D1-PS-58P0-.5	P	10/24/2007	809111	2370436	30D1	24.1	530	0.53	
59P	1-RA-07-00D1-PS-59P0-.5	P	10/24/2007	809427	2370479	30D1	19.2	420	0.42	
60P	1-RA-07-00D1-PS-60P0-.5	P	9/25/2007	809541	2370555	31D1	30.1	270	0.27	
60P	1-RA-07-00D1-PS-60P.5-1	P	9/25/2007	809541	2370555	31D1	26.2	1600	1.6	
61P	1-RA-07-00D1-PS-61P0-.5	P	9/25/2007	809818	2370652	31D1	23.9	98	0.098	
61P	1-RA-07-00D1-PS-61P.5-1	P	9/25/2007	809818	2370652	31D1	23.1	1100	1.1	
62P	1-RA-07-00D1-PS-62P0-.5	P	9/26/2007	810021	2370703	32D1	26.6	790	0.79	
63P	1-RA-07-00D1-PS-63P0-.46	P	9/26/2007	810224	2370793	32D1	64.7	800	0.8	
64P	1-RA-07-00D1-PS-64P0-.5	P	9/26/2007	811414	2371165	28D1	41.4	170	0.17	
65P	1-RA-07-00D1-PS-65P0-.5	P	9/26/2007	811416	2371251	28D1	37.8	21	0.021	

ID	Sample ID	Sample Type	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	Total PCB (ppb)	Total PCB (ppm)	Comments
Subarea D1										
Composite Secondary Samples										
1BCD	1-RA-07-00D1-PS-1B0-.36,C0-.5,D0-.65	S	6/28/2007	811692	2370927	21D1	61	52	0.052	
2AB	1-RA-07-00D1-PS-2AB0-.5	S	7/10/2007	811599	2370971	21D1	57.9	14	0.014	
2AB	1-RA-07-00D1-PS-2A.5-1,B.5-1.06	S	6/29/2007	811599	2370971	21D1	42	1100	1.1	
3ABC	1-RA-07-00D1-PS-3A0-.39,B0-.34,C0-.38	S	6/28/2007	811523	2370879	20D1, 21D1	64.6	150	0.15	
4ABCD	1-RA-07-00D1-PS-4A0-.45,B0-.5,CD0-.69	S	6/25/2007	811424	2370946	20D1	53.7	120	0.12	
5ABCD	1-RA-07-00D1-PS-5A-D0-.5	S	6/25/2007	811477	2371034	20D1	42.2	750	0.75	
6AB	1-RA-07-00D1-PS-6A0-.34,B0-.53	S	6/25/2007	811298	2370762	19D1	66	110	0.11	
7ABC	1-RA-07-00D1-PS-7A0-.49,B0-.5,C0-.47	S	6/25/2007	811323	2370937	19D1	58	64	0.064	
8ABC	1-RA-07-00D1-PS-8ABC0-.5	S	6/25/2007	811353	2371069	19D1, 20D1	40.4	1200	1.2	
8ABC	1-RA-07-00D1-PS-8AB.5-1,C.5-1.13	S	7/10/2007	811353	2371069	19D1, 20D1	48.1	27	0.027	
9ABCD	1-RA-07-00D1-PS-9A0-.4,B0-.68,CD0-.5	S	9/26/2007	811097	2370895	18D1, 25D1	46.6	500	0.5	
10ABCD	1-RA-07-00D1-PS-10A0-.5,B0-.66,C0-.7,D0-.51	S	9/4/2007	810820	2370454	14A-D1, 16D1	58.6	220	0.22	
11ABCD	1-RA-07-00D1-PS-11A0-.49,B0-.5,C0-.47,D0-.71	S	8/24/2007	810817	2370582	14B-D1, 16D1	51	18	0.018	
12ABCD	1-RA-07-00D1-PS-12A0-.73,B0-.73,C0-.4,D0-.5	S	8/27/2007	810889	2370715	16D1	50.3	210	0.21	
13ABCD	1-RA-07-00D1-PS-13A0-.61,B0-.5,C0-.4,D0-.42	S	8/27/2007	810819	2370821	16D1,17D1	61.5	64	0.064	
13ABCD/Dup.	1-RA-07-00D1-PS-13A0-.61,B0-.5,C0-.4,D0-.42-DUP	S/Dup.	8/27/2007	810819	2370821	16D1,17D1	62.5	67	0.067	
14ABCD	1-RA-07-00D1-PS-14A0-.35,B0-.53,C0-.38,D0-.47	S	8/13/2007	810913	2370898	17D1	59.4	140	0.14	
15ABCD	1-RA-07-00D1-PS-15A0-.54,B0-.6,C0-.52,D0-.72	S	8/27/2007	810627	2370490	13D1, 14B-D1	56.6	44	0.044	
16ABCD	1-RA-07-00D1-PS-16AB0-.42,C0-.62,D0-.61	S	8/27/2007	810688	2370597	13D1,15D1, 14B-D1	54.1	130	0.13	
17ABCD	1-RA-07-00D1-PS-17A0-.42,BCD0-.5	S	8/27/2007	810634	2370701	13D1,15D1	50.3	240	0.24	
18ABCD	1-RA-07-00D1-PS-18A0-.72,B0-.5,C0-.73,D0-.66	S	8/27/2007	810695	2370824	15D1	62	19	0.019	
18ABCD/Dup.	1-RA-07-00D1-PS-18A0-.72,B0-.5,C0-.73,D0-.66-DUP	S/Dup.	8/27/2007	810695	2370824	15D1	63.6	20	0.02	
19ABCD	1-RA-07-00D1-PS-19A0-.49,BCD0-.5	S	8/27/2007	810496	2370497	12D1, 13D1	40.9	270	0.27	
20BCD	1-RA-07-00D1-PS-20BC0-.5,D0-.28	S	8/13/2007	810423	2370595	12D1	50.6	81	0.081	
21ABC	1-RA-07-00D1-PS-21ABC0-.5	S	8/27/2007	810539	2370706	12D1,13D1	44.3	110	0.11	
21ABC/Dup.	1-RA-07-00D1-PS-21ABC0-.5-DUP	S/Dup.	8/27/2007	810539	2370706	12D1,13D1	44.4	160	0.16	
22ABCD	1-RA-07-00D1-PS-22A0-.65,B0-.5,C0-.35,D0-.34	S	8/16/2007	810305	2370600	11D1	61.1	920	0.92	
23ABC	1-RA-07-00D1-PS-23A0-.46,B0-.45,C0-.37	S	8/16/2007	810326	2370700	11D1,12D1	59	330	0.34	
24ABCD	1-RA-07-00D1-PS-24AB0-.39,C0-.35,D0-.5	S	8/16/2007	810068	2370463	10D1,11D1,24D1	56.3	290	0.29	
25ABCD	1-RA-07-00D1-PS-25A0-.4,BC0-.5,D0-.59	S	8/16/2007	810008	2370573	10D1,11D1	48.2	340	0.34	
26ABC	1-RA-07-00D1-PS-26A0-.5,B0-.6,C0-.26	S	5/17/2007	809865	2370379	2D1	63	50	0.05	
27ABCD	1-RA-07-00D1-PS-27A-D0-.5	S	7/26/2007	809821	2370474	9D1, 10D1	42	1700	1.7	
27ABCD	1-RA-07-00D1-PS-27A.5-.92,B.5-.87,C.5-1,D.5-1.11	S	8/8/2007	809821	2370474	9D1,10D1	44.8	81	0.081	
27ABCD/Dup.	1-RA-07-00D1-PS-27A.5-.92,B.5-.87,C.5-1,D.5-1.11-Dup	S/Dup.	8/8/2007	809821	2370474	9D1,10D1	42.8	48	0.048	
28ABC	1-RA-07-00D1-PS-28ABC0-.5	S	7/30/2007	809908	2370549	10D1	35.7	330	0.33	
28ABC/Dup.	1-RA-07-00D1-PS-28ABC0-.5-Dup	S/Dup.	7/30/2007	809908	2370549	10D1	36.4	310	0.31	
29AB	1-RA-07-00D1-PS-29A0-.54,B0-.27	S	4/30/2007	809720	2370294	1D1	41.3	9800	9.8	
29AB	1-RA-07-00D1-PSRD-29AB	S	9/7/2007	809716	2370299	1D1	--	16.8	0.0168	Redredge result
30ABD	1-RA-07-00D1-PS-30AD0-.5,B0-.33	S	8/16/2007	809613	2370362	2D1,9D1	41.1	530	0.53	
31ABCD	1-RA-07-00D1-PS-31A-D0-.5	S	7/30/2007	809690	2370471	9D1	33.3	220	0.22	
32ABCD	1-RA-07-00D1-PS-32A0-.61,B0-.29,C0-.39,D0-.73	S	5/17/2007	809472	2370169	6D1	57.5	250	0.25	
33ABCD	1-RA-07-00D1-PS-33A-D0-.5	S	8/2/2007	809466	2370397	8D1, 9D1	34.9	120	0.12	
34AB	1-RA-07-00D1-PS-34A0-.61,B0-.42	S	7/12/2007	809316	2370058	6D1	66.2	160	0.16	
35ABCD	1-RA-07-00D1-PS-35A0-.62,B0-.45,C0-.61,D0-.66	S	7/12/2007	809241	2370142	6D1, 7D1	57.5	290	0.29	
36ABCD	1-RA-07-00D1-PS-36A0-.43,B0-.46,C0-.52,D0-.5	S	8/2/2007	809237	2370240	7D1, 8D1	64.2	580	0.58	
36ABCD/Dup.	1-RA-07-00D1-PS-36A0-.43,B0-.46,C0-.52,D0-.5-Dup	S/Dup.	8/2/2007	809237	2370240	7D1, 8D1	63.6	270	0.27	
37ABC	1-RA-07-00D1-PS-37ABC0-.5	S	8/7/2007	809264	2370334	8D1	57.1	290	0.29	
38ABCD	1-RA-07-00D1-PS-38A-D0-.5	S	7/17/2007	809135	2370123	7D1,22D1	49.2	840	0.84	
39ABCD	1-RA-07-00D1-PS-39A-D0-.5	S	8/7/2007	809061	2370276	8D1, 22D1	56.2	61	0.061	
40AB	1-RA-07-00D1-PS-40AB0-.5	S	5/18/2007	808897	2369839	3D1	28.4	67	0.067	
41ABCD	1-RA-07-00D1-PS-41AB0-.5,C0-.56,D0-.61	S	5/17/2007	808839	2369894	3D1	34.9	720	0.72	
42ABCD	1-RA-07-00D1-PS-42A0-.45,B0-.5,CD0-.5	S	7/12/2007	808913	2370016	3D1, 5D1	36.8	770	0.77	
43ABCD	1-RA-07-00D1-PS-43A-D0-.5	S	7/13/2007	808890	2370115	4D1, 5D1	42.8	480	0.48	
44ABC	1-RA-07-00D1-PS-44ABC0-.5	S	7/13/2007	808850	2370200	4D1, 5D1	52.7	82	0.082	
45AB	1-RA-07-00D1-PS-45A0-.73,B0-.5	S	5/18/2007	808739	2369918	3D1	44.7	15	0.015	
46ABC	1-RA-07-00D1-PS-46ABC0-.5	S	7/13/2007	808720	2370149	4D1	49.5	380	0.38	
47AB	1-RA-07-00D1-PS-47A0-.44,B0-.48	S	9/26/2007	811056	2370634	25D1	55.4	150	0.15	
48ABCD	1-RA-07-00D1-PS-48A0-.51,B0-.45,C0-.52,D0-.7	S	9/26/2007	811031	2370710	25D1	39.3	400	0.4	

ID	Sample ID	Sample Type	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	Total PCB (ppb)	Total PCB (ppm)	Comments
48ABCD/Dup.	1-RA-07-00D1-PS-48A0-.51,B0-.45,C0-.52,D0-.7-DUP	S/Dup.	9/26/2007	811031	2370710	25D1	39.2	420	0.42	
49A	1-RA-07-00D1-PS-49A0-.5	S	8/14/2007	810327	2370443	24D1	35.8	84	0.084	
50ABCD	1-RA-07-00D1-PS-50A0-.58,B0-.59,C0-.66,D0-.25	S	8/16/2007	810233	2370473	24D1	61.1	74	0.074	
50ABCD/Dup.	1-RA-07-00D1-PS-50A0-.58,B0-.59,C0-.66,D0-.25-DUP	S/Dup.	8/16/2007	810233	2370473	24D1	60.1	170	0.17	
51 BC	1-RA-07-00D1-PS-51B0-.41, C0-.64	S	7/30/2007	810004	2370394	23D1	52.2	390	0.39	
52ABC	1-RA-07-00D1-PS-52ABC0-.5	S	9/26/2007	808857	2370316	26D1	32.9	110	0.11	
53ABCD	1-RA-07-00D1-PS-53A-D0-.5	S	9/26/2007	809225	2370389	26D1	24.8	1000	1.0	
54ABC	1-RA-07-00D1-PS-54ABC0-.5	S	9/26/2007	809702	2370550	27D1	22.7	410	0.41	
55AB	1-RA-07-00D1-PS-55A0-.6,B0-.32	S	9/26/2007	810110	2370682	27D1	59.4	240	0.24	
56ABC	1-RA-07-00D1-PS-56ABC0-.5	S	10/3/2007	808568	2370332	29D1	26.7	300	0.3	
57ABCD	1-RA-07-00D1-PS-57A-D0-.5	S	10/3/2007	808837	2370384	29D1	24.7	670	0.67	
58ABCD	1-RA-07-00D1-PS-58ABC0-.5,D0-.66	S	10/25/2007	809110	2370435	30D1	23.3	550	0.55	
58ABCD/Dup.	1-RA-07-00D1-PS-58ABC0-.5,D0-.66-DUP	S/Dup.	10/25/2007	809110	2370435	30D1	23.5	540	0.54	
59ABC	1-RA-07-00D1-PS-59ABC0-.5	S	10/25/2007	809334	2370495	30D1	23.4	210	0.21	
60ABCD	1-RA-07-00D1-PS-60A-D0-.5	S	10/3/2007	809545	2370558	31D1	22.2	1200	1.2	
60ABCD/Dup.	1-RA-07-00D1-PS-60A-D0-.5-DUP	S/Dup.	10/3/2007	809545	2370558	31D1	22	1400	1.4	
60ABCD	1-RA-07-00D1-PS-60A.5-.95,B.5-.92,C.5-.83,D.5-1.02	S	10/18/2007	809545	2370558	31D1	29.9	31	0.031	
61ABC	1-RA-07-00D1-PS-61ABC0-.5	S	10/18/2007	809817	2370647	31D1	37.6	25	0.025	
61ABC	1-RA-07-00D1-PS-61A.5-.85,B.5-1.1,C.5-1.12	S	10/3/2007	809817	2370647	31D1	20.3	1700	1.7	
62ABCD	1-RA-07-00D1-PS-62ABC0-.5,D0-.29	S	10/8/2007	810022	2370707	32D1	25.7	870	0.87	
63ABD	1-RA-07-00D1-PS-63A0-.4,B0-.69,D0-.35	S	10/8/2007	810237	2370785	32D1	73.7	210	0.21	
63ABD/Dup.	1-RA-07-00D1-PS-63A0-.4,B0-.69,D0-.35-DUP	S/Dup.	10/8/2007	810237	2370785	32D1	74.5	240	0.24	
64ABC	1-RA-07-00D1-PS-64ABC0-.5	S	10/8/2007	811349	2371152	28D1	45.1	210	0.21	
65ABC	1-RA-07-00D1-PS-65ABC0-.5	S	10/8/2007	811428	2371240	28D1	42.4	250	0.25	
Subarea D2S Primary Samples										
1P	1-RA-07-0D2S-PSSC-1P0-.5	P	5/4/2007	805924	236180		19.6	1600	1.6	Proposed Sand Placement Area
1P	1-RA-07-0D2S-PSSC-1P.5-1	P	5/4/2007	805924	236180		27.1	63	0.063	Proposed Sand Placement Area
1P	1-RA-07-0D2S-PSSC-1P1-1.36	P	5/4/2007	805924	236180		29.2	16	0.016	Proposed Sand Placement Area
2P	1-RA-07-0D2S-PSSC-2P0-.5	P	5/4/2007	806057	2369306		17.0	1000	1.0	Proposed Sand Placement Area
2P	1-RA-07-0D2S-PSSC-2P.5-1.11	P	5/4/2007	806057	2369306		25.7	260	0.26	Proposed Sand Placement Area
Subarea D2S Secondary Samples										
1ABC	1-RA-07-0D2S-PSSC-ABC0-.5	S	5/7/2007	805926	2369195		21.5	1300	1.3	Proposed Sand Placement Area
1ABC	1-RA-07-0D2S-PSSC-1A.5-.97,B.5-1,C.5-.9	S	5/7/2007	805926	2369195		28.4	150	0.15	Proposed Sand Placement Area
1B	1-RA-07-0D2S-PSSC-1B1-1.5	S	5/4/2007	805920	2369197		29.5	<13	<0.013	Proposed Sand Placement Area
2ABCD	1-RA-07-0D2S-PSSC-2A-D0-.5	S	5/7/2007	806147	2369270		19.1	1800	1.8	Proposed Sand Placement Area
2ABCD	1-RA-07-0D2S-PSSC-2A.5-1.24,B.5-1.03,C.5-1.17,D.5-.81	S	5/7/2007	806147	2369270		29.3	200	0.20	Proposed Sand Placement Area
Subarea E1 Primary Samples										
1P	1-RA-07-00E1-PS-1P0-.5	P	7/31/2007	812136	2371726	1E1	20	1100	1.1	
1P	1-RA-07-00E1-PS-1P.5-1.04	P	7/31/2007	812136	2371726	1E1	33.3	<13	<0.013	
2P	1-RA-07-00E1-PS-2P0-.5	P	7/31/2007	812176	2371789	1E1	21.2	62	0.062	
2P/Dup.	1-RA-07-00E1-PS-2P0-.5-Dup	P/Dup.	7/31/2007	812176	2371789	1E1	21.3	100	0.1	
3P	1-RA-07-00E1-PS-3P0-.6	P	9/10/2007	812187	2372102	2E1	38.4	64	0.064	
4P	1-RA-07-00E1-PS-4P0-.5	P	9/10/2007	812141	2372194	2E1	20.4	90	0.09	
5P	1-RA-07-00E1-PS-5P0-.5	P	8/10/2007	812214	2372310	3E1	21.7	650	0.65	
6P	1-RA-07-00E1-PS-6P0-.5	P	8/8/2007	812144	2372461	3E1	21.3	2600	2.6	
6P	1-RA-07-00E1-PS-6P.5-.91	P	8/8/2007	812144	2372461	3E1	21.7	160	0.16	
Subarea E1 Composite Secondary Samples										
1ABC	1-RA-07-00E1-PS-1ABC0-.5	S	8/1/2007	812130	2371712	1E1	20.7	290	0.29	
2ABCD	1-RA-07-00E1-PS-2A-D0-.5	S	8/1/2007	812131	2371830	1E1	19.2	500	0.5	
2ABCD/Dup.	1-RA-07-00E1-PS-2A-D0-.5-Dup	S/Dup.	8/1/2007	812131	2371830	1E1	19.2	440	0.44	
3ABCD	1-RA-07-00E1-PS-3A0-.6,B0-.66,C0-.5,D0-.65	S	9/11/2007	812126	2372074	2E1	28.4	140	0.14	
4ABC	1-RA-07-00E1-PS-4ABC0-.5	S	9/11/2007	812142	2372213	2E1	17.9	940	0.94	
5ABC	1-RA-07-00E1-PS-5ABC0-.5	S	8/13/2007	812141	2372313	3E1	18.8	1200	1.2	
5ABC	1-RA-07-00E1-PS-5AC.5-1,B.5-1.15	S	8/22/2007	812141	2372313	3E1	30.1	27	0.027	
6ABC	1-RA-07-00E1-PS-6ABC0-.5	S	8/13/2007	812141	2372472	3E1	20	810	0.81	

ID	Sample ID	Sample Type	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	Total PCB (ppb)	Total PCB (ppm)	Comments
Subarea E2 Primary Samples										
1P	1-RA-07-00E2-PS-1P0-.32	P	8/14/2007	815638	2372592	1E2	69.6	39	0.039	
2P	1-RA-07-00E2-PS-2P0-.5	P	8/14/2007	815598	2372676	1E2	20.6	1100	1.2	
2P	1-RA-07-00E2-PS-2P.5-.99	P	8/14/2007	815598	2372676	1E2	66.1	24	0.024	
3P	1-RA-07-00E2-PS-3P0-.5	P	9/4/2007	815626	2372860	2E2	16.2	11000	11	
3P	1-RA-07-00E2-PSRD-3P0-.5	P	11/8/2007	815626	2372860	2E2	19.6	480	0.48	Redredge result
4P	1-RA-07-00E2-PS-4P0-.5	P	9/4/2007	815596	2372894	2E2	17.2	1800	1.8	
5P	1-RA-07-00E2-PS-5P0-.5	P	11/8/2007	814406	2372435	3E2	18.1	830	0.83	
Subarea E2 Composite Secondary Samples										
1ACD	1-RA-07-00E2-PS-1A0-.29,C0-.3,D0-.5	S	8/16/2007	815547	2372617	1E2	40.8	370	0.37	
2ABCD	1-RA-07-00E2-PS-2A-D0-.5	S	8/16/2007	815549	2372699	1E2	34.9	1700	1.7	
2ABCD	1-RA-07-00E2-PS-2A.5-.89,BD.5-1,C.5-1.07	S	8/23/2007	815549	2372699	1E2	37.1	570	0.57	
2ABCD/Dup.	1-RA-07-00E2-PS-2A.5-.89,BD.5-1,C.5-1.07-Dup	S/Dup.	8/23/2007	815549	2372699	1E2	42	470	0.47	
3ABCD	1-RA-07-00E2-PS-3A-D0-.5	S	9/4/2007	815627	2372859	2E2	16.2	3800	3.8	
3ABCD	1-RA-07-00E2-PSRD-3A-D0-.5	S	11/9/2007	815627	2372859	2E2	17.7	1800	1.8	Redredge result
3ABCD	1-RA-07-00E2-PSRD-3A.5-1,B.5-1.13,C.5-1.1,D.5-1.03	S	11/19/2007	815627	2372859	2E2	24	170	0.17	Redredge result
4ABCD	1-RA-07-00E2-PS-4A-D0-.5	S	9/4/2007	815549	2372882	2E2	16.8	4800	4.8	
4ABCD/Dup.	1-RA-07-00E2-PS-4A-D0-.5-DUP	S/Dup.	9/4/2007	815549	2372882	2E2	16.7	3700	3.7	
5ABCD	1-RA-07-00E2-PS-5A-D0-.5	S	11/9/2007	814408	2372435	3E2	18.2	1300	1.3	
5ABCD	1-RA-07-00E2-PS-5A.5-1.14,B.5-.99,CD.5-1	S	11/19/2007	814408	2372435	3E2	23	67	0.067	
Subarea E3S Primary Samples										
1P	1-RA-07-0E3S-PS-1P0-.5	P	6/28/2007	811682	2371060	1E3S	34.3	880	0.88	
2P	1-RA-07-0E3S-PS-2P0-.5	P	6/28/2007	811808	2370938	1E3S	51.4	140	0.14	
3P	1-RA-07-0E3S-PS-3P0-.6	P	7/10/2007	812156	2370822	2E3S	60	22	0.022	
4P	1-RA-07-0E3S-PS-4P0-.5	P	7/10/2007	812074	2370865	2E3S	35.2	1100	1.1	
4P	1-RA-07-0E3S-PS-4P.5-1	P	7/10/2007	812074	2370865	2E3S	45.1	26	0.026	
5P	1-RA-07-0E3S-PS-5P0-.5	P	7/12/2007	812120	2370944	3E3S	28.2	9100	9.1	
5P	1-RA-07-0E3S-PS-5P.5-1	P	7/12/2007	812120	2370944	3E3S	38.6	110	0.11	
5P	1-RA-07-0E3S-PSRD-5P0-.66	P	10/17/2007	812119	2370944	3E3S	32.8	260	0.26	Redredge result
6P	1-RA-07-0E3S-PS-6P0-.5	P	7/12/2007	812137	2371175	3E3S	42.5	250	0.25	
7P	1-RA-07-0E3S-PS-7P0-.5	P	9/10/2007	812183	2371390	4E3S	36.2	110	0.11	
8P	1-RA-07-0E3S-PS-8P0-.5	P	9/10/2007	812130	2371626	4E3S	34.4	550	0.55	
9P	1-RA-07-0E3S-PS-9P0-.5	P	8/14/2007	813783	2370644	5E3S	65.7	56	0.056	
10P	1-RA-07-0E3S-PS-10P0-.5	P	10/2/2007	812019	2371056	6E3S	43.2	72	0.072	
11P	1-RA-07-0E3S-PS-11P0-.5	P	10/2/2007	812000	2371429	6E3S	35.9	1900	1.9	
11P	1-RA-07-0E3S-PS-11P.5-1	P	10/2/2007	812000	2371429	6E3S	43.6	34	0.034	
12P	1-RA-07-0E3S-PS-12P0-.5	P	10/12/2007	811818	2371164	7E3S	42.4	130	0.13	
13P	1-RA-07-0E3S-PS-13P0-.72	P	10/12/2007	811777	2371279	7E3S	47	360	0.36	
14P	1-RA-07-0E3S-PS-14P0-.5	P	10/12/2007	811808	2371398	7E3S	31.8	2600	2.6	
14P	1-RA-07-0E3S-PS-14P.5-.99	P	10/12/2007	811808	2371398	7E3S	42.3	250	0.25	
15P	1-RA-07-0E3S-PS-15P0-.5	P	9/25/2007	811499	2371220	8E3S	40.3	690	0.69	
16P	1-RA-07-0E3S-PS-16P0-.5	P	9/25/2007	811532	2371390	8E3S	18.5	98	0.098	
19P	1-RA-07-0E3S-PS-19P0-.5	P	10/25/2007	812347	2370986	10E3S	36.5	25	0.025	
20P	1-RA-07-0E3S-PS-20P0-.5	P	10/25/2007	812345	2371110	10E3S	39.8	74	0.074	
21P	1-RA-07-0E3S-PS-21P0-.5	P	10/25/2007	812343	2371433	11E3S	39.2	840	0.84	
22P	1-RA-07-0E3S-PS-22P0-.5	P	10/25/2007	812421	2371489	11E3S	25.8	190	0.19	
23P	1-RA-07-0E3S-PS-23P0-.5	P	10/29/2007	812418	2371053	12E3S	27.6	1700	1.7	
23P	1-RA-07-0E3S-PS-23P.5-.99	P	10/29/2007	812418	2371053	12E3S	39.1	31	0.031	
24P	1-RA-07-0E3S-PS-24P0-.5	P	10/29/2007	812466	2371136	12E3S	34.8	93	0.093	
25P	1-RA-07-0E3S-PS-25P0-.5	P	11/2/2007	812613	2370945	13E3S	26.1	3500	3.5	
25P	1-RA-07-0E3S-PS-25P.5-1.18	P	11/2/2007	812613	2370945	13E3S	33.5	45	0.045	
26P	1-RA-07-0E3S-PS-26P0-.5	P	11/5/2007	812693	2370867	13E3S	33.4	<13	<0.013	
27P	1-RA-07-0E3S-PS-27P0-.5	P	11/2/2007	812614	2371159	14E3S	27.4	2100	2.1	
27P	1-RA-07-0E3S-PS-27P.5-1	P	11/2/2007	812614	2371159	14E3S	39.5	390	0.39	
28P	1-RA-07-0E3S-PS-28P0-.5	P	11/1/2007	812693	2371068	14E3S	30.9	33	0.033	
29P	1-RA-07-0E3S-PS-29P0-.74	P	11/1/2007	812625	2371219	15E3S	44	65	0.065	
30P	1-RA-07-0E3S-PS-30P0-.5	P	11/1/2007	812624	2371322	15E3S	73.7	<13	<0.013	

ID	Sample ID	Sample Type	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	Total PCB (ppb)	Total PCB (ppm)	Comments
31P	1-RA-07-0E3S-PS-31P0-.5	P	10/29/2007	812616	2371395	16E3S	35.8	540	0.54	
32P	1-RA-07-0E3S-PS-32P0-.5	P	10/29/2007	812798	2371439	16E3S	34	360	0.36	
35P	1-RA-07-0E3S-PS-35P0-.5	P	11/5/2007	812812	2371053	18E3S	31.9	520	0.52	
36P	1-RA-07-0E3S-PS-36P0-.5	P	11/5/2007	812899	2371096	18E3S	34.7	160	0.16	
53P	1-RA-07-0E3S-PS-53P0-.5	P	11/9/2007	813691	2370893	27E3S	34.9	790	0.79	
54P	1-RA-07-0E3S-PS-54P0-.5	P	11/9/2007	813691	2371048	27E3S	38.4	<13	<0.013	
55P	1-RA-07-0E3S-PS-55P0-.5	P	11/12/2007	813692	2371203	28E3S	41.5	24	0.024	
56P	1-RA-07-0E3S-PS-56P0-.5	P	11/12/2007	813692	2371360	28E3S	36.3	62	0.062	
57P	1-RA-07-0E3S-PS-57P0-.5	P	11/7/2007	813805	2370936	29E3S	31.4	130	0.13	
58P	1-RA-07-0E3S-PS-58P0-.5	P	11/7/2007	813839	2371046	29E3S	34	49	0.049	
59P	1-RA-07-0E3S-PS-59P0-.5	P	11/7/2007	813819	2371165	30E3S	40.5	37	0.037	
60P	1-RA-07-0E3S-PS-60P0-.5	P	11/7/2007	813815	2371400	30E3S	30.9	300	0.3	
61P	1-RA-07-0E3S-PS-61P0-.5	P	11/1/2007	814010	2370829	31E3S	38.3	410	0.41	
62P	1-RA-07-0E3S-PS-62P0-.5	P	11/1/2007	814007	2371050	31E3S	35.6	180	0.18	
63P	1-RA-07-0E3S-PS-63P0-.5	P	11/9/2007	814005	2371286	32E3S	31.6	51	0.051	
64P	1-RA-07-0E3S-PS-64P0-.5	P	11/9/2007	813975	2371379	32E3S	34.4	120	0.12	
65P	1-RA-07-0E3S-PS-65P0-.5	P	11/7/2007	814110	2370872	33E3S	30.6	190	0.19	
66P	1-RA-07-0E3S-PS-66P0-.5	P	11/8/2007	814110	2371061	33E3S	35.3	260	0.26	
67P	1-RA-07-0E3S-PS-67P0-.56	P	10/12/2007	814108	2371241	34E3S	30.1	260	0.26	
68P	1-RA-07-0E3S-PS-68P0-.5	P	10/12/2007	814110	2371415	34E3S	30	480	0.48	
69P	1-RA-07-0E3S-PS-69P0-.5	P	10/25/2007	814202	2370943	35E3S	32.6	530	0.53	
70P	1-RA-07-0E3S-PS-70P0-.5	P	10/25/2007	814239	2371068	35E3S	32	160	0.16	
71P	1-RA-07-0E3S-PS-71P0-.5	P	10/17/2007	814213	2371170	36E3S	26.4	250	0.25	
72P	1-RA-07-0E3S-PS-72P0-.57	P	10/17/2007	814210	2371397	36E3S	30.7	260	0.26	
73P	1-RA-07-0E3S-PS-73P0-.5	P	11/9/2007	814612	2371626	37E3S	22.7	100	0.1	
74P	1-RA-07-0E3S-PS-74P0-.5	P	11/9/2007	814699	2371611	37E3S	22.1	150	0.15	
75P	1-RA-07-0E3S-PS-75P0-.5	P	11/9/2007	814887	2371689	37E3S	22.1	200	0.2	
Subarea E3S Composite Secondary Samples										
1ABC	1-RA-07-0E3S-PS-1ABC0-.5	S	6/29/2007	811731	2371039	1E3S	40.5	1500	1.5	
1ABC	1-RA-07-0E3S-PS-1ABC.5-1	S	7/10/2007	811731	2371039	1E3S	47.7	62	0.062	
1ABC/Dup.	1-RA-07-0E3S-PS-1ABC.5-1-Dup	S/Dup.	7/10/2007	811731	2371039	1E3S	48.1	47	0.047	
2ABC	1-RA-07-0E3S-PS-2A0-.5,BC0-.5	S	7/4/2007	811803	2370935	1E3S	51.4	350	0.35	
3ABC	1-RA-07-0E3S-PS-3AC0-.5,B0-.43	S	7/16/2007	812274	2370812	3E3S	52.1	250	0.25	
4AB	1-RA-07-0E3S-PS-4A0-.41,B0-.5	S	7/17/2007	812074	2370864	2E3S	52.4	310	0.31	
5ABCD	1-RA-07-0E3S-PS-5A-D0-.5	S	7/17/2007	812133	2370999	3E3S	38.8	590	0.59	
6ABCD	1-RA-07-0E3S-PS-6A-D0-.5	S	7/17/2007	812128	2371189	3E3S	42.2	1000	1	
6ABCD/Dup.	1-RA-07-0E3S-PS-6A-D0-.5-Dup	S/Dup.	7/17/2007	812128	2371189	3E3S	39.4	1000	1	
7ABCD	1-RA-07-0E3S-PS-7A0-.64,BD0-.5	S	9/11/2007	812129	2371384	4E3S	47.2	310	0.31	
8ABCD	1-RA-07-0E3S-PS-8A-D0-.5	S	9/11/2007	812129	2371573	4E3S	37.9	330	0.33	
8ABCD/Dup.	1-RA-07-0E3S-PS-8A-D0-.5-DUP	S/Dup.	9/11/2007	812129	2371573	4E3S	38.4	290	0.29	
9ABC	1-RA-07-0E3S-PS-9A0-.58,B0-.51,C0-.32	S	8/16/2007	813809	2370651	5E3S	63.5	40	0.04	
9ABC/Dup.	1-RA-07-0E3S-PS-9A0-.58,B0-.51,C0-.32-DUP	S/Dup.	8/16/2007	813809	2370651	5E3S	62.1	72	0.072	
10ABCD	1-RA-07-0E3S-PS-10ABC0-.5,D0-.71	S	10/9/2007	811997	2371073	6E3S	42.5	72	0.072	
11AB	1-RA-07-0E3S-PS-11AB0-.5	S	10/9/2007	812003	2371430	6E3S	38.8	340	0.34	
12ABCD	1-RA-07-0E3S-PS-12A-D0-.5	S	10/19/2007	811767	2371158	7E3S	44.5	180	0.18	
13ABC	1-RA-07-0E3S-PS-13ABC0-.5	S	10/19/2007	811778	2371303	7E3S	43	98	0.098	
13ABC/Dup.	1-RA-07-0E3S-PS-13ABC0-.5-Dup	S/Dup.	10/19/2007	811778	2371303	7E3S	45	54	0.054	
14ABC	1-RA-07-0E3S-PS-14ABC0-.5	S	10/19/2007	811767	2371411	7E3S	36.7	1600	1.6	
14ABC/Dup.	1-RA-07-0E3S-PS-14ABC0-.5-Dup	S/Dup.	10/19/2007	811767	2371411	7E3S	37.2	1400	1.4	
14ABC	1-RA-07-0E3S-PS-14ABC.5-1	S	10/30/2007	811767	2371411	7E3S	45.5	17	0.017	
15ABC	1-RA-07-0E3S-PS-15ABC0-.5	S	10/8/2007	811521	2371235	8E3S	40.8	300	0.3	
16ABCD	1-RA-07-0E3S-PS-16A-D0-.5	S	10/8/2007	811534	2371398	8E3S	30.1	110	0.11	
19ABCD	1-RA-07-0E3S-PS-19A-D0-.5	S	10/26/2007	812346	2370989	10E3S	33.8	360	0.36	
19ABCD/Dup.	1-RA-07-0E3S-PS-19A-D0-.5-DUP	S/Dup.	10/26/2007	812346	2370989	10E3S	34.4	350	0.35	
20ABC	1-RA-07-0E3S-PS-20ABC0-.5	S	10/26/2007	812346	2371134	10E3S	43.9	320	0.32	
21ABC	1-RA-07-0E3S-PS-21ABC0-.5	S	10/29/2007	812345	2371406	11E3S	48.2	240	0.24	
22ABC	1-RA-07-0E3S-PS-22ABC0-.5	S	10/29/2007	812468	2371430	11E3S	49.7	310	0.31	
23ABCD	1-RA-07-0E3S-PS-23A-D0-.5	S	10/29/2007	812456	2370980	12E3S	29.3	480	0.48	
24ABCD	1-RA-07-0E3S-PS-24ABC0-.5,D0-.74	S	10/29/2007	812465	2371121	12E3S	40	46	0.046	

ID	Sample ID	Sample Type	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	Total PCB (ppb)	Total PCB (ppm)	Comments
25ABCD	1-RA-07-0E3S-PS-25A-D0-.5	S	11/5/2007	812577	2370891	13E3S	28.9	240	0.24	
26ABCD	1-RA-07-0E3S-PS-26A-D0-.5	S	11/6/2007	812702	2370871	13E3S	29.2	180	0.18	
26ABCD/Dup.	1-RA-07-0E3S-PS-26A-D0-.5-Dup	S/Dup.	11/6/2007	812702	2370871	13E3S	29	160	0.16	
27ABCD	1-RA-07-0E3S-PS-27A-D0-.5	S	11/2/2007	812588	2371078	14E3S	30.8	510	0.51	
28ABCD	1-RA-07-0E3S-PS-28ABC0-.5,D0-.71	S	11/2/2007	812700	2371062	14E3S	31.2	310	0.31	
28ABCD/Dup.	1-RA-07-0E3S-PS-28ABC0-.5,D0-.71-Dup	S/Dup.	11/2/2007	812700	2371062	14E3S	31.2	410	0.41	
29ABCD	1-RA-07-0E3S-PS-29A-D0-.5	S	11/2/2007	812626	2371233	15E3S	40.9	140	0.14	
30ABCD	1-RA-07-0E3S-PS-30A-D0-.5	S	11/5/2007	812623	2371334	15E3S	61.3	58	0.058	
30ABCD/Dup.	1-RA-07-0E3S-PS-30A-D0-.5-Dup	S/Dup.	11/5/2007	812623	2371334	15E3S	57	62	0.062	
31ABCD	1-RA-07-0E3S-PS-31A0-.55,BCD0-.5	S	10/30/2007	812607	2371445	16E3S	40.4	330	0.33	
32ABCD	1-RA-07-0E3S-PS-32A-D0-.5	S	10/30/2007	812804	2371438	16E3S	38.8	410	0.41	
35ABCD	1-RA-07-0E3S-PS-35A-D0-.5	S	11/6/2007	812810	2371089	18E3S	33.2	270	0.27	
36ABCD	1-RA-07-0E3S-PS-36A-D0-.5	S	11/6/2007	812899	2371096	18E3S	34.5	42	0.042	
53ABCD	1-RA-07-0E3S-PS-53A-D0-.5	S	11/12/2007	813683	2370882	27E3S	34.2	130	0.13	
54ABCD	1-RA-07-0E3S-PS-54A-D0-.5	S	11/12/2007	813683	2371051	27E3S	36.5	47	0.047	
55ABCD	1-RA-07-0E3S-PS-55A-D0-.5	S	11/15/2007	813694	2371211	28E3S	38.2	150	0.15	
56ABCD	1-RA-07-0E3S-PS-56A-D0-.5	S	11/15/2007	813669	2371365	28E3S	31.2	380	0.38	
57ABCD	1-RA-07-0E3S-PS-57A-D0-.5	S	11/8/2007	813840	2370877	29E3S	35.4	130	0.13	
58ABCD	1-RA-07-0E3S-PS-58A-D0-.5	S	11/8/2007	813836	2371030	29E3S	34.1	270	0.27	
59ABCD	1-RA-07-0E3S-PS-59A-D0-.5	S	11/8/2007	813843	2371193	30E3S	31	240	0.24	
60ABCD	1-RA-07-0E3S-PS-60A-D0-.5	S	11/9/2007	813844	2371364	30E3S	32.7	38	0.038	
60ABCD/Dup.	1-RA-07-0E3S-PS-60A-D0-.5-Dup	S/Dup.	11/9/2007	813844	2371364	30E3S	31.6	300	0.3	
61ABCD	1-RA-07-0E3S-PS-61ABD0-.5,C0-.73	S	11/5/2007	813972	2370825	31E3S	33	330	0.33	
61ABCD/Dup.	1-RA-07-0E3S-PS-61ABD0-.5,C0-.73-Dup	S/Dup.	11/5/2007	813972	2370825	31E3S	32.8	340	0.34	
62ABCD	1-RA-07-0E3S-PS-62A-D0-.5	S	11/5/2007	813970	2371028	31E3S	32.9	340	0.34	
63ABCD	1-RA-07-0E3S-PS-63A-D0-.5	S	11/13/2007	813975	2371191	32E3S	28.3	730	0.73	
63ABCD/Dup.	1-RA-07-0E3S-PS-63A-D0-.5-Dup	S/Dup.	11/13/2007	813975	2371191	32E3S	28.3	540	0.54	
64ABCD	1-RA-07-0E3S-PS-64A-D0-.5	S	11/13/2007	813963	2371384	32E3S	30.4	310	0.31	
65ABCD	1-RA-07-0E3S-PS-65A-D0-.5	S	11/12/2007	814099	2370888	33E3S	34.2	290	0.29	
65ABCD/Dup.	1-RA-07-0E3S-PS-65A-D0-.5-Dup	S/Dup.	11/12/2007	814099	2370888	33E3S	34.2	300	0.3	
66ABCD	1-RA-07-0E3S-PS-66ABC0-.5,D0-.64	S	11/12/2007	814118	2371061	33E3S	32.8	400	0.4	
67ABCD	1-RA-07-0E3S-PS-67A-D0-.5	S	10/19/2007	814110	2371239	34E3S	30.2	400	0.4	
68ABCD	1-RA-07-0E3S-PS-68A-D0-.5	S	10/23/2007	814104	2371414	34E3S	32.8	380	0.38	
69ABCD	1-RA-07-0E3S-PS-69A-D0-.5	S	10/29/2007	814254	2370914	35E3S	36.4	130	0.13	
69ABCD/Dup.	1-RA-07-0E3S-PS-69A-D0-.5-DUP	S/Dup.	10/29/2007	814254	2370914	35E3S	35.2	92	0.092	
70ABCD	1-RA-07-0E3S-PS-70A-D0-.5	S	10/29/2007	814240	2371069	35E3S	35.8	71	0.071	
71ABCD	1-RA-07-0E3S-PS-71A-D0-.5	S	10/23/2007	814237	2371244	36E3S	32.1	180	0.18	
72ABCD	1-RA-07-0E3S-PS-72A-D0-.5	S	10/23/2007	814238	2371425	36E3S	32.3	270	0.27	
73ABC	1-RA-07-0E3S-PS-73ABC0-.5	S	11/14/2007	814582	2371557	37E3S	23.1	140	0.14	
74ABC	1-RA-07-0E3S-PS-74ABC0-.5	S	11/14/2007	814687	2371609	37E3S	21.9	450	0.45	
75ABCD	1-RA-07-0E3S-PS-75A-D0-.5	S	11/15/2007	814876	2371686	37E3S	25.1	700	0.7	
75ABCD/Dup.	1-RA-07-0E3S-PS-75A-D0-.5-Dup	S/Dup.	11/15/2007	814876	2371686	37E3S	22	620	0.62	
Subarea E5 Primary Samples										
1P	1-RA-07-00E5-PS-1P0-.5	P	9/20/2007	820347	2376024	1E5	27.5	490	0.49	
2P	1-RA-07-00E5-PS-2P0-.5	P	9/20/2007	820265	2376093	1E5	37.4	400	0.4	
Subarea E5 Composite Secondary Samples										
1ABC	1-RA-07-00E5-PS-1A0-.71,BC0-.5	S	9/21/2007	820344	2376040	1E5	26.7	100	0.1	
1ABC/Dup.	1-RA-07-00E5-PS-1A0-.71,BC0-.5-Dup	S/Dup.	9/21/2007	820344	2376040	1E5	26.7	140	0.14	
2ABC	1-RA-07-00E5-PS-2ABC0-.5	S	9/21/2007	820346	2376111	1E5	36.6	350	0.35	
Subarea E6 Primary Samples										
1P	1-RA-07-00E6-PS-1P0-.41	P	9/6/2007	820312	2375188	1E6	66.3	46	0.046	
2P	1-RA-07-00E6-PS-2P0-.53	P	9/6/2007	820233	2375039	2E6	63.3	43	0.043	
3P	1-RA-07-00E6-PS-3P0-.3	P	9/6/2007	820324	2374897	3E6	78.3	69	0.069	
4P	1-RA-07-00E6-PS-4P0-.5	P	9/12/2007	820569	2374538	4E6	32.7	390	0.39	
5P	1-RA-07-00E6-PS-5P0-.5	P	9/17/2007	821154	2375925	5E6	41.5	300	0.3	

ID	Sample ID	Sample Type	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	Total PCB (ppb)	Total PCB (ppm)	Comments
Subarea E6 Composite Secondary Samples										
1ABCD	1-RA-07-00E6-PS-1A0-.58,B0-.33,C0-.53,D0-.6	S	9/7/2007	820231	2375174	1E6	67.5	13	0.013	
2ABCD	1-RA-07-00E6-PS-2A0-.55,B0-.67,C0-.5,D0-.44	S	9/7/2007	820324	2375051	2E6	57	540	0.54	
3ABC	1-RA-07-00E6-PS-3ABC0-.5	S	9/7/2007	820414	2374894	3E6	31.7	400	0.4	
4ABCD	1-RA-07-00E6-PS-4A-D0-.5	S	9/13/2007	820587	2374537	4E6	34.6	350	0.35	
5ABCD	1-RA-07-00E6-PS-5AC0-.5,B0-.6,D0-.7	S	9/18/2007	821098	2375935	5E6	44.5	110	0.11	
Subarea F Primary Samples										
1P	1-RA-07-000F-PS-1P0-.5	P	11/2/2007	815508	2371658	1F1	21.8	110	0.11	
Subarea F Composite Secondary Samples										
1A	1-RA-07-000F-PS-1A0-.69	S	11/2/2007	815485	2371651	1F1	24	41	0.041	
Subarea POG1 Primary Samples										
1P	1-RA-07-POG1-RD-1P0-.36	P	5/31/2007	806156	2371661	1POG1	34.3	140	0.14	
2P	1-RA-07-POG1-RD-2P0-.27	P	5/31/2007	806218	2371592	1POG1	32.9	320	0.32	
3P	1-RA-07-POG1-RD-3P0-.58	P	5/31/2007	806285	2371441	2POG1	52	8300	8.3	
4P	1-RA-07-POG1-RD-4P0-.5	P	6/4/2007	806442	2371274	2POG1	--	16.8	0.0168	
5P	1-RA-07-POG1-RD-5P0-.32	P	6/5/2007	806294	2371645	3POG1	38	610	0.61	
6P	1-RA-07-POG1-RD-6P0-.25	P	6/5/2007	806441	2371508	3POG1	29.3	5500	5.5	
7P	1-RA-07-POG1-RD-7P0-.25	P	6/5/2007	806447	2371928	4POG1	58	140	0.14	
8P	1-RA-07-POG1-RD-8P0-.55	P	6/5/2007	806527	2371867	4POG1	31.8	300	0.3	
Subarea POG1 Composite Secondary Samples										
1BC	1-RA-07-POG1-RD-1B0-.35,C0-.33	S	6/4/2007	806155	2371697	1POG1	26.3	130	0.13	
2ABC	1-RA-07-POG1-RD-2A0-.67,B0-.3,C0-.28	S	6/4/2007	806219	2371602	1POG1	46.6	520	0.52	
3ABC	1-RA-07-POG1-RD-3A0-.4,B0-.28,C0-.43	S	6/4/2007	806304	2371442	2POG1	68.6	610	0.61	
4ABC	1-RA-07-POG1-RD-4ABC0-.5	S	6/4/2007	806410	2371302	2POG1	--	16.8	0.0168	
5AB	1-RA-07-POG1-RD-5A0-.36,B0-.27	S	6/6/2007	806308	2371648	3POG1	36.4	1300	1.3	
6ABD	1-RA-07-POG1-RD-6A0-.55,B0-.33,D0-.26	S	6/6/2007	806425	2371487	3POG1	23.9	700	0.7	
7BCD	1-RA-07-POG1-RD-7B0-.37,C0-.45,D0-.5	S	6/6/2007	806443	2371965	4POG1	39.9	900	0.9	
8ABC	1-RA-07-POG1-RD-8A0-.27,B0-.47,C0-.3	S	6/6/2007	806563	2371941	4POG1	33.7	600	0.6	
Subarea POG3 Primary Samples										
1P	1-RA-07-POG3-RD-1P0-.33	P	6/5/2007	806889	2371318	1POG3S	72.6	160	0.16	
2P	1-RA-07-POG3-RD-2P0-.5	P	7/12/2007	808230	2371625	2POG3S	66.7	29	0.029	
3P	1-RA-07-POG3-RD-3P0-.5	P	6/21/2007	809340	2371782	2POG3N	28.2	1300	1.3	
3P	1-RA-07-POG3-RD-3P.5-1.16	P	6/21/2007	809340	2371782	2POG3N	39	62	0.062	
4P	1-RA-07-POG3-RD-4P0-.67	P	6/21/2007	809672	2371660	2POG3N	46.9	<13	<0.013	
5P	1-RA-07-POG3-RD-5P0-.7	P	7/16/2007	808540	2371567	1POG3N	33.5	61	0.061	
6P	1-RA-07-POG3-RD-6P0-.5	P	7/16/2007	808631	2371625	1POG3N	23	130	0.13	
98P	1-RA-07-POG3-PS-98P0-.5	P	6/26/2007	809719	2371601	37POG3N	19.4	270	0.27	
115P	1-RA-07-POG3-PS-115P0-.5	P	6/21/2007	809309	2371455	35POG3N	24.5	900	0.9	
116P	1-RA-07-POG3-PS-116P0-.5	P	6/21/2007	809228	2371498	35POG3N	30.6	64	0.064	
117P	1-RA-07-POG3-PS-117P0-.5	P	6/25/2007	809500	2371529	36POG3N	22.9	1200	1.2	
117P	1-RA-07-POG3-PS-117P.5-1.15	P	6/25/2007	809500	2371529	36POG3N	31.4	73	0.073	
118P	1-RA-07-POG3-PS-118P0-.4	P	6/26/2007	809702	2371405	37POG3N	43.3	46	0.046	
119P	1-RA-07-POG3-PS-119P0-.63	P	6/26/2007	809630	2371512	37POG3N	37.3	44	0.044	
120P	1-RA-07-POG3-PS-120P0-.5	P	7/5/2007	809961	2371364	39POG3N	35.4	290	0.29	
121P	1-RA-07-POG3-PS-121P0-.5	P	6/28/2007	809824	2371397	38POG3N	51.6	460	0.46	
122P	1-RA-07-POG3-PS-122P0-.5	P	7/5/2007	809897	2371513	39POG3N	19	64	0.064	
123P	1-RA-07-POG3-PS-123P0-.5	P	6/28/2007	809824	2371630	38POG3N	20.4	600	0.6	
124P	1-RA-07-POG3-PS-124P0-.5	P	7/9/2007	810099	2371424	41POG3N	47.2	43	0.043	
125P	1-RA-07-POG3-PS-125P0-.5	P	7/5/2007	810025	2371507	40POG3N	30.2	1700	1.7	
125P	1-RA-07-POG3-PS-125P.5-.87	P	7/5/2007	810025	2371507	40POG3N	23.5	84	0.084	
126P	1-RA-07-POG3-PS-126P0-.57	P	7/9/2007	810221	2371510	41POG3N	48	170	0.17	
1P	1-RA-07-POG3-PSSC-1P0-.5	P	5/14/2007	807076	2370972		55.2	64	0.064	Proposed Sand Placement Area
2P	1-RA-07-POG3-PSSC-2P0-.5	P	5/14/2007	807078	2371093		47.4	260	0.26	Proposed Sand Placement Area
3P	1-RA-07-POG3-PSSC-3P0-.5	P	5/14/2007	808230	2371622		62.1	7400	7.4	Proposed Sand Placement Area

ID	Sample ID	Sample Type	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids	Total PCB (ppb)	Total PCB (ppm)	Comments
Subarea POG3 Composite Secondary Samples										
1AB	1-RA-07-POG3-RD-1A0-.65,B0-.33	S	6/6/2007	806931	2371319	1POG3S	79.6	<13	<0.013	
2AB	1-RA-07-POG3-RD-2A0-.38,B0-.4	S	7/16/2007	808227	2371605	2POG3S	66.3	220	0.22	
3ABCD	1-RA-07-POG3-RD-3A0-.31,B0-.56,CD0-.5	S	6/22/2007	809294	2371761	2POG3N	61	30	0.03	
4ABCD	1-RA-07-POG3-RD-4AB0-.5,C0-.65,D0-.72	S	6/22/2007	809662	2371689	2POG3N	51.2	21	0.021	
4ABCD/Dup.	1-RA-07-POG3-RD-4AB0-.5,C0-.65,D0-.72-Dup	S/Dup.	6/22/2007	809662	2371689	2POG3N	50.4	25	0.025	
5A	1-RA-07-POG3-RD-5A0-.5	S	7/16/2007	808569	2371595	1POG3N	47.1	180	0.18	
6ABC	1-RA-07-POG3-RD-6AC0-.5,B0-.67	S	7/17/2007	808658	2371606	1POG3N	61	<13	<0.013	
92AB	1-RA-07-POG3-PS-92AB(0-4)	S	7/18/2006	809302	2371658	28POG3	43.3	270	0.27	
92CD	1-RA-07-POG3-PS-92CD0-.5	S	6/22/2007	809278	2371615	35POG3N	21.5	11000	11	See result for 92ABCD
92CD	1-RA-07-POG3-PS-92C.5-1.1,D.5-1.2	S	7/10/2007	809278	2371615	35POG3N	51.9	120	0.12	See result for 92ABCD
92ABCD		S				28POG3, 35POG3N	--	6710	6.71	PCB result is the length-weighted average of 92AB and 92CD.
95ABCD	1-RA-07-POG3-PS-95AD0-.5,B0-.33,C0-.3	S	6/26/2007	809467	2371601	36POG3N	32.4	210	0.21	
98ABCD	1-RA-07-POG3-PS-98ABD0-.5,C0-.73	S	6/27/2007	809702	2371610	37POG3N	24.8	3800	3.8	
98ABD	1-RA-07-POG3-PS-98A.5-.86,B.5-1.08,D.5-.85	S	7/10/2007	809702	2371610	29POG3N, 37POG3N	27.5	200	0.2	
100AB	1-RA-07-POG3-PS-100A0-.5,B0-.67	S	7/10/2007	809940	2371665	29POG3N, 39POG3N	23.1	270	0.27	
101ABCD	1-RA-07-POG3-PS-101ACD0-.5,B0-.67	S	7/10/2007	810086	2371599	29POG3N, 40POG3N, 41POG3N	22.9	3500	3.5	
101ACD	1-RA-07-POG3-PS-101A.5-1,C.5-1.12,D.5-.85	S	7/18/2007	810086	2371599	29POG3N, 40POG3N, 41POG3N	31.8	200	0.2	
102AB	1-RA-07-POG3-PS-102A0-.67,B0-.5	S	7/10/2007	809978	2371702	29POG3N, 40POG3N	19.9	350	0.35	
103AB	1-RA-07-POG3-PS-103A0-.33,B0-.5	S	7/11/2007	810219	2371571	29POG3N, 41POG3N	21.2	390	0.39	
115AB	1-RA-07-POG3-PS-115AB0-.5	S	6/22/2007	809291	2371449	35POG3N	28.2	830	0.83	
116ABCD	1-RA-07-POG3-PS-116AD0-.5,B0-.63,C0-.69	S	6/22/2007	809226	2371525	35POG3N	34.9	660	0.66	
117ABCD	1-RA-07-POG3-PS-117A-D0-.5	S	6/26/2007	809500	2371501	36POG3N	25.8	18000	18	
117ABCD	1-RA-07-POG3-PS-117A.5-.9,B.5-1.11,C.5-1.08,D.5-.96	S	7/10/2007	809500	2371501	36POG3N	32.1	29	0.029	
118ABD	1-RA-07-POG3-PS-118ABD0-.5	S	6/29/2007	809733	2371400	38POG3N, 39POG3N	42.6	710	0.71	
118ABD/Dup.	1-RA-07-POG3-PS-118ABD0-.5-Dup	S/Dup.	6/29/2007	809733	2371400	38POG3N, 39POG3N	42.2	310	0.31	
119ABCD	1-RA-07-POG3-PS-119A-D0-.5	S	6/27/2007	809650	2371514	37POG3N	22.2	220	0.22	
120ABC	1-RA-07-POG3-PS-120ABC0-.5	S	7/10/2007	809927	2371352	39, 40POG3N	54	25	0.025	
121ABCD	1-RA-07-POG3-PS-121AB0-.5,C0-.66,D0-.67	S	7/9/2007	809841	2371399	38, 39POG3N	44.6	130	0.13	
122ABCD	1-RA-07-POG3-PS-122ABC0-.5,D0-.69	S	7/11/2007	809899	2371508	38, 39POG3N	25.8	1900	1.9	
122ABC	1-RA-07-POG3-PS-122ABC.5-1	S	7/20/2007	809899	2371508	38, 39POG3N	37.5	49	0.049	
123ABCD	1-RA-07-POG3-PS-123A-D0-.5	S	7/11/2007	809833	2371620	38, 39POG3N	22	1200	1.2	
123ABCD	1-RA-07-POG3-PS-123A.5-1,B.5-1.1,C.5-1.22,D.5-1.05	S	7/20/2007	809833	2371620	38, 39POG3N	34.9	59	0.059	
124ABC	1-RA-07-POG3-PS-124AC0-.5,B0-.4	S	7/11/2007	810098	2371396	40, 41POG3N	56.6	170	0.17	
125ABCD	1-RA-07-POG3-PS-125ACD0-.5,B0-.49	S	7/11/2007	810031	2371508	40, 41POG3N	44.3	330	0.33	
126AB	1-RA-07-POG3-PS-126AB0-.5	S	7/11/2007	810220	2371489	41POG3N	54.6	400	0.4	
1ABC	1-RA-07-POG3-PSSC-1A0-.7,BC0-.5	S	5/14/2007	807082	2370972		55.1	370	0.37	Proposed Sand Placement Area
2ABC	1-RA-07-POG3-PSSC-2ABC0-.5	S	5/14/2007	807086	2371065		65.0	1300	1.3	Proposed Sand Placement Area
3ABCD	1-RA-07-POG3-PSSC-3ACD0-.5,B0-.36	S	5/14/2007	808257	2371605		48.9	290	0.29	Proposed Sand Placement Area
3ABCD/Dup.	1-RA-07-POG3-PSSC-3ACD0-.5,B0-.36-DUP	S/Dup.	5/14/2007	808257	2371605		49.1	290	0.29	Proposed Sand Placement Area

A = All Soft Sediment
SOC = Step Out Core

SPS = State Plane South
DMU = Dredge Management Unit
ppb = parts per billion
ppm = parts per million

Data from the *2007 RA Summary Report,* Appendix D, Table D-1.

Prepared by: ECB
Checked by: SVF

Table B-6
Lower Fox River - OU1
2008 Post-Dredge Sediment Sampling Results

Sub-area	ID	Sampe ID	Sample Type	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids (%)	Total PCB (ppb)	Total PCB (ppm)	Comments
Sub-area C Primary Samples											
C	15P	1-RA-08-000C-PS-15P0-.5	P	04/22/2008	806905.31	2369155.11	15C	66.1	13000	13	
Sub-area C Composite Secondary Samples											
C	15A	1-RA-08-000C-PS-15A0-.5	S	04/22/2008	806896.89	2369146.45	15C	78.3	330	0.33	
C	6B	1-RA-08-000C-RDRD-6B0-.49	S	04/22/2008	806693.93	2368893.50	5C-A	54.3	12900	12.9	
Sub-area D1 Primary Samples											
D1	66P	1-RA-08-00D1-PS-66P0-.5	P	06/03/2008	809027.97	2370476.50	33D1	20.8	3400	3.4	
D1	66P	1-RA-08-00D1-PS-66P.5-1.08	P	06/03/2008	809027.97	2370476.50	33D1	32.7	<13.1	<0.0131	
D1	67P	1-RA-08-00D1-PS-67P0-.5	P	06/03/2008	809625.17	2370602.43	33D1	22.2	387	0.387	
D1	68P	1-RA-08-00D1-PS-68P0-.58	P	06/03/2008	809827.55	2370713.53	33D1	55.9	94.2	0.0942	
Sub-area D1 Composite Secondary Samples											
D1	66ABCD	1-RA-08-00D1-PS-66ACD0-.5,B0-.56	S	06/06/2008	809127.13	2370497.14	33D1	30.7	515	0.515	
D1	67ABC	1-RA-08-00D1-PS-67ABC0-.5	S	06/06/2008	809613.36	2370641.31	33D1	20.5	990	0.99	
D1	68AC	1-RA-08-00D1-PS-68A0-.5,C0-.46	S	06/06/2008	809846.92	2370710.69	33D1	34.1	275	0.275	
Sub-area D2N Primary Samples											
D2N	1P	1-RA-08-0D2N-PS-1P0-.5	P	05/28/2008	808272.30	2370754.95	1D2N	60.6	<12.8	<0.0128	
D2N	2P	1-RA-08-0D2N-PS-2P0-.5	P	05/28/2008	808618.05	2370392.59	2D2N	32.3	42.5	0.0425	
D2N	3P	1-RA-08-0D2N-PS-3P0-.26	P	06/06/2008	809825.60	2370788.66	3D2N	67.9	242	0.242	
Sub-area D2N Composite Secondary Samples											
D2N	1A	1-RA-08-0D2N-PS-1A0-.5	S	05/28/2008	808320.22	2370783.06	1D2N	63.5	77.8	0.0778	
D2N	2A	1-RA-08-0D2N-PS-2A0-.41	S	06/09/2008	808738.94	2370430.00	2D2N	39.3	1140	1.14	
D2N	2B	1-RA-08-0D2N-PS-2B0-.25	S	05/28/2008	808738.94	2370430.00	2D2N	30.7	<12.9	<0.0129	
D2N	3A	1-RA-08-0D2N-PS-3A0-.26	S	06/06/2008	809871.81	2370785.50	3D2N	79.2	38.9	0.0389	
Sub-area E3N Primary Samples											
E3N	1P	1-RA-08-0E3N-PS-1P0-.5	P	06/12/2008	814753.97	2372046.50	1E3N	39.5	336	0.336	
E3N	2P	1-RA-08-0E3N-PS-2P0-.55	P	06/12/2008	814978.11	2372213.41	1E3N	66.3	25.4	0.0254	
E3N	3P	1-RA-08-0E3N-PS-3P0-.27	P	06/12/2008	815255.66	2372404.41	2E3N	71.6	63.8	0.0638	
E3N	4P	1-RA-08-0E3N-PS-4P0-.46	P	06/12/2008	815806.52	2372729.29	2E3N	68.4	44.8	0.0448	
Sub-area E3N Composite Secondary Samples											
E3N	1ABC	1-RA-08-0E3N-PS-1A0-.5,B0-.7,C0-.62	S	06/12/2008	814783.84	2371965.88	1E3N	64	37.1	0.0371	
E3N	2ABC	1-RA-08-0E3N-PS-2A0-.33,B0-.58,C0-.5	S	06/12/2008	814932.01	2372157.65	1E3N	69	15.9	0.0159	
E3N	3ABCD	1-RA-08-0E3N-PS-3A0-.5,B0-.33,C0-.35,D0-.42	S	06/12/2008	815257.28	2372405.99	2E3N	70.4	40.6	0.0406	
E3N	4AB	1-RA-08-0E3N-PS-4A0-.6,B0-.52	S	06/12/2008	815803.24	2372717.78	2E3N	75.2	17.3	0.0173	

Sub-area	ID	Sampe ID	Sample Type	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids (%)	Total PCB (ppb)	Total PCB (ppm)	Comments
Sub-area E3S											
Primary Samples											
E3S	17P	1-RA-08-0E3S-PS-17P0-.5	P	06/24/2008	812241.96	2370938.10	9E3S	31.3	371	0.371	
E3S	33P	1-RA-08-0E3S-PS-33P0-.5	P	05/22/2008	812815.15	2370826.96	17E3S	28.5	315	0.315	
E3S	34P	1-RA-08-0E3S-PS-34P0-.5	P	05/22/2008	812899.60	2370851.67	17E3S	33.4	40.8	0.0408	
E3S	37P	1-RA-08-0E3S-PS-37P0-.5	P	06/09/2008	813009.48	2370939.48	19E3S	33	380	0.38	
E3S	38P	1-RA-08-0E3S-PS-38P0-.5	P	06/09/2008	813094.41	2370905.30	19E3S	36.5	209	0.209	
E3S	39P	1-RA-08-0E3S-PS-39P0-.5	P	05/29/2008	813012.18	2371168.01	20E3S	31.3	26.4	0.0264	
E3S	40P	1-RA-08-0E3S-PS-40P0-.5	P	05/29/2008	813115.25	2371229.97	20E3S	36.8	68.6	0.0686	
E3S	41P	1-RA-08-0E3S-PS-41P0-.73	P	06/18/2008	813210.36	2370821.21	21E3S	31.9	71.4	0.0714	
E3S	42P	1-RA-08-0E3S-PS-42P0-.5	P	06/18/2008	813272.91	2370840.98	21E3S	32	133	0.133	
E3S	43P	1-RA-08-0E3S-PS-43P0-.5	P	06/18/2008	813214.49	2371287.58	22E3S	28.2	441	0.441	
E3S	44P	1-RA-08-0E3S-PS-44P0-.5	P	06/18/2008	813274.01	2371299.85	22E3S	35.7	84.1	0.0841	
E3S	45P	1-RA-08-0E3S-PS-45P0-.5	P	06/13/2008	813412.48	2370944.20	23E3S	34	<13.5	<0.0135	
E3S	46P	1-RA-08-0E3S-PS-46P0-.5	P	06/13/2008	813394.95	2371047.20	23E3S	31.8	280	0.28	
E3S	47P	1-RA-08-0E3S-PS-47P0-.5	P	06/18/2008	813410.55	2371165.68	24E3S	36.1	73.7	0.0737	
E3S	48P	1-RA-08-0E3S-PS-48P0-.5	P	06/18/2008	813416.78	2371399.14	24E3S	32.3	563	0.563	
E3S	49P	1-RA-08-0E3S-PS-49P0-.5	P	06/18/2008	813607.68	2370827.56	25E3S	34.9	36.1	0.0361	
E3S	50P	1-RA-08-0E3S-PS-50P0-.5	P	06/18/2008	813608.44	2371058.55	25E3S	34.6	97.2	0.0972	
E3S	51P	1-RA-08-0E3S-PS-51P0-.5	P	06/18/2008	813541.59	2371199.59	26E3S	38.3	35.7	0.0357	
E3S	52P	1-RA-08-0E3S-PS-52P0-.6	P	06/18/2008	813612.55	2371285.82	26E3S	26	246	0.246	
E3S	76P	1-RA-08-0E3S-PS-76P0-.5	P	06/03/2008	811416.12	2371403.65	38E3S	24.2	931	0.931	
E3S	77P	1-RA-08-0E3S-PS-77P0-.5	P	06/03/2008	812009.07	2371515.39	38E3S	21.6	1790	1.79	
E3S	77P	1-RA-08-0E3S-PS-77P.5-1	P	06/03/2008	812009.07	2371515.39	38E3S	51.6	99.6	0.0996	
E3S	78P	1-RA-08-0E3S-PS-78P0-.5	P	06/20/2008	812815.26	2371515.17	39E3S	18.9	809	0.809	
E3S	79P	1-RA-08-0E3S-PS-79P0-.5	P	06/20/2008	812885.31	2371541.48	39E3S	19.9	791	0.791	
E3S	80P	1-RA-08-0E3S-PS-80P0-.5	P	06/19/2008	813125.17	2371536.20	40E3S	29.8	288	0.288	
E3S	81P	1-RA-08-0E3S-PS-81P0-.5	P	06/19/2008	813211.37	2371512.70	40E3S	19.9	59.3	0.0593	
E3S	82P	1-RA-08-0E3S-PS-82P0-.5	P	06/17/2008	813320.02	2371510.57	41E3S	27	58.6	0.0586	
E3S	83P	1-RA-08-0E3S-PS-83P0-.5	P	06/17/2008	813463.16	2371479.87	41E3S	23.7	85.5	0.0855	
E3S	84P	1-RA-08-0E3S-PS-84P0-.5	P	06/24/2008	813707.29	2371587.83	42E3S	19.3	1470	1.47	
E3S	84P	1-RA-08-0E3S-PS-84P.5-.93	P	06/24/2008	813707.29	2371587.83	42E3S	20.8	85.1	0.0851	
E3S	85P	1-RA-08-0E3S-PS-85P0-.5	P	06/24/2008	813810.40	2371634.68	42E3S	21.7	44.9	0.0449	
E3S	86P	1-RA-08-0E3S-PS-86P0-.5	P	06/25/2008	813883.49	2371567.11	43E3S	18	844	0.844	
E3S	87P	1-RA-08-0E3S-PS-87P0-.5	P	06/25/2008	814010.42	2371510.71	43E3S	36.9	23.3	0.0233	
E3S	88P	1-RA-08-0E3S-PS-88P0-.73	P	06/25/2008	814116.48	2371593.99	44E3S	35	88.2	0.0882	
E3S	89P	1-RA-08-0E3S-PS-89P0-.5	P	06/25/2008	814211.19	2371628.92	44E3S	20	336	0.336	
E3S	90P	1-RA-08-0E3S-PS-90P0-.5	P	06/25/2008	814579.01	2371695.75	45E3S	25.7	55.1	0.0551	
E3S	91P	1-RA-08-0E3S-PS-91P0-.5	P	06/25/2008	814609.77	2371850.60	45E3S	32.6	147	0.147	
E3S	92P	1-RA-08-0E3S-PS-92P0-.5	P	06/24/2008	814683.66	2371903.88	46E3S	66.1	87	0.087	
E3S	93P	1-RA-08-0E3S-PS-93P0-.5	P	06/24/2008	814807.78	2371752.48	46E3S	21.9	227	0.226	
Sub-area E3S											
Composite Secondary Samples											
E3S	17ABC	1-RA-08-0E3S-PS-17ABC0-.5	S	06/25/2008	812232.76	2371105.27	9E3S	38	360	0.36	
E3S	33ABCD	1-RA-08-0E3S-PS-33A-D0-.5	S	05/23/2008	812801.30	2370862.97	17E3S	31.8	49.4	0.0494	
E3S	34ABCD	1-RA-08-0E3S-PS-34A-D0-.5	S	05/23/2008	812902.72	2370858.39	17E3S	31.7	58.9	0.0589	
E3S	34ABCD/Dup.	1-RA-08-0E3S-PS-34A-D0-.5-DUP	S/Dup.	05/23/2008	812902.72	2370858.39	17E3S	33.2	59.3	0.0593	
E3S	37ABCD	1-RA-08-0E3S-PS-37A-D0-.5	S	06/10/2008	813005.86	2370948.09	19E3S	33.1	27.3	0.0273	
E3S	37ABCD/Dup.	1-RA-08-0E3S-PS-37A-D0-.5-Dup	S/Dup.	06/10/2008	813005.86	2370948.09	19E3S	33.7	29	0.029	
E3S	38ABCD	1-RA-08-0E3S-PS-38A-D0-.5	S	06/10/2008	813099.49	2370907.17	19E3S	31.7	116	0.116	

Sub-area	ID	Sampe ID	Sample Type	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids (%)	Total PCB (ppb)	Total PCB (ppm)	Comments
E3S	39ABCD	1-RA-08-0E3S-PS-39A-D0-.5	S	06/03/2008	813016.88	2371180.07	20E3S	36.1	43.1	0.0431	
E3S	40ABCD	1-RA-08-0E3S-PS-40A-D0-.5	S	06/03/2008	813115.15	2371220.26	20E3S	38.7	86.8	0.0868	
E3S	41ABC	1-RA-08-0E3S-PS-41ABC0-.5	S	06/20/2008	813191.16	2370846.95	21E3S	31.1	292	0.292	
E3S	41ABC/Dup.	1-RA-08-0E3S-PS-41ABC0-.5-Dup	S/Dup.	06/20/2008	813191.16	2370846.95	21E3S	32.1	301	0.301	
E3S	42ABC	1-RA-08-0E3S-PS-42ABC0-.5	S	06/20/2008	813280.51	2370866.64	21E3S	34.5	189	0.189	
E3S	43ABCD	1-RA-08-0E3S-PS-43A-D0-.5	S	06/19/2008	813194.88	2371299.12	22E3S	46.7	341	0.341	
E3S	44ABCD	1-RA-08-0E3S-PS-44ABC0-.5D0-.25	S	06/19/2008	813277.34	2371298.32	22E3S	43.7	216	0.216	
E3S	45ABCD	1-RA-08-0E3S-PS-45A-D0-.5	S	06/16/2008	813396.05	2370892.96	23E3S	33.4	177	0.177	
E3S	45ABCD/Dup.	1-RA-08-0E3S-PS-45A-D0-.5-Dup	S/Dup.	06/16/2008	813396.05	2370892.96	23E3S	31.5	85.3	0.0853	
E3S	46ABCD	1-RA-08-0E3S-PS-46A-D0-.5	S	06/16/2008	813394.25	2371047.75	23E3S	20.2	415	0.415	
E3S	47ABCD	1-RA-08-0E3S-PS-47A-D0-.5	S	06/19/2008	813393.69	2371201.56	24E3S	28.5	470	0.47	
E3S	48ABCD	1-RA-08-0E3S-PS-48ABC0-.5,D0-.55	S	06/19/2008	813390.76	2371361.76	24E3S	47.7	94.5	0.0945	
E3S	49ABC	1-RA-08-0E3S-PS-49ABC0-.5	S	06/19/2008	813557.59	2370906.93	25E3S	36	149	0.149	
E3S	50ABCD	1-RA-08-0E3S-PS-50A-D0-.5	S	06/19/2008	813530.61	2371050.96	25E3S	34.9	186	0.186	
E3S	51ABCD	1-RA-08-0E3S-PS-51A-D0-.5	S	06/19/2008	813540.55	2371201.12	26E3S	35.3	290	0.29	
E3S	52ABCD	1-RA-08-0E3S-PS-52A-D0-.5	S	06/19/2008	813546.05	2371362.34	26E3S	36	153	0.153	
E3S	76ABCD	1-RA-08-0E3S-PS-76ACD0-.5,B0-.6	S	06/05/2008	811474.89	2371433.32	38E3S	27.5	227	0.227	
E3S	76ABCD/Dup.	1-RA-08-0E3S-PS-76ACD0-.5,B0-.6-Dup	S/Dup.	06/05/2008	811474.89	2371433.32	38E3S	29.3	283	0.283	
E3S	77ABCD	1-RA-08-0E3S-PS-77A-D0-.5	S	06/05/2008	811796.48	2371505.00	38E3S	40.6	119	0.119	
E3S	78ABCD	1-RA-08-0E3S-PS-78A-D0-.5	S	06/23/2008	812528.62	2371552.33	39E3S	24.9	1060	1.06	
E3S	78ABCD/Dup.	1-RA-08-0E3S-PS-78A-D0-.5-Dup	S/Dup.	06/23/2008	812528.62	2371552.33	39E3S	23.5	954	0.954	
E3S	78ABC	1-RA-08-0E3S-PS-78A.5-1,B.5-1.03,C.5-1.08	S	06/27/2008	812528.62	2371552.33	39E3S	43.4	46.3	0.0463	
E3S	79ABCD	1-RA-08-0E3S-PS-79A-D0-.5	S	06/23/2008	812884.18	2371546.13	39E3S	22	283	0.283	
E3S	80ABC	1-RA-08-0E3S-PS-80ABC0-.5	S	06/20/2008	813125.43	2371551.98	40E3S	27	282	0.282	
E3S	81ABC	1-RA-08-0E3S-PS-81ABC0-.5	S	06/20/2008	813206.37	2371533.88	40E3S	36.7	589	0.589	
E3S	82ABC	1-RA-08-0E3S-PS-82ABC0-.5	S	06/18/2008	813313.74	2371546.81	41E3S	19.6	530	0.53	
E3S	83ABCD	1-RA-08-0E3S-PS-83A-D0-.5	S	06/18/2008	813506.14	2371509.62	41E3S	23.7	474	0.474	
E3S	83ABCD/Dup.	1-RA-08-0E3S-PS-83A-D0-.5-Dup	S/Dup.	06/18/2008	813506.14	2371509.62	41E3S	22.1	544	0.544	
E3S	84ABCD	1-RA-08-0E3S-PS-84A-D0-.5	S	06/25/2008	813683.99	2371562.97	42E3S	34.5	124	0.124	
E3S	85ABC	1-RA-08-0E3S-PS-85ABC0-.5	S	06/25/2008	813797.81	2371530.49	42E3S	21	573	0.573	
E3S	85ABC/Dup.	1-RA-08-0E3S-PS-85ABC0-.5-Dup	S/Dup.	06/25/2008	813797.81	2371530.49	42E3S	22	565	0.565	
E3S	86ABCD	1-RA-08-0E3S-PS-86A-D0-.5	S	06/26/2008	813885.82	2371576.23	43E3S	23.9	577	0.577	
E3S	86ABCD/Dup.	1-RA-08-0E3S-PS-86A-D0-.5-Dup	S/Dup.	06/26/2008	813885.82	2371576.23	43E3S	24.1	594	0.594	
E3S	87ABCD	1-RA-08-0E3S-PS-87A-D0-.5	S	06/26/2008	814000.86	2371578.04	43E3S	27.5	443	0.443	
E3S	88ABCD	1-RA-08-0E3S-PS-88A-D0-.5	S	06/26/2008	814105.95	2371580.96	44E3S	27.1	480	0.48	
E3S	89ABCD	1-RA-08-0E3S-PS-89A-D0-.5	S	06/26/2008	814239.36	2371612.34	44E3S	22.8	482	0.482	
E3S	90ABCD	1-RA-08-0E3S-PS-90A-D0-.5	S	06/26/2008	814597.86	2371701.30	45E3S	25.2	239	0.239	
E3S	91ABCD	1-RA-08-0E3S-PS-91ACD0-.5,B0-.67	S	06/26/2008	814582.54	2371825.72	45E3S	42.1	31.1	0.0311	
E3S	92ABCD	1-RA-08-0E3S-PS-92ABC0-.5,D0-.55	S	06/25/2008	814678.12	2371915.64	46E3S	58.8	95.2	0.0952	
E3S	92ABCD/Dup.	1-RA-08-0E3S-PS-92ABC0-.5,D0-.55-Dup	S/Dup.	06/25/2008	814678.12	2371915.64	46E3S	58.4	36.6	0.0366	
E3S	93ABCD	1-RA-08-0E3S-PS-93A-D0-.5	S	06/25/2008	814802.70	2371803.15	46E3S	25.9	171	0.171	
Sub-area E4											
Primary Samples											
E4	1P	1-RA-08-00E4-PS-1P0-.74	P	06/27/2008	813390.47	2372811.78	1E4	55.8	19.5	0.0195	
E4	2P	1-RA-08-00E4-PS-2P0-.6	P	06/27/2008	813452.78	2372821.48	1E4	54.3	<12.8	<0.0128	
Sub-area E4											
Composite Secondary Samples											
E4	1ABC	1-RA-08-00E4-PS-1A0-.5,B0-.27,C0-.68	S	06/27/2008	813343.19	2372811.71	1E4	44.8	181	0.181	
E4	1ABC/Dup.	1-RA-08-00E4-PS-1A0-.5,B0-.27,C0-.68-Dup	S/Dup.	06/27/2008	813343.19	2372811.71	1E4	43.2	276	0.276	
E4	2ABC	1-RA-08-00E4-PS-2ABC0-.5	S	06/27/2008	813450.68	2372807.60	1E4	41	215	0.215	

Sub-area	ID	Sampe ID	Sample Type	Collection Date	Actual Y (SPS)	Actual X (SPS)	DMU	Percent Solids (%)	Total PCB (ppb)	Total PCB (ppm)	Comments
Sub-area POG1											
Primary Samples											
POG1	3P	1-RA-08-POG1-PSRD-3P	P	05/16/2008	806292.73	2371440.46	2POG1	--	16.8	0.0168	No Recovery
POG1	6P	1-RA-08-POG1-PSRD-6P	P	05/16/2008	806442.74	2371512.43	3POG1	--	16.8	0.0168	No Recovery
Sub-area POG3											
Primary Samples											
POG3	117P	1-RA-08-POG3-PSRD-117P0-.5	P	05/28/2008	809500.93	2371529.21	36POG3N	21.9	87.0	0.087	
Sub-area POG3											
Composite Secondary Samples											
POG3	117ABCD	1-RA-08-POG3-PSRD-117A0-.26,B0-.63,CD0-.5	S	05/30/2008	809499.62	2371499.32	36POG3N	24.7	142	0.142	
POG3	117ABCD/Dup.	1-RA-08-POG3-PSRD-117A0-.26,B0-.63,CD0-.5-Dup	S/Dup.	05/30/2008	809499.62	2371499.32	36POG3N	23.5	97.6	0.0976	
POG3	92CD	1-RA-08-POG3-PSRD-92C0-.51,D0-.32	S	05/30/2008	809277.88	2371616.00	35POG3N	39.6	19.8	0.0198	
Sub-area POG4											
Primary Samples											
POG4	10P	1-RA-08-POG4-PS-10P0-.62	P	05/16/2008	807080.14	2372984.41	6POG4	57	302	0.302	
POG4	11P	1-RA-08-POG4-PS-11P0-.5	P	05/22/2008	808135.50	2372615.33	7POG4	64.1	<12.8	<0.0128	
POG4	12P	1-RA-08-POG4-PS-12P0-.57	P	05/22/2008	808210.79	2372693.44	7POG4	62.9	<12.8	<0.0128	
Sub-area POG4											
Composite Secondary Samples											
POG4	10AB	1-RA-08-POG4-PS-10A0-.5,B0-.4	S	05/19/2008	807351.19	2373078.80	6POG4	45.6	789	0.789	
POG4	11AB	1-RA-08-POG4-PS-11A0-.37,B0-.5	S	05/23/2008	808143.63	2372662.09	7POG4	58.4	45.0	0.045	
POG4	12AB	1-RA-08-POG4-PS-12A0-.7,B0-.5	S	05/23/2008	808213.94	2372745.32	7POG4	48.6	34.2	0.0342	

PS = Post Dredge
PSRD = Post Dredge Redredge
RD = Residual Dredge
RDRD = Residual Dredge Redredge
SOC = Step Out Core
SPS = State Plane South
DMU = Dredge Management Unit
ppb = parts per billion
ppm = parts per million

Data from the *2008 RA Summary Report,* Appendix D, Table D-1.

Prepared by: ECB
Checked by: SVF

Table C-1
GW Partners Lower Fox River - OU1
6-inch Residual Sand Cover Thickness Verification Results

ID	Sample ID	Subarea	SCU	SMU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
5A	1-RA-08-SP-000A-5A-6"-RS	000A	1-6"RS	5	5/22/2008	13:45	804300.09	2369234.95	804300	2369237	2.05	P	RPB	0.78	0.68	0.00	0.68	8.2	
5B	1-RA-08-SP-000A-5B-6"-RS	000A	1-6"RS	5	5/20/2008	10:49	804245.15	2369207.48	804246	2369207	0.98	P	RPB	0.91	0.84	0.00	0.84	10.1	
5C	1-RA-08-SP-000A-5C-6"-RS	000A	1-6"RS	5	5/20/2008	10:39	804192.35	2369359.33	804193	2369359	0.73	P	RPB	1.05	0.73	0.00	0.73	8.8	
5D	1-RA-08-SP-000A-5D-6"-RS	000A	1-6"RS	5	5/20/2008	10:29	804047.57	2369311.08	804047	2369310	1.22	P	RPB	1.31	0.52	0.00	0.52	6.2	
5E	1-RA-08-SP-000A-5E-6"-RS	000A	1-6"RS	5	5/20/2008	10:22	804024.16	2369361.60	804023	2369361	1.31	P	RPB	1.46	0.64	0.00	0.64	7.7	
5F	1-RA-08-SP-000A-5F-6"-RS	000A	1-6"RS	5	5/20/2008	10:15	803922.51	2369238.61	803922	2369238	0.80	P	RPB	1.26	0.74	0.00	0.74	8.9	
5G	1-RA-08-SP-000A-5G-6"-RS	000A	1-6"RS	5	5/20/2008	10:09	803872.10	2369158.35	803872	2369157	1.35	P	RPB	1.12	0.64	0.00	0.64	7.7	
5H	1-RA-08-SP-000A-5H-6"-RS	000A	1-6"RS	5	5/20/2008	10:03	803820.60	2369186.53	803820	2369187	0.76	P	RPB	1.37	0.97	0.00	0.97	11.6	
5I	1-RA-08-SP-000A-5I-6"-RS	000A	1-6"RS	5	5/19/2008	10:27	803644.68	2369105.23	803646	2369104	1.80	P	RPB	1.40	0.69	0.00	0.69	8.3	
5J	1-RA-08-SP-000A-5J-6"-RS	000A	1-6"RS	5	5/19/2008	10:37	803647.26	2369159.27	803646	2369159	1.29	P	RPB	0.76	0.47	0.29	0.69	8.3	
5K	1-RA-08-SP-000A-5K-6"-RS	000A	1-6"RS	5	5/19/2008	11:22	803571.83	2369408.60	803571	2369407	1.80	P	RPB	1.03	0.71	0.00	0.71	8.5	
5L	1-RA-08-SP-000A-5L-6"-RS	000A	1-6"RS	5	5/19/2008	11:02	803545.16	2369333.12	803546	2369333	0.85	P	RPB	1.06	0.57	0.00	0.57	6.8	
5M	1-RA-08-SP-000A-5M-6"-RS	000A	1-6"RS	5	5/19/2008	10:55	803472.22	2369359.17	803472	2369358	1.19	P	RPB	1.20	0.55	0.00	0.55	6.6	
5N	1-RA-08-SP-000A-5N-6"-RS	000A	1-6"RS	5	5/19/2008	11:16	803471.21	2369458.19	803472	2369458	0.81	P	RPB	1.46	0.85	0.00	0.85	10.2	
5O	1-RA-08-SP-000A-50-6"-RS	000A	1-6"RS	5	5/1/2008	09:48	803371.05	2369132.29	803373	2369132	1.97	P	RPB	1.52	0.66	0.00	0.66	7.9	
5P	1-RA-08-SP-000A-5P-6"-RS	000A	1-6"RS	5	5/1/2008	09:36	803347.55	2369080.41	803348	2369082	1.65	P	RPB	1.46	0.75	0.00	0.75	9.0	
5Q	1-RA-08-SP-000A-5Q-6"-RS	000A	1-6"RS	5	4/29/2008	10:57	803220.44	2369133.30	803221	2369133	0.64	P	RPB	1.60	0.80	0.00	0.80	9.6	
5R	1-RA-08-SP-000A-5R-6"-RS	000A	1-6"RS	5	4/29/2008	10:40	803220.06	2369161.46	803220	2369161	0.46	P	RPB	1.50	0.60	0.00	0.60	7.2	
																Minimum	**0.52**	**6.2**	
																Average	**0.69**	**8.4**	
4A	1-RA-08-SP-000A-4A-6"-RS	000A	2-6"RS	4	5/5/2008	10:19	803197.63	2369335.85	803196	2369334	2.47	P	RPB	1.06	0.87	0.00	0.87	10.4	Second attempt to get interface
4B	1-RA-08-SP-000A-4B-6"-RS	000A	2-6"RS	4	5/1/2008	10:14	803146.31	2368835.62	803146	2368835	0.69	P	RPB	1.24	0.75	0.00	0.75	9.0	
4C	1-RA-08-SP-000A-4C-6"-RS	000A	2-6"RS	4	5/2/2008	09:29	803072.85	2368781.35	803074	2368782	1.32	P	RPB	1.22	0.87	0.00	0.87	10.4	
4D	1-RA-08-SP-000A-4D-6"-RS	000A	2-6"RS	4	5/2/2008	09:41	803095.06	2368857.32	803095	2368858	0.68	P	RPB	1.52	1.13	0.00	1.13	13.6	
4E	1-RA-08-SP-000A-4E-6"-RS	000A	2-6"RS	4	5/2/2008	09:50	803146.04	2368958.01	803147	2368957	1.39	P	RPB	1.53	0.95	0.00	0.95	11.4	
4F	1-RA-08-SP-000A-4F-6"-RS	000A	2-6"RS	4	5/2/2008	09:57	803094.69	2368982.47	803095	2368983	0.61	P	RPB	1.64	0.69	0.00	0.69	8.3	
4G	1-RA-08-SP-000A-4G-6"-RS	000A	2-6"RS	4	5/2/2008	10:05	803094.96	2369032.65	803096	2369033	1.10	P	RPB	1.48	1.09	0.00	1.09	13.1	
4H	1-RA-08-SP-000A-4H-6"-RS	000A	2-6"RS	4	5/6/2008	10:37	802873.78	2368787.18	802874	2368786	1.2	P	RPB	1.63	0.69	0.00	0.69	8.3	
4I	1-RA-08-SP-000A-4I-6"-RS	000A	2-6"RS	4	5/6/2008	09:55	802824.71	2368787.31	802825	2368788	0.7	P	RPB	1.63	0.82	0.00	0.82	9.8	
4J	1-RA-08-SP-000A-4J-6"-RS	000A	2-6"RS	4	5/5/2008	10:51	802846.37	2368859.68	802847	2368858	1.79	P	RPB	1.59	0.83	0.00	0.83	10.0	
4K	1-RA-08-SP-000A-4K-6"-RS	000A	2-6"RS	4	5/5/2008	10:39	802893.47	2368934.85	802895	2368935	1.54	P	RPB	1.3	0.6	0.00	0.6	7.2	
4L	1-RA-08-SP-000A-4L-6"-RS	000A	2-6"RS	4	5/5/2008	11:02	802821.35	2368910.05	802822	2368908	2.15	P	RPB	1.25	1.05	0.00	1.05	12.6	
4M	1-RA-08-SP-000A-4M-6"-RS	000A	2-6"RS	4	5/5/2008	11:13	802748.15	2368934.68	802749	2368933	1.88	P	RPB	1.46	1.04	0.00	1.04	12.5	
4N	1-RA-08-SP-000A-4N-6"-RS	000A	2-6"RS	4	5/5/2008	11:28	802695.16	2368935.23	802697	2368934	2.21	P	RPB	1.35	0.92	0.00	0.92	11.0	
4O	1-RA-08-SP-000A-4O-6"-RS	000A	2-6"RS	4	5/6/2008	10:50	802571.10	2368882.46	802572	2368884	1.8	P	RPB	1.62	0.81	0.00	0.81	9.7	
4P	1-RA-08-SP-000A-4P-6"-RS	000A	2-6"RS	4	5/6/2008	11:02	802474.80	2368932.10	802474	2368932	0.8	P	RPB	1.65	0.56	0.00	0.56	6.7	
4Q	1-RA-08-SP-000A-4Q-6"-RS	000A	2-6"RS	4	5/7/2008	10:09	802472.82	2368983.78	802473	2368984	0.3	P	RPB	1.50	0.57	0.00	0.57	6.8	
4R	1-RA-08-SP-000A-4R-6"-RS	000A	2-6"RS	4	5/6/2008	11:19	802345.95	2368959.43	802345	2368959	1.0	P	RPB	1.48	0.68	0.00	0.68	8.2	
																Minimum	**0.56**	**6.7**	
																Average	**0.83**	**9.9**	
3A	1-RA-08-SP-000A-3A-6"-RS	000A	3-6"RS	3	5/7/2008	10:46	802643.80	2368983.80	802644	2368982	1.8	P	RPB	1.09	0.92	0.00	0.92	11.0	
3B	1-RA-08-SP-000A-3B-6"-RS	000A	3-6"RS	3	5/8/2008	09:42	802622.62	2369035.19	802623	2369035	0.4	P	RPB	1.40	0.70	0.00	0.70	8.4	
3C	1-RA-08-SP-000A-3C-6"-RS	000A	3-6"RS	3	5/7/2008	10:31	802546.42	2368983.24	802547	2368985	1.9	P	RPB	1.31	0.72	0.00	0.72	8.6	
3D	1-RA-08-SP-000A-3D-6"-RS	000A	3-6"RS	3	5/8/2008	09:55	802595.83	2369084.46	802597	2369084	1.3	P	RPB	1.56	1.06	0.00	1.06	12.7	
3E	1-RA-08-SP-000A-3E-6"-RS	000A	3-6"RS	3	5/15/2008	10:04	802644.88	2369159.12	802645	2369160	0.9	P	RPB	1.33	0.60	0.00	0.60	7.2	
3F	1-RA-08-SP-000A-3F-6"-RS	000A	3-6"RS	3	5/19/2008	09:58	802644.52	2369232.53	802645	2369234	1.5	P	RPB	1.27	0.70	0.00	0.70	8.4	
3G	1-RA-08-SP-000A-3G-6"-RS	000A	3-6"RS	3	5/15/2008	09:54	802548.03	2369182.27	802547	2369182	1.1	P	RPB	1.35	0.61	0.00	0.61	7.3	
3H	1-RA-08-SP-000A-3H-6"-RS	000A	3-6"RS	3	5/15/2008	10:08	802520.21	2369210.54	802520	2369209	1.6	P	RPB	1.48	0.71	0.00	0.71	8.5	
3I	1-RA-08-SP-000A-3I-6"-RS	000A	3-6"RS	3	5/8/2008	10:11	802474.58	2369157.93	802473	2369158	1.6	P	RPB	1.50	0.86	0.00	0.86	10.3	
3J	1-RA-08-SP-000A-3J-6"-RS	000A	3-6"RS	3	5/15/2008	10:12	802473.66	2369207.98	802472	2369208	1.7	P	RPB	1.11	0.87	0.00	0.87	10.4	
3K	1-RA-08-SP-000A-3K-6"-RS	000A	3-6"RS	3	5/8/2008	10:26	802346.93	2369081.12	802347	2369082	0.9	P	RPB	1.51	0.86	0.00	0.86	10.3	
3L	1-RA-08-SP-000A-3L-6"-RS	000A	3-6"RS	3	5/19/2008	10:17	802369.65	2369381.08	802370	2369382	1.0	P	RPB	1.47	0.54	0.00	0.54	6.5	
3M	1-RA-08-SP-000A-3M-6"-RS	000A	3-6"RS	3	5/16/2008	09:36	802621.01	2369384.1	802621	2369383	1.1	P	RPB	1.05	0.64	0.00	0.64	7.7	
3N	1-RA-08-SP-000A-3N-6"-RS	000A	3-6"RS	3	5/16/2008	08:55	802570.93	2369358.02	802570	2369358	0.9	P	RPB	0.95	0.72	0.12	0.81	9.7	
3O	1-RA-08-SP-000A-3O-6"-RS	000A	3-6"RS	3	5/16/2008	09:13	802546.28	2369409.48	802546	2369408	1.5	P	RPB	1.25	0.52	0.00	0.52	6.2	
3P	1-RA-08-SP-000A-3P-6"-RS	000A	3-6"RS	3	5/16/2008	08:44	802472.73	2369407.72	802473	2369408	0.4	P	VPC	0.65	0.54	0.00	0.54	6.5	
3Q	1-RA-08-SP-000A-3Q-6"-RS	000A	3-6"RS	3	5/16/2008	09:23	802596.22	2369484.24	802596	2369483	1.3	P	RPB	1.65	0.75	0.00	0.75	9.0	
3R	1-RA-08-SP-000A-3R-6"-RS	000A	3-6"RS	3	5/16/2008	08:36	802443.75	2369633.04	802445	2369633	1.3	P	RPB	0.68	0.54	0.14	0.65	7.7	
																Minimum	**0.52**	**6.2**	
																Average	**0.73**	**8.7**	

ID	Sample ID	Subarea	SCU	SMU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
2A	1-RA-08-SP-000A-2A-6"-RS	000A	4-6"RS	2	5/13/2008	10:11	802275.86	2368883.35	802274	2368883	1.9	P	RPB	1.21	0.78	0.00	0.78	9.4	
2B	1-RA-08-SP-000A-2B-6"-RS	000A	4-6"RS	2	5/14/2008	12:46	802320.80	2369108.56	802322	2369108	1.3	P	RPB	1.26	0.97	0.00	0.97	11.6	
2C	1-RA-08-SP-000A-2C-6"-RS	000A	4-6"RS	2	5/14/2008	12:39	802271.74	2369182.36	802272	2369183	0.7	P	RPB	1.13	0.62	0.00	0.62	7.4	
2D	1-RA-08-SP-000A-2D-6"-RS	000A	4-6"RS	2	5/14/2008	12:59	802320.75	2369234.01	802321	2369233	1.0	P	RPB	1.23	0.81	0.00	0.81	9.7	
2E	1-RA-08-SP-000A-2E-6"-RS	000A	4-6"RS	2	5/14/2008	13:25	802295.11	2369309.20	802296	2369308	1.5	P	RPB	1.26	0.95	0.00	0.95	11.4	
2F	1-RA-08-SP-000A-2F-6"-RS	000A	4-6"RS	2	5/14/2008	13:29	802297.10	2369407.93	802297	2369407	0.9	P	RPB	1.36	1.06	0.00	1.06	12.7	
2G	1-RA-08-SP-000A-2G-6"-RS	000A	4-6"RS	2	5/14/2008	13:32	802270.40	2369407.96	802272	2369408	1.6	P	RPB	1.50	0.84	0.00	0.84	10.1	
2H	1-RA-08-SP-000A-2H-6"-RS	000A	4-6"RS	2	5/16/2008	08:23	802296.74	2369604.74	802296	2369606	1.5	P	RPB	0.66	0.45	0.21	0.61	7.3	Unable to penetrate past 1.0 ft
2I	1-RA-08-SP-000A-2I-6"-RS	000A	4-6"RS	2	5/15/2008	10:19	802171.70	2369555.53	802172	2369557	1.5	P	RPB	0.84	0.77	0.00	0.77	9.2	
2J	1-RA-08-SP-000A-2J-6"-RS	000A	4-6"RS	2	5/14/2008	13:55	802094.46	2369508.00	802095	2369508	0.5	P	RPB	1.21	0.78	0.00	0.78	9.4	
2K	1-RA-08-SP-000A-2K-6"-RS	000A	4-6"RS	2	5/14/2008	14:05	802049.35	2369457.7	802050	2369458	0.7	P	RPB	1.10	0.86	0.00	0.86	10.3	
2L	1-RA-08-SP-000A-2L-6"-RS	000A	4-6"RS	2	5/14/2008	14:12	802025.89	2369489.19	802026	2369488	1.2	P	RPB	1.32	0.97	0.00	0.97	11.6	
2M	1-RA-08-SP-000A-2M-6"-RS	000A	4-6"RS	2	5/16/2008	08:11	802296.97	2369708.16	802296	2369709	1.3	P	RPB	0.58	0.58	0.00	0.58	7.0	Unable to penetrate past 0.58; brown black slit on tip
2N	1-RA-08-SP-000A-2N-6"-RS	000A	4-6"RS	2	5/15/2008	10:30	802196.00	2369681.84	802197	2369681	1.3	P	RPB	1.02	0.84	0.00	0.84	10.1	
2O	1-RA-08-SP-000A-2O-6"-RS	000A	4-6"RS	2	5/14/2008	13:44	802095.30	2369679.48	802097	2369680	1.8	P	RPB	1.06	0.88	0.00	0.88	10.6	
2P	1-RA-08-SP-000A-2P-6"-RS	000A	4-6"RS	2	5/14/2008	13:38	802121.67	2369707.89	802122	2369708	0.3	P	RPB	0.68	0.57	0.00	0.57	6.8	
2Q	1-RA-08-SP-000A-2Q-6"-RS	000A	4-6"RS	2	5/14/2008	13:49	802049.82	2369731.05	802050	2369730	1.1	P	RPB	1.08	0.92	0.00	0.92	11.0	
2R	1-RA-08-SP-000A-2R-6"-RS	000A	4-6"RS	2	5/15/2008	10:36	802148.15	2369804.69	802148	2369805	0.3	P	RPB	1.07	0.90	0.00	0.90	10.8	
																Minimum	**0.50**	**6.0**	
																Average	**0.80**	**9.6**	
1A	1-RA-08-SP-000A-1A-6"-RS	000A	5-6"RS	1	5/9/2008	11:41	802046.44	2368756.36	802046	2368758	1.7	P	RPB	1.12	0.73	0.00	0.73	8.8	
1B	1-RA-08-SP-000A-1B-6"-RS	000A	5-6"RS	1	5/12/2008	10:04	802138.12	2368784.12	802139	2368783	1.4	P	RPB	1.18	0.73	0.00	0.73	8.8	
1C	1-RA-08-SP-000A-1C-6"-RS	000A	5-6"RS	1	5/9/2008	11:27	802096.33	2368833.26	802097	2368833	0.7	P	RPB	1.31	0.54	0.00	0.54	6.5	
1D	1-RA-08-SP-000A-1D-6"-RS	000A	5-6"RS	1	5/9/2008	11:14	802072.35	2368906.60	802071	2368906	1.5	P	RPB	1.34	0.90	0.00	0.90	10.8	
1E	1-RA-08-SP-000A-1E-6"-RS	000A	5-6"RS	1	5/14/2008	13:04	802244.58	2368883.53	802245	2368884	0.6	P	RPB	0.97	0.65	0.00	0.65	7.8	
1F	1-RA-08-SP-000A-1F-6"-RS	000A	5-6"RS	1	5/12/2008	09:43	802122.31	2368985.08	802123	2368985	0.7	P	RPB	1.21	0.72	0.00	0.72	8.6	
1G	1-RA-08-SP-000A-IG-6"-RS	000A	5-6"RS	1	5/12/2008	10:39	802197.73	2369008.97	802198	2369008	1.0	P	RPB	1.29	0.85	0.00	0.85	10.2	
1H	1-RA-08-SP-000A-1H-6"-RS	000A	5-6"RS	1	5/13/2008	09:45	802247.43	2369133.19	802246	2369133	1.4	P	RPB	1.06	0.96	0.00	0.96	11.5	
1I	1-RA-08-SP-000A-1I-6"-RS	000A	5-6"RS	1	5/12/2008	10:32	802171.13	2369132.63	802171	2369134	1.4	P	RPB	1.16	0.74	0.00	0.74	8.9	
1J	1-RA-08-SP-000A-1J-6"-RS	000A	5-6"RS	1	5/12/2008	09:53	802145.94	2369206.35	802145	2369207	1.1	P	RPB	1.24	0.76	0.00	0.76	9.1	
1K	1-RA-08-SP-000A-1K-6"-RS	000A	5-6"RS	1	5/9/2008	10:47	802094.44	2369157.40	802095	2369156	1.5	P	RPB	0.98	0.64	0.00	0.64	7.7	
1L	1-RA-08-SP-000A-1L-6"-RS	000A	5-6"RS	1	5/9/2008	10:28	802074.94	2369234.09	802076	2369234	1.1	P	RPB	1.27	0.79	0.00	0.79	9.5	
1M	1-RA-08-SP-000A-1M-6"-RS	000A	5-6"RS	1	5/9/2008	10:59	802041.28	2369106.20	802043	2369106	1.7	P	RPB	1.22	0.73	0.00	0.73	8.8	
1N	1-RA-08-SP-000A-1N-6"-RS	000A	5-6"RS	1	5/8/2008	10:56	801988.39	2369159.47	801989	2369158	1.6	P	RPB	1.21	0.79	0.00	0.79	9.5	
1O	1-RA-08-SP-000A-1O-6"-RS	000A	5-6"RS	1	5/8/2008	11:23	801951.97	2369146.29	801950	2369146	2.0	P	RPB	0.84	0.63	0.00	0.63	7.6	
1P	1-RA-08-SP-000A-1P-6"-RS	000A	5-6"RS	1	5/13/2008	09:37	802197.74	2369257.28	802196	2369257	1.8	P	RPB	1.24	1.00	0.00	1.00	12.0	
1Q	1-RA-08-SP-000A-1Q-6"-RS	000A	5-6"RS	1	5/12/2008	10:13	802173.39	2369355.29	802172	2369356	1.6	P	RPB	1.15	0.72	0.00	0.72	8.6	
1R	1-RA-08-SP-000A-1R-6"-RS	000A	5-6"RS	1	5/13/2008	09:28	802220.28	2369409.45	802221	2369409	0.8	P	RPB	1.41	0.76	0.00	0.76	9.1	
																Minimum	**0.54**	**6.5**	
																Average	**0.76**	**9.1**	
6A	1-RA-08-SP-000C-6A-6"-RS	000C	6-6"RS	6	5/23/2008	11:35	806172.09	2368957.09	806171	2368958	1.4	P	RPB	1.47	0.67	0.00	0.67	8.0	
6B	1-RA-08-SP-000C-6B-6"-RS	000C	6-6"RS	6	5/22/2008	14:24	806247.06	2368813.67	806247	2368812	1.7	P	RPB	1.42	0.67	0.00	0.67	8.0	
6C	1-RA-08-SP-000C-6C-6"-RS	000C	6-6"RS	6	5/22/2008	14:14	806222.34	2368884.66	806223	2368884	0.9	P	RPB	1.59	0.96	0.00	0.96	11.5	
6D	1-RA-08-SP-000C-6D-6"-RS	000C	6-6"RS	6	5/23/2008	10:18	806271.71	2369232.21	806271	2369233	1.1	P	RPB	1.55	0.39	0.20	0.54	6.5	
6E	1-RA-08-SP-000C-6E-6"-RS	000C	6-6"RS	6	5/23/2008	10:31	806196.16	2369183.30	806196	2369185	1.7	P	RPB	1.56	0.97	0.00	0.97	11.6	
6F	1-RA-08-SP-000C-6F-6"-RS	000C	6-6"RS	6	5/23/2008	10:55	806097.57	2369281.66	806098	2369283	1.4	P	RPB	1.33	0.72	0.00	0.72	8.6	
6G	1-RA-08-SP-000C-6G-6"-RS	000C	6-6"RS	6	5/23/2008	11:02	806096.69	2369309.31	806098	2369310	1.5	P	RPB	1.38	1.03	0.00	1.03	12.4	
6H	1-RA-08-SP-000C-6H-6"-RS	000C	6-6"RS	6	5/23/2008	11:11	806046.46	2369306.97	806048	2369308	1.9	P	RPB	1.19	0.59	0.48	0.95	11.4	
6I	1-RA-08-SP-000C-6I-6"-RS	000C	6-6"RS	6	5/22/2008	14:06	806047.81	2369132.50	806048	2369133	0.5	P	RPB	1.51	0.65	0.00	0.65	7.8	
6J	1-RA-08-SP-000C-6J-6"-RS	000C	6-6"RS	6	5/22/2008	14:36	805897.18	2369185.29	805897	2369185	0.3	P	RPB	1.36	0.77	0.00	0.77	9.2	
6K	1-RA-08-SP-000C-6K-6"-RS	000C	6-6"RS	6	5/22/2008	13:55	805797.00	2369257.38	805796	2369258	1.2	P	RPB	1.27	0.92	0.00	0.92	11.0	
6L	1-RA-08-SP-000C-6L-6"-RS	000C	6-6"RS	6	5/23/2008	11:24	805850.48	2369257.01	805850	2369258	1.1	P	RPB	1.27	0.66	0.00	0.66	7.9	
																Minimum	**0.54**	**6.5**	
																Average	**0.79**	**9.5**	
7A	1-RA-08-SP-POG3-7A-6"-RS	POG3	7-6"RS	7	6/6/2008	09:56	806523.25	2371635.93	806523	2371636	0.3	P	RPB	0.93	0.72	0.00	0.72	8.6	
7B	1-RA-08-SP-POG3-7B-6"-RS	POG3	7-6"RS	7	6/6/2008	09:50	806822.97	2371260.33	806823	2371261	0.7	P	RPB	1.03	0.82	0.00	0.82	9.8	
7C	1-RA-08-SP-POG3-7C-6"-RS	POG3	7-6"RS	7	6/6/2008	09:44	806874.07	2371285.31	806873	2371286	1.3	P	RPB	0.82	0.72	0.00	0.72	8.6	
14A	1-RA-08-SP-00D1-14A-6"-RS	00D1	7-6"RS	14	6/19/2008	10:05	809877.34	2370509.17	809877	2370510	0.9	P	VPC	0.93	0.72	0.00	0.72	8.6	
14B	1-RA-08-SP-00D1-14B-6"-RS	00D1	7-6"RS	14	6/19/2008	10:20	809774.70	2370411.86	809774	2370411	1.1	P	VPC	1.10	0.72	0.00	0.72	8.6	
14C	1-RA-08-SP-00D1-14C-6"-RS	00D1	7-6"RS	14	6/19/2008	10:14	809797.63	2370459.89	809797	2370461	1.3	P	VPC	0.82	0.60	0.00	0.60	7.2	
14D	1-RA-08-SP-00D1-14D-6"-RS	00D1	7-6"RS	14	6/19/2008	10:27	809773.59	2370536.82	809774	2370536	0.9	P	VPC	1.13	0.88	0.00	0.88	10.6	
14E	1-RA-08-SP-00D1-14E-6"-RS	00D1	7-6"RS	14	6/19/2008	10:34	809769.63	2370611.59	809769	2370611	0.9	P	VPC	0.80	0.66	0.00	0.66	7.9	
14F	1-RA-08-SP-00D1-14F-6"-RS	00D1	7-6"RS	14	6/19/2008	10:40	809747.23	2370634.98	809746	2370635	1.2	P	VPC	0.85	0.69	0.00	0.69	8.3	
10A	1-RA-08-SP-POG3-10A-6"-RS	POG3	7-6"RS	10	6/23/2008	12:00	810171.31	2371535.96	810171	2371536	0.3	P	VPC	1.02	0.72	0.00	0.72	8.6	
10B	1-RA-08-SP-POG3-10B-6"-RS	POG3	7-6"RS	10	6/24/2008	09:58	810171.98	2371636.07	810171	2371635	1.5	P	VPC	0.72	0.55	0.00	0.55	6.6	
10C	1-RA-08-SP-POG3-10C-6"-RS	POG3	7-6"RS	10	6/23/2008	12:08	810096.73	2371534.89	810097	2371536	1.1	P	VPC	1.21	0.71	0.00	0.71	8.5	
10D	1-RA-08-SP-POG3-10D-6"-RS	POG3	7-6"RS	10	6/23/2008	12:18	810096.81	2371586.96	810096	2371586	1.3	P	VPC	0.99	0.76	0.00	0.76	9.1	

ID	Sample ID	Subarea	SCU	SMU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
10E	1-RA-08-SP-POG3-10E-6"-RS	POG3	7-6"RS	10	6/24/2008	10:04	810096.89	2371635.64	810096	2371635	1.1	P	VPC	0.90	0.62	0.00	0.62	7.4	
10F	1-RA-08-SP-POG3-10F-6"-RS	POG3	7-6"RS	10	6/24/2008	10:10	810021.37	2371686.01	810021	2371685	1.1	P	VPC	0.85	0.80	0.00	0.80	9.6	
10G	1-RA-08-SP-POG3-10G-6"-RS	POG3	7-6"RS	10	6/20/2008	09:42	809896.70	2371460.58	809897	2371460	0.7	P	VPC	1.11	0.76	0.00	0.76	9.1	
10H	1-RA-08-SP-POG3-10H-6"-RS	POG3	7-6"RS	10	6/20/2008	09:51	809796.94	2371511.98	809797	2371511	1.0	P	VPC	1.00	0.77	0.00	0.77	9.2	
10I	1-RA-08-SP-POG3-10I-6"-RS	POG3	7-6"RS	10	6/20/2008	10:11	809948.33	2371614.63	809947	2371613	2.1	P	VPC	1.40	0.85	0.00	0.85	10.2	
																Minimum	**0.55**	**6.6**	
																Average	**0.73**	**8.7**	
8A	1-RA-08-SP-P0G3-8A-6"-RS	POG3	8-6"RS	8	9/3/2008	12:18	808046.22	2371388.01	808048	2371388	1.8	P	VPC	1.24	0.93	0.00	0.93	11.2	
10J	1-RA-08-SP-POG3-10J-6"-RS	POG3	8-6"RS	10	6/20/2008	09:56	809769.99	2371535.58	809770	2371535	0.6	P	VPC	1.10	0.63	0.00	0.63	7.6	
10K	1-RA-08-SP-POG3-10K-6"-RS	POG3	8-6"RS	10	6/20/2008	10:06	809772.09	2371613.50	809771	2371612	1.9	P	VPC	1.05	0.72	0.00	0.72	8.6	
10L	1-RA-08-SP-POG3-10L-6"-RS	POG3	8-6"RS	10	6/20/2008	10:01	809671.00	2371587.63	809671	2371587	0.6	P	VPC	1.25	0.76	0.00	0.76	9.1	
10N	1-RA-08-SP-POG2-10N-6"-RS	POG2	8-6"RS	10	6/23/2008	12:34	809956.31	2371783.12	809957	2371784	1.1	P	VPC	0.92	0.68	0.00	0.68	8.2	
10O	1-RA-08-SP-POG2-10O-6"-RS	POG2	8-6"RS	10	6/23/2008	12:39	809962.35	2371832.36	809963	2371833	0.9	P	VPC	1.46	0.71	0.27	0.91	11.0	
10P	1-RA-08-SP-POG2-10P-6"-RS	POG2	8-6"RS	10	6/23/2008	12:49	809966.13	2371857.64	809967	2371858	0.9	P	VPC	1.45	0.82	0.00	0.82	9.8	
16A	1-RA-08-SP-00E1-16A-6"-RS	00E1	8-6"RS	16	7/3/2008	09:32	810445.19	2371712.93	810446	2371712	1.2	P	VPC	1.12	0.83	0.00	0.83	10.0	
25A	1-RA-08-SP-0E3S-25A-6"-RS	0E3S	8-6"RS	25	7/25/2008	10:17	811822.57	2371388.19	811822	2371388	0.6	P	VPC	1.29	0.65	0.00	0.65	7.8	
27A	1-RA-08-SP-0E3S-27A-6"-RS	0E3S	8-6"RS	27	7/31/2008	11:12	812622.35	2370936.90	812622	2370938	1.2	P	VPC	1.22	0.60	0.00	0.60	7.2	
27B	1-RA-08-SP-0E3S-27B-6"-RS	0E3S	8-6"RS	27	7/31/2008	11:06	812595.28	2371188.18	812597	2371188	1.7	P	VPC	1.33	0.70	0.00	0.70	8.4	
52A	1-RA-08-SP-00E2-52A-6"-RS	00E2	8-6"RS	52	9/2/2008	10:42	815470.51	2372688.35	815471	2372689	0.8	P	VPC	1.20	0.82	0.27	1.02	12.3	
52B	1-RA-08-SP-00E2-52B-6"-RS	00E2	8-6"RS	52	9/2/2008	10:55	815596.96	2372712.96	815596	2372714	1.4	P	VPC	1.54	1.15	0.00	1.15	13.8	
53A	1-RA-08-SP-00E2-53A-6"-RS	00E2	8-6"RS	53	9/2/2008	11:00	815497.80	2372789.01	815496	2372789	1.8	P	VPC	1.26	0.96	0.00	0.96	11.5	
53B	1-RA-08-SP-00E2-53B-6"-RS	00E2	8-6"RS	53	9/2/2008	10:50	815520.83	2372740.72	815520	2372740	1.1	P	VPC	1.42	1.04	0.00	1.04	12.5	
62A	1-RA-08-SP-00E2-62A-6"-RS	00E2	8-6"RS	62	9/2/2008	11:05	815546.89	2372838.88	815546	2372839	0.9	P	VPC	1.22	1.12	0.00	1.12	13.4	
63A	1-RA-08-SP-00E2-63A-6"-RS	00E2	8-6"RS	63	9/2/2008	11:14	815571.76	2372964.61	815571	2372964	1.0	P	VPC	1.45	0.45	0.75	1.01	12.2	
63B	1-RA-08-SP-00E2-63B-6"-RS	00E2	8-6"RS	63	9/2/2008	11:24	815646.71	2372964.91	815646	2372964	1.2	P	VPC	1.40	0.87	0.00	0.87	10.4	
																Minimum	**0.60**	**7.2**	
																Average	**0.86**	**10.3**	
8B	1-RA-08-SP-POG2-8B-6"-RS	P0G2	9-6"RS	8	9/8/2008	14:09	807396.16	2372083.74	807396	2372085	1.3	P	VPC	1.46	0.80	0.00	0.80	9.6	
8C	1-RA-08-SP-POG2-8C-6"-RS	P0G2	9-6"RS	8	9/8/2008	14:13	807421.96	2372110.29	807421	2372110	1.0	P	VPC	0.98	0.76	0.00	0.76	9.1	
8D	1-RA-08-SP-POG2-8D-6"-RS	P0G2	9-6"RS	8	9/8/2008	14:18	807545.49	2372085.23	807546	2372085	0.6	P	VPC	1.52	0.74	0.00	0.74	8.9	
8E	1-RA-08-SP-POG2-8E-6"-RS	P0G2	9-6"RS	8	9/8/2008	14:22	807570.64	2372035.41	807571	2372035	0.5	P	VPC	1.35	0.56	0.00	0.56	6.7	
8F	1-RA-08-SP-POG2-8F-6"-RS	P0G2	9-6"RS	8	9/8/2008	14:27	807571.38	2372110.48	807571	2372110	0.6	P	VPC	1.13	0.74	0.00	0.74	8.9	
8G	1-RA-08-SP-POG2-8G-6"-RS	P0G2	9-6"RS	8	9/8/2008	14:32	807670.94	2372059.30	807671	2372060	0.7	P	VPC	1.22	0.72	0.00	0.72	8.6	
8H	1-RA-08-SP-POG2-8H-6"-RS	P0G2	9-6"RS	8	9/8/2008	14:35	807696.67	2372084.48	807696	2372085	0.8	P	VPC	1.30	0.84	0.00	0.84	10.1	
8I	1-RA-08-SP-POG2-8I-6"-RS	P0G2	9-6"RS	8	9/8/2008	14:41	807720.89	2372035.91	807721	2372035	0.9	P	VPC	1.18	0.65	0.00	0.65	7.8	
8J	1-RA-08-SP-POG2-8J-6"-RS	P0G2	9-6"RS	8	9/8/2008	14:45	807821.13	2372011.18	807821	2372010	1.2	P	VPC	1.21	0.76	0.00	0.76	9.1	
8K	1-RA-08-SP-POG2-8K-6"-RS	P0G2	9-6"RS	8	9/8/2008	14:56	807821.48	2372084.70	807821	2372085	0.6	P	VPC	1.30	0.74	0.00	0.74	8.9	
8L	1-RA-08-SP-POG2-8L-6"-RS	P0G2	9-6"RS	8	9/8/2008	14:51	807845.51	2372035.76	807846	2372035	0.9	P	VPC	1.27	0.68	0.00	0.68	8.2	
8M	1-RA-08-SP-POG2-8M-6"-RS	P0G2	9-6"RS	8	9/8/2008	15:00	807919.91	2372036.68	807921	2372036	1.3	P	VPC	0.90	0.65	0.00	0.65	7.8	
8N	1-RA-08-SP-POG2-8N-6"-RS	P0G2	9-6"RS	8	9/8/2008	15:04	807945.27	2372060.58	807946	2372060	0.9	P	VPC	1.00	0.50	0.10	0.58	6.9	
8O	1-RA-08-SP-POG2-8O-6"-RS	P0G2	9-6"RS	8	9/8/2008	15:17	807970.17	2371985.47	807971	2371985	1.0	P	VPC	1.13	0.53	0.00	0.53	6.4	
8P	1-RA-08-SP-POG2-8P-6"-RS	P0G2	9-6"RS	8	9/8/2008	15:10	807994.70	2372035.80	807996	2372035	1.5	P	VPC	1.34	0.79	0.00	0.79	9.5	
11A	1-RA-08-SP-POG4-11A-6"-RS	POG4	9-6"RS	11	9/8/2008	13:47	807119.31	2372959.70	807120	2372960	0.8	P	VPC	1.26	0.76	0.00	0.76	9.1	
11B	1-RA-08-SP-POG4-11B-6"-RS	POG4	9-6"RS	11	9/8/2008	13:54	807244.77	2372984.58	807246	2372985	1.3	P	VPC	1.25	0.57	0.00	0.57	6.8	
11C	1-RA-08-SP-POG4-11C-6"-RS	POG4	9-6"RS	11	9/8/2008	13:59	807271.71	2372936.52	807271	2372936	0.9	P	VPC	1.32	0.64	0.00	0.64	7.7	
																Minimum	**0.53**	**6.4**	
																Average	**0.69**	**8.3**	
8Q	1-RA-08-SP-POG2-8Q-6"-RS	P0G2	10-6"RS	8	9/10/2008	15:20	808071.37	2372059.98	808071	2372061	1.1	P	VPC	1.11	0.98	0.00	0.98	11.8	
8R	1-RA-08-SP-POG2-8R-6"-RS	P0G2	10-6"RS	8	9/10/2008	15:28	808096.62	2372011.24	808096	2372011	0.7	P	VPC	1.47	0.84	0.00	0.84	10.1	
8S	1-RA-08-SP-POG2-8S-6"-RS	P0G2	10-6"RS	8	9/12/2008	13:54	808120.11	2372961.37	808121	2372961	1.0	P	VPC	1.34	0.98	0.00	0.98	11.8	
10Q	1-RA-08-SP-POG2-10Q-6"-RS	P0G2	10-6"RS	10	9/12/2008	13:17	809121.90	2371910.27	809121	2371911	1.2	P	VPC	1.55	0.70	0.00	0.70	8.4	
10R	1-RA-08-SP-POG2-10R-6"-RS	P0G2	10-6"RS	10	9/12/2008	13:24	809145.78	2371860.23	809145	2371861	1.1	P	VPC	1.28	0.63	0.00	0.63	7.6	
10S	1-RA-08-SP-POG2-10S-6"-RS	P0G2	10-6"RS	10	9/12/2008	13:32	809195.38	2371911.46	809196	2371911	0.8	P	VPC	1.45	0.80	0.00	0.80	9.6	
10T	1-RA-08-SP-POG2-10T-6"-RS	P0G2	10-6"RS	10	9/15/2008	11:51	809195.30	2371811.27	809196	2371811	0.8	P	VPC	1.32	0.68	0.00	0.68	8.2	
10U	1-RA-08-SP-POG2-10U-6"-RS	P0G2	10-6"RS	10	9/12/2008	13:43	809245.31	2371884.81	809246	2371886	1.4	P	VPC	1.77	0.85	0.00	0.85	10.2	
10V	1-RA-08-SP-POG2-10V-6"-RS	P0G2	10-6"RS	10	9/12/2008	13:47	809295.29	2371835.98	809296	2371836	0.7	P	VPC	1.30	0.72	0.00	0.72	8.6	
10W	1-RA-08-SP-POG2-10W-6"-RS	P0G2	10-6"RS	10	9/15/2008	11:56	809345.59	2371811.61	809346	2371811	0.7	P	VPC	1.37	0.59	0.00	0.59	7.1	
10X	1-RA-08-SP-POG2-10X-6"-RS	P0G2	10-6"RS	10	9/15/2008	12:09	809421.35	2371860.09	809421	2371861	1.0	P	VPC	1.54	0.81	0.00	0.81	9.7	
																Minimum	**0.59**	**7.1**	
																Average	**0.78**	**9.4**	

P = Primary
RPB = Russian Peat Borer
SCU = Sand Certification Unit
SMU = Sand Management Unit
ST = Sediment Trap
VC = Vibra Core
VPC = Vacuum Push Core

Prepared by: ECB
Checked by: MCC2

Data from the *2008 RA Summary Report* , Appendix J, Table J-1

Table C-2
GW Partners Lower Fox River - OU1
9-inch Residual Sand Cover Thickness Verification Results

ID	Sample ID	Subarea	SCU	SMU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
8A	1-RA-08-SP-POG2-8A-9"-RS	POG2	1-9"RS	8	9/10/2008	13:55	806895.26	2372133.96	806896	2372135	1.3	P	VPC	1.65	1.11	0.00	1.11	13.3	
8B	1-RA-08-SP-POG2-8B-9"-RS	POG2	1-9"RS	8	9/10/2008	14:04	807620.62	2372059.82	807621	2372060	0.4	P	VPC	1.46	0.19	0.76	0.76	9.1	
8C	1-RA-08-SP-POG2-8C-9"-RS	POG2	1-9"RS	8	9/10/2008	14:12	808020.81	2371984.30	808021	2371985	0.7	P	VPC	0.98	0.76	0.00	0.76	9.1	
9A	1-RA-08-SP-POG2-9A-9"-RS	POG2	1-9"RS	9	9/12/2008	14:00	808195.23	2371960.15	808196	2371961	1.1	P	VPC	1.12	0.85	0.00	0.85	10.2	
9B	1-RA-08-SP-POG2-9B-9"-RS	POG2	1-9"RS	9	9/10/2008	14:28	808220.34	2372011.12	808221	2372011	0.7	P	VPC	1.09	0.76	0.00	0.76	9.1	
9C	1-RA-08-SP-POG2-9C-9"-RS	POG2	1-9"RS	9	9/12/2008	14:06	808296.13	2371959.60	808296	2371961	1.4	P	VPC	1.09	0.83	0.00	0.83	10.0	
9D	1-RA-08-SP-POG2-9D-9"-RS	POG2	1-9"RS	9	9/10/2008	14:33	808321.51	2372010.76	808321	2372011	0.6	P	VPC	0.98	0.75	0.00	0.75	9.0	
9E	1-RA-08-SP-POG2-9E-9"-RS	POG2	1-9"RS	9	9/10/2008	14:38	808371.18	2371987.21	808371	2371986	1.2	P	VPC	1.42	0.93	0.00	0.93	11.2	
9F	1-RA-08-SP-POG2-9F-9"-RS	POG2	1-9"RS	9	9/10/2008	14:43	808421.47	2372011.50	808421	2372011	0.7	P	VPC	1.66	0.95	0.00	0.95	11.4	
9G	1-RA-08-SP-POG2-9G-9"-RS	POG2	1-9"RS	9	9/12/2008	14:12	808421.41	2371935.60	808421	2371936	0.6	P	VPC	1.23	0.84	0.00	0.84	10.1	
9H	1-RA-08-SP-POG2-9H-9"-RS	POG2	1-9"RS	9	9/10/2008	14:48	808495.00	2371959.88	808496	2371961	1.5	P	VPC	1.31	1.00	0.00	1.00	12.0	
9I	1-RA-08-SP-POG2-9I-9"-RS	POG2	1-9"RS	9	9/12/2008	14:16	808546.10	2371935.85	808546	2371936	0.2	P	VPC	1.10	0.75	0.00	0.75	9.0	
9J	1-RA-08-SP-POG2-9J-9"-RS	POG2	1-9"RS	9	9/10/2008	14:53	808595.73	2371986.03	808596	2371986	0.3	P	VPC	1.55	0.88	0.00	0.88	10.6	
9K	1-RA-08-SP-POG2-9K-9"-RS	POG2	1-9"RS	9	9/12/2008	14:20	808622.24	2371911.70	808621	2371911	1.4	P	VPC	1.54	0.90	0.00	0.90	10.8	
9L	1-RA-08-SP-POG2-9L-9"-RS	POG2	1-9"RS	9	9/10/2008	14:58	808620.59	2371959.84	808621	2371960	0.4	P	VPC	1.12	0.76	0.00	0.76	9.1	
9M	1-RA-08-SP-POG2-9M-9"-RS	POG2	1-9"RS	9	9/10/2008	15:02	808670.82	2371937.01	808671	2371936	1.0	P	VPC	1.39	1.13	0.00	1.13	13.6	
9N	1-RA-08-SP-POG2-9N-9"-RS	POG2	1-9"RS	9	9/12/2008	14:26	808720.48	2371912.16	808721	2371911	1.3	P	VPC	1.08	0.75	0.00	0.75	9.0	
9O	1-RA-08-SP-POG2-9O-9"-RS	POG2	1-9"RS	9	9/10/2008	15:07	808746.37	2371961.39	808746	2371961	0.5	P	VPC	1.07	0.80	0.00	0.80	9.6	
																Minimum	**0.75**	**9.0**	
																Average	**0.86**	**10.3**	
10M	1-RA-08-SP-POG2-10M-9"-RS	POG2	2-9"RS	10	6/23/2008	12:26	810002.73	2371751.63	810003	2371752	0.5	P	VPC	1.25	0.80	0.00	0.80	9.6	
9P	1-RA-08-SP-POG2-9P-9"-RS	POG2	2-9"RS	9	9/12/2008	14:33	808796.71	2371936.25	808796	2371936	0.8	P	VPC	1.46	1.00	0.00	1.00	12.0	
9Q	1-RA-08-SP-POG2-9Q-9"-RS	POG2	2-9"RS	9	9/15/2008	11:38	808846.52	2371887.14	808846	2371886	1.3	P	VPC	1.60	0.80	0.00	0.80	9.6	
9R	1-RA-08-SP-POG2-9R-9"-RS	POG2	2-9"RS	9	9/12/2008	14:40	808846.06	2371960.99	808846	2371961	0.1	P	VPC	1.35	0.92	0.00	0.92	11.0	
9S	1-RA-08-SP-POG2-9S-9"-RS	POG2	2-9"RS	9	9/15/2008	11:43	808894.49	2371861.09	808896	2371861	1.5	P	VPC	1.50	0.50	0.00	0.50	6.0*	
9T	1-RA-08-SP-POG2-9T-9"-RS	POG2	2-9"RS	9	9/12/2008	14:49	808895.99	2371911.06	808896	2371911	0.1	P	VPC	1.05	0.76	0.00	0.76	9.1	
9U	1-RA-08-SP-POG2-9U-9"-RS	POG2	2-9"RS	9	9/12/2008	14:54	808945.98	2371935.92	808946	2371936	0.1	P	VPC	1.18	0.85	0.00	0.85	10.2	
9V	1-RA-08-SP-POG2-9V-9"-RS	POG2	2-9"RS	9	9/12/2008	14:58	808970.96	2371911.03	808971	2371911	0.0	P	VPC	1.17	0.94	0.00	0.94	11.3	
9W	1-RA-08-SP-POG2-9W-9"-RS	POG2	2-9"RS	9	9/12/2008	11:47	809021.38	2371861.74	809022	2371861	1.0	P	VPC	1.17	0.85	0.00	0.85	10.2	
9X	1-RA-08-SP-POG2-9X-9"-RS	POG2	2-9"RS	9	9/12/2008	15:03	809046.46	2371936.43	809046	2371936	0.6	P	VPC	0.93	0.78	0.00	0.78	9.4	
9Y	1-RA-08-SP-POG2-9Y-9"-RS	POG2	2-9"RS	9	9/12/2008	15:08	809071.11	2371887.04	809071	2371887	0.1	P	VPC	1.20	0.88	0.00	0.88	10.6	
																Minimum	**0.50**	**6.0**	
																Average	**0.83**	**9.9**	

P=Primary
ST = Sediment Trap
VC = Vibra Core
VPC = Vacuum Push Core
*=six inch minimum value accepted in this instance as documented in 9/15/08 email from Bill Hartman to Rick Fox and Greg Hill

Data from the *2008 RA Summary Report* , Appendix J, Table J-2.

Prepared by: ECB
Checked by: MCC2

Table C-3
GW Partners Lower Fox River - OU1
3-inch Sand Cover Thickness Verification Results

ID	Sample ID	Subarea	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
SCU-1-3"-1	1-RA-08-SP-0D2N-SCU1-1-3"	0D2N	1-3"	6/26/2008	13:59	808370.66	2370437.46	VPC	0.92	0.56	0.00	0.56	6.7	
SCU-1-3"-2	1-RA-08-SP-POG3-SCU1-2-3"	POG3	1-3"	6/26/2008	13:50	807251.19	2370561.50	VPC	0.48	0.28	0.00	0.28	3.4	
SCU-1-3"-3	1-RA-08-SP-POG3-SCU1-3-3"	POG3	1-3"	6/26/2008	13:46	807221.73	2370736.67	VPC	0.58	0.41	0.00	0.41	4.9	
SCU-1-3"-4	1-RA-08-SP-POG3-SCU1-4-3"	POG3	1-3"	6/26/2008	13:36	807197.90	2370888.98	VPC	1.16	0.30	0.00	0.30	3.6	
SCU-1-3"-5	1-RA-08-SP-POG3-SCU1-5-3"	POG3	1-3"	6/26/2008	13:29	807196.93	2371710.74	VPC	0.72	0.35	0.00	0.35	4.2	
											Minimum	**0.3**	**3.4**	
											Average	**0.38**	**4.6**	
SCU-2-3"-1	1-RA-08-SP-0D2N-SCU2-1-3"	0D2N	2-3"	6/26/2008	14:39	808574.78	2370562.59	VPC	1.32	0.42	0.00	0.42	5.0	
SCU-2-3"-2	1-RA-08-SP-0D2N-SCU2-2-3"	0D2N	2-3"	6/26/2008	14:36	808624.99	2370488.45	VPC	1.18	0.76	0.00	0.76	9.1	
SCU-2-3"-3	1-RA-08-SP-0D2N-SCU2-3-3"	0D2N	2-3"	6/26/2008	14:30	809946.57	2370938.60	VPC	0.94	0.57	0.00	0.57	6.8	
SCU-2-3"-4	1-RA-08-SP-00E1-SCU2-4-3"	00E1	2-3"	7/10/2008	14:20	810722.00	2371987.00	VPC		0.33	0.00	0.33	4.0	
SCU-2-3"-5	1-RA-08-SP-00E1-SCU2-5-3"	00E1	2-3"	7/10/2008	14:23	810821.79	2371910.48	VPC		0.74	0.00	0.74	8.9	
											Minimum	**0.3**	**4.0**	
											Average	**0.56**	**6.8**	
SCU-3-3"-1	1-RA-08-SP-00E1-SCU3-1-3"	00E1	3-3"	7/8/2008	11:30	810647.26	2372090.15	VPC		0.54	0.00	0.54	6.5	
SCU-3-3"-2	1-RA-08-SP-00E1-SCU3-2-3"	00E1	3-3"	7/10/2008	14:25	811145.50	2371911.74	VPC		0.61	0.00	0.61	7.3	
SCU-3-3"-3	1-RA-08-SP-00E1-SCU3-3-3"	00E1	3-3"	7/9/2008	13:56	811222.10	2372012.00	VPC		0.42	0.00	0.42	5.0	
SCU-3-3"-4	1-RA-08-SP-00E1-SCU3-4-3"	00E1	3-3"	7/18/2008	9:54	811693.87	2371964.59	VPC		0.29	0.00	0.29	3.5	
SCU-3-3"-5	1-RA-08-SP-00D1-SCU3-5-3"	00D1	3-3"	7/11/2008	11:16	811149.67	2371361.45	VPC		0.34	0.00	0.34	4.1	
											Minimum	**0.29**	**3.5**	
											Average	**0.44**	**5.3**	
SCU-4-3"-1	1-RA-08-SP-00E1-SCU4-1-3"	00E1	4-3"	7/24/2008	12:43	811869.69	2372111.23	VPC		0.28	0.00	0.28	3.4	
SCU-4-3"-2	1-RA-08-SP-00E1-SCU4-2-3"	00E1	4-3"	7/24/2008	12:45	811771.08	2372061.20	VPC		0.28	0.00	0.28	3.4	
SCU-4-3"-3	1-RA-08-SP-00E1-SCU4-3-3"	00E1	4-3"	7/18/2008	10:02	811396.94	2372062.72	VPC		0.48	0.00	0.48	5.8	
SCU-4-3"-4	1-RA-08-SP-00E1-SCU4-4-3"	00E1	4-3"	7/18/2008	10:06	811321.65	2372137.79	VPC		0.35	0.00	0.35	4.2	
SCU-4-3"-5	1-RA-08-SP-00E1-SCU4-5-3"	00E1	4-3"	7/18/2008	12:11	811370.64	2372188.16	VPC		0.29	0.00	0.29	3.5	
											Minimum	**0.28**	**3.4**	
											Average	**0.34**	**4.0**	
SCU-5-3"-1	1-RA-08-SP-00D1-SCU5-1-3"	00D1	5-3"	7/15/2008	10:09	811770.71	2371864.05	VPC		0.31	0.00	0.31	3.7	
SCU-5-3"-2	1-RA-08-SP-00E1-SCU5-2-3"	00E1	5-3"	7/15/2008	10:05	811420.83	2371185.37	VPC		0.20	0.00	0.20	2.4	
SCU-5-3"-3	1-RA-08-SP-POG4-SCU5-3-3"	POG4	5-3"	7/22/2008	10:07	811745.44	2372459.00	VPC		0.22	0.00	0.22	2.6	
SCU-5-3"-4	1-RA-08-SP-POG4-SCU5-4-3"	POG4	5-3"	7/22/2008	10:05	811796.25	2372586.25	VPC		0.22	0.00	0.22	2.6	
SCU-5-3"-5	1-RA-08-SP-POG4-SCU5-5-3"	POG4	5-3"	7/22/2008	9:58	811467.95	2372510.08	VPC		0.28	0.00	0.28	3.4	
											Minimum	**0.20**	**2.4**	
											Average	**0.24**	**2.9**	
SCU-6-3"-1	1-RA-08-SP-00E1-SCU6-1-3"	00E1	6-3"	7/31/2008	10:10	811945.52	2371938.86	VPC		0.52	0.00	0.52	6.2	
SCU-6-3"-2	1-RA-08-SP-0E3S-SCU6-2-3"	0E3S	6-3"	7/31/2008	10:26	812849.15	2371336.82	VPC		0.30	0.00	0.30	3.6	
SCU-6-3"-3	1-RA-08-SP-0E3S-SCU6-3-3"	0E3S	6-3"	7/31/2008	10:24	812799.27	2371263.02	VPC		0.29	0.00	0.29	3.5	
SCU-6-3"-4	1-RA-08-SP-0E3S-SCU6-4-3"	0E3S	6-3"	8/8/2008	11:43	813523.27	2370737.00	VPC		0.27	0.00	0.27	3.2	
SCU-6-3"-5	1-RA-08-SP-0E3S-SCU6-5-3"	0E3S	6-3"	8/8/2008	11:40	813871.97	2370713.73	VPC		0.32	0.00	0.32	3.8	
											Minimum	**0.27**	**3.2**	
											Average	**0.34**	**4.1**	
SCU-7-3"-1	1-RA-08-SP-00E1-SCU7-1-3"	00E1	7-3"	7/3/2008	12:06	812474.37	2372032.34	VPC	0.84	0.42	0.00	0.42	5.0	
SCU-7-3"-2	1-RA-08-SP-00E1-SCU7-2-3"	00E1	7-3"	7/3/2008	12:02	812675.21	2372138.19	VPC	0.78	0.30	0.00	0.30	3.6	
SCU-7-3"-3	1-RA-08-SP-00E1-SCU7-3-3"	00E1	7-3"	7/11/2008	11:22	812420.32	2372511.05	VPC		0.40	0.00	0.40	4.8	
SCU-7-3"-4	1-RA-08-SP-00E4-SCU7-4-3"	00E4	7-3"	7/14/2008	10:29	812424.08	2372587.11	VPC		0.41	0.00	0.41	4.9	
SCU-7-3"-5	1-RA-08-SP-00E1-SCU7-5-3"	00E1	7-3"	7/11/2008	11:26	813196.88	2372536.70	VPC		0.38	0.00	0.38	4.6	
											Minimum	**0.30**	**3.6**	
											Average	**0.38**	**4.6**	

ID	Sample ID	Subarea	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
SCU-8-3"-1	1-RA-08-SP-POG4-SCU8-1-3"	POG4	8-3"	7/16/2008	09:52	812471.62	2372763.57	VPC		0.35	0.00	0.35	4.2	
SCU-8-3"-2	1-RA-08-SP-00E1-SCU8-2-3"	00E1	8-3"	7/16/2008	09:56	812247.73	2372263.19	VPC		0.39	0.00	0.39	4.7	
SCU-8-3"-3	1-RA-08-SP-00E1-SCU8-3-3"	00E1	8-3"	7/16/2008	09:59	812470.26	2371937.57	VPC		0.33	0.00	0.33	4.0	
SCU-8-3"-4	1-RA-08-SP-00E1-SCU8-4-3"	00E1	8-3"	7/18/2008	10:22	813220.32	2371988.12	VPC		0.32	0.18	0.46	5.5	
SCU-8-3"-5	1-RA-08-SP-00E1-SCU8-5-3"	00E1	8-3"	7/29/2008	11:36	813595.54	2372612.78	VPC		0.28	0.00	0.28	3.4	
											Minimum	**0.33**	**4.0**	
											Average	**0.38**	**4.6**	
SCU-9-3"-1	1-RA-08-SP-00E1-SCU9-1-3"	00E1	9-3"	8/1/2008	11:12	813971.98	2372812.06	VPC		0.37	0.00	0.37	4.4	
SCU-9-3"-2	1-RA-08-SP-00E4-SCU9-2-3"	00E4	9-3"	8/1/2008	11:10	813694.67	2372911.24	VPC		0.37	0.00	0.37	4.4	
SCU-9-3"-3	1-RA-08-SP-00E4-SCU9-3-3"	00E4	9-3"	8/1/2008	11:08	813369.75	2372915.19	VPC		0.33	0.00	0.33	4.0	
SCU-9-3"-4	1-RA-08-SP-0E3S-SCU9-4-3"	0E3S	9-3"	8/5/2008	10:09	814020.09	2371814.12	VPC		0.36	0.00	0.36	4.3	
SCU-9-3"-5	1-RA-08-SP-00E2-SCU9-5-3"	00E2	9-3"	8/15/2008	12:32	814245.45	2372939.53	VPC		0.42	0.00	0.42	5.0	
											Minimum	**0.33**	**4.0**	
											Average	**0.36**	**4.3**	
SCU-10-3"-1	1-RA-08-SP-00E2-SCU10-1-3"	00E2	10-3"	8/15/2008	10:39	814321.00	2372989.00	VPC		0.38	0.00	0.38	4.6	
SCU-10-3"-2	1-RA-08-SP-00E4-SCU10-2-3"	00E4	10-3"	8/15/2008	12:36	814345.17	2373113.36	VPC		0.34	0.00	0.34	4.1	
SCU-10-3"-3	1-RA-08-SP-00E4-SCU10-3-3"	00E4	10-3"	8/15/2008	12:37	814470.65	2373138.57	VPC		0.35	0.00	0.35	4.2	
SCU-10-3"-4	1-RA-08-SP-00E2-SCU10-4-3"	00E2	10-3"	8/25/2008	12:36	814669.90	2373114.14	VPC		0.35	0.00	0.35	4.2	
SCU-10-3"-5	1-RA-08-SP-00E4-SCU10-5-3"	00E4	10-3"	8/25/2008	12:40	814569.45	2373314.59	VPC		0.30	0.00	0.30	3.6	
											Minimum	**0.30**	**3.6**	
											Average	**0.34**	**4.1**	
SCU-11-3"-1	1-RA-08-SP-00E4-SCU11-1-3"	00E4	11-3"	8/25/2008	12:42	814794.00	2373488.37	VPC		0.46	0.00	0.46	5.5	
SCU-11-3"-2	1-RA-08-SP-00E2-SCU11-2-3"	00E2	11-3"	8/25/2008	12:44	814920.12	2373413.70	VPC		0.38	0.00	0.38	4.6	
SCU-11-3"-3	1-RA-08-SP-00E2-SCU11-3-3"	00E2	11-3"	10/15/2008	12:12	815074.24	2373464.86	VPC		0.30	0.00	0.30	3.6	
SCU-11-3"-4	1-RA-08-SP-00E2-SCU11-4-3"	00E2	11-3"	10/15/2008	12:14	815219.44	2373612.09	VPC		0.33	0.00	0.33	4.0	
SCU-11-3"-5	1-RA-08-SP-00E2-SCU11-5-3"	00E2	11-3"	10/20/2008	14:05	815869.05	2373914.22	VPC		0.31	0.00	0.31	3.7	
											Minimum	**0.30**	**3.6**	
											Average	**0.36**	**4.3**	
SCU-12-3"-1	1-RA-08-SP-POG4-SCU12-1-3"	POG4	12-3"	9/4/2008	11:50	808594.22	2372961.32	VPC		0.37	0.00	0.37	4.4	
SCU-12-3"-2	1-RA-08-SP-POG4-SCU12-2-3"	POG4	12-3"	9/4/2008	11:51	808472.86	2372933.91	VPC		0.38	0.00	0.38	4.6	
SCU-12-3"-3	1-RA-08-SP-POG4-SCU12-3-3"	POG4	12-3"	9/4/2008	11:53	808420.41	2373061.74	VPC		0.31	0.00	0.31	3.7	
SCU-12-3"-4	1-RA-08-SP-POG4-SCU12-4-3"	POG4	12-3"	9/4/2008	11:55	808271.00	2373061.36	VPC		0.28	0.00	0.28	3.4	
SCU-12-3"-5	1-RA-08-SP-POG4-SCU12-5-3"	POG4	12-3"	9/4/2008	11:58	808268.92	2373185.08	VPC		0.41	0.00	0.41	4.9	
											Minimum	**0.28**	**3.4**	
											Average	**0.35**	**4.2**	
SCU-13-3"-1	1-RA-08-SP-POG4-SCU13-1-3"	POG4	13-3"	9/4/2008	11:39	808769.69	2372784.27	VPC		0.27	0.00	0.27	3.2	
SCU-13-3"-2	1-RA-08-SP-POG4-SCU13-2-3"	POG4	13-3"	9/4/2008	11:44	808545.71	2372661.71	VPC		0.27	0.00	0.27	3.2	
SCU-13-3"-3	1-RA-08-SP-POG4-SCU13-3-3"	POG4	13-3"	9/4/2008	11:41	808644.46	2372910.93	VPC		0.30	0.00	0.30	3.6	
SCU-13-3"-4	1-RA-08-SP-POG4-SCU13-4-3"	POG4	13-3"	9/4/2008	11:46	808420.12	2372607.69	VPC		0.23	0.00	0.23	2.8	
SCU-13-3"-5	1-RA-08-SP-POG4-SCU13-5-3"	POG4	13-3"	9/4/2008	11:52	808319.96	2372511.12	VPC		0.25	0.00	0.25	3.0	
											Minimum	**0.23**	**2.8**	
											Average	**0.26**	**3.2**	
SCU-14-3"-1	1-RA-08-SP-00E5-SCU14-1-3"	00E5	14-3"	9/23/2008	11:47	818594.40	2374540.44	VPC		0.66	0.00	0.66	7.9	
SCU-14-3"-2	1-RA-08-SP-0E3N-SCU14-2-3"	0E3N	14-3"	9/25/2008	12:44	818696.80	2374441.84	VPC		0.45	0.00	0.45	5.4	
SCU-14-3"-3	1-RA-08-SP-00E5-SCU14-3-3"	00E5	14-3"	9/25/2008	12:41	818169.22	2374590.26	VPC		0.30	0.00	0.30	3.6	
SCU-14-3"-4	1-RA-08-SP-00E5-SCU14-4-3"	00E5	14-3"	9/25/2008	12:39	818070.51	2374566.57	VPC		0.35	0.00	0.35	4.2	
SCU-14-3"-5	1-RA-08-SP-0E3N-SCU14-5-3"	0E3N	14-3"	9/25/2008	12:37	818994.53	2374489.98	VPC		0.39	0.00	0.39	4.7	
											Minimum	**0.30**	**3.6**	
											Average	**0.43**	**5.2**	
SCU-15-3"-1	1-RA-08-SP-0E3N-SCU15-1-3"	0E3N	15-3"	10/1/2008	10:07	818144.12	2374289.88	VPC		0.37	0.00	0.37	4.4	
SCU-15-3"-2	1-RA-08-SP-0E3N-SCU15-2-3"	0E3N	15-3"	10/1/2008	10:00	817519.30	2374641.12	VPC		0.40	0.00	0.40	4.8	
SCU-15-3"-3	1-RA-08-SP-0E3N-SCU15-3-3"	0E3N	15-3"	10/1/2008	09:57	817394.37	2374566.81	VPC		0.38	0.00	0.38	4.6	
SCU-15-3"-4	1-RA-08-SP-0E3N-SCU15-4-3"	0E3N	15-3"	10/1/2008	10:02	817543.96	2374540.94	VPC		0.25	0.00	0.25	3.0	
SCU-15-3"-5	1-RA-08-SP-0E3N-SCU15-5-3"	0E3N	15-3"	10/1/2008	10:04	817567.15	2374367.00	VPC		0.42	0.00	0.42	5.0	
											Minimum	**0.25**	**3.0**	
											Average	**0.36**	**4.4**	

ID	Sample ID	Subarea	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
SCU-16-3"-1	1-RA-08-SP-0E3N-SCU16-1-3"	0E3N	16-3"	10/3/2008	10:11	817694.41	2374266.53	VPC		0.31	0.00	0.31	3.7	
SCU-16-3"-2	1-RA-08-SP-00E5-SCU16-2-3"	00E5	16-3"	10/3/2008	10:13	817619.61	2374289.46	VPC		0.26	0.00	0.26	3.1	
SCU-16-3"-3	1-RA-08-SP-0E3S-SCU16-3-3"	0E3S	16-3"	10/3/2008	10:19	814520.45	2371364.85	VPC		0.33	0.00	0.33	4.0	
SCU-16-3"-4	1-RA-08-SP-0E3S-SCU16-4-3"	0E3S	16-3"	10/3/2008	10:21	814621.79	2371239.44	VPC		0.35	0.00	0.35	4.2	
SCU-16-3"-5	1-RA-08-SP-0E3S-SCU16-5-3"	0E3S	16-3"	10/3/2008	10:23	814370.84	2371213.66	VPC		0.37	0.00	0.37	4.4	
											Minimum	**0.26**	**3.1**	
											Average	**0.32**	**3.9**	
SCU-17-3"-1	1-RA-08-SP-0E3S-SCU17-1-3"	0E3S	17-3"	10/7/2008	13:28	814770.15	2371389.76	VPC		0.30	0.00	0.30	3.6	
SCU-17-3"-2	1-RA-08-SP-000F-SCU17-2-3"	000F	17-3"	10/9/2008	12:15	815746.41	2371889.68	VPC		0.48	0.00	0.48	5.8	
SCU-17-3"-3	1-RA-08-SP-000F-SCU17-3-3"	000F	17-3"	10/9/2008	12:16	815620.04	2371838.12	VPC		0.44	0.00	0.44	5.3	
SCU-17-3"-4	1-RA-08-SP-000F-SCU17-4-3"	000F	17-3"	10/9/2008	12:19	815121.69	2371790.53	VPC		0.46	0.00	0.46	5.5	
SCU-17-3"-5	1-RA-08-SP-000F-SCU17-5-3"	000F	17-3"	10/13/2008	13:59	815921.41	2371688.46	VPC		0.50	0.00	0.50	6.0	
											Minimum	**0.30**	**3.6**	
											Average	**0.44**	**5.2**	
SCU-18-3"-1	1-RA-08-SP-0E3N-SCU18-1-3"	0E3N	18-3"	10/9/2008	12:21	815097.99	2371915.22	VPC		0.38	0.00	0.38	4.6	
SCU-18-3"-2	1-RA-08-SP-000F-SCU18-2-3"	000F	18-3"	10/9/2008	12:27	815269.98	2371862.28	VPC		0.42	0.00	0.42	5.0	
SCU-18-3"-3	1-RA-08-SP-000F-SCU18-3-3"	000F	18-3"	10/9/2008	12:23	815094.08	2371740.59	VPC		0.32	0.00	0.32	3.8	
SCU-18-3"-4	1-RA-08-SP-000F-SCU18-4-3"	000F	18-3"	10/9/2008	12:24	815144.84	2371690.35	VPC		0.40	0.00	0.40	4.8	
SCU-18-3"-5	1-RA-08-SP-000F-SCU18-5-3"	000F	18-3"	10/13/2008	14:07	815218.26	2371614.16	VPC		0.37	0.00	0.37	4.4	
											Minimum	**0.32**	**3.8**	
											Average	**0.38**	**4.5**	
SCU-19-3"-1	1-RA-08-SP-0E3S-SCU19-1-3"	0E3S	19-3"	10/20/2008	14:17	814970.63	2371436.14	VPC		0.40	0.00	0.40	4.8	
SCU-19-3"-2	1-RA-08-SP-000F-SCU19-2-3"	000F	19-3"	10/20/2008	14:16	815145.05	2371540.69	VPC		0.38	0.00	0.38	4.6	
SCU-19-3"-3	1-RA-08-SP-00E2-SCU19-3-3"	00E2	19-3"	10/20/2008	13:59	815646.95	2373960.94	VPC		0.34	0.00	0.34	4.1	
SCU-19-3"-4	1-RA-08-SP-00E2-SCU19-4-3"	00E2	19-3"	10/20/2008	14:01	815819.43	2374064.65	VPC		0.40	0.00	0.40	4.8	
SCU-19-3"-5	1-RA-08-SP-00E2-SCU19-5-3"	00E2	19-3"	10/20/2008	14:03	815894.19	2373988.24	VPC		0.40	0.00	0.40	4.8	
											Minimum	**0.34**	**4.1**	
											Average	**0.38**	**4.6**	

RPB = Russian Peat Borer
SCU = Sand Certification Unit
SMU = Sand Management Unit
ST = Sediment Trap
VC = Vibra Core
VPC = Vacuum Push Core

Data from the *2008 RA Summary Report* , Appendix J, Table J-3.

Prepared by: ECB
Checked by: MCC2

Table C-4
GW Partners Lower Fox River - OU1
6-inch Sand Cover Thickness Verification Results

ID	Sample ID	Subarea	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
SCU-1-6"-1	1-RA-08-SP-0D2N-SCU1-1-6"	0D2N	1-6"	6/26/2008	14:04	808394.10	2370336.49	VPC	0.92	0.63	0.00	0.63	7.6	
SCU-1-6"-2	1-RA-08-SP-0D2N-SCU1-2-6"	0D2N	1-6"	6/26/2008	14:09	808873.43	2370562.20	VPC	0.84	0.67	0.00	0.67	8.0	
SCU-1-6"-3	1-RA-08-SP-0D2N-SCU1-3-6"	0D2N	1-6"	6/30/2008	11:23	808746.15	2370483.28	VPC	1.08	0.74	0.00	0.74	8.9	
SCU-1-6"-4	1-RA-08-SP-POG3-SCU1-4-6"	POG3	1-6"	6/26/2008	13:06	806870.26	2371862.31	VPC	0.90	0.49	0.00	0.49	5.9	
SCU-1-6"-5	1-RA-08-SP-POG3-SCU1-5-6"	POG3	1-6"	6/26/2008	13:11	806918.90	2371960.78	VPC	0.78	0.48	0.00	0.48	5.8	
											Minimum	**0.5**	**5.8**	
											Average	**0.60**	**7.0**	
SCU-2-6"-1	1-RA-08-SP-0D2N-SCU2-1-6"	0D2N	2-6"	6/26/2008	14:23	809848.55	2370913.38	VPC	1.00	0.66	0.00	0.66	7.9	
SCU-2-6"-2	1-RA-08-SP-00D1-SCU2-2-6"	00D1	2-6"	6/26/2008	14:27	810019.67	2370816.48	VPC	1.00	0.62	0.00	0.62	7.4	
SCU-2-6"-3	1-RA-08-SP-00E1-SCU2-3-6"	00E1	2-6"	7/9/2008	10:25	811022.73	2371743.45	VPC		0.75	0.00	0.75	9.0	
SCU-2-6"-4	1-RA-08-SP-00E1-SCU2-4-6"	00E1	2-6"	7/9/2008	10:28	811044.87	2371891.05	VPC		0.80	0.00	0.80	9.6	
SCU-2-6"-5	1-RA-08-SP-00E1-SCU2-5-6"	00E1	2-6"	7/9/2008	10:31	811223.75	2371862.99	VPC		0.44	0.00	0.44	5.3	
											Minimum	**0.4**	**5.3**	
											Average	**0.64**	**7.7**	
SCU-3-6"-1	1-RA-08-SP-00E1-SCU3-1-6"	00E1	3-6"	7/14/2008	10:09	810996.02	2371438.78	VPC		0.55	0.00	0.55	6.6	
SCU-3-6"-2	1-RA-08-SP-00D1-SCU3-2-6"	00D1	3-6"	7/14/2008	10:03	811168.11	2370788.81	VPC		0.64	0.00	0.64	7.7	
SCU-3-6"-3	1-RA-08-SP-00E1-SCU3-3-6"	00E1	3-6"	7/16/2008	09:46	811322.45	2371787.17	VPC		0.51	0.00	0.51	6.1	
SCU-3-6"-4	1-RA-08-SP-00E1-SCU3-4-6"	00E1	3-6"	7/21/2008	11:31	811645.49	2372138.16	VPC		0.32	0.00	0.32	3.8	
SCU-3-6"-5	1-RA-08-SP-00E1-SCU3-5-6"	00E1	3-6"	7/24/2008	10:34	811695.95	2372114.35	VPC		0.29	0.00	0.29	3.5	
SCU-3-6"-6	1-RA-08-SP-00D1-SCU3-6-6"	00D1	3-6"	7/24/2008	10:55	811173.72	2370960.38	VPC		0.49	0.00	0.49	5.9	
SCU-3-6"-7	1-RA-08-SP-00D1-SCU3-7-6"	00D1	3-6"	7/24/2008	10:53	811246.13	2371054.62	VPC		0.61	0.00	0.61	7.3	
SCU-3-6"-8	1-RA-08-SP-00E1-SCU3-8-6"	00E1	3-6"	7/24/2008	10:49	811245.65	2371787.38	VPC		0.33	0.11	0.41	5.0	
SCU-3-6"-9	1-RA-08-SP-00E1-SCU3-9-6"	00E1	3-6"	7/24/2008	10:46	811373.90	2371889.02	VPC		0.48	0.00	0.48	5.8	
SCU-3-6"-10	1-RA-08-SP-00E1-SCU3-10-6"	00E1	3-6"	7/24/2008	10:39	811819.78	2372186.90	VPC		0.50	0.00	0.50	6.0	
SCU-3-6"-11	1-RA-08-SP-00E1-SCU3-11-6"	00E1	3-6"	7/24/2008	11:03	810922.54	2371363.62	VPC		0.65	0.00	0.65	7.8	
SCU-3-6"-12	1-RA-08-SP-00E1-SCU3-12-6"	00E1	3-6"	7/24/2008	11:04	810972.73	2371537.20	VPC		0.65	0.00	0.65	7.8	
SCU-3-6"-13	1-RA-08-SP-00D1-SCU3-13-6"	00D1	3-6"	7/24/2008	10:59	811172.29	2370810.48	VPC		0.77	0.00	0.77	9.2	
SCU-3-6"-14	1-RA-08-SP-00E1-SCU3-14-6"	00E1	3-6"	7/24/2008	11:17	811345.67	2371964.63	VPC		0.60	0.00	0.60	7.2	
SCU-3-6"-15	1-RA-08-SP-00E1-SCU3-15-6"	00E1	3-6"	7/24/2008	11:14	811670.95	2372165.57	VPC		0.53	0.00	0.53	6.4	
											Minimum	**0.29**	**3.5**	
											Average	**0.53**	**6.4**	
SCU-4-6"-1	1-RA-08-SP-00E1-SCU4-1-6"	00E1	4-6"	7/18/2008	10:12	811595.46	2372212.51	VPC		0.64	0.00	0.64	7.7	
SCU-4-6"-2	1-RA-08-SP-00E1-SCU4-2-6"	00E1	4-6"	7/18/2008	10:14	811547.20	2372238.95	VPC		0.56	0.00	0.56	6.7	
SCU-4-6"-3	1-RA-08-SP-00E1-SCU4-3-6"	00E1	4-6"	7/23/2008	11:15	811744.88	2372338.54	VPC		0.55	0.00	0.55	6.6	
SCU-4-6"-4	1-RA-08-SP-00E1-SCU4-4-6"	00E1	4-6"	7/23/2008	11:19	811846.04	2372389.44	VPC		0.40	0.00	0.40	4.8	
SCU-4-6"-5	1-RA-08-SP-00E1-SCU4-5-6"	00E1	4-6"	7/23/2008	11:17	811819.82	2372436.55	VPC		0.45	0.00	0.45	5.4	
											Minimum	**0.40**	**4.8**	
											Average	**0.52**	**6.2**	
SCU-5-6"-1	1-RA-08-SP-0E3S-SCU5-1-6"	0E3S	5-6"	7/25/2008	10:23	811870.26	2371362.66	VPC		0.37	0.00	0.37	4.4	
SCU-5-6"-2	1-RA-08-SP-0E3S-SCU5-2-6"	0E3S	5-6"	7/25/2008	10:24	811921.62	2371437.23	VPC		0.29	0.00	0.29	3.5	
SCU-5-6"-3	1-RA-08-SP-0E3S-SCU5-3-6"	0E3S	5-6"	8/1/2008	10:07	812470.35	2370761.12	VPC		0.44	0.00	0.44	5.3	
SCU-5-6"-4	1-RA-08-SP-0E3S-SCU5-4-6"	0E3S	5-6"	7/31/2008	10:18	812496.34	2370837.86	VPC		0.51	0.00	0.51	6.1	
SCU-5-6"-5	1-RA-08-SP-0E3S-SCU5-5-6"	0E3S	5-6"	7/31/2008	11:01	812972.42	2371462.27	VPC		0.48	0.00	0.48	5.8	
SCU-5-6"-6	1-RA-08-SP-0E3S-SCU5-6-6"	0E3S	5-6"	8/1/2008	10:19	811870.31	2371463.32	VPC		0.63	0.00	0.63	7.6	
SCU-5-6"-7	1-RA-08-SP-0E3S-SCU5-7-6"	0E3S	5-6"	8/1/2008	10:15	811920.25	2371088.77	VPC		0.47	0.00	0.47	5.6	
SCU-5-6"-8	1-RA-08-SP-0E3S-SCU5-8-6"	0E3S	5-6"	8/1/2008	10:11	812347.37	2370812.00	VPC		0.48	0.00	0.48	5.8	
SCU-5-6"-9	1-RA-08-SP-0E3S-SCU5-9-6"	0E3S	5-6"	8/1/2008	10:25	813019.81	2371386.79	VPC		0.56	0.00	0.56	6.7	
SCU-5-6"-10	1-RA-08-SP-0E3S-SCU5-10-6"	0E3S	5-6"	8/1/2008	10:28	812995.00	2371537.12	VPC		0.62	0.00	0.62	7.4	
SCU-5-6"-11	1-RA-08-SP-0E3S-SCU5-11-6"	0E3S	5-6"	8/1/2008	10:47	811868.92	2371186.24	VPC		0.85	0.00	0.85	10.2	
SCU-5-6"-12	1-RA-08-SP-00E1-SCU5-12-6"	00E1	5-6"	8/1/2008	10:43	811994.51	2371890.14	VPC		0.50	0.00	0.50	6.0	
SCU-5-6"-13	1-RA-08-SP-0E3S-SCU5-13-6"	0E3S	5-6"	8/1/2008	10:38	812518.83	2371538.35	VPC		0.50	0.00	0.50	6.0	
SCU-5-6"-14	1-RA-08-SP-0E3S-SCU5-14-6"	0E3S	5-6"	8/1/2008	10:34	812947.76	2371361.13	VPC		0.47	0.00	0.47	5.6	
SCU-5-6"-15	1-RA-08-SP-0E3S-SCU5-15-6"	0E3S	5-6"	8/1/2008	10:31	813045.23	2371511.86	VPC		0.55	0.00	0.55	6.6	
											Minimum	**0.29**	**3.5**	
											Average	**0.51**	**6.2**	
SCU-6-6"-1	1-RA-08-SP-00E1-SCU6-1-6"	00E1	6-6"	7/3/2008	11:58	812923.56	2372043.40	VPC	0.66	0.35	0.00	0.35	4.2	
SCU-6-6"-2	1-RA-08-SP-00E1-SCU6-2-6"	00E1	6-6"	7/3/2008	11:54	812966.66	2372168.04	VPC	0.94	0.47	0.00	0.47	5.6	
SCU-6-6"-3	1-RA-08-SP-00E1-SCU6-3-6"	00E1	6-6"	7/8/2008	11:15	812545.80	2372291.09	VPC		0.52	0.00	0.52	6.2	
SCU-6-6"-4	1-RA-08-SP-00E1-SCU6-4-6"	00E1	6-6"	7/10/2008	14:29	812522.37	2372361.87	VPC		0.42	0.00	0.42	5.0	
SCU-6-6"-5	1-RA-08-SP-00E4-SCU6-5-6"	00E4	6-6"	7/15/2008	10:19	812698.03	2372664.53	VPC		1.11	0.00	1.11	13.3	
											Minimum	**0.35**	**4.2**	
											Average	**0.57**	**6.9**	

ID	Sample ID	Subarea	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
SCU-7-6"-1	1-RA-08-SP-00E1-SCU7-1-6"	00E1	7-6"	7/18/2008	12:38	813170.92	2372039.56	VPC		0.74	0.00	0.74	8.9	
SCU-7-6"-2	1-RA-08-SP-00E1-SCU7-2-6"	00E1	7-6"	7/18/2008	12:36	812847.38	2371938.48	VPC		0.69	0.00	0.69	8.3	
SCU-7-6"-3	1-RA-08-SP-00E1-SCU7-3-6"	00E1	7-6"	7/18/2008	12:33	812521.28	2371887.00	VPC		0.60	0.00	0.60	7.2	
SCU-7-6"-4	1-RA-08-SP-00E1-SCU7-4-6"	00E1	7-6"	7/18/2008	12:31	812320.81	2371865.85	VPC		0.63	0.00	0.63	7.6	
SCU-7-6"-5	1-RA-08-SP-0E3S-SCU7-5-6"	0E3S	7-6"	7/29/2008	11:36	813021.94	2371713.00	VPC		0.50	0.00	0.50	6.0	
											Minimum	**0.60**	**7.2**	
											Average	**0.67**	**8.0**	
SCU-8-6"-1	1-RA-08-SP-00E1-SCU8-1-6"	00E1	8-6"	8/4/2008	12:48	814045.59	2372314.36	VPC		0.27	0.00	0.27	3.2	
SCU-8-6"-2	1-RA-08-SP-00E1-SCU8-2-6"	00E1	8-6"	8/4/2008	12:44	813920.54	2372740.20	VPC		0.64	0.00	0.64	7.7	
SCU-8-6"-3	1-RA-08-SP-00E4-SCU8-3-6"	00E4	8-6"	8/4/2008	12:37	813569.80	2372737.64	VPC		0.63	0.00	0.63	7.6	
SCU-8-6"-4	1-RA-08-SP-00E4-SCU8-4-6"	00E4	8-6"	8/4/2008	12:40	813618.89	2372910.80	VPC		0.63	0.00	0.63	7.6	
SCU-8-6"-5	1-RA-08-SP-00E1-SCU8-5-6"	00E1	8-6"	8/5/2008	10:03	813520.57	2371938.12	VPC		0.61	0.00	0.61	7.3	
											Minimum	**0.27**	**3.2**	
											Average	**0.56**	**6.7**	
SCU-9-6"-1	1-RA-08-SP-0E3S-SCU9-1-6"	0E3S	9-6"	8/5/2008	10:12	814096.01	2371813.06	VPC		0.47	0.00	0.47	5.6	
SCU-9-6"-2	1-RA-08-SP-0E3S-SCU9-2-6"	0E3S	9-6"	8/8/2008	11:50	813446.24	2371638.62	VPC		0.51	0.00	0.51	6.1	
SCU-9-6"-3	1-RA-08-SP-0E3S-SCU9-3-6"	0E3S	9-6"	8/8/2008	11:45	813545.87	2371862.01	VPC		0.50	0.00	0.50	6.0	
SCU-9-6"-4	1-RA-08-SP-0E3S-SCU9-4-6"	0E3S	9-6"	8/13/2008	11:47	814495.88	2371989.08	VPC		0.50	0.00	0.50	6.0	
SCU-9-6"-5	1-RA-08-SP-0E3S-SCU9-5-6"	0E3S	9-6"	8/13/2008	11:46	814470.17	2371839.47	VPC		0.63	0.00	0.63	7.6	
											Minimum	**0.47**	**5.6**	
											Average	**0.52**	**6.3**	
SCU-10-6"-1	1-RA-08-SP-00E2-SCU10-1-6"	00E2	10-6"	9/15/2008	10:58	814815.66	2373313.62	VPC		0.31	0.00	0.31	3.7	
SCU-10-6"-2	1-RA-08-SP-POG4-SCU10-2-6"	POG4	10-6"	9/15/2008	11:38	808245.27	2372610.72	VPC		0.35	0.00	0.35	4.2	
SCU-10-6"-3	1-RA-08-SP-00E5-SCU10-3-6"	00E5	10-6"	9/19/2008	13:23	819044.00	2374790.75	VPC		0.83	0.00	0.83	10.0	
SCU-10-6"-4	1-RA-08-SP-00E5-SCU10-4-6"	00E5	10-6"	9/23/2008	11:54	819144.90	2374766.70	VPC		0.96	0.00	0.96	11.5	
SCU-10-6"-5	1-RA-08-SP-00E5-SCU10-5-6"	00E5	10-6"	9/23/2008	11:51	818774.78	2374591.30	VPC		0.46	0.00	0.46	5.5	
											Minimum	**0.31**	**3.7**	
											Average	**0.58**	**7.0**	
SCU-11-6"-1	1-RA-08-SP-0E3N-SCU11-1-6"	0E3N	11-6"	9/29/2008	12:53	818820.59	2374516.32	VPC		0.72	0.00	0.72	8.6	
SCU-11-6"-2	1-RA-08-SP-0E3N-SCU11-2-6"	0E3N	11-6"	9/29/2008	12:55	819020.26	2374564.04	VPC		0.85	0.00	0.85	10.2	
SCU-11-6"-3	1-RA-08-SP-00E5-SCU11-3-6"	00E5	11-6"	9/29/2008	12:50	818444.25	2374565.59	VPC		0.67	0.00	0.67	8.0	
SCU-11-6"-4	1-RA-08-SP-00E5-SCU11-4-6"	00E5	11-6"	9/29/2008	12:47	818244.56	2374440.81	VPC		0.52	0.00	0.52	6.2	
SCU-11-6"-5	1-RA-08-SP-0E3N-SCU11-5-6"	0E3N	11-6"	9/29/2008	12:44	818219.75	2374391.21	VPC		0.80	0.00	0.80	9.6	
											Minimum	**0.52**	**6.2**	
											Average	**0.71**	**8.5**	
SCU-12-6"-1	1-RA-08-SP-0E3N-SCU12-1-6"	0E3N	12-6"	10/1/2008	10:09	818266.13	2374335.80	VPC		0.67	0.00	0.67	8.0	
SCU-12-6"-2	1-RA-08-SP-00E5-SCU12-2-6"	00E5	12-6"	10/1/2008	10:12	817719.56	2374541.88	VPC		0.68	0.00	0.68	8.2	
SCU-12-6"-3	1-RA-08-SP-0E3S-SCU12-3-6"	0E3S	12-6"	10/3/2008	10:30	814471.85	2371714.75	VPC		0.69	0.00	0.69	8.3	
SCU-12-6"-4	1-RA-08-SP-0E3S-SCU12-4-6"	0E3S	12-6"	10/3/2008	10:28	814447.41	2371539.31	VPC		0.79	0.00	0.79	9.5	
SCU-12-6"-5	1-RA-08-SP-0E3S-SCU12-5-6"	0E3S	12-6"	10/3/2008	10:26	814346.39	2371514.05	VPC		0.74	0.00	0.74	8.9	
											Minimum	**0.67**	**8.0**	
											Average	**0.71**	**8.6**	
SCU-13-6"-1	1-RA-08-SP-0E3S-SCU13-1-6"	0E3S	13-6"	10/7/2008	13:24	814321.98	2371339.59	VPC		0.64	0.00	0.64	7.7	
SCU-13-6"-2	1-RA-08-SP-0E3S-SCU13-2-6"	0E3S	13-6"	10/7/2008	13:30	814819.80	2371540.00	VPC		0.29	0.00	0.29	3.5	
SCU-13-6"-3	1-RA-08-SP-000F-SCU13-3-6"	000F	13-6"	10/9/2008	12:12	815895.54	2371815.85	VPC		0.65	0.00	0.65	7.8	
SCU-13-6"-4	1-RA-08-SP-000F-SCU13-4-6"	000F	13-6"	10/9/2008	12:11	815619.01	2371760.81	VPC		0.68	0.00	0.68	8.2	
SCU-13-6"-5	1-RA-08-SP-000F-SCU13-5-6"	000F	13-6"	10/13/2008	13:57	815820.30	2371716.89	VPC		0.56	0.00	0.56	6.7	
											Minimum	**0.29**	**3.5**	
											Average	**0.56**	**6.8**	
SCU-14-6"-1	1-RA-08-SP-000F-SCU14-1-6"	000F	14-6"	10/13/2008	13:55	815619.91	2371640.68	VPC		0.56	0.00	0.56	6.7	
SCU-14-6"-2	1-RA-08-SP-000F-SCU14-2-6"	000F	14-6"	10/13/2008	14:04	815470.76	2371590.21	VPC		0.54	0.00	0.54	6.5	
SCU-14-6"-3	1-RA-08-SP-000F-SCU14-3-6"	000F	14-6"	10/15/2008	12:36	815270.78	2371514.82	VPC		0.75	0.00	0.75	9.0	
SCU-14-6"-4	1-RA-08-SP-0E3N-SCU14-4-6"	0E3N	14-6"	10/13/2008	14:11	814917.57	2371786.25	VPC		0.78	0.00	0.78	9.4	
SCU-14-6"-5	1-RA-08-SP-0E3S-SCU14-5-6"	0E3S	14-6"	10/13/2008	14:09	814871.81	2371489.95	VPC		0.50	0.00	0.50	6.0	
											Minimum	**0.50**	**6.0**	
											Average	**0.63**	**7.5**	
SCU-15-6"-1	1-RA-08-SP-00E2-SCU15-1-6"	00E2	15-6"	10/20/2008	13:56	815519.27	2373664.21	VPC		0.80	0.00	0.80	9.6	
											Minimum	**0.80**	**9.6**	
											Average	**0.80**	**9.6**	

RPB = Russian Peat Borer
SCU = Sand Certification Unit
SMU = Sand Management Unit
ST = Sediment Trap
VC = Vibra Core
VPC = Vacuum Push Core

Data from the *2008 RA Summary Report* , Appendix J, Table J-4.

Prepared by: ECB
Checked by: MCC2

Table C-5
GW Partners Lower Fox River - OU1
3-inch Sand Layer of the Cap Thickness Verification Results

ID	Sample ID	Subarea	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
SCU-1-3"CAP-1	1-RA-08-SP-00E1-SCU1-1-3"-CAP	00E1	1-3"CAP	6/30/2008	13:58	810972.56	2371637.53	810971	2371637	1.6	P	VPC	0.50	0.32	0.00	0.32	3.8	
SCU-1-3"CAP-2	1-RA-08-SP-00E1-SCU1-2-3"-CAP	00E1	1-3"CAP	6/30/2008	14:04	810945.34	2371586.29	810946	2371588	1.8	P	VPC	0.98	0.47	0.00	0.47	5.6	
SCU-1-3"CAP-3	1-RA-08-SP-00E1-SCU1-3-3"-CAP	00E1	1-3"CAP	6/30/2008	13:28	810871.79	2371535.35	810871	2371537	1.8	P	VPC	0.78	0.47	0.00	0.47	5.6	
SCU-1-3"CAP-4	1-RA-08-SP-00E1-SCU1-4-3"-CAP	00E1	1-3"CAP	6/30/2008	13:45	810845.71	2371486.82	810846	2371488	1.2	P	VPC	1.03	0.60	0.00	0.60	7.2	
SCU-1-3"CAP-5	1-RA-08-SP-00E1-SCU1-5-3"-CAP	00E1	1-3"CAP	6/30/2008	13:10	810794.63	2371537.72	810796	2371538	1.4	P	VPC	0.81	0.55	0.00	0.55	6.6	
SCU-1-3"CAP-6	1-RA-08-SP-00E1-SCU1-6-3"-CAP	00E1	1-3"CAP	6/30/2008	13:36	810820.55	2371638.85	810821	2371638	1.0	P	VPC	0.93	0.51	0.00	0.51	6.1	
SCU-1-3"CAP-7	1-RA-08-SP-00E1-SCU1-7-3"-CAP	00E1	1-3"CAP	6/30/2008	13:48	810845.48	2371710.68	810846	2371712	1.4	P	VPC	0.97	0.49	0.00	0.49	5.9	
SCU-1-3"CAP-8	1-RA-08-SP-00E1-SCU1-8-3"-CAP	00E1	1-3"CAP	6/30/2008	13:00	810745.94	2371588.15	810746	2371587	1.2	P	VPC	0.83	0.39	0.00	0.39	4.7	
SCU-1-3"CAP-9	1-RA-08-SP-00E1-SCU1-9-3"-CAP	00E1	1-3"CAP	6/30/2008	12:54	810723.07	2371561.47	810722	2371563	1.9	P	VPC	1.03	0.43	0.00	0.43	5.2	
SCU-1-3"CAP-10	1-RA-08-SP-00E1-SCU1-10-3"-CAP	00E1	1-3"CAP	6/30/2008	13:04	810744.37	2371637.15	810746	2371637	1.6	P	VPC	1.32	0.67	0.00	0.67	8.0	
SCU-1-3"CAP-11	1-RA-08-SP-00E1-SCU1-11-3"-CAP	00E1	1-3"CAP	6/30/2008	12:39	810670.63	2371638.36	810671	2371637	1.4	P	VPC	1.10	0.53	0.00	0.53	6.4	
SCU-1-3"CAP-12	1-RA-08-SP-00E1-SCU1-12-3"-CAP	00E1	1-3"CAP	6/30/2008	12:15	810645.14	2371462.94	810646	2371463	0.9	P	VPC	1.00	0.43	0.00	0.43	5.2	
SCU-1-3"CAP-13	1-RA-08-SP-00E1-SCU1-13-3"-CAP	00E1	1-3"CAP	6/30/2008	12:06	810620.27	2371437.11	810621	2371437	0.7	P	VPC	1.08	0.75	0.00	0.75	9.0	
SCU-1-3"CAP-14	1-RA-08-SP-00E1-SCU1-14-3"-CAP	00E1	1-3"CAP	6/30/2008	12:24	810595.76	2371513.76	810596	2371513	0.8	P	VPC	0.91	0.48	0.00	0.48	5.8	
SCU-1-3"CAP-15	1-RA-08-SP-00E1-SCU1-15-3"-CAP	00E1	1-3"CAP	6/30/2008	12:33	810571.08	2371538.86	810571	2371538	0.9	P	VPC	1.08	0.52	0.00	0.52	6.2	
SCU-1-3"CAP-16	1-RA-08-SP-00E1-SCU1-16-3"-CAP	00E1	1-3"CAP	6/30/2008	12:01	810570.38	2371362.17	810571	2371362	0.6	P	VPC	0.97	0.59	0.00	0.59	7.1	
SCU-1-3"CAP-17	1-RA-08-SP-00E1-SCU1-17-3"-CAP	00E1	1-3"CAP	6/30/2008	11:51	810519.84	2371435.51	810521	2371437	1.9	P	VPC	0.65	0.51	0.00	0.51	6.1	
SCU-1-3"CAP-18	1-RA-08-SP-00E1-SCU1-18-3"-CAP	00E1	1-3"CAP	6/30/2008	11:43	810471.90	2371387.92	810471	2371387	1.3	P	VPC	1.06	0.70	0.00	0.70	8.4	
															Minimum	**0.32**	**3.8**	
															Average	**0.51**	**6.3**	
SCU-2-3"CAP-1	1-RA-08-SP-00E1-SCU2-1-3"-CAP	00E1	2-3"CAP	7/1/2008	09:57	810896.43	2371788.82	810896	2371787	1.9	P	VPC	0.90	0.51	0.00	0.51	6.1	
SCU-2-3"CAP-2	1-RA-08-SP-00E1-SCU2-2-3"-CAP	00E1	2-3"CAP	7/1/2008	10:02	810871.96	2371812.33	810871	2371812	1.0	P	VPC	0.71	0.50	0.00	0.50	6.0	
SCU-2-3"CAP-3	1-RA-08-SP-00E1-SCU2-3-3"-CAP	00E1	2-3"CAP	7/1/2008	09:45	810870.98	2371863.22	810871	2371862	1.2	P	VPC	0.92	0.50	0.00	0.50	6.0	
SCU-2-3"CAP-4	1-RA-08-SP-00E1-SCU2-4-3"-CAP	00E1	2-3"CAP	7/1/2008	10:07	810770.28	2371763.52	810771	2371762	1.7	P	VPC	0.68	0.51	0.00	0.51	6.1	
SCU-2-3"CAP-5	1-RA-08-SP-00E1-SCU2-5-3"-CAP	00E1	2-3"CAP	7/1/2008	10:13	810747.64	2371813.33	810747	2371812	1.5	P	VPC	0.94	0.51	0.00	0.51	6.1	
SCU-2-3"CAP-6	1-RA-08-SP-00E1-SCU2-6-3"-CAP	00E1	2-3"CAP	7/1/2008	10:23	810769.80	2371887.75	810771	2371887	1.4	P	VPC	0.96	0.82	0.00	0.82	9.8	
SCU-2-3"CAP-7	1-RA-08-SP-00E1-SCU2-7-3"-CAP	00E1	2-3"CAP	7/1/2008	10:18	810719.22	2371837.30	810721	2371836	2.2	P	VPC	1.04	0.51	0.00	0.51	6.1	
SCU-2-3"CAP-8	1-RA-08-SP-00E1-SCU2-8-3"-CAP	00E1	2-3"CAP	7/1/2008	10:30	810695.50	2371913.80	810696	2371912	1.9	P	VPC	0.98	0.58	0.00	0.58	7.0	
SCU-2-3"CAP-9	1-RA-08-SP-00E1-SCU2-9-3"-CAP	00E1	2-3"CAP	7/1/2008	10:42	810671.51	2371862.43	810671	2371862	0.7	P	VPC	0.87	0.56	0.00	0.56	6.7	
SCU-2-3"CAP-10	1-RA-08-SP-00E1-SCU2-10-3"-CAP	00E1	2-3"CAP	7/1/2008	10:34	810646.82	2371938.81	810646	2371937	2.0	P	VPC	0.95	0.00	0.15	0.11	1.4	
SCU-2-3"CAP-11	1-RA-08-SP-00E1-SCU2-11-3"-CAP	00E1	2-3"CAP	7/1/2008	11:00	810596.92	2371662.91	810596	2371662	1.3	P	VPC	0.90	0.36	0.00	0.36	4.3	
SCU-2-3"CAP-12	1-RA-08-SP-00E1-SCU2-12-3"-CAP	00E1	2-3"CAP	7/1/2008	11:08	810572.66	2371713.43	810571	2371712	2.2	P	VPC	0.88	0.55	0.00	0.55	6.6	
SCU-2-3"CAP-13	1-RA-08-SP-00E1-SCU2-13-3"-CAP	00E1	2-3"CAP	7/1/2008	10:46	810622.50	2371786.11	810621	2371787	1.7	P	VPC	0.84	0.62	0.00	0.62	7.4	
SCU-2-3"CAP-14	1-RA-08-SP-00E1-SCU2-14-3"-CAP	00E1	2-3"CAP	7/1/2008	10:52	810596.23	2371811.83	810597	2371812	0.8	P	VPC	1.43	1.20	0.00	1.20	14.4	
SCU-2-3"CAP-15	1-RA-08-SP-00E1-SCU2-15-3"-CAP	00E1	2-3"CAP	7/1/2008	11:16	810522.02	2371637.38	810521	2371637	1.1	P	VPC	1.13	0.79	0.00	0.79	9.5	
SCU-2-3"CAP-16	1-RA-08-SP-00E1-SCU2-16-3"-CAP	00E1	2-3"CAP	7/1/2008	11:22	810371.80	2371586.71	810371	2371587	0.9	P	VPC	0.83	0.45	0.00	0.45	5.4	
SCU-2-3"CAP-17	1-RA-08-SP-00E1-SCU2-17-3"-CAP	00E1	2-3"CAP	7/1/2008	11:27	810320.96	2371536.34	810321	2371537	0.7	P	VPC	0.87	0.56	0.00	0.56	6.7	
SCU-2-3"CAP-18	1-RA-08-SP-00E1-SCU2-18-3"-CAP	00E1	2-3"CAP	7/1/2008	11:37	810421.39	2371838.14	810421	2371837	1.2	P	VPC	0.83	0.57	0.00	0.57	6.8	
															Minimum	**0.11**	**1.4**	
															Average	**0.57**	**6.8**	
SCU-3-3"CAP-1	1-RA-08-SP-00E1-SCU3-1-3"-CAP	00E1	3-3"CAP	7/8/2008	11:41	810470.20	2371912.86	810471	2371912	1.2	P	VPC	1.21	0.61	0.00	0.61	7.3	
SCU-3-3"CAP-2	1-RA-08-SP-00E1-SCU3-2-3"-CAP	00E1	3-3"CAP	7/8/2008	11:49	810472.21	2371988.41	810471	2371987	1.9	P	VPC	0.98	0.65	0.00	0.65	7.8	
SCU-3-3"CAP-3	1-RA-08-SP-00E1-SCU3-3-3"-CAP	00E1	3-3"CAP	7/8/2008	11:59	810395.17	2371863.76	810396	2371862	1.9	P	VPC	1.08	0.63	0.00	0.63	7.6	
SCU-3-3"CAP-4	1-RA-08-SP-00E1-SCU3-4-3"-CAP	00E1	3-3"CAP	7/8/2008	12:06	810396.66	2371912.10	810396	2371912	0.7	P	VPC	1.16	0.65	0.00	0.65	7.8	
SCU-3-3"CAP-5	1-RA-08-SP-00E1-SCU3-5-3"-CAP	00E1	3-3"CAP	7/8/2008	12:11	810395.16	2371961.63	810396	2371961	1.0	P	VPC	0.98	0.65	0.00	0.65	7.8	
SCU-3-3"CAP-6	1-RA-08-SP-POG4-SCU3-6-3"-CAP	POG4	3-3"CAP	7/8/2008	12:20	810172.12	2371937.58	810171	2371936	1.9	P	VPC	1.30	0.70	0.00	0.70	8.4	
SCU-3-3"CAP-7	1-RA-08-SP-00E1-SCU3-7-3"-CAP	00E1	3-3"CAP	7/10/2008	09:52	811146.38	2371536.37	811146	2371537	0.7	P	VPC	1.03	0.39	0.00	0.39	4.7	
SCU-3-3"CAP-8	1-RA-08-SP-00E1-SCU3-8-3"-CAP	00E1	3-3"CAP	7/8/2008	13:10	811145.75	2371637.90	811146	2371637	0.9	P	VPC	0.98	0.65	0.00	0.65	7.8	
SCU-3-3"CAP-9	1-RA-08-SP-00E1-SCU3-9-3"-CAP	00E1	3-3"CAP	7/9/2008	10:04	811172.20	2371687.44	811171	2371687	1.3	P	VPC	1.26	0.65	0.00	0.65	7.8	
SCU-3-3"CAP-10	1-RA-08-SP-00E1-SCU3-10-3"-CAP	00E1	3-3"CAP	7/8/2008	10:10	811069.82	2371688.24	811071	2371687	1.7	P	VPC	1.10	0.65	0.00	0.65	7.8	
SCU-3-3"CAP-11	1-RA-08-SP-00E1-SCU3-11-3"-CAP	00E1	3-3"CAP	7/8/2008	13:03	811046.04	2371588.24	811046	2371587	1.2	P	VPC	1.10	0.65	0.00	0.65	7.8	
SCU-3-3"CAP-12	1-RA-08-SP-00E1-SCU3-12-3"-CAP	00E1	3-3"CAP	7/8/2008	12:56	810870.36	2371462.34	810871	2371462	0.7	P	VPC	1.12	0.52	0.13	0.62	7.4	
SCU-3-3"CAP-13	1-RA-08-SP-00E1-SCU3-13-3"-CAP	00E1	3-3"CAP	7/8/2008	12:47	810822.29	2371411.70	810822	2371411	0.8	P	VPC	0.81	0.46	0.09	0.53	6.3	
SCU-3-3"CAP-14	1-RA-08-SP-00E1-SCU3-14-3"-CAP	00E1	3-3"CAP	7/8/2008	12:51	810822.69	2371437.16	810822	2371437	0.7	P	VPC	0.59	0.50	0.00	0.50	6.0	
SCU-3-3"CAP-15	1-RA-08-SP-00E1-SCU3-15-3"-CAP	00E1	3-3"CAP	7/8/2008	12:42	810721.01	2371312.06	810721	2371312	0.1	P	VPC	0.75	0.47	0.13	0.57	6.8	
SCU-3-3"CAP-16	1-RA-08-SP-00E1-SCU3-16-3"-CAP	00E1	3-3"CAP	7/8/2008	12:38	810672.71	2371337.61	810671	2371337	1.8	P	VPC	0.92	0.56	0.09	0.63	7.5	
SCU-3-3"CAP-17	1-RA-08-SP-00E1-SCU3-17-3"-CAP	00E1	3-3"CAP	7/8/2008	12:33	810622.03	2371287.75	810622	2371287	0.8	P	VPC	0.82	0.55	0.00	0.55	6.6	
SCU-3-3"CAP-18	1-RA-08-SP-00E1-SCU3-18-3"-CAP	00E1	3-3"CAP	7/8/2008	12:27	810596.97	2371313.37	810597	2371312	1.4	P	VPC	0.87	0.53	0.08	0.59	7.1	
															Minimum	**0.39**	**4.7**	
															Average	**0.60**	**7.2**	
SCU-4-3"CAP-1	1-RA-08-SP-00E1-SCU4-1-3"-CAP	00E1	4-3"CAP	7/16/2008	12:44	811172.07	2371511.59	811171	2371512	1.1	P	VPC	0.85	0.43	0.00	0.43	5.2	
SCU-4-3"CAP-2	1-RA-08-SP-00E1-SCU4-2-3"-CAP	00E1	4-3"CAP	7/16/2008	12:40	811197.66	2371485.91	811197	2371487	1.3	P	VPC	0.87	0.36	0.00	0.36	4.3	
SCU-4-3"CAP-3	1-RA-08-SP-00E1-SCU4-3-3"-CAP	00E1	4-3"CAP	7/16/2008	12:35	811320.84	2371712.41	811321	2371712	0.4	P	VPC	0.74	0.57	0.00	0.57	6.8	
SCU-4-3"CAP-4	1-RA-08-SP-00E1-SCU4-4-3"-CAP	00E1	4-3"CAP	7/16/2008	12:31	811345.41	2371761.62	811347	2371762	1.6	P	VPC	0.78	0.56	0.00	0.56	6.7	
SCU-4-3"CAP-5	1-RA-08-SP-00E1-SCU4-5-3"-CAP	00E1	4-3"CAP	7/16/2008	12:24	811397.99	2371687.57	811397	2371687	1.1	P	VPC	0.87	0.39	0.00	0.39	4.7	
SCU-4-3"CAP-6	1-RA-08-SP-00E1-SCU4-6-3"-CAP	00E1	4-3"CAP	7/16/2008	12:18	811521.21	2371737.11	811521	2371738	0.9	P	VPC	0.87	0.53	0.00	0.53	6.4	
SCU-4-3"CAP-7	1-RA-08-SP-00E1-SCU4-7-3"-CAP	00E1	4-3"CAP	7/16/2008	12:14	811546.17	2371787.28	811546	2371788	0.7	P	VPC	0.95	0.45	0.00	0.45	5.4	
SCU-4-3"CAP-8	1-RA-08-SP-00E1-SCU4-8-3"-CAP	00E1	4-3"CAP	7/17/2008	09:39	811569.53	2371863.59	811571	2371863	1.6	P	VPC	0.76	0.55	0.00	0.55	6.6	
SCU-4-3"CAP-9	1-RA-08-SP-00E1-SCU4-9-3"-CAP	00E1	4-3"CAP	7/17/2008	09:43	811595.84	2371862.88	811596	2371863	0.2	P	VPC	1.02	0.61	0.00	0.61	7.3	
SCU-4-3"CAP-10	1-RA-08-SP-00E1-SCU4-10-3"-CAP	00E1	4-3"CAP	7/16/2008	10:57	811621.55	2371786.55	811621	2371787	0.7	P	VPC	0.63	0.55	0.00	0.55	6.6	
SCU-4-3"CAP-11	1-RA-08-SP-00E1-SCU4-11-3"-CAP	00E1	4-3"CAP	7/21/2008	11:56	811395.46	2372311.50	811396	2372312	0.7	P	VPC	0.90	0.69	0.00	0.69	8.3	
SCU-4-3"CAP-12	1-RA-08-SP-POG4-SCU4-12-3"-CAP	POG4	4-3"CAP	7/21/2008	11:50	811545.99	2372387.84	811546	2372387	0.8	P	VPC	1.08	0.65	0.00	0.65	7.8	
SCU-4-3"CAP-13	1-RA-08-SP-POG4-SCU4-13-3"-CAP	POG4	4-3"CAP	7/21/2008	12:01	811520.24	2372437.00	811521	2372437	0.8	P	VPC	1.20	0.54	0.13	0.64	7.7	
SCU-4-3"CAP-14	1-RA-08-SP-POG4-SCU4-14-3"-CAP	POG4	4-3"CAP	7/22/2008	10:12	811520.32	2372485.93	811521	2372487	1.3	P	VPC	1.01	0.64	0.00	0.64	7.7	
SCU-4-3"CAP-15	1-RA-08-SP-POG4-SCU4-15-3"-CAP	POG4	4-3"CAP	7/22/2008	10:18	811569.54	2372512.09	811571	2372513	1.7	P	VPC	0.87	0.61	0.00	0.61	7.3	
SCU-4-3"CAP-16	1-RA-08-SP-00E1-SCU4-16-3"-CAP	00E1	4-3"CAP	7/21/2008	11:44	811621.55	2372362.52	811621	2372363	0.7	P	VPC	0.81	0.59	0.00	0.59	7.1	
SCU-4-3"CAP-17	1-RA-08-SP-00E1-SCU4-17-3"-CAP	00E1	4-3"CAP	7/23/2008	11:20	811695.80	2372363.38	811696	2372363	0.4	P	VPC	0.75	0.54	0.00	0.54	6.5	
SCU-4-3"CAP-18	1-RA-08-SP-POG4-SCU4-18-3"-CAP	POG4	4-3"CAP	7/22/2008	10:22	811696.01	2372436.52	811696	2372437	0.5	P	VPC	0.84	0.28	0.00	0.28	3.4	
															Minimum	**0.28**	**3.4**	
															Average	**0.54**	**6.4**	

ID	Sample ID	Subarea	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
SCU-5-3"CAP-1	1-RA-08-SP-00E1-SCU5-1-3"-CAP	00E1	5-3"CAP	7/15/2008	11:20	811244.52	2371561.09	811246	2371562	1.7	P	VPC	0.97	0.46	0.00	0.46	5.5	
SCU-5-3"CAP-2	1-RA-08-SP-0E3S-SCU5-2-3"-CAP	0E3S	5-3"CAP	7/15/2008	11:25	811296.86	2371486.72	811296	2371487	0.9	P	VPC	0.88	0.49	0.00	0.49	5.9	
SCU-5-3"CAP-3	1-RA-08-SP-00E1-SCU5-3-3"-CAP	00E1	5-3"CAP	7/15/2008	11:16	811297.03	2371612.88	811296	2371612	1.4	P	VPC	1.01	0.51	0.00	0.51	6.1	
SCU-5-3"CAP-4	1-RA-08-SP-0E3S-SCU5-4-3"-CAP	0E3S	5-3"CAP	7/15/2008	11:31	811321.34	2371461.51	811321	2371462	0.6	P	VPC	0.95	0.31	0.00	0.31	3.7	
SCU-5-3"CAP-5	1-RA-08-SP-00E1-SCU5-5-3"-CAP	00E1	5-3"CAP	7/15/2008	11:35	811346.29	2371537.41	811346	2371537	0.5	P	VPC	0.75	0.53	0.00	0.53	6.4	
SCU-5-3"CAP-6	1-RA-08-SP-00E1-SCU5-6-3"-CAP	00E1	5-3"CAP	7/15/2008	11:11	811346.73	2371612.39	811346	2371612	0.8	P	VPC	0.96	0.62	0.00	0.62	7.4	
SCU-5-3"CAP-7	1-RA-08-SP-00E1-SCU5-7-3"-CAP	00E1	5-3"CAP	7/15/2008	11:06	811396.96	2371637.84	811396	2371638	1.0	P	VPC	1.07	0.62	0.00	0.62	7.4	
SCU-5-3"CAP-8	1-RA-08-SP-0E3S-SCU5-8-3"-CAP	0E3S	5-3"CAP	7/15/2008	11:50	811472.00	2371511.95	811471	2371513	1.4	P	VPC	0.90	0.40	0.00	0.40	4.8	
SCU-5-3"CAP-9	1-RA-08-SP-00E1-SCU5-9-3"-CAP	00E1	5-3"CAP	7/15/2008	11:55	811469.34	2371588.56	811471	2371587	2.3	P	VPC	0.84	0.48	0.00	0.48	5.8	
SCU-5-3"CAP-10	1-RA-08-SP-00E1-SCU5-10-3"-CAP	00E1	5-3"CAP	7/15/2008	11:01	811472.00	2371663.43	811471	2371663	1.1	P	VPC	0.74	0.61	0.00	0.61	7.3	
SCU-5-3"CAP-11	1-RA-08-SP-0E3S-SCU5-11-3"-CAP	0E3S	5-3"CAP	7/15/2008	11:45	811495.51	2371513.90	811496	2371513	1.0	P	VPC	0.89	0.44	0.00	0.44	5.3	
SCU-5-3"CAP-12	1-RA-08-SP-00E1-SCU5-12-3"-CAP	00E1	5-3"CAP	7/15/2008	11:59	811547.25	2371586.65	811546	2371587	1.3	P	VPC	0.82	0.64	0.00	0.64	7.7	
SCU-5-3"CAP-13	1-RA-08-SP-00E1-SCU5-13-3"-CAP	00E1	5-3"CAP	7/15/2008	10:56	811571.45	2371661.75	811571	2371662	0.5	P	VPC	0.77	0.50	0.00	0.50	6.0	
SCU-5-3"CAP-14	1-RA-08-SP-00E1-SCU5-14-3"-CAP	00E1	5-3"CAP	7/15/2008	10:49	811621.11	2371636.54	811621	2371637	0.5	P	VPC	0.89	0.50	0.00	0.50	6.0	
SCU-5-3"CAP-15	1-RA-08-SP-00E1-SCU5-15-3"-CAP	00E1	5-3"CAP	7/16/2008	10:49	811672.19	2371811.59	811671	2371813	1.8	P	VPC	0.91	0.37	0.00	0.37	4.4	
SCU-5-3"CAP-16	1-RA-08-SP-00E1-SCU5-16-3"-CAP	00E1	5-3"CAP	7/16/2008	10:42	811820.29	2371762.77	811821	2371762	1.0	P	VPC	0.74	0.54	0.00	0.54	6.5	
SCU-5-3"CAP-17	1-RA-08-SP-00E1-SCU5-17-3"-CAP	00E1	5-3"CAP	7/16/2008	10:38	811846.12	2371736.12	811846	2371737	0.9	P	VPC	0.78	0.48	0.00	0.48	5.8	
SCU-5-3"CAP-18	1-RA-08-SP-00E1-SCU5-18-3"-CAP	00E1	5-3"CAP	7/16/2008	10:29	811870.58	2371762.30	811871	2371762	0.5	P	VPC	0.66	0.48	0.00	0.48	5.8	
															Minimum	**0.31**	**3.7**	
															Average	**0.50**	**6.0**	
SCU-6-3"CAP-1	1-RA-08-SP-0E3S-SCU6-1-3"-CAP	0E3S	6-3"CAP	7/17/2008	09:52	811672.33	2371588.17	811671	2371587	1.8	P	VPC	0.85	0.50	0.00	0.50	6.0	
SCU-6-3"CAP-2	1-RA-08-SP-00E1-SCU6-2-3"-CAP	00E1	6-3"CAP	7/17/2008	09:59	811722.29	2371637.91	811721	2371637	1.6	P	VPC	1.04	0.51	0.00	0.51	6.1	
SCU-6-3"CAP-3	1-RA-08-SP-0E3S-SCU6-3-3"-CAP	0E3S	6-3"CAP	7/17/2008	10:03	811796.77	2371588.67	811796	2371587	1.8	P	VPC	1.05	0.51	0.00	0.51	6.1	
SCU-6-3"CAP-4	1-RA-08-SP-0E3S-SCU6-4-3"-CAP	0E3S	6-3"CAP	7/17/2008	10:07	811821.70	2371587.34	811821	2371587	0.8	P	VPC	0.84	0.51	0.00	0.51	6.1	
SCU-6-3"CAP-5	1-RA-08-SP-0E3S-SCU6-5-3"-CAP	0E3S	6-3"CAP	7/17/2008	10:11	811844.33	2371639.10	811846	2371638	2.0	P	VPC	1.03	0.46	0.00	0.46	5.5	
SCU-6-3"CAP-6	1-RA-08-SP-0E3S-SCU6-6-3"-CAP	0E3S	6-3"CAP	7/28/2008	10:49	811995.00	2371587.18	811996	2371587	1.0	P	VPC	0.73	0.45	0.00	0.45	5.4	
SCU-6-3"CAP-7	1-RA-08-SP-00E1-SCU6-7-3"-CAP	00E1	6-3"CAP	7/28/2008	10:20	811921.57	2371662.45	811921	2371663	0.8	P	VPC	1.00	0.41	0.00	0.41	4.9	
SCU-6-3"CAP-8	1-RA-08-SP-00E1-SCU6-8-3"-CAP	00E1	6-3"CAP	7/28/2008	10:45	812045.40	2371687.61	812046	2371688	0.7	P	VPC	1.06	0.50	0.00	0.50	6.0	
SCU-6-3"CAP-9	1-RA-08-SP-00E1-SCU6-9-3"-CAP	00E1	6-3"CAP	7/28/2008	10:40	812020.05	2371813.71	812021	2371813	1.2	P	VPC	1.00	0.30	0.00	0.30	3.6	
SCU-6-3"CAP-10	1-RA-08-SP-00E1-SCU6-10-3"-CAP	00E1	6-3"CAP	7/28/2008	10:25	811920.16	2371787.66	811921	2371788	0.9	P	VPC	1.28	0.79	0.30	1.02	12.2	
SCU-6-3"CAP-11	1-RA-08-SP-00E1-SCU6-11-3"-CAP	00E1	6-3"CAP	7/28/2008	10:33	811944.76	2371862.12	811946	2371863	1.5	P	VPC	0.78	0.36	0.00	0.36	4.3	
SCU-6-3"CAP-12	1-RA-08-SP-0E3S-SCU6-12-3"-CAP	0E3S	6-3"CAP	7/29/2008	11:10	812296.66	2371638.67	812296	2371638	0.9	P	VPC	1.30	0.55	0.00	0.55	6.6	
SCU-6-3"CAP-13	1-RA-08-SP-00E1-SCU6-13-3"-CAP	00E1	6-3"CAP	7/28/2008	11:09	812245.52	2371688.69	812246	2371688	0.8	P	VPC	0.95	0.31	0.00	0.31	3.7	
SCU-6-3"CAP-14	1-RA-08-SP-00E1-SCU6-14-3"-CAP	00E1	6-3"CAP	7/21/2008	12:28	812271.53	2371786.75	812271	2371788	1.4	P	VPC	1.03	0.47	0.00	0.47	5.6	
SCU-6-3"CAP-15	1-RA-08-SP-00E1-SCU6-15-3"-CAP	00E1	6-3"CAP	7/21/2008	12:33	812244.73	2371838.98	812246	2371838	1.6	P	VPC	0.85	0.47	0.00	0.47	5.6	
SCU-6-3"CAP-16	1-RA-08-SP-00E1-SCU6-16-3"-CAP	00E1	6-3"CAP	7/16/2008	10:17	812246.49	2372038.87	812246	2372038	1.0	P	VPC	0.71	0.42	0.00	0.42	5.0	
SCU-6-3"CAP-17	1-RA-08-SP-00E1-SCU6-17-3"-CAP	00E1	6-3"CAP	7/16/2008	10:11	812295.30	2372087.36	812296	2372088	0.9	P	VPC	0.91	0.39	0.00	0.39	4.7	
SCU-6-3"CAP-18	1-RA-08-SP-00E1-SCU6-18-3"-CAP	00E1	6-3"CAP	7/16/2008	10:04	812296.65	2372188.54	812296	2372188	0.8	P	VPC	0.72	0.50	0.00	0.50	6.0	
															Minimum	**0.30**	**3.6**	
															Average	**0.48**	**5.8**	
SCU-7-3"CAP-1	1-RA-08-SP-00E1-SCU7-1-3"-CAP	00E1	7-3"CAP	7/3/2008	11:36	813270.24	2372214.17	813271	2372213	1.4	P	VPC	1.06	0.54	0.00	0.54	6.5	
SCU-7-3"CAP-2	1-RA-08-SP-00E1-SCU7-2-3"-CAP	00E1	7-3"CAP	7/8/2008	10:42	813270.76	2372311.98	813271	2372312	0.2	P	VPC	0.81	0.50	0.00	0.50	6.0	
SCU-7-3"CAP-3	1-RA-08-SP-00E1-SCU7-3-3"-CAP	00E1	7-3"CAP	7/3/2008	11:25	813244.05	2372163.27	813246	2372163	2.0	P	VPC	0.87	0.35	0.00	0.35	4.2	
SCU-7-3"CAP-4	1-RA-08-SP-00E1-SCU7-4-3"-CAP	00E1	7-3"CAP	7/3/2008	11:08	813194.58	2372188.86	813196	2372187	2.3	P	VPC	0.97	0.42	0.00	0.42	5.0	
SCU-7-3"CAP-5	1-RA-08-SP-00E1-SCU7-5-3"-CAP	00E1	7-3"CAP	7/3/2008	10:53	813171.21	2372239.57	813171	2372237	2.6	P	VPC	1.08	0.45	0.00	0.45	5.4	
SCU-7-3"CAP-6	1-RA-08-SP-00E1-SCU7-6-3"-CAP	00E1	7-3"CAP	7/3/2008	11:41	813171.30	2372288.12	813171	2372287	1.2	P	VPC	1.13	0.45	0.00	0.45	5.4	
SCU-7-3"CAP-7	1-RA-08-SP-00E1-SCU7-7-3"-CAP	00E1	7-3"CAP	7/3/2008	11:19	813146.53	2372087.16	813146	2372088	1.0	P	VPC	1.07	0.70	0.00	0.70	8.4	
SCU-7-3"CAP-8	1-RA-08-SP-00E1-SCU7-8-3"-CAP	00E1	7-3"CAP	7/3/2008	10:42	813095.52	2372137.76	813096	2372138	0.5	P	VPC	0.94	0.52	0.00	0.52	6.2	
SCU-7-3"CAP-9	1-RA-08-SP-00E1-SCU7-9-3"-CAP	00E1	7-3"CAP	7/3/2008	11:46	813120.20	2372312.66	813121	2372312	1.0	P	VPC	1.00	0.40	0.00	0.40	4.8	
SCU-7-3"CAP-10	1-RA-08-SP-00E1-SCU7-10-3"-CAP	00E1	7-3"CAP	7/3/2008	10:47	813046.28	2372213.45	813046	2372212	1.5	P	VPC	0.97	0.45	0.00	0.45	5.4	
SCU-7-3"CAP-11	1-RA-08-SP-00E1-SCU7-11-3"-CAP	00E1	7-3"CAP	7/3/2008	10:33	812897.19	2372263.20	812896	2372262	1.7	P	VPC	0.96	0.43	0.00	0.43	5.2	
SCU-7-3"CAP-12	1-RA-08-SP-00E1-SCU7-12-3"-CAP	00E1	7-3"CAP	7/3/2008	10:28	812897.21	2372287.57	812896	2372287	1.3	P	VPC	1.06	0.40	0.00	0.40	4.8	
SCU-7-3"CAP-13	1-RA-08-SP-00E1-SCU7-13-3"-CAP	00E1	7-3"CAP	7/3/2008	10:13	812847.10	2372137.25	812846	2372137	1.1	P	VPC	0.92	0.38	0.00	0.38	4.6	
SCU-7-3"CAP-14	1-RA-08-SP-00E1-SCU7-14-3"-CAP	00E1	7-3"CAP	7/3/2008	10:22	812846.36	2372212.58	812846	2372212	0.7	P	VPC	0.94	0.40	0.00	0.40	4.8	
SCU-7-3"CAP-15	1-RA-08-SP-00E1-SCU7-15-3"-CAP	00E1	7-3"CAP	7/3/2008	10:06	812796.70	2372086.52	812796	2372087	0.8	P	VPC	0.94	0.39	0.00	0.39	4.7	
SCU-7-3"CAP-16	1-RA-08-SP-00E1-SCU7-16-3"-CAP	00E1	7-3"CAP	7/3/2008	09:52	812743.98	2372187.91	812746	2372187	2.2	P	VPC	0.83	0.45	0.00	0.45	5.4	
SCU-7-3"CAP-17	1-RA-08-SP-00E1-SCU7-17-3"-CAP	00E1	7-3"CAP	7/3/2008	10:00	812720.70	2372211.66	812721	2372212	0.5	P	VPC	0.98	0.44	0.00	0.44	5.3	
SCU-7-3"CAP-18	1-RA-08-SP-00E1-SCU7-18-3"-CAP	00E1	7-3"CAP	7/3/2008	09:43	812695.40	2372161.89	812696	2372162	0.6	P	VPC	0.97	0.34	0.00	0.34	4.1	
															Minimum	**0.34**	**4.1**	
															Average	**0.45**	**5.3**	
SCU-8-3"CAP-1	1-RA-08-SP-00E1-SCU8-1-3"-CAP	00E1	8-3"CAP	7/11/2008	11:31	813271.70	2372362.89	813271	2372363	0.7	P	VPC	0.82	0.50	0.00	0.50	6.0	
SCU-8-3"CAP-2	1-RA-08-SP-00E1-SCU8-2-3"-CAP	00E1	8-3"CAP	7/11/2008	11:38	813046.43	2372338.48	813046	2372338	0.6	P	VPC	0.86	0.55	0.00	0.55	6.6	
SCU-8-3"CAP-3	1-RA-08-SP-00E1-SCU8-3-3"-CAP	00E1	8-3"CAP	7/11/2008	11:43	813046.84	2372388.64	813046	2372388	1.1	P	VPC	0.90	0.51	0.00	0.51	6.1	
SCU-8-3"CAP-4	1-RA-08-SP-00E1-SCU8-4-3"-CAP	00E1	8-3"CAP	7/11/2008	11:50	813071.47	2372412.39	813071	2372413	0.8	P	VPC	0.85	0.45	0.00	0.45	5.4	
SCU-8-3"CAP-5	1-RA-08-SP-00E1-SCU8-5-3"-CAP	00E1	8-3"CAP	7/11/2008	11:57	813047.13	2372437.63	813046	2372438	1.2	P	VPC	0.76	0.42	0.00	0.42	5.0	
SCU-8-3"CAP-6	1-RA-08-SP-00E1-SCU8-6-3"-CAP	00E1	8-3"CAP	7/11/2008	12:11	813121.06	2372513.54	813120	2372514	1.2	P	VPC	0.81	0.45	0.00	0.45	5.4	
SCU-8-3"CAP-7	1-RA-08-SP-00E1-SCU8-7-3"-CAP	00E1	8-3"CAP	7/11/2008	12:17	812993.61	2372463.76	812995	2372464	1.4	P	VPC	0.82	0.33	0.00	0.33	4.0	
SCU-8-3"CAP-8	1-RA-08-SP-00E1-SCU8-8-3"-CAP	00E1	8-3"CAP	7/11/2008	12:28	812921.32	2372362.87	812921	2372363	0.3	P	VPC	0.85	0.51	0.00	0.51	6.1	
SCU-8-3"CAP-9	1-RA-08-SP-00E1-SCU8-9-3"-CAP	00E1	8-3"CAP	7/11/2008	12:33	812821.20	2372338.93	812821	2372338	1.0	P	VPC	0.85	0.45	0.00	0.45	5.4	
SCU-8-3"CAP-10	1-RA-08-SP-00E1-SCU8-10-3"-CAP	00E1	8-3"CAP	7/11/2008	12:38	812796.45	2372388.73	812796	2372388	0.9	P	VPC	0.79	0.40	0.00	0.40	4.8	
SCU-8-3"CAP-11	1-RA-08-SP-00E1-SCU8-11-3"-CAP	00E1	8-3"CAP	7/11/2008	12:41	812797.15	2372439.24	812796	2372438	1.7	P	VPC	0.64	0.46	0.00	0.46	5.5	
SCU-8-3"CAP-12	1-RA-08-SP-00E1-SCU8-12-3"-CAP	00E1	8-3"CAP	7/11/2008	12:45	812820.52	2372463.52	812821	2372463	0.7	P	VPC	0.77	0.32	0.00	0.32	3.8	
SCU-8-3"CAP-13	1-RA-08-SP-00E1-SCU8-13-3"-CAP	00E1	8-3"CAP	7/11/2008	12:49	812846.44	2372487.47	812846	2372488	0.7	P	VPC	0.84	0.35	0.00	0.35	4.2	
SCU-8-3"CAP-14	1-RA-08-SP-00E1-SCU8-14-3"-CAP	00E1	8-3"CAP	7/11/2008	12:53	812721.17	2372413.26	812721	2372413	0.3	P	VPC	0.74	0.42	0.00	0.42	5.0	
SCU-8-3"CAP-15	1-RA-08-SP-00E1-SCU8-15-3"-CAP	00E1	8-3"CAP	7/11/2008	12:58	812645.66	2372438.61	812646	2372438	0.7	P	VPC	0.78	0.34	0.00	0.34	4.1	
SCU-8-3"CAP-16	1-RA-08-SP-00E1-SCU8-16-3"-CAP	00E1	8-3"CAP	7/11/2008	13:02	812671.68	2372488.53	812671.68	2372488.53	0.0	P	VPC	0.65	0.44	0.00	0.44	5.3	
SCU-8-3"CAP-17	1-RA-08-SP-00E1-SCU8-17-3"-CAP	00E1	8-3"CAP	7/11/2008	13:06	812670.17	2372538.74	812671	2372538	1.1	P	VPC	0.91	0.44	0.00	0.44	5.3	
SCU-8-3"CAP-18	1-RA-08-SP-00E1-SCU8-18-3"-CAP	00E1	8-3"CAP	7/11/2008	13:11	812495.51	2372463.23	812496	2372463	0.5	P	VPC	0.96	0.44	0.00	0.44	5.3	
															Minimum	**0.32**	**3.8**	
															Average	**0.43**	**5.2**	
SCU-9-3"CAP-1	1-RA-08-SP-00E4-SCU9-1-3"-CAP	00E4	9-3"CAP	7/18/2008	13:04	812570.10	2372562.42	812571	2372563	1.1	P	VPC	0.92	0.55	0.00	0.55	6.6	
SCU-9-3"CAP-2	1-RA-08-SP-00E1-SCU9-2-3"-CAP	00E1	9-3"CAP	7/18/2008	13:09	812821.17	2372562.18	812821	2372563	0.8	P	VPC	0.91	0.38	0.00	0.38	4.6	
SCU-9-3"CAP-3	1-RA-08-SP-00E4-SCU9-3-3"-CAP	00E4	9-3"CAP	7/18/2008	13:12	812895.65	2372613.44	812896	2372613	0.6	P	VPC	0.84	0.35	0.00	0.35	4.2	
SCU-9-3"CAP-4	1-RA-08-SP-00E1-SCU9-4-3"-CAP	00E1	9-3"CAP	7/18/2008	13:16	812996.10	2372537.09	812996	2372538	0.9	P	VPC	0.74	0.27	0.00	0.27	3.2	
SCU-9-3"CAP-5	1-RA-08-SP-00E1-SCU9-5-3"-CAP	00E1	9-3"CAP	7/18/2008	13:19	813021.10	2372587.80	813021	2372588	0.2	P	VPC	0.91	0.40	0.00	0.40	4.8	
SCU-9-3"CAP-6	1-RA-08-SP-00E1-SCU9-6-3"-CAP	00E1	9-3"CAP	7/18/2008	13:30	813046.05	2371963.77	813046	2371963	0.8	P	VPC	0.90	0.53	0.00	0.53	6.4	
SCU-9-3"CAP-7	1-RA-08-SP-00E1-SCU9-7-3"-CAP	00E1	9-3"CAP	7/18/2008	13:35	813071.67	2371938.93	813071	2371938	1.1	P	VPC	1.01	0.44	0.00	0.44	5.3	

ID	Sample ID	Subarea	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
SCU-9-3"CAP-8	1-RA-08-SP-00E1-SCU9-8-3"-CAP	00E1	9-3"CAP	7/18/2008	13:39	812922.31	2371912.74	812921	2371913	1.3	P	VPC	0.80	0.39	0.00	0.39	4.7	
SCU-9-3"CAP-9	1-RA-08-SP-00E1-SCU9-9-3"-CAP	00E1	9-3"CAP	7/18/2008	13:43	812896.54	2371838.17	812896	2371838	0.6	P	VPC	0.84	0.40	0.00	0.40	4.8	
SCU-9-3"CAP-10	1-RA-08-SP-00E1-SCU9-10-3"-CAP	00E1	9-3"CAP	7/18/2008	13:47	812846.17	2371862.44	812846	2371863	0.6	P	VPC	0.85	0.46	0.00	0.46	5.5	
SCU-9-3"CAP-11	1-RA-08-SP-00E1-SCU9-11-3"-CAP	00E1	9-3"CAP	7/18/2008	13:51	812770.62	2371838.96	812771	2371838	1.0	P	VPC	0.80	0.41	0.00	0.41	4.9	
SCU-9-3"CAP-12	1-RA-08-SP-00E1-SCU9-12-3"-CAP	00E1	9-3"CAP	7/18/2008	13:58	812445.50	2371838.38	812446	2371838	0.6	P	VPC	0.89	0.36	0.00	0.36	4.3	
SCU-9-3"CAP-13	1-RA-08-SP-00E1-SCU9-13-3"-CAP	00E1	9-3"CAP	7/18/2008	14:02	812320.83	2371813.27	812321	2371812	1.3	P	VPC	0.88	0.45	0.09	0.52	6.2	
SCU-9-3"CAP-14	1-RA-08-SP-00E1-SCU9-14-3"-CAP	00E1	9-3"CAP	7/21/2008	12:12	812422.48	2371762.40	812422	2371763	0.8	P	VPC	0.87	0.35	0.00	0.35	4.2	
SCU-9-3"CAP-15	1-RA-08-SP-00E1-SCU9-15-3"-CAP	00E1	9-3"CAP	7/21/2008	12:16	812370.65	2371737.61	812371	2371738	0.5	P	VPC	0.83	0.37	0.00	0.37	4.4	
SCU-9-3"CAP-16	1-RA-08-SP-00E1-SCU9-16-3"-CAP	00E1	9-3"CAP	7/21/2008	12:21	812496.18	2371736.57	812496	2371738	1.4	P	VPC	0.92	0.35	0.00	0.35	4.2	
SCU-9-3"CAP-17	1-RA-08-SP-0E3S-SCU9-17-3"-CAP	0E3S	9-3"CAP	7/28/2008	11:09	812369.30	2371664.12	812371	2371663	2.0	P	VPC	1.04	0.31	0.00	0.31	3.7	
SCU-9-3"CAP-18	1-RA-08-SP-0E3S-SCU9-18-3"-CAP	0E3S	9-3"CAP	7/28/2008	11:14	812497.43	2371662.16	812497	2371663	0.9	P	VPC	0.93	0.28	0.00	0.28	3.4	
															Minimum	**0.27**	**3.2**	
															Average	**0.40**	**4.7**	
SCU-10-3"CAP-1	1-RA-08-SP-00E1-SCU10-1-3"CAP	00E1	10-3"CAP	7/22/2008	10:58	813045.50	2371863.23	813046	2371863	0.6	P	VPC	0.86	0.34	0.00	0.34	4.1	
SCU-10-3"CAP-2	1-RA-08-SP-00E1-SCU10-2-3"CAP	00E1	10-3"CAP	7/22/2008	11:17	813246.50	2371862.84	813246	2371863	0.5	P	VPC	0.86	0.40	0.00	0.40	4.8	
SCU-10-3"CAP-3	1-RA-08-SP-00E1-SCU10-3-3"-CAP	00E1	10-3"CAP	7/22/2008	11:13	813221.10	2371838.44	813222	2371838	1.0	P	VPC	0.92	0.30	0.00	0.30	3.6	
SCU-10-3"CAP-4	1-RA-08-SP-00E1-SCU10-4-3"-CAP	00E1	10-3"CAP	7/22/2008	11:03	813070.66	2371812.69	813071	2371813	0.5	P	VPC	0.89	0.45	0.00	0.45	5.4	
SCU-10-3"CAP-5	1-RA-08-SP-00E1-SCU10-5-3"-CAP	00E1	10-3"CAP	7/22/2008	10:53	812969.84	2371788.54	812971	2371788	1.3	P	VPC	0.85	0.36	0.00	0.36	4.3	
SCU-10-3"CAP-6	1-RA-08-SP-00E1-SCU10-6-3"-CAP	00E1	10-3"CAP	7/22/2008	10:43	812796.54	2371786.60	812796	2371788	1.5	P	VPC	0.79	0.35	0.00	0.35	4.2	
SCU-10-3"CAP-7	1-RA-08-SP-00E1-SCU10-7-3"-CAP	00E1	10-3"CAP	7/22/2008	10:35	812670.23	2371763.69	812671	2371763	1.0	P	VPC	0.84	0.36	0.00	0.36	4.3	
SCU-10-3"CAP-8	1-RA-08-SP-0E3S-SCU10-8-3"-CAP	0E3S	10-3"CAP	7/22/2008	10:48	812845.27	2371762.62	812846	2371763	0.8	P	VPC	0.86	0.40	0.00	0.40	4.8	
SCU-10-3"CAP-9	1-RA-08-SP-0E3S-SCU10-9-3"-CAP	0E3S	10-3"CAP	7/29/2008	11:46	812820.58	2371738.76	812821	2371738	0.9	P	VPC	1.07	0.26	0.00	0.26	3.1	
SCU-10-3"CAP-10	1-RA-08-SP-0E3S-SCU10-10-3"-CAP	0E3S	10-3"CAP	7/22/2008	11:07	813220.91	2371788.28	813222	2371788	1.1	P	VPC	0.77	0.45	0.00	0.45	5.4	
SCU-10-3"CAP-11	1-RA-08-SP-0E3S-SCU10-11-3"-CAP	0E3S	10-3"CAP	7/29/2008	12:12	813222.90	2371763.82	813222	2371763	1.2	P	VPC	0.97	0.28	0.00	0.28	3.4	
SCU-10-3"CAP-12	1-RA-08-SP-0E3S-SCU10-12-3"-CAP	0E3S	10-3"CAP	7/29/2008	11:51	812996.35	2371737.66	812996	2371738	0.5	P	VPC	0.98	0.42	0.00	0.42	5.0	
SCU-10-3"CAP-13	1-RA-08-SP-0E3S-SCU10-13-3"-CAP	0E3S	10-3"CAP	7/29/2008	11:41	812721.76	2371688.18	812721	2371688	0.8	P	VPC	0.95	0.32	0.00	0.32	3.8	
SCU-10-3"CAP-14	1-RA-08-SP-0E3S-SCU10-14-3"-CAP	0E3S	10-3"CAP	7/29/2008	11:55	813096.27	2371713.36	813096	2371713	0.4	P	VPC	0.97	0.36	0.00	0.36	4.3	
SCU-10-3"CAP-15	1-RA-08-SP-0E3S-SCU10-15-3"-CAP	0E3S	10-3"CAP	7/29/2008	12:08	813195.98	2371713.30	813196	2371713	0.3	P	VPC	0.95	0.36	0.00	0.36	4.3	
SCU-10-3"CAP-16	1-RA-08-SP-0E3S-SCU10-16-3"-CAP	0E3S	10-3"CAP	7/29/2008	11:59	813170.57	2371689.40	813171	2371688	1.5	P	VPC	0.77	0.33	0.00	0.33	4.0	
SCU-10-3"CAP-17	1-RA-08-SP-0E3S-SCU10-17-3"-CAP	0E3S	10-3"CAP	7/29/2008	12:17	813297.02	2371688.40	813296	2371688	1.1	P	VPC	0.95	0.44	0.00	0.44	5.3	
SCU-10-3"CAP-18	1-RA-08-SP-0E3S-SCU10-18-3"-CAP	0E3S	10-3"CAP	7/29/2008	12:04	813197.08	2371637.06	813197	2371638	0.9	P	VPC	1.07	0.36	0.00	0.36	4.3	
															Minimum	**0.26**	**3.1**	
															Average	**0.37**	**4.4**	
SCU-11-3"CAP-1	1-RA-08-SP-00E1-SCU11-1-3"-CAP	00E1	11-3"CAP	7/23/2008	12:48	813895.15	2372213.48	813896	2372214	1.0	P	VPC	0.70	0.39	0.00	0.39	4.7	
SCU-11-3"CAP-2	1-RA-08-SP-00E1-SCU11-2-3"-CAP	00E1	11-3"CAP	7/23/2008	12:42	813821.42	2372189.72	813821	2372189	0.8	P	VPC	0.91	0.40	0.00	0.40	4.8	
SCU-11-3"CAP-3	1-RA-08-SP-00E1-SCU11-3-3"-CAP	00E1	11-3"CAP	7/23/2008	12:39	813794.46	2372238.70	813796	2372239	1.6	P	VPC	0.82	0.32	0.00	0.32	3.8	
SCU-11-3"CAP-4	1-RA-08-SP-00E1-SCU11-4-3"-CAP	00E1	11-3"CAP	7/23/2008	12:36	813795.35	2372289.24	813796	2372289	0.7	P	VPC	0.86	0.33	0.00	0.33	4.0	
SCU-11-3"CAP-5	1-RA-08-SP-00E1-SCU11-5-3"-CAP	00E1	11-3"CAP	7/23/2008	12:29	813820.03	2372313.70	813821	2372314	1.0	P	VPC	0.92	0.36	0.00	0.36	4.3	
SCU-11-3"CAP-6	1-RA-08-SP-00E1-SCU11-6-3"-CAP	00E1	11-3"CAP	7/23/2008	12:25	813770.67	2372338.74	813771	2372339	0.4	P	VPC	0.89	0.38	0.00	0.38	4.6	
SCU-11-3"CAP-7	1-RA-08-SP-00E1-SCU11-7-3"-CAP	00E1	11-3"CAP	7/23/2008	12:19	813696.41	2372312.84	813696	2372313	0.4	P	VPC	0.89	0.36	0.00	0.36	4.3	
SCU-11-3"CAP-8	1-RA-08-SP-00E1-SCU11-8-3"-CAP	00E1	11-3"CAP	7/23/2008	12:15	813697.01	2372162.96	813696	2372163	1.0	P	VPC	0.88	0.39	0.00	0.39	4.7	
SCU-11-3"CAP-9	1-RA-08-SP-00E1-SCU11-9-3"-CAP	00E1	11-3"CAP	7/23/2008	12:11	813619.85	2372239.05	813621	2372239	1.2	P	VPC	0.87	0.34	0.00	0.34	4.1	
SCU-11-3"CAP-10	1-RA-08-SP-00E1-SCU11-10-3"-CAP	00E1	11-3"CAP	7/23/2008	12:07	813620.26	2372337.97	813621	2372338	0.7	P	VPC	0.87	0.32	0.00	0.32	3.8	
SCU-11-3"CAP-11	1-RA-08-SP-00E1-SCU11-11-3"-CAP	00E1	11-3"CAP	7/23/2008	12:03	813571.72	2372262.78	813571	2372263	0.8	P	VPC	0.80	0.35	0.00	0.35	4.2	
SCU-11-3"CAP-12	1-RA-08-SP-00E1-SCU11-12-3"-CAP	00E1	11-3"CAP	7/23/2008	12:00	813545.99	2372213.32	813546	2372214	0.7	P	VPC	0.96	0.29	0.00	0.29	3.5	
SCU-11-3"CAP-13	1-RA-08-SP-00E1-SCU11-13-3"-CAP	00E1	11-3"CAP	7/23/2008	11:55	813470.83	2372312.37	813471	2372313	0.7	P	VPC	1.00	0.25	0.00	0.25	3.0	
SCU-11-3"CAP-14	1-RA-08-SP-00E1-SCU11-14-3"-CAP	00E1	11-3"CAP	7/23/2008	11:51	813420.90	2372237.11	813421	2372238	0.9	P	VPC	0.97	0.24	0.00	0.24	2.9	
SCU-11-3"CAP-15	1-RA-08-SP-00E1-SCU11-15-3"-CAP	00E1	11-3"CAP	7/23/2008	11:47	813395.84	2372262.38	813396	2372263	0.6	P	VPC	0.84	0.32	0.00	0.32	3.8	
SCU-11-3"CAP-16	1-RA-08-SP-00E1-SCU11-16-3"-CAP	00E1	11-3"CAP	7/23/2008	11:43	813371.68	2372187.89	813371	2372188	0.7	P	VPC	0.76	0.36	0.00	0.36	4.3	
SCU-11-3"CAP-17	1-RA-08-SP-00E1-SCU11-17-3"-CAP	00E1	11-3"CAP	7/23/2008	11:39	813321.41	2372162.78	813321	2372163	0.5	P	VPC	0.87	0.48	0.00	0.48	5.8	
SCU-11-3"CAP-18	1-RA-08-SP-00E1-SCU11-18-3"-CAP	00E1	11-3"CAP	7/23/2008	11:34	813345.32	2372337.36	813346	2372338	0.9	P	VPC	0.81	0.30	0.00	0.30	3.6	
															Minimum	**0.24**	**2.9**	
															Average	**0.34**	**4.1**	
SCU-12-3"CAP-1	1-RA-08-SP-00E1-SCU12-1-3"-CAP	00E1	12-3"CAP	7/24/2008	13:28	813845.36	2372437.45	813846	2372438	0.8	P	VPC	0.96	0.35	0.00	0.35	4.2	
SCU-12-3"CAP-2	1-RA-08-SP-00E1-SCU12-2-3"-CAP	00E1	12-3"CAP	7/24/2008	13:31	813846.75	2372464.57	813846	2372464	0.9	P	VPC	0.88	0.50	0.00	0.50	6.0	
SCU-12-3"CAP-3	1-RA-08-SP-00E1-SCU12-3-3"-CAP	00E1	12-3"CAP	7/25/2008	10:53	813871.70	2372488.88	813871	2372489	0.7	P	VPC	0.88	0.30	0.00	0.30	3.6	
SCU-12-3"CAP-4	1-RA-08-SP-00E1-SCU12-4-3"-CAP	00E1	12-3"CAP	7/25/2008	10:49	813846.58	2372539.13	813846	2372538	1.3	P	VPC	0.90	0.44	0.00	0.44	5.3	
SCU-12-3"CAP-5	1-RA-08-SP-00E1-SCU12-5-3"-CAP	00E1	12-3"CAP	7/29/2008	13:16	813819.94	2372563.33	813821	2372564	1.3	P	VPC	1.10	0.46	0.00	0.46	5.5	
SCU-12-3"CAP-6	1-RA-08-SP-00E1-SCU12-6-3"-CAP	00E1	12-3"CAP	7/25/2008	10:44	813671.28	2372514.31	813671	2372513	1.3	P	VPC	0.87	0.40	0.00	0.40	4.8	
SCU-12-3"CAP-7	1-RA-08-SP-00E1-SCU12-7-3"-CAP	00E1	12-3"CAP	7/24/2008	13:23	813570.78	2372362.56	813571	2372363	0.5	P	VPC	0.86	0.33	0.00	0.33	4.0	
SCU-12-3"CAP-8	1-RA-08-SP-00E1-SCU12-8-3"-CAP	00E1	12-3"CAP	7/24/2008	13:18	813571.59	2372438.40	813571	2372438	0.7	P	VPC	0.69	0.37	0.00	0.37	4.4	
SCU-12-3"CAP-9	1-RA-08-SP-00E1-SCU12-9-3"-CAP	00E1	12-3"CAP	7/24/2008	13:14	813570.04	2372463.75	813571	2372463	1.2	P	VPC	1.05	0.23	0.00	0.23	2.8	
SCU-12-3"CAP-10	1-RA-08-SP-00E1-SCU12-10-3"-CAP	00E1	12-3"CAP	7/29/2008	12:44	813546.00	2372539.66	813546	2372539	0.7	P	VPC	0.97	0.45	0.00	0.45	5.4	
SCU-12-3"CAP-11	1-RA-08-SP-00E1-SCU12-11-3"-CAP	00E1	12-3"CAP	7/24/2008	13:10	813521.42	2372413.55	813521	2372413	0.7	P	VPC	0.92	0.50	0.00	0.50	6.0	
SCU-12-3"CAP-12	1-RA-08-SP-00E1-SCU12-12-3"-CAP	00E1	12-3"CAP	7/24/2008	13:06	813470.84	2372389.23	813471	2372388	1.2	P	VPC	0.97	0.28	0.00	0.28	3.4	
SCU-12-3"CAP-13	1-RA-08-SP-00E1-SCU12-13-3"-CAP	00E1	12-3"CAP	7/24/2008	13:01	813472.10	2372438.14	813471	2372438	1.1	P	VPC	0.81	0.48	0.00	0.48	5.8	
SCU-12-3"CAP-14	1-RA-08-SP-00E1-SCU12-14-3"-CAP	00E1	12-3"CAP	7/29/2008	13:10	813421.71	2372537.06	813421	2372538	1.2	P	VPC	0.98	0.44	0.00	0.44	5.3	
SCU-12-3"CAP-15	1-RA-08-SP-00E1-SCU12-15-3"-CAP	00E1	12-3"CAP	7/25/2008	10:32	813371.54	2372464.79	813371	2372463	1.9	P	VPC	0.58	0.39	0.00	0.39	4.7	
SCU-12-3"CAP-16	1-RA-08-SP-00E1-SCU12-16-3"-CAP	00E1	12-3"CAP	7/25/2008	10:37	813370.94	2372487.90	813371	2372488	0.1	P	VPC	0.82	0.34	0.00	0.34	4.1	
SCU-12-3"CAP-17	1-RA-08-SP-00E1-SCU12-17-3"-CAP	00E1	12-3"CAP	7/24/2008	12:56	813347.08	2372363.61	813346	2372363	1.2	P	VPC	0.94	0.49	0.00	0.49	5.9	
SCU-12-3"CAP-18	1-RA-08-SP-00E1-SCU12-18-3"-CAP	00E1	12-3"CAP	7/24/2008	12:51	813295.83	2372386.89	813296	2372388	1.1	P	VPC	1.02	0.60	0.00	0.60	7.2	
															Minimum	**0.23**	**2.8**	
															Average	**0.41**	**4.9**	
SCU-13-3"CAP-1	1-RA-08-SP-00E1-SCU13-1-3"-CAP	00E1	13-3"CAP	7/30/2008	11:06	813870.10	2372613.14	813871	2372613	0.9	P	VPC	1.00	0.40	0.00	0.40	4.8	
SCU-13-3"CAP-2	1-RA-08-SP-00E1-SCU13-2-3"-CAP	00E1	13-3"CAP	7/30/2008	11:02	813820.26	2372663.32	813821	2372664	1.0	P	VPC	0.90	0.43	0.00	0.43	5.2	
SCU-13-3"CAP-3	1-RA-08-SP-00E1-SCU13-3-3"-CAP	00E1	13-3"CAP	7/30/2008	10:59	813771.16	2372639.57	813771	2372639	0.6	P	VPC	1.02	0.45	0.00	0.45	5.4	
SCU-13-3"CAP-4	1-RA-08-SP-00E1-SCU13-4-3"-CAP	00E1	13-3"CAP	7/30/2008	10:54	813495.15	2372587.44	813496	2372588	1.0	P	VPC	0.87	0.40	0.00	0.40	4.8	
SCU-13-3"CAP-5	1-RA-08-SP-00E1-SCU13-5-3"-CAP	00E1	13-3"CAP	7/30/2008	11:10	813396.44	2372662.01	813396	2372663	1.1	P	VPC	0.97	0.32	0.00	0.32	3.8	
SCU-13-3"CAP-6	1-RA-08-SP-00E1-SCU13-6-3"-CAP	00E1	13-3"CAP	7/30/2008	10:44	813319.87	2372563.17	813321	2372563	1.1	P	VPC	0.91	0.51	0.00	0.51	6.1	
SCU-13-3"CAP-7	1-RA-08-SP-00E1-SCU13-7-3"-CAP	00E1	13-3"CAP	7/30/2008	10:50	813320.20	2372613.26	813321	2372613	0.8	P	VPC	0.93	0.40	0.00	0.40	4.8	
SCU-13-3"CAP-8	1-RA-08-SP-00E4-SCU13-8-3"-CAP	00E4	13-3"CAP	7/31/2008	10:34	813295.48	2372712.51	813296	2372713	0.7	P	VPC	0.95	0.30	0.00	0.30	3.6	
SCU-13-3"CAP-9	1-RA-08-SP-00E1-SCU13-9-3"-CAP	00E1	13-3"CAP	7/25/2008	12:13	813845.16	2372114.44	813846	2372114	0.9	P	VPC	0.81	0.45	0.00	0.45	5.4	
SCU-13-3"CAP-10	1-RA-08-SP-00E1-SCU13-10-3"-CAP	00E1	13-3"CAP	7/25/2008	12:18	813796.25	2372063.37	813796	2372063	0.4	P	VPC	0.93	0.37	0.00	0.37	4.4	
SCU-13-3"CAP-11	1-RA-08-SP-00E1-SCU13-11-3"-CAP	00E1	13-3"CAP	7/25/2008	12:22	813771.61	2372138.86	813771	2372138	1.1	P	VPC	0.79	0.45	0.00	0.45	5.4	
SCU-13-3"CAP-12	1-RA-08-SP-00E1-SCU13-12-3"-CAP	00E1	13-3"CAP	7/25/2008	12:26	813719.18	2372113.75	813721	2372113	2.0	P	VPC	0.98	0.35	0.00	0.35	4.2	
SCU-13-3"CAP-13	1-RA-08-SP-00E1-SCU13-13-3"-CAP	00E1	13-3"CAP	7/28/2008	12:04	813546.82	2372113.51	813546	2372113	1.0	P	VPC	0.64	0.34	0.00	0.34	4.1	
SCU-13-3"CAP-14	1-RA-08-SP-00E1-SCU13-14-3"-CAP	00E1	13-3"CAP	7/28/2008	12:00	813520.47	2372088.73	813521	2372088	0.9	P	VPC	0.69	0.50	0.00	0.50	6.0	
SCU-13-3"CAP-15	1-RA-08-SP-00E1-SCU13-15-3"-CAP	00E1	13-3"CAP	7/28/2008	11:46	813446.81	2372013.78	813446	2372013	1.1	P	VPC	0.85	0.45	0.00	0.45	5.4	
SCU-13-3"CAP-16	1-RA-08-SP-00E1-SCU13-16-3"-CAP	00E1	13-3"CAP	7/28/2008	11:40	813420.10	2372038.87	813421	2372038	1.3	P	VPC	0.88	0.41	0.00	0.41	4.9	
SCU-13-3"CAP-17	1-RA-08-SP-00E1-SCU13-17-3"-CAP	00E1	13-3"CAP	7/28/2008	11:36	813370.57	2372087.44	813371	2372088	0.7	P	VPC	0.80	0.50	0.00	0.50	6.0	
SCU-13-3"CAP-18	1-RA-08-SP-00E1-SCU13-18-3"-CAP	00E1	13-3"CAP	7/28/2008	11:30	813221.42	2372062.36	813221	2372063	0.8	P	VPC	0.64	0.35	0.00	0.35	4.2	
															Minimum	**0.34**	**4.1**	

ID	Sample ID	Subarea	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
															Average	**0.42**	**5.0**	

ID	Sample ID	Subarea	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
SCU-14-3"CAP-1	1-RA-08-SP-00E1-SCU14-1-3"-CAP	00E1	14-3"CAP	7/29/2008	12:23	814021.83	2372589.74	814021	2372589	1.1	P	VPC	1.00	0.46	0.00	0.46	5.5	
SCU-14-3"CAP-2	1-RA-08-SP-00E1-SCU14-2-3"-CAP	00E1	14-3"CAP	7/29/2008	12:29	813922.29	2372563.72	813921	2372564	1.3	P	VPC	0.90	0.52	0.00	0.52	6.2	
SCU-14-3"CAP-3	1-RA-08-SP-00E1-SCU14-3-3"-CAP	00E1	14-3"CAP	7/25/2008	10:57	813970.64	2372514.35	813971	2372514	0.5	P	VPC	0.98	0.34	0.00	0.34	4.1	
SCU-14-3"CAP-4	1-RA-08-SP-00E1-SCU14-4-3"-CAP	00E1	14-3"CAP	7/25/2008	11:00	814021.31	2372464.65	814021	2372464	0.7	P	VPC	0.86	0.29	0.00	0.29	3.5	
SCU-14-3"CAP-5	1-RA-08-SP-00E1-SCU14-5-3"-CAP	00E1	14-3"CAP	7/25/2008	11:04	814021.64	2372439.40	814021	2372439	0.8	P	VPC	0.78	0.53	0.00	0.53	6.4	
SCU-14-3"CAP-6	1-RA-08-SP-00E1-SCU14-6-3"-CAP	00E1	14-3"CAP	7/25/2008	11:14	814046.79	2372414.40	814046	2372414	0.9	P	VPC	0.97	0.33	0.00	0.33	4.0	
SCU-14-3"CAP-7	1-RA-08-SP-00E1-SCU14-7-3"-CAP	00E1	14-3"CAP	7/25/2008	11:18	813971.76	2372314.53	813971	2372314	0.9	P	VPC	0.88	0.17	0.13	0.27	3.2	
SCU-14-3"CAP-8	1-RA-08-SP-00E1-SCU14-8-3"-CAP	00E1	14-3"CAP	7/25/2008	11:24	814096.67	2372289.64	814096	2372289	0.9	P	VPC	0.91	0.25	0.00	0.25	3.0	
SCU-14-3"CAP-9	1-RA-08-SP-00E1-SCU14-9-3"-CAP	00E1	14-3"CAP	7/25/2008	11:30	814097.17	2372239.04	814096	2372239	1.2	P	VPC	0.84	0.34	0.00	0.34	4.1	
SCU-14-3"CAP-10	1-RA-08-SP-00E1-SCU14-10-3"-CAP	00E1	14-3"CAP	7/25/2008	11:34	814071.06	2372189.25	814071	2372189	0.3	P	VPC	0.76	0.37	0.00	0.37	4.4	
SCU-14-3"CAP-11	1-RA-08-SP-00E1-SCU14-11-3"-CAP	00E1	14-3"CAP	7/25/2008	12:05	813945.10	2372189.65	813946	2372189	1.1	P	VPC	0.87	0.51	0.00	0.51	6.1	
SCU-14-3"CAP-12	1-RA-08-SP-00E1-SCU14-12-3"-CAP	00E1	14-3"CAP	7/25/2008	11:40	814071.77	2372114.27	814071	2372114	0.8	P	VPC	0.86	0.34	0.00	0.34	4.1	
SCU-14-3"CAP-13	1-RA-08-SP-00E1-SCU14-13-3"-CAP	00E1	14-3"CAP	7/25/2008	11:44	814020.50	2372114.63	814021	2372114	0.8	P	VPC	0.84	0.42	0.00	0.42	5.0	
SCU-14-3"CAP-14	1-RA-08-SP-00E1-SCU14-14-3"-CAP	00E1	14-3"CAP	7/25/2008	11:51	813946.92	2372088.67	813946	2372089	1.0	P	VPC	0.90	0.41	0.00	0.41	4.9	
SCU-14-3"CAP-15	1-RA-08-SP-00E1-SCU14-15-3"-CAP	00E1	14-3"CAP	7/28/2008	12:21	813871.88	2372038.87	813871	2372039	0.9	P	VPC	0.90	0.40	0.00	0.40	4.8	
SCU-14-3"CAP-16	1-RA-08-SP-00E1-SCU14-16-3"-CAP	00E1	14-3"CAP	7/28/2008	12:16	813871.63	2372013.76	813871	2372014	0.7	P	VPC	0.89	0.45	0.00	0.45	5.4	
SCU-14-3"CAP-17	1-RA-08-SP-00E1-SCU14-17-3"-CAP	00E1	14-3"CAP	7/28/2008	12:09	813895.86	2371963.43	813896	2371964	0.6	P	VPC	0.98	0.41	0.00	0.41	4.9	
SCU-14-3"CAP-18	1-RA-08-SP-00E1-SCU14-18-3"-CAP	00E1	14-3"CAP	7/28/2008	12:26	813771.63	2371987.57	813771	2371988	0.8	P	VPC	0.90	0.35	0.00	0.35	4.2	
															Minimum	**0.25**	**3.0**	
															Average	**0.38**	**4.5**	
SCU-15-3"CAP-1	1-RA-08-SP-00E1-SCU15-1-3"-CAP	00E1	15-3"CAP	7/31/2008	10:44	813470.48	2371988.36	813471	2371988	0.6	P	VPC	0.94	0.51	0.00	0.51	6.1	
SCU-15-3"CAP-2	1-RA-08-SP-00E1-SCU15-2-3"-CAP	00E1	15-3"CAP	7/31/2008	10:53	814071.00	2371989.55	814071	2371989	0.5	P	VPC	0.85	0.39	0.00	0.39	4.7	
SCU-15-3"CAP-3	1-RA-08-SP-00E1-SCU15-3-3"-CAP	00E1	15-3"CAP	7/31/2008	10:50	813946.22	2371965.88	813946	2371964	1.9	P	VPC	0.84	0.43	0.00	0.43	5.2	
SCU-15-3"CAP-4	1-RA-08-SP-00E1-SCU15-4-3"-CAP	00E1	15-3"CAP	8/5/2008	10:15	814020.33	2371938.55	814021	2371939	0.8	P	VPC	0.87	0.34	0.00	0.34	4.1	
SCU-15-3"CAP-5	1-RA-08-SP-00E1-SCU15-5-3"-CAP	00E1	15-3"CAP	8/5/2008	10:22	813845.99	2371938.02	813846	2371938	0.0	P	VPC	0.91	0.35	0.00	0.35	4.2	
SCU-15-3"CAP-6	1-RA-08-SP-00E1-SCU15-6-3"-CAP	00E1	15-3"CAP	8/5/2008	10:31	813694.99	2371913.90	813696	2371914	1.0	P	VPC	0.94	0.38	0.00	0.38	4.6	
SCU-15-3"CAP-7	1-RA-08-SP-00E1-SCU15-7-3"-CAP	00E1	15-3"CAP	8/6/2008	10:40	813620.14	2371888.22	813621	2371888	0.9	P	VPC	0.86	0.31	0.00	0.31	3.7	
SCU-15-3"CAP-8	1-RA-08-SP-00E1-SCU15-8-3"-CAP	00E1	15-3"CAP	8/5/2008	10:37	813496.14	2371913.07	813496	2371913	0.2	P	VPC	0.92	0.40	0.00	0.40	4.8	
SCU-15-3"CAP-9	1-RA-08-SP-00E1-SCU15-9-3"-CAP	00E1	15-3"CAP	8/6/2008	10:50	813421.46	2371863.57	813421	2371863	0.7	P	VPC	0.97	0.37	0.00	0.37	4.4	
SCU-15-3"CAP-10	1-RA-08-SP-0E3S-SCU15-10-3"-CAP	0E3S	15-3"CAP	8/6/2008	10:31	813846.46	2371889.90	813846	2371889	1.0	P	VPC	0.81	0.38	0.00	0.38	4.6	
SCU-15-3"CAP-11	1-RA-08-SP-0E3S-SCU15-11-3"-CAP	0E3S	15-3"CAP	8/6/2008	10:36	813746.65	2371862.58	813746	2371864	1.6	P	VPC	0.89	0.32	0.00	0.32	3.8	
SCU-15-3"CAP-12	1-RA-08-SP-0E3S-SCU15-12-3"-CAP	0E3S	15-3"CAP	8/6/2008	10:20	813922.21	2371865.42	813921	2371864	1.9	P	VPC	0.93	0.27	0.00	0.27	3.2	
SCU-15-3"CAP-13	1-RA-08-SP-0E3S-SCU15-13-3"-CAP	0E3S	15-3"CAP	8/6/2008	10:14	814072.10	2371839.82	814071	2371839	1.4	P	VPC	0.95	0.33	0.00	0.33	4.0	
SCU-15-3"CAP-14	1-RA-08-SP-0E3S-SCU15-14-3"-CAP	0E3S	15-3"CAP	8/6/2008	10:25	813820.73	2371814.61	813821	2371814	0.7	P	VPC	0.80	0.32	0.00	0.32	3.8	
SCU-15-3"CAP-15	1-RA-08-SP-0E3S-SCU15-15-3"-CAP	0E3S	15-3"CAP	8/6/2008	10:45	813546.73	2371812.57	813546	2371813	0.8	P	VPC	0.91	0.30	0.00	0.30	3.6	
SCU-15-3"CAP-16	1-RA-08-SP-0E3S-SCU15-16-3"-CAP	0E3S	15-3"CAP	8/5/2008	10:51	813895.66	2371789.51	813896	2371789	0.6	P	VPC	0.88	0.32	0.00	0.32	3.8	
SCU-15-3"CAP-17	1-RA-08-SP-0E3S-SCU15-17-3"-CAP	0E3S	15-3"CAP	8/5/2008	11:07	813720.58	2371787.79	813721	2371788	0.5	P	VPC	0.91	0.34	0.00	0.34	4.1	
SCU-15-3"CAP-18	1-RA-08-SP-0E3S-SCU15-18-3"-CAP	0E3S	15-3"CAP	8/5/2008	10:41	813470.45	2371762.88	813471	2371763	0.6	P	VPC	0.96	0.39	0.00	0.39	4.7	
															Minimum	**0.27**	**3.2**	
															Average	**0.36**	**4.3**	
SCU-16-3"CAP-1	1-RA-08-SP-00E2-SCU16-1-3"-CAP	00E2	16-3"CAP	8/8/2008	10:47	814120.86	2372512.75	814121	2372514	1.3	P	VPC	0.73	0.31	0.00	0.31	3.7	
SCU-16-3"CAP-2	1-RA-08-SP-00E2-SCU16-2-3"-CAP	00E2	16-3"CAP	8/8/2008	10:55	814146.91	2372488.67	814146	2372488	1.1	P	VPC	1.03	0.38	0.00	0.38	4.6	
SCU-16-3"CAP-3	1-RA-08-SP-00E2-SCU16-3-3"-CAP	00E2	16-3"CAP	8/8/2008	11:05	814321.08	2372489.24	814321	2372489	0.3	P	VPC	0.69	0.37	0.19	0.51	6.2	
SCU-16-3"CAP-4	1-RA-08-SP-00E2-SCU16-4-3"-CAP	00E2	16-3"CAP	8/8/2008	11:00	814221.10	2372464.60	814221	2372464	0.6	P	VPC	0.84	0.25	0.00	0.25	3.0	
SCU-16-3"CAP-5	1-RA-08-SP-00E2-SCU16-5-3"-CAP	00E2	16-3"CAP	8/8/2008	11:10	814321.04	2372439.59	814321	2372439	0.6	P	VPC	0.55	0.37	0.00	0.37	4.4	
SCU-16-3"CAP-6	1-RA-08-SP-00E2-SCU16-6-3"-CAP	00E2	16-3"CAP	8/8/2008	11:18	814320.56	2372388.95	814321	2372389	0.4	P	VPC	0.77	0.45	0.00	0.45	5.4	
SCU-16-3"CAP-7	1-RA-08-SP-00E2-SCU16-7-3"-CAP	00E2	16-3"CAP	8/8/2008	11:25	814195.80	2372389.58	814196	2372389	0.6	P	VPC	1.02	0.29	0.00	0.29	3.5	
SCU-16-3"CAP-8	1-RA-08-SP-00E2-SCU16-8-3"-CAP	00E2	16-3"CAP	8/11/2008	13:31	814295.48	2372363.85	814296	2372364	0.5	P	VPC	0.80	0.37	0.00	0.37	4.4	
SCU-16-3"CAP-9	1-RA-08-SP-00E2-SCU16-9-3"-CAP	00E2	16-3"CAP	8/8/2008	11:30	814195.21	2372338.15	814196	2372339	1.2	P	VPC	0.81	0.31	0.13	0.41	4.9	
SCU-16-3"CAP-10	1-RA-08-SP-00E2-SCU16-10-3"-CAP	00E2	16-3"CAP	8/11/2008	13:41	814246.62	2372264.31	814246	2372264	0.7	P	VPC	0.90	0.30	0.00	0.30	3.6	
SCU-16-3"CAP-11	1-RA-08-SP-00E2-SCU16-11-3"-CAP	00E2	16-3"CAP	8/11/2008	13:37	814346.45	2372289.40	814346	2372289	0.6	P	VPC	0.83	0.37	0.00	0.37	4.4	
SCU-16-3"CAP-12	1-RA-08-SP-0E3S-SCU16-12-3"-CAP	0E3S	16-3"CAP	8/5/2008	10:57	813819.95	2371764.82	813821	2371764	1.3	P	VPC	0.90	0.36	0.00	0.36	4.3	
SCU-16-3"CAP-13	1-RA-08-SP-0E3S-SCU16-13-3"-CAP	0E3S	16-3"CAP	8/5/2008	10:47	813721.10	2371762.81	813721	2371763	0.2	P	VPC	0.89	0.29	0.00	0.29	3.5	
SCU-16-3"CAP-14	1-RA-08-SP-0E3S-SCU16-14-3"-CAP	0E3S	16-3"CAP	8/5/2008	11:22	813495.15	2371738.17	813496	2371738	0.9	P	VPC	0.89	0.35	0.00	0.35	4.2	
SCU-16-3"CAP-15	1-RA-08-SP-0E3S-SCU16-15-3"-CAP	0E3S	16-3"CAP	8/7/2008	12:49	813521.19	2371688.64	813521	2371688	0.7	P	VPC	0.96	0.35	0.00	0.35	4.2	
SCU-16-3"CAP-16	1-RA-08-SP-0E3S-SCU16-16-3"-CAP	0E3S	16-3"CAP	8/7/2008	13:01	813720.84	2371714.73	813721	2371714	0.7	P	VPC	0.88	0.34	0.00	0.34	4.1	
SCU-16-3"CAP-17	1-RA-08-SP-0E3S-SCU16-17-3"-CAP	0E3S	16-3"CAP	8/7/2008	12:58	813670.57	2371688.03	813671	2371688	0.4	P	VPC	0.82	0.38	0.00	0.38	4.6	
SCU-16-3"CAP-18	1-RA-08-SP-0E3S-SCU16-18-3"-CAP	0E3S	16-3"CAP	8/7/2008	12:54	813595.21	2371664.63	813596	2371664	1.0	P	VPC	0.83	0.35	0.00	0.35	4.2	
															Minimum	**0.25**	**3.0**	
															Average	**0.36**	**4.3**	
SCU-17-3"CAP-1	1-RA-08-SP-00E2-SCU17-1-3"-CAP	00E2	17-3"CAP	8/11/2008	14:21	814396.11	2372237.93	814395	2372239	1.5	P	VPC	0.90	0.39	0.00	0.39	4.7	
SCU-17-3"CAP-2	1-RA-08-SP-00E2-SCU17-2-3"-CAP	00E2	17-3"CAP	8/11/2008	14:18	814370.66	2372215.01	814371	2372214	1.1	P	VPC	0.80	0.40	0.00	0.40	4.8	
SCU-17-3"CAP-3	1-RA-08-SP-00E2-SCU17-3-3"-CAP	00E2	17-3"CAP	8/11/2008	14:25	814397.21	2372165.28	814396	2372164	1.8	P	VPC	1.00	0.30	0.00	0.30	3.6	
SCU-17-3"CAP-4	1-RA-08-SP-00E2-SCU17-4-3"-CAP	00E2	17-3"CAP	8/11/2008	14:14	814271.61	2372163.61	814271	2372164	0.7	P	VPC	0.82	0.34	0.00	0.34	4.1	
SCU-17-3"CAP-5	1-RA-08-SP-00E2-SCU17-5-3"-CAP	00E2	17-3"CAP	8/11/2008	14:10	814296.80	2372138.96	814296	2372139	0.8	P	VPC	0.88	0.40	0.00	0.40	4.8	
SCU-17-3"CAP-6	1-RA-08-SP-00E2-SCU17-6-3"-CAP	00E2	17-3"CAP	8/11/2008	14:06	814297.22	2372114.23	814296	2372114	1.2	P	VPC	0.77	0.30	0.00	0.30	3.6	
SCU-17-3"CAP-7	1-RA-08-SP-00E2-SCU17-7-3"-CAP	00E2	17-3"CAP	8/11/2008	13:48	814170.39	2372113.71	814171	2372114	0.7	P	VPC	1.00	0.30	0.00	0.30	3.6	
SCU-17-3"CAP-8	1-RA-08-SP-00E2-SCU17-8-3"-CAP	00E2	17-3"CAP	8/11/2008	13:54	814146.93	2372014.10	814146	2372014	0.9	P	VPC	0.90	0.31	0.00	0.31	3.7	
SCU-17-3"CAP-9	1-RA-08-SP-00E2-SCU17-9-3"-CAP	00E2	17-3"CAP	8/11/2008	13:58	814272.83	2372013.95	814272	2372014	0.8	P	VPC	1.07	0.28	0.00	0.28	3.4	
SCU-17-3"CAP-10	1-RA-08-SP-00E2-SCU17-10-3"-CAP	00E2	17-3"CAP	8/11/2008	14:34	814372.04	2372037.81	814371	2372039	1.6	P	VPC	0.95	0.40	0.00	0.40	4.8	
SCU-17-3"CAP-11	1-RA-08-SP-00E2-SCU17-11-3"-CAP	00E2	17-3"CAP	8/11/2008	14:30	814394.75	2372063.97	814396	2372064	1.3	P	VPC	1.01	0.34	0.00	0.34	4.1	
SCU-17-3"CAP-12	1-RA-08-SP-0E3S-SCU17-12-3"-CAP	0E3S	17-3"CAP	8/12/2008	11:53	814196.76	2371963.87	814196	2371964	0.8	P	VPC	0.61	0.40	0.00	0.40	4.8	
SCU-17-3"CAP-13	1-RA-08-SP-0E3S-SCU17-13-3"-CAP	0E3S	17-3"CAP	8/12/2008	11:59	814246.58	2371914.53	814246	2371914	0.8	P	VPC	0.97	0.31	0.00	0.31	3.7	
SCU-17-3"CAP-14	1-RA-08-SP-0E3S-SCU17-14-3"-CAP	0E3S	17-3"CAP	8/12/2008	12:14	814346.44	2371864.13	814346	2371864	0.5	P	VPC	0.97	0.30	0.00	0.30	3.6	
SCU-17-3"CAP-15	1-RA-08-SP-0E3S-SCU17-15-3"-CAP	0E3S	17-3"CAP	8/12/2008	12:05	814171.39	2371838.25	814171	2371839	0.8	P	VPC	0.97	0.32	0.00	0.32	3.8	
SCU-17-3"CAP-16	1-RA-08-SP-0E3S-SCU17-16-3"-CAP	0E3S	17-3"CAP	8/12/2008	12:10	814196.47	2371813.21	814196	2371814	0.9	P	VPC	1.00	0.41	0.00	0.41	4.9	
SCU-17-3"CAP-17	1-RA-08-SP-0E3S-SCU17-17-3"-CAP	0E3S	17-3"CAP	8/13/2008	11:26	814245.46	2371763.10	814246	2371764	1.0	P	VPC	0.81	0.37	0.00	0.37	4.4	
SCU-17-3"CAP-18	1-RA-08-SP-0E3S-SCU17-18-3"-CAP	0E3S	17-3"CAP	8/13/2008	11:39	814269.00	2371714.30	814271	2371714	2.0	P	VPC	0.95	0.38	0.00	0.38	4.6	
															Minimum	**0.28**	**3.4**	
															Average	**0.35**	**4.2**	
SCU-18-3"CAP-1	1-RA-08-SP-00E2-SCU18-1-3"-CAP	00E2	18-3"CAP	8/14/2008	14:22	814845.52	2372738.56	814846	2372739	0.7	P	VPC	0.97	0.25	0.00	0.25	3.0	
SCU-18-3"CAP-2	1-RA-08-SP-00E2-SCU18-2-3"-CAP	00E2	18-3"CAP	8/14/2008	14:29	814795.93	2372813.78	814796	2372814	0.2	P	VPC	0.87	0.46	0.00	0.46	5.5	
SCU-18-3"CAP-3	1-RA-08-SP-00E2-SCU18-3-3"-CAP	00E2	18-3"CAP	8/14/2008	14:36	814745.39	2372814.68	814746	2372814	0.9	P	VPC	0.83	0.37	0.00	0.37	4.4	
SCU-18-3"CAP-4	1-RA-08-SP-00E2-SCU18-4-3"-CAP	00E2	18-3"CAP	8/14/2008	14:18	814746.71	2372713.22	814746	2372714	1.1	P	VPC	1.00	0.33	0.00	0.33	4.0	
SCU-18-3"CAP-5	1-RA-08-SP-00E2-SCU18-5-3"-CAP	00E2	18-3"CAP	8/14/2008	13:48	814595.45	2372588.48	814596	2372589	0.8	P	VPC	0.93	0.30	0.00	0.30	3.6	
SCU-18-3"CAP-6	1-RA-08-SP-00E2-SCU18-6-3"-CAP	00E2	18-3"CAP	8/14/2008	14:04	814595.55	2372662.92	814596	2372664	1.2	P	VPC	0.78	0.35	0.00	0.35	4.2	
SCU-18-3"CAP-7	1-RA-08-SP-00E2-SCU18-7-3"-CAP	00E2	18-3"CAP	8/14/2008	13:56	814571.60	2372638.88	814571	2372639	0.6	P	VPC	1.06	0.21	0.00	0.21	2.5	
SCU-18-3"CAP-8	1-RA-08-SP-00E2-SCU18-8-3"-CAP	00E2	18-3"CAP	8/14/2008	13:34	814497.26	2372563.25	814496	2372564	1.5	P	VPC	0.86	0.35	0.00	0.35	4.2	
SCU-18-3"CAP-9	1-RA-08-SP-00E2-SCU18-9-3"-CAP	00E2	18-3"CAP	8/14/2008	13:37	814470.44	2372613.95	814471	2372614	0.6	P	VPC	0.95	0.36	0.00	0.36	4.3	

ID	Sample ID	Subarea	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
SCU-18-3"CAP-10	1-RA-08-SP-00E2-SCU18-10-3"-CAP	00E2	18-3"CAP	8/14/2008	13:30	814370.18	2372514.29	814371	2372514	0.9	P	VPC	0.86	0.29	0.00	0.29	3.5	
SCU-18-3"CAP-11	1-RA-08-SP-00E2-SCU18-11-3"-CAP	00E2	18-3"CAP	8/14/2008	13:22	814370.77	2372662.79	814371	2372664	1.2	P	VPC	0.44	0.38	0.00	0.38	4.6	
SCU-18-3"CAP-12	1-RA-08-SP-00E2-SCU18-12-3"-CAP	00E2	18-3"CAP	8/14/2008	13:41	814470.21	2372689.28	814471	2372689	0.8	P	VPC	0.91	0.30	0.00	0.30	3.6	
SCU-18-3"CAP-13	1-RA-08-SP-00E2-SCU18-13-3"-CAP	00E2	18-3"CAP	8/14/2008	14:43	814595.88	2372762.38	814596	2372764	1.6	P	VPC	0.96	0.38	0.00	0.38	4.6	
SCU-18-3"CAP-14	1-RA-08-SP-00E2-SCU18-14-3"-CAP	00E2	18-3"CAP	8/14/2008	14:13	814594.75	2372713.25	814596	2372714	1.5	P	VPC	1.00	0.38	0.00	0.38	4.6	
SCU-18-3"CAP-15	1-RA-08-SP-00E2-SCU18-15-3"-CAP	00E2	18-3"CAP	8/15/2008	12:58	814670.81	2372838.44	814671	2372839	0.6	P	VPC	0.85	0.34	0.00	0.34	4.1	
SCU-18-3"CAP-16	1-RA-08-SP-00E2-SCU18-16-3"-CAP	00E2	18-3"CAP	8/15/2008	13:02	814720.04	2372864.10	814721	2372864	1.0	P	VPC	0.91	0.29	0.00	0.29	3.5	
SCU-18-3"CAP-17	1-RA-08-SP-00E2-SCU18-17-3"-CAP	00E2	18-3"CAP	8/15/2008	12:54	814620.69	2372914.12	814621	2372914	0.3	P	VPC	0.95	0.40	0.00	0.40	4.8	
SCU-18-3"CAP-18	1-RA-08-SP-00E2-SCU18-18-3"-CAP	00E2	18-3"CAP	8/15/2008	12:44	814595.52	2372938.40	814596	2372939	0.8	P	VPC	0.74	0.27	0.00	0.27	3.2	
															Minimum	**0.21**	**2.5**	
															Average	**0.33**	**4.0**	
SCU-19-3"CAP-1	1-RA-08-SP-00E2-SCU119-1-3"-CAP	00E2	19-3"CAP	8/18/2008	13:50	814571.26	2372512.92	814571	2372514	1.1	P	VPC	1.00	0.35	0.00	0.35	4.2	
SCU-19-3"CAP-2	1-RA-08-SP-00E2-SCU119-2-3"-CAP	00E2	19-3"CAP	8/18/2008	14:03	814519.87	2372415.13	814521	2372414	1.6	P	VPC	0.71	0.34	0.00	0.34	4.1	
SCU-19-3"CAP-3	1-RA-08-SP-00E2-SCU19-3-3"-CAP	00E2	19-3"CAP	8/19/2008	13:25	814446.92	2372338.07	814446	2372339	1.3	P	VPC	1.01	0.49	0.00	0.49	5.9	
SCU-19-3"CAP-4	1-RA-08-SP-00E2-SCU19-4-3"-CAP	00E2	19-3"CAP	8/19/2008	13:42	814446.89	2372288.24	814446	2372289	1.2	P	VPC	0.88	0.36	0.00	0.36	4.3	
SCU-19-3"CAP-5	1-RA-08-SP-00E2-SCU19-5-3"-CAP	00E2	19-3"CAP	8/19/2008	13:35	814395.67	2372312.93	814396	2372314	1.1	P	VPC	1.00	0.49	0.11	0.57	6.9	
SCU-19-3"CAP-6	1-RA-08-SP-00E2-SCU19-6-3"-CAP	00E2	19-3"CAP	8/19/2008	13:47	814445.50	2372188.66	814446	2372189	0.6	P	VPC	1.01	0.32	0.11	0.40	4.8	
SCU-19-3"CAP-7	1-RA-08-SP-00E2-SCU19-7-3"-CAP	00E2	19-3"CAP	8/19/2008	13:52	814546.21	2372289.57	814546	2372289	0.6	P	VPC	1.01	0.45	0.00	0.45	5.4	
SCU-19-3"CAP-8	1-RA-08-SP-00E2-SCU19-8-3"-CAP	00E2	19-3"CAP	8/19/2008	13:20	814619.92	2372313.21	814621	2372314	1.3	P	VPC	0.97	0.37	0.00	0.37	4.4	
SCU-19-3"CAP-9	1-RA-08-SP-00E2-SCU19-9-3"-CAP	00E2	19-3"CAP	8/19/2008	13:14	814647.52	2372240.21	814646	2372239	1.9	P	VPC	0.98	0.41	0.09	0.48	5.7	
SCU-19-3"CAP-10	1-RA-08-SP-00E2-SCU19-10-3"-CAP	00E2	19-3"CAP	8/19/2008	13:56	814570.42	2372239.88	814571	2372239	1.1	P	VPC	1.02	0.45	0.00	0.45	5.4	
SCU-19-3"CAP-11	1-RA-08-SP-00E2-SCU19-11-3"-CAP	00E2	19-3"CAP	8/19/2008	14:01	814546.52	2372214.06	814546	2372214	0.5	P	VPC	1.02	0.36	0.00	0.36	4.3	
SCU-19-3"CAP-12	1-RA-08-SP-00E2-SCU19-12-3"-CAP	00E2	19-3"CAP	8/19/2008	14:05	814596.75	2372164.55	814596	2372164	0.9	P	VPC	1.10	0.37	0.16	0.49	5.9	
SCU-19-3"CAP-13	1-RA-08-SP-00E2-SCU19-13-3"-CAP	00E2	19-3"CAP	8/20/2008	13:45	814595.88	2372139.90	814596	2372139	0.9	P	VPC	0.99	0.40	0.00	0.40	4.8	
SCU-19-3"CAP-14	1-RA-08-SP-00E2-SCU19-14-3"-CAP	00E2	19-3"CAP	8/20/2008	13:39	814522.15	2372064.30	814521	2372064	1.2	P	VPC	1.00	0.35	0.00	0.35	4.2	
SCU-19-3"CAP-15	1-RA-08-SP-0E3S-SCU19-15-3"-CAP	0E3S	19-3"CAP	8/20/2008	13:50	814621.22	2372038.42	814621	2372039	0.6	P	VPC	0.97	0.36	0.00	0.36	4.3	
SCU-19-3"CAP-16	1-RA-08-SP-0E3N-SCU19-16-3"-CAP	0E3N	19-3"CAP	8/20/2008	13:56	814722.18	2372113.67	814721	2372114	1.2	P	VPC	1.08	0.40	0.00	0.40	4.8	
SCU-19-3"CAP-17	1-RA-08-SP-0E3N-SCU19-17-3"-CAP	0E3N	19-3"CAP	8/20/2008	14:01	814746.85	2372088.64	814746	2372089	0.9	P	VPC	0.88	0.29	0.00	0.29	3.5	
SCU-19-3"CAP-18	1-RA-08-SP-00E2-SCU19-18-3"-CAP	00E2	19-3"CAP	8/20/2008	14:06	814796.80	2372189.68	814796	2372189	1.0	P	VPC	0.53	0.42	0.00	0.42	5.0	
															Minimum	**0.29**	**3.5**	
															Average	**0.41**	**4.9**	
SCU-20-3"CAP-1	1-RA-08-SP-00E2-SCU20-1-3"-CAP	00E2	20-3"CAP	8/18/2008	13:50	814645.70	2372589.71	814646	2372589	0.8	P	VPC	0.88	0.36	0.00	0.36	4.3	
SCU-20-3"CAP-2	1-RA-08-SP-00E2-SCU20-2-3"-CAP	00E2	20-3"CAP	8/18/2008	13:40	814646.70	2372514.57	814646	2372514	0.9	P	VPC	0.85	0.41	0.00	0.41	4.9	
SCU-20-3"CAP-3	1-RA-08-SP-00E2-SCU20-3-3"-CAP	00E2	20-3"CAP	8/18/2008	13:07	814794.75	2372639.35	814796	2372639	1.3	P	VPC	0.92	0.40	0.00	0.40	4.8	
SCU-20-3"CAP-4	1-RA-08-SP-00E2-SCU20-4-3"-CAP	00E2	20-3"CAP	8/18/2008	12:58	814846.42	2372638.85	814846	2372639	0.4	P	VPC	0.64	0.44	0.00	0.44	5.3	
SCU-20-3"CAP-5	1-RA-08-SP-00E2-SCU20-5-3"-CAP	00E2	20-3"CAP	8/18/2008	13:19	814796.49	2372564.83	814796	2372564	1.0	P	VPC	0.86	0.46	0.00	0.46	5.5	
SCU-20-3"CAP-6	1-RA-08-SP-00E2-SCU20-6-3"-CAP	00E2	20-3"CAP	8/18/2008	13:30	814771.80	2372487.86	814771	2372489	1.4	P	VPC	0.77	0.43	0.00	0.43	5.2	
SCU-20-3"CAP-7	1-RA-08-SP-00E2-SCU20-7-3"-CAP	00E2	20-3"CAP	8/18/2008	13:35	814745.45	2372464.82	814746	2372464	1.0	P	VPC	0.81	0.39	0.00	0.39	4.7	
SCU-20-3"CAP-8	1-RA-08-SP-00E2-SCU20-8-3"-CAP	00E2	20-3"CAP	8/18/2008	13:12	814896.73	2372539.35	814896	2372539	0.8	P	VPC	0.96	0.39	0.00	0.39	4.7	
SCU-20-3"CAP-9	1-RA-08-SP-00E2-SCU20-9-3"-CAP	00E2	20-3"CAP	8/19/2008	13:04	814769.86	2372415.02	814771	2372414	1.5	P	VPC	0.93	0.42	0.00	0.42	5.0	
SCU-20-3"CAP-10	1-RA-08-SP-00E2-SCU20-10-3"-CAP	00E2	20-3"CAP	8/19/2008	13:09	814696.91	2372363.36	814696	2372364	1.1	P	VPC	0.99	0.40	0.00	0.40	4.8	
SCU-20-3"CAP-11	1-RA-08-SP-00E2-SCU20-11-3"-CAP	00E2	20-3"CAP	8/19/2008	13:00	814771.19	2372337.61	814771	2372339	1.4	P	VPC	0.82	0.44	0.00	0.44	5.3	
SCU-20-3"CAP-12	1-RA-08-SP-00E2-SCU20-12-3"-CAP	00E2	20-3"CAP	8/19/2008	12:55	814870.43	2372414.14	814871	2372414	0.6	P	VPC	0.99	0.35	0.00	0.35	4.2	
SCU-20-3"CAP-13	1-RA-08-SP-00E2-SCU20-13-3"-CAP	00E2	20-3"CAP	8/27/2008	12:48	814996.54	2372413.75	814996	2372414	0.6	P	VPC	0.85	0.32	0.00	0.32	3.8	
SCU-20-3"CAP-14	1-RA-08-SP-00E2-SCU20-14-3"-CAP	00E2	20-3"CAP	8/27/2008	12:52	815020.26	2372438.63	815021	2372439	0.8	P	VPC	0.91	0.45	0.00	0.45	5.4	
SCU-20-3"CAP-15	1-RA-08-SP-00E2-SCU20-15-3"-CAP	00E2	20-3"CAP	8/27/2008	13:17	815071.32	2372414.45	815071	2372414	0.6	P	VPC	0.86	0.39	0.00	0.39	4.7	
SCU-20-3"CAP-16	1-RA-08-SP-00E2-SCU20-16-3"-CAP	00E2	20-3"CAP	8/27/2008	12:42	815021.76	2372339.76	815021	2372339	1.1	P	VPC	0.97	0.39	0.00	0.39	4.7	
SCU-20-3"CAP-17	1-RA-08-SP-00E2-SCU20-17-3"-CAP	00E2	20-3"CAP	8/27/2008	12:37	814997.41	2372315.47	814996	2372314	2.0	P	VPC	0.91	0.38	0.00	0.38	4.6	
SCU-20-3"CAP-18	1-RA-08-SP-0E3N-SCU20-18-3"-CAP	0E3N	20-3"CAP	8/27/2008	12:30	814846.46	2372189.32	814846	2372189	0.6	P	VPC	0.51	0.30	0.00	0.30	3.6	
															Minimum	**0.30**	**3.6**	
															Average	**0.40**	**4.7**	
SCU-21-3"CAP-1	1-RA-08-SP-00E2-SCU21-1-3"-CAP	00E2	21-3"CAP	8/19/2008	12:15	814870.14	2372689.02	814871	2372689	0.9	P	VPC	0.97	0.42	0.00	0.42	5.0	
SCU-21-3"CAP-2	1-RA-08-SP-00E2-SCU21-2-3"-CAP	00E2	21-3"CAP	8/19/2008	12:21	814945.91	2372714.52	814946	2372714	0.5	P	VPC	0.85	0.41	0.00	0.41	4.9	
SCU-21-3"CAP-3	1-RA-08-SP-00E2-SCU21-3-3"-CAP	00E2	21-3"CAP	8/25/2008	12:07	814995.44	2372788.46	814996	2372789	0.8	P	VPC	0.95	0.30	0.00	0.30	3.6	
SCU-21-3"CAP-4	1-RA-08-SP-00E2-SCU21-4-3"-CAP	00E2	21-3"CAP	8/19/2008	12:32	814946.45	2372663.81	814946	2372664	0.5	P	VPC	0.84	0.38	0.00	0.38	4.6	
SCU-21-3"CAP-5	1-RA-08-SP-00E2-SCU21-5-3"-CAP	00E2	21-3"CAP	8/19/2008	12:39	814946.96	2372590.30	814946	2372589	1.6	P	VPC	0.95	0.41	0.00	0.41	4.9	
SCU-21-3"CAP-6	1-RA-08-SP-00E2-SCU21-6-3"-CAP	00E2	21-3"CAP	8/19/2008	12:49	814995.00	2372638.31	814996	2372639	1.2	P	VPC	0.94	0.43	0.00	0.43	5.2	
SCU-21-3"CAP-7	1-RA-08-SP-00E2-SCU21-7-3"-CAP	00E2	21-3"CAP	8/27/2008	13:53	815094.53	2372614.67	815095	2372614	0.8	P	VPC	1.03	0.45	0.00	0.45	5.4	
SCU-21-3"CAP-8	1-RA-08-SP-00E2-SCU21-8-3"-CAP	00E2	21-3"CAP	8/25/2008	12:03	815145.65	2372789.25	815146	2372790	0.8	P	VPC	0.93	0.43	0.00	0.43	5.2	
SCU-21-3"CAP-9	1-RA-08-SP-00E2-SCU21-9-3"-CAP	00E2	21-3"CAP	8/27/2008	13:59	815170.47	2372740.29	815171	2372739	1.4	P	VPC	0.92	0.42	0.00	0.42	5.0	
SCU-21-3"CAP-10	1-RA-08-SP-00E2-SCU21-10-3"-CAP	00E2	21-3"CAP	8/27/2008	14:02	815196.75	2372764.39	815196	2372765	1.0	P	VPC	0.87	0.25	0.00	0.25	3.0	
SCU-21-3"CAP-11	1-RA-08-SP-00E2-SCU21-11-3"-CAP	00E2	21-3"CAP	8/27/2008	14:07	815221.83	2372687.84	815221	2372689	1.4	P	VPC	0.77	0.39	0.00	0.39	4.7	
SCU-21-3"CAP-12	1-RA-08-SP-00E2-SCU21-12-3"-CAP	00E2	21-3"CAP	8/27/2008	14:11	815222.63	2372638.65	815221	2372640	2.1	P	VPC	0.91	0.39	0.00	0.39	4.7	
SCU-21-3"CAP-13	1-RA-08-SP-00E2-SCU21-13-3"-CAP	00E2	21-3"CAP	8/25/2008	11:58	815295.60	2372489.22	815296	2372489	0.5	P	VPC	0.73	0.27	0.00	0.27	3.2	
SCU-21-3"CAP-14	1-RA-08-SP-00E2-SCU21-14-3"-CAP	00E2	21-3"CAP	8/25/2008	11:54	815196.31	2372414.45	815196	2372414	0.5	P	VPC	0.80	0.50	0.00	0.50	6.0	
SCU-21-3"CAP-15	1-RA-08-SP-00E2-SCU21-15-3"-CAP	00E2	21-3"CAP	8/27/2008	13:45	815197.92	2372465.69	815196	2372464	2.6	P	VPC	0.55	0.24	0.00	0.24	2.9	
SCU-21-3"CAP-16	1-RA-08-SP-00E2-SCU21-16-3"-CAP	00E2	21-3"CAP	8/27/2008	13:39	815171.86	2372515.50	815171	2372515	1.0	P	VPC	0.79	0.40	0.00	0.40	4.8	
SCU-21-3"CAP-17	1-RA-08-SP-00E2-SCU21-17-3"-CAP	00E2	21-3"CAP	8/27/2008	13:34	815147.74	2372438.32	815146	2372439	1.9	P	VPC	0.59	0.25	0.00	0.25	3.0	
SCU-21-3"CAP-18	1-RA-08-SP-00E2-SCU21-18-3"-CAP	00E2	21-3"CAP	8/27/2008	13:21	815071.91	2372463.54	815071	2372465	1.7	P	VPC	0.90	0.39	0.00	0.39	4.7	
															Minimum	**0.24**	**2.9**	
															Average	**0.37**	**4.5**	
SCU-22-3"CAP-1	1-RA-08-SP-00E2-SCU22-1-3"-CAP	00E2	22-3"CAP	8/19/2008	12:10	814845.24	2372789.74	814846	2372789	1.1	P	VPC	0.85	0.38	0.00	0.38	4.6	
SCU-22-3"CAP-2	1-RA-08-SP-00E2-SCU22-2-3"-CAP	00E2	22-3"CAP	8/19/2008	12:05	814795.62	2372912.92	814796	2372914	1.1	P	VPC	1.05	0.31	0.00	0.31	3.7	
SCU-22-3"CAP-3	1-RA-08-SP-00E2-SCU22-3-3"-CAP	00E2	22-3"CAP	8/19/2008	12:00	814795.04	2372963.34	814796	2372964	1.2	P	VPC	0.99	0.41	0.00	0.41	4.9	
SCU-22-3"CAP-4	1-RA-08-SP-00E2-SCU22-4-3"-CAP	00E2	22-3"CAP	8/21/2008	13:17	814772.00	2373063.24	814771	2373064	1.3	P	VPC	1.13	0.50	0.00	0.50	6.0	
SCU-22-3"CAP-5	1-RA-08-SP-00E2-SCU22-5-3"-CAP	00E2	22-3"CAP	8/21/2008	13:21	814720.37	2373064.61	814720	2373064	0.7	P	VPC	0.99	0.40	0.00	0.40	4.8	
SCU-22-3"CAP-6	1-RA-08-SP-00E2-SCU22-6-3"-CAP	00E2	22-3"CAP	8/22/2008	10:27	814746.29	2373187.29	814746	2373189	1.7	P	VPC	0.85	0.37	0.00	0.37	4.4	
SCU-22-3"CAP-7	1-RA-08-SP-00E2-SCU22-7-3"-CAP	00E2	22-3"CAP	8/21/2008	13:09	814846.97	2373189.80	814846	2373189	1.3	P	VPC	1.10	0.34	0.00	0.34	4.1	
SCU-22-3"CAP-8	1-RA-08-SP-00E2-SCU22-8-3"-CAP	00E2	22-3"CAP	8/21/2008	13:05	814845.87	2373114.39	814846	2373114	0.4	P	VPC	1.11	0.49	0.00	0.49	5.9	
SCU-22-3"CAP-9	1-RA-08-SP-00E2-SCU22-9-3"-CAP	00E2	22-3"CAP	8/21/2008	13:01	814895.35	2373089.49	814896	2373089	0.8	P	VPC	0.92	0.39	0.00	0.39	4.7	
SCU-22-3"CAP-10	1-RA-08-SP-00E2-SCU22-10-3"-CAP	00E2	22-3"CAP	8/21/2008	12:57	814895.25	2373014.20	814896	2373014	0.8	P	VPC	1.01	0.45	0.00	0.45	5.4	
SCU-22-3"CAP-11	1-RA-08-SP-00E2-SCU22-11-3"-CAP	00E2	22-3"CAP	8/21/2008	12:53	814969.30	2373087.99	814970	2373089	1.2	P	VPC	0.88	0.40	0.00	0.40	4.8	
SCU-22-3"CAP-12	1-RA-08-SP-00E2-SCU22-12-3"-CAP	00E2	22-3"CAP	8/21/2008	12:48	815022.01	2373039.19	815021	2373039	1.0	P	VPC	0.96	0.46	0.00	0.46	5.5	
SCU-22-3"CAP-13	1-RA-08-SP-00E2-SCU22-13-3"-CAP	00E2	22-3"CAP	8/21/2008	12:41	814921.63	2372938.33	814921	2372939	0.9	P	VPC	0.93	0.36	0.00	0.36	4.3	
SCU-22-3"CAP-14	1-RA-08-SP-00E2-SCU22-14-3"-CAP	00E2	22-3"CAP	8/20/2008	14:31	814997.21	2372914.48	814996	2372914	1.3	P	VPC	0.88	0.38	0.00	0.38	4.6	
SCU-22-3"CAP-15	1-RA-08-SP-00E2-SCU22-15-3"-CAP	00E2	22-3"CAP	8/20/2008	14:26	815020.71	2372963.07	815021	2372964	1.0	P	VPC	0.79	0.30	0.00	0.30	3.6	
SCU-22-3"CAP-16	1-RA-08-SP-00E2-SCU22-16-3"-CAP	00E2	22-3"CAP	8/20/2008	14:22	815071.38	2372940.20	815071	2372939	1.3	P	VPC	1.05	0.35	0.00	0.35	4.2	
SCU-22-3"CAP-17	1-RA-08-SP-00E2-SCU22-17-3"-CAP	00E2	22-3"CAP	8/20/2008	14:18	815047.11	2372864.43	815046	2372864	1.2	P	VPC	0.82	0.40	0.00	0.40	4.8	
SCU-22-3"CAP-18	1-RA-08-SP-00E2-SCU22-18-3"-CAP	00E2	22-3"CAP	8/20/2008	14:13	814996.82	2372814.72	814996	2372814	1.1	P	VPC	0.67	0.47	0.00	0.47	5.6	
															Minimum	**0.30**	**3.6**	
															Average	**0.40**	**4.8**	

ID	Sample ID	Subarea	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
SCU-23-3"CAP-1	1-RA-08-SP-00E2-SCU23-1-3"-CAP	00E2	23-3"CAP	8/25/2008	12:15	815220.69	2372838.59	815221	2372839	0.5	P	VPC	1.05	0.40	0.00	0.40	4.8	
SCU-23-3"CAP-2	1-RA-08-SP-00E2-SCU23-2-3"-CAP	00E2	23-3"CAP	8/25/2008	12:19	815246.49	2372914.55	815246	2372914	0.7	P	VPC	0.80	0.31	0.00	0.31	3.7	
SCU-23-3"CAP-3	1-RA-08-SP-00E2-SCU23-3-3"-CAP	00E2	23-3"CAP	8/25/2008	12:28	815346.92	2372964.75	815346	2372964	1.2	P	VPC	0.94	0.40	0.00	0.40	4.8	
SCU-23-3"CAP-4	1-RA-08-SP-00E2-SCU23-4-3"-CAP	00E2	23-3"CAP	8/25/2008	12:24	815271.82	2372964.45	815271	2372964	0.9	P	VPC	0.89	0.43	0.00	0.43	5.2	
SCU-23-3"CAP-5	1-RA-08-SP-00E2-SCU23-5-3"-CAP	00E2	23-3"CAP	8/22/2008	12:20	815197.87	2372962.88	815196	2372964	2.2	P	VPC	1.07	0.57	0.00	0.57	6.8	
SCU-23-3"CAP-6	1-RA-08-SP-00E2-SCU23-6-3"-CAP	00E2	23-3"CAP	8/22/2008	12:13	815171.07	2372989.23	815171	2372989	0.2	P	VPC	0.91	0.41	0.00	0.41	4.9	
SCU-23-3"CAP-7	1-RA-08-SP-00E2-SCU23-7-3"-CAP	00E2	23-3"CAP	8/22/2008	12:32	815220.57	2373038.99	815221	2373039	0.4	P	VPC	1.01	0.40	0.00	0.40	4.8	
SCU-23-3"CAP-8	1-RA-08-SP-00E2-SCU23-8-3"-CAP	00E2	23-3"CAP	8/22/2008	12:08	815144.89	2373065.04	815145	2373064	1.0	P	VPC	0.95	0.28	0.00	0.28	3.4	
SCU-23-3"CAP-9	1-RA-08-SP-00E2-SCU23-9-3"-CAP	00E2	23-3"CAP	8/22/2008	10:44	815045.44	2373014.78	815046	2373014	1.0	P	VPC	0.80	0.31	0.00	0.31	3.7	
SCU-23-3"CAP-10	1-RA-08-SP-00E2-SCU23-10-3"-CAP	00E2	23-3"CAP	8/22/2008	10:36	815070.59	2373064.82	815071	2373064	0.9	P	VPC	0.97	0.50	0.00	0.50	6.0	
SCU-23-3"CAP-11	1-RA-08-SP-00E2-SCU23-11-3"-CAP	00E2	23-3"CAP	8/22/2008	12:03	815120.91	2373089.42	815120	2373089	1.0	P	VPC	0.81	0.35	0.00	0.35	4.2	
SCU-23-3"CAP-12	1-RA-08-SP-00E2-SCU23-12-3"-CAP	00E2	23-3"CAP	8/22/2008	11:55	815196.95	2373188.94	815196	2373189	1.0	P	VPC	0.98	0.45	0.00	0.45	5.4	
SCU-23-3"CAP-13	1-RA-08-SP-00E2-SCU23-13-3"-CAP	00E2	23-3"CAP	8/22/2008	10:54	815045.73	2373138.51	815045	2373139	0.9	P	VPC	0.95	0.43	0.00	0.43	5.2	
SCU-23-3"CAP-14	1-RA-08-SP-00E2-SCU23-14-3"-CAP	00E2	23-3"CAP	8/22/2008	11:51	815120.46	2373213.88	815120	2373214	0.5	P	VPC	0.91	0.35	0.00	0.35	4.2	
SCU-23-3"CAP-15	1-RA-08-SP-00E2-SCU23-15-3"-CAP	00E2	23-3"CAP	8/22/2008	11:00	815046.40	2373188.35	815045	2373189	1.5	P	VPC	1.23	0.57	0.00	0.57	6.8	
SCU-23-3"CAP-16	1-RA-08-SP-00E2-SCU23-16-3"-CAP	00E2	23-3"CAP	8/22/2008	11:08	815045.49	2373239.32	815045	2373239	0.6	P	VPC	0.96	0.47	0.00	0.47	5.6	
SCU-23-3"CAP-17	1-RA-08-SP-00E2-SCU23-17-3"-CAP	00E2	23-3"CAP	8/22/2008	11:44	815095.17	2373314.71	815096	2373314	1.1	P	VPC	0.98	0.40	0.00	0.40	4.8	
SCU-23-3"CAP-18	1-RA-08-SP-00E2-SCU23-18-3"-CAP	00E2	23-3"CAP	8/22/2008	11:21	814969.32	2373264.65	814970	2373264	0.9	P	VPC	0.70	0.46	0.00	0.46	5.5	
															Minimum	**0.28**	**3.4**	
															Average	**0.42**	**5.0**	
SCU-24-3"CAP-1	1-RA-08-SP-00E2-SCU24-1-3"-CAP	00E2	24-3"CAP	8/26/2008	11:12	815347.54	2372887.89	815346	2372889	1.9	P	VPC	0.85	0.39	0.00	0.39	4.7	
SCU-24-3"CAP-2	1-RA-08-SP-00E2-SCU24-2-3"-CAP	00E2	24-3"CAP	8/26/2008	11:19	815446.32	2372889.85	815446	2372889	0.9	P	VPC	0.94	0.28	0.00	0.28	3.4	
SCU-24-3"CAP-3	1-RA-08-SP-00E2-SCU24-3-3"-CAP	00E2	24-3"CAP	8/26/2008	10:55	815246.82	2372764.53	815246	2372764	1.0	P	VPC	0.74	0.39	0.00	0.39	4.7	
SCU-24-3"CAP-4	1-RA-08-SP-00E2-SCU24-4-3"-CAP	00E2	24-3"CAP	8/26/2008	11:05	815296.08	2372764.61	815296	2372764	0.6	P	VPC	0.87	0.26	0.16	0.38	4.6	
SCU-24-3"CAP-5	1-RA-08-SP-00E2-SCU24-5-3"-CAP	00E2	24-3"CAP	8/26/2008	11:24	815370.82	2372763.68	815371	2372764	0.4	P	VPC	0.95	0.37	0.00	0.37	4.4	
SCU-24-3"CAP-6	1-RA-08-SP-00E2-SCU24-6-3"-CAP	00E2	24-3"CAP	8/26/2008	11:31	815320.26	2372688.10	815321	2372689	1.2	P	VPC	0.98	0.39	0.00	0.39	4.7	
SCU-24-3"CAP-7	1-RA-08-SP-00E2-SCU24-7-3"-CAP	00E2	24-3"CAP	8/26/2008	11:34	815322.09	2372665.00	815321	2372664	1.5	P	VPC	0.94	0.41	0.00	0.41	4.9	
SCU-24-3"CAP-8	1-RA-08-SP-00E2-SCU24-8-3"-CAP	00E2	24-3"CAP	8/28/2008	11:07	815397.71	2372664.54	815396	2372664	1.8	P	VPC	0.82	0.43	0.00	0.43	5.2	
SCU-24-3"CAP-9	1-RA-08-SP-00E2-SCU24-9-3"-CAP	00E2	24-3"CAP	8/28/2008	11:13	815421.52	2372639.33	815421	2372639	0.6	P	VPC	0.70	0.34	0.00	0.34	4.1	
SCU-24-3"CAP-10	1-RA-08-SP-00E2-SCU24-10-3"-CAP	00E2	24-3"CAP	8/28/2008	11:22	815395.19	2372564.44	815396	2372564	0.9	P	VPC	0.71	0.37	0.00	0.37	4.4	
SCU-24-3"CAP-11	1-RA-08-SP-00E2-SCU24-11-3"-CAP	00E2	24-3"CAP	8/29/2008	11:57	815695.73	2372690.66	815696	2372690	0.7	P	VPC	0.60	0.41	0.00	0.41	4.9	
SCU-24-3"CAP-12	1-RA-08-SP-00E2-SCU24-12-3"-CAP	00E2	24-3"CAP	8/29/2008	12:35	815844.70	2372814.33	815846	2372815	1.5	P	VPC	0.98	0.35	0.00	0.35	4.2	
SCU-24-3"CAP-13	1-RA-08-SP-00E2-SCU24-13-3"-CAP	00E2	24-3"CAP	8/29/2008	12:02	815721.58	2372765.33	815721	2372764	1.5	P	VPC	0.84	0.37	0.00	0.37	4.4	
SCU-24-3"CAP-14	1-RA-08-SP-00E2-SCU24-14-3"-CAP	00E2	24-3"CAP	8/29/2008	12:30	815769.40	2372839.85	815771	2372840	1.6	P	VPC	1.03	0.44	0.00	0.44	5.3	
SCU-24-3"CAP-15	1-RA-08-SP-00E2-SCU24-15-3"-CAP	00E2	24-3"CAP	8/29/2008	12:23	815820.33	2372914.22	815821	2372914	0.7	P	VPC	0.98	0.43	0.00	0.43	5.2	
SCU-24-3"CAP-16	1-RA-08-SP-00E2-SCU24-16-3"-CAP	00E2	24-3"CAP	8/29/2008	12:06	815670.53	2372839.57	815671	2372840	0.6	P	VPC	1.12	0.26	0.00	0.26	3.1	
SCU-24-3"CAP-17	1-RA-08-SP-00E2-SCU24-17-3"-CAP	00E2	24-3"CAP	8/29/2008	12:11	815720.25	2372940.55	815721	2372940	0.9	P	VPC	0.93	0.31	0.00	0.31	3.7	
SCU-24-3"CAP-18	1-RA-08-SP-00E2-SCU24-18-3"-CAP	00E2	24-3"CAP	8/29/2008	12:17	815695.18	2372989.20	815696	2372989	0.8	P	VPC	0.82	0.40	0.00	0.40	4.8	
															Minimum	**0.26**	**3.1**	
															Average	**0.37**	**4.5**	
SCU-25-3"CAP-1	1-RA-08-SP-00E2-SCU25-1-3"-CAP	00E2	25-3"CAP	9/2/2008	12:11	815495.28	2372889.38	815495	2372889	0.5	P	VPC	0.92	0.43	0.12	0.52	6.2	
SCU-25-3"CAP-2	1-RA-08-SP-00E2-SCU25-2-3"-CAP	00E2	25-3"CAP	9/2/2008	11:29	815721.78	2373065.40	815721	2373065	0.9	P	VPC	0.96	0.50	0.00	0.50	6.0	
SCU-25-3"CAP-3	1-RA-08-SP-00E2-SCU25-3-3"-CAP	00E2	25-3"CAP	9/2/2008	12:05	815520.80	2372940.07	815520	2372940	0.8	P	VPC	0.85	0.50	0.00	0.50	6.0	
SCU-25-3"CAP-4	1-RA-08-SP-00E2-SCU25-4-3"-CAP	00E2	25-3"CAP	9/2/2008	11:50	815595.72	2373014.00	815595	2373015	1.2	P	VPC	0.91	0.46	0.00	0.46	5.5	
SCU-25-3"CAP-5	1-RA-08-SP-00E2-SCU25-5-3"-CAP	00E2	25-3"CAP	9/2/2008	11:59	815496.77	2372991.73	815496	2372990	1.9	P	VPC	0.74	0.44	0.00	0.44	5.3	
SCU-25-3"CAP-6	1-RA-08-SP-00E2-SCU25-6-3"-CAP	00E2	25-3"CAP	9/2/2008	11:36	815670.95	2373112.90	815670	2373114	1.5	P	VPC	0.88	0.49	0.00	0.49	5.9	
SCU-25-3"CAP-7	1-RA-08-SP-00E2-SCU25-7-3"-CAP	00E2	25-3"CAP	9/2/2008	11:46	815620.31	2373113.41	815620	2373114	0.7	P	VPC	0.83	0.44	0.00	0.44	5.3	
SCU-25-3"CAP-8	1-RA-08-SP-00E2-SCU25-8-3"-CAP	00E2	25-3"CAP	9/2/2008	11:40	815645.27	2373188.39	815645	2373189	0.7	P	VPC	0.92	0.38	0.00	0.38	4.6	
SCU-25-3"CAP-9	1-RA-08-SP-00E2-SCU25-9-3"-CAP	00E2	25-3"CAP	9/2/2008	11:55	815521.32	2373090.36	815521	2373090	0.5	P	VPC	0.97	0.40	0.00	0.40	4.8	
SCU-25-3"CAP-10	1-RA-08-SP-00E5-SCU25-10-3"-CAP	00E5	25-3"CAP	9/25/2008	12:58	818145.41	2374566.72	818145	2374566	0.8	P	VPC	1.13	0.43	0.00	0.43	5.2	
SCU-25-3"CAP-11	1-RA-08-SP-00E5-SCU25-11-3"-CAP	00E5	25-3"CAP	9/25/2008	12:50	818220.66	2374541.55	818220	2374541	0.9	P	VPC	1.16	0.45	0.00	0.45	5.4	
SCU-25-3"CAP-12	1-RA-08-SP-00E5-SCU25-12-3"-CAP	00E5	25-3"CAP	9/25/2008	13:03	818144.08	2374491.76	818145	2374491	1.2	P	VPC	1.16	0.37	0.00	0.37	4.4	
SCU-25-3"CAP-13	1-RA-08-SP-00E2-SCU25-13-3"-CAP	00E2	25-3"CAP	10/15/2008	12:48	815846.55	2372041.00	815846	2372040	1.1	P	VPC	0.88	0.50	0.00	0.50	6.0	
SCU-25-3"CAP-14	1-RA-08-SP-00E2-SCU25-14-3"-CAP	00E2	25-3"CAP	10/15/2008	12:52	815796.42	2372965.63	815796	2372965	0.8	P	VPC	0.98	0.43	0.00	0.43	5.2	
SCU-25-3"CAP-15	1-RA-08-SP-00E2-SCU25-15-3"-CAP	00E2	25-3"CAP	10/15/2008	12:45	815921.33	2372965.73	815921	2372965	0.8	P	VPC	1.00	0.35	0.00	0.35	4.2	
SCU-25-3"CAP-16	1-RA-08-SP-00E2-SCU25-16-3"-CAP	00E2	25-3"CAP	10/15/2008	12:40	815895.10	2372915.31	815896	2372915	1.0	P	VPC	1.00	0.28	0.00	0.28	3.4	
SCU-25-3"CAP-17	1-RA-08-SP-00E2-SCU25-17-3"-CAP	00E2	25-3"CAP	10/17/2008	14:07	815495.92	2373114.29	815496	2373114	0.3	P	VPC	0.76	0.48	0.00	0.48	5.8	
SCU-25-3"CAP-18	1-RA-08-SP-00E2-SCU25-18-3"-CAP	00E2	25-3"CAP	10/17/2008	14:18	815420.52	2373063.52	815421	2373064	0.7	P	VPC	0.98	0.31	0.00	0.31	3.7	
															Minimum	**0.37**	**3.4**	
															Average	**0.45**	**5.2**	
SCU-26-3"CAP-1	1-RA-08-SP-00E2-SCU26-1-3"-CAP	00E2	26-3"CAP	10/17/2008	14:49	815645.82	2373264.82	815646	2373264	0.8	P	VPC	1.03	0.36	0.00	0.36	4.3	
SCU-26-3"CAP-2	1-RA-08-SP-00E2-SCU26-2-3"-CAP	00E2	26-3"CAP	10/17/2008	14:31	815471.41	2373138.69	815471	2373139	0.5	P	VPC	0.92	0.46	0.00	0.46	5.5	
SCU-26-3"CAP-3	1-RA-08-SP-00E2-SCU26-3-3"-CAP	00E2	26-3"CAP	10/17/2008	14:35	815521.08	2373239.14	815521	2373239	0.2	P	VPC	1.00	0.29	0.00	0.29	3.5	
SCU-26-3"CAP-4	1-RA-08-SP-00E2-SCU26-4-3"-CAP	00E2	26-3"CAP	10/17/2008	14:27	815395.57	2373138.44	815396	2373139	0.7	P	VPC	1.05	0.39	0.00	0.39	4.7	
SCU-26-3"CAP-5	1-RA-08-SP-00E2-SCU26-5-3"-CAP	00E2	26-3"CAP	10/17/2008	14:43	815595.04	2373338.61	815595	2373339	0.4	P	VPC	1.12	0.32	0.00	0.32	3.8	
SCU-26-3"CAP-6	1-RA-08-SP-00E2-SCU26-6-3"-CAP	00E2	26-3"CAP	10/17/2008	14:39	815545.39	2373289.52	815546	2373289	0.8	P	VPC	1.09	0.33	0.00	0.33	4.0	
SCU-26-3"CAP-7	1-RA-08-SP-00E2-SCU26-7-3"-CAP	00E2	26-3"CAP	10/17/2008	14:23	815346.07	2373139.20	815346	2373139	0.2	P	VPC	1.05	0.31	0.00	0.31	3.7	
SCU-26-3"CAP-8	1-RA-08-SP-00E2-SCU26-8-3"-CAP	00E2	26-3"CAP	10/17/2008	15:02	815445.54	2373238.62	815446	2373239	0.6	P	VPC	1.09	0.36	0.00	0.36	4.3	
SCU-26-3"CAP-9	1-RA-08-SP-00E2-SCU26-9-3"-CAP	00E2	26-3"CAP	10/17/2008	14:58	815446.09	2373289.42	815446	2373289	0.4	P	VPC	1.13	0.35	0.00	0.35	4.2	
SCU-26-3"CAP-10	1-RA-08-SP-00E2-SCU26-10-3"-CAP	00E2	26-3"CAP	10/17/2008	15:08	815369.92	2373238.88	815371	2373239	1.1	P	VPC	1.16	0.35	0.00	0.35	4.2	
SCU-26-3"CAP-11	1-RA-08-SP-00E2-SCU26-11-3"-CAP	00E2	26-3"CAP	10/17/2008	14:54	815546.36	2373412.95	815545	2373414	1.7	P	VPC	1.10	0.38	0.11	0.46	5.6	
SCU-26-3"CAP-12	1-RA-08-SP-00E2-SCU26-12-3"-CAP	00E2	26-3"CAP	10/20/2008	13:22	815270.36	2373213.29	815271	2373214	1.0	P	VPC	1.06	0.35	0.00	0.35	4.2	
SCU-26-3"CAP-13	1-RA-08-SP-00E2-SCU26-13-3"-CAP	00E2	26-3"CAP	10/20/2008	13:46	815470.28	2373414.88	815470	2373414	0.9	P	VPC	0.94	0.53	0.00	0.53	6.4	
SCU-26-3"CAP-14	1-RA-08-SP-00E2-SCU26-14-3"-CAP	00E2	26-3"CAP	10/20/2008	13:26	815370.17	2373314.46	815370	2373314	0.5	P	VPC	1.11	0.53	0.00	0.53	6.4	
SCU-26-3"CAP-15	1-RA-08-SP-00E2-SCU26-15-3"-CAP	00E2	26-3"CAP	10/20/2008	13:50	815494.97	2373464.03	815495	2373464	0.0	P	VPC	0.80	0.49	0.00	0.49	5.9	
SCU-26-3"CAP-16	1-RA-08-SP-00E2-SCU26-16-3"-CAP	00E2	26-3"CAP	10/20/2008	13:34	815394.61	2373438.13	815395	2373439	1.0	P	VPC	1.00	0.53	0.00	0.53	6.4	
SCU-26-3"CAP-17	1-RA-08-SP-00E2-SCU26-17-3"-CAP	00E2	26-3"CAP	10/20/2008	13:30	815344.86	2373364.94	815345	2373364	1.0	P	VPC	1.15	0.37	0.00	0.37	4.4	
SCU-26-3"CAP-18	1-RA-08-SP-00E2-SCU26-18-3"-CAP	00E2	26-3"CAP	10/20/2008	13:16	815194.95	2373264.94	815196	2373264	1.4	P	VPC	1.14	0.80	0.00	0.80	9.6	
															Minimum	**0.29**	**3.5**	
															Average	**0.36**	**5.1**	

ID	Sample ID	Subarea	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)	Comments
SCU-27-3"CAP-1	1-RA-08-SP-00E2-SCU27-1-3"-CAP	00E2	27-3"CAP	10/21/2008	10:25	815445.09	2373539.13	815445	2373539	0.2	P	VPC	1.05	0.30	0.00	0.30	3.6	
SCU-27-3"CAP-2	1-RA-08-SP-00E2-SCU27-2-3"-CAP	00E2	27-3"CAP	10/21/2008	10:39	815371.39	2373465.25	815370	2373464	1.9	P	VPC	0.95	0.35	0.00	0.35	4.2	
SCU-27-3"CAP-3	1-RA-08-SP-00E2-SCU27-3-3"-CAP	00E2	27-3"CAP	10/21/2008	11:01	815169.70	2373288.59	815171	2373289	1.4	P	VPC	1.03	0.45	0.00	0.45	5.4	
SCU-27-3"CAP-4	1-RA-08-SP-00E2-SCU27-4-3"-CAP	00E2	27-3"CAP	10/21/2008	11:04	815220.16	2373363.65	815220	2373364	0.4	P	VPC	1.04	0.36	0.00	0.36	4.3	
SCU-27-3"CAP-5	1-RA-08-SP-00E2-SCU27-5-3"-CAP	00E2	27-3"CAP	10/21/2008	10:42	815295.13	2373439.56	815295	2373439	0.6	P	VPC	1.00	0.42	0.00	0.42	5.0	
SCU-27-3"CAP-6	1-RA-08-SP-00E2-SCU27-6-3"-CAP	00E2	27-3"CAP	10/21/2008	10:36	815420.09	2373539.07	815420	2373539	0.1	P	VPC	1.06	0.36	0.00	0.36	4.3	
SCU-27-3"CAP-7	1-RA-08-SP-00E2-SCU27-7-3"-CAP	00E2	27-3"CAP	10/21/2008	10:52	815194.67	2373412.90	815195	2373414	1.1	P	VPC	0.93	0.34	0.00	0.34	4.1	
SCU-27-3"CAP-8	1-RA-08-SP-00E2-SCU27-8-3"-CAP	00E2	27-3"CAP	10/21/2008	10:58	815119.74	2373340.17	815120	2373339	1.2	P	VPC	0.94	0.38	0.00	0.38	4.6	
SCU-27-3"CAP-9	1-RA-08-SP-00E2-SCU27-9-3"-CAP	00E2	27-3"CAP	10/21/2008	10:55	815119.63	2373390.04	815120	2373389	1.1	P	VPC	1.04	0.35	0.00	0.35	4.2	
SCU-27-3"CAP-10	1-RA-08-SP-00E2-SCU27-10-3"-CAP	00E2	27-3"CAP	10/21/2008	10:47	815221.09	2373464.36	815220	2373464	1.1	P	VPC	1.05	0.33	0.00	0.33	4.0	
SCU-27-3"CAP-11	1-RA-08-SP-00E2-SCU27-11-3"-CAP	00E2	27-3"CAP	10/21/2008	10:49	815170.10	2373464.60	815170	2373464	0.6	P	VPC	1.06	0.32	0.00	0.32	3.8	
															Minimum	**0.30**	**3.6**	
															Average	**0.36**	**4.3**	

P = Primary
RPB = Russian Peat Borer
SCU = Sand Certification Unit
SMU = Sand Management Unit
ST = Sediment Trap
VC = Vibra Core
VPC = Vacuum Push Core

Prepared by: ECB
Checked by: MCC2

Data from the *2008 RA Summary Report,* Appendix J, Table J-5

Table C-6

3-inch Sand Cover Placement Thickness Verification Results
GW Partners Lower Fox River - OU1

ID	Sample ID	Sub-area	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Sampling Device (RPB, ST, VC, VPC)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)
SCU-20-3"-1	1-RA-09-SP-00E2-SCU20-1-3"	00E2	20-3"	4/30/2009	11:09	816020.89	2374038.75	VPC	0.26	0.00	0.26	3.1
SCU-20-3"-2	1-RA-09-SP-00E2-SCU20-2-3"	00E2	20-3"	4/30/2009	11:12	816069.50	2374140.57	VPC	0.32	0.00	0.32	3.8
SCU-20-3"-3	1-RA-09-SP-00E2-SCU20-3-3"	00E2	20-3"	4/30/2009	11:00	816594.68	2374414.26	VPC	0.37	0.00	0.37	4.4
SCU-20-3"-4	1-RA-09-SP-00E2-SCU20-4-3"	00E2	20-3"	4/30/2009	11:02	816494.94	2374415.64	VPC	0.36	0.00	0.36	4.3
SCU-20-3"-5	1-RA-09-SP-00E2-SCU20-5-3"	00E2	20-3"	4/30/2009	11:04	816295.86	2374365.02	VPC	0.33	0.00	0.33	4.0
										Minimum	**0.26**	**3.1**
										Average	**0.33**	**3.9**
SCU-21-3"-1	1-RA-09-SP-00E2-SCU21-1-3"	00E2	21-3"	4/16/2009	10:14	816819.28	2374490.62	VPC	0.28	0.00	0.28	3.4
SCU-21-3"-2	1-RA-09-SP-00E2-SCU21-2-3"	00E2	21-3"	4/16/2009	10:10	817072.26	2374641.51	VPC	0.31	0.00	0.31	3.7
SCU-21-3"-3	1-RA-09-SP-00E2-SCU21-3-3"	00E2	21-3"	4/16/2009	10:16	816743.48	2374565.90	VPC	0.30	0.00	0.30	3.6
SCU-21-3"-4	1-RA-09-SP-00E2-SCU21-4-3"	00E2	21-3"	4/20/2009	12:39	817219.37	2374065.57	VPC	0.34	0.00	0.34	4.1
SCU-21-3"-5	1-RA-09-SP-00E2-SCU21-5-3"	00E2	21-3"	4/24/2009	08:52	816796.83	2373714.47	VPC	0.28	0.00	0.28	3.4
										Minimum	**0.28**	**3.4**
										Average	**0.30**	**3.6**

Notes:
ft = feet
in = inches
RPB = Russian Peat Borer
SCU = Sand Certification Unit
ST = Sediment Trap
VC = Vibra Core
VPC = Vacuum Push Core

Data from the *2009 RA Summary Report* , Appendix D, Table D-3

Prepared by: MCC2
Checked by: NRA

Table C-7
6-inch Sand Cover Placement Thickness Verification Results
GW Partners Lower Fox River - OU1

ID	Sample ID	Sub-area	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Sampling Device (RPB, ST, VC, VPC)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)
SCU-16-6"-1	1-RA-09-SP-00E2-SCU16-1-6"	00E2	16-6"	4/22/2009	09:46	817370.25	2374164.73	VPC	0.53	0.00	0.53	6.4
SCU-16-6"-2	1-RA-09-SP-00E2-SCU16-2-6"	00E2	16-6"	4/22/2009	09:38	817018.96	2373914.10	VPC	0.51	0.00	0.51	6.1
SCU-16-6"-3	1-RA-09-SP-00E2-SCU16-3-6"	00E2	16-6"	4/24/2009	08:55	816694.41	2373539.46	VPC	0.52	0.00	0.52	6.2
SCU-16-6"-4	1-RA-09-SP-00E2-SCU16-4-6"	00E2	16-6"	4/29/2009	11:33	816243.89	2374190.81	VPC	0.55	0.00	0.55	6.6
SCU-16-6"-5	1-RA-09-SP-00E2-SCU16-5-6"	00E2	16-6"	4/29/2009	11:36	816370.99	2374314.97	VPC	0.56	0.00	0.56	6.7
										Minimum	**0.51**	**6.1**
										Average	**0.53**	**6.4**

Notes:
ft = feet
in = inches
RPB = Russian Peat Borer
SCU = Sand Certification Unit
ST = Sediment Trap
VC = Vibra Core
VPC = Vacuum Push Core

Data from the *2009 RA Summary Report,* Appendix D, Table D-4

Prepared by: MCC2
Checked by: NRA

Table C-8
3-inch Sand Layer of Cap Placement Thickness Verification Results
GW Partners Lower Fox River - OU1

ID	Sample ID	Sub-area	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)
SCU-28-3"CAP-1	1-RA-09-SP-00E2-SCU28-1-3"-CAP	00E2	28-3"CAP	4/14/2009	11:24	817245.32	2374464.68	817245	2374465	0.5	P	VPC	0.58	0.44	0.00	0.44	5.3
SCU-28-3"CAP-2	1-RA-09-SP-00E2-SCU28-2-3"-CAP	00E2	28-3"CAP	4/14/2009	11:17	817120.78	2374388.93	817120	2374390	1.3	P	VPC	0.65	0.39	0.00	0.39	4.7
SCU-28-3"CAP-3	1-RA-09-SP-00E2-SCU28-3-3"-CAP	00E2	28-3"CAP	4/14/2009	11:07	816969.38	2374315.81	816970	2374315	1.0	P	VPC	0.93	0.39	0.00	0.39	4.7
SCU-28-3"CAP-4	1-RA-09-SP-00E2-SCU28-4-3"-CAP	00E2	28-3"CAP	4/14/2009	10:55	816844.48	2374264.85	816845	2374265	0.5	P	VPC	0.85	0.38	0.00	0.38	4.6
SCU-28-3"CAP-5	1-RA-09-SP-00E2-SCU28-5-3"-CAP	00E2	28-3"CAP	4/16/2009	10:21	816869.79	2374240.68	816870	2374240	0.7	P	VPC	0.88	0.34	0.00	0.34	4.1
SCU-28-3"CAP-6	1-RA-09-SP-00E2-SCU28-6-3"-CAP	00E2	28-3"CAP	4/16/2009	10:34	816969.46	2374291.01	816970	2374290	1.1	P	VPC	0.98	0.35	0.00	0.35	4.2
SCU-28-3"CAP-7	1-RA-09-SP-00E2-SCU28-7-3"-CAP	00E2	28-3"CAP	4/16/2009	10:50	817070.81	2374340.11	817070	2374340	0.8	P	VPC	1.11	0.29	0.00	0.29	3.5
SCU-28-3"CAP-8	1-RA-09-SP-00E2-SCU28-8-3"-CAP	00E2	28-3"CAP	4/16/2009	10:58	817269.76	2374415.61	817270	2374415	0.7	P	VPC	1.20	0.30	0.00	0.30	3.6
SCU-28-3"CAP-9	1-RA-09-SP-00E5-SCU28-9-3"-CAP	00E5	28-3"CAP	4/16/2009	11:09	817345.85	2374415.01	817345	2374415	0.9	P	VPC	1.08	0.32	0.00	0.32	3.8
SCU-28-3"CAP-10	1-RA-09-SP-00E2-SCU28-10-3"-CAP	00E2	28-3"CAP	4/17/2009	11:27	817144.69	2374315.09	817145	2374315	0.3	P	VPC	1.11	0.31	0.00	0.31	3.7
SCU-28-3"CAP-11	1-RA-09-SP-00E2-SCU28-11-3"-CAP	00E2	28-3"CAP	4/16/2009	10:43	817020.15	2374290.76	817020	2374290	0.8	P	VPC	1.11	0.28	0.00	0.28	3.4
SCU-28-3"CAP-12	1-RA-09-SP-00E2-SCU28-12-3"-CAP	00E2	28-3"CAP	4/16/2009	10:26	816870.47	2374190.48	816870	2374190	0.7	P	VPC	0.93	0.24	0.00	0.24	2.9
SCU-28-3"CAP-13	1-RA-09-SP-00E2-SCU28-13-3"-CAP	00E2	28-3"CAP	4/17/2009	10:33	816745.71	2374115.67	816745	2374115	1.0	P	VPC	1.28	0.30	0.00	0.30	3.6
SCU-28-3"CAP-14	1-RA-09-SP-00E2-SCU28-14-3"-CAP	00E2	28-3"CAP	4/17/2009	11:46	817045.34	2374240.11	817045	2374240	0.4	P	VPC	1.06	0.49	0.00	0.49	5.9
SCU-28-3"CAP-15	1-RA-09-SP-00E2-SCU28-15-3"-CAP	00E2	28-3"CAP	4/17/2009	11:35	817094.13	2374265.48	817095	2374265	1.0	P	VPC	0.85	0.30	0.00	0.30	3.6
SCU-28-3"CAP-16	1-RA-09-SP-00E5-SCU28-16-3"-CAP	00E5	28-3"CAP	4/17/2009	11:01	817395.61	2374415.67	817395	2374415	0.9	P	VPC	1.13	0.28	0.00	0.28	3.4
SCU-28-3"CAP-17	1-RA-09-SP-00E5-SCU28-17-3"-CAP	00E5	28-3"CAP	4/17/2009	10:56	817470.31	2374415.37	817470	2374415	0.5	P	VPC	1.45	0.38	0.00	0.38	4.6
SCU-28-3"CAP-18	1-RA-09-SP-00E5-SCU28-18-3"-CAP	00E5	28-3"CAP	4/17/2009	11:06	817345.60	2374340.46	817345	2374340	0.8	p	VPC	0.90	0.25	0.22	0.31	3.7
															Minimum	**0.24**	**2.9**
															Average	**0.34**	**4.1**
SCU-29-3"CAP-1	1-RA-09-SP-00E2-SCU29-1-3"-CAP	00E2	29-3"CAP	4/17/2009	12:03	816769.67	2374065.83	816770	2374065	0.9	P	VPC	1.21	0.35	0.00	0.35	4.2
SCU-29-3"CAP-2	1-RA-09-SP-00E2-SCU29-2-3"-CAP	00E2	29-3"CAP	4/17/2009	11:57	817095.29	2374216.26	817095	2374215	1.3	P	VPC	1.20	0.35	0.00	0.35	4.2
SCU-29-3"CAP-3	1-RA-09-SP-00E2-SCU29-3-3"-CAP	00E2	29-3"CAP	4/17/2009	12:37	817196.22	2374266.62	817195	2374265	2.0	P	VPC	1.20	0.28	0.00	0.28	3.4
SCU-29-3"CAP-4	1-RA-09-SP-00E5-SCU29-4-3"-CAP	00E5	29-3"CAP	4/17/2009	12:57	817444.38	2374341.62	817445	2374341	0.9	P	VPC	1.12	0.37	0.00	0.37	4.4
SCU-29-3"CAP-5	1-RA-09-SP-00E2-SCU29-5-3"-CAP	00E2	29-3"CAP	4/17/2009	13:03	817270.88	2374290.49	817270	2374290	1.0	P	VPC	1.29	0.35	0.00	0.35	4.2
SCU-29-3"CAP-6	1-RA-09-SP-00E2-SCU29-6-3"-CAP	00E2	29-3"CAP	4/17/2009	11:52	817069.60	2374190.65	817070	2374190	0.8	P	VPC	1.25	0.36	0.00	0.36	4.3
SCU-29-3"CAP-7	1-RA-09-SP-00E2-SCU29-7-3"-CAP	00E2	29-3"CAP	4/17/2009	12:14	816894.72	2374116.14	816895	2374115	1.2	P	VPC	1.12	0.29	0.20	0.44	5.3
SCU-29-3"CAP-8	1-RA-09-SP-00E2-SCU29-8-3"-CAP	00E2	29-3"CAP	4/20/2009	11:21	816769.45	2373989.68	816770	2373990	0.6	P	VPC	0.94	0.39	0.00	0.39	4.7
SCU-29-3"CAP-9	1-RA-09-SP-00E2-SCU29-9-3"-CAP	00E2	29-3"CAP	4/17/2009	12:21	816944.91	2374090.64	816945	2374090	0.6	P	VPC	0.85	0.4	0.00	0.40	4.8
SCU-29-3"CAP-10	1-RA-09-SP-00E2-SCU29-10-3"-CAP	00E2	29-3"CAP	4/20/2009	11:39	817244.01	2374214.44	817245	2374215	1.1	P	VPC	1.00	0.39	0.00	0.39	4.7
SCU-29-3"CAP-11	1-RA-09-SP-00E5-SCU29-11-3"-CAP	00E5	29-3"CAP	4/20/2009	11:51	817493.92	2374338.74	817495	2374340	1.7	P	VPC	1.18	0.35	0.00	0.35	4.2
SCU-29-3"CAP-12	1-RA-09-SP-00E2-SCU29-12-3"-CAP	00E2	29-3"CAP	4/20/2009	11:45	817343.92	2374238.99	817345	2374240	1.5	P	VPC	1.01	0.31	0.00	0.31	3.7
SCU-29-3"CAP-13	1-RA-09-SP-00E2-SCU29-13-3"-CAP	00E2	29-3"CAP	4/17/2009	12:31	817169.06	2374138.41	817170	2374140	1.8	P	VPC	0.90	0.31	0.00	0.31	3.7
SCU-29-3"CAP-14	1-RA-09-SP-00E2-SCU29-14-3"-CAP	00E2	29-3"CAP	4/17/2009	12:25	816995.34	2374065.77	816995	2374065	0.8	P	VPC	1.11	0.31	0.16	0.43	5.2
SCU-29-3"CAP-15	1-RA-09-SP-00E2-SCU29-15-3"-CAP	00E2	29-3"CAP	4/17/2009	12:09	816894.36	2374040.64	816895	2374040	0.9	P	VPC	1.08	0.32	0.00	0.32	3.8
SCU-29-3"CAP-16	1-RA-09-SP-00E2-SCU29-16-3"-CAP	00E2	29-3"CAP	4/20/2009	11:16	816844.54	2373965.21	816845	2373965	0.5	P	VPC	0.73	0.36	0.00	0.36	4.3
SCU-29-3"CAP-17	1-RA-09-SP-00E2-SCU29-17-3"-CAP	00E2	29-3"CAP	4/20/2009	11:30	817068.00	2374066.22	817070	2374065	2.3	P	VPC	1.14	0.32	0.00	0.32	3.8
SCU-29-3"CAP-18	1-RA-09-SP-00E2-SCU29-18-3"-CAP	00E2	29-3"CAP	4/20/2009	11:35	817244.11	2374141.02	817245	2374141	0.9	P	VPC	0.99	0.35	0.00	0.35	4.2
															Minimum	**0.28**	**3.4**
															Average	**0.36**	**4.3**
SCU-30-3"CAP-1	1-RA-09-SP-00E2-SCU30-1-3"-CAP	00E2	30-3"CAP	4/15/2009	10:32	816719.49	2374239.60	816720	2374240	0.6	P	VPC	0.64	0.39	0.00	0.39	4.7
SCU-30-3"CAP-2	1-RA-09-SP-00E2-SCU30-2-3"-CAP	00E2	30-3"CAP	4/15/2009	10:42	816795.68	2374290.35	816795	2374290	0.8	P	VPC	0.94	0.30	0.00	0.30	3.6
SCU-30-3"CAP-3	1-RA-09-SP-00E2-SCU30-3-3"-CAP	00E2	30-3"CAP	4/14/2009	11:57	817069.42	2374415.75	817070	2374415	0.9	P	VPC	0.82	0.45	0.00	0.45	5.4
SCU-30-3"CAP-4	1-RA-09-SP-00E2-SCU30-4-3"-CAP	00E2	30-3"CAP	4/14/2009	11:49	817169.31	2374465.07	817170	2374465	0.7	P	VPC	1.26	0.34	0.00	0.34	4.1
SCU-30-3"CAP-5	1-RA-09-SP-00E5-SCU30-5-3"-CAP	00E5	30-3"CAP	4/14/2009	11:30	817245.02	2374538.40	817245	2374540	1.6	P	VPC	1.14	0.33	0.00	0.33	4.0
SCU-30-3"CAP-6	1-RA-09-SP-00E2-SCU30-6-3"-CAP	00E2	30-3"CAP	4/15/2009	11:18	817144.46	2374489.70	817145	2374490	0.6	P	VPC	1.03	0.35	0.00	0.35	4.2
SCU-30-3"CAP-7	1-RA-09-SP-00E2-SCU30-7-3"-CAP	00E2	30-3"CAP	4/14/2009	12:03	816944.08	2374389.56	816945	2374390	1.0	P	VPC	0.84	0.27	0.00	0.27	3.2
SCU-30-3"CAP-8	1-RA-09-SP-00E2-SCU30-8-3"-CAP	00E2	30-3"CAP	4/15/2009	10:37	816768.15	2374315.32	816770	2374315	1.9	P	VPC	0.62	0.34	0.00	0.34	4.1
SCU-30-3"CAP-9	1-RA-09-SP-00E2-SCU30-9-3"-CAP	00E2	30-3"CAP	4/15/2009	10:46	816794.26	2374365.67	816795	2374365	1.0	P	VPC	0.78	0.45	0.00	0.45	5.4
SCU-30-3"CAP-10	1-RA-09-SP-00E2-SCU30-10-3"-CAP	00E2	30-3"CAP	4/15/2009	10:56	816895.15	2374414.18	816895	2374415	0.8	P	VPC	0.93	0.31	0.00	0.31	3.7
SCU-30-3"CAP-11	1-RA-09-SP-00E2-SCU30-11-3"-CAP	00E2	30-3"CAP	4/15/2009	11:13	817119.03	2374513.87	817120	2374515	1.5	P	VPC	1.14	0.39	0.00	0.39	4.7
SCU-30-3"CAP-12	1-RA-09-SP-00E5-SCU30-12-3"-CAP	00E5	30-3"CAP	4/15/2009	11:26	817244.49	2374614.50	817245	2374615	0.7	P	VPC	1.04	0.44	0.00	0.44	5.3
SCU-30-3"CAP-13	1-RA-09-SP-00E2-SCU30-13-3"-CAP	00E2	30-3"CAP	4/15/2009	11:06	817094.29	2374539.42	817095	2374540	0.9	P	VPC	0.97	0.40	0.00	0.40	4.8
SCU-30-3"CAP-14	1-RA-09-SP-00E2-SCU30-14-3"-CAP	00E2	30-3"CAP	4/15/2009	11:00	816918.58	2374464.94	816920	2374465	1.4	P	VPC	0.96	0.26	0.00	0.26	3.1
SCU-30-3"CAP-15	1-RA-09-SP-00E2-SCU30-15-3"-CAP	00E2	30-3"CAP	4/15/2009	10:50	816695.31	2374339.72	816695	2374340	0.4	P	VPC	0.97	0.31	0.00	0.31	3.7
SCU-30-3"CAP-16	1-RA-09-SP-00E2-SCU30-16-3"-CAP	00E2	30-3"CAP	4/20/2009	12:51	816843.97	2373916.22	816845	2373915	1.6	P	VPC	1.22	0.45	0.00	0.45	5.4
SCU-30-3"CAP-17	1-RA-09-SP-00E2-SCU30-17-3"-CAP	00E2	30-3"CAP	4/20/2009	12:45	816918.88	2373940.49	816920	2373940	1.2	P	VPC	1.20	0.56	0.00	0.56	6.7
SCU-30-3"CAP-18	1-RA-09-SP-00E2-SCU30-18-3"-CAP	00E2	30-3"CAP	4/22/2009	9:31	816894.00	2373865.14	816895	2373865	1.0	P	VPC	0.69	0.45	0.00	0.45	5.4
															Minimum	**0.26**	**3.1**
															Average	**0.38**	**4.5**
SCU-31-3"CAP-1	1-RA-09-SP-00E2-SCU31-1-3"-CAP	00E2	31-3"CAP	4/16/2009	10:05	817170.98	2374614.22	817170	2374615	1.3	P	VPC	1.19	0.34	0.00	0.34	4.1
SCU-31-3"CAP-2	1-RA-09-SP-00E2-SCU31-2-3"-CAP	00E2	31-3"CAP	4/16/2009	9:57	816744.55	2374414.65	816745	2374415	0.6	P	VPC	1.11	0.30	0.00	0.30	3.6
SCU-31-3"CAP-3	1-RA-09-SP-00E2-SCU31-3-3"-CAP	00E2	31-3"CAP	4/16/2009	10:00	816920.40	2374540.40	816920	2374540	0.6	P	VPC	0.53	0.32	0.00	0.32	3.8
SCU-31-3"CAP-4	1-RA-09-SP-00E2-SCU31-4-3"-CAP	00E2	31-3"CAP	4/22/2009	12:43	816670.56	2374116.24	816670	2374115	1.4	P	VPC	0.92	0.39	0.00	0.39	4.7
SCU-31-3"CAP-5	1-RA-09-SP-00E2-SCU31-5-3"-CAP	00E2	31-3"CAP	4/22/2009	13:09	816520.72	2374041.07	816520	2374040	1.3	P	VPC	0.69	0.25	0.00	0.25	3.0
SCU-31-3"CAP-6	1-RA-09-SP-00E2-SCU31-6-3"-CAP	00E2	31-3"CAP	4/22/2009	13:34	816194.48	2373890.82	816195	2373890	1.0	P	VPC	1.14	0.31	0.00	0.31	3.7
SCU-31-3"CAP-7	1-RA-09-SP-00E2-SCU31-7-3"-CAP	00E2	31-3"CAP	4/22/2009	13:29	816294.79	2373891.69	816295	2373891	0.7	P	VPC	1.14	0.36	0.00	0.36	4.3
SCU-31-3"CAP-8	1-RA-09-SP-00E2-SCU31-8-3"-CAP	00E2	31-3"CAP	4/22/2009	13:13	816444.87	2373965.81	816445	2373965	0.8	P	VPC	0.66	0.09	0.00	0.09	1.1
SCU-31-3"CAP-9	1-RA-09-SP-00E2-SCU31-9-3"-CAP	00E2	31-3"CAP	4/22/2009	12:53	816644.20	2374065.77	816645	2374065	1.1	P	VPC	0.88	0.32	0.00	0.32	3.8
SCU-31-3"CAP-10	1-RA-09-SP-00E2-SCU31-10-3"-CAP	00E2	31-3"CAP	4/22/2009	12:48	816694.38	2374040.57	816695	2374040	0.8	P	VPC	0.92	0.36	0.00	0.36	4.3
SCU-31-3"CAP-11	1-RA-09-SP-00E2-SCU31-11-3"-CAP	00E2	31-3"CAP	4/22/2009	13:05	816545.37	2373966.03	816545	2373965	1.1	P	VPC	1.10	0.41	0.00	0.41	4.9
SCU-31-3"CAP-12	1-RA-09-SP-00E2-SCU31-12-3"-CAP	00E2	31-3"CAP	4/22/2009	13:39	816194.48	2373815.73	816195	2373815	0.9	P	VPC	1.18	0.33	0.00	0.33	4.0
SCU-31-3"CAP-13	1-RA-09-SP-00E2-SCU31-13-3"-CAP	00E2	31-3"CAP	4/22/2009	13:43	816269.36	2373815.70	816270	2373815	0.9	P	VPC	1.13	0.32	0.00	0.32	3.8
SCU-31-3"CAP-14	1-RA-09-SP-00E2-SCU31-14-3"-CAP	00E2	31-3"CAP	4/22/2009	13:24	816394.66	2373866.23	816395	2373865	1.3	P	VPC	0.88	0.28	0.00	0.28	3.4
SCU-31-3"CAP-15	1-RA-09-SP-00E2-SCU31-15-3"-CAP	00E2	31-3"CAP	4/22/2009	13:02	816594.03	2373966.14	816595	2373965	1.5	P	VPC	0.80	0.32	0.00	0.32	3.8
SCU-31-3"CAP-16	1-RA-09-SP-00E2-SCU31-16-3"-CAP	00E2	31-3"CAP	4/22/2009	12:57	816694.26	2373965.50	816695	2373965	0.9	P	VPC	0.93	0.28	0.00	0.28	3.4
SCU-31-3"CAP-17	1-RA-09-SP-00E2-SCU31-17-3"-CAP	00E2	31-3"CAP	4/22/2009	13:20	816469.40	2373865.63	816470	2373865	0.9	P	VPC	0.81	0.28	0.00	0.28	3.4
SCU-31-3"CAP-18	1-RA-09-SP-00E2-SCU31-18-3"-CAP	00E2	31-3"CAP	4/22/2009	13:47	816219.27	2373739.76	816220	2373740	0.8	P	VPC	1.18	0.27	0.00	0.27	3.2
															Minimum	**0.09**	**1.1**
															Average	**0.31**	**3.7**

Table C-8
3-inch Sand Layer of Cap Placement Thickness Verification Results
GW Partners Lower Fox River - OU1

ID	Sample ID	Sub-area	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)
SCU-32-3"CAP-1	1-RA-09-SP-00E2-SCU32-1-3"-CAP	00E2	32-3"CAP	4/24/2009	9:25	816321.41	2373765.53	816320	2373765	1.5	P	VPC	1.25	0.46	0.00	0.46	5.5
SCU-32-3"CAP-2	1-RA-09-SP-00E2-SCU32-2-3"-CAP	00E2	32-3"CAP	4/24/2009	9:14	816544.53	2373865.17	816545	2373865	0.5	P	VPC	1.16	0.39	0.00	0.39	4.7
SCU-32-3"CAP-3	1-RA-09-SP-00E2-SCU32-3-3"-CAP	00E2	32-3"CAP	4/23/2009	12:10	816720.52	2373939.50	816720	2373940	0.7	P	VPC	1.20	0.44	0.00	0.44	5.3
SCU-32-3"CAP-4	1-RA-09-SP-00E2-SCU32-4-3"-CAP	00E2	32-3"CAP	4/23/2009	13:25	816620.79	2373863.20	816620	2373864	1.1	P	VPC	1.24	0.49	0.00	0.49	5.9
SCU-32-3"CAP-5	1-RA-09-SP-00E2-SCU32-5-3"-CAP	00E2	32-3"CAP	4/24/2009	9:07	816445.62	2373790.46	816445	2373790	0.8	P	VPC	1.24	0.38	0.00	0.38	4.6
SCU-32-3"CAP-6	1-RA-09-SP-00E2-SCU32-6-3"-CAP	00E2	32-3"CAP	4/24/2009	9:31	816269.98	2373690.48	816270	2373690	0.5	P	VPC	1.22	0.39	0.00	0.39	4.7
SCU-32-3"CAP-7	1-RA-09-SP-00E2-SCU32-7-3"-CAP	00E2	32-3"CAP	4/24/2009	9:36	816294.35	2373665.38	816295	2373665	0.8	P	VPC	1.13	0.55	0.00	0.55	6.6
SCU-32-3"CAP-8	1-RA-09-SP-00E2-SCU32-8-3"-CAP	00E2	32-3"CAP	4/24/2009	9:02	816545.54	2373790.68	816545	2373790	0.9	P	VPC	0.52	0.38	0.00	0.38	4.6
SCU-32-3"CAP-9	1-RA-09-SP-00E2-SCU32-9-3"-CAP	00E2	32-3"CAP	4/23/2009	12:18	816744.98	2373889.10	816745	2373890	0.9	P	VPC	1.16	0.32	0.00	0.32	3.8
SCU-32-3"CAP-10	1-RA-09-SP-00E2-SCU32-10-3"-CAP	00E2	32-3"CAP	4/23/2009	12:22	816719.55	2373840.17	816720	2373840	0.5	P	VPC	1.15	0.34	0.00	0.34	4.1
SCU-32-3"CAP-11	1-RA-09-SP-00E2-SCU32-11-3"-CAP	00E2	32-3"CAP	4/23/2009	13:19	816520.61	2373715.53	816520	2373715	0.8	P	VPC	0.90	0.50	0.00	0.50	6.0
SCU-32-3"CAP-12	1-RA-09-SP-00E2-SCU32-12-3"-CAP	00E2	32-3"CAP	4/24/2009	9:21	816395.04	2373690.33	816395	2373690	0.3	P	VPC	1.29	0.51	0.00	0.51	6.1
SCU-32-3"CAP-13	1-RA-09-SP-00E2-SCU32-13-3"-CAP	00E2	32-3"CAP	4/23/2009	13:14	816495.77	2373689.94	816495	2373690	0.8	P	VPC	1.21	0.39	0.00	0.39	4.7
SCU-32-3"CAP-14	1-RA-09-SP-00E2-SCU32-14-3"-CAP	00E2	32-3"CAP	4/23/2009	12:34	816596.03	2373740.33	816595	2373740	1.1	P	VPC	1.33	0.39	0.00	0.39	4.7
SCU-32-3"CAP-15	1-RA-09-SP-00E2-SCU32-15-3"-CAP	00E2	32-3"CAP	4/23/2009	13:05	816521.64	2373665.52	816521	2373665	0.8	P	VPC	1.29	0.40	0.00	0.40	4.8
SCU-32-3"CAP-16	1-RA-09-SP-00E2-SCU32-16-3"-CAP	00E2	32-3"CAP	4/23/2009	12:52	816421.36	2373614.51	816420	2373615	1.4	P	VPC	1.40	0.43	0.00	0.43	5.2
SCU-32-3"CAP-17	1-RA-09-SP-00E2-SCU32-17-3"-CAP	00E2	32-3"CAP	4/23/2009	12:41	816444.70	2373564.75	816445	2373565	0.4	P	VPC	1.29	0.43	0.00	0.43	5.2
SCU-32-3"CAP-18	1-RA-09-SP-00E2-SCU32-18-3"-CAP	00E2	32-3"CAP	4/23/2009	12:27	816695.68	2373690.79	816695	2373690	1.0	P	VPC	1.28	0.33	0.00	0.33	4.0
															Minimum	**0.32**	**3.8**
															Average	**0.42**	**5.0**
SCU-33-3"CAP-1	1-RA-09-SP-00E2-SCU33-1-3"-CAP	00E2	33-3"CAP	4/24/2009	9:41	816419.80	2373540.41	816420	2373540	0.5	P	VPC	1.35	0.39	0.00	0.39	4.7
SCU-33-3"CAP-2	1-RA-09-SP-00E2-SCU33-2-3"-CAP	00E2	33-3"CAP	4/24/2009	9:57	816570.58	2373589.55	816570	2373590	0.7	P	VPC	1.28	0.48	0.00	0.48	5.8
SCU-33-3"CAP-3	1-RA-09-SP-00E2-SCU33-3-3"-CAP	00E2	33-3"CAP	4/24/2009	9:54	816570.69	2373565.40	816570	2373565	0.8	P	VPC	1.23	0.55	0.00	0.55	6.6
SCU-33-3"CAP-4	1-RA-09-SP-00E2-SCU33-4-3"-CAP	00E2	33-3"CAP	4/24/2009	9:50	816520.98	2373514.42	816520	2373515	1.1	P	VPC	1.13	0.39	0.00	0.39	4.7
SCU-33-3"CAP-5	1-RA-09-SP-00E2-SCU33-5-3"-CAP	00E2	33-3"CAP	4/24/2009	9:46	816519.51	2373414.06	816520	2373415	1.1	P	VPC	1.05	0.42	0.00	0.42	5.0
SCU-33-3"CAP-6	1-RA-09-SP-00E2-SCU33-6-3"-CAP	00E2	33-3"CAP	4/24/2009	10:02	816145.44	2373889.55	816145	2373890	0.6	P	VPC	1.18	0.52	0.00	0.52	6.2
SCU-33-3"CAP-7	1-RA-09-SP-00E2-SCU33-7-3"-CAP	00E2	33-3"CAP	4/27/2009	12:07	816295.51	2373990.68	816295	2373990	0.9	P	VPC	0.82	0.53	0.00	0.53	6.4
SCU-33-3"CAP-8	1-RA-09-SP-00E2-SCU33-8-3"-CAP	00E2	33-3"CAP	4/24/2009	10:13	816621.67	2374141.17	816620	2374140	2.0	P	VPC	0.90	0.30	0.00	0.30	3.6
SCU-33-3"CAP-9	1-RA-09-SP-00E2-SCU33-9-3"-CAP	00E2	33-3"CAP	4/27/2009	11:42	816595.61	2374140.91	816595	2374140	1.1	P	VPC	0.64	0.50	0.00	0.50	6.0
SCU-33-3"CAP-10	1-RA-09-SP-00E2-SCU33-10-3"-CAP	00E2	33-3"CAP	4/27/2009	11:54	816394.22	2374065.76	816395	2374065	1.1	P	VPC	1.17	0.44	0.00	0.44	5.3
SCU-33-3"CAP-11	1-RA-09-SP-00E2-SCU33-11-3"-CAP	00E2	33-3"CAP	4/27/2009	12:19	816169.02	2373966.03	816170.00	2373965	1.4	P	VPC	1.13	0.45	0.00	0.45	5.4
SCU-33-3"CAP-12	1-RA-09-SP-00E2-SCU33-12-3"-CAP	00E2	33-3"CAP	4/24/2009	10:07	816070.54	2373914.39	816070	2373914	0.7	P	VPC	1.65	0.33	0.19	0.47	5.7
SCU-33-3"CAP-13	1-RA-09-SP-00E2-SCU33-13-3"-CAP	00E2	33-3"CAP	4/27/2009	12:15	816144.47	2373965.37	816145	2373965	0.6	P	VPC	1.33	0.70	0.00	0.70	8.4
SCU-33-3"CAP-14	1-RA-09-SP-00E2-SCU33-14-3"-CAP	00E2	33-3"CAP	4/27/2009	12:03	816244.88	2374015.57	816245	2374015	0.6	P	VPC	1.22	0.53	0.00	0.53	6.4
SCU-33-3"CAP-15	1-RA-09-SP-00E2-SCU33-15-3"-CAP	00E2	33-3"CAP	4/27/2009	11:46	816446.06	2374115.76	816445	2374115	1.3	P	VPC	0.89	0.55	0.00	0.55	6.6
SCU-33-3"CAP-16	1-RA-09-SP-00E2-SCU33-16-3"-CAP	00E2	33-3"CAP	4/27/2009	11:50	816419.20	2374141.26	816420	2374140	1.5	P	VPC	1.09	0.47	0.00	0.47	5.6
SCU-33-3"CAP-17	1-RA-09-SP-00E2-SCU33-17-3"-CAP	00E2	33-3"CAP	4/27/2009	11:59	816195.14	2374041.00	816195	2374040	1.0	P	VPC	1.16	0.47	0.00	0.47	5.6
SCU-33-3"CAP-18	1-RA-09-SP-00E2-SCU33-18-3"-CAP	00E2	33-3"CAP	4/27/2009	12:11	816119.61	2373991.61	816120	2373991	0.7	P	VPC	1.21	0.45	0.00	0.45	5.4
															Minimum	**0.30**	**3.6**
															Average	**0.48**	**5.7**
SCU-34-3"CAP-1	1-RA-09-SP-00E2-SCU34-1-3"-CAP	00E2	34-3"CAP	4/29/2009	11:28	816220.83	2374089.13	816220	2374090	1.2	P	VPC	0.96	0.45	0.00	0.45	5.4
SCU-34-3"CAP-2	1-RA-09-SP-00E2-SCU34-2-3"-CAP	00E2	34-3"CAP	4/29/2009	11:22	816295.88	2374139.46	816295	2374140	1.0	P	VPC	0.68	0.40	0.00	0.40	4.8
SCU-34-3"CAP-3	1-RA-09-SP-00E2-SCU34-3-3"-CAP	00E2	34-3"CAP	4/29/2009	11:03	816446.29	2374214.45	816445	2374215	1.4	P	VPC	1.18	0.42	0.00	0.42	5.0
SCU-34-3"CAP-4	1-RA-09-SP-00E2-SCU34-4-3"-CAP	00E2	34-3"CAP	4/29/2009	10:53	816595.19	2374290.09	816595	2374290	0.2	P	VPC	1.04	0.24	0.38	0.53	6.3
SCU-34-3"CAP-5	1-RA-09-SP-00E2-SCU34-5-3"-CAP	00E2	34-3"CAP	4/29/2009	11:07	816369.80	2374214.37	816370	2374215	0.7	P	VPC	0.70	0.44	0.00	0.44	5.3
SCU-34-3"CAP-6	1-RA-09-SP-00E2-SCU34-6-3"-CAP	00E2	34-3"CAP	4/29/2009	10:59	816495.42	2374290.45	816495	2374290	0.6	P	VPC	1.32	0.50	0.25	0.69	8.3
SCU-34-3"CAP-7	1-RA-09-SP-00E2-SCU34-7-3"-CAP	00E2	34-3"CAP	5/8/2009	9:45	816044.58	2373890.29	816045	2373890	0.5	P	VPC	1.07	0.49	0.00	0.49	5.9
SCU-34-3"CAP-8	1-RA-09-SP-00E2-SCU34-8-3"-CAP	00E2	34-3"CAP	5/8/2009	9:19	815820.42	2373690.09	815820	2373690	0.4	P	VPC	0.99	0.40	0.00	0.40	4.8
SCU-34-3"CAP-9	1-RA-09-SP-00E2-SCU34-9-3"-CAP	00E2	34-3"CAP	5/8/2009	9:02	815645.85	2373589.15	815645	2373589	0.9	P	VPC	1.03	0.41	0.00	0.41	4.9
SCU-34-3"CAP-10	1-RA-09-SP-00E2-SCU34-10-3"-CAP	00E2	34-3"CAP	5/8/2009	9:24	815844.31	2373765.31	815845	2373765	0.8	P	VPC	1.03	0.48	0.00	0.48	5.8
SCU-34-3"CAP-11	1-RA-09-SP-00E2-SCU34-11-3"-CAP	00E2	34-3"CAP	5/8/2009	9:41	815994.50	2373890.63	815995	2373890	0.8	P	VPC	0.70	0.38	0.00	0.38	4.6
SCU-34-3"CAP-12	1-RA-09-SP-00E2-SCU34-12-3"-CAP	00E2	34-3"CAP	5/8/2009	9:37	815995.50	2373915.34	815995	2373915	0.6	P	VPC	1.06	0.32	0.00	0.32	3.8
SCU-34-3"CAP-13	1-RA-09-SP-00E2-SCU34-13-3"-CAP	00E2	34-3"CAP	5/8/2009	9:28	815844.95	2373814.93	815845	2373815	0.1	P	VPC	0.78	0.43	0.00	0.43	5.2
SCU-34-3"CAP-14	1-RA-09-SP-00E2-SCU34-14-3"-CAP	00E2	34-3"CAP	5/8/2009	9:05	815670.23	2373664.33	815670	2373664	0.4	P	VPC	1.00	0.49	0.00	0.49	5.9
SCU-34-3"CAP-15	1-RA-09-SP-00E2-SCU34-15-3"-CAP	00E2	34-3"CAP	5/8/2009	8:57	815594.37	2373588.71	815595	2373589	0.7	P	VPC	0.88	0.30	0.00	0.30	3.6
SCU-34-3"CAP-16	1-RA-09-SP-00E2-SCU34-16-3"-CAP	00E2	34-3"CAP	5/8/2009	9:09	815694.79	2373716.19	815695	2373715	1.2	P	VPC	1.07	0.51	0.00	0.51	6.1
SCU-34-3"CAP-17	1-RA-09-SP-00E2-SCU34-17-3"-CAP	00E2	34-3"CAP	5/8/2009	9:32	815869.53	2373890.12	815870	2373890	0.5	P	VPC	0.92	0.43	0.00	0.43	5.2
SCU-34-3"CAP-18	1-RA-09-SP-00E2-SCU34-18-3"-CAP	00E2	34-3"CAP	5/8/2009	9:13	815744.55	2373815.12	815745	2373815	0.5	P	VPC	1.05	0.37	0.00	0.37	4.4
															Minimum	**0.30**	**3.6**
															Average	**0.44**	**5.3**
SCU-35-3"CAP-1	1-RA-09-SP-00E2-SCU35-1-3"-CAP	00E2	35-3"CAP	5/7/2009	10:30	815570.41	2373489.65	815570	2373490	0.5	P	VPC	1.25	0.55	0.00	0.55	6.6
SCU-35-3"CAP-2	1-RA-09-SP-00E2-SCU35-2-3"-CAP	00E2	35-3"CAP	5/7/2009	10:34	815644.67	2373489.68	815645	2373490	0.5	P	VPC	1.14	0.45	0.00	0.45	5.4
SCU-35-3"CAP-3	1-RA-09-SP-00E2-SCU35-3-3"-CAP	00E2	35-3"CAP	5/7/2009	10:57	815745.30	2373590.71	815745	2373590	0.8	P	VPC	1.13	0.50	0.00	0.50	6.0
SCU-35-3"CAP-4	1-RA-09-SP-00E2-SCU35-4-3"-CAP	00E2	35-3"CAP	5/7/2009	11:01	815819.97	2373663.83	815820	2373664	0.2	P	VPC	0.96	0.42	0.00	0.42	5.0
SCU-35-3"CAP-5	1-RA-09-SP-00E2-SCU35-5-3"-CAP	00E2	35-3"CAP	5/7/2009	11:18	815994.89	2373789.80	815995	2373790	0.2	P	VPC	1.12	0.38	0.00	0.38	4.6
SCU-35-3"CAP-6	1-RA-09-SP-00E2-SCU35-6-3"-CAP	00E2	35-3"CAP	5/7/2009	11:21	816069.52	2373814.81	816070	2373815	0.5	P	VPC	0.93	0.47	0.00	0.47	5.6
SCU-35-3"CAP-7	1-RA-09-SP-00E2-SCU35-7-3"-CAP	00E2	35-3"CAP	5/7/2009	11:13	815895.44	2373690.84	815896	2373690	1.0	P	VPC	0.96	0.45	0.00	0.45	5.4
SCU-35-3"CAP-8	1-RA-09-SP-00E2-SCU35-8-3"-CAP	00E2	35-3"CAP	5/7/2009	10:38	815694.91	2373514.64	815695	2373515	0.4	P	VPC	1.13	0.44	0.00	0.44	5.3
SCU-35-3"CAP-9	1-RA-09-SP-00E2-SCU35-9-3"-CAP	00E2	35-3"CAP	5/7/2009	10:41	815719.72	2373464.41	815720	2373464	0.5	P	VPC	1.10	0.48	0.00	0.48	5.8
SCU-35-3"CAP-10	1-RA-09-SP-00E2-SCU35-10-3"-CAP	00E2	35-3"CAP	5/7/2009	10:54	815770.81	2373539.04	815770	2373539	0.8	P	VPC	1.10	0.37	0.00	0.37	4.4
SCU-35-3"CAP-11	1-RA-09-SP-00E2-SCU35-11-3"-CAP	00E2	35-3"CAP	5/7/2009	11:26	816020.11	2373715.94	816020	2373715	0.9	P	VPC	0.84	0.47	0.00	0.47	5.6
SCU-35-3"CAP-12	1-RA-09-SP-00E2-SCU35-12-3"-CAP	00E2	35-3"CAP	5/7/2009	11:35	816044.22	2373715.81	816045	2373715	1.1	P	VPC	0.83	0.47	0.00	0.47	5.6
SCU-35-3"CAP-13	1-RA-09-SP-00E2-SCU35-13-3"-CAP	00E2	35-3"CAP	5/7/2009	11:09	815895.40	2373589.97	815895	2373590	0.4	P	VPC	0.89	0.33	0.00	0.33	4.0
SCU-35-3"CAP-14	1-RA-09-SP-00E2-SCU35-14-3"-CAP	00E2	35-3"CAP	5/7/2009	10:50	815772.04	2373489.36	815771	2373489	1.1	P	VPC	1.04	0.39	0.00	0.39	4.7
SCU-35-3"CAP-15	1-RA-09-SP-00E2-SCU35-15-3"-CAP	00E2	35-3"CAP	5/7/2009	10:24	815619.53	2373363.65	815620	2373364	0.6	P	VPC	0.69	0.28	0.00	0.28	3.4
SCU-35-3"CAP-16	1-RA-09-SP-00E2-SCU35-16-3"-CAP	00E2	35-3"CAP	5/7/2009	10:46	815795.79	2373438.18	815796	2373439	0.8	P	VPC	1.00	0.48	0.00	0.48	5.8
SCU-35-3"CAP-17	1-RA-09-SP-00E2-SCU35-17-3"-CAP	00E2	35-3"CAP	5/7/2009	11:05	815894.37	2373515.50	815895	2373515	0.8	P	VPC	1.00	0.54	0.00	0.54	6.5
SCU-35-3"CAP-18	1-RA-09-SP-00E2-SCU35-18-3"-CAP	00E2	35-3"CAP	5/7/2009	11:31	816019.69	2373639.86	816020	2373639	0.9	P	VPC	1.10	0.43	0.00	0.43	5.2
															Minimum	**0.28**	**3.4**
															Average	**0.44**	**5.3**

Table C-8
3-inch Sand Layer of Cap Placement Thickness Verification Results
GW Partners Lower Fox River - OU1

ID	Sample ID	Sub-area	SCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Core Length (ft)	Clean Sand Thickness (ft)	Mixing Layer Thickness (ft)	Applied Sand Thickness (ft)	Applied Sand Thickness (in)
SCU-36-3"CAP-1	1-RA-09-SP-00E2-SCU36-1-3"-CAP	00E2	36-3"CAP	5/6/2009	11:29	815669.45	2373314.58	815670	2373315	0.7	P	VPC	0.93	0.39	0.00	0.39	4.7
SCU-36-3"CAP-2	1-RA-09-SP-00E2-SCU36-2-3"-CAP	00E2	36-3"CAP	5/6/2009	11:39	815845.69	2373439.47	815845	2373440	0.9	P	VPC	0.89	0.49	0.00	0.49	5.9
SCU-36-3"CAP-3	1-RA-09-SP-00E2-SCU36-3-3"-CAP	00E2	36-3"CAP	5/6/2009	11:51	816069.41	2373638.79	816070	2373639	0.6	P	VPC	1.15	0.45	0.00	0.45	5.4
SCU-36-3"CAP-4	1-RA-09-SP-00E2-SCU36-4-3"-CAP	00E2	36-3"CAP	5/6/2009	11:54	816095.40	2373614.72	816095	2373615	0.5	P	VPC	0.69	0.42	0.00	0.42	5.0
SCU-36-3"CAP-5	1-RA-09-SP-00E2-SCU36-5-3"-CAP	00E2	36-3"CAP	5/6/2009	11:43	815995.56	2373515.30	815995	2373515	0.6	P	VPC	0.86	0.57	0.00	0.57	6.8
SCU-36-3"CAP-6	1-RA-09-SP-00E2-SCU36-6-3"-CAP	00E2	36-3"CAP	5/6/2009	11:53	815794.80	2373340.52	815795	2373340	0.6	P	VPC	1.03	0.49	0.00	0.49	5.9
SCU-36-3"CAP-7	1-RA-09-SP-00E2-SCU36-7-3"-CAP	00E2	36-3"CAP	5/6/2009	11:24	815697.15	2373265.53	815696	2373265	1.3	P	VPC	0.67	0.52	0.00	0.52	6.2
SCU-36-3"CAP-8	1-RA-09-SP-00E2-SCU36-8-3"-CAP	00E2	36-3"CAP	5/5/2009	11:22	815796.15	2373312.84	815795	2373314	1.6	P	VPC	1.15	0.45	0.00	0.45	5.4
SCU-36-3"CAP-9	1-RA-09-SP-00E2-SCU36-9-3"-CAP	00E2	36-3"CAP	5/6/2009	11:36	815869.54	2373364.79	815870	2373365	0.5	P	VPC	1.06	0.49	0.00	0.49	5.9
SCU-36-3"CAP-10	1-RA-09-SP-00E2-SCU36-10-3"-CAP	00E2	36-3"CAP	5/6/2009	11:47	816020.67	2373490.17	816021	2373490	0.4	P	VPC	0.94	0.51	0.00	0.51	6.1
SCU-36-3"CAP-11	1-RA-09-SP-00E2-SCU36-11-3"-CAP	00E2	36-3"CAP	5/6/2009	11:58	816169.80	2373639.41	816170	2373640	0.6	P	VPC	1.06	0.52	0.00	0.52	6.2
SCU-36-3"CAP-12	1-RA-09-SP-00E2-SCU36-12-3"-CAP	00E2	36-3"CAP	5/5/2009	11:43	816144.37	2373564.75	816145	2373565	0.7	P	VPC	0.83	0.50	0.00	0.50	6.0
SCU-36-3"CAP-13	1-RA-09-SP-00E2-SCU36-13-3"-CAP	00E2	36-3"CAP	5/5/2009	11:38	816046.56	2373465.28	816046	2373465	0.6	P	VPC	1.17	0.53	0.00	0.53	6.4
SCU-36-3"CAP-14	1-RA-09-SP-00E2-SCU36-14-3"-CAP	00E2	36-3"CAP	5/5/2009	11:26	815870.54	2373314.69	815871	2373315	0.6	P	VPC	1.06	0.51	0.00	0.51	6.1
SCU-36-3"CAP-15	1-RA-09-SP-00E2-SCU36-15-3"-CAP	00E2	36-3"CAP	5/5/2009	11:17	815772.39	2373215.39	815771	2373215	1.4	P	VPC	1.01	0.40	0.00	0.40	4.8
SCU-36-3"CAP-16	1-RA-09-SP-00E2-SCU36-16-3"-CAP	00E2	36-3"CAP	5/5/2009	11:30	815920.43	2373339.43	815921	2373340	0.8	P	VPC	0.91	0.52	0.00	0.52	6.2
SCU-36-3"CAP-17	1-RA-09-SP-00E2-SCU36-17-3"-CAP	00E2	36-3"CAP	5/5/2009	11:34	816020.61	2373413.46	816021	2373414	0.7	P	VPC	1.01	0.41	0.00	0.41	4.9
SCU-36-3"CAP-18	1-RA-09-SP-00E2-SCU36-18-3"-CAP	00E2	36-3"CAP	5/5/2009	11:47	816220.75	2373564.06	816220	2373565	1.2	P	VPC	1.00	0.46	0.00	0.46	5.5
															Minimum	**0.39**	**4.7**
															Average	**0.48**	**5.8**
SCU-37-3"CAP-1	1-RA-09-SP-00E2-SCU37-1-3"-CAP	00E2	37-3"CAP	4/30/2009	11:19	815796.44	2373190.27	815796	2373190	0.5	P	VPC	0.48	0.38	0.00	0.38	4.6
SCU-37-3"CAP-2	1-RA-09-SP-00E2-SCU37-2-3"-CAP	00E2	37-3"CAP	4/30/2009	11:38	816070.36	2373414.81	816070	2373415	0.4	P	VPC	0.64	0.34	0.00	0.34	4.1
SCU-37-3"CAP-3	1-RA-09-SP-00E2-SCU37-3-3"-CAP	00E2	37-3"CAP	4/30/2009	11:55	816195.35	2373490.26	816195	2373490	0.4	P	VPC	1.08	0.44	0.00	0.44	5.3
SCU-37-3"CAP-4	1-RA-09-SP-00E2-SCU37-4-3"-CAP	00E2	37-3"CAP	4/30/2009	11:51	816294.87	2373540.32	816295	2373540	0.3	P	VPC	1.24	0.44	0.00	0.44	5.3
SCU-37-3"CAP-5	1-RA-09-SP-00E2-SCU37-5-3"-CAP	00E2	37-3"CAP	4/30/2009	12:00	816070.37	2373364.70	816070	2373365	0.5	P	VPC	1.23	0.47	0.00	0.47	5.6
SCU-37-3"CAP-6	1-RA-09-SP-00E2-SCU37-6-3"-CAP	00E2	37-3"CAP	4/30/2009	11:29	815895.54	2373213.60	815896	2373214	0.6	P	VPC	1.15	0.54	0.00	0.54	6.5
SCU-37-3"CAP-7	1-RA-09-SP-00E2-SCU37-7-3"-CAP	00E2	37-3"CAP	4/30/2009	11:24	815821.32	2373165.30	815821	2373165	0.4	P	VPC	1.22	0.49	0.05	0.53	6.3
SCU-37-3"CAP-8	1-RA-09-SP-00E2-SCU37-8-3"-CAP	00E2	37-3"CAP	5/1/2009	11:32	815896.28	2373165.55	815896	2373165	0.6	P	VPC	0.90	0.52	0.00	0.52	6.2
SCU-37-3"CAP-9	1-RA-09-SP-00E2-SCU37-9-3"-CAP	00E2	37-3"CAP	5/1/2009	11:20	816020.64	2373290.00	816021	2373289	1.1	P	VPC	1.11	0.51	0.00	0.51	6.1
SCU-37-3"CAP-10	1-RA-09-SP-00E2-SCU37-10-3"-CAP	00E2	37-3"CAP	5/1/2009	11:59	816194.31	2373440.89	816195	2373440	1.1	P	VPC	1.06	0.34	0.00	0.34	4.1
SCU-37-3"CAP-11	1-RA-09-SP-00E2-SCU37-11-3"-CAP	00E2	37-3"CAP	5/1/2009	11:07	816346.09	2373540.22	816345	2373540	1.1	P	VPC	1.22	0.75	0.00	0.75	9.0
SCU-37-3"CAP-12	1-RA-09-SP-00E2-SCU37-12-3"-CAP	00E2	37-3"CAP	5/1/2009	12:03	816344.47	2373489.29	816345	2373490	0.9	P	VPC	0.85	0.43	0.00	0.43	5.2
SCU-37-3"CAP-13	1-RA-09-SP-00E2-SCU37-13-3"-CAP	00E2	37-3"CAP	5/1/2009	11:55	816170.29	2373365.84	816171	2373365	1.1	P	VPC	1.00	0.44	0.00	0.44	5.3
SCU-37-3"CAP-14	1-RA-09-SP-00E2-SCU37-14-3"-CAP	00E2	37-3"CAP	5/1/2009	11:24	816020.76	2373239.40	816021	2373239	0.5	P	VPC	1.12	0.48	0.00	0.48	5.8
SCU-37-3"CAP-15	1-RA-09-SP-00E2-SCU37-15-3"-CAP	00E2	37-3"CAP	5/1/2009	11:36	815870.40	2373090.54	815871	2373090	0.8	P	VPC	1.20	0.45	0.00	0.45	5.4
SCU-37-3"CAP-16	1-RA-09-SP-00E2-SCU37-16-3"-CAP	00E2	37-3"CAP	5/1/2009	11:28	816045.75	2373189.35	816046	2373189	0.4	P	VPC	0.89	0.45	0.00	0.45	5.4
SCU-37-3"CAP-17	1-RA-09-SP-00E2-SCU37-17-3"-CAP	00E2	37-3"CAP	5/1/2009	11:46	816220.19	2373340.25	816221	2373340	0.8	P	VPC	1.22	0.54	0.00	0.54	6.5
SCU-37-3"CAP-18	1-RA-09-SP-00E2-SCU37-18-3"-CAP	00E2	37-3"CAP	5/1/2009	11:51	816244.45	2373390.64	816245	2373390	0.8	P	VPC	0.94	0.50	0.00	0.50	6.0
															Minimum	**0.34**	**4.1**
															Average	**0.47**	**5.7**
SCU-38-3"CAP-1	1-RA-09-SP-00E2-SCU38-1-3"-CAP	00E2	38-3"CAP	5/4/2009	11:56	815896.17	2373040.23	815896	2373040	0.3	P	VPC	0.85	0.35	0.00	0.35	4.2
SCU-38-3"CAP-2	1-RA-09-SP-00E2-SCU38-2-3"-CAP	00E2	38-3"CAP	5/4/2009	11:39	816120.35	2373215.38	816120	2373215	0.5	P	VPC	0.93	0.49	0.00	0.49	5.9
SCU-38-3"CAP-3	1-RA-09-SP-00E2-SCU38-3-3"-CAP	00E2	38-3"CAP	5/4/2009	11:14	816271.28	2373340.33	816271	2373340	0.4	P	VPC	1.01	0.49	0.00	0.49	5.9
SCU-38-3"CAP-4	1-RA-09-SP-00E2-SCU38-4-3"-CAP	00E2	38-3"CAP	5/4/2009	10:52	816394.19	2373464.10	816395	2373465	1.2	P	VPC	0.85	0.49	0.00	0.49	5.9
SCU-38-3"CAP-5	1-RA-09-SP-00E2-SCU38-5-3"-CAP	00E2	38-3"CAP	5/4/2009	10:57	816394.91	2373415.16	816395	2373415	0.2	P	VPC	0.90	0.47	0.00	0.47	5.6
SCU-38-3"CAP-6	1-RA-09-SP-00E2-SCU38-6-3"-CAP	00E2	38-3"CAP	5/4/2009	11:10	816296.61	2373340.76	816296	2373340	1.0	P	VPC	1.17	0.46	0.00	0.46	5.5
SCU-38-3"CAP-7	1-RA-09-SP-00E2-SCU38-7-3"-CAP	00E2	38-3"CAP	5/4/2009	11:34	816145.39	2373214.21	816145	2373214	0.4	P	VPC	1.04	0.48	0.00	0.48	5.8
SCU-38-3"CAP-8	1-RA-09-SP-00E2-SCU38-8-3"-CAP	00E2	38-3"CAP	5/4/2009	11:43	815996.07	2373065.37	815996	2373065	0.4	P	VPC	0.95	0.46	0.00	0.46	5.5
SCU-38-3"CAP-9	1-RA-09-SP-00E2-SCU38-9-3"-CAP	00E2	38-3"CAP	5/4/2009	11:29	816146.37	2373165.23	816146	2373165	0.4	P	VPC	1.01	0.40	0.00	0.40	4.8
SCU-38-3"CAP-10	1-RA-09-SP-00E2-SCU38-10-3"-CAP	00E2	38-3"CAP	5/4/2009	11:21	816271.28	2373240.35	816271	2373240	0.4	P	VPC	1.02	0.49	0.00	0.49	5.9
SCU-38-3"CAP-11	1-RA-09-SP-00E2-SCU38-11-3"-CAP	00E2	38-3"CAP	5/4/2009	11:02	816444.72	2373390.28	816445	2373390	0.4	P	VPC	1.16	0.50	0.00	0.50	6.0
SCU-38-3"CAP-12	1-RA-09-SP-00E2-SCU38-12-3"-CAP	00E2	38-3"CAP	5/4/2009	11:05	816469.77	2373389.82	816470	2373390	0.3	P	VPC	1.05	0.50	0.00	0.50	6.0
SCU-38-3"CAP-13	1-RA-09-SP-00E2-SCU38-13-3"-CAP	00E2	38-3"CAP	5/4/2009	11:18	816345.89	2373265.11	816346	2373265	0.2	P	VPC	1.15	0.49	0.00	0.49	5.9
SCU-38-3"CAP-14	1-RA-09-SP-00E2-SCU38-14-3"-CAP	00E2	38-3"CAP	5/4/2009	11:25	816195.82	2373140.07	816196	2373140	0.2	P	VPC	1.20	0.42	0.00	0.42	5.0
SCU-38-3"CAP-15	1-RA-09-SP-00E2-SCU38-15-3"-CAP	00E2	38-3"CAP	5/4/2009	11:47	815995.77	2372964.64	815996	2372965	0.4	P	VPC	1.19	0.49	0.00	0.49	5.9
SCU-38-3"CAP-16	1-RA-09-SP-00E2-SCU38-16-3"-CAP	00E2	38-3"CAP	5/5/2009	11:10	816119.43	2373039.68	816120	2373040	0.7	P	VPC	0.58	0.44	0.00	0.44	5.3
SCU-38-3"CAP-17	1-RA-09-SP-00E2-SCU38-17-3"-CAP	00E2	38-3"CAP	5/5/2009	11:05	816345.56	2373214.55	816346	2373215	0.6	P	VPC	0.51	0.40	0.00	0.40	4.8
SCU-38-3"CAP-18	1-RA-09-SP-0E3N-SCU38-18-3"-CAP	0E3N	38-3"CAP	5/5/2009	10:56	816445.13	2373290.26	816445	2373290	0.3	P	VPC	0.52	0.30	0.00	0.30	3.6
															Minimum	**0.30**	**3.6**
															Average	**0.45**	**5.4**

Notes:
Comp = composite
ft = feet
in = inches
P = Primary
SCU = Sand Certification Unit
ST = Sediment Trap
VC = Vibra Core
VPC = Vacuum Push Core

Data from the *2009 RA Summary Report,* Appendix D, Table D-5

Prepared by: MCC2
Checked by: NRA

Table D-1
GW Partners Lower Fox River - OU1
4-inch Armor Cap Thickness Verification Results

ID	Sample ID	Subarea	CCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Applied Armor Stone Thickness (in)	Comments
CCU-1-4"-1	1-RA-08-CAP-00E1-CCU1-1-4"	00E1	1-4"	8/7/2008	11:14	810971.21	2371637.38	810971	2371637	0.4	P	ST	4.00	
CCU-1-4"-2	1-RA-08-CAP-00E1-CCU1-2-4"	00E1	1-4"	8/7/2008	11:10	810946.00	2371587.70	810946	2371588	0.3	P	ST	5.75	
CCU-1-4"-3	1-RA-08-CAP-00E1-CCU1-3-4"	00E1	1-4"	8/6/2008	11:22	810872.58	2371537.49	810871	2371537	1.7	P	ST	6.00	
CCU-1-4"-4	1-RA-08-CAP-00E1-CCU1-4-4"	00E1	1-4"	8/6/2008	11:14	810847.38	2371488.91	810846	2371488	1.7	P	ST	8.50	
CCU-1-4"-5	1-RA-08-CAP-00E1-CCU1-5-4"	00E1	1-4"	8/7/2008	11:18	810796.31	2371538.71	810796	2371538	0.8	P	ST	7.00	
CCU-1-4"-6	1-RA-08-CAP-00E1-CCU1-6-4"	00E1	1-4"	8/7/2008	11:21	810820.78	2371637.61	810821	2371638	0.4	P	ST	6.75	
CCU-1-4"-7	1-RA-08-CAP-00E1-CCU1-7-4"	00E1	1-4"	8/8/2008	10:09	810845.62	2371712.24	810846	2371712	0.4	P	ST	10.00	
CCU-1-4"-8	1-RA-08-CAP-00E1-CCU1-8-4"	00E1	1-4"	8/7/2008	11:04	810745.40	2371587.37	810746	2371587	0.7	P	ST	9.50	
CCU-1-4"-9	1-RA-08-CAP-00E1-CCU1-9-4"	00E1	1-4"	8/8/2008	10:03	810547.22	2371587.82	810547	2371587	0.8	P	ST	8.50	
CCU-1-4"-10	1-RA-08-CAP-00E1-CCU1-10-4"	00E1	1-4"	8/7/2008	11:28	810745.20	2371637.72	810746	2371637	1.1	P	ST	8.00	
CCU-1-4"-11	1-RA-08-CAP-00E1-CCU1-11-4"	00E1	1-4"	8/8/2008	10:06	810670.35	2371636.50	810671	2371637	0.8	P	ST	6.50	
CCU-1-4"-12	1-RA-08-CAP-00E1-CCU1-12-4"	00E1	1-4"	8/7/2008	10:47	810647.14	2371463.95	810646	2371463	1.5	P	ST	7.50	
CCU-1-4"-13	1-RA-08-CAP-00E1-CCU1-13-4"	00E1	1-4"	8/7/2008	10:43	810620.32	2371436.09	810621	2371437	1.1	P	ST	4.00	
CCU-1-4"-14	1-RA-08-CAP-00E1-CCU1-14-4"	00E1	1-4"	8/7/2008	10:41	810595.24	2371513.41	810596	2371513	0.9	P	ST	8.50	
CCU-1-4"-15	1-RA-08-CAP-00E1-CCU1-15-4"	00E1	1-4"	8/7/2008	10:38	810568.77	2371538.14	810571	2371538	2.2	P	ST	8.00	
CCU-1-4"-16	1-RA-08-CAP-00E1-CCU1-16-4"	00E1	1-4"	8/6/2008	11:05	810572.63	2371363.15	810571	2371362	2.0	P	ST	10.00	
CCU-1-4"-17	1-RA-08-CAP-00E1-CCU1-17-4"	00E1	1-4"	8/7/2008	10:30	810522.37	2371437.59	810521	2371437	1.5	P	ST	7.25	
CCU-1-4"-18	1-RA-08-CAP-00E1-CCU1-18-4"	00E1	1-4"	8/7/2008	10:24	810471.49	2371387.52	810471	2371387	0.7	P	ST	6.00	
												Minimum	**4.00**	
												Average	**7.32**	
CCU-2-4"-1	1-RA-08-CAP-00E1-CCU2-1-4"	00E1	2-4"	8/12/2008	10:29	810521.80	2371883.89	810896	2371787	386.5	P	ST	8.00	ST at proposed location knocked over - ST moved to get sample
CCU-2-4"-2	1-RA-08-CAP-00E1-CCU2-2-4"	00E1	2-4"	8/11/2008	11:13	810870.16	2371811.33	810871	2371812	1.1	P	ST	7.00	
CCU-2-4"-3	1-RA-08-CAP-00E1-CCU2-3-4"	00E1	2-4"	8/11/2008	10:37	810870.64	2371860.80	810871	2371862	1.3	P	ST	11.00	
CCU-2-4"-4	1-RA-08-CAP-00E1-CCU2-4-4"	00E1	2-4"	8/11/2008	10:29	810771.99	2371763.52	810771	2371762	1.8	P	ST	6.50	
CCU-2-4"-5	1-RA-08-CAP-00E1-CCU2-5-4"	00E1	2-4"	8/11/2008	10:27	810746.69	2371812.05	810747	2371812	0.3	P	ST	5.00	
CCU-2-4"-6	1-RA-08-CAP-00E1-CCU2-6-4"	00E1	2-4"	8/11/2008	10:51	810771.27	2371887.29	810771	2371887	0.4	P	ST	8.50	
CCU-2-4"-7	1-RA-08-CAP-00E1-CCU2-7-4"	00E1	2-4"	8/11/2008	11:11	810720.62	2371836.80	810721	2371836	0.9	P	ST	8.00	
CCU-2-4"-8	1-RA-08-CAP-00E1-CCU2-8-4"	00E1	2-4"	8/12/2008	10:35	810695.69	2371911.80	810696	2371912	0.4	P	ST	6.75	
CCU-2-4"-9	1-RA-08-CAP-00E1-CCU2-9-4"	00E1	2-4"	8/11/2008	10:23	810670.57	2371861.47	810671	2371862	0.7	P	ST	8.00	
CCU-2-4"-10	1-RA-08-CAP-00E1-CCU2-10-4"	00E1	2-4"	8/11/2008	10:32	810644.80	2371936.95	810646	2371937	1.2	P	ST	6.75	
CCU-2-4"-11	1-RA-08-CAP-00E1-CCU2-11-4"	00E1	2-4"	8/8/2008	10:22	810595.83	2371661.54	810596	2371662	0.5	P	ST	5.00	
CCU-2-4"-12	1-RA-08-CAP-00E1-CCU2-12-4"	00E1	2-4"	8/11/2008	10:12	810570.90	2371711.31	810571	2371712	0.7	P	ST	5.00	
CCU-2-4"-13	1-RA-08-CAP-00E1-CCU2-13-4"	00E1	2-4"	8/11/2008	10:19	810620.20	2371786.29	810621	2371787	1.1	P	ST	6.50	
CCU-2-4"-14	1-RA-08-CAP-00E1-CCU2-14-4"	00E1	2-4"	8/11/2008	11:01	810596.90	2371811.93	810597	2371812	0.1	P	ST	5.00	
CCU-2-4"-15	1-RA-08-CAP-00E1-CCU2-15-4"	00E1	2-4"	8/8/2008	10:20	810520.32	2371637.62	810521	2371637	0.9	P	ST	8.00	
CCU-2-4"-16	1-RA-08-CAP-00E1-CCU2-16-4"	00E1	2-4"	8/8/2008	10:17	810371.03	2371586.01	810371	2371587	1.0	P	ST	4.50	
CCU-2-4"-17	1-RA-08-CAP-00E1-CCU2-17-4"	00E1	2-4"	8/8/2008	10:14	810320.47	2371537.28	810321	2371537	0.6	P	ST	6.75	
CCU-2-4"-18	1-RA-08-CAP-00E1-CCU2-18-4"	00E1	2-4"	8/12/2008	10:24	810420.37	2371836.52	810421	2371837	0.8	P	ST	9.00	
												Minimum	**4.50**	
												Average	**6.96**	
CCU-3-4"-1	1-RA-08-CAP-00E1-CCU3-1-4"	00E1	3-4"	8/12/2008	10:51	810471.24	2371911.30	810471	2371912	0.7	P	ST	6.00	
CCU-3-4"-2	1-RA-08-CAP-00E1-CCU3-2-4"	00E1	3-4"	8/12/2008	10:55	810471.56	2371986.66	810471	2371987	0.7	P	ST	6.00	
CCU-3-4"-3	1-RA-08-CAP-00E1-CCU3-3-4"	00E1	3-4"	8/12/2008	10:39	810396.23	2371861.86	810396	2371862	0.3	P	ST	7.00	
CCU-3-4"-4	1-RA-08-CAP-00E1-CCU3-4-4"	00E1	3-4"	8/12/2008	10:47	810395.16	2371911.46	810396	2371912	1.0	P	ST	6.50	
CCU-3-4"-5	1-RA-08-CAP-00E1-CCU3-5-4"	00E1	3-4"	8/13/2008	10:04	810396.06	2371961.20	810396	2371961	0.2	P	ST	7.00	
CCU-3-4"-6	1-RA-08-CAP-POG4-CCU3-6-4"	POG4	3-4"	8/13/2008	10:09	810170.29	2371935.92	810171	2371936	0.7	P	ST	6.50	
CCU-3-4"-7	1-RA-08-CAP-00E1-CCU3-7-4"	00E1	3-4"	8/14/2008	10:22	811146.72	2371536.31	811146	2371537	1.0	P	ST	6.00	
CCU-3-4"-8	1-RA-08-CAP-00E1-CCU3-8-4"	00E1	3-4"	8/14/2008	10:31	811145.00	2371635.66	811146	2371637	1.7	P	ST	5.00	
CCU-3-4"-9	1-RA-08-CAP-00E1-CCU3-9-4"	00E1	3-4"	8/14/2008	10:33	811170.63	2371685.81	811171	2371687	1.2	P	ST	5.50	
CCU-3-4"-10	1-RA-08-CAP-00E1-CCU3-10-4"	00E1	3-4"	8/14/2008	10:28	811070.90	2371686.08	811071	2371687	0.9	P	ST	8.50	
CCU-3-4"-11	1-RA-08-CAP-00E1-CCU3-11-4"	00E1	3-4"	8/14/2008	10:25	811045.73	2371586.51	811046	2371587	0.6	P	ST	6.50	
CCU-3-4"-12	1-RA-08-CAP-00E1-CCU3-12-4"	00E1	3-4"	8/13/2008	10:30	810870.67	2371461.56	810871	2371462	0.5	P	ST	5.00	
CCU-3-4"-13	1-RA-08-CAP-00E1-CCU3-13-4"	00E1	3-4"	8/13/2008	10:27	810821.19	2371410.35	810822	2371411	1.0	P	ST	7.00	
CCU-3-4"-14	1-RA-08-CAP-00E1-CCU3-14-4"	00E1	3-4"	8/13/2008	10:29	810822.85	2371436.94	810822	2371437	0.9	P	ST	6.00	
CCU-3-4"-15	1-RA-08-CAP-00E1-CCU3-15-4"	00E1	3-4"	8/13/2008	10:22	810720.72	2371312.00	810721	2371312	0.3	P	ST	5.50	
CCU-3-4"-16	1-RA-08-CAP-00E1-CCU3-16-4"	00E1	3-4"	8/13/2008	10:20	810670.69	2371336.72	810671	2371337	0.4	P	ST	7.50	
CCU-3-4"-17	1-RA-08-CAP-00E1-CCU3-17-4"	00E1	3-4"	8/13/2008	10:15	810622.90	2371286.63	810622	2371287	1.0	P	ST	8.00	
CCU-3-4"-18	1-RA-08-CAP-00E1-CCU3-18-4"	00E1	3-4"	8/13/2008	10:17	810598.39	2371311.97	810597	2371312	1.4	P	ST	7.00	
												Minimum	**5.00**	
												Average	**6.47**	
CCU-4-4"-1	1-RA-08-CAP-00E1-CCU4-1-4"	00E1	4-4"	8/14/2008	10:17	811170.91	2371511.71	811171	2371512	0.3	P	ST	4.00	
CCU-4-4"-2(A)	1-RA-08-CAP-00E1-CCU4-2-4"(A)	00E1	4-4"	8/14/2008	00:13	811158.00	2371505.00	811197	2371487	43.0	P	ST	5.00	Brennan QC data used[1]
CCU-4-4"-3	1-RA-08-CAP-00E1-CCU4-3-4"	00E1	4-4"	8/15/2008	10:53	811520.35	2371836.79	811521	2371837	0.7	P	ST	7.00	
CCU-4-4"-4	1-RA-08-CAP-00E1-CCU4-4-4"	00E1	4-4"	8/15/2008	10:48	811346.79	2371762.28	811347	2371762	0.3	P	ST	8.00	
CCU-4-4"-5	1-RA-08-CAP-00E1-CCU4-5-4"	00E1	4-4"	8/19/2008	10:26	811398.37	2371686.24	811397	2371687	1.6	P	ST	5.50	
CCU-4-4"-6	1-RA-08-CAP-00E1-CCU4-6-4"	00E1	4-4"	8/14/2008	11:11	811520.63	2371737.54	811521	2371738	0.6	P	ST	10.00	
CCU-4-4"-7	1-RA-08-CAP-00E1-CCU4-7-4"	00E1	4-4"	8/15/2008	10:55	811545.69	2371788.43	811546	2371788	0.5	P	ST	5.00	
CCU-4-4"-8	1-RA-08-CAP-00E1-CCU4-8-4"	00E1	4-4"	8/15/2008	10:58	811570.86	2371862.27	811571	2371863	0.7	P	ST	7.00	
CCU-4-4"-9	1-RA-08-CAP-00E1-CCU4-9-4"	00E1	4-4"	8/15/2008	10:59	811595.73	2371861.91	811596	2371863	1.1	P	ST	7.00	
CCU-4-4"-10	1-RA-08-CAP-00E1-CCU4-10-4"	00E1	4-4"	8/15/2008	11:02	811620.23	2371787.71	811621	2371787	1.0	P	ST	9.00	
CCU-4-4"-11	1-RA-08-CAP-00E1-CCU4-11-4"	00E1	4-4"	8/15/2008	11:08	811395.00	2372311.51	811396	2372312	1.1	P	ST	7.00	
CCU-4-4"-12	1-RA-08-CAP-POG4-CCU4-12-4"	POG4	4-4"	8/15/2008	11:10	811545.51	2372386.22	811546	2372387	0.9	P	ST	7.00	
CCU-4-4"-13	1-RA-08-CAP-POG4-CCU4-13-4"	POG4	4-4"	8/18/2008	10:38	811521.25	2372437.14	811521	2372437	0.3	P	ST	4.25	
CCU-4-4"-14	1-RA-08-CAP-POG4-CCU4-14-4"	POG4	4-4"	8/18/2008	10:42	811520.93	2372486.62	811521	2372487	0.4	P	ST	7.75	
CCU-4-4"-15	1-RA-08-CAP-POG4-CCU4-15-4"	POG4	4-4"	8/18/2008	10:46	811571.60	2372513.78	811571	2372513	1.0	P	ST	7.50	
CCU-4-4"-16	1-RA-08-CAP-00E1-CCU4-16-4"	00E1	4-4"	8/15/2008	11:14	811620.22	2372362.43	811621	2372363	1.0	P	ST	7.00	
CCU-4-4"-17	1-RA-08-CAP-00E1-CCU4-17-4"	00E1	4-4"	8/15/2008	11:16	811695.40	2372362.92	811696	2372363	0.6	P	ST	6.50	
CCU-4-4"-18	1-RA-08-CAP-POG4-CCU4-18-4"	POG4	4-4"	8/15/2008	11:19	811696.33	2372436.19	811696	2372437	0.9	P	ST	5.50	
												Minimum	**4.00**	
												Average	**6.67**	

ID	Sample ID	Subarea	CCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Applied Armor Stone Thickness (in)	Comments
CCU-5-4"-1(A)	1-RA-08-CAP-00E1-CCU5-1-4"(A)	00E1	5-4"	8/19/2008	17:58	811304.00	2371559.00	811246	2371562	58.1	P	ST	4.33	Brennan QC data used[1]
CCU-5-4"-2	1-RA-08-CAP-0E3S-CCU5-2-4"	0E3S	5-4"	8/20/2008	10:14	811296.63	2371487.70	811296	2371487	0.9	P	ST	5.75	
CCU-5-4"-3	1-RA-08-CAP-00E1-CCU5-3-4"	00E1	5-4"	8/19/2008	10:59	811295.87	2371611.38	811296	2371612	0.6	P	ST	8.00	
CCU-5-4"-4	1-RA-08-CAP-0E3S-CCU5-4-4"	0E3S	5-4"	8/20/2008	10:18	811320.80	2371461.21	811321	2371462	0.8	P	ST	8.50	
CCU-5-4"-5	1-RA-08-CAP-00E1-CCU5-5-4"	00E1	5-4"	8/20/2008	11:32	811346.92	2371538.44	811346	2371537	1.7	P	ST	4.75	
CCU-5-4"-6	1-RA-08-CAP-00E1-CCU5-6-4"	00E1	5-4"	8/19/2008	11:11	811346.10	2371611.43	811346	2371612	0.6	P	ST	4.50	
CCU-5-4"-7	1-RA-08-CAP-00E1-CCU5-7-4"	00E1	5-4"	8/19/2008	11:20	811395.74	2371637.56	811396	2371638	0.5	P	ST	11.50	
CCU-5-4"-8	1-RA-08-CAP-0E3S-CCU5-8-4"	0E3S	5-4"	8/20/2008	14:50	811471.99	2371512.63	811471	2371513	1.1	P	ST	4.00	
CCU-5-4"-9	1-RA-08-CAP-00E1-CCU5-9-4"	00E1	5-4"	8/20/2008	11:21	811471.21	2371586.40	811471	2371587	0.6	P	ST	4.00	
CCU-5-4"-10(A)	1-RA-08-CAP-00E1-CCU5-10-4"(A)	00E1	5-4"	8/19/2008	07:25	811493.00	2371642.00	811471	2371663	30.4	P	ST	5.67	Brennan QC data used[2]
CCU-5-4"-11	1-RA-08-CAP-0E3S-CCU5-11-4"	0E3S	5-4"	8/20/2008	14:42	811496.96	2371513.37	811496	2371513	1.0	P	ST	5.00	
CCU-5-4"-12(A)	1-RA-08-CAP-00E1-CCU5-12-4"(A)	00E1	5-4"	8/20/2008	07:35	811600.00	2371594.00	811546	2371587	54.5	P	ST	4.33	Brennan QC data used[2]
CCU-5-4"-13(A)	1-RA-08-CAP-00E1-CCU5-13-4"(A)	00E1	5-4"	8/19/2008	21:40	811604.00	2371703.00	811571	2371662	52.6	P	ST	6.00	Brennan QC data used[2]
CCU-5-4"-14	1-RA-08-CAP-00E1-CCU5-14-4"	00E1	5-4"	8/20/2008	10:46	811622.82	2371637.84	811621	2371637	2.0	P	ST	8.50	
CCU-5-4"-15	1-RA-08-CAP-00E1-CCU5-15-4"	00E1	5-4"	8/14/2008	11:05	811670.04	2371813.60	811671	2371813	1.1	P	ST	6.50	
CCU-5-4"-16	1-RA-08-CAP-00E1-CCU5-16-4"	00E1	5-4"	8/18/2008	10:07	811819.56	2371763.74	811821	2371762	2.3	P	ST	5.75	
CCU-5-4"-17	1-RA-08-CAP-00E1-CCU5-17-4"	00E1	5-4"	8/18/2008	10:17	811845.95	2371737.95	811846	2371737	1.0	P	ST	8.50	
CCU-5-4"-18(A)	1-RA-08-CAP-00E1-CCU5-18-4"(A)	00E1	5-4"	8/15/2008	20:26	811841.00	2371759.00	811871	2371762	30.1	P	ST	5.33	Brennan QC data used[1]
												Minimum	**4.00**	
												Average	**6.16**	
CCU-6-4"-1	1-RA-08-CAP-0E3S-CCU6-1-4"	0E3S	6-4"	8/19/2008	11:38	811696.85	2371536.51	811696	2371537	1.0	P	ST	7.75	
CCU-6-4"-2	1-RA-08-CAP-0E3S-CCU6-2-4"	0E3S	6-4"	8/19/2008	11:51	811773.63	2371561.39	811772	2371562	1.7	P	ST	4.75	
CCU-6-4"-3	1-RA-08-CAP-0E3S-CCU6-3-4"	0E3S	6-4"	8/21/2008	11:18	811924.18	2371586.43	811922	2371587	2.3	P	ST	6.75	
CCU-6-4"-4	1-RA-08-CAP-00E1-CCU6-4-4"	00E1	6-4"	8/21/2008	11:12	811972.41	2371685.38	811972	2371687	1.7	P	ST	6.00	
CCU-6-4"-5(A)	1-RA-08-CAP-0E3S-CCU6-5-4"(A)	0E3S	6-4"	8/21/2008	13:48	812039.00	2371662.00	812047	2371587	75.4	P	ST	6.17	Brennan QC data used[2]
CCU-6-4"-6(A)	1-RA-08-CAP-0E3S-CCU6-6-4"(A)	0E3S	6-4"	8/20/2008	21:40	812004.00	2371581.00	811996	2371587	10.0	P	ST	5.67	Brennan QC data used[2]
CCU-6-4"-7	1-RA-08-CAP-00E1-CCU6-7-4"	00E1	6-4"	8/21/2008	11:15	811921.14	2371661.43	811921	2371663	1.6	P	ST	5.50	
CCU-6-4"-8	1-RA-08-CAP-00E1-CCU6-8-4"	00E1	6-4"	8/21/2008	10:58	812047.34	2371686.86	812046	2371688	1.8	P	ST	6.00	
CCU-6-4"-9	1-RA-08-CAP-00E1-CCU6-9-4"	00E1	6-4"	8/21/2008	11:03	812021.66	2371812.85	812021	2371813	0.7	P	ST	6.00	
CCU-6-4"-10	1-RA-08-CAP-00E1-CCU6-10-4"	00E1	6-4"	8/21/2008	11:10	811923.19	2371788.36	811921	2371788	2.2	P	ST	6.00	
CCU-6-4"-11	1-RA-08-CAP-00E1-CCU6-11-4"	00E1	6-4"	8/21/2008	11:06	811948.12	2371861.03	811946	2371863	2.9	P	ST	4.00	
CCU-6-4"-12	1-RA-08-CAP-0E3S-CCU6-12-4"	0E3S	6-4"	8/22/2008	13:40	812296.19	2371638.57	812296	2371638	0.6	P	ST	7.00	
CCU-6-4"-13	1-RA-08-CAP-00E1-CCU6-13-4"	00E1	6-4"	8/22/2008	13:51	812246.04	2371687.26	812246	2371688	0.7	P	ST	6.50	
CCU-6-4"-14	1-RA-08-CAP-00E1-CCU6-14-4"	00E1	6-4"	8/22/2008	14:35	812271.04	2371787.73	812271	2371788	0.3	P	ST	5.00	
CCU-6-4"-15	1-RA-08-CAP-00E1-CCU6-15-4"	00E1	6-4"	8/22/2008	14:29	812245.33	2371837.46	812246	2371838	0.9	P	ST	7.00	
CCU-6-4"-16	1-RA-08-CAP-00E1-CCU6-16-4"	00E1	6-4"	8/25/2008	10:17	812243.61	2372036.77	812246	2372038	2.7	P	ST	7.50	
CCU-6-4"-17	1-RA-08-CAP-00E1-CCU6-17-4"	00E1	6-4"	8/25/2008	10:12	812295.37	2372087.97	812296	2372088	0.6	P	ST	8.00	
CCU-6-4"-18	1-RA-08-CAP-00E1-CCU6-18-4"	00E1	6-4"	8/25/2008	10:08	812296.70	2372187.30	812296	2372188	1.0	P	ST	6.50	
												Minimum	**4.00**	
												Average	**6.23**	
CCU-7-4"-1	1-RA-08-CAP-00E1-CCU7-1-4"	00E1	7-4"	9/3/2008	10:57	813020.75	2372261.98	813021	2372263	1.1	P	ST	5.50	
CCU-7-4"-2	1-RA-08-CAP-00E1-CCU7-2-4"	00E1	7-4"	9/4/2008	11:08	813270.22	2372313.31	813271	2372313	0.8	P	ST	5.75	
CCU-7-4"-3	1-RA-08-CAP-00E1-CCU7-3-4"	00E1	7-4"	8/29/2008	11:46	813245.56	2372163.75	813246	2372164	0.5	P	ST	5.75	
CCU-7-4"-4	1-RA-08-CAP-00E1-CCU7-4-4"	00E1	7-4"	8/29/2008	11:33	813195.52	2372187.60	813196	2372188	0.6	P	ST	6.50	
CCU-7-4"-5	1-RA-08-CAP-00E1-CCU7-5-4"	00E1	7-4"	9/3/2008	10:51	813170.50	2372237.57	813171	2372238	0.7	P	ST	5.50	
CCU-7-4"-6	1-RA-08-CAP-00E1-CCU7-6-4"	00E1	7-4"	9/3/2008	10:49	813170.40	2372289.12	813171	2372288	1.3	P	ST	5.00	
CCU-7-4"-7	1-RA-08-CAP-00E1-CCU7-7-4"	00E1	7-4"	9/4/2008	10:49	812969.67	2372287.44	812971	2372288	1.4	P	ST	6.00	
CCU-7-4"-8	1-RA-08-CAP-00E1-CCU7-8-4"	00E1	7-4"	8/29/2008	11:20	813095.66	2372139.37	813096	2372139	0.5	P	ST	6.00	
CCU-7-4"-9(A)	1-RA-08-CAP-00E1-CCU7-9-4"(A)	00E1	7-4"	9/3/2008	12:52	813116.00	2372309.00	813121	2372313	6.4	P	ST	4.67	Brennan QC data used[2]
CCU-7-4"-10	1-RA-08-CAP-00E1-CCU7-10-4"	00E1	7-4"	8/29/2008	11:17	813044.81	2372212.97	813046	2372213	1.2	P	ST	7.00	
CCU-7-4"-11	1-RA-08-CAP-00E1-CCU7-11-4"	00E1	7-4"	9/4/2008	11:05	813195.22	2372312.52	813196	2372313	0.9	P	ST	4.50	
CCU-7-4"-12	1-RA-08-CAP-00E1-CCU7-12-4"	00E1	7-4"	9/3/2008	10:39	812895.50	2372287.39	812896	2372288	0.8	P	ST	6.00	
CCU-7-4"-13	1-RA-08-CAP-00E1-CCU7-13-4"	00E1	7-4"	8/28/2008	10:31	812846.27	2372138.07	812846	2372138	0.3	P	ST	6.50	
CCU-7-4"-14	1-RA-08-CAP-00E1-CCU7-14-4"	00E1	7-4"	9/3/2008	10:30	812845.45	2372213.51	812846	2372213	0.8	P	ST	6.00	
CCU-7-4"-15	1-RA-08-CAP-00E1-CCU7-15-4"	00E1	7-4"	8/28/2008	10:35	812795.55	2372087.87	812796	2372088	0.5	P	ST	6.00	
CCU-7-4"-16	1-RA-08-CAP-00E1-CCU7-16-4"	00E1	7-4"	8/29/2008	11:11	812745.16	2372188.21	812746	2372188	0.9	P	ST	6.75	
CCU-7-4"-17	1-RA-08-CAP-00E1-CCU7-17-4"	00E1	7-4"	9/3/2008	10:25	812720.39	2372212.48	812721	2372213	0.8	P	ST	6.50	
CCU-7-4"-18	1-RA-08-CAP-00E1-CCU7-18-4"	00E1	7-4"	8/29/2008	11:06	812694.63	2372163.98	812696	2372163	1.7	P	ST	6.50	
												Minimum	**4.50**	
												Average	**5.91**	
CCU-8-4"-1	1-RA-08-CAP-00E1-CCU8-1-4"	00E1	8-4"	9/5/2008	11:13	813270.59	2372363.13	813271	2372363	0.4	P	ST	6.00	
CCU-8-4"-2	1-RA-08-CAP-00E1-CCU8-2-4"	00E1	8-4"	9/4/2008	11:11	813045.74	2372337.15	813046	2372338	0.9	P	ST	6.50	
CCU-8-4"-3	1-RA-08-CAP-00E1-CCU8-3-4"	00E1	8-4"	9/5/2008	11:02	813045.73	2372388.20	813046	2372388	0.3	P	ST	7.50	
CCU-8-4"-4	1-RA-08-CAP-00E1-CCU8-4-4"	00E1	8-4"	9/5/2008	11:04	813070.39	2372411.82	813071	2372413	1.3	P	ST	5.50	
CCU-8-4"-5	1-RA-08-CAP-00E1-CCU8-5-4"	00E1	8-4"	9/5/2008	11:00	813046.47	2372438.32	813046	2372438	0.6	P	ST	6.75	
CCU-8-4"-6	1-RA-08-CAP-00E1-CCU8-6-4"	00E1	8-4"	9/8/2008	10:50	813119.39	2372514.33	813120	2372514	0.7	P	ST	7.00	
CCU-8-4"-7	1-RA-08-CAP-00E1-CCU8-7-4"	00E1	8-4"	9/8/2008	10:47	812994.32	2372464.39	812995	2372464	0.8	P	ST	6.75	
CCU-8-4"-8	1-RA-08-CAP-00E1-CCU8-8-4"	00E1	8-4"	9/4/2008	11:14	812921.63	2372363.44	812921	2372363	0.8	P	ST	3.50	
CCU-8-4"-9	1-RA-08-CAP-00E1-CCU8-9-4"	00E1	8-4"	9/4/2008	11:17	812820.56	2372337.58	812821	2372338	0.6	P	ST	8.00	
CCU-8-4"-10	1-RA-08-CAP-00E1-CCU8-10-4"	00E1	8-4"	9/5/2008	10:37	812795.33	2372388.02	812796	2372388	0.7	P	ST	7.00	
CCU-8-4"-11	1-RA-08-CAP-00E1-CCU8-11-4"	00E1	8-4"	9/5/2008	10:56	812795.58	2372437.72	812796	2372438	0.5	P	ST	4.00	
CCU-8-4"-12	1-RA-08-CAP-00E1-CCU8-12-4"	00E1	8-4"	9/8/2008	10:41	812821.36	2372463.72	812821	2372463	0.8	P	ST	5.50	
CCU-8-4"-13	1-RA-08-CAP-00E1-CCU8-13-4"	00E1	8-4"	9/8/2008	10:44	812845.07	2372488.57	812846	2372488	1.1	P	ST	5.00	
CCU-8-4"-14	1-RA-08-CAP-00E1-CCU8-14-4"	00E1	8-4"	9/5/2008	10:40	812722.14	2372413.70	812721	2372413	1.3	P	ST	7.50	
CCU-8-4"-15	1-RA-08-CAP-00E1-CCU8-15-4"	00E1	8-4"	9/5/2008	10:43	812646.33	2372437.31	812646	2372438	0.8	P	ST	6.00	
CCU-8-4"-16	1-RA-08-CAP-00E1-CCU8-16-4"	00E1	8-4"	9/8/2008	10:37	812669.45	2372487.65	812671	2372488	1.6	P	ST	5.00	
CCU-8-4"-17	1-RA-08-CAP-00E1-CCU8-17-4"	00E1	8-4"	9/8/2008	12:24	812670.79	2372537.70	812671	2372538	0.4	P	ST	8.00	
CCU-8-4"-18	1-RA-08-CAP-00E1-CCU8-18-4"	00E1	8-4"	9/8/2008	10:34	812496.34	2372462.41	812496	2372463	0.7	P	ST	4.50	
												Minimum	**3.50**	
												Average	**6.11**	
CCU-9-4"-1	1-RA-08-CAP-00E1-CCU9-1-4"	00E4	9-4"	9/10/2008	10:41	812571.48	2372562.23	812571	2372563	0.9	P	ST	5.00	
CCU-9-4"-2	1-RA-08-CAP-00E1-CCU9-2-4"	00E1	9-4"	9/10/2008	10:36	812820.41	2372563.22	812821	2372563	0.6	P	ST	6.50	
CCU-9-4"-3	1-RA-08-CAP-00E1-CCU9-3-4"	00E4	9-4"	9/10/2008	10:45	812896.16	2372611.47	812896	2372613	1.5	P	ST	5.75	
CCU-9-4"-4	1-RA-08-CAP-00E1-CCU9-4-4"	00E1	9-4"	9/10/2008	10:47	812995.73	2372538.51	812996	2372538	0.6	P	ST	6.25	
CCU-9-4"-5	1-RA-08-CAP-00E1-CCU9-5-4"	00E1	9-4"	9/10/2008	10:54	813021.84	2372588.68	813021	2372588	1.1	P	ST	8.00	
CCU-9-4"-6	1-RA-08-CAP-00E1-CCU9-6-4"	00E1	9-4"	8/25/2008	10:55	813045.99	2371963.28	813046	2371963	0.3	P	ST	6.50	
CCU-9-4"-7	1-RA-08-CAP-00E1-CCU9-7-4"	00E1	9-4"	8/25/2008	11:02	813071.73	2371936.88	813071	2371938	1.3	P	ST	7.00	
CCU-9-4"-8	1-RA-08-CAP-00E1-CCU9-8-4"	00E1	9-4"	8/25/2008	10:45	812920.69	2371913.56	812921	2371913	0.6	P	ST	5.50	

ID	Sample ID	Subarea	CCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Applied Armor Stone Thickness (in)	Comments
CCU-9-4"-9	1-RA-08-CAP-00E1-CCU9-9-4"	00E1	9-4"	8/26/2008	10:10	812895.82	2371838.37	812896	2371838	0.4	P	ST	6.00	
CCU-9-4"-10	1-RA-08-CAP-00E1-CCU9-10-4"	00E1	9-4"	8/26/2008	10:06	812845.24	2371863.81	812846	2371863	1.1	P	ST	5.50	
CCU-9-4"-11	1-RA-08-CAP-00E1-CCU9-11-4"	00E1	9-4"	9/10/2008	10:51	812947.78	2372587.55	812946	2372588	1.8	P	ST	6.00	
CCU-9-4"-12	1-RA-08-CAP-00E1-CCU9-12-4"	00E1	9-4"	8/25/2008	10:38	812720.97	2371863.81	812721	2371863	0.8	P	ST	4.50	
CCU-9-4"-13	1-RA-08-CAP-00E1-CCU9-13-4"	0E3S	9-4"	8/22/2008	14:02	812422.25	2371637.78	812422	2371637	0.8	P	ST	7.00	
CCU-9-4"-14	1-RA-08-CAP-00E1-CCU9-14-4"	00E1	9-4"	8/22/2008	14:10	812422.04	2371762.88	812422	2371763	0.1	P	ST	6.50	
CCU-9-4"-15	1-RA-08-CAP-00E1-CCU9-15-4"	00E1	9-4"	8/22/2008	14:22	812371.23	2371738.48	812371	2371738	0.5	P	ST	6.00	
CCU-9-4"-16	1-RA-08-CAP-00E1-CCU9-16-4"	00E1	9-4"	8/22/2008	14:15	812495.99	2371737.95	812496	2371738	0.1	P	ST	6.00	
CCU-9-4"-17	1-RA-08-CAP-00E1-CCU9-17-4"	0E3S	9-4"	8/22/2008	13:58	812371.74	2371664.12	812371	2371663	1.3	P	ST	4.00	
CCU-9-4"-18	1-RA-08-CAP-00E1-CCU9-18-4"	0E3S	9-4"	8/22/2008	14:07	812496.74	2371662.85	812497	2371663	0.3	P	ST	5.75	
												Minimum	**4.00**	
												Average	**5.99**	
CCU-10-4"-1	1-RA-08-CAP-00E1-CCU10-1-4"	00E1	10-4"	8/26/2008	10:32	813045.39	2371862.76	813046	2371863	0.7	P	ST	7.00	
CCU-10-4"-2	1-RA-08-CAP-00E1-CCU10-2-4"	00E1	10-4"	8/27/2008	10:49	813246.47	2371862.93	813246	2371863	0.5	P	ST	5.50	
CCU-10-4"-3	1-RA-08-CAP-00E1-CCU10-3-4"	00E1	10-4"	8/26/2008	10:41	813221.64	2371837.51	813222	2371838	0.6	P	ST	6.50	
CCU-10-4"-4	1-RA-08-CAP-00E1-CCU10-4-4"	00E1	10-4"	8/26/2008	10:35	813070.35	2371812.35	813071	2371813	0.9	P	ST	5.00	
CCU-10-4"-5	1-RA-08-CAP-00E1-CCU10-5-4"	00E1	10-4"	8/27/2008	10:59	812971.61	2371787.36	812971	2371788	0.9	P	ST	7.00	
CCU-10-4"-6	1-RA-08-CAP-00E1-CCU10-6-4"	00E1	10-4"	8/26/2008	10:29	812796.00	2371787.34	812796	2371788	0.7	P	ST	6.00	
CCU-10-4"-7	1-RA-08-CAP-00E1-CCU10-7-4"	00E1	10-4"	8/27/2008	10:46	812670.41	2371763.42	812671	2371763	0.7	P	ST	6.50	
CCU-10-4"-8	1-RA-08-CAP-0E3S-CCU10-8-4"	0E3S	10-4"	8/27/2008	10:52	812847.53	2371763.15	812846	2371763	1.5	P	ST	6.00	
CCU-10-4"-9	1-RA-08-CAP-0E3S-CCU10-9-4"	0E3S	10-4"	8/27/2008	10:50	812821.37	2371737.06	812821	2371738	1.0	P	ST	6.00	
CCU-10-4"-10	1-RA-08-CAP-0E3S-CCU10-10-4"	0E3S	10-4"	8/27/2008	11:05	813222.05	2371789.15	813222	2371788	1.2	P	ST	5.00	
CCU-10-4"-11	1-RA-08-CAP-0E3S-CCU10-11-4"	0E3S	10-4"	8/27/2008	11:09	813222.32	2371762.84	813222	2371763	0.4	P	ST	5.50	
CCU-10-4"-12	1-RA-08-CAP-0E3S-CCU10-12-4"	0E3S	10-4"	8/28/2008	10:13	812995.58	2371736.94	812996	2371738	1.1	P	ST	5.25	
CCU-10-4"-13	1-RA-08-CAP-0E3S-CCU10-13-4"	0E3S	10-4"	8/28/2008	09:49	812721.92	2371688.88	812721	2371688	1.3	P	ST	4.00	
CCU-10-4"-14	1-RA-08-CAP-0E3S-CCU10-14-4"	0E3S	10-4"	8/28/2008	10:04	813096.78	2371711.54	813096	2371713	1.7	P	ST	2.00	
CCU-10-4"-15	1-RA-08-CAP-0E3S-CCU10-15-4"	0E3S	10-4"	8/28/2008	10:09	813195.38	2371713.04	813196	2371713	0.6	P	ST	5.00	
CCU-10-4"-16	1-RA-08-CAP-0E3S-CCU10-16-4"	0E3S	10-4"	8/28/2008	10:06	813172.33	2371688.41	813171	2371688	1.4	P	ST	5.50	
CCU-10-4"-17	1-RA-08-CAP-0E3S-CCU10-17-4"	0E3S	10-4"	8/28/2008	10:26	813295.17	2371687.28	813296	2371688	1.1	P	ST	5.00	
CCU-10-4"-18(A)	1-RA-08-CAP-0E3S-CCU10-18-4"(A)	0E3S	10-4"	8/28/2008	00:15	813243.00	2371651.00	813197	2371638	47.8	P	ST	5.33	Brennan QC data used[2]
												Minimum	**2.00**	
												Average	**5.45**	
CCU-11-4"-1	1-RA-08-CAP-00E1-CCU11-1-4"	00E1	11-4"	9/19/2008	10:05	813895.53	2372213.72	813896	2372214	0.5	P	ST	7.00	
CCU-11-4"-2	1-RA-08-CAP-00E1-CCU11-2-4"	00E1	11-4"	9/10/2008	11:34	813821.81	2372189.47	813821	2372189	0.9	P	ST	6.75	
CCU-11-4"-3	1-RA-08-CAP-00E1-CCU11-3-4"	00E1	11-4"	9/12/2008	10:38	813795.47	2372238.67	813796	2372239	0.6	P	ST	8.00	
CCU-11-4"-4	1-RA-08-CAP-00E1-CCU11-4-4"	00E1	11-4"	9/12/2008	10:36	813795.38	2372289.33	813796	2372289	0.7	P	ST	8.00	
CCU-11-4"-5	1-RA-08-CAP-00E1-CCU11-5-4"	00E1	11-4"	9/12/2008	10:44	813820.22	2372313.19	813821	2372314	1.1	P	ST	7.00	
CCU-11-4"-6	1-RA-08-CAP-00E1-CCU11-6-4"	00E1	11-4"	9/12/2008	10:34	813770.23	2372338.34	813771	2372339	1.0	P	ST	7.25	
CCU-11-4"-7	1-RA-08-CAP-00E1-CCU11-7-4"	00E1	11-4"	9/12/2008	10:32	813695.33	2372312.53	813696	2372313	0.8	P	ST	7.50	
CCU-11-4"-8	1-RA-08-CAP-00E1-CCU11-8-4"	00E1	11-4"	9/10/2008	11:27	813697.28	2372163.16	813696	2372163	1.3	P	ST	7.50	
CCU-11-4"-9(A)	1-RA-08-CAP-00E1-CCU11-9-4"(A)	00E1	11-4"	9/10/2008	00:38	813641.00	2372237.00	813621	2372239	20.1	P	ST	5.83	Brennan QC data used[2]
CCU-11-4"-10	1-RA-08-CAP-00E1-CCU11-10-4"	00E1	11-4"	9/12/2008	10:22	813619.96	2372337.99	813621	2372338	1.0	P	ST	6.00	
CCU-11-4"-11	1-RA-08-CAP-00E1-CCU11-11-4"	00E1	11-4"	9/12/2008	10:19	813569.64	2372262.29	813571	2372263	1.5	P	ST	8.00	
CCU-11-4"-12	1-RA-08-CAP-00E1-CCU11-12-4"	00E1	11-4"	9/12/2008	10:17	813545.24	2372213.04	813546	2372214	1.2	P	ST	11.75	
CCU-11-4"-13	1-RA-08-CAP-00E1-CCU11-13-4"	00E1	11-4"	9/12/2008	10:10	813470.30	2372312.09	813471	2372313	1.1	P	ST	12.00	
CCU-11-4"-14	1-RA-08-CAP-00E1-CCU11-14-4"	00E1	11-4"	9/10/2008	11:20	813421.61	2372238.58	813421	2372238	0.8	P	ST	5.00	
CCU-11-4"-15(A)	1-RA-08-CAP-00E1-CCU11-15-4"(A)	00E1	11-4"	9/10/2008	06:52	813364.00	2372254.00	813396	2372263	33.2	P	ST	5.33	Brennan QC data used[2]
CCU-11-4"-16	1-RA-08-CAP-00E1-CCU11-16-4"	00E1	11-4"	9/10/2008	11:16	813370.61	2372187.96	813371	2372188	0.4	P	ST	6.75	
CCU-11-4"-17	1-RA-08-CAP-00E1-CCU11-17-4"	00E1	11-4"	9/12/2008	10:14	813544.95	2372337.09	813546	2372338	1.4	P	ST	6.00	
CCU-11-4"-18	1-RA-08-CAP-00E1-CCU11-18-4"	00E1	11-4"	9/12/2008	10:07	813345.44	2372338.45	813346	2372338	0.7	P	ST	5.00	
												Minimum	**5.00**	
												Average	**7.26**	
CCU-12-4"-1	1-RA-08-CAP-00E1-CCU12-1-4"	00E1	12-4"	9/15/2008	10:11	813845.47	2372436.95	813846	2372438	1.2	P	ST	3.75	
CCU-12-4"-2	1-RA-08-CAP-00E1-CCU12-2-4"	00E1	12-4"	9/19/2008	10:09	813845.56	2372464.62	813846	2372464	0.8	P	ST	8.00	
CCU-12-4"-3	1-RA-08-CAP-00E1-CCU12-3-4"	00E1	12-4"	9/19/2008	10:11	813870.40	2372489.59	813871	2372489	0.8	P	ST	7.00	
CCU-12-4"-4	1-RA-08-CAP-00E1-CCU12-4-4"	00E1	12-4"	9/19/2008	10:15	813845.74	2372537.29	813846	2372538	0.8	P	ST	11.00	
CCU-12-4"-5	1-RA-08-CAP-00E1-CCU12-5-4"	00E1	12-4"	9/17/2008	09:39	813820.52	2372563.70	813821	2372564	0.6	P	ST	6.00	
CCU-12-4"-6	1-RA-08-CAP-00E1-CCU12-6-4"	00E1	12-4"	9/17/2008	09:36	813670.68	2372512.63	813671	2372513	0.5	P	ST	7.00	
CCU-12-4"-7	1-RA-08-CAP-00E1-CCU12-7-4"	00E1	12-4"	9/12/2008	12:19	813570.53	2372362.16	813571	2372363	1.0	P	ST	8.00	
CCU-12-4"-8	1-RA-08-CAP-00E1-CCU12-8-4"	00E1	12-4"	9/15/2008	10:08	813570.27	2372438.03	813571	2372438	0.7	P	ST	7.00	
CCU-12-4"-9	1-RA-08-CAP-00E1-CCU12-9-4"	00E1	12-4"	9/15/2008	10:06	813570.52	2372463.31	813571	2372463	0.6	P	ST	6.50	
CCU-12-4"-10	1-RA-08-CAP-00E1-CCU12-10-4"	00E1	12-4"	9/17/2008	09:32	813545.72	2372539.14	813546	2372539	0.3	P	ST	7.00	
CCU-12-4"-11	1-RA-08-CAP-00E1-CCU12-11-4"	00E1	12-4"	9/12/2008	12:17	813520.37	2372413.48	813521	2372413	0.8	P	ST	7.00	
CCU-12-4"-12	1-RA-08-CAP-00E1-CCU12-12-4"	00E1	12-4"	9/12/2008	12:14	813470.10	2372388.03	813471	2372388	0.9	P	ST	6.50	
CCU-12-4"-13	1-RA-08-CAP-00E1-CCU12-13-4"	00E1	12-4"	9/19/2008	10:20	813471.29	2372437.73	813471	2372438	0.4	P	ST	6.00	
CCU-12-4"-14	1-RA-08-CAP-00E1-CCU12-14-4"	00E1	12-4"	9/17/2008	09:30	813420.53	2372538.47	813421	2372538	0.7	P	ST	7.00	
CCU-12-4"-15	1-RA-08-CAP-00E1-CCU12-15-4"	00E1	12-4"	9/15/2008	10:01	813370.71	2372462.30	813371	2372463	0.8	P	ST	6.75	
CCU-12-4"-16	1-RA-08-CAP-00E1-CCU12-16-4"	00E1	12-4"	9/17/2008	09:27	813370.32	2372487.15	813371	2372488	1.1	P	ST	7.00	
CCU-12-4"-17	1-RA-08-CAP-00E1-CCU12-17-4"	00E1	12-4"	9/12/2008	10:58	813345.73	2372363.26	813346	2372363	0.4	P	ST	5.50	
CCU-12-4"-18	1-RA-08-CAP-00E1-CCU12-18-4"	00E1	12-4"	9/12/2008	10:55	813295.33	2372387.54	813296	2372388	0.8	P	ST	5.00	
												Minimum	**3.75**	
												Average	**6.78**	
CCU-13-4"-1	1-RA-08-CAP-00E1-CCU13-1-4"	00E1	13-4"	9/17/2008	10:40	813870.73	2372613.19	813871	2372613	0.3	P	ST	10.00	
CCU-13-4"-2	1-RA-08-CAP-00E1-CCU13-2-4"	00E1	13-4"	9/17/2008	10:38	813820.87	2372664.09	813821	2372664	0.2	P	ST	6.00	
CCU-13-4"-3	1-RA-08-CAP-00E1-CCU13-3-4"	00E1	13-4"	9/17/2008	10:43	813771.31	2372638.59	813771	2372639	0.5	P	ST	6.50	
CCU-13-4"-4	1-RA-08-CAP-00E1-CCU13-4-4"	00E1	13-4"	9/17/2008	10:11	813496.50	2372587.84	813496	2372588	0.5	P	ST	6.50	
CCU-13-4"-5(A)	1-RA-08-CAP-00E1-CCU13-5-4"(A)	00E1	13-4"	9/16/2008	17:53	813337.00	2372673.00	813396	2372663	59.8	P	ST	5.50	Brennan QC data used[2]
CCU-13-4"-6	1-RA-08-CAP-00E1-CCU13-6-4"	00E1	13-4"	9/17/2008	10:25	813320.60	2372563.53	813321	2372563	0.7	P	ST	6.00	
CCU-13-4"-7	1-RA-08-CAP-00E1-CCU13-7-4"	00E1	13-4"	9/17/2008	10:23	813320.65	2372613.34	813321	2372613	0.5	P	ST	6.75	
CCU-13-4"-8	1-RA-08-CAP-00E4-CCU13-8-4"	00E4	13-4"	9/17/2008	10:34	813295.46	2372712.35	813296	2372713	0.8	P	ST	4.00	
CCU-13-4"-9	1-RA-08-CAP-00E1-CCU13-9-4"	00E1	13-4"	9/23/2008	10:34	813846.33	2372114.31	813846	2372114	0.5	P	ST	4.75	
CCU-13-4"-10	1-RA-08-CAP-00E1-CCU13-10-4"	00E1	13-4"	9/23/2008	10:31	813798.59	2372063.35	813796	2372063	2.6	P	ST	7.00	
CCU-13-4"-11	1-RA-08-CAP-00E1-CCU13-11-4"	00E1	13-4"	9/23/2008	10:28	813770.29	2372138.47	813771	2372138	0.9	P	ST	5.50	
CCU-13-4"-12	1-RA-08-CAP-00E1-CCU13-12-4"	00E1	13-4"	9/23/2008	10:25	813720.71	2372113.40	813721	2372113	0.5	P	ST	6.25	
CCU-13-4"-13	1-RA-08-CAP-00E1-CCU13-13-4"	00E1	13-4"	9/23/2008	10:22	813546.82	2372112.51	813546	2372113	1.0	P	ST	8.50	
CCU-13-4"-14	1-RA-08-CAP-00E1-CCU13-14-4"	00E1	13-4"	9/23/2008	10:17	813520.78	2372087.42	813521	2372088	0.6	P	ST	7.00	
CCU-13-4"-15	1-RA-08-CAP-00E1-CCU13-15-4"	00E1	13-4"	9/23/2008	10:06	813445.60	2372012.85	813446	2372013	0.4	P	ST	12.00	
CCU-13-4"-16	1-RA-08-CAP-00E1-CCU13-16-4"	00E1	13-4"	9/23/2008	10:02	813420.71	2372037.64	813421	2372038	0.5	P	ST	6.75	
CCU-13-4"-17	1-RA-08-CAP-00E1-CCU13-17-4"	00E1	13-4"	9/23/2008	09:53	813370.86	2372088.06	813371	2372088	0.2	P	ST	6.00	
CCU-13-4"-18(A)	1-RA-08-CAP-00E1-CCU13-18-4"(A)	00E1	13-4"	8/28/2008	10:46	813227.00	2372070.00	813221	2372063	9.2	P	ST	5.17	Brennan QC data used[2]
												Minimum	**4.00**	
												Average	**6.68**	

ID	Sample ID	Subarea	CCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Applied Armor Stone Thickness (in)	Comments
CCU-14-4"-1	1-RA-08-CAP-00E1-CCU14-1-4"	00E1	14-4"	9/19/2008	10:27	814020.83	2372588.72	814021	2372589	0.3	P	ST	7.50	
CCU-14-4"-2	1-RA-08-CAP-00E1-CCU14-2-4"	00E1	14-4"	9/19/2008	10:24	813920.57	2372564.02	813921	2372564	0.4	P	ST	5.50	
CCU-14-4"-3	1-RA-08-CAP-00E1-CCU14-3-4"	00E1	14-4"	9/19/2008	10:30	813970.95	2372514.13	813971	2372514	0.1	P	ST	8.50	
CCU-14-4"-4	1-RA-08-CAP-00E1-CCU14-4-4"	00E1	14-4"	9/19/2008	10:36	814021.47	2372463.55	814021	2372464	0.7	P	ST	6.00	
CCU-14-4"-5	1-RA-08-CAP-00E1-CCU14-5-4"	00E1	14-4"	9/19/2008	10:39	814020.89	2372438.83	814021	2372439	0.2	P	ST	5.75	
CCU-14-4"-6	1-RA-08-CAP-00E1-CCU14-6-4"	00E1	14-4"	9/19/2008	10:41	814045.64	2372413.86	814046	2372414	0.4	P	ST	8.00	
CCU-14-4"-7	1-RA-08-CAP-00E1-CCU14-7-4"	00E1	14-4"	9/19/2008	10:44	813970.46	2372314.38	813971	2372314	0.7	P	ST	6.00	
CCU-14-4"-8	1-RA-08-CAP-00E1-CCU14-8-4"	00E1	14-4"	9/19/2008	10:46	814095.61	2372289.37	814096	2372289	0.5	P	ST	6.00	
CCU-14-4"-9	1-RA-08-CAP-00E1-CCU14-9-4"	00E1	14-4"	9/19/2008	10:48	814095.30	2372239.41	814096	2372239	0.8	P	ST	4.00	
CCU-14-4"-10	1-RA-08-CAP-00E1-CCU14-10-4"	00E1	14-4"	9/19/2008	10:51	814070.38	2372189.81	814071	2372189	1.0	P	ST	5.00	
CCU-14-4"-11	1-RA-08-CAP-00E1-CCU14-11-4"	00E1	14-4"	9/19/2008	10:54	813946.25	2372189.47	813946	2372189	0.5	P	ST	5.00	
CCU-14-4"-12	1-RA-08-CAP-00E1-CCU14-12-4"	00E1	14-4"	9/25/2008	11:38	814072.67	2372084.06	814071	2372084	1.7	P	ST	5.50	
CCU-14-4"-13	1-RA-08-CAP-00E1-CCU14-13-4"	00E1	14-4"	9/25/2008	11:36	814020.01	2372079.55	814020	2372080	0.5	P	ST	6.75	
CCU-14-4"-14	1-RA-08-CAP-00E1-CCU14-14-4"	00E1	14-4"	9/25/2008	11:25	813945.76	2372088.66	813946	2372089	0.4	P	ST	8.00	
CCU-14-4"-15	1-RA-08-CAP-00E1-CCU14-15-4"	00E1	14-4"	9/25/2008	11:21	813871.41	2372038.66	813871	2372039	0.5	P	ST	5.25	
CCU-14-4"-16	1-RA-08-CAP-00E1-CCU14-16-4"	00E1	14-4"	9/25/2008	11:19	813870.86	2372014.52	813871	2372014	0.5	P	ST	7.00	
CCU-14-4"-17	1-RA-08-CAP-00E1-CCU14-17-4"	00E1	14-4"	9/25/2008	11:23	813895.87	2372964.17	813896	2372964	0.2	P	ST	7.00	
CCU-14-4"-18	1-RA-08-CAP-00E1-CCU14-18-4"	00E1	14-4"	9/25/2008	11:16	813770.69	2372987.85	813771	2372988	0.3	P	ST	6.50	
												Minimum	**4.00**	
												Average	**6.29**	
CCU-15-4"-1	1-RA-08-CAP-00E1-CCU15-1-4"	00E1	15-4"	9/23/2008	11:17	813470.68	2371988.26	813471	2371988	0.4	P	ST	8.00	
CCU-15-4"-2	1-RA-08-CAP-00E1-CCU15-2-4"	00E1	15-4"	9/25/2008	11:09	814070.85	2371989.32	814071	2371989	0.4	P	ST	5.75	
CCU-15-4"-3	1-RA-08-CAP-00E1-CCU15-3-4"	00E1	15-4"	9/25/2008	11:11	813946.21	2371965.82	813946	2371964	1.8	P	ST	5.75	
CCU-15-4"-4	1-RA-08-CAP-00E1-CCU15-4-4"	00E1	15-4"	9/25/2008	11:06	814020.78	2371938.64	814021	2371939	0.4	P	ST	6.50	
CCU-15-4"-5	1-RA-08-CAP-00E1-CCU15-5-4"	00E1	15-4"	9/25/2008	10:47	813845.85	2371938.14	813846	2371938	0.2	P	ST	6.00	
CCU-15-4"-6	1-RA-08-CAP-00E1-CCU15-6-4"	00E1	15-4"	9/25/2008	10:44	813695.79	2371913.53	813696	2371914	0.5	P	ST	8.00	
CCU-15-4"-7	1-RA-08-CAP-00E1-CCU15-7-4"	00E1	15-4"	9/25/2008	10:39	813621.35	2371888.29	813621	2371888	0.5	P	ST	5.75	
CCU-15-4"-8	1-RA-08-CAP-00E1-CCU15-8-4"	00E1	15-4"	9/25/2008	10:34	813495.99	2371913.46	813496	2371913	0.5	P	ST	6.25	
CCU-15-4"-9	1-RA-08-CAP-00E1-CCU15-9-4"	00E1	15-4"	9/25/2008	10:32	813421.41	2371863.01	813421	2371863	0.4	P	ST	6.50	
CCU-15-4"-10	1-RA-08-CAP-0E3S-CCU15-10-4"	0E3S	15-4"	9/25/2008	10:49	813846.70	2371889.59	813846	2371889	0.9	P	ST	5.75	
CCU-15-4"-11	1-RA-08-CAP-0E3S-CCU15-11-4"	0E3S	15-4"	9/29/2008	10:04	813747.18	2371864.47	813746	2371864	1.3	P	ST	8.50	
CCU-15-4"-12	1-RA-08-CAP-0E3S-CCU15-12-4"	0E3S	15-4"	9/29/2008	09:55	813921.35	2371863.53	813921	2371864	0.6	P	ST	6.00	
CCU-15-4"-13	1-RA-08-CAP-0E3S-CCU15-13-4"	0E3S	15-4"	9/29/2008	10:44	814071.25	2371839.10	814071	2371839	0.3	P	ST	5.00	
CCU-15-4"-14	1-RA-08-CAP-0E3S-CCU15-14-4"	0E3S	15-4"	9/29/2008	10:00	813821.39	2371813.27	813821	2371814	0.8	P	ST	7.50	
CCU-15-4"-15	1-RA-08-CAP-0E3S-CCU15-15-4"	0E3S	15-4"	9/29/2008	10:10	813545.56	2371813.24	813546	2371813	0.5	P	ST	3.50	
CCU-15-4"-16	1-RA-08-CAP-0E3S-CCU15-16-4"	0E3S	15-4"	9/29/2008	09:59	813895.65	2371789.33	813896	2371789	0.5	P	ST	9.00	
CCU-15-4"-17	1-RA-08-CAP-0E3S-CCU15-17-4"	0E3S	15-4"	9/29/2008	10:06	813720.97	2371788.23	813721	2371788	0.2	P	ST	6.00	
CCU-15-4"-18	1-RA-08-CAP-0E3S-CCU15-18-4"	0E3S	15-4"	9/29/2008	10:13	813471.46	2371763.58	813471	2371763	0.7	P	ST	7.50	
												Minimum	**3.50**	
												Average	**6.51**	
CCU-16-4"-1	1-RA-08-CAP-00E2-CCU16-1-4"	00E2	16-4"	10/9/2008	11:14	814120.60	2372514.32	814121	2372514	0.5	P	ST	5.00	
CCU-16-4"-2	1-RA-08-CAP-00E2-CCU16-2-4"	00E2	16-4"	10/9/2008	11:11	814146.21	2372488.17	814146	2372488	0.3	P	ST	7.50	
CCU-16-4"-3	1-RA-08-CAP-00E2-CCU16-3-4"	00E2	16-4"	10/9/2008	11:07	814320.56	2372488.08	814321	2372489	1.0	P	ST	3.50	
CCU-16-4"-4	1-RA-08-CAP-00E2-CCU16-4-4"	00E2	16-4"	10/9/2008	10:55	814220.49	2372463.17	814221	2372464	1.0	P	ST	6.00	
CCU-16-4"-5	1-RA-08-CAP-00E2-CCU16-5-4"	00E2	16-4"	10/9/2008	11:04	814320.56	2372438.84	814321	2372439	0.5	P	ST	9.00	
CCU-16-4"-6	1-RA-08-CAP-00E2-CCU16-6-4"	00E2	16-4"	10/9/2008	11:00	814320.21	2372388.97	814321	2372389	0.8	P	ST	6.00	
CCU-16-4"-7	1-RA-08-CAP-00E2-CCU16-7-4"	00E2	16-4"	10/9/2008	10:44	814195.33	2372388.58	814196	2372389	0.8	P	ST	6.50	
CCU-16-4"-8	1-RA-08-CAP-00E2-CCU16-8-4"	00E2	16-4"	10/9/2008	10:58	814295.26	2372364.02	814296	2372364	0.7	P	ST	6.50	
CCU-16-4"-9	1-RA-08-CAP-00E2-CCU16-9-4"	00E2	16-4"	10/9/2008	10:42	814196.01	2372338.55	814196	2372339	0.5	P	ST	5.50	
CCU-16-4"-10	1-RA-08-CAP-00E2-CCU16-10-4"	00E2	16-4"	10/9/2008	10:33	814245.56	2372264.15	814246	2372264	0.5	P	ST	6.00	
CCU-16-4"-11	1-RA-08-CAP-00E2-CCU16-11-4"	00E2	16-4"	10/9/2008	10:29	814346.29	2372288.62	814346	2372289	0.5	P	ST	7.25	
CCU-16-4"-12	1-RA-08-CAP-0E3S-CCU16-12-4"	0E3S	16-4"	9/29/2008	10:39	813820.32	2371763.06	813821	2371764	1.2	P	ST	7.50	
CCU-16-4"-13	1-RA-08-CAP-0E3S-CCU16-13-4"	0E3S	16-4"	9/29/2008	10:36	813720.95	2371762.53	813721	2371763	0.5	P	ST	6.00	
CCU-16-4"-14	1-RA-08-CAP-0E3S-CCU16-14-4"	0E3S	16-4"	9/29/2008	10:15	813495.63	2371738.43	813496	2371738	0.6	P	ST	5.50	
CCU-16-4"-15	1-RA-08-CAP-0E3S-CCU16-15-4"	0E3S	16-4"	9/29/2008	10:18	813520.64	2371688.30	813521	2371688	0.5	P	ST	12.00	
CCU-16-4"-16	1-RA-08-CAP-0E3S-CCU16-16-4"	0E3S	16-4"	9/29/2008	10:32	813720.84	2371713.58	813721	2371714	0.4	P	ST	6.50	
CCU-16-4"-17	1-RA-08-CAP-00E2-CCU16-17-4"	00E2	16-4"	10/9/2008	10:40	814171.24	2372239.54	814171	2372239	0.6	P	ST	5.00	
CCU-16-4"-18	1-RA-08-CAP-0E3S-CCU16-18-4"	0E3S	16-4"	9/29/2008	10:21	813595.61	2371664.48	813596	2371664	0.6	P	ST	6.50	
												Minimum	**3.50**	
												Average	**6.54**	
CCU-17-4"-1	1-RA-08-CAP-00E2-CCU17-1-4"	00E2	17-4"	10/15/2008	10:19	814394.55	2372239.05	814395	2372239	0.5	P	ST	4.00	
CCU-17-4"-2	1-RA-08-CAP-00E2-CCU17-2-4"	00E2	17-4"	10/9/2008	10:16	814371.10	2372215.15	814371	2372214	1.2	P	ST	7.00	
CCU-17-4"-3	1-RA-08-CAP-00E2-CCU17-3-4"	00E2	17-4"	10/15/2008	10:23	814395.24	2372164.33	814396	2372164	0.8	P	ST	2.00	
CCU-17-4"-4	1-RA-08-CAP-00E2-CCU17-4-4"	00E2	17-4"	10/9/2008	10:01	814270.60	2372164.59	814271	2372164	0.7	P	ST	6.25	
CCU-17-4"-5	1-RA-08-CAP-00E2-CCU17-5-4"	00E2	17-4"	10/7/2008	10:57	814295.76	2372139.21	814296	2372139	0.3	P	ST	6.00	
CCU-17-4"-6(A)	1-RA-08-CAP-00E2-CCU17-6-4"(A)	00E2	17-4"	10/6/2008	20:01	814374.00	2372109.00	814296	2372114	78.2	P	ST	5.67	Brennan QC data used[2]
CCU-17-4"-7	1-RA-08-CAP-00E2-CCU17-7-4"	00E2	17-4"	10/7/2008	10:32	814171.24	2372113.74	814171	2372114	0.4	P	ST	12.00	
CCU-17-4"-8	1-RA-08-CAP-00E2-CCU17-8-4"	00E2	17-4"	10/7/2008	10:29	814145.90	2372014.17	814146	2372014	0.2	P	ST	5.75	
CCU-17-4"-9	1-RA-08-CAP-00E2-CCU17-9-4"	00E2	17-4"	10/7/2008	10:40	814271.67	2372013.68	814272	2372014	0.5	P	ST	7.00	
CCU-17-4"-10	1-RA-08-CAP-00E2-CCU17-10-4"	00E2	17-4"	10/7/2008	11:00	814370.85	2372039.34	814371	2372039	0.4	P	ST	6.00	
CCU-17-4"-11	1-RA-08-CAP-00E2-CCU17-11-4"	00E2	17-4"	10/7/2008	11:01	814396.39	2372064.08	814396	2372064	0.4	P	ST	6.75	
CCU-17-4"-12	1-RA-08-CAP-0E3S-CCU17-12-4"	0E3S	17-4"	10/3/2008	10:42	814196.45	2371964.19	814196	2371964	0.5	P	ST	8.00	
CCU-17-4"-13	1-RA-08-CAP-0E3S-CCU17-13-4"	0E3S	17-4"	10/3/2008	10:40	814246.35	2371913.41	814246	2371914	0.7	P	ST	5.25	
CCU-17-4"-14	1-RA-08-CAP-0E3S-CCU17-14-4"	0E3S	17-4"	10/3/2008	10:34	814345.97	2371864.49	814346	2371864	0.5	P	ST	11.00	
CCU-17-4"-15	1-RA-08-CAP-0E3S-CCU17-15-4"	0E3S	17-4"	10/3/2008	10:38	814171.21	2371839.15	814171	2371839	0.3	P	ST	5.25	
CCU-17-4"-16	1-RA-08-CAP-0E3S-CCU17-16-4"	0E3S	17-4"	10/7/2008	10:19	814195.59	2371814.46	814196	2371814	0.6	P	ST	6.00	
CCU-17-4"-17	1-RA-08-CAP-0E3S-CCU17-17-4"	0E3S	17-4"	10/7/2008	10:21	814245.54	2371764.44	814246	2371764	0.6	P	ST	5.50	
CCU-17-4"-18	1-RA-08-CAP-0E3S-CCU17-18-4"	0E3S	17-4"	10/7/2008	10:24	814270.55	2371714.26	814271	2371714	0.5	P	ST	8.00	
												Minimum	**2.00**	
												Average	**6.52**	
CCU-18-4"-1	1-RA-08-CAP-00E2-CCU18-1-4"	00E2	18-4"	10/21/2008	10:16	814846.40	2372739.11	814846	2372739	0.4	P	ST	7.00	
CCU-18-4"-2	1-RA-08-CAP-00E2-CCU18-2-4"	00E2	18-4"	10/13/2008	10:58	814796.46	2372813.27	814796	2372814	0.9	P	ST	4.00	
CCU-18-4"-3	1-RA-08-CAP-00E2-CCU18-3-4"	00E2	18-4"	10/13/2008	11:10	814746.10	2372814.86	814746	2372814	0.9	P	ST	6.00	
CCU-18-4"-4	1-RA-08-CAP-00E2-CCU18-4-4"	00E2	18-4"	10/13/2008	11:02	814746.46	2372712.60	814746	2372714	1.5	P	ST	13.00	
CCU-18-4"-5	1-RA-08-CAP-00E2-CCU18-5-4"	00E2	18-4"	10/13/2008	10:35	814595.79	2372588.82	814596	2372589	0.3	P	ST	5.50	
CCU-18-4"-6	1-RA-08-CAP-00E2-CCU18-6-4"	00E2	18-4"	10/13/2008	10:37	814596.42	2372663.35	814596	2372664	0.8	P	ST	8.50	
CCU-18-4"-7	1-RA-08-CAP-00E2-CCU18-7-4"	00E2	18-4"	10/13/2008	10:33	814570.66	2372639.15	814571	2372639	0.4	P	ST	7.00	
CCU-18-4"-8	1-RA-08-CAP-00E2-CCU18-8-4"	00E2	18-4"	10/13/2008	10:32	814496.23	2372563.47	814496	2372564	0.6	P	ST	5.00	
CCU-18-4"-9	1-RA-08-CAP-00E2-CCU18-9-4"	00E2	18-4"	10/13/2008	10:28	814471.36	2372613.38	814471	2372614	0.7	P	ST	6.50	
CCU-18-4"-10	1-RA-08-CAP-00E2-CCU18-10-4"	00E2	18-4"	10/13/2008	10:25	814371.58	2372514.16	814371	2372514	0.6	P	ST	7.00	
CCU-18-4"-11	1-RA-08-CAP-00E2-CCU18-11-4"	00E2	18-4"	10/13/2008	10:45	814371.41	2372664.58	814371	2372664	0.7	P	ST	10.50	
CCU-18-4"-12	1-RA-08-CAP-00E2-CCU18-12-4"	00E2	18-4"	10/13/2008	10:43	814471.17	2372689.10	814471	2372689	0.2	P	ST	8.00	

ID	Sample ID	Subarea	CCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Applied Armor Stone Thickness (in)	Comments
CCU-18-4"-13	1-RA-08-CAP-00E2-CCU18-13-4"	00E2	18-4"	10/13/2008	10:40	814596.05	2372764.39	814596	2372764	0.4	P	ST	4.50	
CCU-18-4"-14	1-RA-08-CAP-00E2-CCU18-14-4"	00E2	18-4"	10/13/2008	10:39	814596.69	2372712.99	814596	2372714	1.2	P	ST	6.00	
CCU-18-4"-15	1-RA-08-CAP-00E2-CCU18-15-4"	00E2	18-4"	10/13/2008	10:50	814670.70	2372839.05	814671	2372839	0.3	P	ST	6.00	
CCU-18-4"-16	1-RA-08-CAP-00E2-CCU18-16-4"	00E2	18-4"	10/13/2008	10:53	814721.52	2372863.35	814721	2372864	0.8	P	ST	12.00	
CCU-18-4"-17	1-RA-08-CAP-00E2-CCU18-17-4"	00E2	18-4"	10/17/2008	11:18	814620.30	2372913.43	814621	2372914	0.9	P	ST	6.00	
CCU-18-4"-18	1-RA-08-CAP-00E2-CCU18-18-4"	00E2	18-4"	10/15/2008	11:13	814595.80	2372938.50	814596	2372939	0.5	P	ST	4.25	
												Minimum	**4.00**	
												Average	**7.04**	
CCU-19-4"-1	1-RA-08-CAP-00E2-CCU19-1-4"	00E2	19-4"	10/13/2008	11:15	814571.80	2372514.12	814571	2372514	0.8	P	ST	13.00	
CCU-19-4"-2	1-RA-08-CAP-00E2-CCU19-2-4"	00E2	19-4"	10/13/2008	11:21	814521.69	2372414.67	814521	2372414	1.0	P	ST	4.50	
CCU-19-4"-3	1-RA-08-CAP-00E2-CCU19-3-4"	00E2	19-4"	10/13/2008	11:36	814445.71	2372338.83	814446	2372339	0.3	P	ST	9.00	
CCU-19-4"-4	1-RA-08-CAP-00E2-CCU19-4-4"	00E2	19-4"	10/15/2008	10:26	814446.39	2372288.59	814446	2372289	0.6	P	ST	6.00	
CCU-19-4"-5	1-RA-08-CAP-00E2-CCU19-5-4"	00E2	19-4"	10/13/2008	11:26	814393.14	2372313.28	814392	2372314	1.3	P	ST	13.00	
CCU-19-4"-6	1-RA-08-CAP-00E2-CCU19-6-4"	00E2	19-4"	10/15/2008	10:29	814445.75	2372189.33	814446	2372189	0.4	P	ST	5.75	
CCU-19-4"-7	1-RA-08-CAP-00E2-CCU19-7-4"	00E2	19-4"	10/15/2008	10:31	814545.48	2372289.38	814546	2372289	0.6	P	ST	13.00	
CCU-19-4"-8	1-RA-08-CAP-00E2-CCU19-8-4"	00E2	19-4"	10/15/2008	10:34	814621.90	2372314.42	814621	2372314	1.0	P	ST	6.50	
CCU-19-4"-9	1-RA-08-CAP-00E2-CCU19-9-4"	00E2	19-4"	10/15/2008	10:38	814646.94	2372239.59	814646	2372239	1.1	P	ST	4.25	
CCU-19-4"-10	1-RA-08-CAP-00E2-CCU19-10-4"	00E2	19-4"	10/15/2008	10:40	814571.66	2372239.16	814571	2372239	0.7	P	ST	5.00	
CCU-19-4"-11	1-RA-08-CAP-00E2-CCU19-11-4"	00E2	19-4"	10/15/2008	10:43	814546.95	2372214.48	814546	2372214	1.1	P	ST	6.50	
CCU-19-4"-12	1-RA-08-CAP-00E2-CCU19-12-4"	00E2	19-4"	10/15/2008	10:45	814595.55	2372164.02	814596	2372164	0.5	P	ST	6.00	
CCU-19-4"-13	1-RA-08-CAP-00E2-CCU19-13-4"	00E2	19-4"	10/15/2008	10:48	814595.78	2372139.23	814596	2372139	0.3	P	ST	6.00	
CCU-19-4"-14	1-RA-08-CAP-00E2-CCU19-14-4"	00E2	19-4"	10/15/2008	10:55	814521.10	2372064.46	814521	2372064	0.5	P	ST	5.00	
CCU-19-4"-15	1-RA-08-CAP-0E3S-CCU19-15-4"	0E3S	19-4"	10/15/2008	10:59	814620.47	2372039.53	814621	2372039	0.7	P	ST	6.50	
CCU-19-4"-16	1-RA-08-CAP-0E3N-CCU19-16-4"	0E3N	19-4"	10/15/2008	11:01	814720.77	2372114.21	814721	2372114	0.3	P	ST	5.75	
CCU-19-4"-17	1-RA-08-CAP-0E3N-CCU19-17-4"	0E3N	19-4"	10/15/2008	11:03	814745.89	2372089.35	814746	2372089	0.4	P	ST	5.50	
CCU-19-4"-18	1-RA-08-CAP-00E2-CCU19-18-4"	00E2	19-4"	10/15/2008	11:06	814795.95	2372188.72	814796	2372189	0.3	P	ST	7.00	
												Minimum	**4.25**	
												Average	**7.13**	
CCU-20-4"-1	1-RA-08-CAP-00E2-CCU20-1-4"	00E2	20-4"	10/21/2008	12:22	814645.37	2372588.36	814646	2372589	0.9	P	ST	4.50	
CCU-20-4"-2	1-RA-08-CAP-00E2-CCU20-2-4"	00E2	20-4"	10/21/2008	12:25	814645.80	2372514.53	814646	2372514	0.6	P	ST	7.50	
CCU-20-4"-3	1-RA-08-CAP-00E2-CCU20-3-4"	00E2	20-4"	10/21/2008	12:20	814796.07	2372639.37	814796	2372639	0.4	P	ST	5.00	
CCU-20-4"-4	1-RA-08-CAP-00E2-CCU20-4-4"	00E2	20-4"	10/21/2008	12:18	814845.40	2372638.63	814846	2372639	0.7	P	ST	5.25	
CCU-20-4"-5	1-RA-08-CAP-00E2-CCU20-5-4"	00E2	20-4"	10/22/2008	12:35	814795.90	2372563.45	814796	2372564	0.6	P	ST	5.00	
CCU-20-4"-6	1-RA-08-CAP-00E2-CCU20-6-4"	00E2	20-4"	10/22/2008	12:33	814770.76	2372488.86	814771	2372489	0.3	P	ST	7.00	
CCU-20-4"-7	1-RA-08-CAP-00E2-CCU20-7-4"	00E2	20-4"	10/22/2008	12:30	814745.90	2372463.38	814746	2372464	0.6	P	ST	12.00	
CCU-20-4"-8	1-RA-08-CAP-00E2-CCU20-8-4"	00E2	20-4"	10/23/2008	10:21	814895.45	2372539.46	814896	2372539	0.7	P	ST	5.75	
CCU-20-4"-9	1-RA-08-CAP-00E2-CCU20-9-4"	00E2	20-4"	10/23/2008	10:07	814771.18	2372413.72	814771	2372414	0.3	P	ST	3.50	
CCU-20-4"-10	1-RA-08-CAP-00E2-CCU20-10-4"	00E2	20-4"	10/23/2008	10:03	814695.87	2372363.52	814696	2372364	0.5	P	ST	3.50	
CCU-20-4"-11	1-RA-08-CAP-00E2-CCU20-11-4"	00E2	20-4"	10/24/2008	10:12	814771.00	2372339.99	814771	2372339	1.0	P	ST	6.50	
CCU-20-4"-12	1-RA-08-CAP-00E2-CCU20-12-4"	00E2	20-4"	10/24/2008	10:16	814871.73	2372413.91	814871	2372414	0.7	P	ST	6.00	
CCU-20-4"-13	1-RA-08-CAP-00E2-CCU20-13-4"	00E2	20-4"	10/24/2008	10:18	814995.59	2372413.82	814996	2372414	0.4	P	ST	6.50	
CCU-20-4"-14	1-RA-08-CAP-00E2-CCU20-14-4"	00E2	20-4"	10/24/2008	10:21	815020.46	2372439.32	815021	2372439	0.6	P	ST	10.50	
CCU-20-4"-15	1-RA-08-CAP-00E2-CCU20-15-4"	00E2	20-4"	10/24/2008	10:23	815070.10	2372414.30	815071	2372414	0.9	P	ST	6.00	
CCU-20-4"-16	1-RA-08-CAP-00E2-CCU20-16-4"	00E2	20-4"	10/27/2008	10:35	815020.72	2372339.50	815021	2372339	0.6	P	ST	9.00	
CCU-20-4"-17	1-RA-08-CAP-00E2-CCU20-17-4"	00E2	20-4"	10/27/2008	10:31	814995.53	2372314.33	814996	2372314	0.6	P	ST	4.00	
CCU-20-4"-18	1-RA-08-CAP-0E3N-CCU20-18-4"	0E3N	20-4"	10/27/2008	10:24	814845.82	2372189.09	814846	2372189	0.2	P	ST	4.50	
												Minimum	**3.50**	
												Average	**6.22**	
CCU-21-4"-1	1-RA-08-CAP-00E2-CCU21-1-4"	00E2	21-4"	10/21/2008	11:33	814870.66	2372688.75	814871	2372689	0.4	P	ST	5.00	
CCU-21-4"-2	1-RA-08-CAP-00E2-CCU21-2-4"	00E2	21-4"	10/22/2008	12:42	814946.36	2372713.62	814946	2372714	0.5	P	ST	7.50	
CCU-21-4"-3	1-RA-08-CAP-00E2-CCU21-3-4"	00E2	21-4"	10/21/2008	11:19	814995.58	2372788.60	814996	2372789	0.6	P	ST	6.50	
CCU-21-4"-4	1-RA-08-CAP-00E2-CCU21-4-4"	00E2	21-4"	10/22/2008	12:40	814946.31	2372663.35	814946	2372664	0.7	P	ST	5.50	
CCU-21-4"-5	1-RA-08-CAP-00E2-CCU21-5-4"	00E2	21-4"	10/23/2008	10:33	814945.40	2372588.79	814946	2372589	0.6	P	ST	6.00	
CCU-21-4"-6	1-RA-08-CAP-00E2-CCU21-6-4"	00E2	21-4"	10/22/2008	12:45	814996.10	2372638.54	814996	2372639	0.5	P	ST	7.00	
CCU-21-4"-7	1-RA-08-CAP-00E2-CCU21-7-4"	00E2	21-4"	10/23/2008	10:35	815094.52	2372614.86	815095	2372614	1.0	P	ST	6.00	
CCU-21-4"-8	1-RA-08-CAP-00E2-CCU21-8-4"	00E2	21-4"	10/22/2008	12:47	815145.48	2372789.43	815146	2372790	0.8	P	ST	5.75	
CCU-21-4"-9	1-RA-08-CAP-00E2-CCU21-9-4"	00E2	21-4"	10/23/2008	10:37	815171.36	2372738.25	815171	2372739	0.8	P	ST	6.00	
CCU-21-4"-10	1-RA-08-CAP-00E2-CCU21-10-4"	00E2	21-4"	10/23/2008	10:40	815195.21	2372765.61	815196	2372765	1.0	P	ST	6.25	
CCU-21-4"-11	1-RA-08-CAP-00E2-CCU21-11-4"	00E2	21-4"	10/27/2008	10:47	815220.68	2372689.04	815221	2372689	0.3	P	ST	8.00	
CCU-21-4"-12	1-RA-08-CAP-00E2-CCU21-12-4"	00E2	21-4"	10/27/2008	10:42	815220.61	2372639.45	815221	2372640	0.7	P	ST	7.00	
CCU-21-4"-13	1-RA-08-CAP-00E2-CCU21-13-4"	00E2	21-4"	10/28/2008	11:02	815295.74	2372489.06	815296	2372489	0.3	P	ST	7.50	
CCU-21-4"-14	1-RA-08-CAP-00E2-CCU21-14-4"	00E2	21-4"	10/28/2008	10:51	815196.46	2372414.80	815196	2372414	0.9	P	ST	7.50	
CCU-21-4"-15	1-RA-08-CAP-00E2-CCU21-15-4"	00E2	21-4"	10/28/2008	10:55	815195.83	2372463.42	815196	2372464	0.6	P	ST	7.00	
CCU-21-4"-16	1-RA-08-CAP-00E2-CCU21-16-4"	00E2	21-4"	10/28/2008	10:58	815171.19	2372514.82	815171	2372515	0.3	P	ST	6.50	
CCU-21-4"-17	1-RA-08-CAP-00E2-CCU21-17-4"	00E2	21-4"	10/28/2008	10:48	815145.87	2372439.27	815146	2372439	0.3	P	ST	5.50	
CCU-21-4"-18	1-RA-08-CAP-00E2-CCU21-18-4"	00E2	21-4"	10/28/2008	10:45	815071.00	2372465.18	815071	2372465	0.2	P	ST	8.25	
												Minimum	**5.00**	
												Average	**6.60**	
CCU-22-4"-1	1-RA-08-CAP-00E2-CCU22-1-4"	00E2	22-4"	10/21/2008	11:15	814845.64	2372789.17	814846	2372789	0.4	P	ST	7.00	
CCU-22-4"-2	1-RA-08-CAP-00E2-CCU22-2-4"	00E2	22-4"	10/17/2008	11:48	814796.10	2372913.08	814796	2372914	0.9	P	ST	6.00	
CCU-22-4"-3(A)	1-RA-08-CAP-00E2-CCU22-3-4"(A)	00E2	22-4"	10/16/2008	14:17	814697.00	2372914.00	814796	2372964	110.9	P	ST	5.33	Brennan QC data used[2]
CCU-22-4"-4	1-RA-08-CAP-00E2-CCU22-4-4"	00E2	22-4"	10/17/2008	11:34	814770.65	2373064.28	814771	2373064	0.4	P	ST	8.50	
CCU-22-4"-5	1-RA-08-CAP-00E2-CCU22-5-4"	00E2	22-4"	10/17/2008	11:24	814719.25	2373064.33	814720	2373064	0.8	P	ST	8.50	
CCU-22-4"-6	1-RA-08-CAP-00E2-CCU22-6-4"	00E2	22-4"	10/17/2008	11:26	814745.43	2373189.21	814746	2373189	0.6	P	ST	9.00	
CCU-22-4"-7	1-RA-08-CAP-00E2-CCU22-7-4"	00E2	22-4"	10/17/2008	11:29	814846.15	2373189.55	814846	2373189	0.6	P	ST	10.00	
CCU-22-4"-8	1-RA-08-CAP-00E2-CCU22-8-4"	00E2	22-4"	10/17/2008	11:32	814845.80	2373114.67	814846	2373114	0.7	P	ST	7.50	
CCU-22-4"-9	1-RA-08-CAP-00E2-CCU22-9-4"	00E2	22-4"	10/17/2008	11:37	814895.57	2373088.55	814896	2373089	0.6	P	ST	4.50	
CCU-22-4"-10	1-RA-08-CAP-00E2-CCU22-10-4"	00E2	22-4"	10/17/2008	11:45	814896.80	2373014.27	814896	2373014	0.8	P	ST	7.00	
CCU-22-4"-11	1-RA-08-CAP-00E2-CCU22-11-4"	00E2	22-4"	10/17/2008	11:38	814969.70	2373088.78	814970	2373089	0.4	P	ST	5.50	
CCU-22-4"-12	1-RA-08-CAP-00E2-CCU22-12-4"	00E2	22-4"	10/17/2008	11:41	815021.30	2373039.61	815021	2373039	0.7	P	ST	5.00	
CCU-22-4"-13	1-RA-08-CAP-00E2-CCU22-13-4"	00E2	22-4"	10/17/2008	11:43	814920.79	2372939.26	814921	2372939	0.3	P	ST	4.25	
CCU-22-4"-14	1-RA-08-CAP-00E2-CCU22-14-4"	00E2	22-4"	10/21/2008	11:21	814995.35	2372914.08	814996	2372914	0.7	P	ST	6.00	
CCU-22-4"-15	1-RA-08-CAP-00E2-CCU22-15-4"	00E2	22-4"	10/21/2008	11:28	815020.36	2372963.74	815021	2372964	0.7	P	ST	6.50	
CCU-22-4"-16	1-RA-08-CAP-00E2-CCU22-16-4"	00E2	22-4"	10/21/2008	11:30	815070.33	2372938.36	815071	2372939	0.9	P	ST	8.00	
CCU-22-4"-17	1-RA-08-CAP-00E2-CCU22-17-4"	00E2	22-4"	10/21/2008	11:24	815045.82	2372863.51	815046	2372864	0.5	P	ST	9.00	
CCU-22-4"-18	1-RA-08-CAP-00E2-CCU22-18-4"	00E2	22-4"	10/21/2008	11:27	814996.38	2372813.53	814996	2372814	0.6	P	ST	6.50	
												Minimum	**4.25**	
												Average	**6.89**	

ID	Sample ID	Subarea	CCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Applied Armor Stone Thickness (in)	Comments
CCU-23-4"-1	1-RA-08-CAP-00E2-CCU23-1-4"	00E2	23-4"	10/22/2008	12:18	815221.31	2372838.66	815221	2372839	0.5	P	ST	7.00	
CCU-23-4"-2	1-RA-08-CAP-00E2-CCU23-2-4"	00E2	23-4"	10/22/2008	12:21	815245.04	2372914.20	815246	2372914	1.0	P	ST	7.00	
CCU-23-4"-3	1-RA-08-CAP-00E2-CCU23-3-4"	00E2	23-4"	10/22/2008	12:09	815345.81	2372964.20	815346	2372964	0.3	P	ST	6.50	
CCU-23-4"-4	1-RA-08-CAP-00E2-CCU23-4-4"	00E2	23-4"	10/21/2008	12:01	815270.39	2372963.61	815271	2372964	0.7	P	ST	6.00	
CCU-23-4"-5	1-RA-08-CAP-00E2-CCU23-5-4"	00E2	23-4"	10/21/2008	11:58	815195.54	2372963.68	815196	2372964	0.6	P	ST	7.00	
CCU-23-4"-6	1-RA-08-CAP-00E2-CCU23-6-4"	00E2	23-4"	10/21/2008	11:56	815170.85	2372988.76	815171	2372989	0.3	P	ST	6.00	
CCU-23-4"-7	1-RA-08-CAP-00E2-CCU23-7-4"	00E2	23-4"	10/21/2008	12:31	815220.50	2372038.60	815221	2372039	0.6	P	ST	7.50	
CCU-23-4"-8	1-RA-08-CAP-00E2-CCU23-8-4"	00E2	23-4"	10/21/2008	11:50	815144.09	2373063.39	815145	2373064	1.1	P	ST	9.00	
CCU-23-4"-9	1-RA-08-CAP-00E2-CCU23-9-4"	00E2	23-4"	10/21/2008	11:42	815045.34	2373013.66	815046	2373014	0.7	P	ST	6.50	
CCU-23-4"-10	1-RA-08-CAP-00E2-CCU23-10-4"	00E2	23-4"	10/17/2008	12:18	815071.79	2373064.49	815071	2373064	0.9	P	ST	7.00	
CCU-23-4"-11	1-RA-08-CAP-00E2-CCU23-11-4"	00E2	23-4"	10/17/2008	12:16	815120.84	2373088.37	815120	2373089	1.0	P	ST	11.00	
CCU-23-4"-12	1-RA-08-CAP-00E2-CCU23-12-4"	00E2	23-4"	10/17/2008	12:09	815195.52	2373189.25	815196	2373189	0.5	P	ST	8.00	
CCU-23-4"-13	1-RA-08-CAP-00E2-CCU23-13-4"	00E2	23-4"	10/17/2008	12:11	815045.24	2373139.08	815045	2373139	0.3	P	ST	6.00	
CCU-23-4"-14	1-RA-08-CAP-00E2-CCU23-14-4"	00E2	23-4"	10/17/2008	12:06	815119.90	2373214.85	815120	2373214	0.9	P	ST	6.50	
CCU-23-4"-15	1-RA-08-CAP-00E2-CCU23-15-4"	00E2	23-4"	10/17/2008	12:14	815046.38	2373189.90	815045	2373189	1.6	P	ST	4.50	
CCU-23-4"-16	1-RA-08-CAP-00E2-CCU23-16-4"	00E2	23-4"	10/17/2008	12:02	815044.88	2373239.32	815045	2373239	0.3	P	ST	4.75	
CCU-23-4"-17	1-RA-08-CAP-00E2-CCU23-17-4"	00E2	23-4"	10/17/2008	12:04	815095.55	2373314.35	815096	2373314	0.6	P	ST	5.00	
CCU-23-4"-18	1-RA-08-CAP-00E2-CCU23-18-4"	00E2	23-4"	10/17/2008	12:00	814970.30	2373264.37	814970	2373264	0.5	P	ST	4.00	
												Minimum	**4.00**	
												Average	**6.63**	
CCU-24-4"-1	1-RA-08-CAP-00E2-CCU24-1-4"	00E2	24-4"	10/22/2008	12:24	815345.47	2372889.14	815346	2372889	0.5	P	ST	6.75	
CCU-24-4"-2	1-RA-08-CAP-00E2-CCU24-2-4"	00E2	24-4"	10/24/2008	10:33	815446.30	2373888.74	815446	2373889	0.4	P	ST	10.00	
CCU-24-4"-3	1-RA-08-CAP-00E2-CCU24-3-4"	00E2	24-4"	10/23/2008	10:50	815246.24	2373764.37	815246	2373764	0.4	P	ST	6.50	
CCU-24-4"-4	1-RA-08-CAP-00E2-CCU24-4-4"	00E2	24-4"	10/23/2008	10:52	815295.54	2372764.27	815296	2372764	0.5	P	ST	5.50	
CCU-24-4"-5	1-RA-08-CAP-00E2-CCU24-5-4"	00E2	24-4"	10/27/2008	11:04	815370.74	2372764.22	815371	2372764	0.3	P	ST	4.75	
CCU-24-4"-6(A)	1-RA-08-CAP-00E2-CCU24-6-4"(A)	00E2	24-4"	10/24/2008	15:12	815362.00	2372685.00	815320	2372688	42.1	P	ST	6.00	Brennan QC data used²
CCU-24-4"-7	1-RA-08-CAP-00E2-CCU24-7-4"	00E2	24-4"	10/27/2008	10:52	815320.65	2372664.79	815321	2372664	0.9	P	ST	5.00	
CCU-24-4"-8(A)	1-RA-08-CAP-00E2-CCU24-8-4"(A)	00E2	24-4"	10/27/2008	18:10	815445.00	2372698.00	815396	2372664	59.6	P	ST	4.50	Brennan QC data used²
CCU-24-4"-9(A)	1-RA-08-CAP-00E2-CCU24-9-4"(A)	00E2	24-4"	10/27/2008	21:30	815389.00	2372619.00	815421	2372639	37.7	P	ST	5.67	Brennan QC data used²
CCU-24-4"-10	1-RA-08-CAP-00E2-CCU24-10-4"	00E2	24-4"	10/28/2008	11:06	815395.95	2372564.08	815396	2372564	0.1	P	ST	8.25	
CCU-24-4"-11	1-RA-08-CAP-00E2-CCU24-11-4"	00E2	24-4"	10/29/2008	09:47	815695.86	2372689.59	815696	2372690	0.4	P	ST	6.50	
CCU-24-4"-12	1-RA-08-CAP-00E2-CCU24-12-4"	00E2	24-4"	10/29/2008	10:28	815845.69	2372814.66	815846	2372815	0.5	P	ST	5.75	
CCU-24-4"-13(A)	1-RA-08-CAP-00E2-CCU24-13-4"(A)	00E2	24-4"	10/28/2008	11:02	815688.00	2372722.00	815721	2372764	53.4	P	ST	5.25	Brennan QC data used²
CCU-24-4"-14	1-RA-08-CAP-00E2-CCU24-14-4"	00E2	24-4"	10/29/2008	10:11	815770.66	2372839.67	815771	2372840	0.5	P	ST	3.00	
CCU-24-4"-15	1-RA-08-CAP-00E2-CCU24-15-4"	00E2	24-4"	10/29/2008	10:24	815820.96	2372913.74	815821	2372914	0.3	P	ST	4.25	
CCU-24-4"-16	1-RA-08-CAP-00E2-CCU24-16-4"	00E2	24-4"	10/29/2008	10:06	815671.21	2372839.74	815671	2372840	0.3	P	ST	5.50	
CCU-24-4"-17	1-RA-08-CAP-00E2-CCU24-17-4"	00E2	24-4"	10/29/2008	10:16	815721.07	2372939.79	815721	2372940	0.2	P	ST	7.00	
CCU-24-4"-18	1-RA-08-CAP-00E2-CCU24-18-4"	00E2	24-4"	10/29/2008	10:19	815695.87	2372988.62	815696	2372989	0.4	P	ST	7.00	
												Minimum	**3.00**	
												Average	**5.95**	
CCU-25-4"-1	1-RA-08-CAP-00E2-CCU25-1-4"	00E2	25-4"	10/29/2008	11:20	815494.84	2372889.68	815495	2372889	0.7	P	ST	4.00	
CCU-25-4"-2	1-RA-08-CAP-00E2-CCU25-2-4"	00E2	25-4"	10/29/2008	11:00	815721.22	2373064.82	815721	2373065	0.3	P	ST	5.50	
CCU-25-4"-3	1-RA-08-CAP-00E2-CCU25-3-4"	00E2	25-4"	10/28/2008	12:09	815519.91	2372940.15	815520	2372940	0.2	P	ST	6.00	
CCU-25-4"-4	1-RA-08-CAP-00E2-CCU25-4-4"	00E2	25-4"	10/28/2008	11:54	815594.75	2373015.15	815595	2373015	0.3	P	ST	6.00	
CCU-25-4"-5	1-RA-08-CAP-00E2-CCU25-5-4"	00E2	25-4"	10/28/2008	12:06	815496.51	2372990.45	815496	2372990	0.7	P	ST	6.25	
CCU-25-4"-6	1-RA-08-CAP-00E2-CCU25-6-4"	00E2	25-4"	10/29/2008	11:04	815676.02	2373020.62	815675	2373019	1.9	P	ST	5.75	
CCU-25-4"-7	1-RA-08-CAP-00E2-CCU25-7-4"	00E2	25-4"	10/21/2008	12:12	815619.60	2373113.48	815620	2373114	0.7	P	ST	6.50	
CCU-25-4"-8	1-RA-08-CAP-00E2-CCU25-8-4"	00E2	25-4"	10/21/2008	12:13	815644.50	2373188.24	815645	2373189	0.9	P	ST	6.00	
CCU-25-4"-9	1-RA-08-CAP-00E2-CCU25-9-4"	00E2	25-4"	10/21/2008	12:09	815521.39	2373089.63	815521	2373090	0.5	P	ST	6.50	
CCU-25-4"-10	1-RA-08-CAP-00E5-CCU25-10-4"	00E5	25-4"	10/7/2008	11:43	818144.72	2374566.52	818145	2374566	0.6	P	ST	8.00	
CCU-25-4"-11	1-RA-08-CAP-00E5-CCU25-11-4"	00E5	25-4"	10/7/2008	12:00	818220.70	2374541.00	818220	2374541	0.7	P	ST	6.00	
CCU-25-4"-12	1-RA-08-CAP-00E5-CCU25-12-4"	00E5	25-4"	10/7/2008	11:23	818144.59	2374491.32	818145	2374491	0.5	P	ST	6.50	
CCU-25-4"-13(A)	1-RA-08-CAP-00E2-CCU25-13-4"(A)	00E2	25-4"	10/28/2008	19:07	815844.00	2372989.00	815846	2373040	51.0	P	ST	6.00	Brennan QC data used²
CCU-25-4"-14	1-RA-08-CAP-00E2-CCU25-14-4"	00E2	25-4"	10/29/2008	10:57	815795.74	2372965.31	815796	2372965	0.4	P	ST	5.75	
CCU-25-4"-15(A)	1-RA-08-CAP-00E2-CCU25-15-4"(A)	00E2	25-4"	10/28/2008	10:12	815913.00	2372955.00	815921	2372965	12.8	P	ST	6.75	Brennan QC data used²
CCU-25-4"-16	1-RA-08-CAP-00E2-CCU25-16-4"	00E2	25-4"	10/29/2008	10:32	815896.07	2372914.63	815896	2372915	0.4	P	ST	9.75	
CCU-25-4"-17	1-RA-08-CAP-00E2-CCU25-17-4"	00E2	25-4"	10/22/2008	11:04	815495.79	2373113.93	815496	2373114	0.2	P	ST	7.00	
CCU-25-4"-18	1-RA-08-CAP-00E2-CCU25-18-4"	00E2	25-4"	10/22/2008	11:07	815421.11	2373063.48	815421	2373064	0.5	P	ST	5.50	
												Minimum	**4.00**	
												Average	**6.32**	
CCU-26-4"-1	1-RA-08-CAP-00E2-CCU26-1-4"	00E2	26-4"	10/22/2008	11:54	815645.23	2373264.23	815646	2373264	0.8	P	ST	6.00	
CCU-26-4"-2	1-RA-08-CAP-00E2-CCU26-2-4"	00E2	26-4"	10/27/2008	12:33	815470.51	2373139.43	815471	2373139	0.7	P	ST	6.00	
CCU-26-4"-3	1-RA-08-CAP-00E2-CCU26-3-4"	00E2	26-4"	10/27/2008	12:37	815519.80	2373238.99	815521	2373239	1.2	P	ST	5.00	
CCU-26-4"-4	1-RA-08-CAP-00E2-CCU26-4-4"	00E2	26-4"	10/27/2008	12:11	815395.46	2373139.70	815396	2373139	0.9	P	ST	11.00	
CCU-26-4"-5(A)	1-RA-08-CAP-00E2-CCU26-5-4"(A)	00E2	26-4"	10/24/2008	22:30	815585.00	2373320.00	815595	2373339	21.5	P	ST	5.50	Brennan QC data used²
CCU-26-4"-6	1-RA-08-CAP-00E2-CCU26-6-4"	00E2	26-4"	10/27/2008	12:41	815545.75	2373289.62	815546	2373289	0.7	P	ST	8.00	
CCU-26-4"-7(A)	1-RA-08-CAP-00E2-CCU26-7-4"(A)	00E2	26-4"	10/24/2008	14:50	815346.00	2373120.00	815346	2373139	19.0	P	ST	4.83	Brennan QC data used²
CCU-26-4"-8	1-RA-08-CAP-00E2-CCU26-8-4"	00E2	26-4"	10/27/2008	12:28	815445.60	2373239.85	815446	2373239	0.9	P	ST	6.50	
CCU-26-4"-9	1-RA-08-CAP-00E2-CCU26-9-4"	00E2	26-4"	10/24/2008	10:48	815445.37	2373289.43	815446	2373289	0.8	P	ST	5.50	
CCU-26-4"-10	1-RA-08-CAP-00E2-CCU26-10-4"	00E2	26-4"	10/24/2008	10:41	815370.09	2373239.81	815371	2373239	1.2	P	ST	7.50	
CCU-26-4"-11	1-RA-08-CAP-00E2-CCU26-11-4"	00E2	26-4"	10/24/2008	10:50	815546.40	2373415.16	815545	2373414	1.8	P	ST	6.00	
CCU-26-4"-12	1-RA-08-CAP-00E2-CCU26-12-4"	00E2	26-4"	10/27/2008	12:24	815270.39	2373214.45	815271	2373214	0.8	P	ST	5.00	
CCU-26-4"-13	1-RA-08-CAP-00E2-CCU26-13-4"	00E2	26-4"	10/24/2008	10:54	815469.98	2373414.94	815470	2373414	0.9	P	ST	5.50	
CCU-26-4"-14	1-RA-08-CAP-00E2-CCU26-14-4"	00E2	26-4"	10/23/2008	11:31	815370.11	2373315.02	815370	2373314	1.0	P	ST	5.00	
CCU-26-4"-15	1-RA-08-CAP-00E2-CCU26-15-4"	00E2	26-4"	10/24/2008	10:53	815495.48	2373465.08	815495	2373464	1.2	P	ST	6.50	
CCU-26-4"-16	1-RA-08-CAP-00E2-CCU26-16-4"	00E2	26-4"	10/23/2008	11:25	815395.61	2373422.66	815396	2373422	0.8	P	ST	5.00	
CCU-26-4"-17	1-RA-08-CAP-00E2-CCU26-17-4"	00E2	26-4"	10/23/2008	11:29	815345.74	2373363.94	815345	2373364	0.7	P	ST	7.50	
CCU-26-4"-18	1-RA-08-CAP-00E2-CCU26-18-4"	00E2	26-4"	10/23/2008	11:33	815196.02	2373263.93	815196	2373264	0.1	P	ST	6.75	
												Minimum	**4.83**	
												Average	**6.28**	

ID	Sample ID	Subarea	CCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Applied Armor Stone Thickness (in)	Comments
CCU-27-4"-1(A)	1-RA-08-CAP-00E2-CCU27-1-4"(A)	00E2	27-4"	10/22/2008	14:25	815441.00	2373518.00	815445	2373539	21.4	P	ST	5.50	Brennan QC data used[2]
CCU-27-4"-2	1-RA-08-CAP-00E2-CCU27-2-4"	00E2	27-4"	10/23/2008	11:01	815369.77	2373464.25	815370	2373464	0.3	P	ST	6.75	
CCU-27-4"-3	1-RA-08-CAP-00E2-CCU27-3-4"	00E2	27-4"	10/23/2008	10:56	815169.73	2373288.31	815171	2373289	1.4	P	ST	4.00	
CCU-27-4"-4(A)	1-RA-08-CAP-00E2-CCU27-4-4"(A)	00E2	27-4"	10/22/2008	02:20	815203.00	2373366.00	815220	2373364	17.1	P	ST	5.33	Brennan QC data used[2]
CCU-27-4"-5	1-RA-08-CAP-00E2-CCU27-5-4"	00E2	27-4"	10/23/2008	10:59	815314.42	2373421.71	815315	2373422	0.7	P	ST	7.00	
CCU-27-4"-6(A)	1-RA-08-CAP-00E2-CCU27-6-4"(A)	00E2	27-4"	10/22/2008	07:45	815385.00	2373563.00	815420	2373539	42.4	P	ST	5.67	Brennan QC data used[2]
CCU-27-4"-7(A)	1-RA-08-CAP-00E2-CCU27-7-4"(A)	00E2	27-4"	10/22/2008	04:00	815283.00	2373433.00	815195	2373414	90.0	P	ST	4.67	Brennan QC data used[2]
CCU-27-4"-8(A)	1-RA-08-CAP-00E2-CCU27-8-4"(A)	00E2	27-4"	10/21/2008	23:30	815155.00	2373373.00	815120	2373339	48.8	P	ST	5.67	Brennan QC data used[2]
CCU-27-4"-9(A)	1-RA-08-CAP-00E2-CCU27-9-4"(A)	00E2	27-4"	10/21/2008	20:00	815139.00	2373405.00	815120	2373389	24.8	P	ST	4.33	Brennan QC data used[2]
CCU-27-4"-10(A}	1-RA-08-CAP-00E2-CCU27-10-4"(A)	00E2	27-4"	10/22/2008	11:00	815250.00	2373360.00	815220	2373464	108.2	P	ST	5.33	Brennan QC data used[2]
CCU-27-4"-11(A}	1-RA-08-CAP-00E2-CCU27-11-4"(A)	00E2	27-4"	10/21/2008	18:00	815097.00	2373415.00	815170	2373464	87.9	P	ST	5.50	Brennan QC data used[2]
												Minimum	**4.00**	
												Average	**5.43**	

P = Primary
CCU = Cap Certification Unit
RPB = Russian Peat Borer
SCU = Sand Certification Unit
SMU = Sand Management Unit
ST = Sediment Trap
VC = Vibra Core
VPC = Vacuum Push Core

Data taken from *2008 RA Summary Report* , Appendix J, Table J-6.

(A) = Brennan QC sample data. Brennan QC bucket easting and northing are produced from the center of the step where the samples were taken. Result reported is the average of the three QC samples collected at sampling point.

1. Samples were randomly placed near the edge of the CCU placement boundary, adjacent to the natural gas and WTP effluent discharge pipelines. Due to material spreader access limitations, armor stone was not able to be spread effectively next to the pipelines. In the absence of QA samples from these locations, Brennan QC samples, collected close to the proposed QA locations, are reported.
2. Brennan QC data used as Foth QA sediment traps were unretrievable.

Prepared by: ECB
Checked by: MCC2

Table D-2
GW Partners Lower Fox River - OU1
4-inch Armor Stone Placement Thickness Verification Results

ID	Sample ID	Sub-area	CCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Applied Armor Stone Thickness (in)	Comments
CCU-28-4"-1	1-RA-09-CAP-00E2-CCU28-1-4"	00E2	28-4"	4/20/2009	12:00	817244.52	2374465.15	817245	2374465	0.5	P	ST	8.50	
CCU-28-4"-2	1-RA-09-CAP-00E2-CCU28-2-4"	00E2	28-4"	4/20/2009	12:09	817119.55	2374391.23	817120	2374390	1.3	P	ST	8.00	
CCU-28-4"-3	1-RA-09-CAP-00E2-CCU28-3-4"	00E2	28-4"	4/21/2009	10:32	816969.71	2374315.35	816970	2374315	0.5	P	ST	8.00	
CCU-28-4"-4	1-RA-09-CAP-00E2-CCU28-4-4"	00E2	28-4"	4/24/2009	07:52	817296.11	2374365.09	817295	2374365	1.1	P	ST	6.25	
CCU-28-4"-5	1-RA-09-CAP-00E2-CCU28-5-4"	00E2	28-4"	4/23/2009	11:12	816869.17	2374239.54	816870	2374240	0.9	P	ST	5.50	
CCU-28-4"-6	1-RA-09-CAP-00E2-CCU28-6-4"	00E2	28-4"	4/23/2009	11:33	816969.22	2374289.89	816970	2374290	0.8	P	ST	6.75	
CCU-28-4"-7	1-RA-09-CAP-00E2-CCU28-7-4"	00E2	28-4"	4/23/2009	11:47	817069.25	2374340.02	817070	2374340	0.8	P	ST	5.00	
CCU-28-4"-8	1-RA-09-CAP-00E2-CCU28-8-4"	00E2	28-4"	4/23/2009	11:50	817269.54	2374414.66	817270	2374415	0.6	P	ST	7.00	
CCU-28-4"-9	1-RA-09-CAP-00E5-CCU28-9-4"	00E5	28-4"	4/24/2009	07:58	817346.00	2374415.18	817345	2374415	1.0	P	ST	7.25	
CCU-28-4"-10	1-RA-09-CAP-00E2-CCU28-10-4"	00E2	28-4"	4/24/2009	07:37	817145.71	2374315.18	817145	2374315	0.7	P	ST	6.00	
CCU-28-4"-11	1-RA-09-CAP-00E2-CCU28-11-4"	00E2	28-4"	4/23/2009	11:43	817019.29	2374290.65	817020	2374290	1.0	P	ST	6.00	
CCU-28-4"-12	1-RA-09-CAP-00E2-CCU28-12-4"	00E2	28-4"	4/23/2009	11:16	816869.17	2374189.68	816870	2374190	0.9	P	ST	6.00	
CCU-28-4"-13	1-RA-09-CAP-00E2-CCU28-13-4"	00E2	28-4"	4/23/2009	11:25	816745.79	2374114.55	816745	2374115	0.9	P	ST	6.75	
CCU-28-4"-14	1-RA-09-CAP-00E2-CCU28-14-4"	00E2	28-4"	4/24/2009	07:45	817045.59	2374240.50	817045	2374240	0.8	P	ST	6.25	
CCU-28-4"-15	1-RA-09-CAP-00E2-CCU28-15-4"	00E2	28-4"	4/24/2009	07:30	817096.07	2374265.81	817095	2374265	1.3	P	ST	6.00	
CCU-28-4"-16	1-RA-09-CAP-00E5-CCU28-16-4"	00E5	28-4"	4/24/2009	07:56	817396.63	2374413.93	817395	2374415	1.9	P	ST	7.25	
CCU-28-4"-17(A)	1-RA-09-CAP-00E5-CCU28-17-4"(A)	00E5	28-4"	4/23/2009	02:02	817508.00	2374424.00	817470	2374415	39.1	P	ST	5.33	Brennan QC data used[1]
CCU-28-4"-18	1-RA-09-CAP-00E5-CCU28-18-4"	00E5	28-4"	4/27/2009	09:42	817344.12	2374339.85	817345	2374340	0.9	P	ST	8.00	
												Minimum	**5.00**	
												Average	**6.66**	
CCU-29-4"-1	1-RA-09-CAP-00E2-CCU29-1-4"	00E2	29-4"	4/27/2009	10:58	816770.66	2374065.39	816770	2374065	0.8	P	ST	5.00	
CCU-29-4"-2	1-RA-09-CAP-00E2-CCU29-2-4"	00E2	29-4"	4/27/2009	10:10	817095.29	2374215.49	817095	2374215	0.6	P	ST	6.00	
CCU-29-4"-3	1-RA-09-CAP-00E2-CCU29-3-4"	00E2	29-4"	4/27/2009	10:03	817195.96	2374265.24	817195	2374265	1.0	P	ST	5.75	
CCU-29-4"-4	1-RA-09-CAP-00E5-CCU29-4-4"	00E5	29-4"	4/29/2009	10:02	817481.75	2374292.82	817480	2374293	1.9	P	ST	6.50	
CCU-29-4"-5	1-RA-09-CAP-00E2-CCU29-5-4"	00E2	29-4"	4/27/2009	10:01	817270.62	2374290.38	817270	2374290	0.7	P	ST	6.00	
CCU-29-4"-6	1-RA-09-CAP-00E2-CCU29-6-4"	00E2	29-4"	4/27/2009	10:18	817070.52	2374190.54	817070	2374190	0.7	P	ST	8.00	
CCU-29-4"-7	1-RA-09-CAP-00E2-CCU29-7-4"	00E2	29-4"	4/27/2009	10:54	816895.22	2374115.50	816895	2374115	0.5	P	ST	4.25	
CCU-29-4"-8	1-RA-09-CAP-00E2-CCU29-8-4"	00E2	29-4"	4/27/2009	11:03	816770.76	2373990.25	816770	2373990	0.8	P	ST	12.00	
CCU-29-4"-9	1-RA-09-CAP-00E2-CCU29-9-4"	00E2	29-4"	4/27/2009	10:42	816944.29	2374090.11	816945	2374090	0.7	P	ST	12.00	
CCU-29-4"-10	1-RA-09-CAP-00E2-CCU29-10-4"	00E2	29-4"	4/27/2009	10:07	817245.74	2374215.49	817245	2374215	0.9	P	ST	7.50	
CCU-29-4"-11	1-RA-09-CAP-00E5-CCU29-11-4"	00E5	29-4"	4/27/2009	11:11	817495.91	2374340.45	817495	2374340	1.0	P	ST	6.50	
CCU-29-4"-12	1-RA-09-CAP-00E2-CCU29-12-4"	00E2	29-4"	4/29/2009	10:00	817345.97	2374239.43	817345	2374240	1.1	P	ST	8.00	
CCU-29-4"-13	1-RA-09-CAP-00E2-CCU29-13-4"	00E2	29-4"	4/29/2009	09:54	817170.88	2374138.54	817170	2374140	1.7	P	ST	6.25	
CCU-29-4"-14	1-RA-09-CAP-00E2-CCU29-14-4"	00E2	29-4"	4/29/2009	09:48	816974.17	2374015.04	816973	2374016	1.4	P	ST	6.00	
CCU-29-4"-15	1-RA-09-CAP-00E2-CCU29-15-4"	00E2	29-4"	4/27/2009	10:49	816894.24	2374040.55	816895	2374040	0.9	P	ST	9.50	
CCU-29-4"-16	1-RA-09-CAP-00E2-CCU29-16-4"	00E2	29-4"	4/29/2009	09:43	816845.53	2373965.06	816845	2373965	0.5	P	ST	6.00	
CCU-29-4"-17	1-RA-09-CAP-00E2-CCU29-17-4"	00E2	29-4"	4/29/2009	09:51	817069.54	2374065.92	817070	2374065	1.0	P	ST	6.50	
CCU-29-4"-18	1-RA-09-CAP-00E2-CCU29-18-4"	00E2	29-4"	4/29/2009	09:56	817245.49	2374141.71	817245	2374141	0.9	P	ST	5.50	
												Minimum	**4.25**	
												Average	**7.07**	
CCU-30-4"-1	1-RA-09-CAP-00E2-CCU30-1-4"	00E2	30-4"	4/21/2009	12:08	816720.41	2374240.60	816720	2374240	0.7	P	ST	7.00	
CCU-30-4"-2	1-RA-09-CAP-00E2-CCU30-2-4"	00E2	30-4"	4/21/2009	10:49	816795.77	2374290.78	816795	2374290	1.1	P	ST	7.75	
CCU-30-4"-3	1-RA-09-CAP-00E2-CCU30-3-4"	00E2	30-4"	4/21/2009	10:55	817069.96	2374416.21	817070	2374415	1.2	P	ST	7.00	
CCU-30-4"-4(A)	1-RA-09-CAP-00E2-CCU30-4-4"	00E2	30-4"	4/21/2009	01:35	817176.00	2374461.00	817170	2374465	7.2	P	ST	5.50	Brennan QC data used[1]
CCU-30-4"-5	1-RA-09-CAP-00E5-CCU30-5-4"	00E5	30-4"	4/22/2009	09:53	817243.76	2374540.68	817245	2374540	1.4	P	ST	10.00	
CCU-30-4"-6	1-RA-09-CAP-00E2-CCU30-6-4"	00E2	30-4"	4/21/2009	11:09	817145.91	2374490.11	817145	2374490	0.9	P	ST	12.00	
CCU-30-4"-7	1-RA-09-CAP-00E2-CCU30-7-4"	00E2	30-4"	4/21/2009	10:43	816946.08	2374391.19	816945	2374390	1.6	P	ST	6.75	
CCU-30-4"-8	1-RA-09-CAP-00E2-CCU30-8-4"	00E2	30-4"	4/22/2009	11:00	816769.35	2374315.64	816770	2374315	0.9	P	ST	6.75	
CCU-30-4"-9	1-RA-09-CAP-00E2-CCU30-9-4"	00E2	30-4"	4/22/2009	10:55	816795.23	2374365.48	816795	2374365	0.5	P	ST	9.00	
CCU-30-4"-10	1-RA-09-CAP-00E2-CCU30-10-4"	00E2	30-4"	4/22/2009	10:50	816894.10	2374415.49	816895	2374415	1.0	P	ST	6.00	
CCU-30-4"-11(A)	1-RA-09-CAP-00E2-CCU30-11-4"	00E2	30-4"	4/21/2009	19:17	817108.00	2374507.00	817120	2374515	14.4	P	ST	4.50	Brennan QC data used[1]
CCU-30-4"-12	1-RA-09-CAP-00E5-CCU30-12-4"	00E5	30-4"	4/22/2009	09:58	817246.07	2374615.62	817245	2374615	1.2	P	ST	6.50	
CCU-30-4"-13(A)	1-RA-09-CAP-00E2-CCU30-13-4"	00E2	30-4"	4/22/2009	03:45	817055.00	2374521.00	817095	2374540	44.3	P	ST	5.00	Brennan QC data used[1]
CCU-30-4"-14	1-RA-09-CAP-00E2-CCU30-14-4"	00E2	30-4"	4/22/2009	10:45	816920.88	2374465.09	816920	2374465	0.9	P	ST	6.00	
CCU-30-4"-15	1-RA-09-CAP-00E2-CCU30-15-4"	00E2	30-4"	4/22/2009	11:02	816694.62	2374340.41	816695	2374340	0.6	P	ST	7.00	
CCU-30-4"-16	1-RA-09-CAP-00E2-CCU30-16-4"	00E2	30-4"	4/29/2009	10:19	816845.74	2373915.79	816845	2373915	1.1	P	ST	6.50	
CCU-30-4"-17	1-RA-09-CAP-00E2-CCU30-17-4"	00E2	30-4"	4/29/2009	10:08	816920.65	2373939.08	816920	2373940	1.1	P	ST	6.00	
CCU-30-4"-18	1-RA-09-CAP-00E2-CCU30-18-4"	00E2	30-4"	4/29/2009	10:13	816895.41	2373864.54	816895	2373865	0.6	P	ST	7.00	
												Minimum	**4.50**	
												Average	**7.01**	
CCU-31-4"-1	1-RA-09-CAP-00E2-CCU31-1-4"	00E2	31-4"	4/23/2009	11:00	817169.36	2374615.12	817170	2374615	0.7	P	ST	6.00	
CCU-31-4"-2	1-RA-09-CAP-00E2-CCU31-2-4"	00E2	31-4"	4/22/2009	11:06	816744.47	2374415.37	816745	2374415	0.6	P	ST	5.75	
CCU-31-4"-3	1-RA-09-CAP-00E2-CCU31-3-4"	00E2	31-4"	4/23/2009	10:56	816919.69	2374540.44	816920	2374540	0.5	P	ST	5.50	
CCU-31-4"-4	1-RA-09-CAP-00E2-CCU31-4-4"	00E2	31-4"	4/30/2009	10:46	816670.64	2374115.70	816670	2374115	0.9	P	ST	6.75	
CCU-31-4"-5	1-RA-09-CAP-00E2-CCU31-5-4"	00E2	31-4"	4/30/2009	10:38	816520.41	2374039.62	816520	2374040	0.6	P	ST	5.25	
CCU-31-4"-6	1-RA-09-CAP-00E2-CCU31-6-4"	00E2	31-4"	4/30/2009	10:31	816194.31	2373889.34	816195	2373890	1.0	P	ST	4.75	
CCU-31-4"-7	1-RA-09-CAP-00E2-CCU31-7-4"	00E2	31-4"	4/30/2009	10:29	816295.45	2373891.10	816295	2373891	0.5	P	ST	5.75	
CCU-31-4"-8	1-RA-09-CAP-00E2-CCU31-8-4"	00E2	31-4"	4/30/2009	10:35	816444.42	2373965.68	816445	2373965	0.9	P	ST	5.25	
CCU-31-4"-9	1-RA-09-CAP-00E2-CCU31-9-4"	00E2	31-4"	4/30/2009	10:44	816645.54	2374065.54	816645	2374065	0.8	P	ST	7.00	
CCU-31-4"-10	1-RA-09-CAP-00E2-CCU31-10-4"	00E2	31-4"	4/30/2009	10:48	816695.43	2374040.29	816695	2374040	0.5	P	ST	4.00	
CCU-31-4"-11	1-RA-09-CAP-00E2-CCU31-11-4"	00E2	31-4"	4/30/2009	10:41	816545.63	2373964.77	816545	2373965	0.7	P	ST	5.75	
CCU-31-4"-12	1-RA-09-CAP-00E2-CCU31-12-4"	00E2	31-4"	4/30/2009	10:33	816195.30	2373815.33	816195	2373815	0.4	P	ST	6.50	
CCU-31-4"-13	1-RA-09-CAP-00E2-CCU31-13-4"	00E2	31-4"	4/30/2009	10:23	816270.44	2373815.21	816270	2373815	0.5	P	ST	7.50	
CCU-31-4"-14	1-RA-09-CAP-00E2-CCU31-14-4"	00E2	31-4"	4/30/2009	10:27	816396.18	2373864.25	816395	2373865	1.4	P	ST	9.00	
CCU-31-4"-15	1-RA-09-CAP-00E2-CCU31-15-4"	00E2	31-4"	4/30/2009	10:52	816594.68	2373965.51	816595	2373965	0.6	P	ST	7.25	
CCU-31-4"-16	1-RA-09-CAP-00E2-CCU31-16-4"	00E2	31-4"	5/1/2009	10:12	816695.08	2373964.56	816695	2373965	0.4	P	ST	6.75	
CCU-31-4"-17	1-RA-09-CAP-00E2-CCU31-17-4"	00E2	31-4"	5/1/2009	10:10	816469.20	2373864.25	816470	2373865	1.1	P	ST	7.50	
CCU-31-4"-18	1-RA-09-CAP-00E2-CCU31-18-4"	00E2	31-4"	5/1/2009	10:07	816219.45	2373740.57	816220	2373740	0.8	P	ST	9.25	
												Minimum	**4.00**	
												Average	**6.42**	

ID	Sample ID	Sub-area	CCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Applied Armor Stone Thickness (in)	Comments
CCU-32-4"-1	1-RA-09-CAP-00E2-CCU32-1-4"	00E2	32-4"	5/1/2009	10:26	816319.79	2373765.53	816320	2373765	0.6	P	ST	7.75	
CCU-32-4"-2	1-RA-09-CAP-00E2-CCU32-2-4"	00E2	32-4"	5/1/2009	10:21	816545.05	2373865.57	816545	2373865	0.6	P	ST	5.25	
CCU-32-4"-3	1-RA-09-CAP-00E2-CCU32-3-4"	00E2	32-4"	5/1/2009	10:17	816719.65	2373940.63	816720	2373940	0.7	P	ST	6.50	
CCU-32-4"-4	1-RA-09-CAP-00E2-CCU32-4-4"	00E2	32-4"	5/1/2009	10:19	816619.84	2373864.70	816620	2373864	0.7	P	ST	7.75	
CCU-32-4"-5	1-RA-09-CAP-00E2-CCU32-5-4"	00E2	32-4"	5/1/2009	10:23	816444.72	2373790.64	816445	2373790	0.7	P	ST	7.00	
CCU-32-4"-6	1-RA-09-CAP-00E2-CCU32-6-4"	00E2	32-4"	5/1/2009	10:28	816269.28	2373691.38	816270	2373690	1.6	P	ST	5.50	
CCU-32-4"-7	1-RA-09-CAP-00E2-CCU32-7-4"	00E2	32-4"	5/1/2009	10:30	816294.14	2373665.12	816295	2373665	0.9	P	ST	5.25	
CCU-32-4"-8	1-RA-09-CAP-00E2-CCU32-8-4"	00E2	32-4"	5/4/2009	09:44	816545.55	2373790.70	816545	2373790	0.9	P	ST	9.00	
CCU-32-4"-9	1-RA-09-CAP-00E2-CCU32-9-4"	00E2	32-4"	5/4/2009	09:56	816745.46	2373890.45	816745	2373890	0.6	P	ST	6.50	
CCU-32-4"-10	1-RA-09-CAP-00E2-CCU32-10-4"	00E2	32-4"	5/4/2009	09:54	816719.62	2373840.36	816720	2373840	0.5	P	ST	7.00	
CCU-32-4"-11	1-RA-09-CAP-00E2-CCU32-11-4"	00E2	32-4"	5/5/2009	10:21	816645.86	2373715.41	816645	2373715	1.0	P	ST	4.50	
CCU-32-4"-12	1-RA-09-CAP-00E2-CCU32-12-4"	00E2	32-4"	5/4/2009	09:38	816395.47	2373690.58	816395	2373690	0.7	P	ST	6.00	
CCU-32-4"-13	1-RA-09-CAP-00E2-CCU32-13-4"	00E2	32-4"	5/4/2009	09:41	816494.83	2373690.44	816495	2373690	0.5	P	ST	7.50	
CCU-32-4"-14	1-RA-09-CAP-00E2-CCU32-14-4"	00E2	32-4"	5/4/2009	09:51	816594.17	2373739.44	816595	2373740	1.0	P	ST	8.50	
CCU-32-4"-15	1-RA-09-CAP-00E2-CCU32-15-4"	00E2	32-4"	5/5/2009	10:24	816521.85	2373665.86	816521	2373665	1.2	P	ST	8.00	
CCU-32-4"-16	1-RA-09-CAP-00E2-CCU32-16-4"	00E2	32-4"	5/5/2009	10:28	816420.70	2373614.39	816420	2373615	0.9	P	ST	8.50	
CCU-32-4"-17	1-RA-09-CAP-00E2-CCU32-17-4"	00E2	32-4"	5/5/2009	10:26	816445.31	2373565.32	816445	2373565	0.4	P	ST	7.75	
CCU-32-4"-18	1-RA-09-CAP-00E2-CCU32-18-4"	00E2	32-4"	5/5/2009	10:12	816695.88	2373689.34	816695	2373690	1.1	P	ST	7.00	
												Minimum	**4.50**	
												Average	**6.96**	
CCU-33-4"-1	1-RA-09-CAP-00E2-CCU33-1-4"	00E2	33-4"	5/5/2009	10:30	816419.73	2373540.76	816420	2373540	0.8	P	ST	10.50	
CCU-33-4"-2	1-RA-09-CAP-00E2-CCU33-2-4"	00E2	33-4"	5/5/2009	10:52	816570.42	2373589.28	816570	2373590	0.8	P	ST	6.00	
CCU-33-4"-3	1-RA-09-CAP-00E2-CCU33-3-4"	00E2	33-4"	5/5/2009	10:36	816570.75	2373564.63	816570	2373565	0.8	P	ST	7.00	
CCU-33-4"-4	1-RA-09-CAP-00E2-CCU33-4-4"	00E2	33-4"	5/5/2009	10:34	816519.12	2373514.69	816520	2373515	0.9	P	ST	12.00	
CCU-33-4"-5(A)	1-RA-09-CAP-00E2-CCU33-5-4"(A)	00E2	33-4"	5/5/2009	10:05	816502.00	2373413.00	816520	2373415	18.1	P	ST	5.00	Brennan QC data used[1]
CCU-33-4"-6	1-RA-09-CAP-00E2-CCU33-6-4"	00E2	33-4"	5/6/2009	10:08	816144.29	2373889.71	816145	2373890	0.8	P	ST	5.50	
CCU-33-4"-7	1-RA-09-CAP-00E2-CCU33-7-4"	00E2	33-4"	5/6/2009	10:21	816294.59	2373990.31	816295	2373990	0.5	P	ST	7.00	
CCU-33-4"-8	1-RA-09-CAP-00E2-CCU33-8-4"	00E2	33-4"	5/6/2009	10:31	816619.57	2374140.46	816620	2374140	0.6	P	ST	7.50	
CCU-33-4"-9	1-RA-09-CAP-00E2-CCU33-9-4"	00E2	33-4"	5/6/2009	10:30	816595.64	2374140.39	816595	2374140	0.7	P	ST	7.50	
CCU-33-4"-10	1-RA-09-CAP-00E2-CCU33-10-4"	00E2	33-4"	5/6/2009	10:25	816394.37	2374064.77	816395	2374065	0.7	P	ST	7.75	
CCU-33-4"-11	1-RA-09-CAP-00E2-CCU33-11-4"	00E2	33-4"	5/6/2009	10:15	816170.56	2373965.66	816170	2373965	0.9	P	ST	6.00	
CCU-33-4"-12	1-RA-09-CAP-00E2-CCU33-12-4"	00E2	33-4"	5/6/2009	10:06	816069.70	2373913.65	816070	2373914	0.5	P	ST	7.00	
CCU-33-4"-13	1-RA-09-CAP-00E2-CCU33-13-4"	00E2	33-4"	5/6/2009	10:11	816144.80	2373966.04	816145	2373965	1.1	P	ST	5.75	
CCU-33-4"-14	1-RA-09-CAP-00E2-CCU33-14-4"	00E2	33-4"	5/6/2009	10:19	816244.68	2374015.67	816245	2374015	0.7	P	ST	11.50	
CCU-33-4"-15	1-RA-09-CAP-00E2-CCU33-15-4"	00E2	33-4"	5/6/2009	10:27	816444.28	2374114.47	816445	2374115	0.9	P	ST	5.50	
CCU-33-4"-16	1-RA-09-CAP-00E2-CCU33-16-4"	00E2	33-4"	5/6/2009	09:37	816420.56	2374140.62	816420	2374140	0.8	P	ST	5.50	
CCU-33-4"-17	1-RA-09-CAP-00E2-CCU33-17-4"	00E2	33-4"	5/6/2009	09:35	816195.40	2374040.45	816195	2374040	0.6	P	ST	4.50	
CCU-33-4"-18	1-RA-09-CAP-00E2-CCU33-18-4"	00E2	33-4"	5/6/2009	09:29	816119.39	2373991.69	816120	2373991	0.9	P	ST	6.00	
												Minimum	**4.50**	
												Average	**7.08**	
CCU-34-4"-1	1-RA-09-CAP-00E2-CCU34-1-4"	00E2	34-4"	5/7/2009	09:31	816220.76	2374089.64	816220	2374090	0.8	P	ST	5.50	
CCU-34-4"-2	1-RA-09-CAP-00E2-CCU34-2-4"	00E2	34-4"	5/7/2009	09:50	816294.65	2374139.74	816295	2374140	0.4	P	ST	6.00	
CCU-34-4"-3	1-RA-09-CAP-00E2-CCU34-3-4"	00E2	34-4"	5/7/2009	09:46	816444.72	2374215.26	816445	2374215	0.4	P	ST	6.50	
CCU-34-4"-4	1-RA-09-CAP-00E2-CCU34-4-4"	00E2	34-4"	5/7/2009	09:40	816594.45	2374290.60	816595	2374290	0.8	P	ST	6.00	
CCU-34-4"-5	1-RA-09-CAP-00E2-CCU34-5-4"	00E2	34-4"	5/7/2009	09:48	816369.22	2374215.60	816370	2374215	1.0	P	ST	7.00	
CCU-34-4"-6	1-RA-09-CAP-00E2-CCU34-6-4"	00E2	34-4"	5/7/2009	11:40	816494.25	2374289.14	816495	2374290	1.1	P	ST	5.50	
CCU-34-4"-7	1-RA-09-CAP-00E2-CCU34-7-4"	00E2	34-4"	5/20/2009	08:14	816045.22	2373890.22	816045	2373890	0.3	P	ST	4.50	
CCU-34-4"-8	1-RA-09-CAP-00E2-CCU34-8-4"	00E2	34-4"	5/20/2009	08:03	815819.89	2373689.84	815820	2373690	0.2	P	ST	5.50	
CCU-34-4"-9	1-RA-09-CAP-00E2-CCU34-9-4"	00E2	34-4"	5/20/2009	07:54	815644.77	2373589.27	815645	2373589	0.4	P	ST	6.25	
CCU-34-4"-10	1-RA-09-CAP-00E2-CCU34-10-4"	00E2	34-4"	5/20/2009	08:05	815845.27	2373764.65	815845	2373765	0.4	P	ST	5.00	
CCU-34-4"-11	1-RA-09-CAP-00E2-CCU34-11-4"	00E2	34-4"	5/20/2009	08:16	815994.62	2373889.40	815995	2373890	0.7	P	ST	4.50	
CCU-34-4"-12	1-RA-09-CAP-00E2-CCU34-12-4"	00E2	34-4"	5/20/2009	08:12	815995.17	2373915.39	815995	2373915	0.4	P	ST	6.50	
CCU-34-4"-13	1-RA-09-CAP-00E2-CCU34-13-4"	00E2	34-4"	5/20/2009	08:07	815844.99	2373815.14	815845	2373815	0.1	P	ST	8.00	
CCU-34-4"-14	1-RA-09-CAP-00E2-CCU34-14-4"	00E2	34-4"	5/20/2009	07:57	815669.79	2373663.89	815670	2373664	0.2	P	ST	4.50	
CCU-34-4"-15	1-RA-09-CAP-00E2-CCU34-15-4"	00E2	34-4"	5/20/2009	07:56	815595.17	2373589.19	815595	2373589	0.3	P	ST	6.50	
CCU-34-4"-16	1-RA-09-CAP-00E2-CCU34-16-4"	00E2	34-4"	5/20/2009	07:59	815695.43	2373714.74	815695	2373715	0.5	P	ST	7.00	
CCU-34-4"-17	1-RA-09-CAP-00E2-CCU34-17-4"	00E2	34-4"	5/20/2009	08:08	815870.65	2373890.17	815870	2373890	0.7	P	ST	6.00	
CCU-34-4"-18	1-RA-09-CAP-00E2-CCU34-18-4"	00E2	34-4"	5/20/2009	08:01	815744.33	2373814.88	815745	2373815	0.7	P	ST	6.00	
												Minimum	**4.50**	
												Average	**5.93**	
CCU-35-4"-1	1-RA-09-CAP-00E2-CCU35-1-4"	00E2	35-4"	5/18/2009	10:36	815570.10	2373490.36	815570	2373490	0.4	P	ST	4.00	
CCU-35-4"-2	1-RA-09-CAP-00E2-CCU35-2-4"	00E2	35-4"	5/18/2009	10:34	815644.98	2373489.68	815645	2373490	0.3	P	ST	7.00	
CCU-35-4"-3	1-RA-09-CAP-00E2-CCU35-3-4"	00E2	35-4"	5/20/2009	07:52	815744.58	2373589.71	815745	2373590	0.5	P	ST	5.00	
CCU-35-4"-4	1-RA-09-CAP-00E2-CCU35-4-4"	00E2	35-4"	5/18/2009	10:24	815819.89	2373663.89	815820	2373664	0.2	P	ST	7.00	
CCU-35-4"-5	1-RA-09-CAP-00E2-CCU35-5-4"	00E2	35-4"	5/18/2009	10:19	815995.03	2373790.57	815995	2373790	0.6	P	ST	6.75	
CCU-35-4"-6	1-RA-09-CAP-00E2-CCU35-6-4"	00E2	35-4"	5/18/2009	10:17	816070.28	2373815.59	816070	2373815	0.7	P	ST	5.00	
CCU-35-4"-7	1-RA-09-CAP-00E2-CCU35-7-4"	00E2	35-4"	5/18/2009	10:20	815896.36	2373690.17	815896	2373690	0.4	P	ST	10.00	
CCU-35-4"-8	1-RA-09-CAP-00E2-CCU35-8-4"	00E2	35-4"	5/18/2009	10:32	815695.88	2373515.48	815695	2373515	1.0	P	ST	6.50	
CCU-35-4"-9	1-RA-09-CAP-00E2-CCU35-9-4"	00E2	35-4"	5/15/2009	10:31	815720.41	2373464.42	815720	2373464	0.6	P	ST	7.50	
CCU-35-4"-10	1-RA-09-CAP-00E2-CCU35-10-4"	00E2	35-4"	5/15/2009	10:28	815770.21	2373538.54	815770	2373539	0.5	P	ST	4.25	
CCU-35-4"-11	1-RA-09-CAP-00E2-CCU35-11-4"	00E2	35-4"	5/18/2009	10:14	816019.18	2373715.68	816020	2373715	1.1	P	ST	7.50	
CCU-35-4"-12	1-RA-09-CAP-00E2-CCU35-12-4"	00E2	35-4"	5/15/2009	10:14	816044.87	2373715.18	816045	2373715	0.2	P	ST	6.00	
CCU-35-4"-13	1-RA-09-CAP-00E2-CCU35-13-4"	00E2	35-4"	5/15/2009	10:19	815895.42	2373590.21	815895	2373590	0.5	P	ST	7.00	
CCU-35-4"-14	1-RA-09-CAP-00E2-CCU35-14-4"	00E2	35-4"	5/15/2009	10:26	815771.35	2373489.16	815771	2373489	0.4	P	ST	5.00	
CCU-35-4"-15	1-RA-09-CAP-00E2-CCU35-15-4"	00E2	35-4"	5/15/2009	10:34	815619.75	2373364.73	815620	2373364	0.8	P	ST	7.50	
CCU-35-4"-16	1-RA-09-CAP-00E2-CCU35-16-4"	00E2	35-4"	5/15/2009	10:24	815796.37	2373438.80	815796	2373439	0.4	P	ST	6.00	
CCU-35-4"-17	1-RA-09-CAP-00E2-CCU35-17-4"	00E2	35-4"	5/15/2009	10:21	815895.01	2373515.11	815895	2373515	0.1	P	ST	8.00	
CCU-35-4"-18	1-RA-09-CAP-00E2-CCU35-18-4"	00E2	35-4"	5/15/2009	10:16	816020.36	2373639.64	816020	2373639	0.7	P	ST	5.00	
												Minimum	**4.00**	
												Average	**6.39**	

ID	Sample ID	Sub-area	CCU	Collection Date	Collection Time	Actual Location Northing	Actual Location Easting	Proposed Location Northing	Proposed Location Easting	Offset from Proposed Location (ft)	Sample Type (P/Comp)	Sampling Device (RPB, ST, VC, VPC)	Applied Armor Stone Thickness (in)	Comments
CCU-36-4"-1	1-RA-09-CAP-00E2-CCU36-1-4"	00E2	36-4"	5/14/2009	10:00	815669.47	2373315.61	815670	2373315	0.8	P	ST	8.00	
CCU-36-4"-2	1-RA-09-CAP-00E2-CCU36-2-4"	00E2	36-4"	5/14/2009	10:13	815844.98	2373440.83	815845	2373440	0.8	P	ST	6.00	
CCU-36-4"-3	1-RA-09-CAP-00E2-CCU36-3-4"	00E2	36-4"	5/14/2009	10:09	816069.73	2373638.99	816070	2373639	0.3	P	ST	6.00	
CCU-36-4"-4	1-RA-09-CAP-00E2-CCU36-4-4"	00E2	36-4"	5/14/2009	10:12	816094.82	2373615.16	816095	2373615	0.2	P	ST	5.50	
CCU-36-4"-5	1-RA-09-CAP-00E2-CCU36-5-4"	00E2	36-4"	5/14/2009	10:17	815994.82	2373515.13	815995	2373515	0.2	P	ST	6.50	
CCU-36-4"-6	1-RA-09-CAP-00E2-CCU36-6-4"	00E2	36-4"	5/14/2009	10:05	815794.87	2373340.21	815795	2373340	0.2	P	ST	4.00	
CCU-36-4"-7	1-RA-09-CAP-00E2-CCU36-7-4"	00E2	36-4"	5/14/2009	10:03	815695.83	2373265.28	815696	2373265	0.3	P	ST	6.50	
CCU-36-4"-8	1-RA-09-CAP-00E2-CCU36-8-4"	00E2	36-4"	5/14/2009	10:10	815795.11	2373314.45	815795	2373314	0.5	P	ST	5.75	
CCU-36-4"-9	1-RA-09-CAP-00E2-CCU36-9-4"	00E2	36-4"	5/14/2009	10:14	815869.46	2373365.87	815870	2373365	1.0	P	ST	6.00	
CCU-36-4"-10	1-RA-09-CAP-00E2-CCU36-10-4"	00E2	36-4"	5/14/2009	10:19	816020.57	2373490.62	816021	2373490	0.8	P	ST	5.50	
CCU-36-4"-11	1-RA-09-CAP-00E2-CCU36-11-4"	00E2	36-4"	5/14/2009	10:24	816169.92	2373640.56	816170	2373640	0.6	P	ST	6.50	
CCU-36-4"-12	1-RA-09-CAP-00E2-CCU36-12-4"	00E2	36-4"	5/13/2009	10:58	816144.25	2373566.23	816145	2373565	1.4	P	ST	6.00	
CCU-36-4"-13	1-RA-09-CAP-00E2-CCU36-13-4"	00E2	36-4"	5/13/2009	10:43	816046.58	2373465.15	816046	2373465	0.6	P	ST	6.50	
CCU-36-4"-14	1-RA-09-CAP-00E2-CCU36-14-4"	00E2	36-4"	5/13/2009	10:50	815870.89	2373315.36	815871	2373315	0.4	P	ST	5.50	
CCU-36-4"-15	1-RA-09-CAP-00E2-CCU36-15-4"	00E2	36-4"	5/13/2009	10:53	815770.52	2373215.44	815771	2373215	0.7	P	ST	7.00	
CCU-36-4"-16	1-RA-09-CAP-00E2-CCU36-16-4"	00E2	36-4"	5/13/2009	10:48	815921.19	2373340.22	815921	2373340	0.3	P	ST	6.00	
CCU-36-4"-17	1-RA-09-CAP-00E2-CCU36-17-4"	00E2	36-4"	5/13/2009	10:45	816021.64	2373414.74	816021	2373414	1.0	P	ST	4.25	
CCU-36-4"-18	1-RA-09-CAP-00E2-CCU36-18-4"	00E2	36-4"	5/13/2009	10:40	816220.65	2373565.39	816220	2373565	0.8	P	ST	6.50	
												Minimum	**4.00**	
												Average	**6.00**	
CCU-37-4"-1	1-RA-09-CAP-00E2-CCU37-1-4"	00E2	37-4"	5/8/2009	09:56	815795.91	2373190.54	815796	2373190	0.5	P	ST	6.00	
CCU-37-4"-2	1-RA-09-CAP-00E2-CCU37-2-4"	00E2	37-4"	5/8/2009	10:05	816069.66	2373415.20	816070	2373415	0.4	P	ST	6.50	
CCU-37-4"-3	1-RA-09-CAP-00E2-CCU37-3-4"	00E2	37-4"	5/8/2009	10:07	816194.41	2373490.46	816195	2373490	0.7	P	ST	5.75	
CCU-37-4"-4	1-RA-09-CAP-00E2-CCU37-4-4"	00E2	37-4"	5/8/2009	10:09	816294.72	2373540.55	816295	2373540	0.6	P	ST	6.00	
CCU-37-4"-5	1-RA-09-CAP-00E2-CCU37-5-4"	00E2	37-4"	5/8/2009	10:03	816068.97	2373365.56	816070	2373365	1.2	P	ST	6.50	
CCU-37-4"-6	1-RA-09-CAP-00E2-CCU37-6-4"	00E2	37-4"	5/8/2009	10:01	815895.84	2373214.88	815896	2373214	0.9	P	ST	5.50	
CCU-37-4"-7	1-RA-09-CAP-00E2-CCU37-7-4"	00E2	37-4"	5/8/2009	09:59	815820.83	2373165.58	815821	2373165	0.6	P	ST	7.00	
CCU-37-4"-8	1-RA-09-CAP-00E2-CCU37-8-4"	00E2	37-4"	5/11/2009	09:44	815898.52	2373164.77	815896	2373165	2.5	P	ST	6.00	
CCU-37-4"-9	1-RA-09-CAP-00E2-CCU37-9-4"	00E2	37-4"	5/11/2009	09:54	816020.31	2373289.78	816021	2373289	1.0	P	ST	7.00	
CCU-37-4"-10	1-RA-09-CAP-00E2-CCU37-10-4"	00E2	37-4"	5/11/2009	10:02	816194.88	2373440.33	816195	2373440	0.4	P	ST	7.00	
CCU-37-4"-11	1-RA-09-CAP-00E2-CCU37-11-4"	00E2	37-4"	5/11/2009	10:09	816353.41	2373548.62	816345	2373540	12.0	P	ST	2.50	Bucket was moved 12 feet from where it was placed
CCU-37-4"-12	1-RA-09-CAP-00E2-CCU37-12-4"	00E2	37-4"	5/11/2009	10:05	816344.67	2373489.95	816345	2373490	0.3	P	ST	6.00	
CCU-37-4"-13	1-RA-09-CAP-00E2-CCU37-13-4"	00E2	37-4"	5/11/2009	09:56	816171.19	2373365.18	816171	2373365	0.3	P	ST	7.50	
CCU-37-4"-14	1-RA-09-CAP-00E2-CCU37-14-4"	00E2	37-4"	5/11/2009	09:52	816020.80	2373239.32	816021	2373239	0.4	P	ST	8.00	
CCU-37-4"-15	1-RA-09-CAP-00E2-CCU37-15-4"	00E2	37-4"	5/11/2009	09:47	815870.72	2373090.43	815871	2373090	0.5	P	ST	6.00	
CCU-37-4"-16	1-RA-09-CAP-00E2-CCU37-16-4"	00E2	37-4"	5/11/2009	09:49	816045.75	2373189.32	816046	2373189	0.4	P	ST	6.50	
CCU-37-4"-17	1-RA-09-CAP-00E2-CCU37-17-4"	00E2	37-4"	5/11/2009	09:58	816220.86	2373340.12	816221	2373340	0.2	P	ST	5.00	
CCU-37-4"-18	1-RA-09-CAP-00E2-CCU37-18-4"	00E2	37-4"	5/11/2009	10:00	816244.87	2373389.74	816245	2373390	0.3	P	ST	6.00	
												Minimum	**2.50**	
												Average	**6.15**	
CCU-38-4"-1	1-RA-09-CAP-00E2-CCU38-1-4"	00E2	38-4"	5/12/2009	09:25	815896.41	2373040.37	815896	2373040	0.6	P	ST	4.00	
CCU-38-4"-2	1-RA-09-CAP-00E2-CCU38-2-4"	00E2	38-4"	5/12/2009	09:33	816119.80	2373215.23	816120	2373215	0.3	P	ST	8.00	
CCU-38-4"-3	1-RA-09-CAP-00E2-CCU38-3-4"	00E2	38-4"	5/12/2009	09:43	816270.00	2373339.49	816271	2373340	1.1	P	ST	8.00	
CCU-38-4"-4	1-RA-09-CAP-00E2-CCU38-4-4"	00E2	38-4"	5/12/2009	09:49	816396.03	2373465.80	816395	2373465	1.3	P	ST	4.50	
CCU-38-4"-5	1-RA-09-CAP-00E2-CCU38-5-4"	00E2	38-4"	5/12/2009	09:46	816394.72	2373415.70	816395	2373415	0.8	P	ST	6.50	
CCU-38-4"-6	1-RA-09-CAP-00E2-CCU38-6-4"	00E2	38-4"	5/12/2009	09:49	816295.74	2373340.33	816296	2373340	0.4	P	ST	9.00	
CCU-38-4"-7	1-RA-09-CAP-00E2-CCU38-7-4"	00E2	38-4"	5/12/2009	09:36	816144.38	2373214.71	816145	2373214	0.9	P	ST	7.00	
CCU-38-4"-8	1-RA-09-CAP-00E2-CCU38-8-4"	00E2	38-4"	5/12/2009	09:30	815995.68	2373065.12	815996	2373065	0.3	P	ST	5.00	
CCU-38-4"-9	1-RA-09-CAP-00E2-CCU38-9-4"	00E2	38-4"	5/12/2009	09:35	816145.68	2373165.50	816146	2373165	0.6	P	ST	6.25	
CCU-38-4"-10	1-RA-09-CAP-00E2-CCU38-10-4"	00E2	38-4"	5/12/2009	09:40	816270.25	2373240.37	816271	2373240	0.8	P	ST	9.00	
CCU-38-4"-11	1-RA-09-CAP-00E2-CCU38-11-4"	00E2	38-4"	5/12/2009	09:53	816445.40	2373390.44	816445	2373390	0.6	P	ST	6.00	
CCU-38-4"-12	1-RA-09-CAP-00E2-CCU38-12-4"	00E2	38-4"	5/13/2009	10:23	816470.87	2373389.96	816470	2373390	0.9	P	ST	6.50	
CCU-38-4"-13	1-RA-09-CAP-00E2-CCU38-13-4"	00E2	38-4"	5/13/2009	10:29	816345.58	2373265.04	816346	2373265	0.4	P	ST	5.00	
CCU-38-4"-14	1-RA-09-CAP-00E2-CCU38-14-4"	00E2	38-4"	5/12/2009	09:38	816195.40	2373140.45	816196	2373140	0.8	P	ST	5.00	
CCU-38-4"-15	1-RA-09-CAP-00E2-CCU38-15-4"	00E2	38-4"	5/12/2009	09:28	815995.81	2372965.22	815996	2372965	0.3	P	ST	5.50	
CCU-38-4"-16	1-RA-09-CAP-00E2-CCU38-16-4"	00E2	38-4"	5/13/2009	10:35	816120.23	2373040.18	816120	2373040	0.3	P	ST	3.00	
CCU-38-4"-17	1-RA-09-CAP-00E2-CCU38-17-4"	00E2	38-4"	5/13/2009	10:31	816345.77	2373215.21	816346	2373215	0.3	P	ST	5.50	
CCU-38-4"-18	1-RA-09-CAP-0E3N-CCU38-18-4"	0E3N	38-4"	5/13/2009	10:26	816445.68	2373289.55	816445	2373290	0.8	P	ST	5.00	
												Minimum	**3.00**	
												Average	**6.04**	

Notes:
Data from the *2009 RA Summary Report*, Appendix D, Table D-6

1. Brennan QC data used as Foth QA sediment traps were unretrievable.
(A) = Brennan QC sample data. Brennan QC bucket easting and northing are produced from the center of the step where the samples were taken. Result reported is the average of the three QC samples collected at sampling point.

CCU = Cap Certification Unit
Comp = composite
ft = feet
in = inches
P = Primary
RPB = Russian Peat Borer
ST = Sediment Trap
VC = Vibra Core
VPC = Vacuum Push Core

Prepared by: MCC2
Checked by: NRA

Appendix E

OU1 Final Post Remedy SWAC Estimate

Foth Infrastructure & Environment, LLC
Memorandum

June 15, 2010

TO: Bill Hartman, GW Partners

CC: JP Causey, WTM I
Skip Missimer, P.H. Glatfelter
Pat Zaepfel, Kegel Kelin Almy & Grimm LLP
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Nancy Peterson, Quarles & Brady
Dave Strifling, Quarles & Brady
Jeanne Tarvin, STS
Steve Laszewski, Foth
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FR: Steve Lehrke, Foth
Jerry Eykholt, Foth

RE: OU1 Final Post Remedy SWAC Estimate

OU1 PCB surface weighted average concentration (SWAC) calculation procedures were proposed in the June 20, 2007 SWAC Estimation Procedure memorandum by the Boldt Oversight Team, subsequently adjusted by the OU1 SWAC Work Sub-Group and documented in the Foth OU1 SWAC Whitepaper in Appendix C of the *OU1 Design Supplement* (Foth and CH2M HILL, November 2007). The SWAC calculations incorporating all sediment re-characterization data from winter 2008 and post-dredge data collected through 2008 were submitted to the Agency Oversight Team (A/OT) during November 2009 for review. In that submittal, the revised point estimate for OU1 SWAC was 0.21 ppm with the 95% confidence interval of the SWAC estimate ranging from 0.19 ppm to 0.22 ppm.

Recent communication from the A/OT on May 28, 2010 indicated revisions to the calculation method be made for the sand cover stratum categories. Per the communication, SWAC contribution for the sand cover categories are given by the following criteria:

- 3-inch Sand Cover Only - Reduce the measured surficial concentration by a factor of 5;
- 6-inch Sand Cover Only - Reduce the measured surficial concentration by a factor of 10;
- Residual Sand Cover (6-inch) - Reduce the measured surficial concentration by a factor of 10; and
- Residual Sand Cover (9-inch) - Reduce the measured surficial concentration by a factor of 15.

The purpose of this memo is to present revised OU1 SWAC estimate incorporating all data and utilize the above sand cover SWAC contribution criteria. The revised point estimate for OU1 SWAC is 0.23 ppm. The 95% confidence interval of the SWAC estimate covers the range of 0.22 ppm to 0.24 ppm.

The post-dredge data used in the revised SWAC estimate reflect all OU1 post-dredge sampling results, as dredging was completed during June 2008. The SWAC estimate also reflects actual implementation of covering and capping performed through the 2009 construction season. Therefore, this revised SWAC estimate reflects the final post-remedy SWAC calculation for OU1.

The methodology of the SWAC calculation herein follows that outlined in Appendix C of the *OU1 Design Supplement*, with the exception as noted above for the sand cover areas. The SWAC estimation procedure uses a stratified approach, dividing the study area into discrete strata based on sediment and remedy characteristics. The defined strata and associated areas are presented in Table 1. Areas presented in Table 1 are actual implementation areas.

Note that Strata 9 and 11 in Table 1 were not specifically delineated in the *OU1 Design Supplement*. The delineation of Stratum 9 was included to separately call out the 9-inch residual sand cover areas. The delineation of Stratum 11 was included to account for a small portion of the pipeline/artifact/shoreline region (where no remedy could be applied) with existing pre-design core data within the boundaries. The delineation of these two new strata has little overall affect on the ultimate SWAC estimate.

Table 1

Strata Definitions

Stratum	Name	Description	Area (Ac)
1	Engineered Cap	13-inch cap placement areas.	114
2	Dredge Only	Areas where only dredging occurred.	173
3	Interdeposit	Areas of less than 1 ppm in any 8-inch sample.	456
4	Void	Sampled areas with no soft sediment recovery.	224
5	Null	No sediment areas (unsampled).	247
6	3-inch Sand Cover Only	Undredged areas with 3-inch sand placement.	60
7	6-inch Sand Cover Only	Undredged areas with 6-inch sand placement.	46
8	Dredge and 6-inch Sand Cover	Dredged and 6-inch residual sand cover areas.	32
9	Dredge and 9-inch Sand Cover	Dredged and 9-inch residual sand cover areas.	4.5
10	Pipeline/Artifact/Shoreline Without Samples	Pipeline, artifact and shoreline areas modeled (GMS-SED Model) with > 1 ppm, but remedial action not possible. No sediment core samples are contained within boundaries.	6.9
11	Pipeline/Artifact/Shoreline With Samples	Pipeline, artifact and shoreline areas modeled (GMS-SED Model) with > 1 ppm, but remedial action not possible. Sediment core samples exist within boundaries.	1.3

Prepared by: SGL
Checked by: GRE

A summary of the SWAC calculations is provided in Table 2. The SWAC calculation procedures for each stratum, along with the procedure of calculating the 95% confidence interval are summarized in Attachment 1.

Table 2
SWAC Estimate

Stratum	weighted $\bar{x}_h$ (ppm)	weighted s_h^2 (ppm)	$\mathrm{var}(\bar{x}_h)$ (ppm)	A_h (Ac)	Data Source
Engineered Cap	0.0065	4.69E-06	4.69E-07	114	Imputed Value
Completed Dredge Areas (Excluding Residual Sand Cover)	0.415	0.227	0.00013	173	Post-Dredge Sample Cores
Interdeposit	0.390	0.096	0.00028	456	Pre-Design Sample Cores plus Recharacterization Data
Void (Sampled Areas with No Sediment Recovery)	0.0168	3.14E-05	3.14E-06	224	Pre-Design and Post-Dredge Sample Cores With No Recovery
Null (No Soft Sediment - Unsampled)	0	0	0	247	Imputed Value Based on 12 Native Clay Samples
3-inch Sand Cover Only	0.248	0.00479	1.69E-05	60	One-Half Detection Limit
6-inch Sand Cover Only	0.152	0.00262	1.23E-05	46	One-Half Detection Limit
Residual Sand Cover (6-inch)	0.360	0.0862	9.26E-05	32	One-Half Detection Limit
Residual Sand Cover (9-inch)	0.541	0.0916	0.00327	4.5	One-Half Detection Limit
Pipeline/Artifact/Shoreline (No Action in Unsampled Areas)	3.68	1.51	0.151	6.9	Model Interpolated Surface Average
Artifact/Shoreline (No Action in Sampled Areas)	0.98	2.09	0.232	1.3	Pre-Design Sample Cores
$SWAC_{Estimate}$	0.23				
var($SWAC_{Estimate}$)	0.00004				
$SWAC_{Estimate}$ LCL	0.22				
$SWAC_{Estimate}$ UCL	0.24				

Prepared by: SGL
Checked by: GRE

Attachment 1

SWAC Calculation Procedures

The SWAC estimation procedure utilizes stratification, where the strata are defined by OU1 remedy techniques and sediment characteristics. Each stratum is associated with an area (A_h) and an estimated surface concentration ($\bar{x}_h$). The overall OU1 SWAC based on stratified design is calculated as:

$$SWAC_{estimate} = \frac{\sum_h \left(A_h \times \bar{x}_h\right)}{\sum_h A_h}.$$

The uncertainty in the SWAC estimate is quantified by a statistical confidence interval. Because the SWAC is based on sample data, it is only an estimate of the true (population) average surface concentration. While we do not know the true concentration, we can quantitatively describe the expected error associated with the estimate.

Because of the large sample sizes associated with the SWAC estimate, the sampling variation is expected to be approximately normally distributed. A 95% confidence interval of the SWAC estimate is provided by

$$SWAC_{estimate} \pm z_{1-0.05/2} \times \sqrt{\text{var}\left(SWAC_{estimate}\right)}$$

where $z_{1-0.05/2}$ is the upper 97.5th percentile of the standard normal distribution and var($SWAC_{estimate}$) is the variance associated with the SWAC estimate, namely

$$\text{var}\left(SWAC_{estimate}\right) = \frac{1}{A^2}\sum_h A_h^2 \times \text{var}\left(\bar{x}_h\right),$$

where A is the total area. The target attainment goal of the OU1 SWAC estimate is 0.25 ppm. If the confidence interval lower limit described above for the SWAC estimate is less than 0.25, it cannot be stated with statistical certainty that the true average surface concentration differs significantly from 0.25 ppm.

Data used to estimate the stratum surface concentration, $\bar{x}_h$, and variance, var($\bar{x}_h$), are dependent on the corresponding remedial action. Post-dredge sample core data are used for calculations in Stratum 2 (dredge only), Stratum 8 (Dredge and 6-inch Sand Cover) and Stratum 9 (Dredge and 9-inch Sand Cover). Pre-design and re-characterization sample core data are used in Stratum 3 (interdeposit), Stratum 6 (3-inch Sand Cover Only), Stratum 7 (6-inch Sand Cover Only) and Stratum 11 (artifact/shoreline with samples). Imputed values are used for Strata 1, 4, 5, and 10 as follows:

- Engineered cap areas (Stratum 1) are assumed to have a surface concentration of half the current detection limit, i.e., 0.0065 ppm.

- Void areas (Stratum 4) are assumed to have a surface concentration of 0.0168 ppm. As stated in the *2006 RA Summary Report* (pages 4-18), this value is the average PCB concentration of 12 native clay samples from different sub-areas within OU1 collected during pre-design sampling in 2003/2004.

- Null areas (Stratum 5) are assumed to have a surface concentration of 0 ppm.

- The pipeline/artifact/shoreline area without samples (Stratum 10) differs from the other strata in that it does not have sample core data located within its boundaries, but also is not assumed to have a constant PCB surface concentration. The surface average in this case is obtained from the GMS-SED (pre-dredge) model interpolation.

When calculating $\bar{x}_h$ and var($\bar{x}_h$) from core data (Strata 2, 3, 6, 7, 8, 9, and 11), it is necessary to use a weighting scheme to prevent biased estimates of the mean and variance. Specifically, the pre-design sample data were collected at differing sample densities depending on the OU1 sub-area. Post-dredge data were also collected at non-uniform intervals. To account for this, Thiessen polygon weights are used in estimating the sample mean and variance.

The Thiessen polygon weights are calculated as follows:

1) Identify sediment cores within stratum boundaries.
2) Develop a Thiessen polygon shapefile for this data subset.
3) Clip Thiessen polygon shapefile to the stratum boundaries.

The surface average for the stratum is then calculated as:

$$\bar{x}_h = \frac{\sum_i w_i x_{h,i}}{\sum_i w_i}$$

where $x_{h,i}$ are the sediment surface sample results and w_i are the associated Thiessen polygon weights.

The stratum sample variance and variance of the mean are similarly weighted using the Thiessen polygons, and calculated as:

$$s_h^2 = \frac{\sum_{i=1}^{n} w_i \left(x_{h,i} - \bar{x}_h\right)^2}{\frac{(n-1)}{n}\sum_{i=1}^{n} w_i} \quad ; \qquad \mathrm{var}\left(\bar{x}_h\right) = \frac{s_h^2}{n} \quad .$$

For strata in which imputed values are used for the surface average, $\bar{x}_h$, (Strata 1, 4, 5, and 10) imputed values are also used for var($\bar{x}_h$). In these cases, since it is not possible to estimate the stratum sample standard deviation s_h directly from the data, s_h will instead be estimated by dividing the expected concentration range by six. This procedure, which among other references is given in *Guidance on Choosing a Sampling Design for Environmental Data Collection* (USEPA, 2002), utilizes the normal distribution for which six standard deviations cover 99.8% of the distribution. The expected concentration range divided by six then provides a rough estimate of the standard deviation.

The concentration range will be taken as a minimum of zero and a maximum of two times the imputed value $\bar{x}_h$. While a sample size *n* is not available, in order to obtain an estimate of var($\bar{x}_h$) we will simply take 1/10th the value of s_h^2. Hence for strata with imputed values,

$$\text{var}(\bar{x}_h) = \frac{\left(\frac{2 \cdot \bar{x}_h}{6}\right)^2}{10}.$$

Note that our choice of *n* is somewhat marginal, since the imputed values for Strata 1, 4, and 5 are either zero or very small. While the imputed concentration value for Stratum 10 will be somewhat larger, the associated area is relatively small (less than 7 acres) resulting in a smaller influence in the overall variance estimate of OU1 SWAC. Hence again the choice of *n* is somewhat marginal.

Surface Sample Thickness:

The surface concentration thickness is considered to be representative of the biologically-active layer of the sediment. As discussed in the June 20, 2007 Boldt Oversight Team memorandum, it is assumed that surface concentrations represent a fixed depth.

Sediment cores collected in OU1 have been sampled at varying interval lengths. Most pre-dredge and post-dredge cores were sampled at either 4-inch or 6-inch intervals. For the purpose of SWAC estimation, the surface depth will be assumed to be 6 inches. Surface samples collected at 4-inch interval depths will be converted by simple depth weighted averaging as follows:

1) If only a single 4-inch interval exists (total soft sediment thickness is less than 6 inches) the surface concentration will be the resulting 4-inch sample concentration.

2) If two 4-inch intervals exist, a depth weighted 6-inch average will be calculated as [(4 x Top Interval ppm) + (2 x Second Interval ppm)] / 6.

A description of the calculations of the surface average estimate $\bar{x}_h$, sample variance s_h^2, and the variance of the mean $\text{var}(\bar{x}_h)$ for each of the *h* strata follows.

1. Engineered Cap

This stratum covers 114 acres proposed for capping. The surface average $\bar{x}_h$ for this stratum is assumed to be 0.0065 ppm. The stratum sample variance s_h^2 is assumed to be $\left(\frac{2 \cdot 0.0065}{6}\right)^2$ and the variance of the mean is assumed to be

$$\text{var}(\bar{x}_h) = \frac{\left(\frac{2 \cdot 0.0065}{6}\right)^2}{10}.$$

2. Dredge Only

This stratum covers 173 acres of dredged areas. (It excludes areas designated as residual sand cover areas, and void areas of no soft sediment recovery.)

The surface average $\bar{x}_h$ for completed dredge areas is calculated from 1759 core sample locations. In dredged areas, only post-dredge samples are used. Post-dredge composite sample locations are each assigned the resulting concentration of the composite.

The sample collection grids differ in density, and likewise the sample average, sample variance and variance of the mean are weighted with Thiessen polygon areas. The Thiessen polygon weights are calculated as:

1) Identify sediment cores within stratum boundaries. Only post-dredge cores are used within dredged areas.
2) Develop a Thiessen polygon shapefile for this data subset.
3) Clip Thiessen polygon shapefile to the stratum boundaries.

If smaller than 6-inch sample intervals were collected, six-inch surface concentrations were calculated from depth-weighting consecutive sample intervals. For example, if 4-inch intervals were sampled, 6-inch surface concentrations were found by depth weighting as:

6-inch ppm = [(4 x Top Interval ppm) + (2 x Second Interval ppm)] / 6.

The surface average, sample variance and variance of the mean for this stratum are then calculated as:

$$\bar{x}_h = \frac{\sum_{i=1}^{1759} w_i x_{h,i}}{\sum_{i=1}^{1759} w_i} = 0.42\,ppm$$

and

$$s_h^2 = \frac{\sum_{i=1}^{1759} w_i \left(x_{h,i} - \bar{x}_h\right)^2}{\frac{1758}{1759}\sum_{i=1}^{1759} w_i} = 0.227 \qquad \text{var}\left(\bar{x}_h\right) = \frac{s_h^2}{1759} = 0.00013.$$

3. Interdeposit

This stratum covers approximately 456 acres (excluding void no soft sediment recovery areas). It includes areas of undredged sampled soft sediments with 8-inch concentrations less than 1 ppm. The stratum boundaries are taken from the pre-dredge GMS-SED model.

The surface average $\bar{x}_h$ is calculated from 340 pre-dredge and re-characterization sediment cores located within the stratum boundaries. Since the sample collection grids differ in density within the varying subareas, a weighted average is calculated using Thiessen polygon areas as in Stratum 2 above. Also as in Stratum 2, if smaller than 6-inch sample intervals were collected, 6-inch surface concentrations were calculated from depth weighting consecutive sample intervals.

The surface average, sample variance and variance of the mean for this stratum are then calculated as:

$$\bar{x}_h = \frac{\sum_{i=1}^{340} w_i x_{h,i}}{\sum_{i=1}^{340} w_i} = 0.390\,ppm$$

$$s_h^2 = \frac{\sum_{i=1}^{340} w_i \left(x_{h,i} - \bar{x}_h\right)^2}{\frac{339}{340}\sum_{i=1}^{340} w_i} = 0.096 \qquad \text{var}\left(\bar{x}_h\right) = \frac{s_h^2}{337} = 0.00028.$$

4. Void (sampled areas with no soft-sediment recovery)

Void areas (no soft-sediment recovery) are areas where sediment sample cores have been attempted but insufficient soft sediment was recovered to analyze. This stratum is defined in both pre-dredge and post-dredge areas, and is bounded by Thiessen polygons surrounding the no soft-sediment recovery core locations. It covers 224 acres. The stratum boundaries are developed as follows:

1) Create a combined spatial dataset of pre-dredge and post-dredge core samples. Use only post-dredge core samples in dredged areas.
2) With the combined spatial dataset, create a Thiessen polygon shapefile.
3) Clip the Thiessen polygon shapefile to OU1 boundaries.
4) Exclude all sand cover, cap and null regions from the Thiessen polygon shapefile.

5) Select only Thiessen polygons from the shapefile that correspond to no recovery cores.
6) The resulting shapefile defines the stratum boundaries.

The surface average $\bar{x}_h$ for this stratum is assumed to be 0.0168 ppm. The stratum sample variance s_h^2 is assumed to be $\left(\frac{2 \cdot 0.0168}{6}\right)^2$ and the variance of the mean is assumed to be $\text{var}(\bar{x}_h) = \frac{\left(\frac{2 \cdot 0.0168}{6}\right)^2}{10}$.

5. Unsampled Areas Designated Null

This stratum covers 247 acres designated as null. The OU1 SWAC Work Sub-Group acknowledged that the surface average $\bar{x}_h$ for this stratum is assumed to be 0 ppm, and the stratum sample variance s_h^2 and variance of the mean $\text{var}(\bar{x}_h)$ are assumed to be 0.

6. 3-inch Sand Cover Only

Three (3)-inch sand cover only areas are undredged areas designated for sand cover. The boundaries are developed by the GMS-SED (pre-dredge) model as areas with one 8-inch interval with PCB concentrations between 1 ppm and 1.4 ppm, and all other 8-inch intervals less than 1 ppm. The stratum boundaries are adjusted to include implementation considerations. This stratum covers 60 acres.

The surface average $\bar{x}_h$ is calculated from 284 pre-dredge and re-characterization sediment cores located within the stratum boundaries. Core surface concentrations are reduced by a factor of five. Thiessen polygon areas are used to weight the SWAC contribution of each core as described in Stratum 2 above. Also as in Stratum 2, if smaller than 6-inch sample intervals were collected, 6-inch surface concentrations were calculated from depth weighting consecutive sample intervals.

The surface average, sample variance and variance of the mean for this stratum are then calculated as:

$$\bar{x}_h = \frac{\sum_{i=1}^{284} w_i x_{h,i}}{\sum_{i=1}^{284} w_i} = 0.248\,ppm$$

$$s_h^2 = \frac{\sum_{i=1}^{248} w_i \left(x_{h,i} - \bar{x}_h\right)^2}{\frac{247}{248}\sum_{i=1}^{248} w_i} = 0.00479 \qquad \text{var}\left(\bar{x}_h\right) = \frac{s_h^2}{337} = 1.69E-05 .$$

7. 6-inch Sand Cover Only

Six (6)-inch sand cover only areas are undredged areas designated for sand cover. The boundaries are developed by the GMS-SED (pre-dredge) model as areas with one 8-inch interval with PCB concentrations between 1.4 ppm and 2 ppm, and all other 8-inch intervals less than 1 ppm. The stratum boundaries are adjusted to include implementation considerations. This stratum covers 46 acres. The surface average $\bar{x}_h$ is calculated from 213 pre-dredge and re-characterization sediment cores, with the core surface concentrations first being reduced by a factor of ten. The average, $\bar{x}_h$, sample variance, s_h^2, and variance of the mean, $\text{var}\left(\bar{x}_h\right)$, are then calculated as in Stratum 6 above.

8. 6-inch Residual Sand Cover

This stratum covers 32 acres, which have been dredged and are candidates for sand cover. The surface average $\bar{x}_h$ is calculated from 930 post-dredge sediment cores, with the core surface concentrations first being reduced by a factor of ten. The average, $\bar{x}_h$, sample variance, s_h^2, and variance of the mean, $\text{var}\left(\bar{x}_h\right)$, are then calculated as in Stratum 6 above.

9. 9-inch Residual Sand Cover

This stratum covers 4.5 acres in POG2, which have been dredged and covered with 9 inches of sand. The surface average $\bar{x}_h$ is calculated from 28 post-dredge sediment cores collected during 2006. Note that this area was subsequently re-dredged during 2008 without post-dredge samples collected, hence the core concentrations utilized could be taken as a worst case scenario. The 28 core surface concentrations utilized are reduced by a factor of fifteen. The average, $\bar{x}_h$, sample variance, s_h^2, and variance of the mean, $\text{var}\left(\bar{x}_h\right)$, are then calculated as in Stratum 6 above.

10. Pipeline/Artifact/Shoreline (No Samples Within Boundaries)

This stratum consists of 6.9 acres. It consists of areas above 1 ppm to which no remedy could be applied. This stratum differs from the others in that it does not have sample core data located within its boundaries, but also is not assumed to have a constant PCB surface concentration. The PCB surface average, stratum sample variance and variance of the mean in this case are obtained from the GMS-SED (pre-dredge) model.

The GMS-SED model bounded by this stratum contains 1172 model nodes (horizontal), each associated with a node surface area and interpolated PCB concentration. The surface average for this stratum is calculated as from the model as:

$$\bar{x}_h = \frac{\sum_{i=1}^{1172} w_i y_{h,i}}{\sum_{i=1}^{1172} w_i} = 3.68\,ppm$$

where $y_{h,i}$ is the PCB concentration associated with model node *i*, and w_i is the associated model node surface area (Thiessen polygon area). The stratum sample variance s_h^2 is assumed to be $\left(\frac{2 \cdot 3.68}{6}\right)^2$ and the variance of the mean is assumed to be

$$\text{var}(\bar{x}_h) = \frac{\left(\frac{2 \cdot 3.68}{6}\right)^2}{10}.$$

11. Artifact/Shoreline (Existing Samples Within Boundaries)

This stratum covers approximately 1.3 acres of areas above 1 ppm to which no remedy could be applied, but pre-design core samples exist within the boundaries.

The surface average $\bar{x}_h$ is calculated from 9 pre-dredge sediment cores located within the stratum boundaries. A weighted average is calculated using Thiessen polygon areas as in Stratum 2 above. Also as in Stratum 2, if less than 6-inch sample intervals were collected, 6-inch surface concentrations were calculated from depth weighting consecutive sample intervals.

The surface average, sample variance and variance of the mean for this stratum are then calculated as:

$$\bar{x}_h = \frac{\sum_{i=1}^{9} w_i x_{h,i}}{\sum_{i=1}^{9} w_i} = 0.98\,ppm$$

$$s_h^2 = \frac{\sum_{i=1}^{9} w_i \left(x_{h,i} - \bar{x}_h\right)^2}{\frac{8}{9}\sum_{i=1}^{9} w_i} = 2.09 \qquad \text{var}\left(\bar{x}_h\right) = \frac{s_h^2}{9} = 0.232.$$

References

U.S. Environmental Protection Agency, 2002b. *Guidance on Choosing a Sampling Design for Environmental Data Collection* (QA /G-5S), Office of Environmental Information, Washington D.C.

Foth Infrastructure & Environment, LLC and CH2M HILL, Inc., 2007. *Lower Fox River Operable Unit 1 – OU1 Design Supplement.* November 2007.

Response to Agencies/Boldt Oversight Team Comments to the *Lower Fox River RD/RA Oversight Support Services Project 87500*

***LFR OU1 Remedial Action Certification of Completion Report draft dated* August 26, 2010**

Section 1.2 – Summary of LFR OU1 RA, page 3 first full paragraph

Comment No. 1: There is an incorrect reference. Change "Table 3-23" to read "Table 3-24".

Response to Comment No. 1: *Text will be amended as noted.*

Section 2.1 – 2004 RA, page 6, top of bullets

Comment No. 2: Add the following bullet:

- Dredging operations started August 20, 2004.

Response to Comment No. 2: *Text will be amended as noted.*

Section 2.6 – 2009 RA, between the last two bullets, page 11

Comment No. 3: Add the following bullet:

- Completion of in-river cleanup work May 18, 2009.

Response to Comment No. 3: *Text will be amended as noted.*

Section 3.1.1 – Site Mobilization and Preparation, page 13

Comment No. 4: For the Dewatering Pad paragraph, add an as-built figure. For the Water Treatment Plant, add an as-built figure.

Response to Comment No. 4: *Figure 1-29, Dewatering Pad As-Built, and Figure 1-30, Water Treatment Plant As-Built, will be prepared as requested and included behind the Figures tab. They will also be added to the Table of Contents, and the text will reference the additional figures.*

Section 3.1.4 – Sediment Dewatering and Disposal, page 16

Comment No. 5: Please add a paragraph describing and explaining in detail the geotextile tube process and operation. Reference the as-built figure (see Comment 4).

Response to Comment No. 5: *To assist in describing the geotextile tube process and operation, Figure 1-31, Sediment Dewatering System Process Flow Diagram, will be prepared and included behind the Figures tab. It will also be added to the Table of Contents, and the text will reference the additional figure. In addition, the introductory paragraph will be modified as shown below, and the following paragraphs will be added to Section 3.1.4 immediately after the introductory paragraph.*

Sediment dewatering was employed at the sediment dewatering containment cell for dredged sediment. The dewatering was accomplished using geotextile tubes to remove water from PCB-impacted sediment prior to disposal (Photograph 4, Appendix A). Sediment thickeners and chemical sediment conditioners (polymers and/or coagulants) were used to aide in the dewatering process.

The dewatering system was made up of a manifold system, thickener system, geotextile tubes, dewatering pad, and carriage water sump as shown on Figure 1-29. The process flow diagram for the sediment dewatering system is shown on Figure 1-31. A conditioning chemical (polymer) and a coagulant (aluminum chlorohydrate [ACH]) were added to the sediment slurry prior to discharge into the trammel screens. The dosing rate was based on the dredge slurry flow rate, the slurry solids content, and resulting visual floc characteristics. The material was then screened and allowed to settle before being pumped to the geotextile tubes. Carriage water from the geotextile tubes wept through the geotextile fabric, percolated through the dewatering pad gravel, and flowed to the carriage water sump before being pumped to the water treatment system.

Two sediment screening and thickening units were added upstream of the geotextile tubes in 2006 and provided the following benefits:

- *Screening debris larger than 1/8 inch resulted in improved sediment dewatering and decreased the potential for geotextile tube ruptures.*

- *Thickening the sediment slurry, prior to its introduction into the geotextile tubes, reduced the hydraulic loading on the geotextile tubes, reduced the number of tubes online at one time, provided a uniform slurry for dewatering, and reduced the amount of time required for the tubes to dewater to a desired consistency.*

- *As a result of pumping material to the screens, rather than pumping directly into the geotextile tube header system, the dredge pump discharge pressure was decreased. This resulted in the overall effect of improving dredge efficiency, while minimizing the amount of carriage water that was delivered to the dewatering pad with the dredge slurry.*

- *The dewatering time was reduced and allowed stacking of the geotextile tubes sooner.*

Dewatered sediment was sampled from the geotextile tubes in order to determine percent solids (moisture content) and landfill geotechnical data (Photograph 5, Appendix A). Table 3-4 summarizes this information by year. Dewatered non-TSCA sediment was transported by truck (Photograph 6, Appendix A) to the Veolia Hickory Meadows Landfill. Table 3-5 presents a summary of the volume of sediments disposed in each monofill at the landfill.

Section 3.1.6 – Post Removal Confirmatory Surveys and Sampling, pages 17-20

Comment No. 6: Where most appropriate in the text, state what the average per acre distribution was for confirmation sampling locations.

Response to Comment No. 6: *A new paragraph will be added following paragraph 14 in Section 3.1.6. "Post dredge confirmation sampling was performed based on a 230-foot triangular grid. As described above, 5 cores, 1 primary, and 4 secondary locations were collected within each 230-foot triangular grid. With this configuration, the average sample density was approximately 9 cores per acre."*

Section 3.1.7 – Post Removal Residuals Management, and Section 3.2 Specific Standards for Alternate Remedial Approaches, pages 20-26

Comment No. 7: Please reference the sources of the italicized language (e.g., Work Plan, ROD, etc.).

Response to Comment No. 7: *Text shown in italics is described in the first paragraph of Section 3. "The italicized introductory paragraph is an excerpt from the Amended SOW explaining the remedial requirements for OU1. Additional supporting paragraphs explain how the RA activities performed in OU1 met the requirements of the Amended SOW."*

"Work Plan" is the acronym for the Pre-Final Design and Draft Remedial Action Work Plan for Post-2009 Response Work Draft (CH2M HILL and Foth, 2010) and is properly referenced on page 44. "Work Plan" was inadvertently omitted from the List of Abbreviations, Acronyms, and Symbols, page vi, and will be added. This document is also noted in the Section 8, References.

"ROD" is the acronym for the Record of Decision (USEPA, 2002a) and is properly referenced on page 1. "ROD" is on the List of Abbreviations, Acronyms, and Symbols, page vi. This document is also noted in the Section 8, References.

Section 3.3.3 – Site Grading at Main Staging Area, page 29

Comment No. 8: For the marine access area, add a paragraph describing the final elevation variance between the planned restoration elevation and the actual restoration elevation.

Response to Comment No. 8: *The following text will be added to Section 3.3.3*

It should be noted that the final elevations in this wetland area (i.e., elevations 742.00 msl and below) were found to be different than those elevations that had been previously identified as the original pre-existing elevations on the pre-remedial as-built drawings prepared by CH2M HILL, in 2004. In 2003, WTM I Company purchased several properties, which were then transferred to GW Partners and used for the remedial activities that occurred at OU1 from 2004 through 2009. A

portion of these properties contained an area where non-native fill had been placed prior to the purchase of the properties by GW Partners. Subsequently, at the time that the pre-remedial as-built drawings were generated, the original native elevations, beneath the non-native fill, were estimated. In 2009, when the restoration work in this area was performed, material was removed down to these pre-fill native elevations. Differences between these newly cut elevations and the 2003 estimated elevations were observed to be in excess of 1.0 feet in some locations. These newly cut native elevations are those elevations that have been identified on the final as-built drawing as shown on Figures 1-32 through 1-35.

Section 3.5 – RA Summary Tables, Table 3-4, Dewatered Sediment Free Liquids and Percent Solids Data Summary, page 33

Comment No. 9: Please present the overall average of percent solids by year and for the project total.

Response to Comment No. 9: *Table 3-4 will be amended as noted.*

Section 3.5 – RA Summary Tables, Table 3-7, Summary of Laboratory Analytical Results for Water Treatment Plant Effluent, page 33

Comment No. 10: Note 1: States "All laboratory analytical results for PCBs were below the laboratory LOD." However, these values for effluent PCB's were reported in Table 3-7 as an actual value. That is, the LOD value not including the less than symbol. So it appears the values are as shown in the table. Even though there is a footnote stating all the effluent PCB's values are less than the LOD, the less than symbol (<) should be placed in front of the values in the table.

Response to Comment No. 10: *PCB data in Table 3-7 will be revised as requested.*

Section 5.1 – RA Results in Relation to RAL Performance Standard of 1.0 ppm PCB, page 40, first paragraph

Comment No. 11: Please modify as follows "Sand covers were used to cover generated dredge residuals laboratory analyzed as being below 5.0 ppm PCB concentration, ~~undredged residuals~~ undisturbed inventory (Remedy Sand Cover) with PCB concentrations below 2.0 ppm, and in areas considered exceptional areas as discussed in Section 3.2.3."

Response to Comment No. 11: *Text will be amended as noted.*

Section 5.2 – Remedial Measures to Achieve the SWAC goal of 0.25 ppm PCB, page 40, first paragraph

Comment No. 12: The paragraph is written as follows: "Before the 2008 RA season began, GW Partners analyzed all of the remaining undredged regions of OU1 to determine the combination of remedial approaches that would achieve the SWAC goal, taking into account the ROD Amendment's provisions on alternate remedial approaches and compliance with the ROD Amendment."

Please clarify what analyzed means. It is currently unclear. If this means analysis of chemistry data from samples this should somehow indicate that there were some areas that were never sampled, but that some form of provision was taken to make a decision regarding the status of PCBs in sediment in those areas. Conversely, if this simply means that remaining areas were reviewed, this should be clarified, and there should probably be some form of statement about unsampled areas and how decisions were arrived at to exclude them from sediment sampling. This could include utility easements, but may also include other regions that were not investigated under the RI/FS process.

Response to Comment No. 12*: The terminology will be changed. In this case, "analyzed" simply refers to a "review" of regions that were sampled and investigated but had not been dredged prior to 2008. The word "analyzed" will be changed to "reviewed."*

Particularly, these were areas with:

- *an average PCB concentration between 1.0 ppm and 1.4 ppm in any 8-inch interval and where there is no other 8-inch interval with average PCB concentrations greater than 1.0 ppm;*

- *an average PCB concentration between 1.4 and 2.0 ppm in any 8-inch interval and where there is no other 8-inch interval with average PCB concentrations greater than 1.0 ppm; and*

- *an average PCB concentration between 2.0 and 10.0 ppm in the top 8-inch interval, no interval with PCB concentrations of 50 ppm or greater, and a post-cap water depth equal to or greater than 6.0 feet below the low water datum (736.23 mean sea level [msl]).*

The effect to the SWAC endpoint from application of sand cover or engineered cap to these areas as alternate remedial approaches (consistent with the ROD Amendment) was calculated from existing data. During this process, select dredged and re-dredged areas with post-dredge residual PCBs less than 5.0 ppm were also identified for sand cover as necessary to meet the SWAC endpoint. Areas not sampled during the RI/FS process, meaning the Sub-area A and E2 archeological artifact areas and exceptional areas such as utility easements and certain near shore areas, amount to less than 1% of the surface area of OU1 (LLBdM has a total surface area of 1,306 acres, whereas the areas described in this paragraph cover approximately 10 acres); these areas were also reviewed in estimating the SWAC endpoint. As stated in the first paragraph of Section of 5.2, the purpose of this review was to determine the combination of remedial approaches that would achieve the SWAC goal.

Section 5.3 – Calculation of Final SWAC, page 43

Comment No. 13: The SWAC is reported to be 0.23 ppm; however the Section 5 text does not state whether this is the estimated mean or the upper confidence limit of the mean. Based on Appendix E, the reported value is the estimated average, which in and of itself does not provide adequate information to determine if the SWAC goal has been achieved. For example, a SWAC of 0.23 ppm with a confidence interval of (0.1 to 1.5 ppm) would not be adequate to demonstrate success.

It is the Agencies' requirement that the SWAC goal is deemed to have been achieved and strongly supported by the data if the SWAC UCL is less than 0.25 ppm. A criterion for "relatively precise" was not stated formally, i.e., certainly less than 100% relative error. This actual circumstance has the SWAC UCL less than 0.25 ppm indicating that the data demonstrated strong evidence the 0.25 ppm SWAC goal was achieved with a better than 95% level of confidence. Please include a paragraph discussing what the goal was at the outset and how it would be demonstrated (i.e., the decision rule) and also a discussion stating that the goal was indeed demonstrated statistically.

Response to Comment No. 13*: The SWAC estimate is 0.23 ppm. The 95% confidence interval on the estimate is 0.22 ppm to 0.24 ppm. A paragraph will be added discussing the demonstration of SWAC achievement in regards to a decision rule. The high accuracy of the SWAC estimate in this instance, as demonstrated by the small confidence interval, will also be discussed.*

The decision rule for achievement of the SWAC goal was established by the SWAC Work Sub-Group. The decision rule for achievement of the SWAC goal is that the SWAC estimate (in this instance 0.23 ppm) be below 0.25 ppm. A review of the August 3, 2007 Work Group minutes indicates the intent of the 95% confidence interval around the SWAC estimate. The confidence limits are used "…to quantify the uncertainty, and be able to know when the result is not significantly different from 0.25." The decision rule does not require the upper confidence limit to be below 0.25 ppm. The workgroup indicated "…so long as the lower confidence limit is below 0.25, the goal has been reached."

The following will be added as the third paragraph to Section 5.3:

The decision rule for demonstrating the achievement of the 0.25 ppm SWAC goal was established by the SWAC Work Sub-Group. The statistical parameter of interest is defined to be the SWAC estimate using the procedure outlined in the June 15, 2010 Foth memorandum included in Appendix E. Achievement of the SWAC goal is then demonstrated with a SWAC estimate of less than or equal to 0.25 ppm. A statistical confidence interval on the SWAC estimate, with calculation methods also given in the June 15, 2010 Foth memorandum, was identified as a method to quantify uncertainty. Lower and upper 95% confidence limits close to the SWAC estimate indicate relatively low estimation error.

The following will be added to the end of the last paragraph of Section 5.3:

Since the SWAC estimate is below 0.25 ppm, the SWAC goal stated in the Amended ROD has been achieved. A 95% confidence interval on the SWAC estimate, calculated using procedures in Appendix E, is 0.22 ppm to 0.24 ppm. This very tight confidence interval demonstrates a high degree of SWAC estimation accuracy.

Section 7 – Project Costs, page 45

Comment No. 14: Please provide the cost breakdown per the following:

a. Design
b. Dredge
    i. Upland Infrastructure(s)
    ii. Dredging (Includes Residual Dredging and Debris Removal)
    iii. Dewatering
    iv. Water Treatment
    v. Transportation Non-TSCA
    vi. Disposal Non-TSCA
    vii. Transportation TSCA
    viii. Disposal TSCA
    ix. QA Verification (Treatment Plant Effluent, Dredge Bathymetry and Dredge PCB)
c. Engineered Cap
    i. Cap Sand (delivered to site)
    ii. Placement of Cap Sand
    iii. Armor Stone (delivered to Site)
    iv. Placement of Armor Stone
    v. QA Verification (Bathymetry and Thickness)
d. Residual and Remedy (R/R) Sand Cover
    i. R/R Sand (delivered to site)
    ii. Placement of R/R Sand
    iii. QA Verification (Bathymetry and Thickness)
e. Site Restoration
f. Long-term Fish and Water Monitoring
g. Long-term Engineered Caps Monitoring and Maintenance

Response to Comment No. 14: *The requested cost breakdown will be included in Section 7, as set forth below. The breakdown provided below includes five additional categories of remedial action costs actually incurred that did not fall easily within the categories enumerated in Comment No. 14. The additional five categories are listed beneath the site restoration costs in the Remedial Action cost section.*

In addition, the yearly remedial action costs previously provided in Section 7 will be updated to include costs for Boldt oversight that were not paid from the OU1 escrow account via disbursement certificates; rather, they were paid directly from the $10 million in API/NCR settlement moneys that were allocated to OU1 work by the OU1 Consent Decree. The amount paid for Boldt oversight from the API/NCR settlement moneys totaled $774,503 ($142,371 paid in 2004 and $632,132 paid in 2005). These costs were inadvertently missed in the previous totals.

The revised Section 7 will read as follows:

An annual summary of RA project costs is shown in Table 7-1. Costs are shown in the year in which the main activity was conducted (e.g., all disposal costs for dewatered sediment dredged in 2006 are shown as 2006 costs, even if a portion of the sediments dredged in 2006 were transported to the landfill in 2007). Design costs and long-term response costs are not included in the annual RA cost breakdown, but are included in the response cost breakdown by category that follows Table 7-1. Costs for the 2010 RA are estimated because all invoicing has not been received and paid as of the date of this Report.

Table 7-1

Remedial Action Cost per Year

Year	RA Cost
2004	$ 13,056,049
2005	$ 16,084,767
2006	$ 15,596,275
2007	$ 19,375,627
2008	$ 18,976,527
2009	$ 5,169,358
2010	$ 745,000
Total 2004 - 2010	$89,003,603.00

Prepared by: GW Partners
Checked by: GW Partners

The costs for all response actions performed, and to be performed in OU1, pursuant to the Amended CD are shown in Table 7-2. The costs presented in Table 7-2 include RD costs, RA costs, and Long-term Response Action costs. All RD and RA costs shown in Table 7-2 have already been incurred and paid except for the Post-2010 RA Closeout costs (meaning miscellaneous costs incurred after October 2010 to attain Certification of Completion of the RA). The other remaining OU1 costs are post-2010 Long-term Fish and Water Monitoring costs and post-2010 Engineered Cap Monitoring and Maintenance costs.

The post-2010 Long-term Fish and Water Monitoring costs assume 7 events, not including 2010 (2010 is year 0). Each annual event is estimated at $349,000 and assumes water and fish are sampled each event. The post-2010 Engineered Cap Monitoring and Maintenance costs include $1,660,000 for cap maintenance (replacement of 5% of the cap) in 2013 and $70,000 per cap monitoring event (assuming 7 events). A 10% allowance was included for all post-2010 costs to account for GW Partners management and A/OT oversight costs. The total post-2010 costs shown in Table 7-2 are presented as present values using a 4% discount rate.

Table 7-2

OU1 Response Action Costs by Category

Remedial Design Costs	
Design costs paid by OU1 Escrow Account	$2,000,000
Design cost paid directly by WTM I Company	$1,820,014
Total Remedial Design Costs	$3,820,014
Remedial Action Costs	
Upland Infrastructure - incl. purchase of staging area properties	$14,273,016
Dredging	$15,326,923
Dredging - TSCA	$176,867
Dewatering	$6,510,826
Water Treatment	$3,846,925
Loading & Transportation (non-TSCA)	$4,345,492
Disposal (non-TSCA)	$13,383,609
Loading & Transportation & Disposal (TSCA)	$632,818
QA Verification - Dredge	$4,790,573
Cap Sand (material & delivery)	$1,642,613
Cap Sand (placement)	$2,775,983
Stone (material & delivery)	$1,733,472
Stone (placement)	$3,341,080
QA Verification - Cap	$498,425
Sand cover (material & delivery)	$2,372,757
Sand cover (placement)	$4,193,219
QA Verification - Sand Cover	$450,969
Site Restoration	$1,087,629
Alternative Engineering Analyses	$1,274,723
Taxes, Insurance & Miscellaneous Charges	$1,309,588
Communications	$442,075
Project Management & Agency Oversight	$4,490,449
Post-10/2010 RA Closeout Costs	$103,572
Total Remedial Action Costs	$89,003,603
Long-term Response Costs	
Fish & Water Monitoring (estimated through 2010)	$349,000
Engineered Cap Monitoring & Maintenance (estimated through 2010)	$70,000
Post-2010 Fish & Water Monitoring (estimated)	$1,353,000
Post-2010 Engineered Cap Monitoring & Maintenance (estimated)	$1,894,000
Total Long-term Response Costs	$3,666,000
Total OU1 Costs	$96,489,617

Comment No. 15: Indicate:

a. Dredging (Include: Design, Dredge, Site Restoration, and Fish and Water LTM)
    i. Cost per cubic yard — $161
    ii. Cost per acre — $231,000
b. Capping (Include: Engineered Cap and Engineered Cap LTMM)
    i. Cost per cubic yard (per cubic yard capped) — $45
    ii. Cost per acre — $106,500
c. R/R Sand Covering
    i. Cost per cubic yard (per cubic yard covered) — $55
    ii. Cost per acre — $49,000

Response to Comment No. 15: *The requested costs are shown above.*

Comment No. 16: Please provide the legal cost.

Response to Comment No. 16: *Isolating the legal costs associated with implementation of the OU1 remedy would require time-consuming analysis of legal bills over many years, and may involve questions regarding the attorney-client privilege and attorney work product doctrine. Neither the Amended Consent Decree nor the Amended ROD require this information to be provided.*

ID	Task Name	Duration	Start	Finish
1	Dredging	69 days	Mon 8/30/04	Thu 12/2/04
2	Dredging	107 days	Thu 7/7/05	Fri 12/2/05
3	Dredging	144 days	Mon 5/1/06	Thu 11/16/06
4	Dredging	155 days	Mon 4/2/07	Fri 11/2/07
5	Dredging	47 days	Mon 4/21/08	Tue 6/24/08
6	Sediment Load Out	99 days	Wed 12/8/04	Mon 4/25/05
7	Sediment Load Out	124 days	Thu 9/29/05	Tue 3/21/06
8	Sediment Load Out	157 days	Mon 8/14/06	Tue 3/20/07
9	Sediment Load Out	191 days	Mon 7/9/07	Mon 3/31/08
10	Sediment Load Out	50 days	Tue 11/4/08	Mon 1/12/09
11	Residual Sand Cover	39 days	Tue 7/10/07	Fri 8/31/07
12	Residual Sand Cover	125 days	Mon 4/28/08	Fri 10/17/08
13	Sand Cover	11 days	Wed 11/10/04	Wed 11/24/04
14	Sand Cover	124 days	Tue 4/28/09	Fri 10/16/09
15	Sand Cover	20 days	Mon 4/13/09	Fri 5/8/09
16	Engineered Cap	32 days	Thu 9/6/07	Fri 10/19/07
17	Engineered Cap	63 days	Mon 8/4/08	Wed 10/29/08
18	Engineered Cap	24 days	Thu 4/16/09	Tue 5/19/09
19	Site Restoration	290 days	Thu 5/21/09	Wed 6/30/10

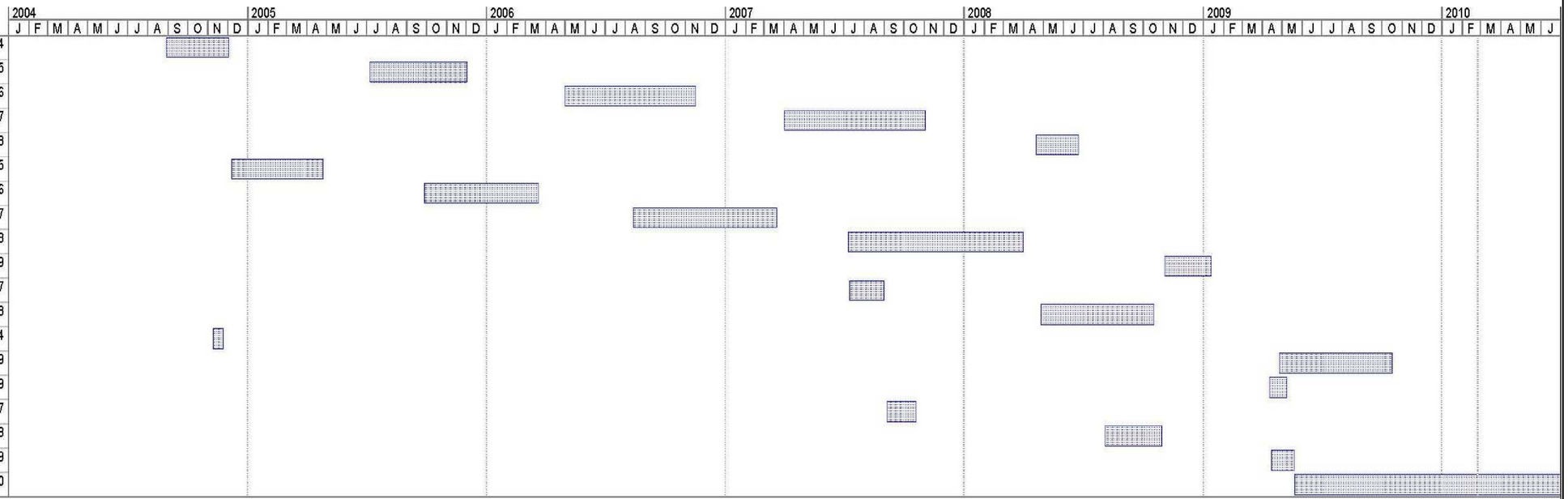

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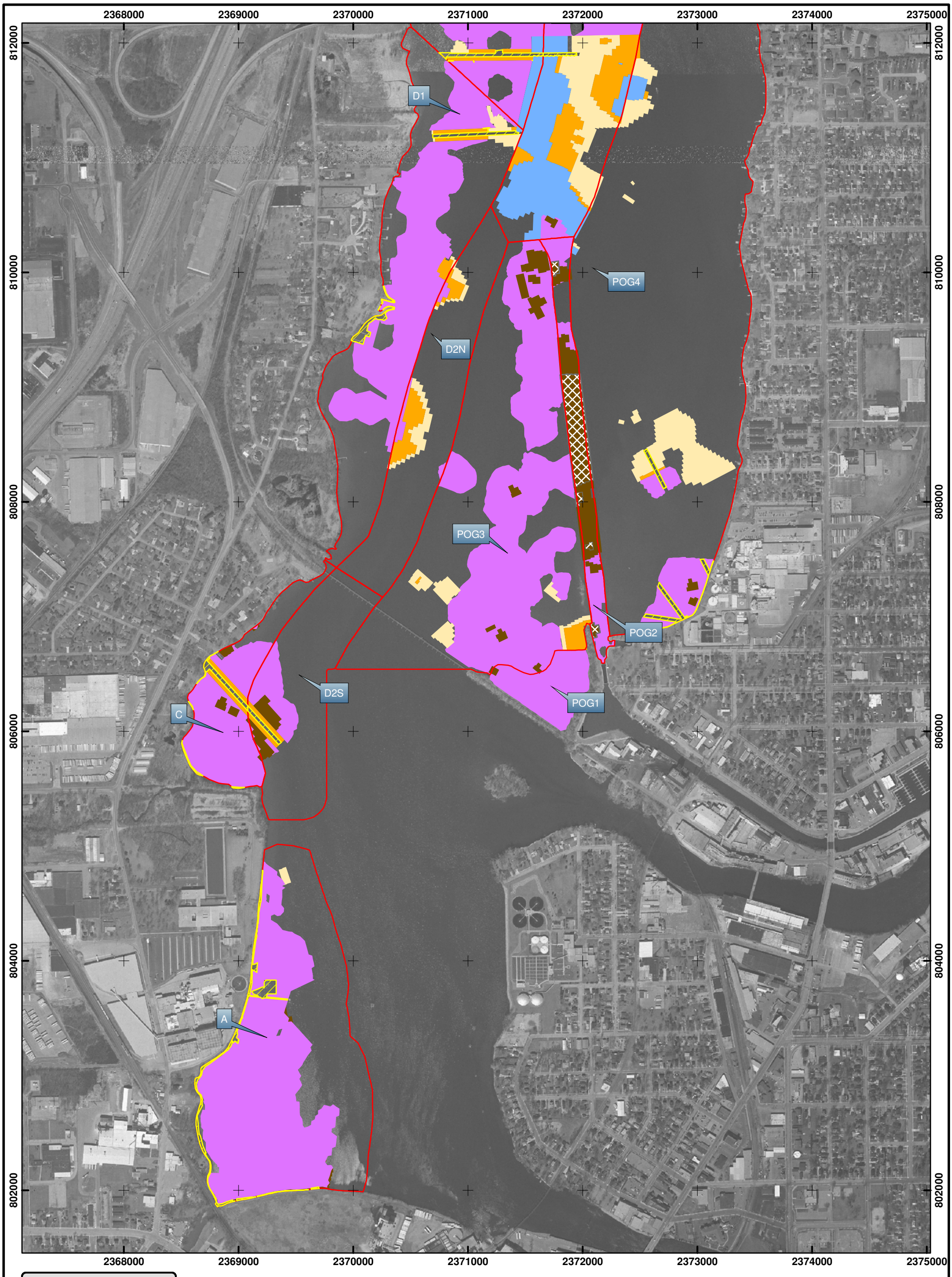
FIGURE 1-1
LOWER FOX RIVER OU1
RA PROJECT SCHEDULE

Scale: NOT TO SCALE	Date: AUGUST, 2010	
Drawn By: DAT	Checked By: NRA	Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\RealizedSchedule.mxd



Legend

- Shoreline, Pipeline, Artifacts

Remedial Alternatives

- Engineered Cap
- 3 Inch Sand Cover
- 6 Inch Sand Cover
- 6 Inch Residual Sand Cover
- 9 Inch Residual Sand Cover
- Completed Dredge Areas
- Sub-area/DMU Boundaries

Notes:

1. All areas presented depict as-constructed conditions.
2. Orthophoto provided by Winnebago County, WI.
3. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).

N

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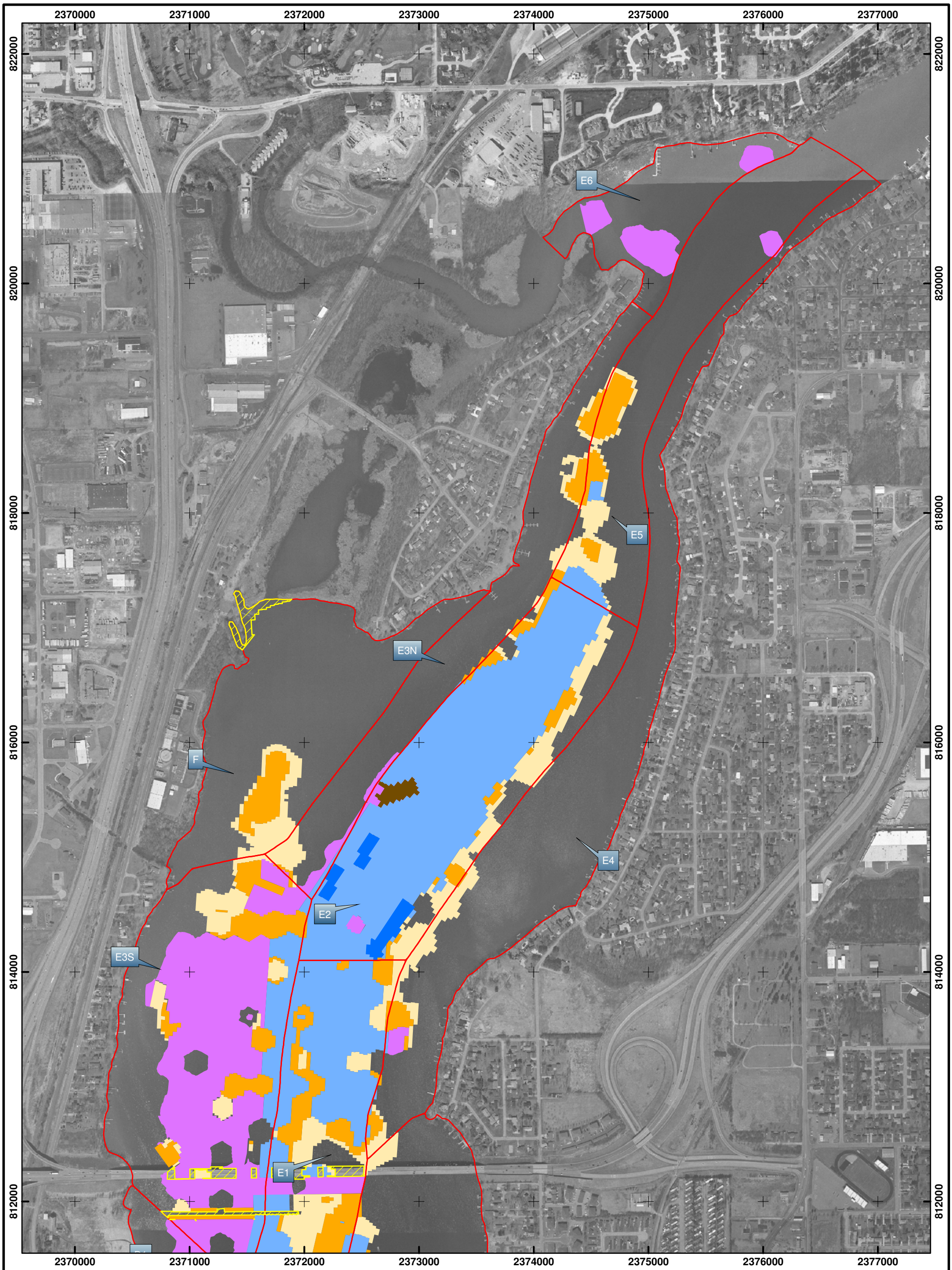
FIGURE 1-2
LOWER FOX RIVER OU1
LOCATION OF REMEDIAL ALTERNATIVES (SOUTH)

Scale: 0 400 800 Feet	Date: AUGUST, 2010	
Drawn By: DAT	Checked By: NRA	Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\RecharacterizationSouth.mxd



Legend

- Shoreline, Pipeline, Artifacts

Remedial Alternatives

- Cap Placement Test Area
- Engineered Cap
- 3 Inch Sand Cover
- 6 Inch Sand Cover
- 6 Inch Residual Sand Cover
- 9 Inch Residual Sand Cover
- Completed Dredge Areas
- Sub-area/DMU Boundaries

Notes:

1. All areas presented depict as-constructed conditions.
2. Orthophoto provided by Winnebago County, WI.
3. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).

N

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FIGURE 1-3
LOWER FOX RIVER OU1
LOCATION OF REMEDIAL ALTERNATIVES (NORTH)

Scale: 0 400 800 Feet		Date: AUGUST, 2010
Drawn By: DAT	Checked By: NRA	Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\RecharacterizationNorth.mxd

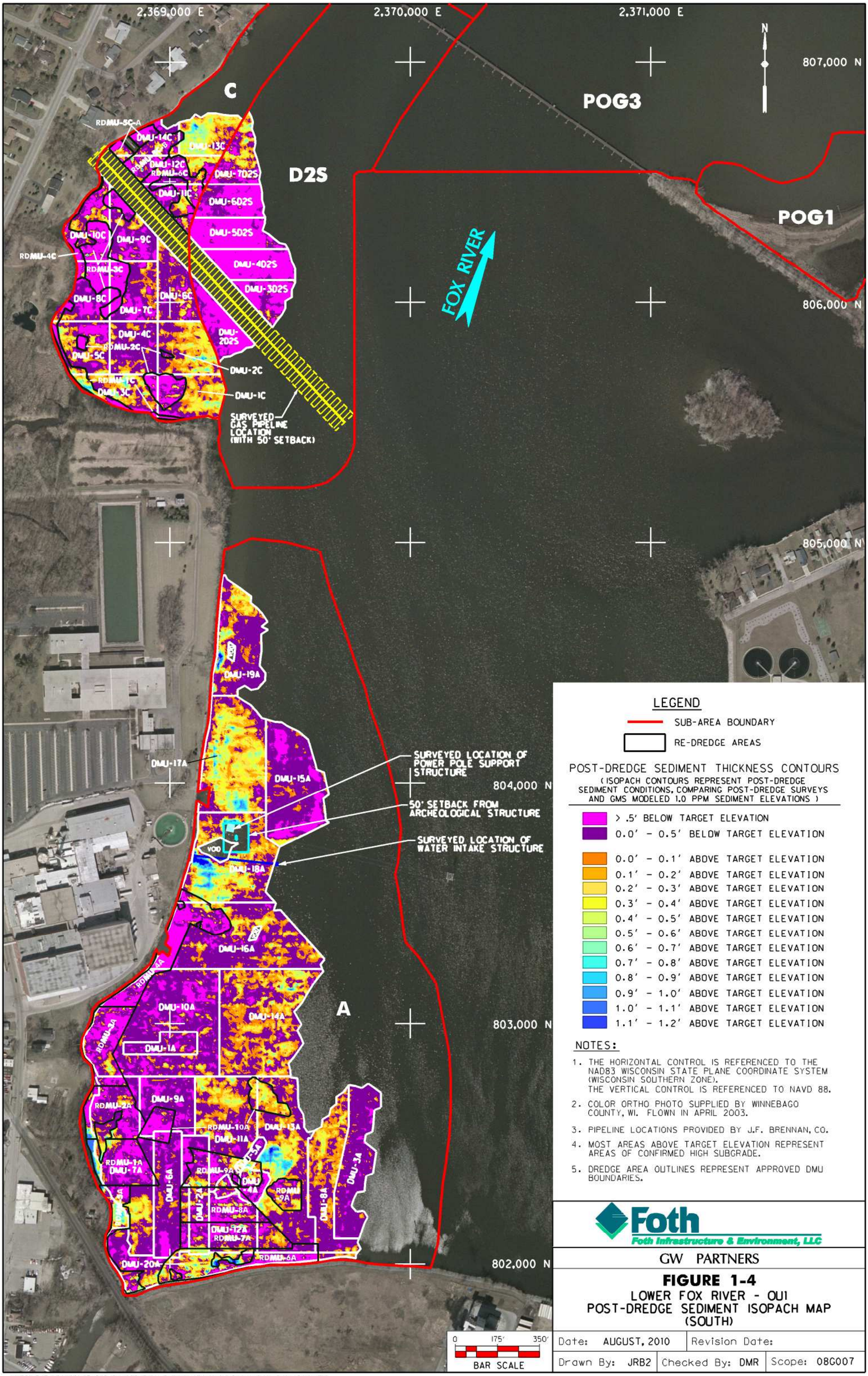

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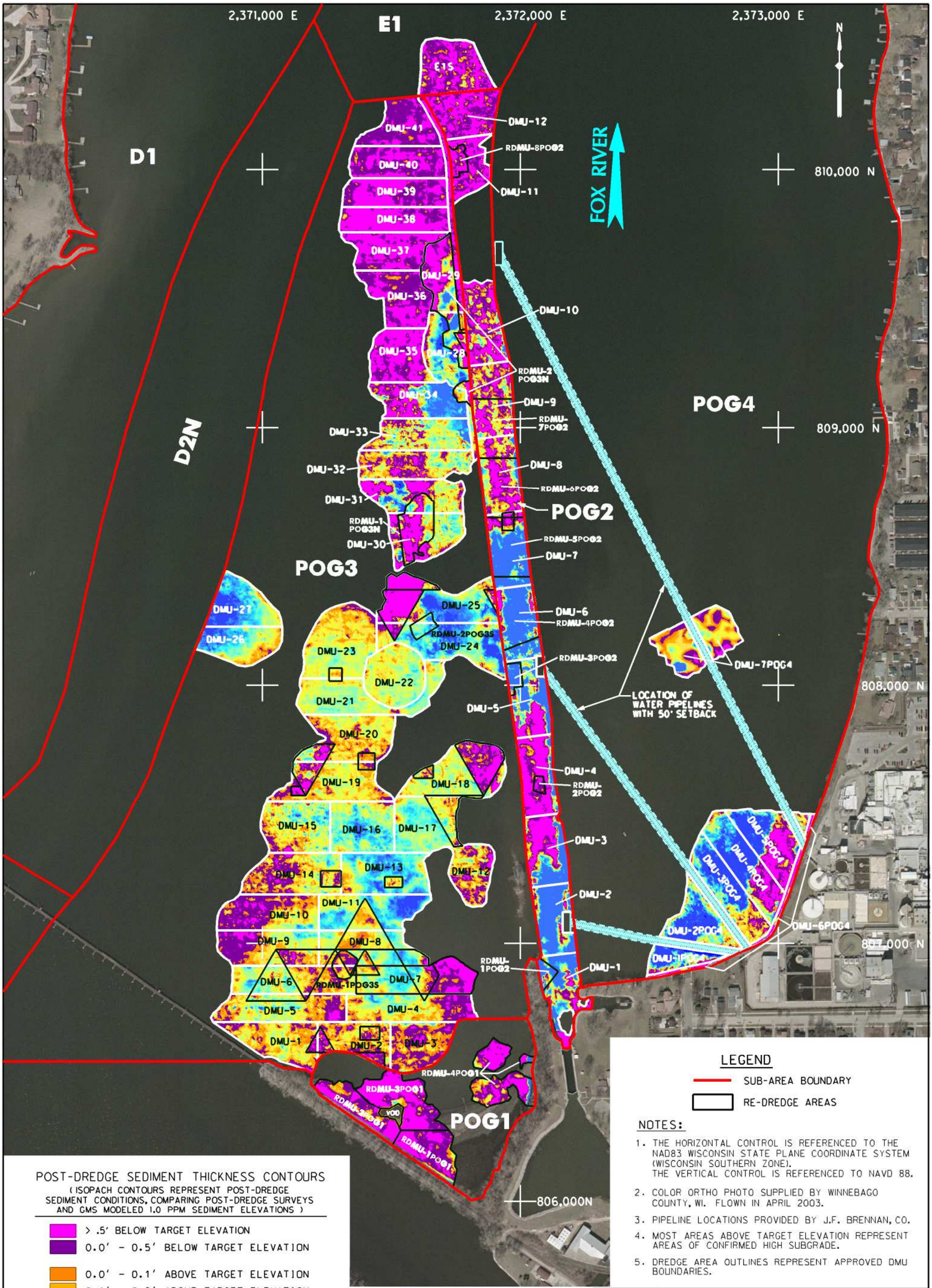
FIGURE 1-4
LOWER FOX RIVER - OU1
POST-DREDGE SEDIMENT ISOPACH MAP
(SOUTH)

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

X:\GB\IE\2008\08G007\CAD\RA CCR\Post-Dredge Isopachs\Dredge vs Plan Iso-1.dgn
8/26/2010 jow



POST-DREDGE SEDIMENT THICKNESS CONTOURS

(ISOPACH CONTOURS REPRESENT POST-DREDGE SEDIMENT CONDITIONS, COMPARING POST-DREDGE SURVEYS AND GMS MODELED 1.0 PPM SEDIMENT ELEVATIONS)

- > .5' BELOW TARGET ELEVATION
- 0.0' - 0.5' BELOW TARGET ELEVATION
- 0.0' - 0.1' ABOVE TARGET ELEVATION
- 0.1' - 0.2' ABOVE TARGET ELEVATION
- 0.2' - 0.3' ABOVE TARGET ELEVATION
- 0.3' - 0.4' ABOVE TARGET ELEVATION
- 0.4' - 0.5' ABOVE TARGET ELEVATION
- 0.5' - 0.6' ABOVE TARGET ELEVATION
- 0.6' - 0.7' ABOVE TARGET ELEVATION
- 0.7' - 0.8' ABOVE TARGET ELEVATION
- 0.8' - 0.9' ABOVE TARGET ELEVATION
- 0.9' - 1.0' ABOVE TARGET ELEVATION
- 1.0' - 1.1' ABOVE TARGET ELEVATION
- 1.1' - 1.2' ABOVE TARGET ELEVATION

LEGEND

- SUB-AREA BOUNDARY
- RE-DREDGE AREAS

NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN SOUTHERN ZONE). THE VERTICAL CONTROL IS REFERENCED TO NAVD 88.
2. COLOR ORTHO PHOTO SUPPLIED BY WINNEBAGO COUNTY, WI. FLOWN IN APRIL 2003.
3. PIPELINE LOCATIONS PROVIDED BY J.F. BRENNAN, CO.
4. MOST AREAS ABOVE TARGET ELEVATION REPRESENT AREAS OF CONFIRMED HIGH SUBGRADE.
5. DREDGE AREA OUTLINES REPRESENT APPROVED DMU BOUNDARIES.

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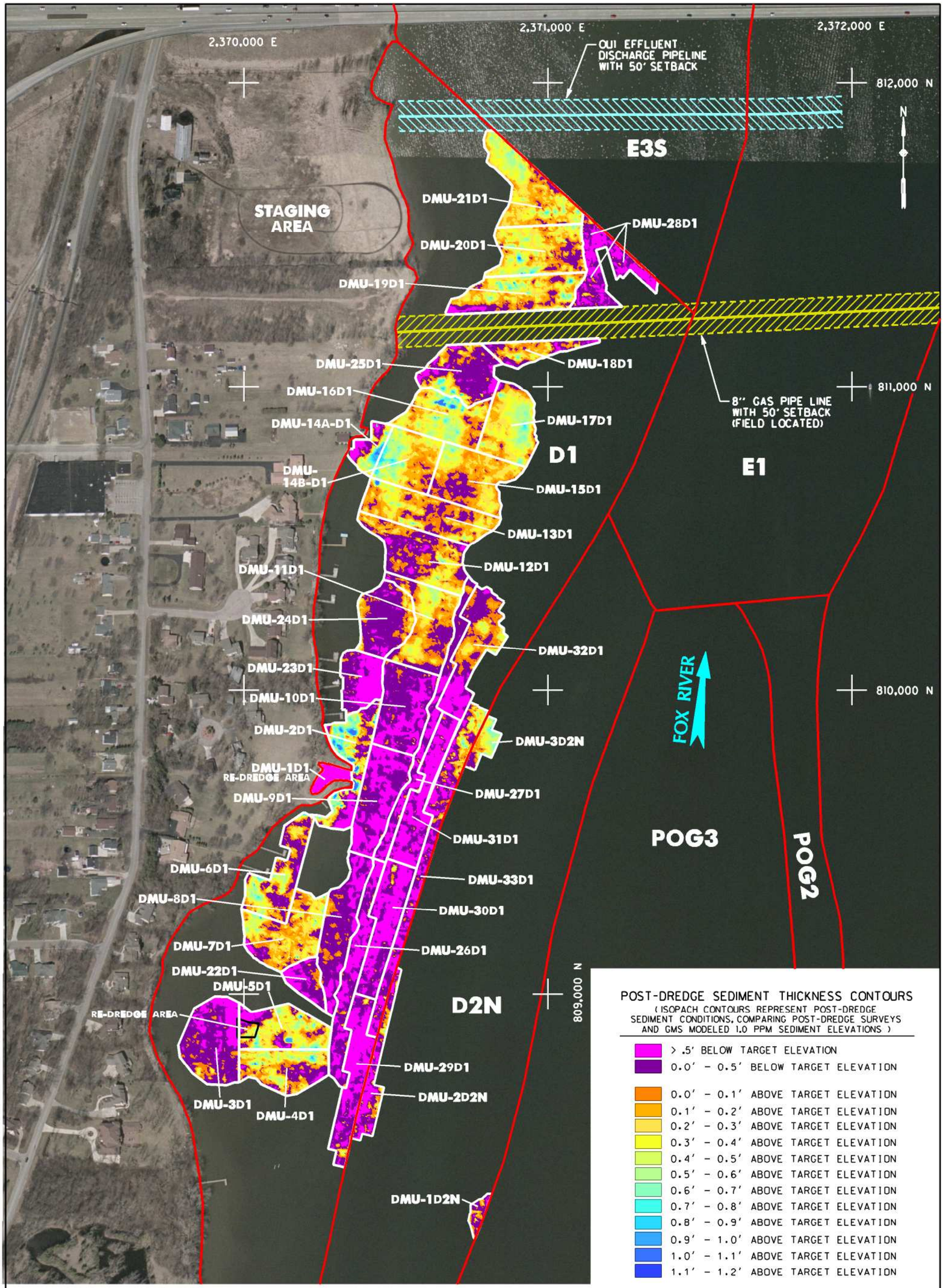
FIGURE 1-5
LOWER FOX RIVER - OU1
POST-DREDGE SEDIMENT ISOPACH MAP
(MIDDLE-EAST)

0 175' 350'
BAR SCALE

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

X:\GB\IE\2008\08G007\CAD\RA CCR\Post-Dredge Isopachs\Dredge vs Plan Iso-2.dgn
8/26/2010 jow



POST-DREDGE SEDIMENT THICKNESS CONTOURS

(ISOPACH CONTOURS REPRESENT POST-DREDGE SEDIMENT CONDITIONS, COMPARING POST-DREDGE SURVEYS AND GMS MODELED 1.0 PPM SEDIMENT ELEVATIONS)

- > .5' BELOW TARGET ELEVATION
- 0.0' – 0.5' BELOW TARGET ELEVATION
- 0.0' – 0.1' ABOVE TARGET ELEVATION
- 0.1' – 0.2' ABOVE TARGET ELEVATION
- 0.2' – 0.3' ABOVE TARGET ELEVATION
- 0.3' – 0.4' ABOVE TARGET ELEVATION
- 0.4' – 0.5' ABOVE TARGET ELEVATION
- 0.5' – 0.6' ABOVE TARGET ELEVATION
- 0.6' – 0.7' ABOVE TARGET ELEVATION
- 0.7' – 0.8' ABOVE TARGET ELEVATION
- 0.8' – 0.9' ABOVE TARGET ELEVATION
- 0.9' – 1.0' ABOVE TARGET ELEVATION
- 1.0' – 1.1' ABOVE TARGET ELEVATION
- 1.1' – 1.2' ABOVE TARGET ELEVATION

NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN SOUTHERN ZONE). THE VERTICAL CONTROL IS REFERENCED TO NAVD 88.
2. COLOR ORTHO PHOTO SUPPLIED BY WINNEBAGO COUNTY, WI. FLOWN IN APRIL 2003.
3. PIPELINE LOCATIONS PROVIDED BY J.F. BRENNAN, CO.
4. MOST AREAS ABOVE TARGET ELEVATION REPRESENT AREAS OF CONFIRMED HIGH SUBGRADE.
5. DREDGE AREA OUTLINES REPRESENT APPROVED DMU BOUNDARIES.

LEGEND

- SUB-AREA BOUNDARY
- RE-DREDGE AREAS

0 150' 300'
BAR SCALE

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FIGURE 1-6
LOWER FOX RIVER - OU1
POST-DREDGE SEDIMENT ISOPACH MAP
(MIDDLE-WEST)

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

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8/26/2010 jow

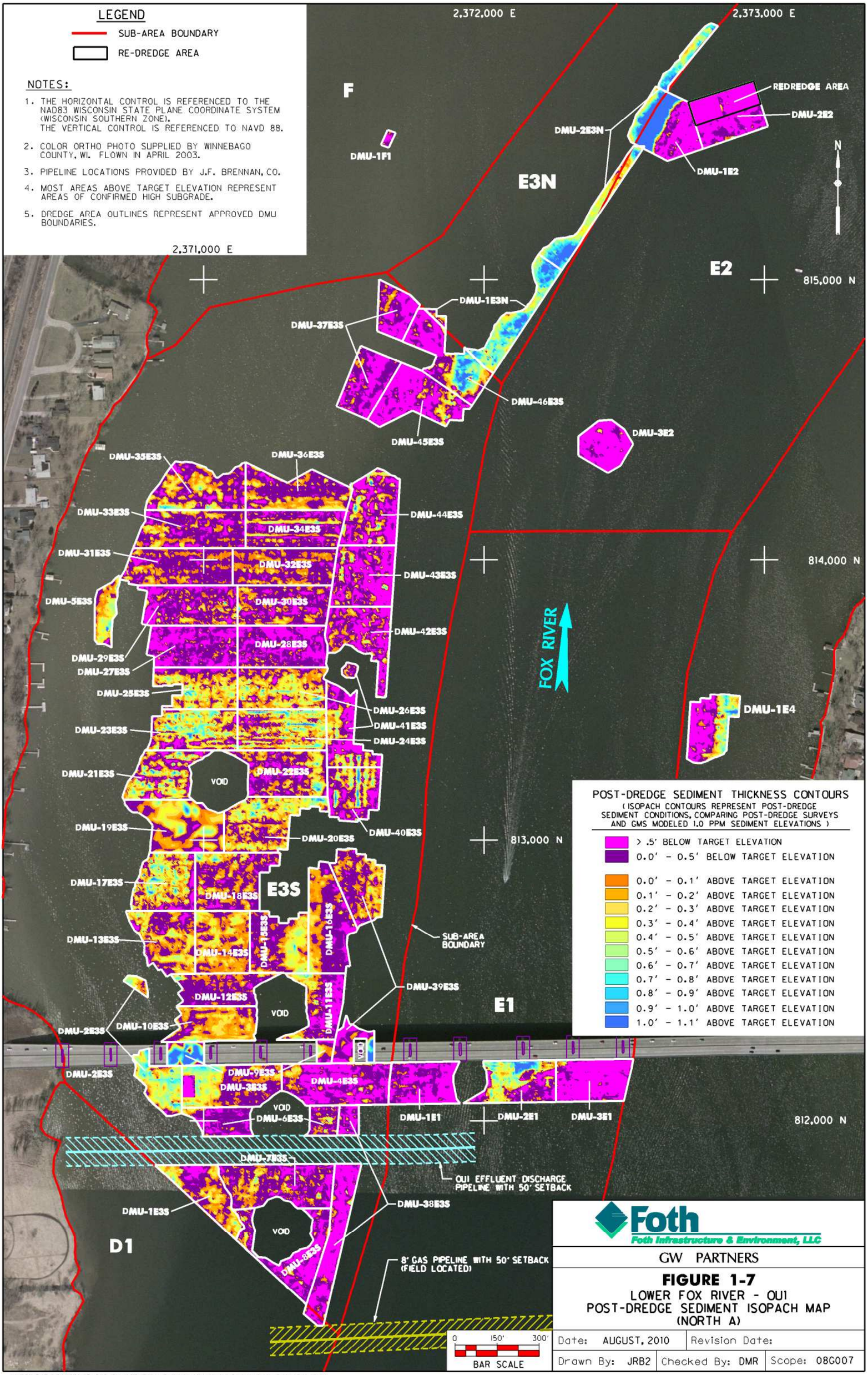

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FIGURE 1-7
LOWER FOX RIVER - OUI
POST-DREDGE SEDIMENT ISOPACH MAP
(NORTH A)

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

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8/26/2010 jow

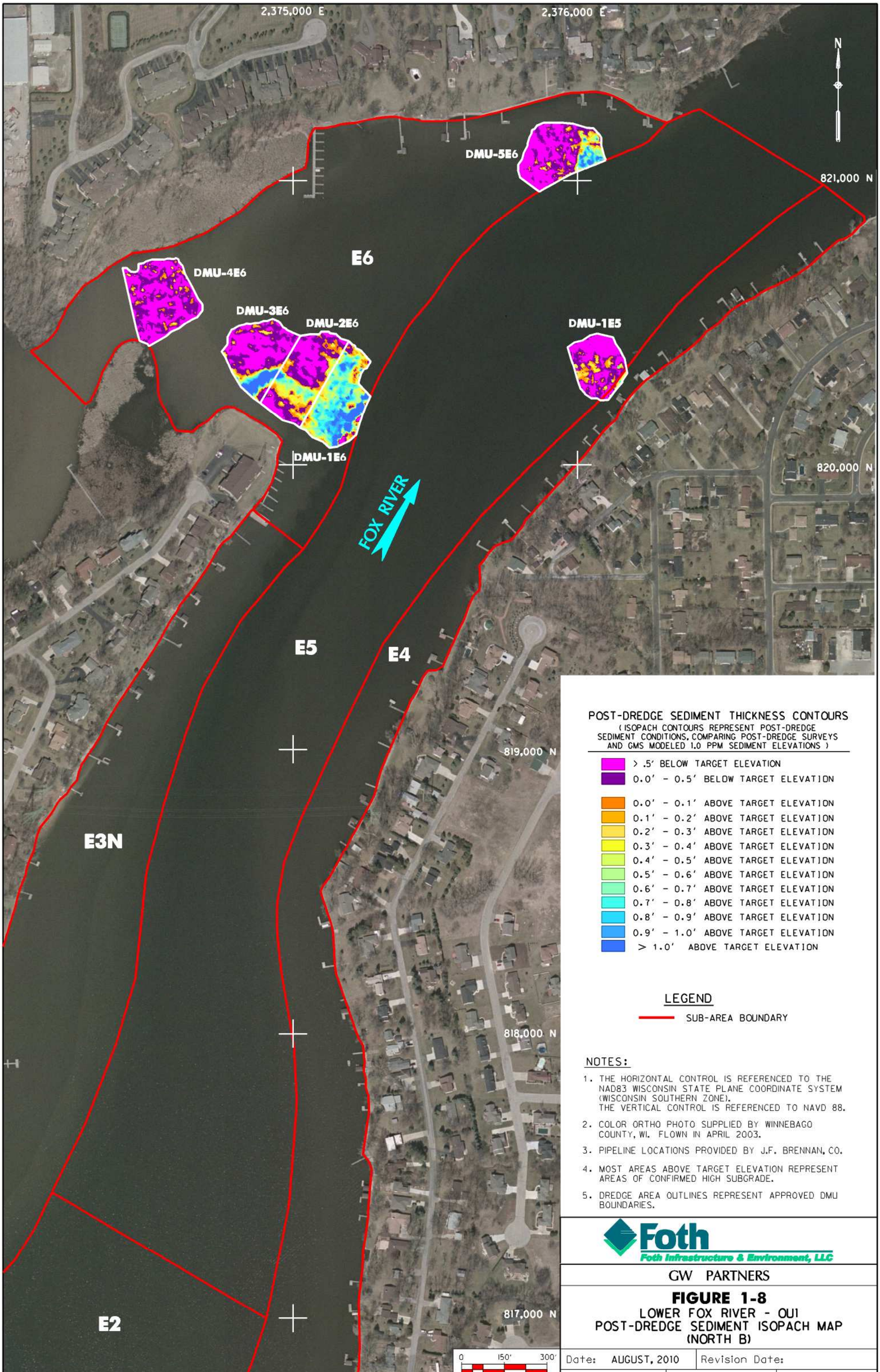

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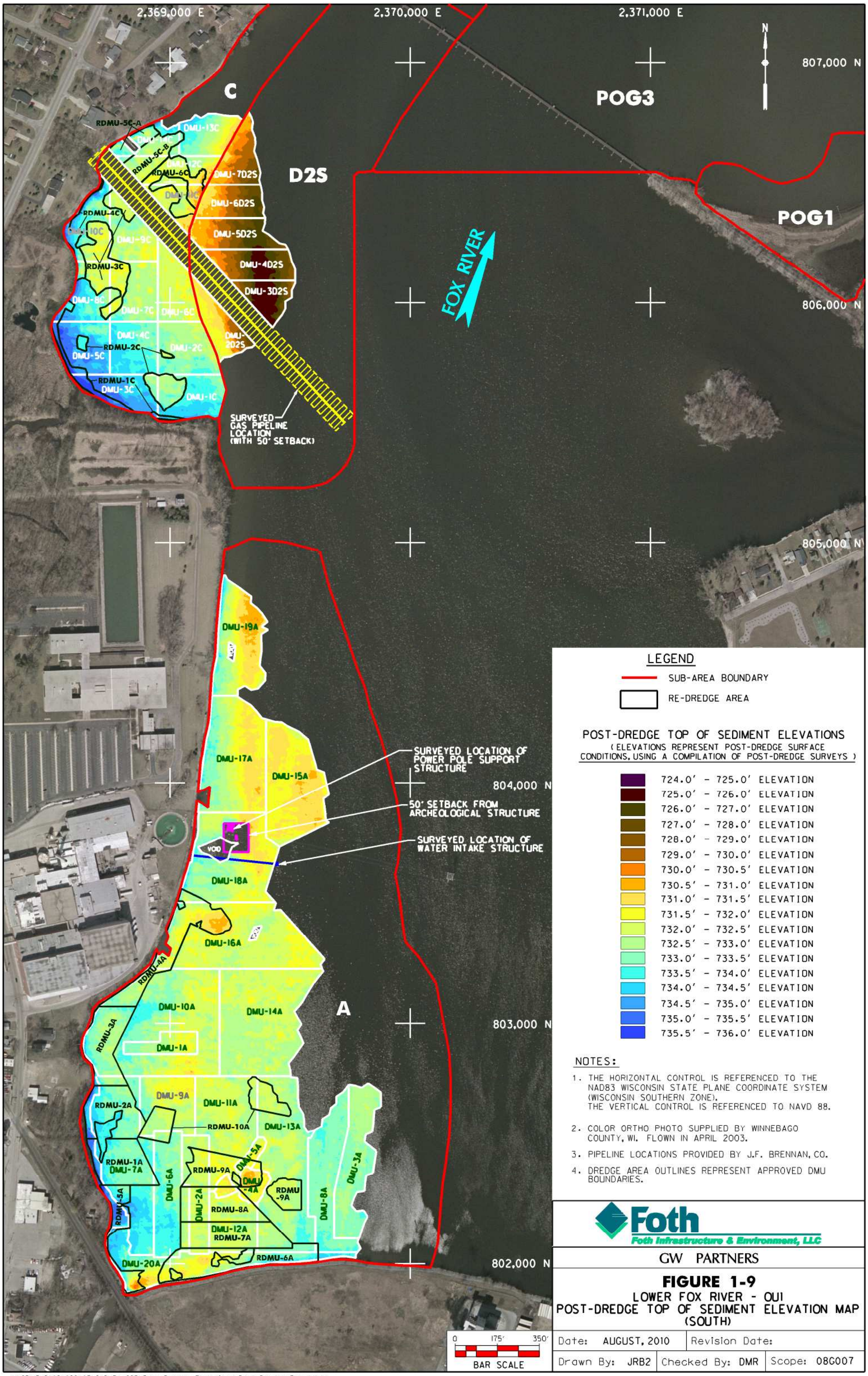
FIGURE 1-8
LOWER FOX RIVER - OU1
POST-DREDGE SEDIMENT ISOPACH MAP
(NORTH B)

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

X:\GB\IE\2008\08G007\CAD\RA CCR\Post-Dredge Isopachs\Dredge vs Plan Iso-5.dgn
8/26/2010 jow



LEGEND

SUB-AREA BOUNDARY

RE-DREDGE AREA

POST-DREDGE TOP OF SEDIMENT ELEVATIONS

(ELEVATIONS REPRESENT POST-DREDGE SURFACE CONDITIONS, USING A COMPILATION OF POST-DREDGE SURVEYS)

- 724.0' - 725.0' ELEVATION
- 725.0' - 726.0' ELEVATION
- 726.0' - 727.0' ELEVATION
- 727.0' - 728.0' ELEVATION
- 728.0' - 729.0' ELEVATION
- 729.0' - 730.0' ELEVATION
- 730.0' - 730.5' ELEVATION
- 730.5' - 731.0' ELEVATION
- 731.0' - 731.5' ELEVATION
- 731.5' - 732.0' ELEVATION
- 732.0' - 732.5' ELEVATION
- 732.5' - 733.0' ELEVATION
- 733.0' - 733.5' ELEVATION
- 733.5' - 734.0' ELEVATION
- 734.0' - 734.5' ELEVATION
- 734.5' - 735.0' ELEVATION
- 735.0' - 735.5' ELEVATION
- 735.5' - 736.0' ELEVATION

NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN SOUTHERN ZONE). THE VERTICAL CONTROL IS REFERENCED TO NAVD 88.
2. COLOR ORTHO PHOTO SUPPLIED BY WINNEBAGO COUNTY, WI. FLOWN IN APRIL 2003.
3. PIPELINE LOCATIONS PROVIDED BY J.F. BRENNAN, CO.
4. DREDGE AREA OUTLINES REPRESENT APPROVED DMU BOUNDARIES.

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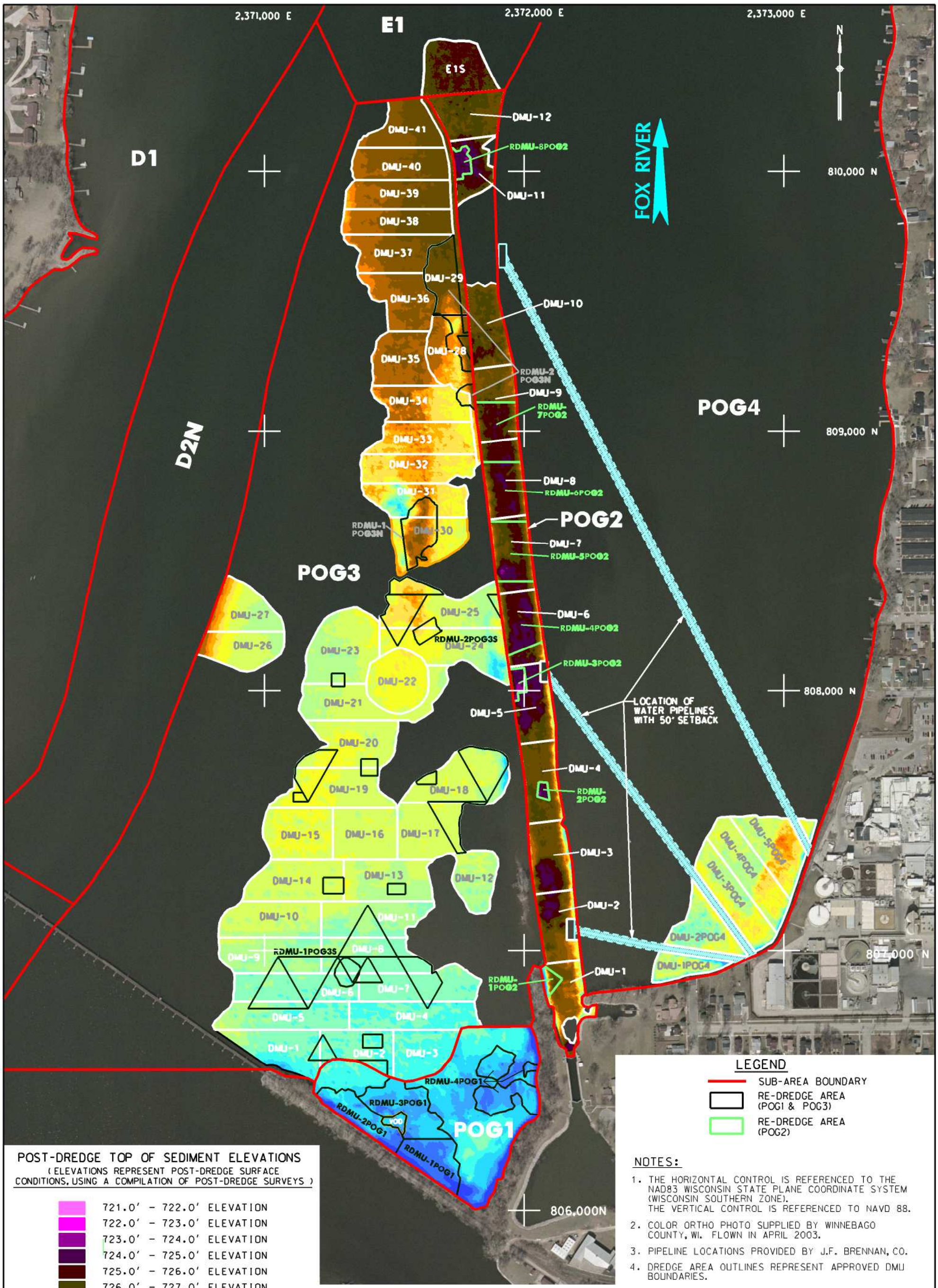
FIGURE 1-9

LOWER FOX RIVER - OUI
POST-DREDGE TOP OF SEDIMENT ELEVATION MAP (SOUTH)

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

X:\GB\IE\2008\08G007\CAD\RA CCR\Post-Dredge Elevations\Post-Dredge-Elev-1.dgn
8/26/2010 jow



POST-DREDGE TOP OF SEDIMENT ELEVATIONS

(ELEVATIONS REPRESENT POST-DREDGE SURFACE CONDITIONS, USING A COMPILATION OF POST-DREDGE SURVEYS)

- 721.0′ – 722.0′ ELEVATION
- 722.0′ – 723.0′ ELEVATION
- 723.0′ – 724.0′ ELEVATION
- 724.0′ – 725.0′ ELEVATION
- 725.0′ – 726.0′ ELEVATION
- 726.0′ – 727.0′ ELEVATION
- 727.0′ – 728.0′ ELEVATION
- 728.0′ – 729.0′ ELEVATION
- 729.0′ – 730.0′ ELEVATION
- 730.0′ – 730.5′ ELEVATION
- 730.5′ – 731.0′ ELEVATION
- 731.0′ – 731.5′ ELEVATION
- 731.5′ – 732.0′ ELEVATION
- 732.0′ – 732.5′ ELEVATION
- 732.5′ – 733.0′ ELEVATION
- 733.0′ – 733.5′ ELEVATION
- 733.5′ – 734.0′ ELEVATION
- 734.0′ – 734.5′ ELEVATION
- 734.5′ – 735.0′ ELEVATION
- 735.0′ – 735.5′ ELEVATION
- 735.5′ – 736.0′ ELEVATION

0 175′ 350′
BAR SCALE

LEGEND

- SUB-AREA BOUNDARY
- RE-DREDGE AREA (POG1 & POG3)
- RE-DREDGE AREA (POG2)

NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN SOUTHERN ZONE). THE VERTICAL CONTROL IS REFERENCED TO NAVD 88.
2. COLOR ORTHO PHOTO SUPPLIED BY WINNEBAGO COUNTY, WI. FLOWN IN APRIL 2003.
3. PIPELINE LOCATIONS PROVIDED BY J.F. BRENNAN, CO.
4. DREDGE AREA OUTLINES REPRESENT APPROVED DMU BOUNDARIES.

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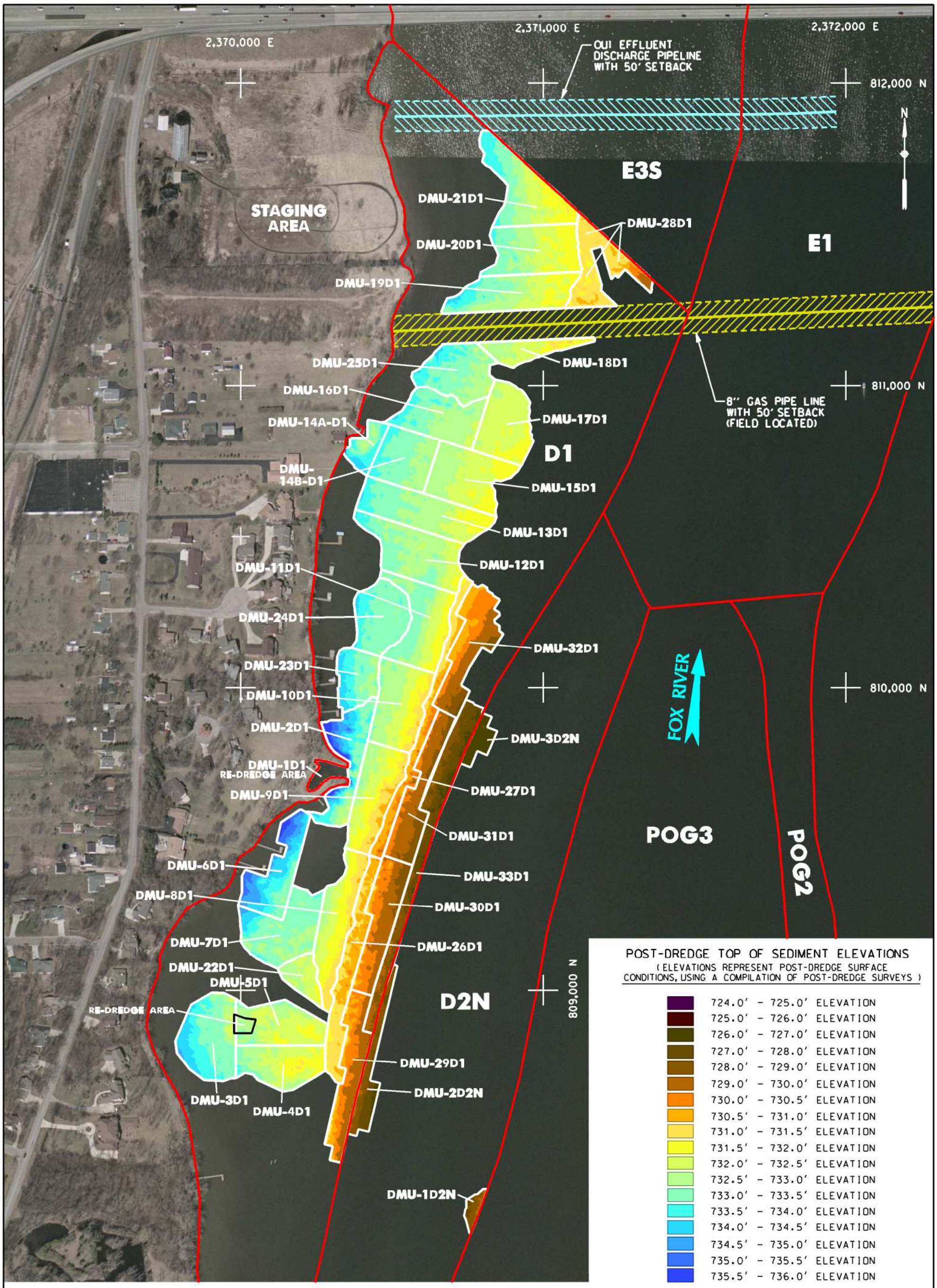
FIGURE 1-10

LOWER FOX RIVER - OU1
POST-DREDGE TOP OF SEDIMENT ELEVATION MAP
(MIDDLE-EAST)

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

X:\GB\IE\2008\08G007\CAD\RA CCR\Post-Dredge Elevations\Post-Dredge-Elev-2.dgn
8/26/2010 Jow



POST-DREDGE TOP OF SEDIMENT ELEVATIONS
(ELEVATIONS REPRESENT POST-DREDGE SURFACE CONDITIONS, USING A COMPILATION OF POST-DREDGE SURVEYS)

- 724.0' - 725.0' ELEVATION
- 725.0' - 726.0' ELEVATION
- 726.0' - 727.0' ELEVATION
- 727.0' - 728.0' ELEVATION
- 728.0' - 729.0' ELEVATION
- 729.0' - 730.0' ELEVATION
- 730.0' - 730.5' ELEVATION
- 730.5' - 731.0' ELEVATION
- 731.0' - 731.5' ELEVATION
- 731.5' - 732.0' ELEVATION
- 732.0' - 732.5' ELEVATION
- 732.5' - 733.0' ELEVATION
- 733.0' - 733.5' ELEVATION
- 733.5' - 734.0' ELEVATION
- 734.0' - 734.5' ELEVATION
- 734.5' - 735.0' ELEVATION
- 735.0' - 735.5' ELEVATION
- 735.5' - 736.0' ELEVATION

NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN SOUTHERN ZONE). THE VERTICAL CONTROL IS REFERENCED TO NAVD 88.
2. COLOR ORTHO PHOTO SUPPLIED BY WINNEBAGO COUNTY, WI. FLOWN IN APRIL 2003.
3. PIPELINE LOCATIONS PROVIDED BY J.F. BRENNAN, CO.
4. DREDGE AREA OUTLINES REPRESENT APPROVED DMU BOUNDARIES.

LEGEND

- SUB-AREA BOUNDARY
- RE-DREDGE AREA

0 150' 300'
BAR SCALE

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FIGURE 1-11
LOWER FOX RIVER - OU1
POST-DREDGE TOP OF SEDIMENT ELEVATION MAP
(MIDDLE-WEST)

Date: AUGUST, 2010		Revision Date:
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

X:\GB\IE\2008\08G007\CAD\RA CCR\Post-Dredge Elevations\Post-Dredge-Elev-3.dgn
8/26/2010 jaw

LEGEND

SUB-AREA BOUNDARY

RE-DREDGE AREA

POST-DREDGE TOP OF SEDIMENT ELEVATIONS

ELEVATIONS REPRESENT POST-DREDGE SURFACE CONDITIONS, USING A COMPILATION OF POST-DREDGE SURVEYS

- 721.0' - 722.0' ELEVATION
- 722.0' - 723.0' ELEVATION
- 723.0' - 724.0' ELEVATION
- 724.0' - 725.0' ELEVATION
- 725.0' - 726.0' ELEVATION
- 726.0' - 727.0' ELEVATION
- 727.0' - 728.0' ELEVATION
- 728.0' - 729.0' ELEVATION
- 729.0' - 730.0' ELEVATION
- 730.0' - 730.5' ELEVATION
- 730.5' - 731.0' ELEVATION
- 731.0' - 731.5' ELEVATION
- 731.5' - 732.0' ELEVATION
- 732.0' - 732.5' ELEVATION
- 732.5' - 733.0' ELEVATION
- 733.0' - 733.5' ELEVATION
- 733.5' - 734.0' ELEVATION
- 734.0' - 734.5' ELEVATION
- 734.5' - 735.0' ELEVATION
- 735.0' - 735.5' ELEVATION
- 735.5' - 736.0' ELEVATION

2,372,000 E

2,373,000 E

2,371,000 E

N

F

E3N

E2

E1

E3S

D1

DMU-1F1

DMU-2E3N

RE-DREDGE AREA

DMU-2E2

DMU-1E2

DMU-1E3N

DMU-37E3S

DMU-46E3S

DMU-45E3S

DMU-3E2

DMU-35E3S

DMU-36E3S

DMU-33E3S

DMU-34E3S

DMU-44E3S

DMU-31E3S

DMU-32E3S

DMU-43E3S

DMU-5E3S

DMU-30E3S

DMU-42E3S

DMU-29E3S

DMU-28E3S

DMU-27E3S

DMU-25E3S

DMU-26E3S

DMU-41E3S

DMU-23E3S

DMU-24E3S

DMU-21E3S

VOID

DMU-22E3S

DMU-19E3S

DMU-20E3S

DMU-40E3S

DMU-17E3S

DMU-18E3S

DMU-16E3S

DMU-15E3S

DMU-14E3S

DMU-13E3S

DMU-12E3S

DMU-11E3S

DMU-39E3S

DMU-2E3S

DMU-10E3S

DMU-9E3S

DMU-3E3S

DMU-4E3S

DMU-6E3S

DMU-1E1

DMU-2E1

DMU-3E1

DMU-7E3S

DMU-1E3S

DMU-8E3S

DMU-38E3S

DMU-1E4

FOX RIVER

815,000 N

814,000 N

813,000 N

812,000 N

OUI EFFLUENT DISCHARGE PIPELINE WITH 50' SETBACK

8" GAS PIPELINE WITH 50' SETBACK (FIELD LOCATED)

NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN SOUTHERN ZONE). THE VERTICAL CONTROL IS REFERENCED TO NAVD 88.
2. COLOR ORTHO PHOTO SUPPLIED BY WINNEBAGO COUNTY, WI. FLOWN IN APRIL 2003.
3. PIPELINE LOCATIONS PROVIDED BY J.F. BRENNAN, CO.
4. DREDGE AREA OUTLINES REPRESENT APPROVED DMU BOUNDARIES.

0 150' 300'

BAR SCALE

Foth

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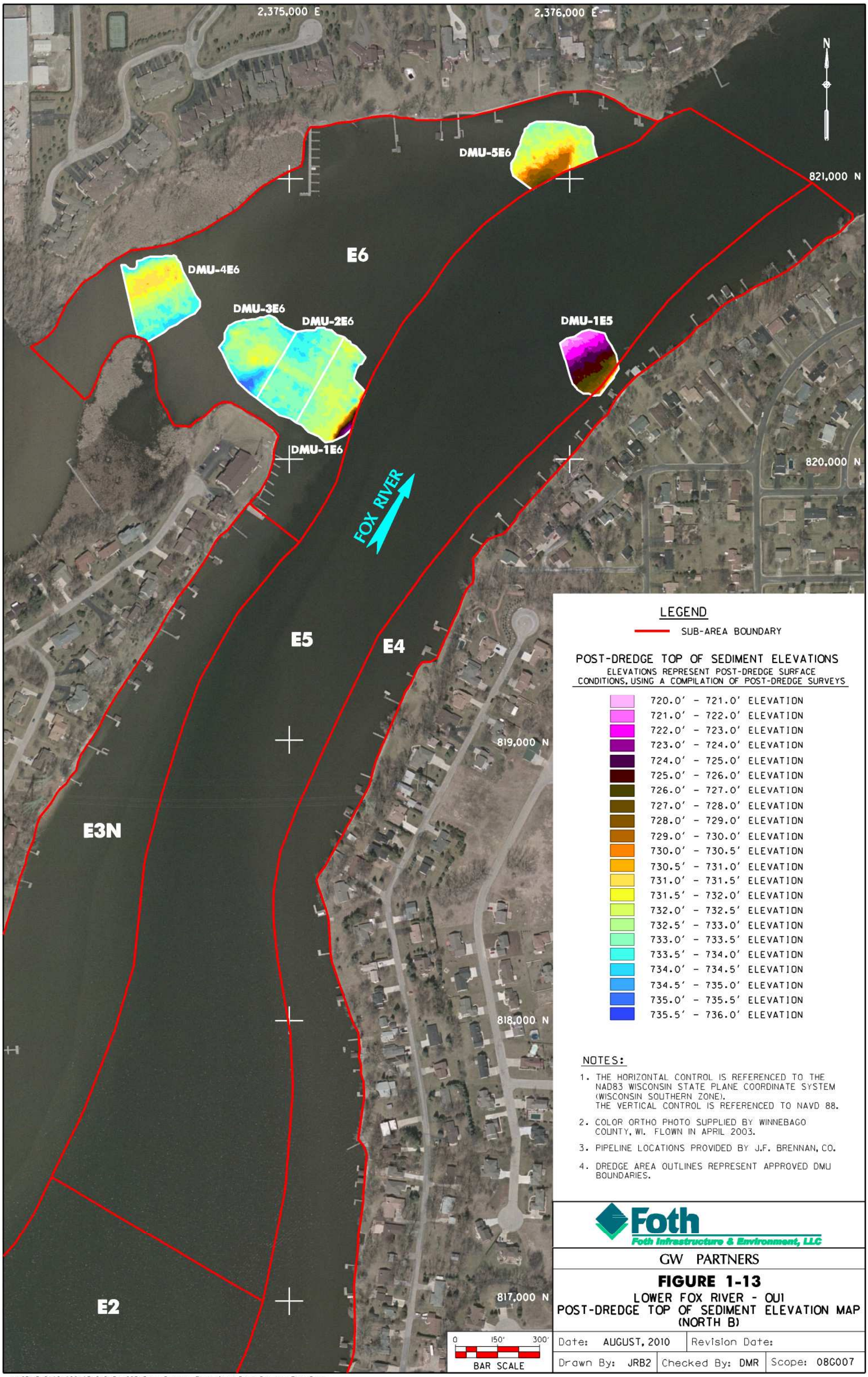
GW PARTNERS

FIGURE 1-12

LOWER FOX RIVER - OUI
POST-DREDGE TOP OF SEDIMENT ELEVATION MAP
(NORTH A)

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

X:\GB\IE\2008\08G007\CAD\RA CCR\Post-Dredge Elevations\Post-Dredge Elev-4.dgn
8/26/2010 jaw



LEGEND

SUB-AREA BOUNDARY

POST-DREDGE TOP OF SEDIMENT ELEVATIONS

ELEVATIONS REPRESENT POST-DREDGE SURFACE CONDITIONS, USING A COMPILATION OF POST-DREDGE SURVEYS

- 720.0' - 721.0' ELEVATION
- 721.0' - 722.0' ELEVATION
- 722.0' - 723.0' ELEVATION
- 723.0' - 724.0' ELEVATION
- 724.0' - 725.0' ELEVATION
- 725.0' - 726.0' ELEVATION
- 726.0' - 727.0' ELEVATION
- 727.0' - 728.0' ELEVATION
- 728.0' - 729.0' ELEVATION
- 729.0' - 730.0' ELEVATION
- 730.0' - 730.5' ELEVATION
- 730.5' - 731.0' ELEVATION
- 731.0' - 731.5' ELEVATION
- 731.5' - 732.0' ELEVATION
- 732.0' - 732.5' ELEVATION
- 732.5' - 733.0' ELEVATION
- 733.0' - 733.5' ELEVATION
- 733.5' - 734.0' ELEVATION
- 734.0' - 734.5' ELEVATION
- 734.5' - 735.0' ELEVATION
- 735.0' - 735.5' ELEVATION
- 735.5' - 736.0' ELEVATION

NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN SOUTHERN ZONE). THE VERTICAL CONTROL IS REFERENCED TO NAVD 88.
2. COLOR ORTHO PHOTO SUPPLIED BY WINNEBAGO COUNTY, WI. FLOWN IN APRIL 2003.
3. PIPELINE LOCATIONS PROVIDED BY J.F. BRENNAN, CO.
4. DREDGE AREA OUTLINES REPRESENT APPROVED DMU BOUNDARIES.

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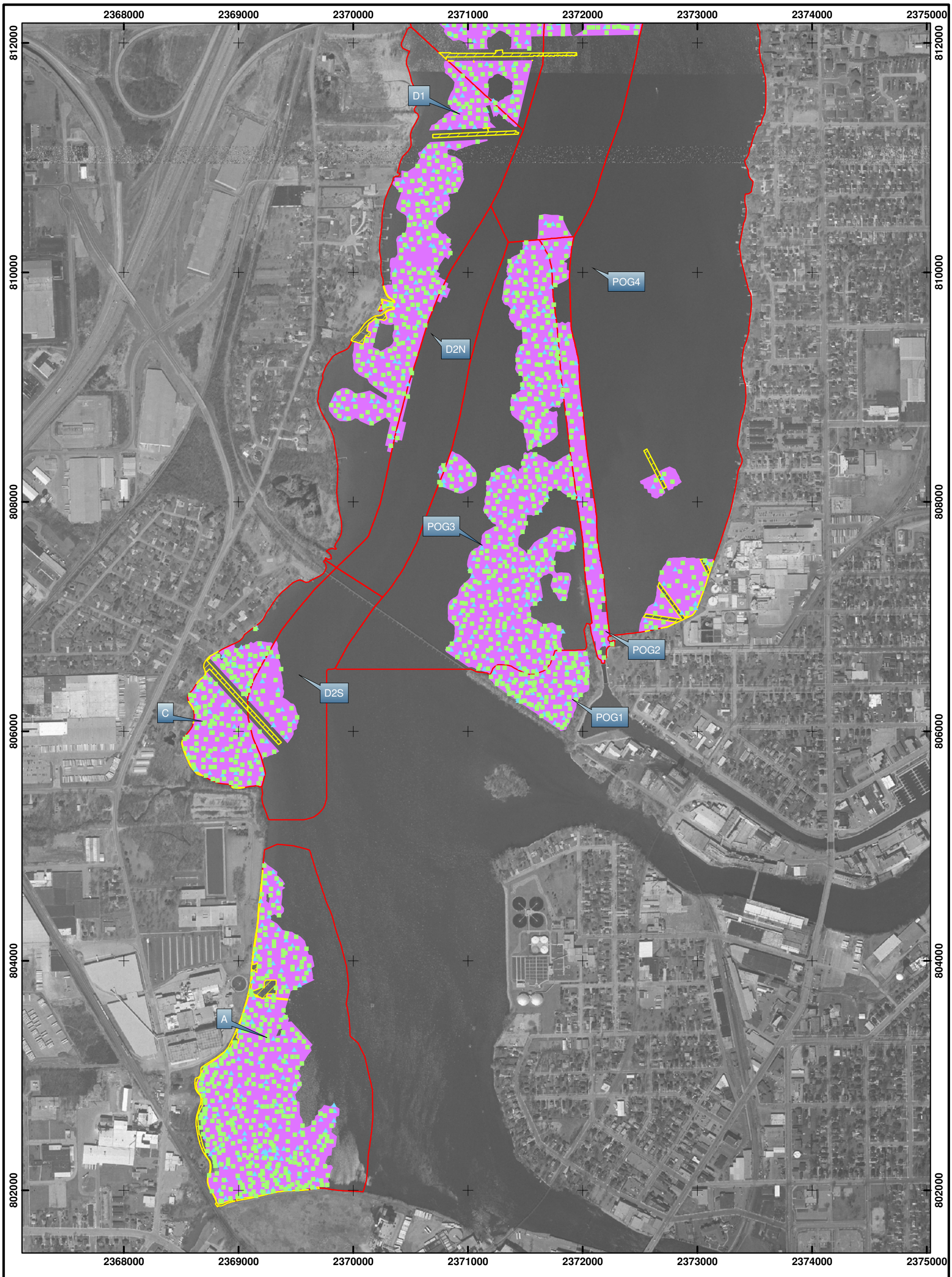
FIGURE 1-13

LOWER FOX RIVER - OU1
POST-DREDGE TOP OF SEDIMENT ELEVATION MAP
(NORTH B)

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

X:\GB\IE\2008\08G007\CAD\RA CCR\Post-Dredge Elevations\Post-Dredge Elev-5.dgn
8/26/2010 jow



Legend

- Primary Sample
- Secondary Sample
- Shoreline, Pipeline, Artifacts
- Completed Dredge Areas
- Sub-area/DMU Boundaries

Notes:

1. All areas presented depict as-constructed conditions.
2. Orthophoto provided by Winnebago County, WI.
3. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).

N

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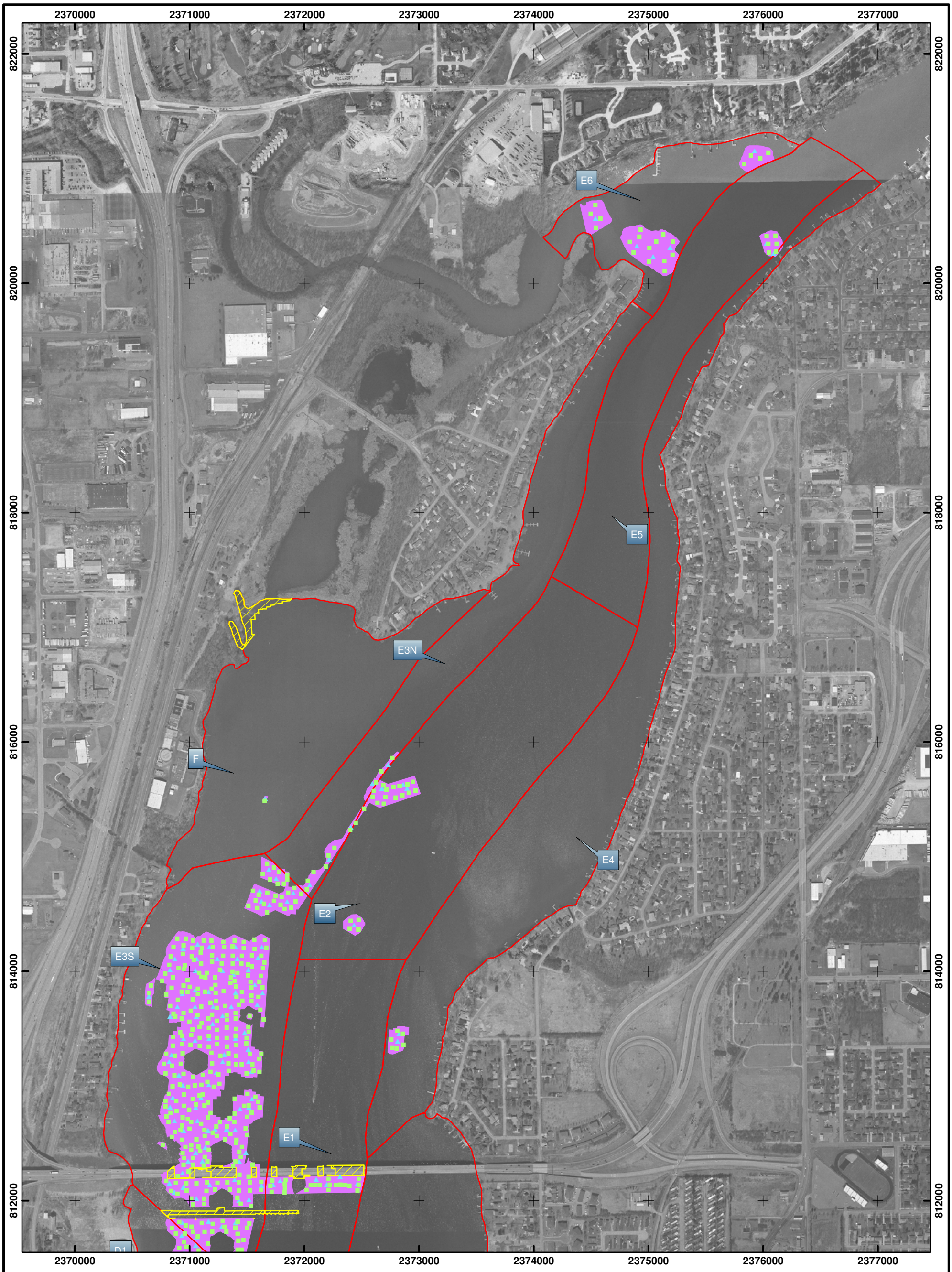
FIGURE 1-14
LOWER FOX RIVER OU1
POST-DREDGE SAMPLING LOCATIONS (SOUTH)

Scale: 0 400 800 Feet	Date: AUGUST, 2010	
Drawn By: DAT	Checked By: NRA	Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\PostDredgeSummarySouth.mxd



Legend

- Primary Sample
- Secondary Sample
- Shoreline, Pipeline, Artifacts
- Completed Dredge Areas
- Sub-area/DMU Boundaries

Notes:

1. All areas presented depict as-constructed conditions.
2. Orthophoto provided by Winnebago County, WI.
3. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).

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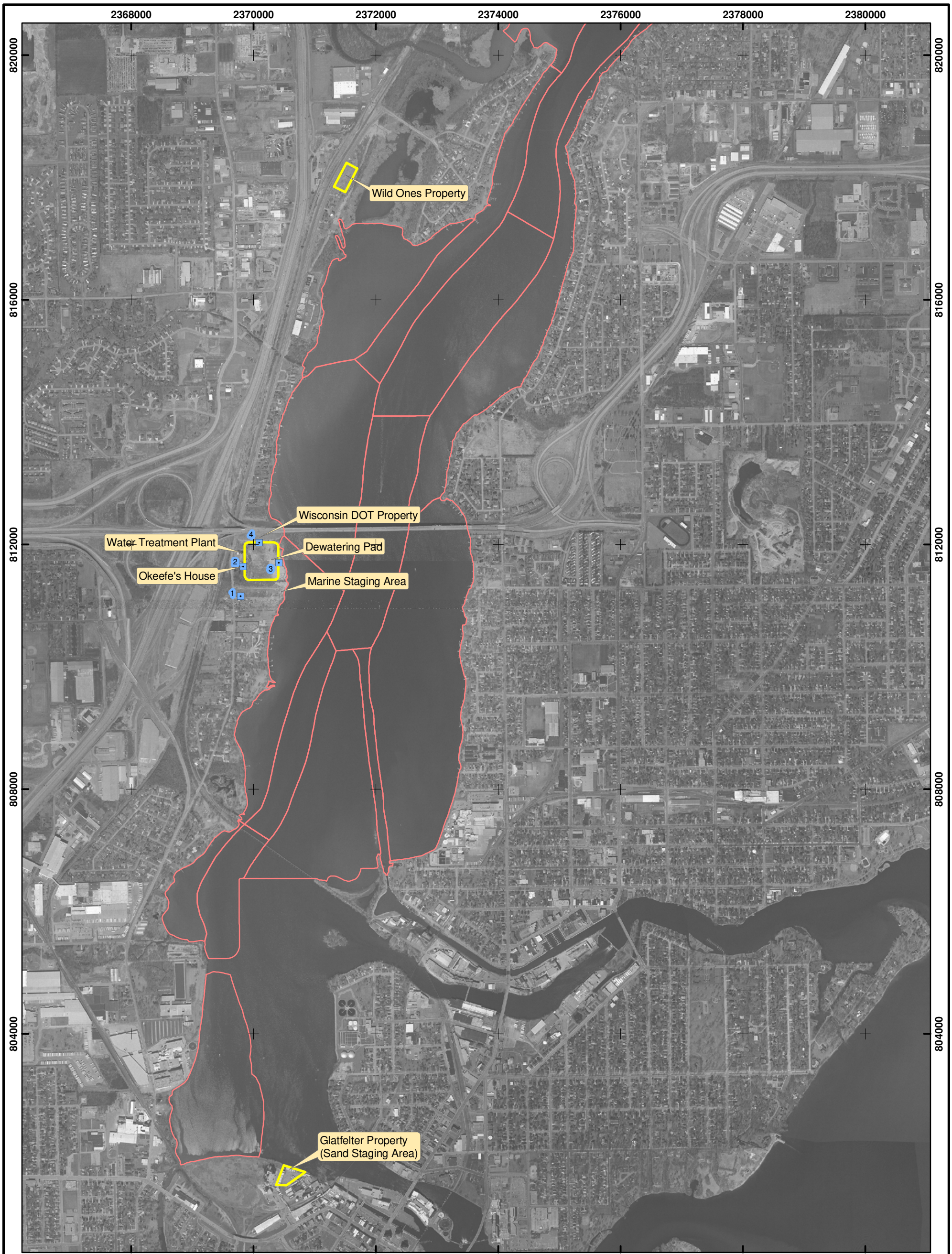
FIGURE 1-15
LOWER FOX RIVER OU1
POST-DREDGE SAMPLING LOCATIONS (NORTH)

Scale: 0 400 800 Feet		Date: AUGUST, 2010
Drawn By: DAT	Checked By: NRA	Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\PostDredgeSummaryNorth.mxd



Legend

- Air Monitoring Locations
- Staging Locations
- Sub-area/DMU Boundaries

Notes:

1. All areas presented depict as-constructed conditions.
2. Orthophoto provided by Winnebago County, WI.
3. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).

N

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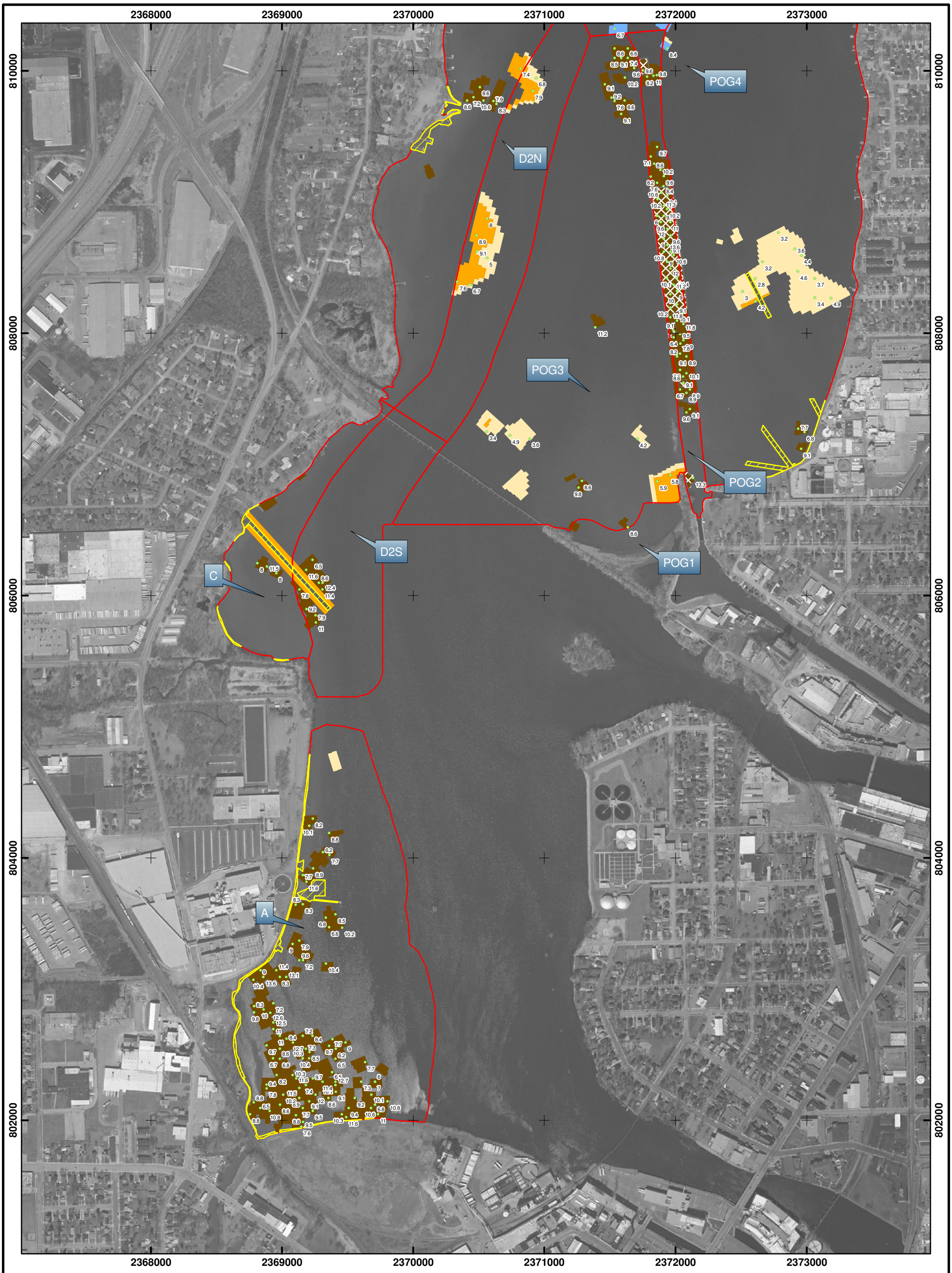
GW PARTNERS

FIGURE 1-16
LOWER FOX RIVER OU1
STAGING AREAS AND AIR MONITORING LOCATIONS

Scale: 0 750 1,500 Feet	Date: AUGUST, 2010	
Drawn By: DAT	Checked By: NRA	Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\Staging and Air Monitoring Locations.mxd



Legend

- Sand Thickness Verification Location
- Sub-area/DMU Boundaries
- Shoreline, Pipeline, Artifacts

Remedial Alternatives

- Engineered Cap
- 3 Inch Sand Cover
- 6 Inch Sand Cover
- 6 Inch Residual Sand Cover
- 9 Inch Residual Sand Cover

Notes:

1. All areas presented depict as-constructed conditions.
2. Orthophoto provided by Winnebago County, WI.
3. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).
4. All thickness measurements are in inches.

N

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FIGURE 1-17
LOWER FOX RIVER OU1
SAND PLACEMENT THICKNESS VERIFICATION
SAMPLE LOCATIONS (SOUTH)

Scale: 0 350 700 Feet

Date: AUGUST, 2010

Drawn By: DAT | Checked By: NRA | Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\SandPlacementSouth.mxd

2370000 2371000 2372000 2373000 2374000 2375000 2376000

818000 816000 814000 812000

E5 E3N F E4 E3S E2 E1 D1

Legend

- Sand Thickness Verification Location
- Shoreline, Pipeline, Artifacts
- Sub-area/DMU Boundaries

Remedial Alternatives

- Cap Placement Test Area
- Engineered Cap
- 3 Inch Sand Cover
- 6 Inch Sand Cover
- 6 Inch Residual Sand Cover
- 9 Inch Residual Sand Cover

Notes:

1. All areas presented depict as-constructed conditions.
2. Orthophoto provided by Winnebago County, WI.
3. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).
4. All thickness measurements are in inches.

N

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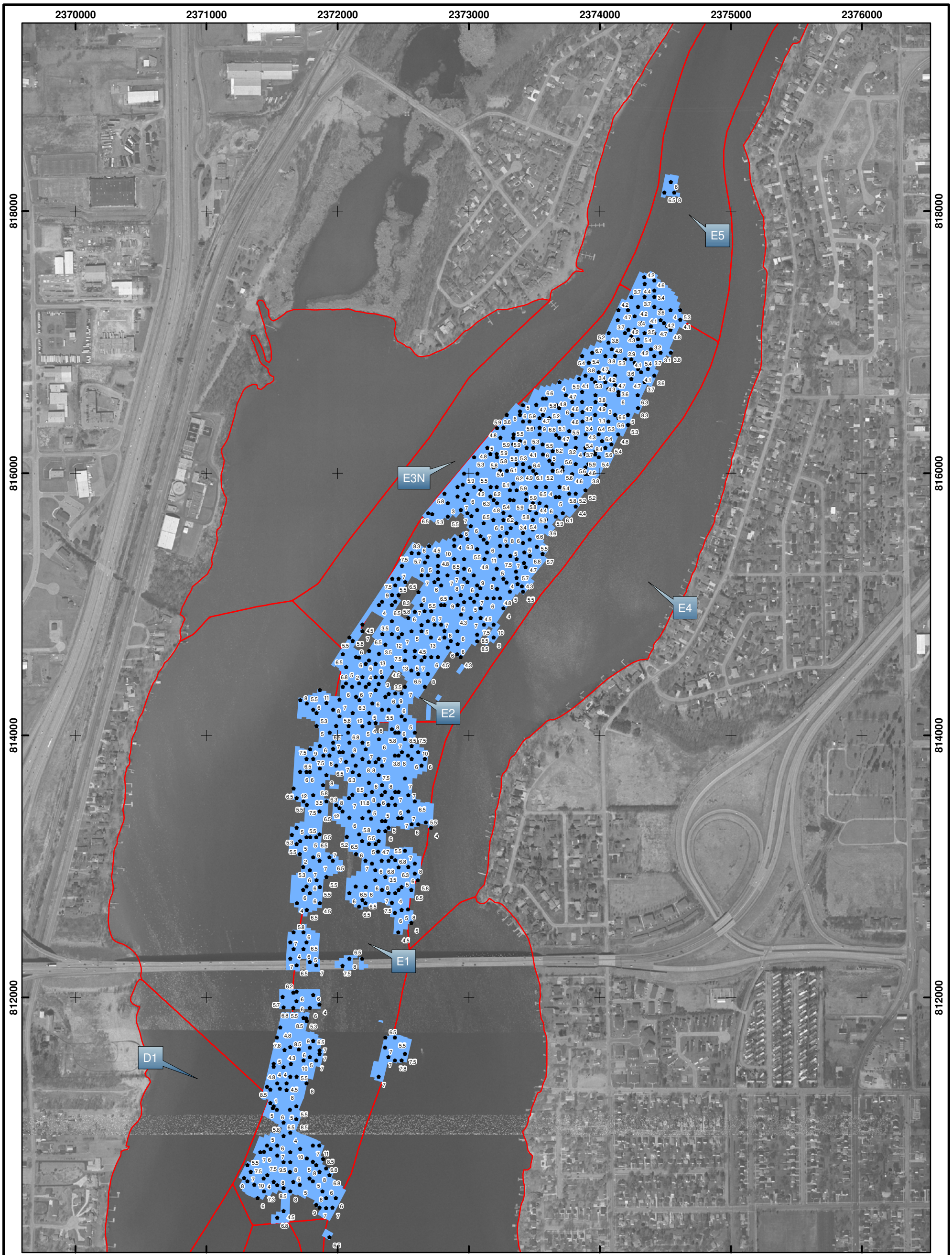
FIGURE 1-18
LOWER FOX RIVER OU1
SAND PLACEMENT THICKNESS VERIFICATION
SAMPLE LOCATIONS (NORTH)

Scale: 0 350 700 Feet

Date: AUGUST, 2010

Drawn By: DAT | Checked By: NRA | Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\SandPlacementNorth.mxd



Legend

- Armor Stone Thickness Verificaiton Locations
- Engineered Cap
- Sub-area/DMU Boundaries

Notes:

1. All areas presented depict as-constructed conditions.
2. Orthophoto provided by Winnebago County, WI.
3. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).
4. All thickness measurements are in inches.

N

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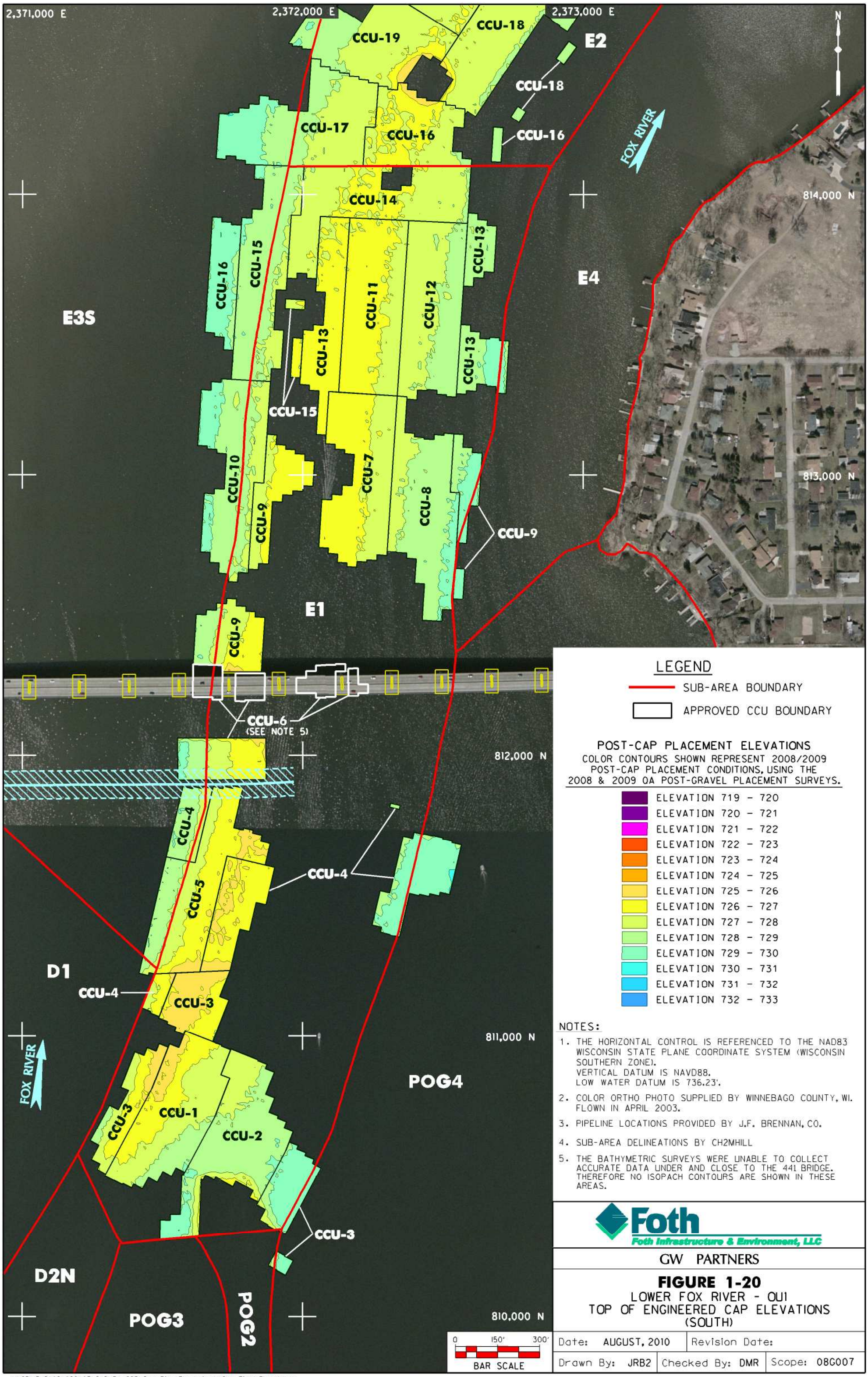
FIGURE 1-19
LOWER FOX RIVER OU1
ARMOR STONE THICKNESS VERIFICATION
SAMPLE LOCATIONS

Scale: 0 350 700 Feet

Date: AUGUST, 2010

Drawn By: DAT | Checked By: NRA | Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\ArmorStone.mxd



LEGEND

SUB-AREA BOUNDARY

APPROVED CCU BOUNDARY

POST-CAP PLACEMENT ELEVATIONS

COLOR CONTOURS SHOWN REPRESENT 2008/2009 POST-CAP PLACEMENT CONDITIONS, USING THE 2008 & 2009 QA POST-GRAVEL PLACEMENT SURVEYS.

- ELEVATION 719 - 720
- ELEVATION 720 - 721
- ELEVATION 721 - 722
- ELEVATION 722 - 723
- ELEVATION 723 - 724
- ELEVATION 724 - 725
- ELEVATION 725 - 726
- ELEVATION 726 - 727
- ELEVATION 727 - 728
- ELEVATION 728 - 729
- ELEVATION 729 - 730
- ELEVATION 730 - 731
- ELEVATION 731 - 732
- ELEVATION 732 - 733

NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN SOUTHERN ZONE).
   VERTICAL DATUM IS NAVD88.
   LOW WATER DATUM IS 736.23'.
2. COLOR ORTHO PHOTO SUPPLIED BY WINNEBAGO COUNTY, WI. FLOWN IN APRIL 2003.
3. PIPELINE LOCATIONS PROVIDED BY J.F. BRENNAN, CO.
4. SUB-AREA DELINEATIONS BY CH2MHILL
5. THE BATHYMETRIC SURVEYS WERE UNABLE TO COLLECT ACCURATE DATA UNDER AND CLOSE TO THE 441 BRIDGE. THEREFORE NO ISOPACH CONTOURS ARE SHOWN IN THESE AREAS.

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FIGURE 1-20

LOWER FOX RIVER - OU1
TOP OF ENGINEERED CAP ELEVATIONS
(SOUTH)

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

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8/26/2010 jaw

POST-CAP PLACEMENT ELEVATIONS

COLOR CONTOURS SHOWN REPRESENT 2008/2009 POST-CAP PLACEMENT CONDITIONS, USING THE 2008 & 2009 OA POST-GRAVEL PLACEMENT SURVEYS.

- ELEVATION 719 - 720
- ELEVATION 720 - 721
- ELEVATION 721 - 722
- ELEVATION 722 - 723
- ELEVATION 723 - 724
- ELEVATION 724 - 725
- ELEVATION 725 - 726
- ELEVATION 726 - 727
- ELEVATION 727 - 728
- ELEVATION 728 - 729
- ELEVATION 729 - 730
- ELEVATION 730 - 731
- ELEVATION 731 - 732
- ELEVATION 732 - 733

2,374,000 E

2,373,000 E

2,372,000 E

818,000 N

817,000 N

816,000 N

815,000 N

814,000 N

N

FOX RIVER

FOX RIVER

CCU-25

E5

E3N

F

E2

E4

CCU-30

CCU-29

CCU-28

CCU-30

CCU-31

CCU-33

CCU-32

CCU-31

CCU-33

CCU-34

CCU-38

CCU-37

CCU-36

CCU-35

CCU-34

CCU-24

CCU-25

CCU-26

CCU-27

CCU-24

CCU-23

CCU-21

CCU-22

CCU-20

CCU-18

CCU-19

CCU-18

CCU-17

CCU-16

CCU-16

CCU-14

CCU-13

CCU-11

CCU-12

CCU-13

SETBACK FROM ARCHEOLOGICAL STRUCTURE

LEGEND

- SUB-AREA BOUNDARY
- APPROVED CCU BOUNDARY

NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN SOUTHERN ZONE).
   VERTICAL DATUM IS NAVD88.
   LOW WATER DATUM IS 736.23'.
2. COLOR ORTHO PHOTO SUPPLIED BY WINNEBAGO COUNTY, WI. FLOWN IN APRIL 2003.
3. SUB-AREA DELINEATIONS BY CH2MHILL.

0 150' 300'

BAR SCALE

Foth

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FIGURE 1-21

LOWER FOX RIVER - OU1
TOP OF ENGINEERED CAP ELEVATIONS
(NORTH)

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

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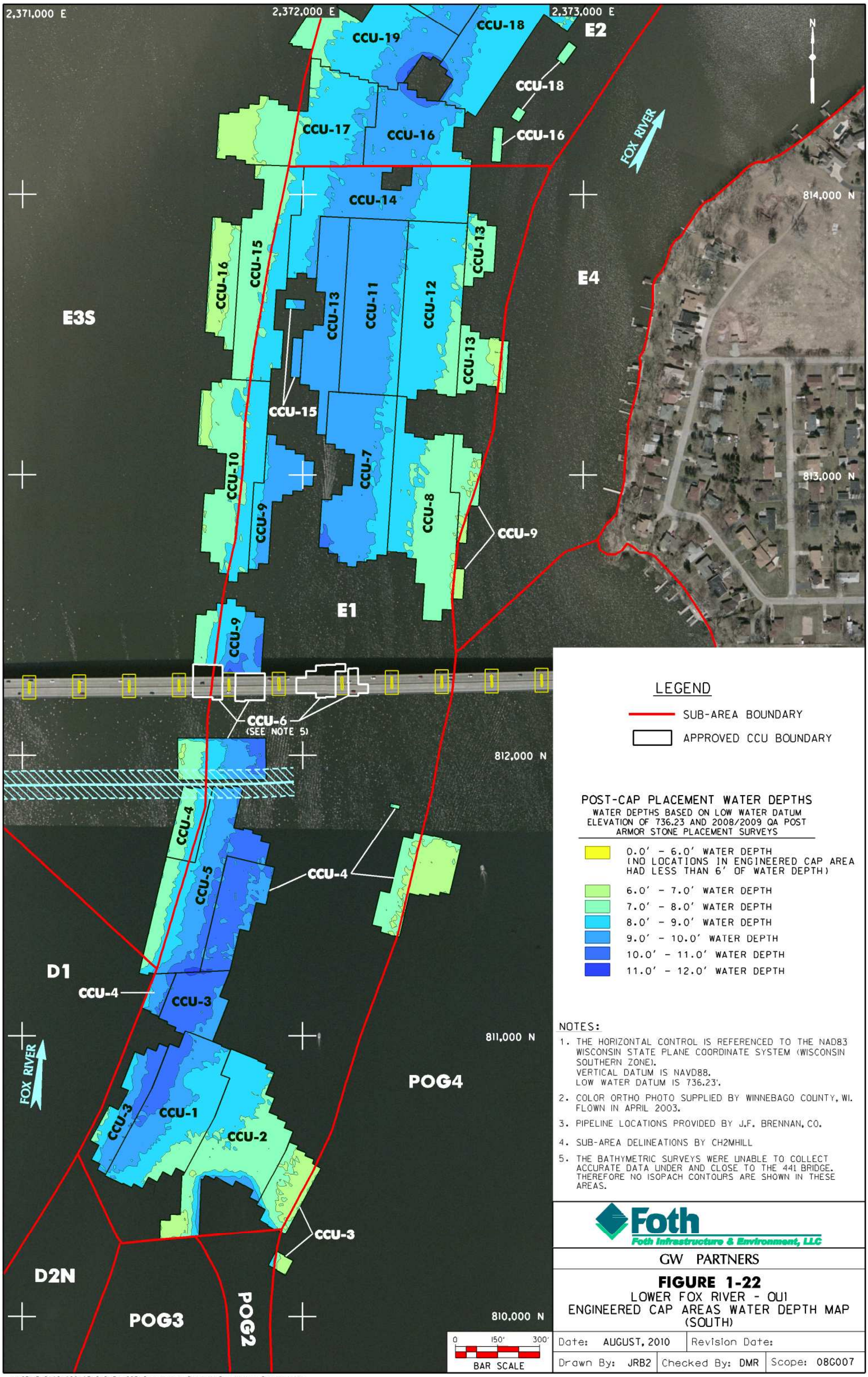
8/26/2010 jow



LEGEND

- SUB-AREA BOUNDARY
- APPROVED CCU BOUNDARY

POST-CAP PLACEMENT WATER DEPTHS

WATER DEPTHS BASED ON LOW WATER DATUM ELEVATION OF 736.23 AND 2008/2009 QA POST ARMOR STONE PLACEMENT SURVEYS

- 0.0' - 6.0' WATER DEPTH (NO LOCATIONS IN ENGINEERED CAP AREA HAD LESS THAN 6' OF WATER DEPTH)
- 6.0' - 7.0' WATER DEPTH
- 7.0' - 8.0' WATER DEPTH
- 8.0' - 9.0' WATER DEPTH
- 9.0' - 10.0' WATER DEPTH
- 10.0' - 11.0' WATER DEPTH
- 11.0' - 12.0' WATER DEPTH

NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN SOUTHERN ZONE).
   VERTICAL DATUM IS NAVD88.
   LOW WATER DATUM IS 736.23'.
2. COLOR ORTHO PHOTO SUPPLIED BY WINNEBAGO COUNTY, WI. FLOWN IN APRIL 2003.
3. PIPELINE LOCATIONS PROVIDED BY J.F. BRENNAN, CO.
4. SUB-AREA DELINEATIONS BY CH2MHILL
5. THE BATHYMETRIC SURVEYS WERE UNABLE TO COLLECT ACCURATE DATA UNDER AND CLOSE TO THE 441 BRIDGE. THEREFORE NO ISOPACH CONTOURS ARE SHOWN IN THESE AREAS.

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FIGURE 1-22

LOWER FOX RIVER - OU1
ENGINEERED CAP AREAS WATER DEPTH MAP
(SOUTH)

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

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8/26/2010 jaw

POST-CAP PLACEMENT WATER DEPTHS

WATER DEPTHS BASED ON LOW WATER DATUM ELEVATION OF 736.23 AND 2008/2009 QA POST ARMOR STONE PLACEMENT SURVEYS

- 0.0' - 6.0' WATER DEPTH (NO LOCATIONS IN ENGINEERED CAP AREA HAD LESS THAN 6' OF WATER DEPTH)
- 6.0' - 7.0' WATER DEPTH
- 7.0' - 8.0' WATER DEPTH
- 8.0' - 9.0' WATER DEPTH
- 9.0' - 10.0' WATER DEPTH
- 10.0' - 11.0' WATER DEPTH
- 11.0' - 12.0' WATER DEPTH
- 12.0' - 13.0' WATER DEPTH
- 13.0' - 14.0' WATER DEPTH
- 14.0' - 15.0' WATER DEPTH
- 15.0' - 16.0' WATER DEPTH
- 16.0' - 17.0' WATER DEPTH
- 17.0' - 18.0' WATER DEPTH

2,372,000 E
2,373,000 E
2,374,000 E
818,000 N
817,000 N
816,000 N
815,000 N
814,000 N
N
FOX RIVER
CCU-25
E5
CCU-30
CCU-29
CCU-28
CCU-30
CCU-31
E3N
F
CCU-33
CCU-32
CCU-31
CCU-33
CCU-34
CCU-38
CCU-37
CCU-36
CCU-35
CCU-34
CCU-24
CCU-25
E2
CCU-26
CCU-24
CCU-27
E4
SETBACK FROM ARCHEOLOGICAL STRUCTURE
CCU-23
CCU-21
CCU-22
CCU-20
CCU-18
CCU-19
CCU-18
CCU-17
CCU-16
CCU-16
FOX RIVER
CCU-14
CCU-13
CCU-11
CCU-12
CCU-13
0 150' 300'
BAR SCALE

LEGEND

- SUB-AREA BOUNDARY
- CCU BOUNDARY

NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN SOUTHERN ZONE).
   VERTICAL DATUM IS NAVD88.
   LOW WATER DATUM IS 736.23'.
2. COLOR ORTHO PHOTO SUPPLIED BY WINNEBAGO COUNTY, WI. FLOWN IN APRIL 2003.
3. SUB-AREA DELINEATIONS BY CH2MHILL.

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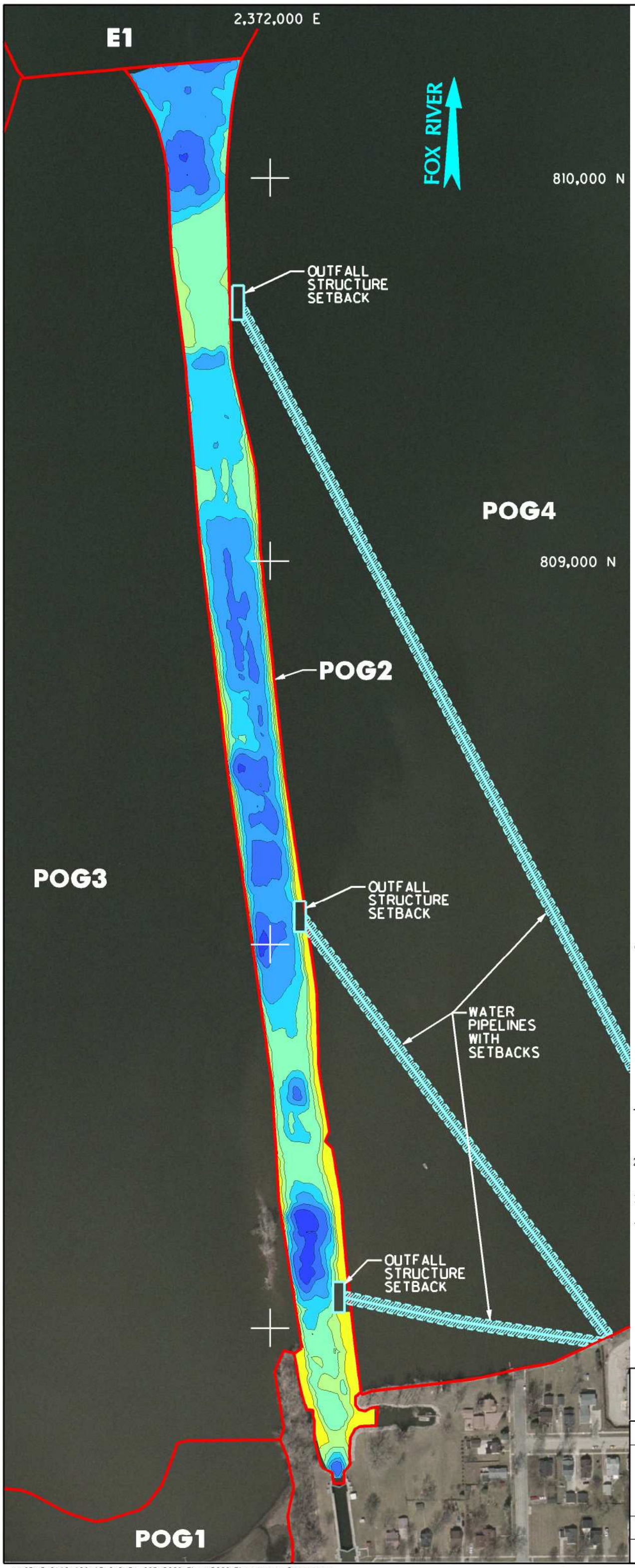
FIGURE 1-23
LOWER FOX RIVER - OU1
ENGINEERED CAP AREAS WATER DEPTH MAP
(NORTH)

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

X:\GB\IE\2008\08G007\CAD\RA CCR\Cap Water Depths\Cap-Water-Depth-2.dgn
8/26/2010 jow



N

LEGEND

SUB-AREA BOUNDARY

POST-SAND COVER PLACEMENT WATER DEPTHS

WATER DEPTHS BASED ON LOW WATER DATUM ELEVATION OF 736.23 AND 2008 QA POST-SAND COVER PLACEMENT SURVEYS (OR 2007 POST DREDGE SURVEYS WHERE NO WORK WAS DONE IN 2008)

- 0.0' - 6.0' WATER DEPTH
- 6.0' - 7.0' WATER DEPTH
- 7.0' - 8.0' WATER DEPTH
- 8.0' - 9.0' WATER DEPTH
- 9.0' - 10.0' WATER DEPTH
- 10.0' - 11.0' WATER DEPTH
- 11.0' - 12.0' WATER DEPTH

NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN SOUTHERN ZONE).
2. COLOR ORTHO PHOTO SUPPLIED BY WINNEBAGO COUNTY, WI. FLOWN IN APRIL 2003.
3. PIPELINE LOCATIONS PROVIDED BY J.F. BRENNAN, CO.
4. SUB-AREA DELINEATIONS BY CH2MHILL

0 125' 250'

BAR SCALE

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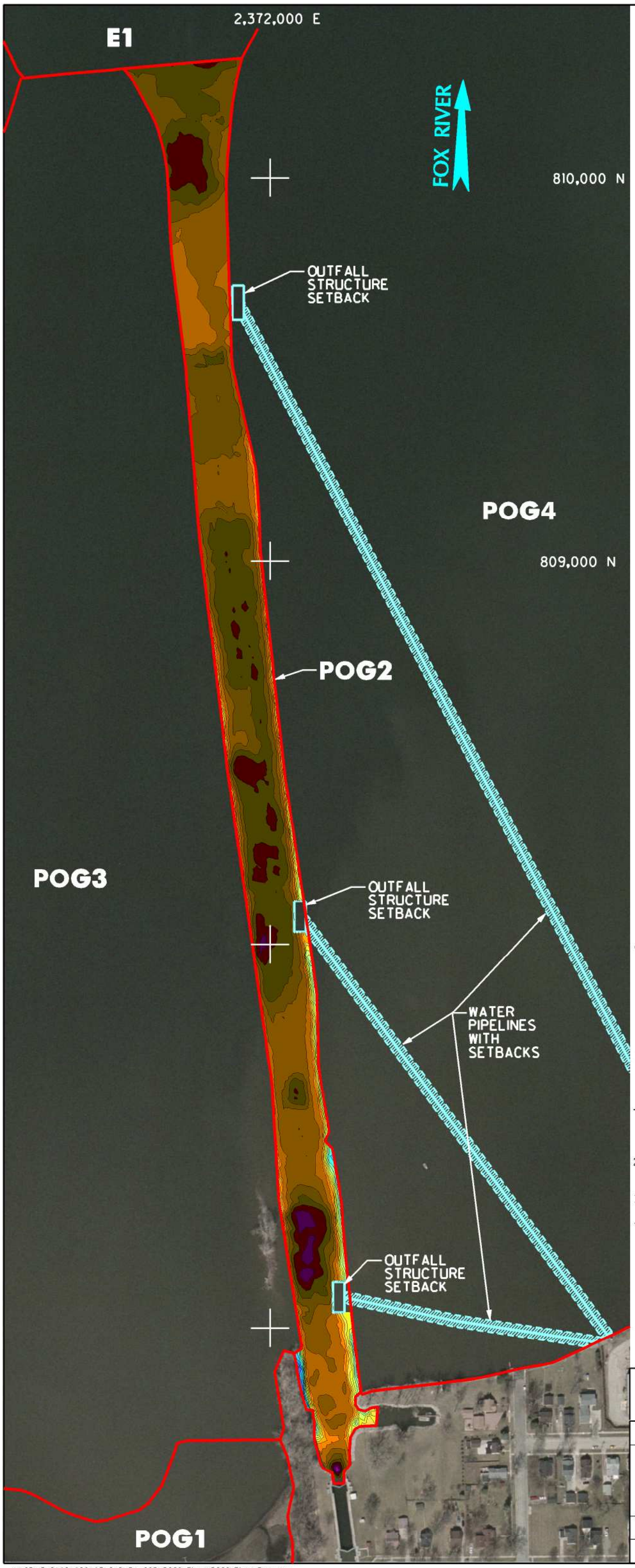
FIGURE 1-25

LOWER FOX RIVER - OU1
SUB-AREA POG2
2008 WATER DEPTH MAP

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

X:\GB\IE\2008\08G007\CAD\RA CCR\POG2 Final\POG2-Final-Water-Depth.dgn
8/26/2010 jow



N

LEGEND

SUB-AREA BOUNDARY

POST-REMEDIAL ACTION ELEVATIONS

COLOR CONTOURS SHOWN REPRESENT 2008 POST-SAND COVER PLACEMENT CONDITIONS, USING THE 2008 QA POST-SAND PLACEMENT SURVEYS AND 2007 QA POST-DREDGE SURVEYS WHERE NO 2008 WORK WAS DONE.

- 722.0′ - 723.0′ ELEVATION
- 723.0′ - 724.0′ ELEVATION
- 724.0′ - 725.0′ ELEVATION
- 725.0′ - 726.0′ ELEVATION
- 726.0′ - 727.0′ ELEVATION
- 727.0′ - 728.0′ ELEVATION
- 728.0′ - 729.0′ ELEVATION
- 729.0′ - 730.0′ ELEVATION
- 730.0′ - 730.5′ ELEVATION
- 730.5′ - 731.0′ ELEVATION
- 731.0′ - 731.5′ ELEVATION
- 731.5′ - 732.0′ ELEVATION
- 732.0′ - 732.5′ ELEVATION
- 732.5′ - 733.0′ ELEVATION
- 733.0′ - 733.5′ ELEVATION
- 733.5′ - 734.0′ ELEVATION
- 734.0′ - 734.5′ ELEVATION
- 734.5′ - 735.0′ ELEVATION
- 735.0′ - 735.5′ ELEVATION
- 735.5′ - 736.0′ ELEVATION

NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN SOUTHERN ZONE).
2. COLOR ORTHO PHOTO SUPPLIED BY WINNEBAGO COUNTY, WI. FLOWN IN APRIL 2003.
3. PIPELINE LOCATIONS PROVIDED BY J.F. BRENNAN, CO.
4. SUB-AREA DELINEATIONS BY CH2MHILL

0 125′ 250′

BAR SCALE

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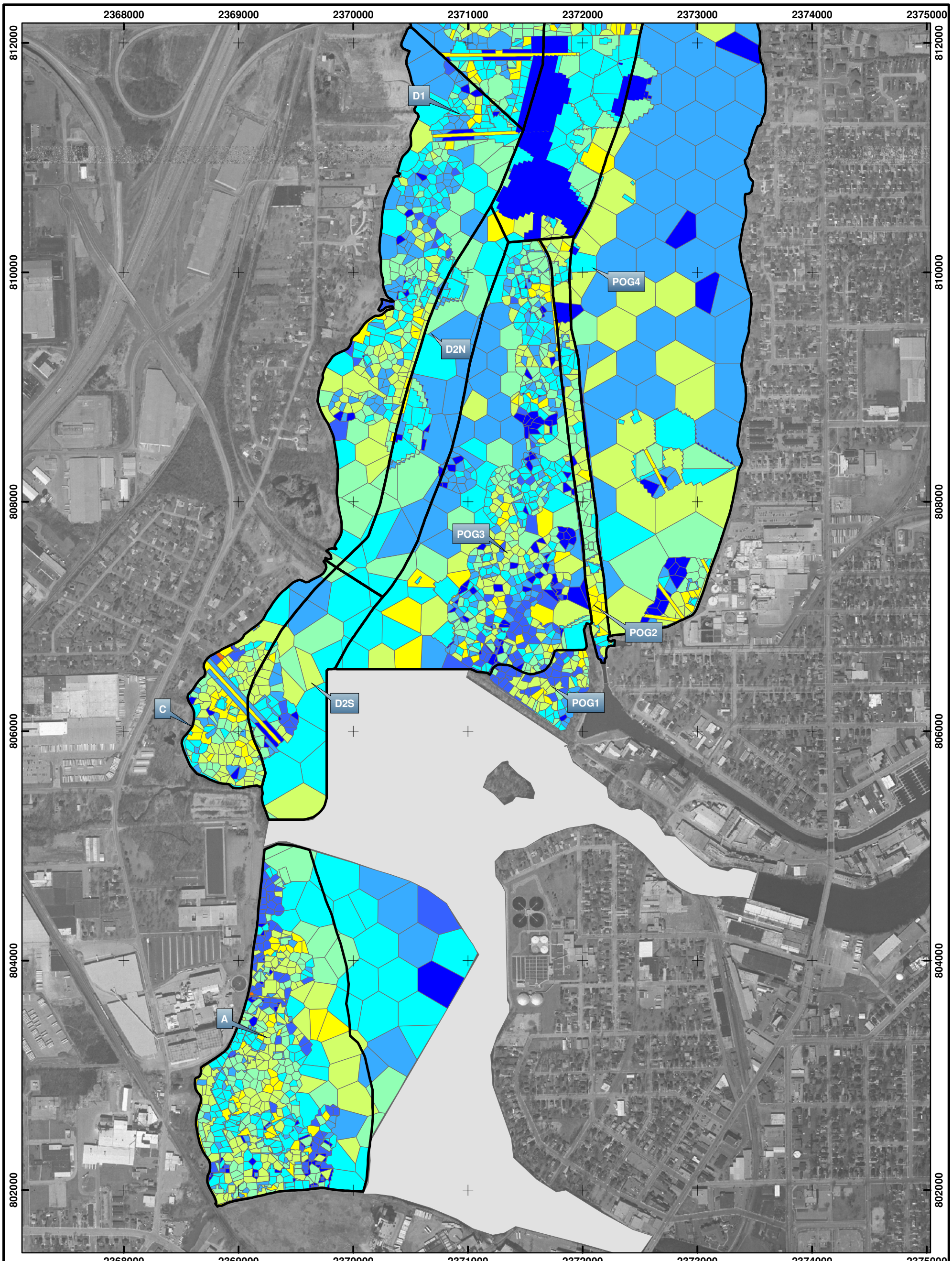
FIGURE 1-24

LOWER FOX RIVER - OU1
SUB-AREA POG2
2008 TOP OF SAND ELEVATION MAP

Date: AUGUST, 2010	Revision Date:	
Drawn By: JRB2	Checked By: DMR	Scope: 08G007

X:\GB\IE\2008\08G007\CAD\RA CCR\POG2 Final\POG2-Final-Elev.dgn
8/26/2010 jow



Legend

- Sub-area/DMU Boundaries

Surficial Concentration used for SWAC (ppm)

- 0.00
- 0.0009 - 0.0167
- 0.0168
- 0.0169 - 0.1000
- 0.1001 - 0.2500
- 0.2501 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 5.0000
- 5.0001 - 10.0000
- 10.0001 - 15.0000

Notes:

1. Orthophoto provided by Winnebago County, WI.
2. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).
3. Sample locations used in SWAC are the centroid of the depicted Thiessen polygon boundaries

N

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FIGURE 1-26
LOWER FOX RIVER OU1
SWAC CALCULATION SURFICIAL
PCB CONCENTRATIONS (SOUTH)

Scale: 0 400 800 Feet

Date: AUGUST, 2010

Drawn By: DAT | Checked By: SGL | Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\SWACCalculationSummarySouth.mxd

2370000 2371000 2372000 2373000 2374000 2375000 2376000 2377000

822000 820000 818000 816000 814000 812000

E6
E5
E3N
F
E4
E2
E3S
E1
D1

Legend

Sub-area/DMU Boundaries

Surficial Concentration used for SWAC (ppm)

- 0.00
- 0.0009 - 0.0167
- 0.0168
- 0.0169 - 0.1000
- 0.1001 - 0.2500
- 0.2501 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 5.0000
- 5.0001 - 10.0000
- 10.0001 - 15.0000

Notes:

1. Orthophoto provided by Winnebago County, WI.
2. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).
3. Sample locations used in SWAC are the centroid of the depicted Thiessen polygon boundaries

N

Foth Infrastructure & Environment, LLC

GW PARTNERS

FIGURE 1-27
LOWER FOX RIVER OU1
SWAC CALCULATION SURFICIAL
PCB CONCENTRATIONS (NORTH)

Scale: 0 400 800 Feet

Date: AUGUST, 2010

Drawn By: DAT | Checked By: SGL | Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\SWACCalculationSummaryNorth.mxd

2369000 2370000 2371000

804000

802000

C

D2S

A

OU1

Legend

- Sample Core Location - Sand Covered
- Sample Core Location
- Sub-area/DMU Boundaries
- SWAC Strata Area for Engineered Cap (0.0065 ppm)
- SWAC Strata Area for Null (0 ppm)
- SWAC Strata Area for Pipeline/Artifact/Shoreline w/o Samples (3.68 ppm)

Notes:

1. Orthophoto provided by Winnebago County, WI.
2. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).
3. Values represent surface concentrations used in SWAC calcalution (ppm).
4. SWAC strata area for pipeline/artifact/shoreline without samples is estimated from the GMS-SED model with an average concentration of 3.68 ppm.

N

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FIGURE 1-28A

LOWER FOX RIVER OU1

SWAC CALCULATION SURFICIAL CONCENTRATION - NUMERICAL PCB VALUE AT LOCATIONS

Scale: 0 150 300 Feet

Date: AUGUST, 2010

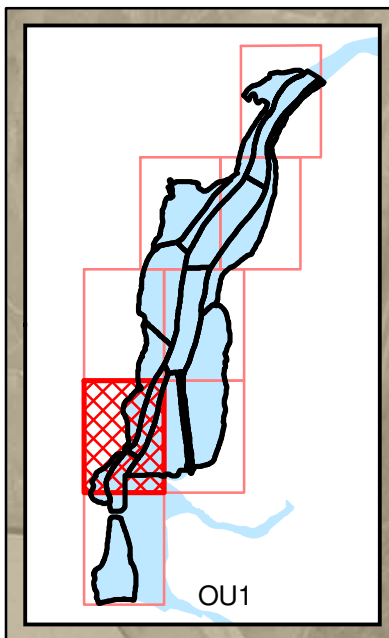
Drawn By: DAT | Checked By: SGL | Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\SWACCalculationPoints1.mxd

2369000 2370000 2371000

808000

806000



D1

D2N

D2S

C

POG3

Legend

- Sample Core Location - Sand Covered
- Sample Core Location
- Sub-area/DMU Boundaries
- SWAC Strata Area for Engineered Cap (0.0065 ppm)
- SWAC Strata Area for Null (0 ppm)
- SWAC Strata Area for Pipeline/Artifact/Shoreline w/o Samples (3.68 ppm)

Notes:

1. Orthophoto provided by Winnebago County, WI.
2. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).
3. Values represent surface concentrations used in SWAC calcalution (ppm).
4. SWAC strata area for pipeline/artifact/shoreline without samples is estimated from the GMS-SED model with an average concentration of 3.68 ppm.

N

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GW PARTNERS

FIGURE 1-28B
LOWER FOX RIVER OU1
SWAC CALCULATION SURFICIAL CONCENTRATION
- NUMERICAL PCB VALUE AT LOCATIONS

Scale: 0 150 300 Feet	Date: AUGUST, 2010
Drawn By: DAT	Checked By: SGL	Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\SWACCalculationPoints2.mxd

2372000 2373000 2374000

808000

806000

POG3

POG4

POG2

POG1

OU1

Legend

- Sample Core Location - Sand Covered
- Sample Core Location
- Sub-area/DMU Boundaries
- SWAC Strata Area for Engineered Cap (0.0065 ppm)
- SWAC Strata Area for Null (0 ppm)
- SWAC Strata Area for Pipeline/Artifact/Shoreline w/o Samples (3.68 ppm)

Notes:

1. Orthophoto provided by Winnebago County, WI.
2. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).
3. Values represent surface concentrations used in SWAC calcalution (ppm).
4. SWAC strata area for pipeline/artifact/shoreline without samples is estimated from the GMS-SED model with an average concentration of 3.68 ppm.

N

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FIGURE 1-28C
LOWER FOX RIVER OU1
SWAC CALCULATION SURFICIAL CONCENTRATION
- NUMERICAL PCB VALUE AT LOCATIONS

Scale: 0 150 300 Feet

Date: AUGUST, 2010

Drawn By: DAT | Checked By: SGL | Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\SWACCalculationPoints3.mxd

2372000 2373000 2374000

814000 812000 810000

E4

E1

POG4

OU1

Legend

- Sample Core Location - Sand Covered
- Sample Core Location
- Sub-area/DMU Boundaries
- SWAC Strata Area for Engineered Cap (0.0065 ppm)
- SWAC Strata Area for Null (0 ppm)
- SWAC Strata Area for Pipeline/Artifact/Shoreline w/o Samples (3.68 ppm)

Notes:

1. Orthophoto provided by Winnebago County, WI.
2. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).
3. Values represent surface concentrations used in SWAC calcalution (ppm).
4. SWAC strata area for pipeline/artifact/shoreline without samples is estimated from the GMS-SED model with an average concentration of 3.68 ppm.

N

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FIGURE 1-28D

LOWER FOX RIVER OU1

SWAC CALCULATION SURFICIAL CONCENTRATION - NUMERICAL PCB VALUE AT LOCATIONS

Scale: 0 150 300 Feet

Date: AUGUST, 2010

Drawn By: DAT | Checked By: SGL | Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\SWACCalculationPoints4.mxd

2369000 2370000 2371000

814000 812000 810000

E3S

D1

OU1

Legend

- Sample Core Location - Sand Covered
- Sample Core Location
- Sub-area/DMU Boundaries
- SWAC Strata Area for Engineered Cap (0.0065 ppm)
- SWAC Strata Area for Null (0 ppm)
- SWAC Strata Area for Pipeline/Artifact/Shoreline w/o Samples (3.68 ppm)

Notes:

1. Orthophoto provided by Winnebago County, WI.
2. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).
3. Values represent surface concentrations used in SWAC calcalution (ppm).
4. SWAC strata area for pipeline/artifact/shoreline without samples is estimated from the GMS-SED model with an average concentration of 3.68 ppm.

N

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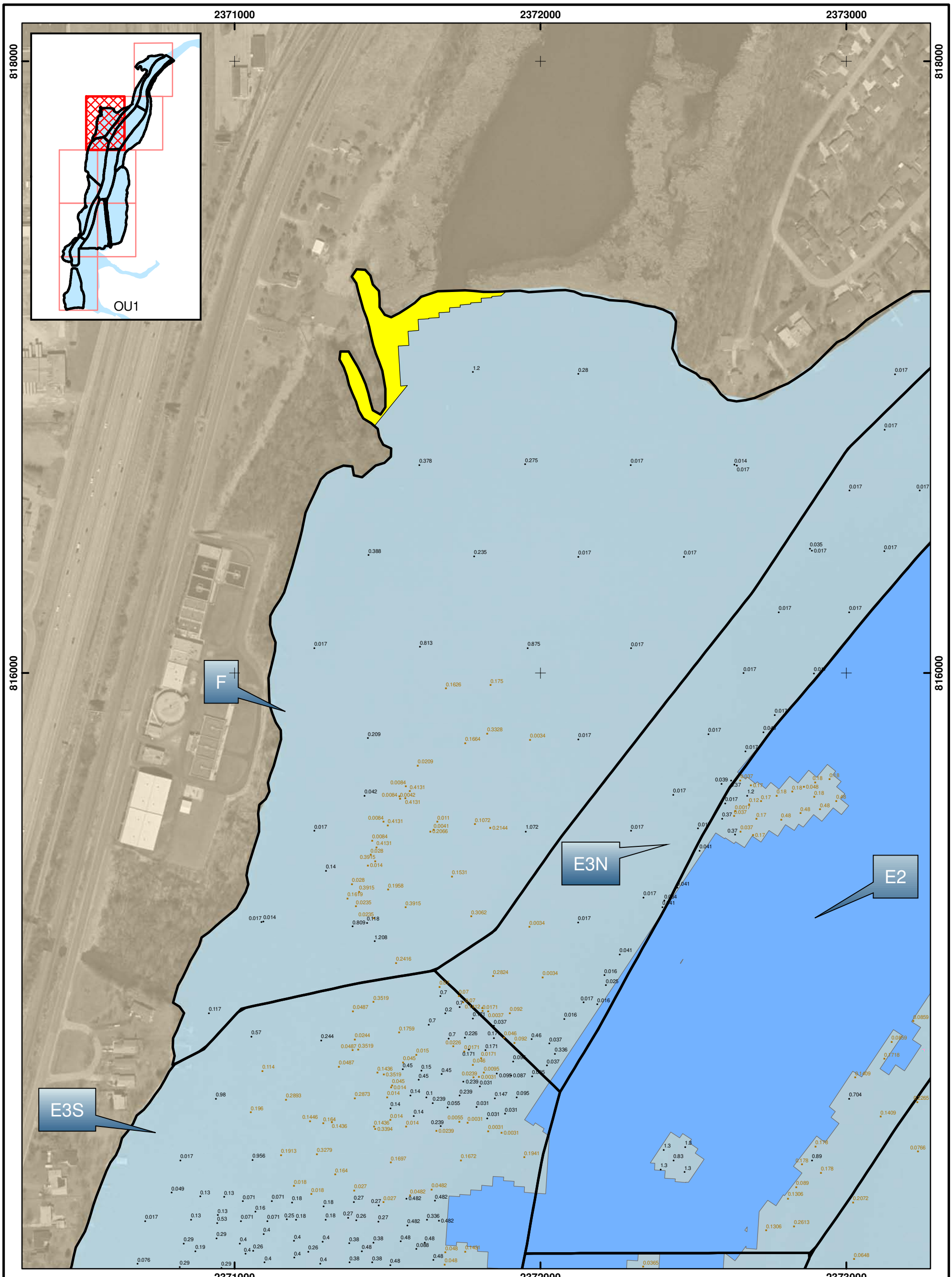
FIGURE 1-28E
LOWER FOX RIVER OU1
SWAC CALCULATION SURFICIAL CONCENTRATION - NUMERICAL PCB VALUE AT LOCATIONS

Scale: 0 150 300 Feet

Date: AUGUST, 2010

Drawn By: DAT | Checked By: SGL | Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\SWACCalculationPoints5.mxd



Legend

- Sample Core Location - Sand Covered
- Sample Core Location
- Sub-area/DMU Boundaries
- SWAC Strata Area for Engineered Cap (0.0065 ppm)
- SWAC Strata Area for Null (0 ppm)
- SWAC Strata Area for Pipeline/Artifact/Shoreline w/o Samples (3.68 ppm)

Notes:

1. Orthophoto provided by Winnebago County, WI.
2. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).
3. Values represent surface concentrations used in SWAC calcalution (ppm).
4. SWAC strata area for pipeline/artifact/shoreline without samples is estimated from the GMS-SED model with an average concentration of 3.68 ppm.

N

Foth Infrastructure & Environment, LLC

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FIGURE 1-28F
LOWER FOX RIVER OU1
SWAC CALCULATION SURFICIAL CONCENTRATION
- NUMERICAL PCB VALUE AT LOCATIONS

Scale: 0 150 300 Feet | Date: AUGUST, 2010

Drawn By: DAT | Checked By: SGL | Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\SWACCalculationPoints6.mxd

2374000 2375000 2376000

818000

816000

E5

E3N

E2

E4

OU1

Legend

- Sample Core Location - Sand Covered
- Sample Core Location
- Sub-area/DMU Boundaries
- SWAC Strata Area for Engineered Cap (0.0065 ppm)
- SWAC Strata Area for Null (0 ppm)
- SWAC Strata Area for Pipeline/Artifact/Shoreline w/o Samples (3.68 ppm)

Notes:

1. Orthophoto provided by Winnebago County, WI.
2. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).
3. Values represent surface concentrations used in SWAC calcalution (ppm).
4. SWAC strata area for pipeline/artifact/shoreline without samples is estimated from the GMS-SED model with an average concentration of 3.68 ppm.

N

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FIGURE 1-28G
LOWER FOX RIVER OU1
SWAC CALCULATION SURFICIAL CONCENTRATION
- NUMERICAL PCB VALUE AT LOCATIONS

Scale: 0 150 300 Feet

Date: AUGUST, 2010

Drawn By: DAT | Checked By: SGL | Scope: 08G007

X:\GB\IE\2008\08G007\GIS\mxd\RACR\SWACCalculationPoints7.mxd

2374000 2375000 2376000

822000

820000

E6

E5

E4

E3N

OU1

Legend

- Sample Core Location - Sand Covered
- Sample Core Location
- Sub-area/DMU Boundaries
- SWAC Strata Area for Engineered Cap (0.0065 ppm)
- SWAC Strata Area for Null (0 ppm)
- SWAC Strata Area for Pipeline/Artifact/Shoreline w/o Samples (3.68 ppm)

Notes:

1. Orthophoto provided by Winnebago County, WI.
2. The horizontal control is referenced to the NAD83 Wisconsin State Plane Coordinate System (Wisconsin Southern Zone).
3. Values represent surface concentrations used in SWAC calcalution (ppm).
4. SWAC strata area for pipeline/artifact/shoreline without samples is estimated from the GMS-SED model with an average concentration of 3.68 ppm.

N

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FIGURE 1-28H
LOWER FOX RIVER OU1
SWAC CALCULATION SURFICIAL CONCENTRATION
- NUMERICAL PCB VALUE AT LOCATIONS

Scale: 0 150 300 Feet

Date: AUGUST, 2010

Drawn By: DAT | Checked By: SGL | Scope: 08G007

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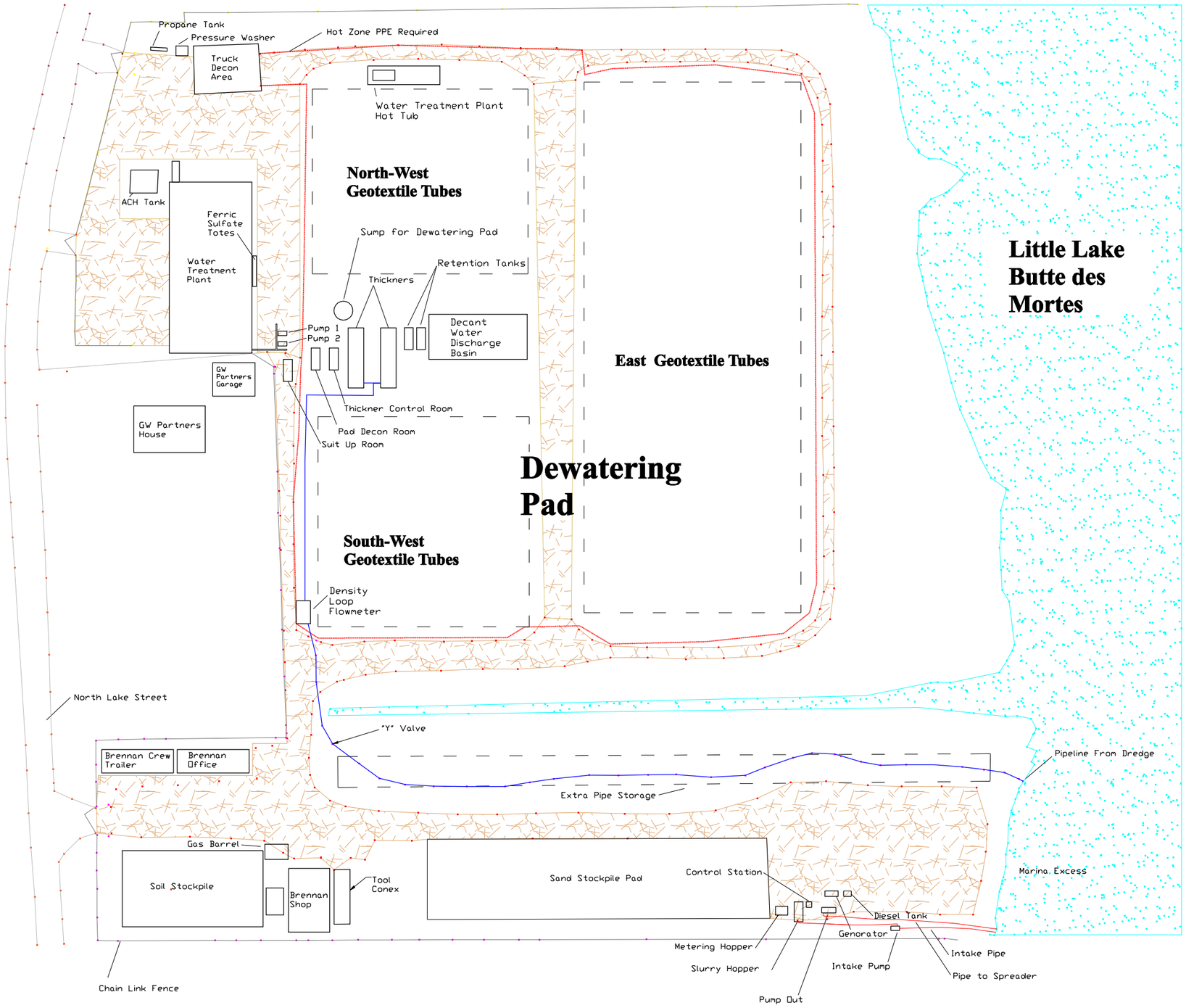

NOTES:

1. DRAWING PROVIDED BY J.F. BRENNAN CO., INC.

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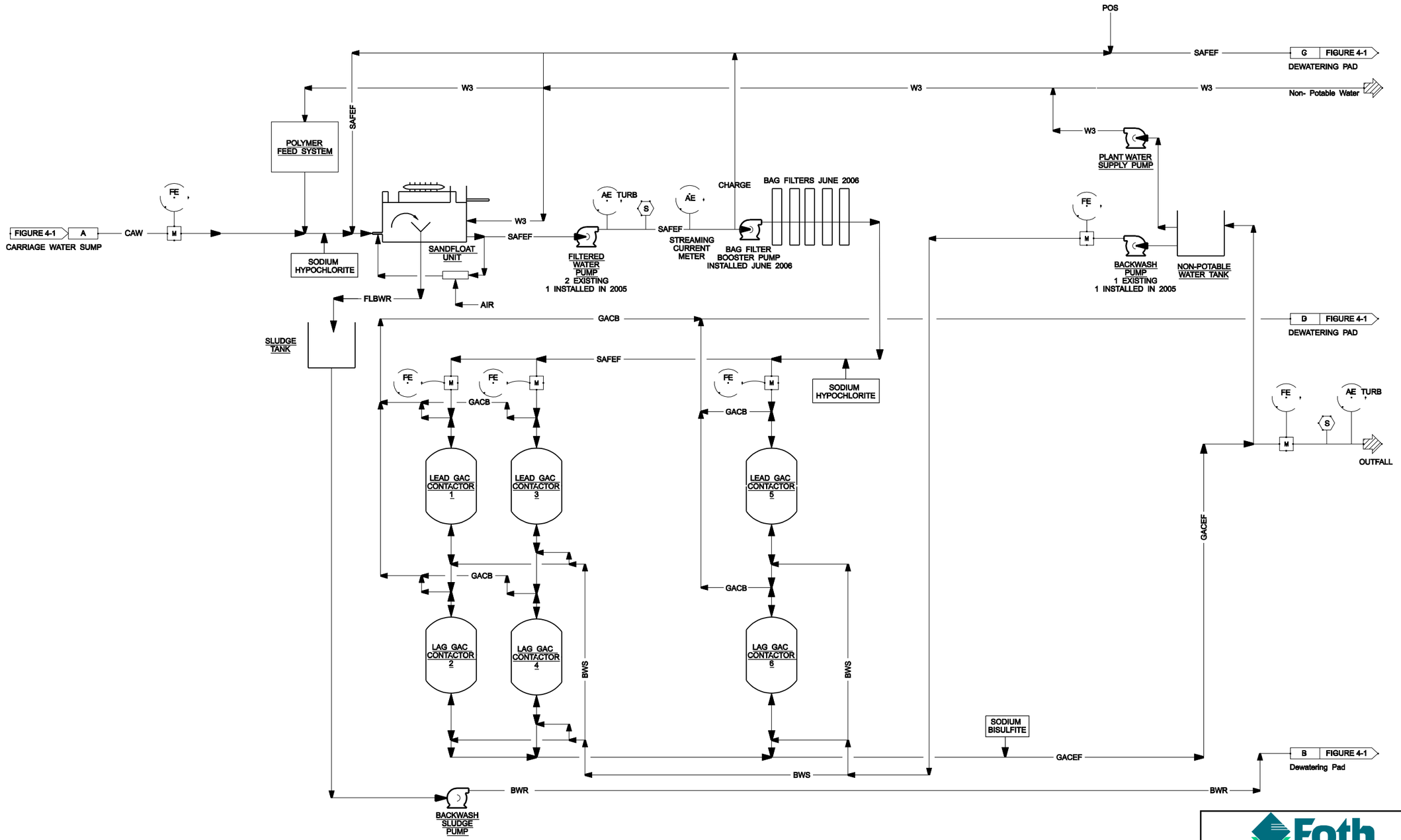
FIGURE 1-29

LOWER FOX RIVER - OU1
DEWATERING PAD AS-BUILT PLAN VIEW

Date: NOVEMBER, 2010	Revision Date:	
Drawn By: JRB2	Checked By: TAG	Scope: 08G007

X:\GB\IE\2008\08G007\CAD\RA CCR\Plant Site\Dewatering Pad.dgn
11/15/2010 JRB2



NOTE:
1. DRAWING PROVIDED BY J.F. BRENNAN CO., INC.

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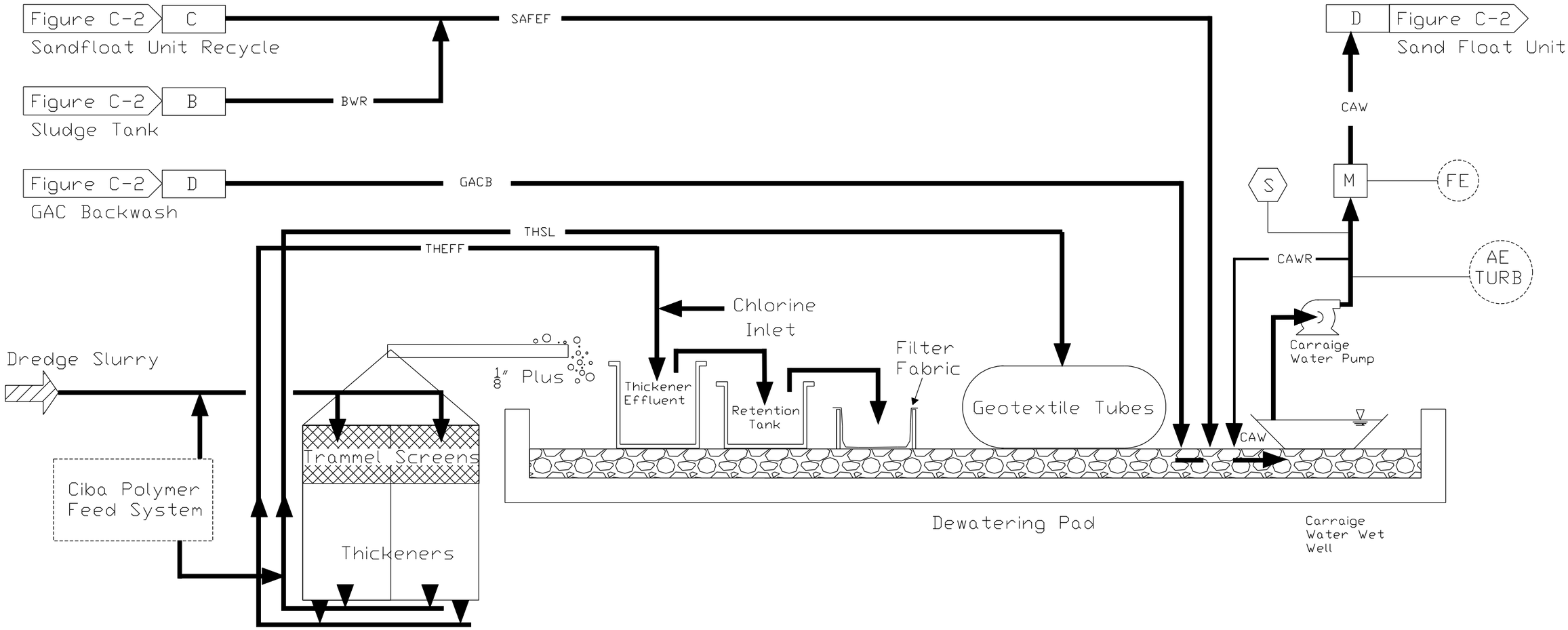
FIGURE 1-30
LOWER FOX RIVER – OU1
WATER TREATMENT PLANT AS-BUILT
PROCESS FLOW DIAGRAM

Date: NOVEMBER, 2010 | Revision Date:

NOT TO SCALE | Drawn By: JRB2 | Checked By: TAG | Scope: 08G007

X:\GB\IE\2008\08G007\CAD\RA CCR\Plant Site\Water Treatment.dgn
11/15/2010 JRB2



FLOW SCREEN INDENTIFICATION

LEGEND	SERVICE
BWR	BACKWASH RECYCLE
BWS	BACKWASH
CAW	CARRIAGE WATER
CAWR	CARRIAGE WATER RECYCLE
DW	DREDGE WATER
FLBWR	FLOAT & BACKWASH RETURN
GACB	GRANULATED ACTIVATED CARBON BACKWASH
GACEF	GRANULATED ACTIVATED CARBON EFFLUENT
POS	POLYMER SOLUTION
SAFEF	SANDFLOAT EFFLUENT
THSL	THICKENER SLURRY
THEFF	THICKENER EFFLUENT

NOTE:
1. DRAWING PROVIDED BY J.F. BRENNAN CO., INC.

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FIGURE 1-31
LOWER FOX RIVER – OU1
SEDIMENT DEWATERING SYSTEM AS-BUILT
PROCESS FLOW DIAGRAM

Date: NOVEMBER, 2010 | Revision Date:

NOT TO SCALE | Drawn By: JRB2 | Checked By: TAG | Scope: 08G007

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11/15/2010 JRB2

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G. W. PARTNERS

DOCUMENTATION DRAWINGS
LOWER FOX RIVER - OU1
SITE RESTORATION

WINNEBAGO COUNTY

WISCONSIN

REVISIONS

NO.	BY	DATE	DESCRIPTION
1			
2			
3			
4			

RECORD DRAWING OF COMPLETED CONSTRUCTION BY

RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS.
BY ______ DATE ______

DATE OF PREPARATION

	BY	DATE
SURVEYED		
DRAWN		
DESIGNED		
CHECKED		

LOWER FOX RIVER
OU1
DEWATERING AREA
PRE-CONSTRUCTION
(2004)
SITE CONDITIONS

HORIZONTAL SCALE:
0 50' 100'

PROJECT ID 08G007

FIGURE NO.
1-32

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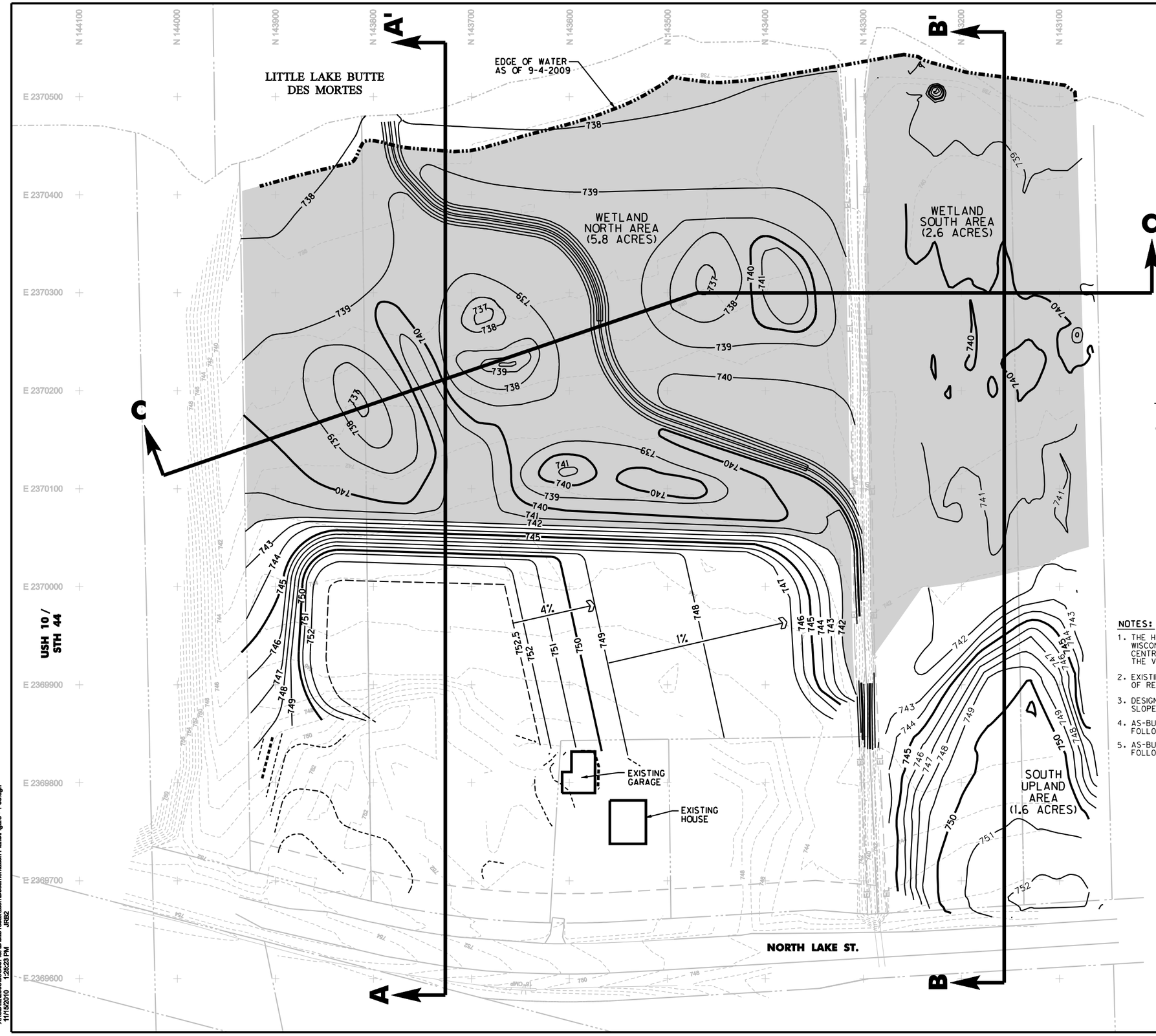
11/15/2010 10:23:14 AM JRB2



LEGEND

- PRE-RESTORATION EXISTING CONDITION CONTOUR (1' CONTOUR INTERVAL)
- 750 DESIGN RESTORATION GRADE CONTOUR (1' CONTOUR INTERVAL)
- PROPOSED WETLAND AREA

FOR CROSS SECTIONS SEE FIGURE 1-34

NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN CENTRAL ZONE). THE VERTICAL CONTROL IS REFERENCED TO NAVD 88.
2. EXISTING CONTOURS AND SPOT ELEVATIONS SHOWN IN NORTHWEST AREA OF RESTORATION FROM FOTH SURVEY DATED JULY 22, 2009.
3. DESIGN RESORATION GRADES BY CH2MHILL EXCEPT FOR REVISED 4% AND 1% SLOPE AREAS (SOUTHEAST OF EXISTING GARAGE, BY FOTH).
4. AS-BUILT SURVEYS IN NORTH AREA PERFORMED BY FOTH ON FOLLOWING DATES: SEPTEMBER 10, 23 AND OCTOBER 12, 2009.
5. AS-BUILT SURVEYS IN SOUTH AREA PERFORMED BY FOTH ON FOLLOWING DATES: JUNE 16 AND JULY 1, 2010.

Foth Infrastructure & Environment, LLC

G. W. PARTNERS

DOCUMENTATION DRAWINGS
LOWER FOX RIVER - OU1
SITE RESTORATION

WINNEBAGO COUNTY WISCONSIN

REVISIONS NO.	BY	DATE	DESCRIPTION
1			RECORD DRAWING OF COMPLETED CONSTRUCTION BY
2			RECORD DRAWINGS OF COMPLETED CONSTRUCTION
3			CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS.
4			DATE
			BY

DATE OF PREPARATION	BY	DATE
SURVEYED		
DRAWN		
DESIGNED		
CHECKED		

LOWER FOX RIVER
OU1
DEWATERING AREA
FINAL RESTORATION
ELEVATIONS

HORIZONTAL SCALE:
0 50' 100'

PROJECT ID 08G007

FIGURE NO.
1-33

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11/15/2010 1:25:23 PM
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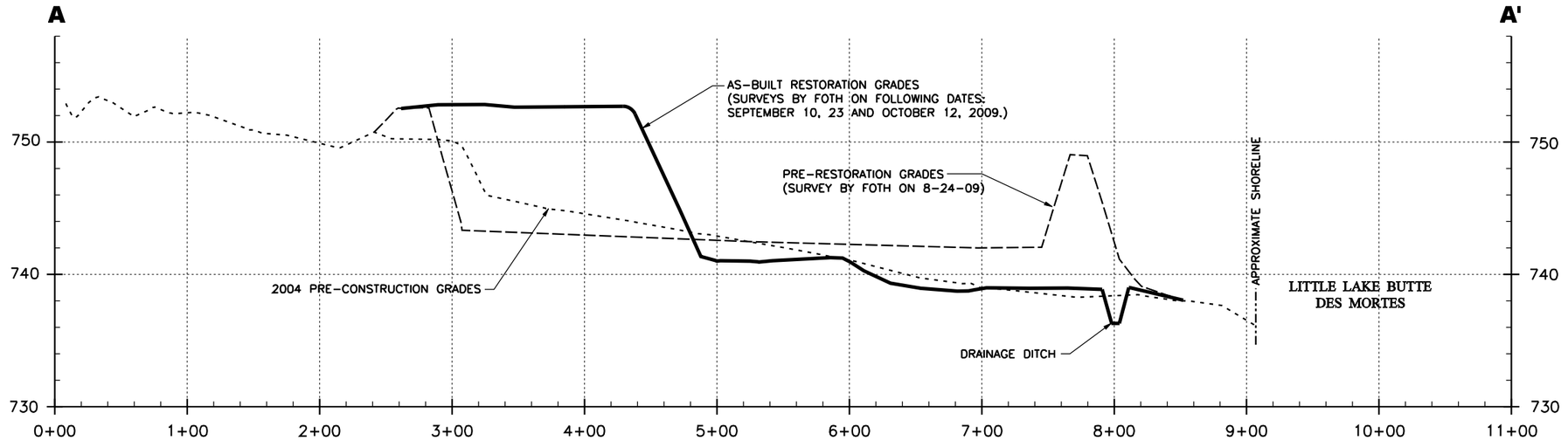

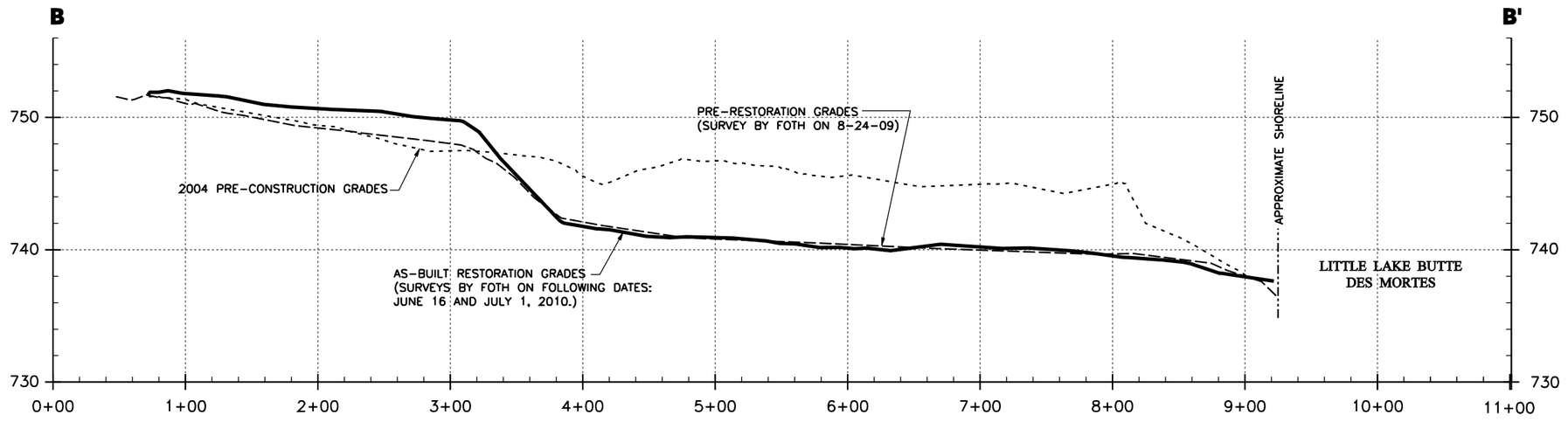

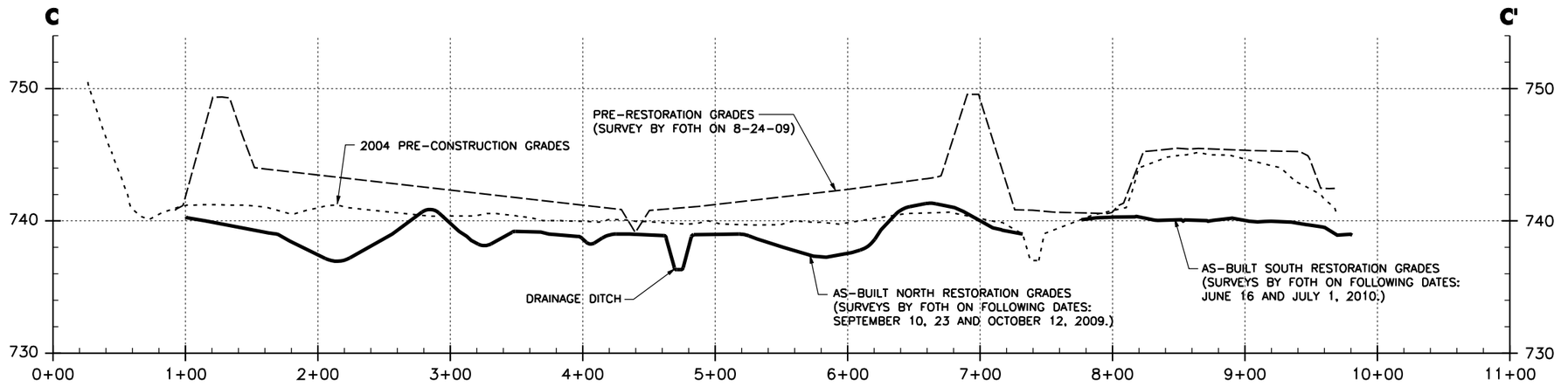

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DOCUMENTATION DRAWINGS
LOWER FOX RIVER - OU1
SITE RESTORATION

WINNEBAGO COUNTY WISCONSIN

REVISIONS			
NO.	BY	DATE	DESCRIPTION
1			
2			
3			
4			

RECORD DRAWING OF COMPLETED CONSTRUCTION BY

RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS.
BY _____ DATE _____

DATE OF PREPARATION

	BY	DATE
SURVEYED		
DRAWN		
DESIGNED		
CHECKED		

LOWER FOX RIVER
OU1
DEWATERING AREA
RESTORATION
CROSS SECTIONS

SCALE: SEE BAR SCALE

PROJECT ID 08G007

FIGURE NO.
1-34

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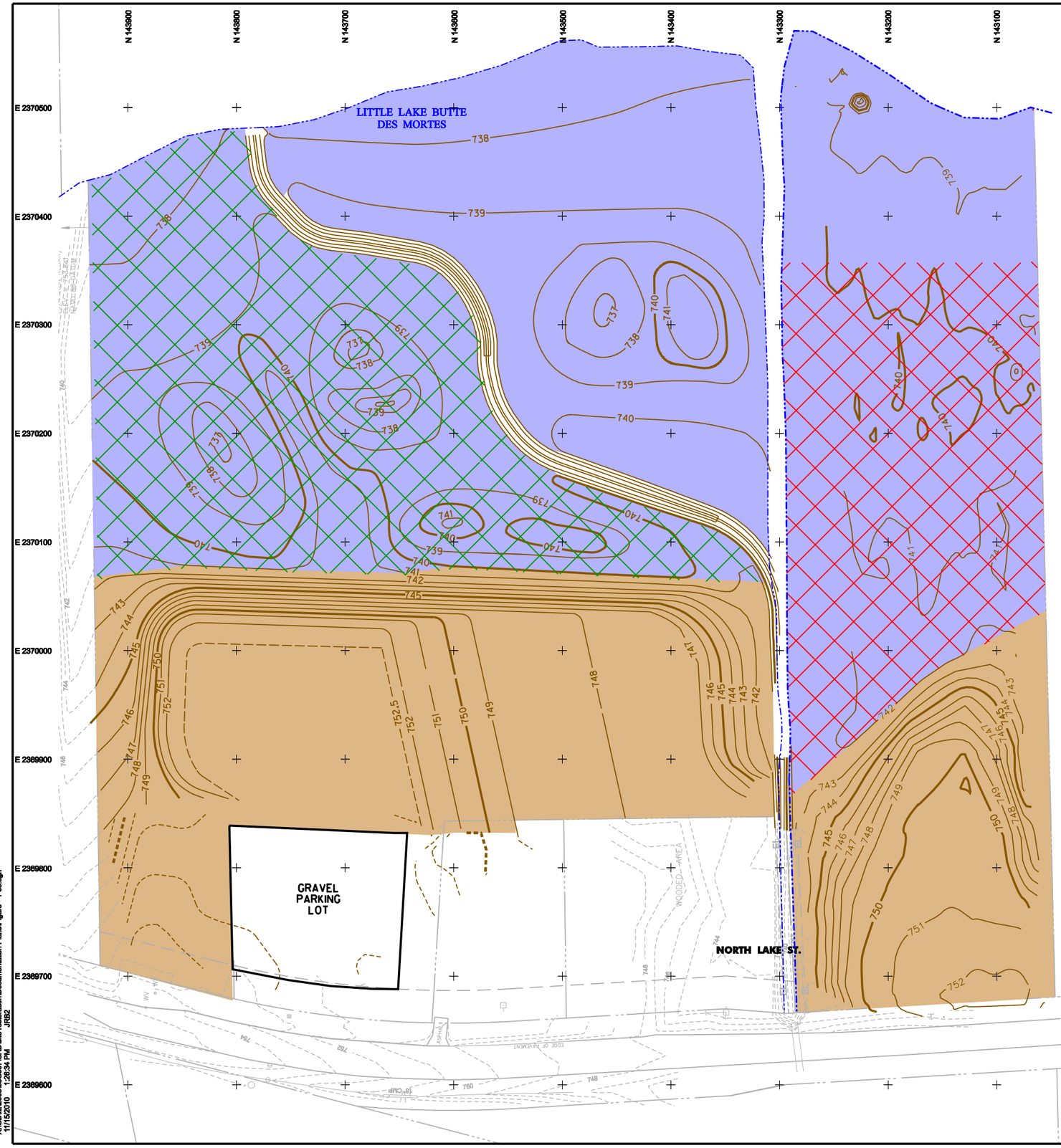
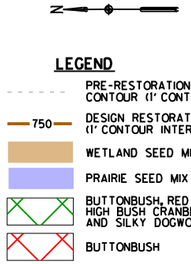
11/15/2010 10:40:17 AM JRB2





NOTES:

1. THE HORIZONTAL CONTROL IS REFERENCED TO THE NAD83 WISCONSIN STATE PLANE COORDINATE SYSTEM (WISCONSIN CENTRAL ZONE). THE VERTICAL CONTROL IS REFERENCED TO NAVD 88.

VEGETATION SCHEDULE

UPLAND NORTH	
SCIENTIFIC NAME	COMMON NAME
FORBS	
AGASTACHE FOENICULUM	ANISE HYSSOP
ALLIUM CERNUUM	NODDING ONION
ASCLEPIAS TUBEROSA	BUTTERFLY WEED
ASTER AZUREUS	SKY BLUE ASTER
ASTER LAEVIS	SMOOTH BLUE ASTER
ASTRAGALUS CANADENSIS	CANADIAN MILK VETCH
CASSIA FASCICULATA	PARTRIDGE PEA
COREOPSIS LANCEOLATA	SAND COREOPSIS
ECHINACEA PALLIDA	PALE PURPLE CONEFLOWER
ECHINACEA PURPUREA	PURPLE CONEFLOWER
LIATRIS PYCNOSTACHYA	PRAIRIE BLAZING STAR
MONARDA FISTULOSA	WILD BERGAMOT
PENSTEMON DIGITALIS	FOXGLOVE BEARDTONGUE
PETALOSTEMUM CANDIDUM	WHITE PRAIRIE CLOVER
PETALOSTEMUM PURPUREUM	PURPLE PRAIRIE CLOVER
POTENTILLA ARGUTA	PRAIRIE CINQUEFOIL
RATIBIDA PINNATA	YELLOW CONEFLOWER
RUDBECKIA HIRTA	BLACK-EYED SUSAN
RUDBECKIA SUBTOMENTOSA	SWEET BLACK-EYED SUSAN
RUDBECKIA TRILOBA	BROWN-EYED SUSAN
SOLIDAGO RIGIDA	STIFF GOLDENROD
TRADESCANTIA OHIENSIS	OHIO SPIDERWORT
VERBENA STRICTA	HOARY VERVAIN
ZIZIA AUREA	GOLDEN ALEXANDERS
GRASSES, SEDGES & RUSHES	
ANDROPOGON SCOPARIUS	LITTLE BLUESTEM PLS
BOUTELOUA CURTIPENDULA	SIDE-OATS GRAMA PLS
ELYMUS CANADENSIS	CANADA WILD RYE PLS
SPOROBOLUS CRYPTANDRUS	SAND DROPSEED
SPOROBOLUS HETEROLEPIS	NORTHERN DROPSEED PLS

UPLAND SOUTH	
GRASSES, SEDGES & RUSHES	
ANDROPOGON SCOPARIUS	LITTLE BLUESTEM PLS
BOUTELOUA CURTIPENDULA	SIDE-OATS GRAMA PLS
ELYMUS CANADENSIS	CANADA WILD RYE PLS
SPOROBOLUS CRYPTANDRUS	SAND DROPSEED
SPOROBOLUS HETEROLEPIS	NORTHERN DROPSEED PLS

WETLAND NORTH	
FORBS	
ACORUS CALAMUS	SWEET FLAG
ANGELICA ATROPURPUREA	ANGELICA
ASCLEPIAS INCARNATA	SWAMP MILKWEED
ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER
CECALIA ATRIPLICIFOLIA	PALE INDIAN PLANTAIN
EUPATORIUM MACULATUM	JOE PYE WEED
EUPATORIUM PERFOLIATUM	BONESET
HELENIUM AUTUMNALE	SNEEZEWEED
HYPERICUM PYRAMIDATUM	GREAT ST. JOHN'S WORT
IRIS VIRGINICA SHREVEI	SOUTHERN BLUE FLAG
LIATRIS SPICATA	MARSH BLAZING STAR
LOBELIA SIPHILITICA	GREAT BLUE LOBELIA
LYCOPUS AMERICANUS	WATER HOREHOUND
MIMULUS RINGENS	MONKEY FLOWER
PENTHORUM SEDOIDES	DITCH STONECROP
SILPHIUM PERFOLIATUM	CUP PLANT
SOLIDAGO OHIOENSIS	OHIO GOLDENROD
SOLIDAGO RIDDELLII	RIDDELL'S GOLDENROD
THALICTRUM DASYCARPUM	PURPLE MEADOW RUE
VERBENA HASTATA	BLUE VERVAIN
VERNONIA FASCICULATA	COMMON IRONWEED
VERONICASTRUM VIRGINICUM	CULVER'S ROOT
ZIZIA AUREA	GOLDEN ALEXANDERS
GRASSES, SEDGES & RUSHES	
ANDROPOGON GERARDII	BIG BLUESTEM PLS
CALAMAGROSTIS CANADENSIS	BLUE JOINT GRASS PLS
CAREX COMOSA	BRISTLY SEDGE
CAREX SCOPARIA	LANCE-FRUITED OVAL SEDGE
CAREX STIPATA	COMMON FOX SEDGE
CAREX STRICTA	COMMON TUSSOCK SEDGE
CAREX VULPINOIDEA	BROWN FOX SEDGE
ELYMUS VIRGINICUS	VIRGINIA WILD RYE PLS
GLYCERIA GRANDIS	REED MANNA GRASS
JUNCUS TORREYI	TORREY'S RUSH
SCIRPUS ATROVIRENS	DARK-GREEN BULRUSH
SCIRPUS CYPERINUS	WOOL GRASS
SPARTINA PECTINATA	CORD GRASS PLS

WETLAND SOUTH	
FORBS	
ACORUS CALAMUS	SWEET FLAG
ANGELICA ATROPURPUREA	ANGELICA
ASCLEPIAS INCARNATA	SWAMP MILKWEED
ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER
CACALIA ATRIPLICIFOLIA	PALE INDIAN PLANTAIN
EUPATORIUM MACULATUM	JOE PYE WEED
EUPATORIUM PERFOLIATUM	BONESET
HELENIUM AUTUMNALE	SNEEZEWEED
HYPERICUM PYRAMIDATUM	GREAT ST. JOHN'S WORT
IRIS VIRGINICA SHREVEI	SOUTHERN BLUE FLAG
LIATRIS SPICATA	MARSH BLAZING STAR
LOBELIA SIPHILITICA	GREAT BLUE LOBELIA
LYCOPUS AMERICANUS	WATER HOREHOUND
MIMULUS RINGENS	MONKEY FLOWER
PENTHORUM SEDOIDES	DITCH STONECROP
SILPHIUM PERFOLIATUM	CUP PLANT
SOLIDAGO OHIOENSIS	OHIO GOLDENROD
SOLIDAGO RIDDELLII	RIDDELL'S GOLDENROD
THALICTRUM DASYCARPUM	PURPLE MEADOW RUE
VERBENA HASTATA	BLUE VERVAIN
VERNONIA FASCICULATA	COMMON IRONWEED
VERONICASTRUM VIRGINICUM	CULVER'S ROOT
ZIZIA AUREA	GOLDEN ALEXANDERS
GRASSES, SEDGES & RUSHES	
ANDROPOGON GERARDII	BIG BLUESTEM PLS
CALAMAGROSTIS CANADENSIS	BLUE JOINT GRASS PLS
CAREX COMOSA	BRISTLY SEDGE
CAREX SCOPARIA	LANCE-FRUITED OVAL SEDGE
CAREX STIPATA	COMMON FOX SEDGE
CAREX STRICTA	COMMON TUSSOCK SEDGE
CAREX VULPINOIDEA	BROWN FOX SEDGE
ELYMUS VIRGINICUS	VIRGINIA WILD RYE PLS
GLYCERIA GRANDIS	REED MANNA GRASS
JUNCUS TORREYI	TORREY'S RUSH
SCIRPUS ATROVIRENS	DARK-GREEN BULRUSH
SCIRPUS CYPERINUS	WOOL GRASS
SPARTINA PECTINATA	CORD GRASS PLS

Foth
Foth Infrastructure & Environment, LLC

G. W. PARTNERS

DOCUMENTATION DRAWINGS
LOWER FOX RIVER - OU1
SITE RESTORATION

WINNEBAGO COUNTY WISCONSIN

NO.	BY	DATE	DESCRIPTION
1			RECORD DRAWING OF COMPLETED CONSTRUCTION BY
2			
3			RECORD DRAWINGS OF COMPLETED CONSTRUCTION
4			CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS.
			DATE
			BY

DATE OF PREPARATION

	BY	DATE
SURVEYED		
DRAWN		
DESIGNED		
CHECKED		

LOWER FOX RIVER
OU1
DEWATERING AREA
RESTORATION
SEED MIX AND
SHRUB PLANTINGS
LOCATION MAP

HORIZONTAL SCALE:
0 50' 100'

PROJECT ID 08G007

FIGURE NO.
1-35

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Table 3-1

OU1 Remedial Action Schedule

	Dredging		Sediment Load Out		Residual Sand Cover		Sand Cover		Engineered Cap		Site Restoration	
Year	**Start**	**End**	**Start**	**End**	**Start**	**End**	**Start**	**End**	**Start**	**End**	**Start**	**End**
2004	8/30/04	12/02/04	12/08/04	4/25/05	--	--	11/10/04	11/24/04	--	--	--	--
2005	7/07/05	12/02/05	9/29/05	3/21/06	--	--	--	--	--	--	--	--
2006	5/01/06	11/16/06	8/14/06	3/20/07	--	--	--	--	--	--	--	--
2007	4/02/07	11/02/07	7/9/07	3/31/08	7/10/07	8/31/07	--	--	9/06/07	10/19/07	--	--
2008	4/21/08	6/24/08	11/04/08	1/12/09	4/28/08	10/18/08	4/28/09	10/18/08	8/04/08	10/29/08	--	--
2009	--	--	--	--	--	--	4/13/09	5/08/09	4/16/09	5/19/09	5/21/09	*

2004 data from the *2004 RA Summary Report*
2005 data from the *2005 RA Summary Report*
2006 data from the *2006 RA Summary Report*
2007 data from the *2007 RA Summary Report*
2008 data from the *2008 RA Summary Report*
2009 data from the 2009 *RA Summary Report*
* To be completed in 2010.

Prepared by: NRA
Checked by: TAG

Table 3-2

OU1 Dredge Removal Area and Volume Summary by Year

Sub-area by Year	Planned Surface Area of 1.0 ppm PCB Target (ac)	Planned Volume to 1.0 ppm PCB Target (cy)	Final Design Planned 4 inch Overcut Volume (cy)	Final Design Planned Total Volume[4] (cy)	Actual Surface Area Dredged[5] (ac)	Actual Dredged Volume to 1.0 ppm PCB Target (cy)	Actual Dredged Volume including Overcut (cy)
2004							
A	--	--	--	--	3.3	4,820	7,980
Sub-Area A Re-dredge	--	--	--	--	0.6	80	220
POG2	--	--	--	--	2.9	7,367	7,370
Totals	--	--	--	--	**6.8**	**12,267**	**15,570[7]**
2005							
A	--	--	--	--	38.2	41,574	53,581
C/D2S	--	--	--	--	11.0	12,039	16,961
POG1	--	--	--	--	7.8	NA	17,701
Totals	--	--	--	--	**57.0**	**53,613**	**88,243**
2006							
C/D2S North	7.44	7,031	3,940	10,971	7.33	6,472	11,136
E1 South	1.16	3,066	623	3,689	1.16	2,823	3,427
POG2	11.30	56,584	6,000	62,584	11.16	47,452	51,696
POG3 South	32.32	29,851	17,356	42,207	32.27	9,904	11,521
POG3 North	7.68	10,189	4,127	14,316	7.67	7,605	9,921
POG4 South	5.03	16,161	2,586	18,747	4.81	9,643	10,353
Subtotal Re-Dredge Area	**--**	**--**	**--**	**--**	**5.2**	**1,546**	**3,969**
Subtotal TSCA Area[1]	1.08	1,068	--	1,068	**1.08**	**462**	**464**
Totals	**64.93**	**122,882**	**34,632**	**157,514**	**69.6**	**85,445**	**102,023**
2007							
A	10.4	4,815	5,594	10,409	10.0	2,994	7,446
C	4	2,658	2,128	4,786	3.8	2,827	5,534
D1	22.5	24,344	15,357	46,404	28.3	15,869	23,521
D1 Re-dredge	--	--	--	--	0.2	0.24	152
E1	2.6	4,920	1,401	6,321	2.6	4,943	6,463
E2[2]	2.0	7,036	1,389	9,652	2.7	5,352	6,924
E2 Re-dredge	--	--	--	--	0.5	0.48	764
E3S	4.2	5,263	24,931	82,376	27.1	28,476	36,192
E3S Re-dredge	--	--	--	--	0.1	0.08	133
E3N	--	--	545	1,833	0	0	0
E5[3]	0.8	392	423	815	0.8	46	580
E6	5.9	10,811	3,163	13,974	5.9	9,143	11,606
F	--	--	22	66	0.1	35	57
POG1	3.3	399	1,751	2,150	3.0	1,238	3,042
POG2	3.7	6,881	1,983	8,864	0	0	0
POG3 South	0.3	203	169	372	0.3	149	210
POG3 North	8.8	9,949	4,723	14,672	8.8	13,827	19,186
POG4 South	0.2	410	122	532	0	0	0
Totals	**68.7**	**78,081**	**63,701**	**203,226**	**94.0**	**84,899**	**121,810**

Sub-area by Year	Planned Surface Area of 1.0 ppm PCB Target (ac)	Planned Volume to 1.0 ppm PCB Target (cy)	Final Design Planned 4 inch Overcut Volume (cy)	Final Design Planned Total Volume[4] (cy)	Actual Surface Area Dredged[5] (ac)	Actual Dredged Volume to 1.0 ppm PCB Target (cy)	Actual Dredged Volume including Overcut (cy)
2008							
C	0.18	215	--	215	0.18	168	168
D1	1.26	1,618	680	2,298	1.26	1,271	1,904
D2N	0.84	846	453	1,299	0.84	692	813
E3S	18.75	24,134	10,085	34,219	18.75	20,110	25,954
E3N	1.54	1,812	829	2,641	1.54	908	914
E4	0.77	1,226	416	1,642	0.77	997	1,385
POG2	3.76	6,977	2,021	8,998	3.76	6,207	7,348
POG4	1.51	3,291	809	4,100	1.51	2,266	2,376
POG1 Re-dredge	0.15	--	--	--	0.14	--	96
POG3 Re-dredge	0.83	--	--	--	0.83	--	527
Totals	**29.60**	**40,119**	**15,293**	**55,412**	**29.59[6]**	**32,619**	**41,485**
Project Grand Total	**--**	**--**	**--**	**--**	**257.0**	**268,843**	**369,131[7]**

1. Included in POG3 South area and Volume.
2. Includes 0.04 acres in Sub-area E3N.
3. Includes 0.01 acres in Sub-area E4.
4. Includes allowances for 4-inch overcut.
5. Total includes re-dredge areas acreage.
6. Includes 4.89 acres that had been previously dredged (in 2006/2007) and was re-dredged in 2008, as well as 24.7 acres of first-pass dredging.
7. An additional 2,400 cy of native clay material was removed from Sub-areas D and E for installation of the WTP effluent pipe. Adding the volume to the volume of PCB impacted sediment removed results in a total OU1 dredge volume of 371,531 cy.

Prepared by: NRA
Checked by: TAG

Table 3-3

Total PCB Mass Removed from OU1

Year	Estimated PCB Mass Removed[1] lbs (kg)
2004	40 (18)
2005	423 (192)
2006	1,059 (480)
2007	226 (103)
2008	78 (35)
Total	**1,826 (828)**

Table taken from the *2008 RA Summary Report,* Table 4-10, page 38.
1. Includes recharacterization data.

Prepared by: SGL
Checked by: TAG

Table 3-4

Dewatered Sediment Free Liquids and Percent Solids Data Summary

Year	Sub Area	Paint Filter Test (Free Liquids)	Percent Solids Average (QA)	Percent Solids Range (QA)	Percent Solids Average (QC)	Percent Solids Range (QC)	Percent Solids Annual Weighted Average (QA)
2004[1]	A	--	45.2	25.0 - 82.0	--	--	39.3
	POG2	--	32.1	25.0 - 47.0	--	--	
2005	A	Pass	46.6	29.0 - 64.4	--	--	40.6
	C/D2S	Pass	29.0	23.8 - 32.6	--	--	
	POG1	Pass	31.5	25.2 - 39.5	--	--	
2006	C/D2S	Pass	57.3	50.4 - 62.3	48.3	30.5 - 60.3	37.6
	POG2	Pass	31.2	25.4 - 39.9	32.6	25.0 - 40.5	
	POG3	Pass	37.4	25.5 - 70.0	39.5	25.6 - 71.7	
	POG4	Pass	44.9	39.9 - 49.0	43.2	30.5 - 54.6	
	E1	Pass	29.2	29.2	28.9	28.9	
2007	A	Pass	41.2	35.3 - 45.3	43.7	34.6 - 47.8	34.9
	C	Pass	38.5	33.2 - 45.3	39.3	32.7 - 47.7	
	D1	Pass	36.5	30.0 - 45.3	37.6	30.1 - 47.8	
	E1	Pass	36.7	32.8 - 39.0	36.2	31.1 - 42.8	
	E2	Pass	28.5	23.2 - 39.0	32.4	23.4 - 42.8	
	E3	Pass	31.6	23.2 - 40.5	33.6	23.4 - 42.8	
	E5	Pass	32.8	30.0 - 35.3	34.2	31.1 - 37.7	
	E6	Pass	33.5	30.0 - 37.6	35.8	30.1 - 41.1	
	F	Pass	29.02	23.2 - 35.1	29.37	23.4 - 31.9	
	POG1	Pass	38.5	33.2 - 45.3	39.6	32.7 - 47.7	
	POG3	Pass	37.1	33.2 - 41.4	36.2	32.7 - 42.2	
2008	C	Pass	38.1	38.1	38.8	38.5 - 39.2	34.8
	D1	Pass	33.8	32.2 – 35.6	33.5	28.8 – 35.3	
	D2N	Pass	33.9	32.2 – 35.6	33.7	28.8 – 35.7	
	E3N	Pass	34.2	32.2 – 35.2	33.9	28.8 – 36.7	
	E3S	Pass	34.8	31.3 – 40.3	34.6	28.8 – 39.2	
	E4	Pass	35.5	32.2 – 40.3	34.3	30.3 – 36.8	
	POG1	Pass	38.1	38.1	38.8	38.5 – 39.2	
	POG2	Pass	34.7	32.2 – 38.1	35.1	28.8 – 39.2	
	POG3	Pass	33.8	32.2 – 35.6	33.6	28.8 – 35.7	
	POG4	Pass	36.6	34.8 – 38.1	33.8	34.6 – 39.2	
2004-2008							37.2

2004 data from the *2004 RA Summary Report,* Appendix B-2
2005 data from the *2005 RA Summary Report,* Table 4-2, page 50.
2006 data from the *2006 RA Summary Report,* Table 5-2, page 5-14.
2007 data from the *2007 RA Summary Report,* Table 5-2, page 54.
2008 data from the *2008 RA Summary Report,* Table 5-2, page 46.
Dredging operations were completed in 2008; therefore, there is no 2009 data.

1. In 2004, two methods were used to sample the sediment tubes (pipe insertion and auger technique). For reporting purposes, only data collected from the Auger technique were used to calculate the summary statistics.

Prepared by: NRA
Checked by: TAG

Table 3-5

Summary of OU1 Non-TSCA Sediment Disposal (Veolia Hickory Meadows Landfill)

Year	Sediment Removed (cy)	Sediment Removed (tons)[1]	Tons/cy
2004	17,970	18,885	1.05
2005	85,282	83,268	0.98
2006	101,559	99,300	0.99
2007	121,810	120,529	0.99
2008	41,485	33,310	0.80
Project Total	**368,106[2]**	**355,292**	**0.97**

1. Tons calculated by adding all weight tickets for each truck from the landfill.
2. Volume removed does not include TSCA materials removed from OU1.

Prepared by: NRA
Checked by: TAG

Table 3-6

Summary of OU1 TSCA Sediment Disposal
(EQ Wayne Disposal)

Year	Sediment Removed (cy)	Sediment Removed (tons)[1]	Tons/cy
2005	2,961	3,130	1.06
2006	464	626	1.35
Total	**3,425**	**3,756**	**1.10**

1. Tons calculated by adding all weight tickets for each truck from the landfill.

Prepared by: NRA
Checked by: TAG

Table 3-7

Summary of Laboratory Analytical Results for Water Treatment Plant Effluent

Year	Parameter	Minimum	Maximum	Average	Standard Deviation	WTP Effluent Expectations
2004	TSS (mg/l)	0.5	87	13.13	12.87	5 (monthly average) 10 (daily peak)
	BOD (mg/l)	1.0	24.0	5.43	4.78	10.0
	Ammonia Nitrogen (mg/l)	0.16	43.0	12.12	13.9	67.0
	Total PCBs (µg/L)[1]	<0.12	<0.26	<0.12	.02	<0.1-0.5
2005	TSS (mg/l)	0.155	5.40	1.22	0.91	5 (monthly average) 10 (daily peak)
	BOD (mg/l)	1.0	4.5	1.2	0.60	10.0
	Ammonia Nitrogen (mg/l)	0.10	2.10	0.44	0.38	67.0
	Total PCBs (µg/L)[1]	<0.12	<0.15	<0.12	0.004	<0.1-0.5
2006	TSS (mg/l)	0.40	22	3.0	3.3	5 (monthly average) 10 (daily peak)
	BOD (mg/l)	1.0	22	3.1	3.7	10.0
	Ammonia Nitrogen (mg/l)	0.10	23	4.3	5.1	67.0
	Total PCBs (µg/L)[1]	<0.12	<0.17	<0.12	0.01	<0.1-0.5
2007	TSS (mg/l)	0.2	14.0	1.7	1.7	5 (monthly average) 10 (daily peak)
	BOD (mg/l)	1.0	46.0	3.0	4.8	10.0
	Ammonia Nitrogen (mg/l)	0.3	11.0	1.6	1.9	67.0
	Total PCBs (µg/L)[1]	<0.12	<0.13	<0.12	0.004	<0.1-0.5
2008	TSS (mg/l)	0.16	6.0	1.4	1.41	5 (monthly average) 10 (daily peak)
	BOD (mg/l)	1.0	13.7	2.6	2.25	10.0
	Ammonia Nitrogen (mg/l)	0.25	5.3	1.6	1.32	67.0
	Total PCBs (µg/L)[1]	<0.12	<0.16	<0.12	0.007	<0.1-0.5
2009	TSS (mg/l)	0.1	8.34	1.3	1.82	5 (monthly average) 10 (daily peak)
	BOD (mg/l)	1.0	3.4	1.2	0.6	10.0
	Ammonia Nitrogen (mg/l)	0.13	3.8	1.10	0.92	67.0
	Total PCBs (µg/L)[1]	<0.06	<0.13	<0.12	0.01	<0.1-0.5

2004 data from the *2004 RA Summary Report,* Appendix D.
2005 data from the *2005 RA Summary Report,* Table 8-2, page 71.
2006 data from the *2006 RA Summary Report,* Table 10-2, page 10-4.
2007 data from the *2007 RA Summary Report,* Table 10-3, page 78.
2008 data from the *2008 RA Summary Report,* Table 9-2, page 67.
2009 data from the 2009 *RA Summary Report,* Table 4-2, page 16.
For values less than the Limit of Detection (LOD), half the LOD value was used for minimum, maximum, average, and standard deviation calculations.
1. All laboratory analytical results for PCBs were below the laboratory LOD.

Prepared by: NRA
Checked by: TAG

Table 3-8

Summary of WTP Final Effluent Low-Level Mercury and QC TSS Results

Year	Parameter	Minimum	Maximum	Average	Standard Deviation
2004	Low Level Mercury (ng/L)	0.09	3.25	1.24	1.36
	Quality Control TSS (mg/L)	NA	NA	NA	NA
2005	Low Level Mercury (ng/L)	0.32	4.46	1.31	0.88
	Quality Control TSS (mg/L)	0.0	2.6	0.80	0.80
2006	Low Level Mercury (ng/L)	0.42	15.2	2.0	2.5
	Quality Control TSS (mg/L)	0.50	14.0	2.0	2.5
2007	Low Level Mercury (ng/L)	0.28	5.07	2.6	1.2
	Quality Control TSS (mg/L)	0.16	3.70	1.1	0.82
2008	Low Level Mercury (ng/L)	1.67	14.8	4.6	3.92
	Quality Control TSS (mg/L)	0.16	1.6	0.62	0.51

2004 data from the *2004 RA Summary Report,* Appendix D.
2005 data from the *2005 RA Summary Report,* Table 8-3, page 71.
2006 data from the *2006 RA Summary Report,* Table 10-4, page 10-4.
2007 data from the *2007 RA Summary Report,* Table 10-6, page 79.
2008 data from the *2008 RA Summary Report,* Table 9-4, page 68.
For values less than the LOD, half the LOD value was used for calculations.
Dredging operations were completed in 2008; therefore, the WTP operated on an as need basis and no LL Hg samples were collected during the 2009 season.

Prepared by: NRA
Checked by: TAG

Table 3-9

Summary of In-River Turbidity Monitoring and TSS Results During Dredging

Year	Parameter	Minimum	Maximum	Average	Standard Deviation
2004	Hand-Held Turbidity (NTU)	5.2	160.0	26.05	18.07
	Telemetric Turbidity (NTU)	3.0	1100.0	33.87	92.83
	TSS (mg/l)	.03	160.0	25.15	20.07
2005	Hand-Held Turbidity (NTU)	2.2	103.7	31.7	17.9
	Telemetric Turbidity (NTU)	1.7	80.2	27.0	14.9
	TSS (mg/l)	5.1	160.0	35.9	22.8
2006	Hand-Held Turbidity (NTU)	0.5	91.8	16.9	13.1
	Telemetric Turbidity (NTU)	0.0	989.5	16.2	20.5
	TSS (mg/l)	5.6	110.0	20.6	13.0
2007	Hand-Held Turbidity (NTU)	0.4	120.5	18.7	17.4
	Telemetric Turbidity (NTU)	0.2	114.6	16.6	17.9
	TSS (mg/l)	0.3	110.0	20.6	17.4
2008	Hand-Held Turbidity (NTU)	1.2	29.4	9.0	6.5
	Telemetric Turbidity (NTU)	2.3	27.1	7.5	6.7
	TSS (mg/l)	2.2	46.0	14.1	9.8

2004 data from the *2004 RA Summary Report,* Appendix D.
2005 data from the *2005 RA Summary Report,* Table 8-1, page 69.
2006 data from the *2006 RA Summary Report,* Table 10-1, page 10-2.
2007 data from the *2007 RA Summary Report,* Table 10-1, page 76.
2008 data from the *2008 RA Summary Report,* Table 9-1, page 66.
Dredging operations were completed in 2008; therefore, telemetric turbidity was not utilized 2009.

Prepared by: NRA
Checked by: TAG

Table 3-10

Air Monitoring Results Summary

Year	Parameter	Minimum	Maximum	Average	Standard Deviation
2004	Total Air Volume Sampled (Total m^3)	451.17	1313.56	1095.82	103.81
	Calculated PCB Conc'n ($\mu g/m^3$)	$\leq$ 0.00038	$\leq$ 0.0011	$\leq$ 0.00046	$\leq 8.0 \times 10^{5}$
2005	Total Air Volume Sampled (Total m^3)	767.92	1184.75	1094.30	58.44
	Calculated PCB Conc'n ($\mu g/m^3$)	$\leq$ 0.00042	$\leq$ 0.00065	$\leq$ 0.00046	$\leq 2.92 \times 10^{5}$
2006	Total Air Volume Sampled (Total m^3)	991.9	1142.5	1082.6	35.9
	Calculated PCB Conc'n ($\mu g/m^3$)	$\leq$ 0.00044	$\leq$ 0.00050	$\leq$ 0.00046	$\leq 1.59 \times 10^{5}$
2007	Total Air Volume Sampled (Total m^3)	1069.7	1130.65	1094.6	15.0
	Calculated PCB Conc'n ($\mu g/m^3$)	$\leq$ 0.00045	0.001	0.00068	$\leq 2.6 \times 10^{4}$
2008	Total Air Volume Sampled (Total m^3)	1102.71	1161.75	1136.62	20.26
	Calculated PCB Conc'n ($\mu g/m^3$)	$\leq$ 0.00043	$\leq$ 0.00046	$\leq$ 0.00045	$\leq$ 0.00001

2004 air data from the *2004 RA Summary Report,* Appendix D.
2005 air data from the *2005 RA Summary Report,* Table 8-4, page 73.
2006 air data from the *2006 RA Summary Report,* Table 10-5, page 10-7.
2007 air data from the *2007 RA Summary Report,* Table 10-7, page 82.
2008 air data from the *2008 RA Summary Report,* Table 9-5, page 71.
Dredging operations were completed in 2008; therefore, no air monitoring was conducted in 2009.

Prepared by: NRA
Checked by: TAG

Table 3-11

OU1 Completed Sand Cover Placement Areas

Year	Sub-Area	3" Sand Cover Design (ac)	3" Sand Cover Placed (ac)	6" Sand Cover Design (ac)	6" Sand Cover Placed (ac)	6" Residual Sand Design (ac)	6" Residual Sand Placed (ac)	9" Residual Sand Design (ac)	9" Residual Sand Placed (ac)
2007	POG3					**5.4**	**5.4**		
2008	A	0.2	0.2	--	--	14.4	14.4	--	--
	C/D2S	--	--	1.5	1.5	1.9	2.0[1]	--	--
	D1	1.2	1.2	1.3	1.3	1.1	1.2[1]	--	--
	D2N	1.9	1.9	2.5	2.5	--	--	--	--
	E1	12.2	12.1[1]	14.3	14.3	0.3	0.3	--	--
	E2	9.3	5.6	3.7	1.4	1.2	1.2	--	--
	E3N	3.3	3.2	2.3	2.1	--	--	--	--
	E3S	6.3	6.3	10.1	10.0[1]	0.6	0.6	--	--
	E4	4.3	4.3	1.7	1.7	--	--	--	--
	E5	6.3	5.9[2]	4.3	4.1	--	--	--	--
	E6	0.2	0.0[2]	--	--	--	--	--	--
	F	7.1	4.3[2]	3.7	3.7	--	--	--	--
	POG1	--	--	--	--	0.1	0.1	--	--
	POG2	--	--	--	--	3.5	3.5	4.5	4.5
	POG3N	--	--	--	--	2.0	2.0	--	--
	POG3S	2.5	2.5	1.0	1.0	0.7	0.7	--	--
	POG4	9.3	9.3	0.3	0.3	0.6	0.6	--	--
	Total	**64.1**	**56.8**	**46.7**	**43.9**	**26.4**	**26.6**	**4.5**	**4.5**
2009	E2	3.6	3.6	2.3	2.3	--	--	--	--
	E3N	0.05	0.05	0.2	0.2	--	--	--	--
	E5	0.05	0.05	0.2	0.2	--	--	--	--
	Total	**3.7**	**3.7**	**2.7**	**2.7**	**--**	**--**	**--**	**--**

2007 data from the *2007 RA Summary Report,* Table 11-1, page 85.
2008 data from the *2008 RA Summary Report,* Table 10-1, page 75.
2009 data from the *2009 RA Summary Report,* Table 6-1, page 22.

1. Difference in design acreage vs. placed acreage is due to rounding.
2. A portion of the sub-area sand cover was removed from the OU1 RA scope of work per approval received from A/OT. See memo dated September 12, 2008, in the *2008 RA Summary Report, Appendix B*.

Prepared by: NRA
Checked by: TAG

Table 3-12

Quality Assurance 6-inch Residual Sand Cover Thickness Verification Results Summary[1]

Year	SCU	Minimum	Maximum	Average Thickness by Sand Cores	Standard Deviation	Average Thickness by Hydrographic Surveys
2007[2]	1-6”RS	6.24	18.84	10.8	3.36	2.52
	2-6”RS	6.84	17.04	10.56	3.24	3.84
	3-6”RS	6.48	17.16	9.72	2.88	2.64
	4-6”RS	5.4	15.24	9.24	2.4	3.48
2008[3]	1-6”RS	6.2	11.6	8.4	1.4	8.2
	2-6"RS	6.7	13.6	9.9	2.1	9.2
	3-6"RS	6.2	12.7	8.7	1.8	7.7
	4-6"RS	6.0	12.7	9.6	1.9	7.6
	5-6"RS	6.5	12.0	9.1	1.4	7.7
	6-6"RS	6.5	12.4	9.5	2.0	8.3
	7-6"RS	6.6	10.6	8.7	1.0	7.2
	8-6"RS	7.2	13.8	10.3	2.1	9.6
	9-6"RS	6.4	10.1	8.3	1.1	8.0
	10-6"RS	7.1	11.8	9.4	1.6	9.0

2007 data from the *2007 RA Summary Report,* Tables 11-4 through 11-6, pages 93, 94, 98, and 100.
2008 data from the *2008 RA Summary Report,* Table 10-7, page 91.
All residual sand cover areas were complete in 2008.

1. All values reported in inches.
2. Primary sampling method was the Russian Peat Borer.
3. Primary sampling method was the Vacuum Push Corer.

Prepared by: NRA
Checked by: TAG

Table 3-13

Quality Assurance 9-inch Residual Sand Cover Thickness Verification Results Summary[1]

Year	Area	Minimum	Maximum	Average	Standard Deviation	Average Thickness by Hydrographic Surveys
2008	1-9"RS	9.0	13.6	10.3	1.5	10.2
	2-9"RS	6.0	12.0	9.9	0.9	10.1

Table taken from the *2008 RA Summary Report,* Table 10-8, page 92.
1. All values reported in inches.

Prepared by: NRA
Checked by: TAG

Table 3-14

Quality Control 3-inch Sand Cover Thickness Verification Results Summary[1]

Year	Area	Minimum	Maximum	Average	Standard Deviation
2008	1-3"	3.4	6.7	4.6	1.3
	2-3"	4.0	9.1	6.8	2.3
	3-3"	3.5	7.3	5.3	1.6
	4-3"	3.4	5.8	4.0	1.0
	5-3"	2.4	3.7	3.0	0.6
	6-3"	3.2	6.2	4.1	1.2
	7-3"	3.6	5.0	4.6	0.6
	8-3"	3.4	5.5	4.3	0.8
	9-3"	4.0	5.0	4.4	0.4
	10-3"	3.6	4.6	4.1	0.3
	11-3"	3.6	5.5	4.3	0.8
	12-3"	3.4	4.9	4.2	0.6
	13-3"	2.8	3.6	3.2	0.3
	14-3"	3.6	7.9	5.2	1.7
	15-3"	3.0	5.0	4.4	0.8
	16-3"	3.1	4.4	3.9	0.5
	17-3"	3.6	6.0	5.2	1.0
	18-3"	3.8	5.0	4.5	0.5
	19-3"	4.1	4.8	4.6	0.3
2009	20-3"	3.1	4.4	3.9	0.52
	21-3"	3.4	4.1	3.6	0.30

2008 data from the *2008 RA Summary Report,* Table 10-9, page 94.
2009 data from the *2009 RA Summary Report,* Table 6-6, page 32.
1. All values reported in inches.

Prepared by: NRA
Checked by: TAG

Table 3-15

Quality Control 6-inch Sand Cover Thickness Verification Results Summary[1]

Year	Area	Minimum	Maximum	Average	Standard Deviation
2008	1-6"	5.8	8.9	7.2	1.4
	2-6"	5.3	9.6	7.8	1.7
	3-6"	3.5	9.2	6.4	1.5
	4-6"	4.8	7.7	6.2	1.1
	5-6"	3.5	10.2	6.2	1.5
	6-6"	4.2	13.3	6.9	3.7
	7-6"	6.0	8.9	7.6	1.1
	8-6"	3.2	7.7	6.7	1.9
	9-6"	5.6	7.6	6.3	0.7
	10-6"	3.7	11.5	7.0	3.5
	11-6"	6.2	10.2	8.5	1.5
	12-6"	8.0	9.5	8.6	0.6
	13-6"	3.5	8.2	6.8	1.9
	14-6"	6.0	9.4	7.5	1.5
	15-6"	9.6	9.6	9.6	NA
2009	16-6”	6.1	6.7	6.4	0.25

2008 data from the *2008 RA Summary Report,* Table 10-10, page 95.
2009 data from the *2009 RA Summary Report,* Table 6-7, page 32.
1. All values reported in inches.

Prepared by: NRA
Checked by: TAG

Table 3-16

OU1 Completed Engineered Cap Placement Areas

Sub Area	2007 RA Cap Placement Test Area	2008-2009 RA Planned Total Placement[1]	2008 RA				2009 RA	2007-2008-2009 RA		
			Reported Placement[2]	Actual Placement[3]	Overlap with 2007 areas[4]	Adjusted Placement[5]	Actual Placement[6]	Actual Total Placement[7]	Adjusted Total Placement[8]	Actual Minus Planned Total Placement[9]
D1		-	-	0.06	-	0.06	-	0.06	0.06	0.06
E1		36.5	36.50	37.3	-	37.3	-	37.3	37.3	0.8
E2	4.0	61.8	31.8	31.2	0.86	30.3	30.6	65.8	64.9	0.0
E3 North		0.5	0.50	0.4	0.01	0.4	0.04	0.4	0.4	(0.1)
E3 South		7.9	7.90	8.05	-	8.05	-	8.05	8.05	0.15
E4		0.3	0.30	0.29	-	0.29	-	0.29	0.29	(0.0)
E5		2.0	0.4	0.4	-	0.4	1.6	2.0	2.0	0.0
POG2		-	-	0.02	-	0.02	-	0.02	0.02	0.02
POG3		-	-	0.01	-	0.01	-	0.01	0.01	0.01
POG4		0.9	0.90	0.9	-	0.9	-	0.9	0.9	0.0
Total	**4.0**	**109.9**	**78.30**	**78.6**	**0.87**	**77.7**	**32.2**	**114.8**	**113.9**	**0.9**

1 Data from *2008-2009 RA Work Plan*. Estimate includes overlap with 2007 Cap Placement Test Areas.

2 2008 data from *2008 RA Summary Report*, Table 11-1.

3 From total accounting of all 2008-2009 implementation shapes over all OU1 sub-areas (calculated by SGL2, 1/11/2010), minus 2009 implementation areas.

4 From comparison of implementation shapes, with shapes of 2007 Cap Placement Test Areas, discussion provided in 2009 RA Summary Report.

5 Actual placement from 2008 RA, minus overlap with 2007 areas.

6 2009 data from *2009 RA Summary Report*, Table 7-1, no adjustments required.

7 Actual placement from 2008 RA, plus 2009 RA placement, includes overlap placement into 2007 Cap Placement Test areas of 0.87 acres.

8 Adjusted total placement, total reduced by subtracting overlap with 2007 areas.

9 Difference between 'Actual Total Placement' and '2008-2009 RA Planned Total Placement'. Does not account for the 4 acres placed in 2007.

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Checked by: TAG

Table 3-17

Quality Assurance Sand Layer of the Cap Thickness Verification Results Summary[1]

Year	Area	Minimum	Maximum	Average Thickness	Standard Deviation	Average Thickness by Hydrographic Surveys
2007[2]	CCU-1A	4.2	8.04	6.12	1.44	2.16
	CCU-1B	3.84	6.96	5.04	1.08	2.64
	CCU-2	3.0	10.68	6.6	1.8	6.6
2008[4]	SCU-1	3.8	9.0	6.3	1.30	4.0
	SCU-2	1.4[3]	14.4	6.8	2.60	6.0
	SCU-3	4.7	8.4	7.2	0.88	4.7
	SCU-4	3.4	8.3	6.4	1.30	4.3
	SCU-5	3.7	7.7	6.0	1.06	1.8
	SCU-6	3.6	12.2	5.8	1.81	1.9
	SCU-7	4.1	8.4	5.3	1.00	5.8
	SCU-8	3.8	6.6	5.2	0.78	4.2
	SCU-9	3.2	6.6	4.7	0.96	2.9
	SCU-10	3.1	5.4	4.4	0.66	2.5
	SCU-11	2.9[3]	5.8	4.1	0.68	3.5
	SCU-12	2.8[3]	7.2	4.9	1.12	4.0
	SCU-13	4.1	6.1	5.0	0.75	2.9
	SCU-14	3.0	6.4	4.5	1.00	3.2
	SCU-15	3.2	6.1	4.3	0.67	2.8
	SCU-16	3.0	6.2	4.3	0.73	4.3
	SCU-17	3.4	4.9	4.2	0.55	4.2
	SCU-18	2.5[3]	5.5	4.0	0.72	5.3
	SCU-19	3.5	6.9	4.9	0.84	4.2
	SCU-20	3.6	5.5	4.7	0.51	5.4
	SCU-21	2.9[2]	6.0	4.5	0.93	6.4
	SCU-22	3.6	6.0	4.8	0.69	6.1
	SCU-23	3.4	6.8	5.0	0.97	6.8
	SCU-24	3.1	5.3	4.5	0.60	4.7
	SCU-25	3.4	6.2	5.2	0.83	5.0
	SCU-26	3.5	9.6	5.1	1.49	5.9
	SCU-27	3.6	5.4	4.3	0.52	5.8
2009[4]	SCU-28	2.9[3]	5.9	4.1	0.76	3.62
	SCU-29	3.4	5.3	4.3	0.50	2.76
	SCU-30	3.1	6.7	4.5	0.94	2.46
	SCU-31	1.1	4.9	3.7	0.82	1.27
	SCU-32	3.8	6.6	5.0	0.77	1.3
	SCU-33	3.6	8.4	5.7	1.01	1.53
	SCU-34	3.6	8.3	5.3	1.04	3.02
	SCU-35	3.4	6.6	5.3	0.83	3.94
	SCU-36	4.7	6.8	5.8	0.60	3.96
	SCU-37	4.1	9.0	5.7	1.10	2.53
	SCU-38	3.6	6.0	5.4	0.68	3.08

2007 data from the *2007 Cap Placement Test Summary,* Table 5.
2008 data from the *2008 RA Summary Report,* Table 11-6, page 112.
2009 data from the *2009 RA Summary Report,* Table 7-6, page 47.

1. All values are reported in inches.
2. Primary sampling method was the sediment trap.
3. 3-inch minimum thickness achieved through application of approved statistical methods.
4. Primary sampling method was the Vacuum Push Corer.

Prepared by: NRA
Checked by: TAG

Table 3-18

Quality Assurance Armor Stone Thickness Verification Results Summary[1]

Year	Area	Minimum	Maximum	Average Thickness Sediment Trap	Standard Deviation	Average Thickness by Hydrographic Surveys
2007	CCU-1A	3.96[2]	12.0	7.44	2.64	5.76
	CCU-1B	4.92	9.48	6.72	1.2	5.4
	CCU-2	3.96[2]	8.04	6.6	0.96	2.04
2008	CCU -1	4.0	10.0	7.32	1.77	5.3
	CCU -2	4.5	11.0	6.96	1.70	4.1
	CCU -3	5.0	8.5	6.47	0.96	4.3
	CCU -4	4.0	10.0	6.67	1.57	4.6
	CCU -5	4.0	11.5	6.16	2.06	5.2
	CCU -6	4.0	8.0	6.23	1.04	4.8
	CCU -7	4.5	7.0	5.91	0.69	2.5
	CCU -8	3.5[2]	8.0	6.11	1.34	3.2
	CCU -9	4.0	8.0	5.99	0.93	2.8
	CCU -10	2.0[2]	7.0	5.45	1.16	2.5
	CCU -11	5.0	12.0	7.26	1.94	3.2
	CCU -12	3.75[2]	11.0	6.78	1.47	3.7
	CCU -13	4.0	12.0	6.68	1.89	3.5
	CCU -14	4.0	8.5	6.29	1.21	3.4
	CCU -15	3.5[2]	9.0	6.51	1.35	3.4
	CCU -16	3.5[2]	12.0	6.54	1.81	2.9
	CCU -17	2.0[2]	12.0	6.52	2.28	2.8
	CCU -18	4.0	13.0	7.04	2.54	1.9
	CCU -19	4.25	13.0	7.13	2.90	2.0
	CCU -20	3.5[2]	12.0	6.22	2.32	2.6
	CCU -21	5.0	8.25	6.6	0.92	2.4
	CCU -22	4.25	10.0	6.89	1.68	2.3
	CCU -23	4.0	11.0	6.63	1.66	1.4
	CCU -24	3.0[2]	10.0	5.95	1.58	2.5
	CCU -25	4.0	9.75	6.32	1.17	3.4
	CCU -26	4.83	11.0	6.28	1.52	2.5
	CCU -27	4.0	7.0	5.43	0.90	1.4
2009	CCU -28	5.0	8.5	6.7	1.02	1.47
	CCU -29	4.3	12.0	7.1	2.16	3.22
	CCU -30	4.5	12.0	7.0	1.79	2.13
	CCU -31	4.0	9.3	6.4	1.37	3.77
	CCU -32	4.5	9.0	7.0	1.27	4.52
	CCU -33	4.5	12.0	7.1	2.17	4.03
	CCU -34	4.5	8.0	5.9	0.95	2.92
	CCU -35	4.0	10.0	6.4	1.51	2.47
	CCU -36	4.0	8.0	6.0	0.91	2.41
	CCU -37	2.5[2]	8.0	6.2	1.17	3.61
	CCU -38	3.0	9.0	6.0	1.67	3.49

2007 data from the *2007 Cap Placement Test Summary,* Table 5.
2008 data from the *2008 RA Summary Report,* Table 11-7, page 115.
2009 data from the *2009 RA Summary Report,* Table 7-7, page 49.

1. All values are reported in inches.
2. 4-inch minimum thickness achieved through application of approved statistical methods.

Prepared by: NRA
Checked by: TAG

Table 3-19

Summary of Upstream vs. Downstream Turbidity Readings During Sand and Armor Stone Placement Activities

Year	RA Activity		Upstream Hand-Held Turbidity Reading (NTU)	Downstream Hand-Held Turbidity Reading (NTU)	Difference Between Up/Downstream Hand-Held Turbidity[1] (NTU)
2007	Sand	Minimum	5.6	7.5	-0.7
		Maximum	13.9	18.8	12.2
		Average	7.93	12.26	4.33
		Standard Deviation	2.49	4.17	3.81
	Armor Stone	Minimum	2.6	7.5	-0.7
		Maximum	10.4	18.7	8.4
		Average	7.53	10.66	3.1
		Standard Deviation	2.57	2.79	2.88
2008	Sand	Minimum	1.2	1.8	0.0
		Maximum	90.3	70.1	30.6
		Average	20.3	26.8	9.8
		Standard Deviation	19.1	16.8	8.3
	Armor Stone	Minimum	5.6	6.6	0.0
		Maximum	90.3	70.5	22.4
		Average	34.6	36.3	6.9
		Standard Deviation	21.1	17.2	7.2
2009	Sand	Minimum	3.8	4.3	-0.3
		Maximum	11.8	17.3	11.3
		Average	6.3	10.0	3.6
		Standard Deviation	2.7	3.8	3.9
	Armor Stone	Minimum	3.8	4.6	-2.8
		Maximum	11.8	20.7	12.6
		Average	6.4	9.5	3.1
		Standard Deviation	2.9	5.5	5.2

2007 data from the *2007 Cap Placement Test Summary,* Table 8.
2008 data from the *2008 RA Summary Report,* Table 12-1, page 123.
2009 data from the *2009 RA Summary Report,* Tables 5-1 and 5-2, page 18.
1. The difference between upstream and downstream hand-held turbidity is calculated on a single day sampling event.

Prepared by: NRA
Checked by: TAG

Table 3-20

Applied Cap Thickness Statistical Analysis in OU1 Cap Areas

Year	Statistic	Applied Sand (in)[1]	Applied Armor Stone (in)[1]	Applied Total Thickness (in)[1,2,3]
2007	Target Minimum	3.0	4.0	7.0
	Average	5.8	7.0	12.8
	Standard Deviation	1.6	1.8	2.6
	Minimum	3.0	4.0	8.2
	10th Percentile	3.9	4.9	10.2
	20th Percentile	4.5	5.8	10.6
	90th Percentile	7.6	9.3	16.2
	Maximum	10.7	12.0	19.6
	Count (N)	40	40	40
2008	Target Minimum	3.0	4.0	7.0
	Average	4.9	6.4	11.4
	Standard Deviation	1.2	1.7	2.1
	Minimum	2.5	2.0	5.6
	10th Percentile	3.6	4.7	9.2
	20th Percentile	4.1	5.3	9.8
	90th Percentile	6.4	8.0	14.3
	Maximum	12.2	13.0	19.9
	Count (N)	443[4]	443[5]	400
2009	Target Minimum	3.0	4.0	7.0
	Average	5.0	6.5	11.6
	Standard Deviation	1.1	1.5	1.8
	Minimum	1.1	2.5	6.3
	10th Percentile	3.6	5.0	9.6
	20th Percentile	4.0	5.5	10.2
	90th Percentile	6.2	8.0	13.6
	Maximum	9.0	12.0	17.9
	Count (N)	198[4]	198[5]	188

1. Applied sand data from vacuum push core sampling data, applied armor stone data from sediment trap data, and total thickness from paired sampling locations.
2. For 2008 data, armor stone sediment trap locations were required to be located within 20 feet of the corresponding sand sampling location. A total of 23 sediment traps were either lost or not placed prior to armor stone placement due to logistical constraints. Another 20 sediment traps were placed further than 20 feet away from the corresponding sand sampling location due to logistical constraints.
3. For 2009 data, the set excludes sediment traps that were lost and replaced with Brennan's data (see footnote 5) and 5 other sediment traps that were placed more than 10 feet away from the sand sampling location.
4. Applied sand data from 443 locations (198 locations in 2009). Sand thickness results from vacuum push core sampling.
5. Applied armor data from 443 sediment traps (198 sediment traps in 2009). A total of 23 sediment traps in 2008 (10 sediment traps in 2009) were either lost or not placed. In these instances, Brennan's applied thickness QC data (sediment traps) were used for thickness verification.

Prepared by: GRE
Checked by: NRA

Table 3-21

Post-Cap Placement Water Depths in OU1 Areas

Statistic[1]	2007 Post-Cap Water Depth[2] (ft)	2008 Post-Cap Water Depth[3] (ft)	2009 Post-Cap Water Depth[4] (ft)
Target Minimum	6.0	6.0	6.0
Average	8.2	8.5	9.9
Standard Deviation	0.3	1.1	1.7
Minimum	7.4	6.1	6.3
10^{th} Percentile	7.7	7.2	8.2
20^{th} Percentile	7.9	7.6	8.6
90^{th} Percentile	8.6	9.6	12.4
Maximum	8.8	15.2	14.2

1. Post-cap water depths relative to low water datum of 736.23 feet. Top of armor elevation data collected by poling at sediment trap locations. Elevation data collected within days after armor stone placement. With limited deposition and additional consolidation expected, water depths are expected to increase from the values reported.
2. 2007 Cap Placement Test QA data at 40 sediment trap locations.
3. 2008 QA data at 405 sediment trap locations.
4. 2009 QA data at 193 sediment trap locations.

Prepared by: GRE
Checked by: NRA

Table 3-22

Site Restoration Gravel Washing Laboratory Analytical Results

Sample ID	Collection Date	Percent Moisture	Total PCB (mg/kg)	Arsenic (mg/L)	Lead (mg/L)	Mercury (mg/L)
1-RA-09-PAD-GR-AFTERWASH-001	05/22/2009	0.38	<0.0237	0.0025 J	<0.00075	0.00011 J
1-RA-09-PAD-TESTWASHSMALL-01	05/23/2009	3.2	<0.0244	--	--	--
1-RA-09-PAD-TESTWASHLARGE-02	05/23/2009	1.8	0.0749 J	--	--	--
1-RA-09-PAD-GR-AFTERWASH-002	05/27/2009	1.10	<0.0239	<0.0014	<0.00075	<0.000015
1-RA-09-PAD-GR-AFTERWASH-003	05/28/2009	1.7	<0.0240	<0.0014	0.00099J	0.00015 J
1-RA-09-PAD-GR-AFTERWASH-004	05/29/2009	1.3	<0.0239	<0.0014	<0.00075	0.000031 J
1-RA-09-PAD-GR-AFTERWASH-005	06/02/2009	0.73	<0.0238	<0.0014	0.0014 J	0.00034
1-RA-09-PAD-GR-AFTERWASH-006	06/02/2009	3.30	<0.0244	<0.0014	0.0010 J	0.00018 J
1-RA-09-PAD-GR-AFTERWASH-007	06/03/2009	0.62	0.0292 J	<0.0014	<0.00075	0.00021
1-RA-09-PAD-GR-AFTERWASH-008	06/03/2009	1.10	<0.0239	<0.0014	<0.00075	<0.00010
1-RA-09-PAD-GR-AFTERWASH-009	06/04/2009	1.4	<0.0240	<0.0014	0.0021 J	0.00051
1-RA-09-PAD-GR-AFTERWASH-010	06/05/2009	1.4	<0.0239	<0.0014	<0.00075	<0.00010
1-RA-09-PAD-GR-AFTERWASH-010-DUP	06/05/2009	0.53	<0.0237	0.0016 J	0.00084 J	<0.00010
1-RA-09-PAD-GR-AFTERWASH-011	06/06/2009	0.61	<0.0238	--	--	--
1-RA-09-PAD-GR-AFTERWASH-012	06/09/2009	0.94	<0.0238	--	--	--
1-RA-09-PAD-GR-AFTERWASH-013	06/09/2009	0.93	<0.0239	--	--	--
1-RA-09-PAD-GR-AFTERWASH-014	06/10/2009	1.4	<0.0238	--	--	--
1-RA-09-PAD-GR-AFTERWASH-015	06/11/2009	0.28	<0.0236	--	--	--
1-RA-09-PAD-GR-AFTERWASH-016	06/12/2009	0.61	<0.0237	--	--	--
1-RA-09-PAD-GR-AFTERWASH-017	06/12/2009	0.21	<0.0238	--	--	--
1-RA-09-PAD-GR-AFTERWASH-018	06/15/2009	0.12	<0.0238	--	--	--
1-RA-09-PAD-GR-AFTERWASH-019	06/16/2009	0.23	<0.0237	0.0018 J	<0.00075	<0.00010
1-RA-09-PAD-GR-AFTERWASH-020	06/16/2009	0.59	<0.0237	--	--	--
1-RA-09-PAD-GR-AFTERWASH-020-DUP	06/16/2009	0.90	<0.0238	--	--	--
1-RA-09-PAD-GR-AFTERWASH-021	06/17/2009	1.3	<0.0240	<0.0014	<0.00075	<0.00010
1-RA-09-PAD-GR-AFTERWASH-022	06/18/2009	0.46	<0.0087	--	--	--
1-RA-09-PAD-GR-AFTERWASH-023	06/18/2009	0.93	<0.0200	--	--	--
1-RA-09-PAD-GR-AFTERWASH-024	06/19/2009	0.44	<0.0237	--	--	--
1-RA-09-PAD-GR-AFTERWASH-025	06/19/2009	0.35	<0.0237	--	--	--
1-RA-09-PAD-GR-AFTERWASH-026	06/22/2009	0.16	<0.0237	--	--	--

Sample ID	Collection Date	Percent Moisture	Total PCB (mg/kg)	Arsenic (mg/L)	Lead (mg/L)	Mercury (mg/L)
1-RA-09-PAD-GR-AFTERWASH-027	06/22/2009	0.26	<0.0237	--	--	--
1-RA-09-PAD-GR-AFTERWASH-028	06/23/2009	0.18	<0.0237	--	--	--
1-RA-09-PAD-GR-AFTERWASH-029	06/24/2009	0.51	<0.0238	0.0026 J	<0.00075	0.00019 J
1-RA-09-PAD-GR-AFTERWASH-030	06/25/2009	0.25	<0.0237	0.0025 J	0.0013 J	<0.00010
	Minimum	**0.12**	**0.004**	**0.001**	**0.00038**	**0.000008**
	Maximum	**3.30**	**0.075**	**0.003**	**0.0021**	**0.00051**
	Average	**0.87**	**0.014**	**0.001**	**0.00072**	**0.00014**
	Standard Deviation	**0.76**	**0.011**	**0.00077**	**0.00055**	**0.00014**

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
mg/L = milligrams per liter
mg/kg = milligrams per kilogram
PCB = Polychlorinated biphenyl
< = Analyte was not detected above the method detection limit
-- = Analyte not analyzed for
For values less than the Limit of Detection (LOD), half the LOD value was used for minimum, maximum, average, and standard deviation calculations.

Prepared by: NRA
Checked by: TAG

Table 3-23

Site Restoration Soil Sampling Laboratory Analytical Results

Sample ID	Collection Date	Percent Moisture	Total PCB (mg/kg)
1-RA-09-DEWT-SO-PADDEMO-001	08/10/2009	6.0	<0.0237
1-RA-09-DEWT-SO-PADDEMO-001-DUP	08/10/2009	7.0	<0.0237
1-RA-09-DEWT-SO-PADDEMO-002	08/10/2009	2.7	<0.0237
1-RA-09-DEWT-SO-PADDEMO-003	08/10/2009	3.5	<0.0237
1-RA-09-DEWT-SO-PADDEMO-004	08/10/2009	6.6	0.0361 J
1-RA-09-DEWT-SO-PADDEMO-005	07/24/2009	15.6	<0.0240
1-RA-09-DEWT-SO-PADDEMO-005-DUP	07/24/2009	14.4	<0.0240
1-RA-09-DEWT-SO-PADDEMO-006	07/24/2009	12.6	<0.0240
1-RA-09-DEWT-SO-PADDEMO-007	07/24/2009	13.8	<0.0239
1-RA-09-DEWT-SO-PADDEMO-008	07/24/2009	12.0	<0.0240
1-RA-09-DEWT-SO-PADDEMO-009	07/24/2009	16.6	<0.0239
1-RA-09-DEWT-SO-PADDEMO-010	07/24/2009	18.4	<0.0241
1-RA-09-DEWT-SO-PADDEMO-011	07/24/2009	13.7	<0.0240
1-RA-09-DEWT-SO-PADDEMO-012	08/10/2009	9.0	<0.0237
1-RA-09-DEWT-SO-PADDEMO-013	08/10/2009	8.3	<0.0237
1-RA-09-DEWT-SO-PADDEMO-014	07/24/2009	21.4	<0.0238
1-RA-09-DEWT-SO-PADDEMO-014-DUP	07/24/2009	18.3	<0.0239
1-RA-09-DEWT-SO-PADDEMO-015	07/24/2009	21.6	<0.0239
1-RA-09-DEWT-SO-PADDEMO-016	07/24/2009	15.2	<0.0237
1-RA-09-DEWT-SO-PADDEMO-017	07/24/2009	19.7	<0.0239
1-RA-09-DEWT-SO-PADDEMO-018	07/24/2009	20.8	<0.0241
1-RA-09-DEWT-SO-PADDEMO-019	07/24/2009	19.6	<0.0241
1-RA-09-DEWT-SO-PADDEMO-020	07/24/2009	11.1	<0.0239
1-RA-09-DEWT-SO-PADDEMO-021	07/24/2009	10.2	<0.0239
1-RA-09-DEWT-SO-PADDEMO-022	07/24/2009	18.4	<0.0241
1-RA-09-DEWT-SO-PADDEMO-023	07/24/2009	19.0	<0.0240
1-RA-09-DEWT-SO-PADDEMO-024	07/24/2009	23.7	<0.0242
1-RA-09-DEWT-SO-PADDEMO-025	07/24/2009	18.3	<0.0242
1-RA-09-DEWT-SO-PADDEMO-026	07/24/2009	12.0	<0.0240
1-RA-09-DEWT-SO-PADDEMO-027	07/24/2009	7.7	<0.0239
1-RA-09-DEWT-SO-PADDEMO-028	07/24/2009	26.7	<0.0243
1-RA-09-DEWT-GR-PADDEMO-029	07/24/2009	2.2	<0.0237
1-RA-09-DEWT-GR-PADDEMO-030	07/24/2009	5.0	<0.0237
	Minimum	**2.2**	**0.01185**
	Maximum	**26.7**	**0.0361**
	Average	**13.7**	**0.01269**
	Standard Deviation	**6.48**	**0.0042**

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
mg/kg = milligrams per kilogram
PCB = Polychlorinated biphenyl
< = Analyte was not detected above the method detection limit
For values less than the Limit of Detection (LOD), half the LOD value was used for minimum, maximum, average, and standard deviation calculations.

Prepared by: NRA
Checked by: TAG

Table 3-24

OU1 Remedial Action Project Coordination

Year	Project Responsibility	Name	Company
2004 RA	Supervising Contractor		CH2M HILL, Inc.
2004 RA	GWP's Project Manager	Bill Hartman	GW Partners, LLC
2004 RA	Construction Quality Assurance to GWP		Foth & Van Dyke and Associates, Inc.
2004 RA	USEPA Project Coordinator	Jim Hahnenberg	USEPA
2004 RA	WDNR's Project Coordinator	Greg Hill	WDNR
2004 RA	WDNR's Technical Oversight Support	Agencies Oversight Team	Boldt Technical Services
2005 RA	Supervising Contractor Project Manager	Jeff Lamont	CH2M HILL, Inc.
2005 RA	RA Alternate Project Coordinator	Jeff Lamont	CH2M HILL, Inc.
2005 RA	GWP's Owner's Representative	Bill Hartman	GW Partners, LLC
2005 RA	RA Project Coordinator	Bill Hartman	GW Partners, LLC
2005 RA	Construction Quality Assurance/Quality Control Engineer	Denis Roznowski	Foth & Van Dyke and Associates, Inc.
2005 RA	Construction Management and Contract Administration Engineer	Denis Roznowski	STS Consultants, Ltd
2005 RA	USEPA Project Coordinator	Jim Hahnenberg	USEPA
2005 RA	WDNR Project Coordinator	Greg Hill	WDNR
2005 RA	WDNR's Oversight Contractor	Agencies Oversight Team	Boldt Technical Services
2006 RA	RA Project Coordinator	Mike Jury	CH2M HILL, Inc.
2006 RA	Remedial Design Project Coordinator	Mike Jury	CH2M HILL, Inc.
2006 RA	GWP's Project Manager	Bill Hartman	GW Partners, LLC
2006 RA	RA Alternate Project Coordinator	Bill Hartman	GW Partners, LLC
2006 RA	GWP's QA/QC Engineer	Denis Roznowski	Foth Infrastructure & Environment, LLC
2006 RA	CQA Officer	Denis Roznowski	Foth Infrastructure & Environment, LLC
2006 RA	Supervising Contractor/Project Manager	Vic Buhr	J.F. Brennan Co., Inc.
2006 RA	USEPA Project Coordinator	Jim Hahnenberg	USEPA
2006 RA	WDNR's Project Coordinator	Greg Hill	WDNR
2006 RA	WDNR's Oversight Contractor	Agencies Oversight Team	Boldt Technical Services
2007 RA	RA Project Coordinator	Mike Jury	CH2M HILL, Inc.
2007 RA	Remedial Design Project Coordinator	Mike Jury	CH2M HILL, Inc.
2007 RA	GWP's Project Manager	Bill Hartman	GW Partners, LLC
2007 RA	RA Alternate Project Coordinator	Bill Hartman	GW Partners, LLC
2007 RA	GWP's QA/QC Engineer	Denis Roznowski	Foth Infrastructure & Environment, LLC
2006 RA	CQA Officer	Denis Roznowski	Foth Infrastructure & Environment, LLC
2007 RA	Supervising Contractor/Project Manager	Vic Buhr	J.F. Brennan Co., Inc.
2007 RA	USEPA Project Coordinator	Jim Hahnenberg	USEPA
2007 RA	WDNR Project Coordinator	Greg Hill	WDNR
2007 RA	WDNR's Oversight Contractor	Agencies Oversight Team	Boldt Technical Services

Year	Project Responsibility	Name	Company
2008 RA	RA Project Coordinator	Mike Jury	CH2M HILL, Inc.
2008 RA	Remedial Design Project Coordinator	Mike Jury	CH2M HILL, Inc.
2008 RA	GWP's Project Manager	Bill Hartman	GW Partners, LLC
2008 RA	RA Alternate Project Coordinator	Bill Hartman	GW Partners, LLC
2008 RA	GWP's QA/QC Engineer	Denis Roznowski	Foth Infrastructure & Environment, LLC
2008 RA	CQA Officer	Denis Roznowski	Foth Infrastructure & Environment, LLC
2008 RA	Supervising Contractor/Project Manager	Vic Buhr	J.F. Brennan Co., Inc.
2008 RA	USEPA Project Coordinator	Jim Hahnenberg	USEPA
2008 RA	WDNR's Project Coordinator	Greg Hill	WDNR
2008 RA	WDNR Oversight Contractor	Agencies Oversight Team	Boldt Technical Services
2009 RA	RA Project Coordinator	Mike Jury	CH2M HILL, Inc.
2009 RA	Remedial Design Project Coordinator	Mike Jury	CH2M HILL, Inc.
2009 RA	GWP's Project Manager	Bill Hartman	GW Partners, LLC
2009 RA	RA Alternate Project Coordinator	Bill Hartman	GW Partners, LLC
2009 RA	GWP's QA/QC Engineer	Denis Roznowski	Foth Infrastructure & Environment, LLC
2009 RA	CQA Officer	Denis Roznowski	Foth Infrastructure & Environment, LLC
2009 RA	Supervising Contractor/Project Manager	Vic Buhr	J.F. Brennan Co., Inc.
2009 RA	USEPA Project Coordinator	Jim Hahnenberg	USEPA
2009 RA	WDNR's Project Coordinator	Bruce Baker	WDNR
2009 RA	WDNR Oversight Contractor	Agencies Oversight Team	Boldt Technical Services

2004 data from the *2004 RA Summary Report,* pages 5 through 6.
2005 data from the *2005 RA Summary Report*, pages 5 through 6.
2006 data from the *2006 RA Summary Report*, pages 2-1 through 2-6
2007 data from the *2007 RA Summary Report,* pages 3 through 10.
2008 data from the *2008 RA Summary Report,* pages 4 through 11.
2009 data from the *2009 RA Summary Report,* pages 3 through 10.

Prepared by: BMS1
Checked by: TAG