DATA MEMO

PHASE 1 REMEDIAL INVESTIGATION
DUWAMISH SHIPYARD, INC. SITE

Prepared for

Duwamish Shipyard, Inc.

5658 W Marginal Way SW

Seattle, Washington 98106

Prepared by

Anchor QEA, LLC

720 Olive Way, Suite 1900

Seattle, Washington 98101

September 2011

PHASE 1 REMEDIAL INVESTIGATION DATA MEMORANDUM

DUWAMISH SHIPYARD, INC. SITE

Prepared for

Duwamish Shipyard, Inc.
5658 W Marginal Way SW
Seattle, Washington 98106

Prepared by

Anchor QEA, LLC.
720 Olive Way, Suite 1900
Seattle, Washington 98101

September 2011

TABLE OF CONTENTS

1 INTRODUCTION 1
1.1 Purpose of Report 1
1.2 Site Description and Background 2
1.3 Previous Investigations 3
1.3.1 1993 Preliminary Site Assessment 3
1.3.2 1993 Sediment Sampling 4
1.3.3 2006 Lower Duwamish Waterway Remedial Investigation 4
1.3.4 2006 Preliminary Investigation 4
1.4 Document Organization 5

2 PHASE 1 REMEDIAL INVESTIGATION OVERVIEW 6
2.1 Upland Site Surveys 6
2.2 Upland Monitoring Well and Piezometer Installation and Testing 6
2.2.1 Monitoring Well and Piezometer Installation and Testing 7
2.2.2 Measurement of Gradients and Tidal Influences 7
2.3 Upland Geoprobe Soil Borings and Testing 7
2.4 Upland Geotechnical Soil Borings and Testing 9
2.5 Surface Sediment Sample Collection and Testing 9
2.6 Subsurface Sediment Sample Collection and Testing 9
2.7 Chemical and Physical Data Quality 10
2.7.1 Analytical Testing Laboratory and Methods 10
2.7.2 Data Review and Validation 11

3 PHASE 1 RI GROUNDWATER AND SOIL TESTING RESULTS 12
3.1 Nearshore Groundwater Quality 12
3.1.1 Shallow Groundwater 13
3.1.2 Deep Groundwater 15
3.2 Upland Groundwater Quality 16
3.2.1 Conventionals 17
3.2.2 Metals 18
3.2.3 Total Petroleum Hydrocarbons 18
3.2.4 Semivolatile Organic Compounds 18

3.2.5 Volatile Organic Compounds 18
3.3 Soil Quality 19
3.3.1 Metals 20
3.3.2 Total Petroleum Hydrocarbons 21
3.3.3 Semivolatile Organic Compounds 22
3.3.4 BTEX 23
3.4 Geologic and Hydrogeologic Conditions 23
3.4.1 Geologic Conditions 23
3.4.2 Hydrogeologic Conditions 24
3.5 Geotechnical Study 25
4 SURFACE AND SUBSURFACE SEDIMENT TESTING RESULTS 26
4.1 Geology and Site Stratigraphy 26
4.1.1 Recent Alluvium (and Fill) 26
4.1.2 Upper Alluvium 27
4.1.3 Lower Alluvium 27
4.2 Surface Sediment Quality 27
4.2.1 Conventionals 28
4.2.2 Metals 28
4.2.3 Tributyltin 28
4.2.4 Semivolatile Organic Compounds 28
4.2.5 Polychlorinated Biphenyls 29
4.2.6 Volatile Organic Compounds 29
4.2.7 Pesticides 30
4.2.8 Dioxin/Furans 30
4.3 Subsurface Sediment Quality 30
4.3.1 Recent Alluvium (and Fill) 30
4.3.2 Upper Alluvium 37
4.3.3 Lower Alluvium 42
5 NEXT STEPS 46
6 REFERENCES 47

List of Tables

Table 1 Upland Geoprobe Soil and Groundwater Sampling Summary
Table 2 Upland Monitoring Well and Piezometer Soil and Groundwater Sampling Summary
Table 3 Upland Monitoring Well and Piezometer Construction Details
Table 4 Upland Geotechnical Sampling Summary
Table 5 Summary of Surface Sediment Chemical and Physical Testing
Table 6 Summary of Subsurface Sediment Chemical and Physical Testing
Table 7 Nearshore Groundwater Chemical Testing Results
Table 8 Summary of Nearshore Groundwater Data
Table 9 Upland Groundwater Chemical Testing Results
Table 10 Summary of Upland Groundwater Data
Table 11a Upland Soil Chemical Testing Results-Rail Spur Area
Table 11b Upland Soil Chemical Testing Results-Northwestern Area
Table 11c Upland Soil Chemical Testing Results-Central Area
Table 11d Upland Soil Chemical Testing Results-2000 UST Removal Area
Table 11e Upland Soil Chemical Testing Results-Former Shipyard Nearshore Area
Table 11f Upland Soil Chemical Testing Results-South Property Area
Table 11g Upland Soil Chemical Testing Results-Parcel D Nearshore Area
Table 12 Upland Soil Physical Testing Results
Table 13 Upland Soil Geotechnical Testing Results
Table 14 Summary of Soil Data
Table 15 Surface Sediment Chemical and Physical Testing Results
Table 16 Subsurface Sediment Chemical Testing Results
Table 17 Summary of Surface Sediment Data
Table 18 Summary of Subsurface Sediment Data
Table 19 Surface and Subsurface Sediment Physical Testing Results

List of Figures

Figure 1 Site Vicinity and Location Features
Figure 2 Upland Historical Property Operational Features and Existing Sampling Locations

Figure 3 Aquatic Historical Property Operational Features and Existing Sampling Locations
Figure 4 2006 and 2009 Upland Investigation Sample Locations
Figure 5 Sediment RI Sampling Locations
Figure 6 2006 and 2009 Groundwater Sampling Results – Total Petroleum Hydrocarbons
Figure 7 2006 and 2009 Groundwater Sampling Results – Selected Constituents
Figure 8 2006 and 2009 Soil Sampling Results – Total Petroleum Hydrocarbons
Figure 9 2006 and 2009 Soil Sampling Results – Selected Constituents
Figure 10 Groundwater Contours – High High Tide
Figure 11 Groundwater Contours – Low Low Tide
Figure 12 Surface Sediment Sampling Results – Selected Constituents
Figure 13 DSI and Glacier Bay – Surface Sediment Dioxin TEQ
Figure 14 Subsurface Sediment Results-Metals
Figure 15 Subsurface Sediment Results-TBT
Figure 16 Subsurface Sediment Dioxin TEQ

List of Appendices

Appendix A Summary of Previous Site Investigations
Appendix B RI Sampling Details
Appendix C Data QC and Validation (on DVD)
Appendix D Analytical Laboratory Reports (on DVD)

LIST OF ACRONYMS AND ABBREVIATIONS

µS	microsiemens
µg/L	micrograms per liter
AML	Alaska Marine Lines
AO	Agreed Order
ARARs	applicable and relevant or appropriate requirements
ARI	Analytical Resources, Inc.
ASTM	American Society for Testing and Materials
Anchor QEA	Anchor QEA, LLC
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylene
cm	centimeter
COC	chemicals of concern
cPAH	carcinogenic polycyclic aromatic hydrocarbon
CSL	Cleanup Screening Levels
CSM	conceptual site model
cy	cubic yards
Data Memorandum	Phase 1 Remedial Investigation Data Memorandum
DMMP	Dredged Material Management Program
DO	dissolved oxygen
DSI	Duwamish Shipyard, Inc.
DW	Dry Weight
Ecology	Washington Department of Ecology
EPA	U.S. Environmental Protection Agency
FNC	Federal Navigation Channel
Glacier	Glacier Northwest, Inc.
Hart Crowser	Hart Crowser, Inc.
HPAHs	high molecular weight PAH
ICP/MS	inductively coupled plasma mass spectrometer
LAET	lowest apparent effects threshold
LDC	Laboratory Data Consultants, Inc.

LDW	Lower Duwamish Waterway
LDWG	Lower Duwamish Waterway Group
LPAH	low molecular weight PAH
mg/kg	milligrams per kilogram
mg/kg-OC	milligrams per kilogram organic carbon
mg/L	milligrams per liter
mg-N/L	milligrams per liter of nitrogen
MHHW	mean higher high water
MLLW	mean lower low water
MTCA	Model Toxics Control Act
NELAP	National Environmental Laboratories Accreditation Program
ng/kg	nanograms per kilogram
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
OC	organic carbon
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PCE	tetrachloroethylene
Port	Port of Seattle
PRG	preliminary remediation goal
Property	5658 West Marginal Way SW
PSEP	Puget Sound Estuary Program
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RCW	Revised Code of Washington
RI/FS	Remedial Investigation and Feasibility Study
RM	river miles
SAP	Sampling and Analysis Plan
Site	Duwamish Shipyard, Inc. Study Area
SL	screening level
SMS	Sediment Management Standards
SQS	Sediment Quality Standards of the Sediment Management Standards

SVOCs	semivolatile organic compounds
TBT	tributyltin
TCE	trichloroethylene
TEQ	Toxic Equivalency Quotient
TPH	total petroleum hydrocarbon
TPH-Dx	TPH extended diesel range
TPH-G	TPH gasoline range
TPH-O	TPH motor oil range
TOC	total organic carbon
TS	total solids
TVS	total volatile solids
USACE	U.S. Army Corps of Engineers
UST	underground storage tank
vibracore	vibratory core sampler
VOC	volatile organic compounds
WAC	Washington Administrative Code

1 INTRODUCTION

This Phase 1 Remedial Investigation (RI) Data Memorandum (Data Memorandum) describes the investigations completed to perform the Phase 1 RI for upland and aquatic media on and adjacent to the Duwamish Shipyard, Inc. (DSI) property at 5658 West Marginal Way SW (Property) in Seattle, Washington, as shown on Figure 1. The Property is located along the western shoreline of the Lower Duwamish Waterway (LDW) between river mile (RM) 1.3 and 1.4. The LDW was added to the National Priorities List (NPL) and is undergoing a Remedial Investigation and Feasibility Study (RI/FS) with oversight by the U.S. Environmental Protection Agency (EPA) and the Washington Department of Ecology (Ecology). Portions of the aquatic areas adjacent to the Property are located within the study area (Site) of the LDW, and upland areas are included within the Glacier Bay source control area.

Anchor QEA, LLC (Anchor QEA) has prepared this document under the authority of Agreed Order (AO) No. DE-6735. It satisfies the requirements of the Model Toxics Control Act (MTCA), Revised Code of Washington (RCW) 70.105D, which is administered by Ecology pursuant to Washington Administrative Code (WAC) 173-340. In addition, this document presents data to be used to address source control evaluations for the protection of adjacent surface water and sediment. Phase 1 RI activities and this Data Memorandum have been conducted consistent with the Ecology-approved RI/FS Work Plan (Anchor QEA 2010), which is included as Exhibit B to the AO. Phase 1 RI field activities were performed consistent with the Ecology-approved Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) (Anchor QEA 2011). Deviations from these documents are discussed in Section 2.

1.1 Purpose of Report

The purpose of the Phase 1 RI is to supplement previous investigation results and characterize the nature and extent of Site-related contaminants in both upland and aquatic areas. The results will be used in determining the need for potential remedial actions at the Site. As described in the RI/FS Work Plan (Anchor QEA 2010), the RI is being conducted in a phased approach to focus data collection efforts on identified data gaps. Anchor QEA will prepare a Supplemental RI Work Plan following submittal of this Data Memorandum to

identify potential remaining data gaps and proposed data collection activities to complete the RI data set.

This report describes the Phase 1 RI activities, including upland sampling and testing performed in 2009 and sediment testing performed in spring 2011. These activities satisfy data collection requirements of the Ecology-approved Phase 1 SAP and QAPP. This Data Memorandum also presents the analytical results of the Phase 1 RI sampling and testing activities. Anchor QEA will use these results in the RI to prepare the Conceptual Site Model (CSM), and to evaluate the need for potential remedial actions.

1.2 Site Description and Background

The Property includes approximately 5 acres of land owned by DSI located on the west bank of the LDW, including the area of the Property described above and additional areas that have been identified as being impacted by contaminants. Historical shipyard operational features and property boundaries are shown in Figures 2 and 3.

The berth and waterway areas adjacent to the Property are owned by the Port of Seattle (Port) as successor to Commercial Waterway District No. 1, but are included as part of the Site. The berth area is 150 feet wide. The waterway is 200 feet wide and has a maintained navigation elevation of -30 feet relative to mean lower low water (MLLW). The U.S. Army Corps of Engineers (USACE) conducts periodic dredging of the Federal Navigation Channel (FNC) in conjunction with the Port.

The upland Site area is currently being used for container storage and truck access by Alaska Marine Lines (AML). It is bordered to the north by the AML container facility and to the south by Glacier Northwest, Inc. (Glacier) and Terminal 115. DSI previously leased a graving dock from AML located directly adjacent to the northern Property boundary. However, that lease has been terminated, and AML has filled the graving dock with clean fill for upland reuse. West Marginal Way is located immediately west of the Site. AML owns additional property used for staging across this roadway.

The Site is located in a highly industrialized area and is currently zoned for General Industrial (IG1 U/85) use. The eastern Property boundary abuts the LDW. The preliminary

boundaries of the LDW extend from the Turning Basin downstream to Harbor Island. The Site is located within this initial delineation (approximately between RM 1.3 and 1.4). In September 2001, EPA placed the LDW on the NPL. In addition, the Site is listed on Ecology's Contaminated Sediment Sites List, which was first published in 1996. That list documents sites that will be subject to future investigation and cleanup requirements MTCA.

A detailed description of the Site history, shipyard operational history, and adjacent properties history is provided in the RI/FS Work Plan (Anchor QEA 2010). The DSI operation history is consistent with DSI's May 2006 response to a 42 U.S.C. § 9604(e) request from EPA (Section 104[e] Response). DSI formerly engaged in the repair and maintenance of floating vessels and equipment, including tugboats, barges, dredges, fishing vessels, small passenger vessels, and other types of commercial vessels between the 1940s and mid-2000s.

DSI ceased use of the Site for any shipyard-related activity in April 2007. The upland portion of DSI is currently being used by AML for container storage and truck access, with DSI marketing the Property for sale for continued industrial use.

1.3 Previous Investigations

To date, several investigations have been performed at the Site. A summary of each investigation is provided as follows, and the analytical data retained for defining the nature and extent of contamination is described. A detailed summary of the existing environmental investigations, along with associated sampling locations retained for data evaluation, is presented in Appendix A, Table A-1. Previous investigation sample locations are shown on Figures 2, 3, and 4.

1.3.1 1993 Preliminary Site Assessment

In August 1993, Environmental Services Limited performed a preliminary site assessment in anticipation of performing an independent remedial action in an area west of the current western Property boundary. The preliminary assessment included completion of five soil borings, five test pits, and four monitoring wells. The results identified total petroleum hydrocarbon (TPH) constituents in soil and groundwater, with concentrations exceeding MTCA industrial cleanup levels. The investigation resulted in the excavation of

approximately 650 cubic yards (cy) of contaminated soil. Results of this investigation were also used qualitatively to identify sampling locations for the Phase 1 RI efforts.

1.3.2 1993 Sediment Sampling

Hart Crowser, Inc. (Hart Crowser) completed a sediment testing program in 1993 to meet the sediment sampling requirements of DSI's National Pollutant Discharge Elimination System (NPDES) permit (No. WA-003093-7). Hart Crowser collected surface sediment samples at four locations. The sampling consisted of physical, chemical, and biological testing. Metals, polycyclic aromatic hydrocarbons (PAHs), and tributyltin (TBT) were detected in all sediment samples. As these surface sediment samples were collected in 1993, the samples do not represent current surface sediment conditions. Results of this investigation effort also were used qualitatively to identify RI sampling locations for the 2011 sediment investigation activities described as follows.

1.3.3 2006 Lower Duwamish Waterway Remedial Investigation

The Lower Duwamish Waterway Group (LDWG) has collected surface and subsurface sediment data, most recently as part of the LDW Phase 2 RI in 2006. The surface and subsurface sediment data within the LDW from just south of the upstream Glacier property and just north of the downstream AML property are provided in Appendix A, Table A-2.

The data were used in determining the sediment sampling locations for the Phase 1 RI under the AO. The surface sediment results from the LDW investigation are not included in the evaluation of current surface sediment conditions in Section 4 of this Data Memorandum due to deposition of more recent sediment since 2006. The subsurface sediment data are evaluated in order to define the nature and extent of subsurface sediment impacts adjoining the Site.

1.3.4 2006 Preliminary Investigation

A soil and groundwater investigation was conducted at the Site in 2006 in response to data requests from Ecology. As required by Ecology in its letters dated July 10, 2006 (Ecology 2006a) and August 3, 2006 (Ecology 2006b), DSI conducted the investigation to assess the nature and extent of soil and groundwater contamination at the Site. The investigation,

which was conducted in accordance with the Ecology-approved Preliminary Investigation Work Plan (Anchor 2006a), commenced in September 2006. Sampling locations from the 2006 Preliminary Investigation are shown on Figures 2 and 4. The results of the 2006 investigation were summarized in a Preliminary Investigation Data Report (Anchor 2006b). Based on the results of the Preliminary Investigation, a Site Hazardous Assessment was performed, and Ecology ranked the Site a "2" on its Hazardous Sites List.

The results of the Preliminary Investigation were used in the identification of Phase 1 RI upland sample locations and the compilation of the analyte list per Site area. The 2006 Preliminary Investigation upland data are used to assess the nature and extent of soil and groundwater impacts at the Site.

1.4 Document Organization

The remainder of this Data Memorandum provides the details of the Phase 1 RI field sampling activities and presents the testing results. The report is organized as follows:

- **Section 2 - Remedial Investigation Overview:** Provides an overview of the Phase 1 RI field sampling components, including any deviations from the RI/FS Work Plan (Anchor QEA 2010) and accompanying SAP and QAPP.
- **Section 3 - Groundwater and Soil Testing Results:** This section presents the Phase 1 RI chemical and physical testing results for nearshore groundwater, upland groundwater, and soil.
- **Section 4 - Surface and Subsurface Sediment Testing Results:** This section presents the Phase 1 RI chemical and physical testing results for surface and subsurface sediment.
- **Section 5 - Next Steps:** This section discusses the next steps as outlined in the AO and RI/FS Work Plan.
- **Section 6 - References:** The references cited in this Data Memorandum are provided.
- **Appendices:** Appendices to this Data Memorandum contain the sampling data from this phase of the RI and associated backup information.

2 PHASE 1 REMEDIAL INVESTIGATION OVERVIEW

This section provides an overview of the Phase 1 RI components, which were performed to supplement the results of previous investigations and fill data gaps identified in the RI/FS Work Plan (Anchor QEA 2010). The results of the Phase 1 RI also will provide the necessary data to prepare the Supplemental RI Work Plan.

Collection and testing of the upland and sediment samples pursuant to the Phase 1 RI were consistent with the approved Phase 1 SAP and QAPP (Anchor QEA 2011). Tables 1 through 6 present a summary of the Phase 1 RI components associated with each data collection method and Site area. Figures 4 and 5 present the Phase 1 RI upland and sediment exploration locations, respectively.

Details of the sampling methodology are provided in the approved SAP and QAPP (Anchor QEA 2011). Deviations from the SAP and QAPP are discussed in each of the following methodology sections. Quality control (QC) measures implemented during the data collection efforts are summarized in Section 2.7 and described in Appendix C. Field sample collection logs are presented in Appendix B.

2.1 Upland Site Surveys

Anchor QEA performed a Site reconnaissance prior to completing field activities to confirm proposed sampling locations and to inspect areas of historical operations for visual indications of potential contamination. Results of this reconnaissance effort were used to finalize upland and sediment sampling locations and ensure compliance with proposed sampling methodologies as described in the Phase1 SAP and QAPP (Anchor QEA 2011).

2.2 Upland Monitoring Well and Piezometer Installation and Testing

Groundwater gradients at the Property flow toward the shoreline, with tidal influences on groundwater elevations occurring within 100 to 200 feet of the shoreline. Testing was performed to confirm groundwater gradients and hydrogeologic properties. Monitoring wells installed as part of this work were used for focused groundwater quality testing and for assessment of groundwater geochemical properties, described as follows.

2.2.1 Monitoring Well and Piezometer Installation and Testing

Ten groundwater monitoring wells, including three deep monitoring wells, were installed as part of the 2009 Phase 1 upland RI effort. Monitoring well testing parameters are detailed in Tables 2 and 3, and well locations are shown on Figure 4. One monitoring well was installed in each of the following areas: Rail Spur Area, Northwest Area, Central Area, and 2000 Underground Storage Tank (UST) Removal Area. Four wells are located in the Former Shipyard Nearshore Area and two wells are located in the Parcel D Nearshore Area. Three shoreline well locations have a deeper screen interval to determine chemical concentrations and gradient characteristics deeper in the aquifer. The wells were installed and developed to allow testing of groundwater. Nearshore groundwater sampling was performed at least 4 days after monitoring well development and at low tide to confirm that sampled groundwater was not influenced by tidal mixing. Soil samples from monitoring well locations were selectively collected at the time of monitoring well installation.

Anchor QEA also installed two piezometer wells at the same time as installation of the ten monitoring wells to assist in evaluation of hydrogeologic properties at the Site. One piezometer well (DSI-PZ-01) was installed in the Central Area, as shown on Figure 4. Another well was installed within the Lower Duwamish River for reference.

2.2.2 Measurement of Gradients and Tidal Influences

The ten monitoring wells and two piezometer wells were surveyed at the time of installation. Initial groundwater elevations were measured using a water level indicator. Recording pressure transducers were installed in six selected monitoring wells and in the upland and river piezometer wells. Groundwater elevations were measured over a 96-hour period. The transducer installed at the river piezometer well location (attached to a stationary dock piling) was used to record surface water levels in the Duwamish River. Measurements from the pressure transducers were processed to determine tidal efficiencies and lags in each well, and to assess the mean groundwater gradients over a 96-hour tidal cycle.

2.3 Upland Geoprobe Soil Borings and Testing

An additional soil and groundwater investigation was conducted (as part of the 2009 Phase 1 upland RI effort) using temporary soil borings installed by a direct push (Geoprobe™) drill

rig. The upland area of the Site is organized into seven Site areas, as identified in the RI/FS Work Plan (Anchor QEA 2010). Geoprobe sample locations are presented in Figure 4. A summary of the collection and testing details are presented in Table 1. Geoprobe boring logs are included in Appendix B. Geoprobe testing included the following area-specific activities:

- **Rail Spur Area:** Three soil borings were completed in this area. Soil samples were analyzed for arsenic. Groundwater samples were analyzed for dissolved arsenic and semivolatile organic compounds (SVOCs).
- **Northwestern Area:** Two borings were completed in this area. Soil and groundwater samples were submitted for TPH analysis and selectively for TPH fractionation.
- **Central Area:** Two soil borings were completed in the Central Area of the Site. Soils were sampled and tested for TPH, grain size, and moisture content. Groundwater samples were analyzed for TPH, SVOCs, and volatile organic compounds (VOCs).
- **UST Removal Area:** Four soil borings were completed in areas adjacent to the 2000 UST Removal Area to delineate areas of soil and groundwater impacted by TPH and benzene. Soil samples were tested for TPH and benzene, toluene, ethylbenzene, and xylene (BTEX) compounds. Groundwater samples were tested for TPH, SVOCs, and VOCs.
- **Former Shipyard Nearshore Area:** Five soil borings were completed in areas where elevated soil and groundwater chemical concentrations were previously detected (during the 2006 investigation effort). Soils were sampled and tested for metals, SVOCs, and TPH. No groundwater samples were collected at these soil boring locations.
- **Parcel D Area:** One soil boring was completed in the Parcel D Area. Soil samples were collected and tested for TPH, metals, SVOCs, grain size, and moisture content. Proposed station DSI-GP-18 was not collected due to access limitations. No groundwater samples were collected at this soil boring location.
- **South Property Area:** Three soil borings were completed in the South Property Area, adjacent to the Glacier property. Soil samples were collected and tested for metals, SVOCs, and TPH. Groundwater samples were collected and analyzed for dissolved arsenic, SVOCs, TPH, and VOCs at all three soil boring locations.

2.4 Upland Geotechnical Soil Borings and Testing

Two upland geotechnical borings were completed in the Nearshore Area as part of Phase 1 RI activities using a hollow-stem auger drill rig. Proposed station GT-3 was not collected due to encountering refusal and dock access issues. Subsurface soil samples were collected consistent with American Society for Testing and Materials (ASTM) procedures (ASTM D 1452) using a split-spoon sampler at these locations. Geotechnical information was required in order to evaluate the stability of the shoreline slope, and to inform potential remediation options to be developed in the FS. Locations of geotechnical soil borings are shown in Figure 4. The sampling coordinates, intervals, methods, and testing parameters for the geotechnical borings are identified in Table 4.

2.5 Surface Sediment Sample Collection and Testing

A total of 11 surface sediment samples were collected in the aquatic area adjacent to the Property during the Phase 1 RI effort completed in 2011. Surface sediment samples were collected using Van Veen methodology. Detailed sampling procedures are described in the approved SAP (Anchor QEA 2011). No deviations were encountered during completion of surface sediment sampling. Surface sediment samples were collected for chemical and physical testing from the 0 to 10 centimeter (cm) biologically active zone at the locations presented on Figure 5. Table 5 presents a summary of the surface sediment locations and sampling scheme details, including a summary of the chemical and physical testing parameters.

Observations of physical impacts or conditions (such as apparent grain size, color, odor, density, layering, anoxic contact, and presence of sheen, shells, wood, and other debris) were recorded for each sample and are provided in Appendix B, Table B-1. The surface sediment samples were analyzed for the Sediment Management Standards (SMS) list of chemical parameters, bulk and porewater TBT, polychlorinated biphenyls (PCBs), pesticides, 13 priority pollutant metals, chromium VI, VOCs, and selectively for dioxin/furans.

2.6 Subsurface Sediment Sample Collection and Testing

Subsurface sediment sampling was performed consistent with the SAP using a vibratory core sampler (vibracore). The purpose of the sampling was to obtain chemical and physical data

to further define the vertical nature and extent of contamination in subsurface sediment at the Site. Table 6 presents a summary of the sampling scheme details. Figure 5 shows the subsurface sampling locations.

The 13 subsurface sediment stations proposed in the SAP were collected in areas surrounding the Site, extending to the FNC. Four additional subsurface sediment stations were collected in the FNC to adequately bound the nature and extent of contamination. Chemical testing included conventionals, SVOCs, VOCs, metals, PCBs, TBT, pesticides, and selective testing for dioxins/furans. Grain size was tested using ASTM D422 at a total of seven sample intervals.

2.7 Chemical and Physical Data Quality

The overall data quality assurance/quality control (QA/QC) program for the Phase 1 RI effort followed procedures outlined in the Phase 1 RI SAP and QAPP (Anchor QEA 2011). The data QC criteria were met and the data are acceptable for use as reported or as qualified with a few exceptions. Measures taken to ensure data quality employed current EPA, Ecology, and ASTM protocols. Specific actions included field QA/QC, chain-of-custody procedures, and laboratory data review and validation. Appendix C provides the supporting QC information, and data validation reports. Chain-of-custody forms and analytical laboratory reports are included in Appendix D.

2.7.1 Analytical Testing Laboratory and Methods

Chemical and physical testing was performed by Analytical Resources, Inc. (ARI). ARI is an Ecology-accredited laboratory and is also accredited under the National Environmental Laboratories Accreditation Program (NELAP). All upland chemical and physical testing adhered to the latest updates to SW846, Third Edition, Test Methods for Evaluating Solid Waste (EPA 1986) and the most recent updates as they apply to QA/QC procedures and to EPA method protocols. All sediment chemical and physical testing adhered to the most recent Puget Sound Estuary Program (PSEP) QA/QC procedures (PSEP 1997) and PSEP and EPA method analysis protocols.

2.7.2 Data Review and Validation

All chemical and physical data submitted in this report were validated by Anchor QEA staff or by Laboratory Data Consultants, Inc. (LDC) of Carlsbad, California. Data validations were performed at 100 percent Level 3 for the upland data collected in 2009, and at 90 percent Level 3 and 10 percent Level 4 for the sediment data collected in 2011. Data validation reports are provided in Appendix C. Samples are listed with their corresponding laboratory data package and validation report number in Appendix D, Table D-1. The data validation was performed under EPA guidelines, as described in the QAPP and the National Functional Guidelines for Data Review (EPA 1999, 2004, 2005).

Data validation verified the accuracy and precision of chemical and physical determinations performed during this investigation. Data qualifiers assigned as a result of the data validation and their definitions are shown on each of the respective analytical results tables. Data may have been qualified as biased or estimated for a particular analysis based on method or technical criteria. Data qualified with a "J" indicates that the associated numerical value is the approximate concentration of the analyte. Data qualified with a "UJ" indicates the approximate reporting limit below which the analyte was not detected. Consequently, these data qualifications are not expected to impact the data quality objectives.

3 PHASE 1 RI GROUNDWATER AND SOIL TESTING RESULTS

This section summarizes the results of Phase 1 RI groundwater and soil chemical and physical testing. The results from the Phase 1 RI testing are used in conjunction with the results of the 2006 preliminary investigation to delineate the horizontal and vertical nature and extent of contamination at the Site. For each Site medium (nearshore groundwater, upland groundwater, and soil), a summary statistics table is provided that presents the range of non-detect and detected concentrations for each analyte.

3.1 Nearshore Groundwater Quality

The 2009 upland RI effort included sampling at four shallow and two deeper monitoring well locations to determine if nearshore groundwater quality is protective of surface water and sediment quality. These monitoring well locations are shown on Figure 4 and are summarized on Table 2. Results of the nearshore groundwater sampling are presented in Table 7 and shown on Figures 6 and 7. A statistical summary of the data is presented in Table 8. The results of the nearshore groundwater testing performed as part of the Phase 1 RI are presented in Tables 7 and 8 to evaluate existing conditions in nearshore groundwater. The 2006 nearshore groundwater samples were collected from temporary borings. However, the 2009 groundwater samples were collected from monitoring wells, and, therefore, are more representative of existing groundwater conditions at the Site.

Additionally, groundwater conditions at the nearshore area do not take into account potential migration and attenuation processes prior to groundwater discharge at the surface water point of compliance.

Nearshore groundwater was tested for conventionals, dissolved metals, TPH (gasoline [TPH-G] and extended diesel range [TPH-Dx]), SVOCs, and VOCs. The 2006 groundwater testing included low-level PCBs and pesticides at four temporary boring locations. All PCBs and pesticides were reported at non-detect concentrations. Selected constituents from the 2006 and 2009 nearshore groundwater testing results are presented on Figures 6 and 7, including TPH, arsenic, carcinogenic polycyclic aromatic hydrocarbons (cPAH), benzene, and vinyl chloride. The following discussion presents the results of the 2009 Phase 1 RI testing.

3.1.1 Shallow Groundwater

Four wells (DSI-MW-05, DSI-MW-06, DSI-MW-08, and DSI-MW-09) were installed to a shallow depth in the Former Shipyard Nearshore Area to assess the shallow groundwater quality. Results of shallow groundwater testing are shown on Figures 6 and 7. These wells have screen intervals ranging from 5.4 to 15.1 feet below ground surface (bgs) to 5.5 to15.2 feet bgs, with groundwater levels at the time of sampling ranging from 5.14 to 7.88 feet bgs. Groundwater sampling was conducted during low tide to minimize the influence of tidal mixing.

3.1.1.1 Conventionals

Shallow groundwater samples were analyzed for dissolved oxygen (DO), redox, conductivity, pH, and chloride. Two of the four wells (DSI-MW-06 and DSI-MW-09) also were analyzed for nitrate, sulfate, sulfide, and alkalinity. At the time of sample collection, DO ranged from 0.36 to 0.57 milligrams per liter (mg/L), redox ranged from 35.8 to 78.0 mg/L, conductivity ranged from 781 to 1,939 microsiemens (µS), and pH ranged from 6.09 to 6.38. Total chloride ranged from 131 to 461 mg/L. Alkalinity, as calcium carbonate and bicarbonate, ranged from 152 to 174 mg/L, and were not detected as carbonate and hydroxide. Sulfate ranged from 9.5 to 72.9 mg/L, and sulfide was below the detection limit at DSI-MW-09 and detected at 0.09 mg/L at DSI-MW-06. Nitrate + Nitrite and Nitrate as Nitrogen were both below detection limits in all samples. Nitrite as Nitrogen was detected at DSI-MW-06 at 0.02 mg/L of nitrogen (mg-N/L) and not detected at DSI-MW-09.

The conventional parameters results for shallow nearshore groundwater substantiate the assertion that the samples analyzed are representative of Site groundwater, and not surface water from the LDW. These results are also similar to the conventionals results for upland shallow groundwater as described in Section 3.2.

3.1.1.2 Metals

Shallow groundwater collected from the four nearshore monitoring wells was analyzed for dissolved metals. Arsenic concentrations ranged from 0.5 to 2 micrograms per liter (µg/L); other detected metals included copper, nickel, selenium, and zinc.

3.1.1.3 Total Petroleum Hydrocarbons

Shallow nearshore groundwater samples were analyzed for TPH-G, TPH-Dx, and motor oil range hydrocarbons (TPH-O). TPH-Dx and TPH-O were not detected in any of the wells. TPH-G was detected in one of the four wells at 0.36 mg/L.

3.1.1.4 Semivolatile Organic Compounds

PAHs: Groundwater samples from the four shallow nearshore monitoring wells were analyzed for PAHs. Monitoring well DSI-MW-09 had detections for benzo(a)anthracene (0.034 µg/L) and chrysene (0.042 µg/L), respectively. This well is located in Parcel D, adjacent to the Glacier Property.

Chlorobenzenes: Chlorobenzenes were not detected in any of the shallow nearshore groundwater samples.

Phthalates: Phthalates were not detected in any of the shallow nearshore groundwater samples.

Phenolics: Phenol was detected in groundwater sampled from DSI-MW-09 at a low-level concentration of 2.7 µg/L.

Miscellaneous Extractables: Dibenzofuran was the only miscellaneous extractable that was detected in the nearshore groundwater samples. It was detected at three wells, with concentrations ranging from 0.018 to 0.25 µg/L.

3.1.1.5 Volatile Organic Compounds

Groundwater samples from all four shallow nearshore groundwater wells were analyzed for VOCs, with the majority below detection limits. Acetone, chloroform, cumene, n-butylbenzene, n-propylbenzene, sec-butylbenzene, toluene, and o-xylene were detected at low concentrations that exceed the laboratory reporting limits.

3.1.2 Deep Groundwater

Two monitoring wells (DSI-MW-07 and DSI-MW-10) were installed to a deeper depth in the Former Shipyard Nearshore and Parcel D Areas to assess the groundwater quality deeper in the aquifer. These wells have screen intervals ranging from 30.4 to 40.0 feet bgs to 30.9 to 40.7 feet bgs, with groundwater levels at the time of sampling ranging from 7.4 to 13.4 feet bgs. Results of deep groundwater testing are shown on Figures 6 and 7.

3.1.2.1 Conventionals

Deep groundwater samples were analyzed for DO, redox, conductivity, pH, and chloride. At the time of sample collection, DO ranged from 0.43 to 0.45 mg/L, redox ranged from 67.1 to 93.2 mg/L, conductivity ranged from 39,329 to 41,056 µS, and pH was 6.85 at both locations. Total chloride ranged from 15,400 to 16,800 mg/L.

The conventional parameters results for deeper nearshore groundwater substantiate the assertion that these samples are representative of surface water infiltrating the Site through the salt wedge. These results also are distinctly dissimilar to the conventionals results for shallow nearshore and upland groundwater.

3.1.2.2 Metals

Arsenic concentrations ranged from below detection at the lab reporting limit of 2 U µg/L at DSI-MW-07 to a concentration of 3 µg/L at DSI-MW-10. DSI-MW-10 is located in Parcel D, adjacent to the Glacier Property.

The detected copper concentrations are representative of natural background conditions. Copper and nickel were initially analyzed by inductively coupled plasma mass spectrometer (ICP-MS) methodology and detected at concentrations of 13 and 19 µg/L and 13 and 16 µg/L, respectively. Due to potential saltwater influence in the deeper groundwater, follow-up testing was performed for both copper and nickel. The tests confirmed that the initial ICP-MS results were an artifact of saltwater interference and are representative of background concentrations.

3.1.2.3 Total Petroleum Hydrocarbons

TPH-G, TPH-Dx, and TPH-O were not detected in either of the two deeper nearshore groundwater samples.

3.1.2.4 Semivolatile Organic Compounds

PAHs: Groundwater samples from the two deeper nearshore monitoring wells were analyzed for PAHs. Benzo(a)pyrene and indeno(1,2,3-c,d)pyrene were not detected in any of the samples, and were reported at the lab reporting limits of 0.01 U µg/L.

Chlorobenzenes: Chlorobenzenes were not detected in any of the deeper nearshore groundwater samples.

Phthalates: Phthalates were not detected in any of the deeper nearshore groundwater samples.

Phenolics: Phenolics were not detected in any of the deeper nearshore groundwater samples.

Miscellaneous Extractables: Dibenzofuran was the only miscellaneous extractable that was detected, with concentrations at both wells ranging from 0.026 to 0.03 µg/L.

3.1.2.5 Volatile Organic Compounds

Groundwater samples from both deep nearshore groundwater wells were analyzed for VOCs, with the majority below the detection limits.

3.2 Upland Groundwater Quality

Upland groundwater testing included sampling in 2006 at eight temporary boring locations and two shallow monitoring well locations, and in 2009 at 11 temporary boring locations and four monitoring well locations (three shallow and one deeper). The upland groundwater samples were collected to determine whether groundwater quality is protective of human health. The upland groundwater monitoring well locations are shown on Figure 4. The approach for sampling and testing of upland groundwater wells is summarized on Tables 1

and 2, and in Appendix A in Table A-3 for the 2009 Geoprobe, 2009 monitoring wells, and 2006 samples, respectively. Results of the 2006 preliminary investigation and 2009 RI effort are presented in Table 9, and shown on Figures 6 and 7. A statistical summary of the upland groundwater data is presented in Table 10.

Upland groundwater was tested for conventionals, dissolved metals, TPH (TPH-G and TPH-Dx), SVOCs, and VOCs. The 2006 groundwater testing also included PCBs and pesticides at eight temporary boring locations and two monitoring well locations. Selected upland groundwater testing results are presented on Figures 6 and 7, including TPH, arsenic, cPAH, benzene, and vinyl chloride. The following discussion presents the 2009 Phase 1 RI results.

3.2.1 Conventionals

Upland groundwater samples were tested for DO, redox, conductivity, and pH at the time of sample collection. Four wells (DSI-MW-01 to DSI-MW-04) were analyzed for chloride, and two shallow wells (DSI-MW-02 and DSI-MW-04) also were analyzed for nitrate, sulfate, sulfide, chloride, and alkalinity. At the time of sample collection, DO ranged from 0.33 to 0.72 mg/L, redox ranged from 11.2 to 89.5 mg/L, conductivity ranged from 1,976 to 5,579 µS in the shallow wells and was 31,035 µS in the deep well, and pH ranged from 6.41 to 6.66. Total chloride ranged from 526 to 1,670 per mg/L in the shallow wells and was 11,900 mg/L in the deeper well. Alkalinity, as calcium carbonate and bicarbonate, ranged from 177 to 182 mg/L, and was not detected as carbonate and hydroxide. Sulfate ranged from 14.9 to 55.1 mg/L, and sulfide was below the detection limit at DSI-MW-02 and detected at 0.086 mg/L at DSI-MW-04. Nitrate + Nitrite, Nitrite as Nitrogen, and Nitrate as Nitrogen were below detection limits in all samples.

The conventional parameters results for shallow groundwater substantiate the assertion that the samples analyzed are representative of Site groundwater, and not surface water from the LDW. The conventional parameters for deeper groundwater at DSI-MW-03 results substantiate the assertion that those samples are representative of surface water infiltrating the Site through the salt wedge. These results are also similar to the conventionals results for shallow and deep nearshore groundwater discussed in Sections 3.1.1 and 3.1.2, respectively.

3.2.2 Metals

Arsenic was detected in groundwater in each of the upland Site areas in all locations, excluding DSI-MW-02 and DSI-GP-21. Arsenic concentrations ranged from 0.5U to 388 µg/L, with concentrations generally decreasing downgradient (east) from the Railspur Area. Other metals with low-level detected concentrations include copper, nickel, selenium, and zinc.

3.2.3 Total Petroleum Hydrocarbons

Both TPH-G and TPH-Dx were tested in upland groundwater in 2009. TPH-Dx and TPH-O were not detected in any of the wells. However, gasoline was detected in the UST Removal Area from the temporary borings, at concentrations ranging from 0.32 to 0.38 mg/L, and in the South Property Area at 0.38 mg/L.

3.2.4 Semivolatile Organic Compounds

PAHs: Groundwater samples from each of the upland Site areas were analyzed for PAHs, and only low-concentrations of select PAHs were detected. PAH data are presented in Table 9.

Chlorobenzenes: Chlorobenzenes were not detected in any of the samples from the upland groundwater wells and temporary borings.

Phthalates: Phthalates were not detected in any of the upland groundwater samples.

Phenolics: Phenolics were not detected in any of the upland groundwater samples.

Miscellaneous Extractables: Dibenzofuran was the only miscellaneous extractable that was detected in upland groundwater samples. Concentrations in the UST Removal and South Property Areas ranged from 0.021 to 0.2 µg/L.

3.2.5 Volatile Organic Compounds

Groundwater samples from each of the upland Site areas were analyzed for VOCs. Low-level concentrations of benzene and vinyl chloride were detected at some sample locations.

Benzene was detected in two wells (DSI-MW-04 and DSI-GP-21), which are located in the UST Removal and South Property Areas, respectively. Benzene concentrations ranged from 15 µg/L to 25 µg/L, with the highest benzene concentration within the UST removal area.

Vinyl chloride was detected in one well (DSI-MW-01) located in the Railspur Area and in three wells located in the Central Area. All other samples were either detected at or below detection limits. Vinyl chloride can be present as a result of the breakdown of the chlorinated solvents tetrachloroethylene (PCE) and trichloroethylene (TCE). However, neither PCE nor TCE was detected in any of the groundwater samples collected at the Site.

3.3 Soil Quality

This section presents a summary of the upland soil data collected at the Site during the 2009 Phase 1 RI. A total of 31 borings were completed during the investigation, including Geoprobes and monitoring well installations. These include both near surface and subsurface soil samples collected within the unsaturated and saturated zone across the Site.

The soil sampling locations are shown on Figure 4 and are summarized on Tables 1 and 2. Results of soil testing for the 2006 preliminary investigation and the 2009 RI effort are organized by Site area and are presented in Tables 11a through 11g. Upland soil physical testing results are presented in Table 12, upland soil geotechnical data are presented in Table 13, and a statistical summary of the upland environmental soil data are presented in Table 14. Selected upland soil results for both the 2006 and 2009 investigation efforts are presented on Figures 8 and 9, including TPH, arsenic, cPAH, benzene, and zinc. Soil samples were selectively analyzed in 2009 for metals, TPH, SVOCs, and BTEX, based on the results of the 2006 preliminary investigation (Anchor 2006b). The 2006 soil testing included metals, petroleum, VOCs, PAHs, PCBs, and pesticides. PCBs and pesticides were not detected at all 2006 soil sample locations. The following discussion presents the 2009 Phase 1 RI results.

3.3.1 Metals

Arsenic was detected in the Railspur, Former Shipyard Nearshore, South Property, and Parcel D Nearshore areas at concentrations presented in Table 11. Copper, lead, and mercury were also detected in upland soil samples collected in the various Site areas.

The Railspur Area was exclusively sampled for arsenic, based on results from the 2006 preliminary investigation. The 2009 upland soil concentrations in the Railspur Area ranged from 6 U to 48.1 mg/kg, with exceedances predominantly in the unsaturated zone (< 3 feet bgs) and concentrations generally decreasing downgradient (east) from this area. The source of arsenic in the Railspur Area is unknown and may be associated with historical fill in this area.

Upland soils in the northern portion of the Former Shipyard Nearshore Area had concentrations of arsenic ranging from 6 to 12 mg/kg. The majority of the arsenic detections occurred in the northern portion of the Former Shipyard Nearshore Area, with the exception of low concentration detections at DSI-GP-14 in the central area of the Former Shipyard Nearshore Area. Copper and mercury detections are generally co-located, with all detected copper concentrations ranging from 8 to 251 mg/kg, and mercury concentrations ranging from 0.02 U to 1.63 mg/kg. Lead was detected at an elevated concentration in one Geoprobe (DSI-GP-12), which is in the northern area of the Former Shipyard Nearshore Area. Detections of metals in this area are located predominantly in the unsaturated zone (< 3 feet bgs), with concentrations declining in the lower sample intervals.

Soil sampling for metals was performed at three locations along the South Property Area. Arsenic was detected in stations DSI-GP-19 and DSI-GP-20 in the 3 to 5-foot intervals at 10 and 24 mg/kg, respectively. All other arsenic concentrations, including the deeper samples (5.5 to 8 feet bgs) and DSI-GP-21, were below detection limits. Chromium was detected in the 2 to 4.5-foot interval of DSI-GP-21 at a concentration of 62.4 mg/kg.

Parcel D contains soil concentrations of arsenic at DSI-MW-10, with detected concentrations of 25 and 14 mg/kg in the 0.5 to 3.5-foot and 5 to 8-foot bgs sample intervals, respectively. This monitoring well is located in the southern portion of Parcel D adjacent to the Glacier property. All other arsenic concentrations were below detection limits.

3.3.2 Total Petroleum Hydrocarbons

Upland soil samples in the Northwestern, Central, UST Removal, South Property, Former Shipyard Nearshore, and Parcel D areas were analyzed for TPH, including TPH-Dx. TPH-G was detected in the Northwestern, UST Removal, Former Shipyard, and Parcel D areas, with the highest concentrations located in the nearshore areas. TPH-Dx was detected at elevated concentrations in the UST Removal and Former Shipyard Nearshore Areas.

Soil sampling was performed at three locations in the Northwestern Area exclusively for TPHs and selectively for petroleum fractionation, based on a gasoline range detection observed in the 2006 preliminary investigation. All TPH results were non-detect or detected at low concentrations, except for one sample interval (5.5 to 7-feet bgs) at station DSI-MW-02, with a concentration of 53 mg/kg. This TPH-G concentration decreased from the concentration of 110 mg/kg observed in 2006 at an adjacent soil sample location. TPH groundwater testing at these locations generally show a similar declining trend, with TPH-Dx observed at elevated concentrations in the 2006 preliminary investigation and decreasing to below detection levels in 2009.

Upland soil samples at five locations in the UST Removal Area were analyzed for TPH and selective petroleum fractionation. TPH-G and TPH-Dx ranged from non-detect (5.2 U mg/kg) to 560 mg/kg, and from non-detect (6.4 U mg/kg) to 3,800 mg/kg, respectively. TPH-O ranged from non-detect (12 U mg/kg) to 1,200 mg/kg. TPH detections were generally observed at elevated concentrations in the unsaturated zone, with soil concentrations significantly lower in the saturated zone, except at one location just east of the UST removal footprint.

Soil sampling was performed at eight locations in the Former Shipyard Nearshore Area, and the samples were analyzed for TPH. TPH-G concentrations ranged from non-detect (5.2 U mg/kg) to 1,200 mg/kg and were generally present in both the unsaturated and saturated zones in this area. TPH-Dx was detected with concentrations of 3,500 and 9,000 mg/kg at one Geoprobe (DSI-GP-15), which is located in the immediate vicinity of the former marine railway.

Upland soil samples from two locations in the Parcel D Nearshore Area were analyzed for TPH, with elevated concentrations of TPH-G observed at one location (DSI-MW-10). The TPH-G exceedances ranged from 62 mg/kg in the 5 to 8-foot bgs sample interval to 270 mg/kg in the 0.5 to 3.5-foot bgs interval. DSI-MW-10 is located in the southern portion of the Parcel D Nearshore Area adjacent to the Glacier property.

3.3.3 Semivolatile Organic Compounds

Upland soil samples from the South Property, Former Shipyard Nearshore, and Parcel D areas were analyzed for SVOCs.

PAHs: Upland soil samples from the Former Shipyard Nearshore and Parcel D Nearshore areas were analyzed for PAHs.

Soil samples at three locations in the South Property Area were analyzed for PAHs, with elevated concentrations observed in two sample intervals. Benzo(a)pyrene and total cPAH Toxic Equivalency Quotient (TEQ) (U=1/2) results ranged from 18 J to 300 µg/kg and 20 U to 380 µg/kg, respectively. The two sample locations (DSI-GP-20 and DSI-GP-21) are located in the central and eastern portions of the Central Site Area towards the nearshore. Both of the elevated concentrations were detected in the unsaturated zone, with concentrations decreasing in the lower sample intervals.

Soil samples at eight locations in the Former Shipyard Nearshore Area were analyzed for PAHs. Benzo(a)pyrene concentrations ranged from 12 J to 390 µg/kg, and total cPAH TEQ (U=1/2) concentrations ranged from 17.2 to 510 µg/kg.

Soil samples at two locations in the Parcel D Nearshore Area were analyzed for PAHs. Station DSI-GP-17, which is in the northern portion of the Site area, had detections but no elevated concentrations of the individual PAH analytes in the upper sample interval. In the lower sample interval located in the saturated zone, all PAHs were below detection limits. Station DSI-MW-10, which is located in the central portion of Parcel D adjacent to the Glacier property, has elevated concentrations of benzo(a)anthracene and cPAHs in both sample intervals. Benzo(a)anthracene ranged from 7,600 µg/kg near the ground surface to 6,000 µg/kg in the 5 to 8-foot bgs interval. Total cPAH (U=1/2) ranged from 9,247 to 7,411

µg/kg in the upper and lower sample intervals, respectively. Groundwater samples collected from the co-located shallow monitoring well (DSI-MW-09) were the only nearshore groundwater samples with elevated concentrations of PAHs.

Chlorobenzenes: Chlorobenzenes were not detected in any of the soil samples, with the exception of hexachlorobenzene in DSI-GP-12. This station is located at the northern edge of the Former Shipyard Nearshore Area and had a concentration of 300 µg/kg. This sample interval was in the upper unsaturated zone. The lower sample in the saturated zone was below detection limits. Hexachlorobenzene was not detected in any of the nearshore groundwater samples.

Phthalates: Phthalate samples were below detection limits in the majority of the upland soil samples.

Phenolics: Phenolics were below detection limits in the majority of the upland soil samples.

Miscellaneous Extractables: Dibenzofuran was detected at a concentration of 420 J µg/kg at DSI-GP-15. This sample interval was in the upper unsaturated zone. The dibenzofuran concentration in the lower sample in the saturated zone was near non-detect.

3.3.4 BTEX

Upland soil samples in the UST Removal Area were analyzed for BTEX, based on results from the 2006 preliminary investigation (Anchor QEA 2006b).

Benzene was detected at two locations (DSI-GP-10 and DSI-GP-11), which are immediately adjacent to the UST removal footprint, at concentrations ranging from 2.2 µg/kg to 19 J µg/kg within the unsaturated zone.

3.4 Geologic and Hydrogeologic Conditions

3.4.1 Geologic Conditions

Anchor QEA has defined the Site geology by visual observations and physical testing at a number of the soil borings performed during both the 2006 and 2009 investigations.

Physical testing results are presented in Table 12, and visual observations are detailed on the soil boring logs contained in Appendix B.

The upland surface is underlain by a relatively thin layer of fill, which consists of compact gravel and then gray and brown sand that ranges from very fine to coarse sub-rounded grains. The fill extends from 2 to 10 feet bgs in upland areas. Boring logs identify a pervasive silt layer at the base of the fill, which may represent the uppermost native soil. Organic material (e.g., plant roots) is also present in this silt layer. The extent of the silt layer was identified by five deeper borings (three monitoring wells and two geotechnical borings) and generally extended to a depth of 12 to 15 feet bgs. Underlying the silt layer is dark gray sand with intermittent silt interbeds and layers. The shoreline along the eastern portion of the Property has been modified by armoring and bulkheading.

3.4.2 Hydrogeologic Conditions

Site-specific groundwater gradients were defined during the 2009 upland RI effort (Anchor QEA 2009). This investigation included the installation of one piezometer and 10 monitoring wells, with three of the ten wells installed in the deeper aquifer (screened at 30 to 40 feet bgs). A transducer study was conducted at seven locations on the Property and one location in the Duwamish River, as presented on Figure 4. Based on the results of the transducer study, groundwater gradients are generally easterly and toward the LDW. Tidal fluctuation of groundwater elevations was determined to occur along the eastern area of the Property (i.e., within 200 to 300 feet of the shoreline), resulting in tidally influenced groundwater along the nearshore area prior to discharge into the LDW. Figures 10 and 11 present the results of the transducer study and show the groundwater contours for high-high and low-low tide events.

Based on the results of boring observations and groundwater monitoring, groundwater levels at the Site ranged from approximately 4 to 11 feet bgs, with lower water levels at the nearshore area during low tide. The transducer study showed a hydraulic conductivity (K) for the wells tested with ranges from 100 to 750 feet/day. This is consistent with the sandy material observed in the shallow groundwater zone. Vertical gradients were also calculated at the paired locations for DSI-PZ-01 (shallow) and DSI-MW-03 (deeper). The well screens for these two locations have a 25-foot vertical distance between the midpoint of the screens.

Testing showed a consistent downward vertical gradient (shallow to deep) of approximately 0.015 feet/feet.

Groundwater monitoring and testing of conventional parameters showed a saltwater wedge in the deeper aquifer. Results for the nearshore area were taken during a low tide event to confirm that sampled groundwater was not influenced by tidal mixing. Testing results show that the deeper aquifer is influenced by saline water, and the shallow aquifer is consistent between upland and nearshore areas. Results at the nearshore area confirm that groundwater sampling at low tide represents Site groundwater prior to discharge to the LDW. The conventional parameters results for groundwater are described in Sections 3.1 and 3.2.

3.5 Geotechnical Study

Two upland geotechnical borings were completed as part of RI activities. Proposed station GT-3 was not completed due to encountering refusal at the proposed location and dock access limitations in relocating the boring. Subsurface soil samples were collected by hollow-stem auger at these locations. The geotechnical data was required in order to evaluate the stability of the shoreline slope in connection with evaluating potential remedial options to be developed in the FS.

The locations of the hollow-stem auger borings are shown in Figure 4. Samples from the geotechnical borings were analyzed selectively for Atterberg Limits, specific gravity, grain size, and moisture content. The sampling intervals and results for the upland geotechnical borings are presented in Table 13.

4 SURFACE AND SUBSURFACE SEDIMENT TESTING RESULTS

This section summarizes surface and subsurface sediment chemical testing data collected during the Phase 1 RI. Figure 5 presents the surface and subsurface sediment sampling locations. Tables 5 and 6 present a summary of surface and subsurface sediment sampling scheme, including coordinates, mudline elevation, depth of core, and testing suite. Surface sediment results are presented in Table 15. Subsurface sediment results are presented in Table 16. A statistical summary of surface and subsurface sediment is presented in Tables 17 and 18, respectively.

4.1 Geology and Site Stratigraphy

The geology of the Duwamish River basin has been described in detail in the LDWG RI Reports (Windward 2003, 2010) and this section presents a summary of the Site geology. The Duwamish basin is composed of four main geologic assemblages, which include bedrock (where it exists), upland glacial and non-glacial deposits, Quaternary alluvial deposits, and recent fill. Of these, the alluvial and fill deposits were encountered during this study. The alluvial deposits include estuarine fine sands and silts as well as interbedded sequences of silt, sand, and gravel associated with the advance of a prograding delta. These deposits compose the principal aquifer and groundwater pathway for the Duwamish basin. The fill units were created when modifications were made to the Lower Duwamish River post-1900 to support navigation needs in the waterway. The channel was straightened and dredged and the lowlands were filled using the dredged material, creating a layer of fill over most of the lower Duwamish Valley. The channel is still dredged for navigational purposes.

The primary sediments encountered during the LDW RI (Windward 2003, 2010) were further grouped as Recent Alluvium and Fill Deposits, Upper Alluvium, and Lower Alluvium. This stratigraphic convention was used to describe Site geology along with an additional category to distinguish surface sediment.

4.1.1 Recent Alluvium (and Fill)

The sediment composition of the Recent Alluvium, as based on investigation-derived grain size analyses, indicates that this unit is predominantly composed of silt (> 95 percent) and very fine to fine sand (< 5 percent), and includes occasional organic material (wood fibers

and fragments). These findings are consistent with those from the LDW RI Subsurface Sediment Data Report (Windward 2007), which indicate that unit thickness varies based on location within the LDW and can range from 3 to 20 feet. These deposits are associated with dredged material from channelization as well as fluvial deposits from upriver sources.

4.1.2 Upper Alluvium

The upper alluvium unit consists predominantly of very fine to fine sand (22 to 86 percent) and silt (22 to 79 percent), associated with interbedded and prograding deltaic deposits. Silt commonly occurs within laminated beds. These findings are consistent with the LDW RI Subsurface Sediment Data Report (Windward 2007), which further indicates that these younger alluvial deposits are of relatively constant thickness and depth.

4.1.3 Lower Alluvium

The lower alluvium unit typically consists of sands and silty sands, with grain sizes ranging from very fine to coarse sand (15 to 76 percent) and up to 84 percent silt, as indicated by select grain size analyses. These findings are consistent with the LDW RI Subsurface Sediment Data Report (Windward 2007), which further indicates that the maximum unit thickness is up to 100 feet in the central Duwamish Valley. These sediments are associated with the coarser portion of prograding deltaic deposits.

4.2 Surface Sediment Quality

Surface sediment was collected from the biologically active zone, 0 to 10 cm below mudline, in the aquatic areas adjacent to the Property. Testing was performed to delineate the lateral extent of sediment contamination.

Sediment quality throughout the investigation area is compared to the SMS Sediment Quality Standards (SQS), for the purposes of protection of ecological health and tribal consumption. Dredged Material Management Program (DMMP) criteria were also applied for those chemicals without SQS criteria (e.g., tributyltin).

Eleven surface sediment samples were collected during the Phase I RI and analyzed for conventional parameters, metals, TBT (porewater and bulk), SVOCs, VOCs, chromium VI,

PCBs, pesticides, physical parameters, and selectively for dioxin/furans. A summary of the chemical and physical testing suites is presented in Table 5. The analytical results are reported in Table 15. A statistical summary of the data is presented in Table 17 and Table 19. Surface sediment locations are shown on Figure 5 and selected results are presented on Figure 12.

4.2.1 Conventionals

Surface sediment samples were analyzed for total organic carbon (TOC), total solids (TS), total volatile solids (TVS), and moisture content. TOC results ranged from 1.39 to 2.73 percent, which are within the acceptable range for organic carbon normalization. TS percentages ranged from 44.2 to 50.9 percent, TVS ranged from 7.79 to 9.62 percent, and moisture content ranged from 97.2 to 128.7 percent.

4.2.2 Metals

All metals in the surface sediment samples were below SMS criteria. Arsenic concentrations ranged from 11 to 30.1 mg/kg, with the highest concentrations at locations DSI-SS-07 and DSI-SS-11, immediately downstream of the Site. Antimony, selenium, silver, and thallium were not detected in any samples.

4.2.3 Tributyltin

Bulk and porewater TBT were analyzed in all 11 surface sediment samples. Bulk TBT was detected in 10 of the 11 samples and ranged from 3.6 U to 180 µg/kg. Four stations exceeded the DMMP criteria of 73 µg/kg, with the highest bulk TBT concentrations observed at stations DSI-SS-05 (180 µg/kg) and DSI-SS-07 (170 µg/kg) to the south of the Site. Porewater TBT was detected at only one station (DSI-SS-01), with a concentration of 0.22 J µg/L, which exceeds the DMMP screening level (SL) of 0.15 µg/L. This station is located offshore of the Parcel D Nearshore Area in the southern portion of the Site.

4.2.4 Semivolatile Organic Compounds

PAHs: PAH results did not exceed SMS criteria. Total PAH concentrations ranged from 18 to 192 mg/kg–organic carbon (OC) normalized. Concentrations were highest in samples

collected along the nearshore areas adjacent to the historical marine railway and decreased upstream of the Site. The highest PAH detections were at stations DSI-SS-05 and DSI-SS-06, which are located adjacent to one of the former dry docks and former graving dock, respectively.

Chlorobenzenes: Chlorobenzenes were not detected in almost all of the surface sediment samples.

Phthalates: Phthalates were below detection limits in the majority of the surface sediment samples.

Phenolics: Phenolics were below detection limits in the majority of the surface sediment samples.

Miscellaneous Extractables: Benzyl alcohol concentrations ranged from 65 to 390 µg/kg, which exceeded the SQS value of 57 µg/kg in all samples. Benzoic acid was detected at all stations and exceeded the SQS value of 650 µg/kg at station DSI-SS-11, with a concentration of 690 µg/kg. DSI-SS-11 has the highest concentrations of both benzyl alcohol and benzoic acid, and is located in the FNC at the northern extent of the sampling area.

4.2.5 Polychlorinated Biphenyls

All 11 surface sediment samples had detections of PCBs for aroclors 1248, 1254, and 1260. Only one location (DSI-SS-10) was slightly above the SQS value for total PCB (12 mg/kg-OC), with a concentration of 13 mg/kg-OC. This station is located just offshore of the Property adjacent to the location of one of the historical dry docks.

4.2.6 Volatile Organic Compounds

VOC results were all below detection limits, with the exception of acetone. Acetone was detected at concentrations ranging from 43 to 140 µg/kg, with the highest concentrations at station DSI-SS-11. This station is located in the FNC at the northern extent of the sampling area.

4.2.7 Pesticides

Pesticide results were predominantly below detection limits, with a small number of low-level detections.

4.2.8 Dioxin/Furans

Eight surface sediment samples were analyzed for dioxins/furans. Concentrations of dioxin/furans (reported as TEQ mammalian 2005 U=1/2) ranged from 4.0 to 22.3 nanograms per kilogram (ng/kg). Dioxin/furan TEQ concentrations were generally highest at station DSI-SS-01, located offshore of the Parcel D Nearshore Area adjacent to the Glacier property. Figure 13 presents the results of the dioxin/furans testing completed in surface sediments at the Site and at LDW surface sediment locations within Glacier Bay.

4.3 Subsurface Sediment Quality

Subsurface sediment was sampled at 17 locations in the aquatic areas of the Site, as shown on Figure 5. Testing was performed to delineate the vertical nature and extent of contamination adjacent to the Property.

Sediment quality throughout the investigation area is compared to the SMS (SQS and CSL), for the purposes of protection of ecological health and tribal consumption.

A total of 160 subsurface sediment samples were collected during the Phase I RI effort. Sixty-five samples were analyzed for conventional parameters, metals, chromium VI, TBT (bulk), SVOCs, PCBs, pesticides, physical parameters, and selectively for VOCs and dioxin/furans. A summary of the chemical and physical testing suites is presented in Table 6. The analytical results are reported in Table 16. A statistical summary of the subsurface sediment data are presented in Table 18 and Table 19. Sediment sampling stations are shown on Figure 5. Selected analyte results compared to SMS criteria are presented on Figures 14 through 16.

4.3.1 Recent Alluvium (and Fill)

A total of 45 subsurface sediment samples were analyzed with the recent alluvium. The following subsections describe the sediment quality in terms of recent alluvium deposits.

4.3.1.1 Conventionals

Subsurface sediment samples were analyzed for TOC, TS, and selective TVS. TOC results ranged from 1.04 to 3.66 percent, with one sample (DSI-SB-11-1-2) outside the acceptable range for OC normalization. TS results ranged from 48.4 to 85 percent and TVS results ranged from 3.51 to 11.14 percent.

4.3.1.2 Metals

Metals were detected in the majority of the recent alluvium subsurface sediment samples and included exceedances of the SMS criteria for arsenic, copper, lead, mercury, and zinc. Antimony, beryllium, cadmium, chromium, chromium VI, nickel, selenium, silver, and thallium were detected in approximately half of the samples and did not exceed the SMS criteria. All other metals were below detection limits.

Arsenic exceeded the SQS value (57 mg/kg) in 24 samples. Stations DSI-SB-06 and DSI-SB-15 did not exceed the SQS value in any sample interval. Arsenic concentrations ranged from 11.7 to 1,290 mg/kg, with the highest concentration at locations DSI-SB-05 adjacent to one of the former dry docks. Arsenic concentrations were predominantly below the SQS value in the 1 to 2-foot sample interval, with concentrations increasing towards the native material contact. Stations DSI-SB-12 and DSI-SB-13 are exceptions to this trend, with higher concentrations in the 1 to 2-foot interval and decreasing in deeper subsurface sample intervals.

Copper was detected in 45 recent alluvium sediment samples and exceeded the SQS value (390 mg/kg) in 19 samples. Stations DSI-SB-02, DSI-SB-06, DSI-SB-14, DSI-SB-15, DSI-SB-16, and DSI-SB-17 did not have exceedances and bound the lateral extent of copper contamination. Concentrations ranged from 72.6 to 2,040 J mg/kg, with the highest concentration at station DSI-SB-08 adjacent to one of the former dry docks. Copper concentrations were predominantly below the SQS value in the 1 to 2-foot sample interval, with concentrations increasing toward the basal contact. Stations DSI-SB-12 and DSI-SB-13 are exceptions to this trend, with higher concentrations in the 1 to 2-foot sample interval and decreasing in deeper sample intervals.

Lead was detected in 45 recent alluvium sediment samples and exceeded the SQS value (450 mg/kg) in 12 samples. Stations DSI-SB-01, DSI-SB-02, DSI-SB-03, DSI-SB-06, DSI-SB-14, DSI-SB-15, DSI-SB-16, and DSI-SB-17 did not have exceedances for lead. Those stations are located at the boundary of the sampling area, and bound the lateral extent of lead contamination. Concentrations ranged from 39 to 1,340 mg/kg, with the highest concentration at station DSI-SB-04 offshore of the dock. Lead concentrations were predominantly below the SQS value in the top 4 feet of the core, with concentrations increasing toward the sandy contact. Stations DSI-SB-12 and DSI-SB-13 are exceptions to this trend, with higher concentrations in the 1 to 2-foot sample interval and decreasing in deeper sample intervals.

Mercury was detected in 45 recent alluvium sediment samples and exceeded the SQS value (0.41 mg/kg) in 21 samples. Stations DSI-SB-01, DSI-SB-03, and DSI-SB-15 did not have exceedances for mercury. These stations are in a transect offshore of the Parcel D Nearshore Site Area. Mercury concentrations ranged from 0.16 to 3.3 mg/kg, with the highest concentration at station DSI-SB-05, which is located adjacent to a former dry dock. Mercury concentrations were predominantly below the SQS value in the top 4 feet of the core, with concentrations increasing toward the sandy contact. Stations DSI-SB-12 and DSI-SB-13 are exceptions to this trend, with higher concentrations in the 1 to 2-foot sample interval and decreasing in deeper sample intervals.

Zinc was detected in 45 recent alluvium sediment samples and exceeded the SQS value (410 mg/kg) in 21 samples. Stations DSI-SB-14 and DSI-SB-15 did not have exceedances for zinc. Zinc concentrations ranged from 111 J to 4,110 J mg/kg, with the highest concentration at DSI-SB-04, which is located offshore of the dock. Trends in the contaminant profiles were not identified.

4.3.1.3 Semivolatile Organic Compounds

PAHs: PAHs were detected in the majority of the recent alluvium subsurface sediment samples. Stations DSI-SB-01, DSI-SB-02, DSI-SB-06, DSI-SB-14, DSI-SB-16, and DSI-SB-17 did not have SQS exceedances for PAHs. These locations effectively bound the lateral extent of PAH contamination, with the exception of the area surrounding DSI-SB-15 to the

southeast of the Site. PAH results will be discussed by lower molecular weight PAH (LPAH) and higher molecular weight PAH (HPAH) concentrations. The LPAH results include the following compounds: naphthalene, acenaphthylene, acenaphthene, fluorine, phenanthrene, and anthracene. HPAH results include the following compounds: fluoranthene, pyrene, benzo(a)anthracene, chrysene, total benzofluoranthenes, benzo(a)pyrene, indeno(1,2,3-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene.

Total LPAH was detected in 45 recent alluvium sediment samples, and exceeded the SQS value (370 mg/kg-OC) in six samples. Stations DSI-SB-01, DSI-SB-02, DSI-SB-03, DSI-SB-05, DSI-SB-06, DSI-SB-08, DSI-SB-12, DSI-SB-13, DSI-SB-14, DSI-SB-16, and DSI-SB-17 did not have exceedances for LPAH. Those stations bound the lateral extent of LPAH contamination to the area offshore of the dock, with two outliers outside of the clean boundary. Stations DSI-SB-04, DSI-SB-09, DSI-SB-10, and DSI-SB-11 are adjacent to the dock, and range in concentrations from 380 to 919 mg/kg-OC. All SMS exceedances in these stations were located in the deepest sample interval in the recent alluvium unit. Sample location DSI-SB-07 is located downstream of the Site, with an SMS criteria exceedance of 1,211 mg/kg-OC in the 11 to 12-foot sample interval. Station DSI-SB-15 is located upstream of the Site at the southeastern extent of the sampling area and had the highest concentration of 1,876 mg/kg-OC in the 11.5 to 12.5-foot sample interval.

Total HPAH was detected in 45 recent alluvium sediment samples and exceeded the SQS value (960 mg/kg-OC) in eight samples. Stations DSI-SB-01, DSI-SB-02, DSI-SB-03, DSI-SB-06, DSI-SB-07, DSI-SB-10, DSI-SB-12, DSI-SB-13, DSI-SB-14, DSI-SB-16, and DSI-SB-17 did not have exceedances for HPAH. These stations bound the lateral extent of HPAH contamination to the area offshore of the dock, with two outlying areas with exceedances. Stations DSI-SB-04, DSI-SB-05, DSI-SB-09, and DSI-SB-11 are adjacent to the dock and range in exceedances from 976 to 1,690 mg/kg-OC. All exceedances in these stations were located in the deepest sample interval in the recent alluvium unit, with the exception of the 4.5 to 5.5-foot interval in DSI-SB-09. Sample location DSI-SB-13 is located downstream of the Site adjacent to the former graving dock and had an exceedance of 1,123 mg/kg-OC in the 1 to 2-foot sample interval. Stations DSI-SB-08 and DSI-SB-15 are located upstream of the Site at the southeastern extent of the sampling area, and had concentrations of 965 mg/kg-OC in the 7 to 8.7-foot interval and 1591 mg/kg-OC in the 11.5to 12.5-foot interval.

Chlorobenzenes: Chlorobenzenes were not detected in the majority of the recent alluvium subsurface sediment samples.

1,2-dichlorobenzene was detected in 22 samples and exceeded the SQS value (2.3 mg/kg-OC) in eight samples. Stations DSI-SB-05, DSI-SB-08, DSI-SB-09, and DSI-SB-11 contained exceedance samples and are located in a line parallel to the Site near the FNC boundary. Exceedances ranged from 3.6 to 7.9 mg/kg-OC and were generally concentrated in the deeper sample intervals. The stations with exceedances are bounded in all directions, effectively defining the nature and extent of contamination.

1,2,4-trichlorobenzene was detected in 11 samples and exceeded the SQS value (0.81 mg/kg-OC) in one sample. Station DSI-SB-09 had a concentration of 2.1 mg/kg-OC in the 4.5 to 5.5-foot sample interval. This location is bounded on all sides by stations below the SQS value.

Phthalates: Phthalate results were below detection limits for the majority of the recent alluvium subsurface sediment samples.

Bis(2-ethylhexyl)phthalate was detected in 39 samples and exceeded the SQS value (47 mg/kg-OC) in six samples. Stations DSI-SB-04, DSI-SB-08, DSI-SB-10, DSI-SB-11, and DSI-SB-13 contained exceedances and are located adjacent to the dock and former dry dock. Exceedances ranged from 47.3 to 329 mg/kg-OC and were generally concentrated in the deeper sample intervals. The stations with exceedances are bounded in all directions, effectively defining the nature and extent of contamination.

Phenolics: 2,4-dimethylphenol was detected in nine samples and exceeded the SQS value of 29 µg/kg dw in two samples. Stations DSI-SB-06 and DSI-SB-09 had concentrations of 100 µg/kg in the 5 to 6.5-foot sample interval and 54 µg/kg in the 11 to 12.1-foot sample interval. These locations are both bounded on all sides by stations with samples below the SMS criteria.

Miscellaneous Extractables: Dibenzofuran was detected in 42 samples and exceeded the SMS value of 15 mg/kg-OC in six samples. Stations DSI-SB-04, DSI-SB-07, DSI-SB-09, DSI-SB-10, and DSI-SB-15 contained exceedances, and are located adjacent to the dock and in two outlying areas. Exceedances ranged from 15.2 to 196 mg/kg–OC, with the highest concentrations in the outlying areas (stations DSI-SB-07 and DSI-SB-15). All exceedances in these stations were located in the deepest sample interval in the recent alluvium unit, with the exception of the 4.5 to 5.5-foot sample interval in DSI-SB-09. The stations closest to the Site with exceedances are bounded in all directions, effectively defining the nature and extent of contamination.

Benzyl alcohol was detected in 22 samples and exceeded the SQS value of 57 µg/kg in 11 samples. Stations DSI-SB-02, DSI-SB-03, DSI-SB-04, DSI-SB-05, DSI-SB-06, DSI-SB-09, DSI-SB-10, DSI-SB-11, and DSI-SB-13 contained samples above SLs. These stations are located offshore of the Site, with exceedances primarily in the 1 to 2-foot sample interval. Exceedances ranged from 85 to 280 µg/kg, with the highest concentration at station DSI-SB-02 above the 2005 Glacier dredging cap. Locations with exceedances are bounded by concentrations below the SQS to the north (DSI-SB-07) and east (stations in the FNC). The extent of contamination is not bounded upstream of the Site, with the highest concentrations to the south of the Site.

4.3.1.4 Polychlorinated Biphenyls

Total PCBs were detected in 45 recent alluvium sediment samples and exceeded the SQS value of 12 mg/kg-OC in 32 samples. Every station contained one or more samples above the SQS. Total PCB (U=1/2) exceedances ranged from 13 to 955 mg/kg-OC, with the highest concentration at station DSI-SB-05 in the 8 to 9.3-foot sample interval. Detected aroclors included 1248, 1254, and 1260, with one detection of Aroclor 1242. Total PCB concentrations predominantly peaked in the middle of the recent alluvium unit and decreased towards the mudline and sandy contact. All non-detect samples were at or below the SMS criteria.

4.3.1.5 Volatile Organic Compounds

VOC results were predominantly below detection limits for all recent alluvium subsurface sediment samples.

1,3,5-trichlorobenzene was detected in five recent alluvium subsurface sediment samples. Detected concentrations ranged from 1.3 to 47 µg/kg, and the highest concentration was in the 10.5 to 11.9-foot sample interval of station DSI-SB-07. This station is located downstream of the Site adjacent to the AML property.

Acetone was detected in all analyzed recent alluvium subsurface sediment samples. Concentrations ranged from 36 to 320 µg/kg and were highest at station DSI-SB-07, which is located downstream of the Site adjacent to the AML property. Acetone concentrations were predominantly higher towards the mudline in the 1 to 2-foot sample interval.

Benzene was detected in one recent alluvium subsurface sediment sample, with a concentration of 4.7 µg/kg. This detection was in the 8 to 8.9-foot sample interval in station DSI-SB-11, which is located at the northern extent of the sampling area.

Chlorobenzene was detected in five recent alluvium subsurface sediment samples. Detected concentrations ranged from 5.7 to 110 µg/kg, with the highest concentrations at station DSI-SB-09 in the 11 to 12.1-foot sample interval. This station is located in the area offshore of the dock. It is bounded by lower concentrations and non-detect samples.

Dichloromethane was detected in seven recent alluvium subsurface sediment samples. Detected concentrations ranged from 2.7 to 19 µg/kg, with the highest concentrations at station DSI-SB-08 in the 7 to 8.7-foot sample interval. This station is located adjacent to former dry dock No. 2 in the 2005 Glacier dredging area.

Toluene was detected in three recent alluvium subsurface sediment samples. Detected concentrations ranged from 2.1 to 3 µg/kg, with the highest concentrations at station DSI-SB-10 in the 5.5 to 7-foot sample interval. This station is located in the area offshore of the dock. It is bounded by lower concentrations and non-detect samples.

4.3.1.6 Pesticides

Pesticide results were predominantly below detection limits, with a small number of low-level detections.

4.3.1.7 Dioxin/Furans

Concentrations of dioxins/furans (reported as Total TEQ mammalian 2005 U=1/2) ranged from 12.8 to 686 ng/kg. Ten recent alluvium subsurface sediment samples were analyzed for dioxins/furans, including stations DSI-SB-02, DSI-SB-05, DSI-SB-07, and DSI-SB-09. Dioxin/furan TEQs were highest at station DSI-SB-07 in the 10.5 to 11.9-foot sample interval, which is located just downstream of the Site adjacent to the AML property.

4.3.2 Upper Alluvium

Fourteen subsurface sediment samples were analyzed within the upper alluvium unit, and the following sections describe the sediment quality of the upper alluvium unit. Upper alluvium subsurface sediment samples were analyzed in stations DSI-SB-02, DSI-SB-04, DSI-SB-05, DSI-SB-06, DSI-SB-09, DSI-SB-10, DSI-SB-11, and DSI-SB-12. Depths of the upper alluvium contact ranged from 4.3 feet below mudline (at station DSI-SB-12) to 11 feet below mudline (at station DSI-SB-11).

4.3.2.1 Conventionals

Upper alluvium subsurface sediment samples were analyzed for TOC and TS. TOC results ranged from 0.265 to 2.19 percent, with two samples outside the acceptable range for OC normalization. TS percentages ranged from 60.4 to 78.1 percent.

4.3.2.2 Metals

Arsenic exceeded the SQS value (57 mg/kg) in two samples. Stations DSI-SB-03 and DSI-SB-10 exceeded the SQS in the 10.4 to 11.1-foot and 8.5 to 10-foot sample intervals, respectively. These stations are located offshore of the current dock in the area near the former dry docks. They are bound laterally by stations below the SQS level. A lower sample interval (11.1 to 11.6-foot interval) in DSI-SB-03 was analyzed and arsenic was detected at a concentration below the SQS value. Station DSI-SB-10 is bound vertically by the 10 to 11-foot sample

interval below the SQS level. Arsenic concentrations ranged from 1.3 to 303 mg/kg, with the highest concentration at location DSI-SB-10, which is adjacent to former dry dock No. 1. Arsenic concentrations were highest near the recent alluvium contact and decreased toward the base of the unit. Station DSI-SB-12 is an exception to this trend, with higher concentrations detected in the upper alluvium unit.

Copper was detected in 11 upper alluvium sediment samples and exceeded the SQS value (390 mg/kg) in two samples. Stations DSI-SB-02, DSI-SB-03, DSI-SB-05, DSI-SB-06, DSI-SB-11, and DSI-SB-12 did not have exceedances and effectively bound the lateral extent of copper contamination. Station DSI-SB-09 did not bound the vertical extent of copper due to the exceedance occurring in the lowest sample interval from 12.1 to 12.6 feet. Station DSI-SB-10 is bound vertically by the 10 to 11-foot sample interval below the SMS criteria. Concentrations ranged from 507 to 595 J mg/kg, with the highest concentration at station DSI-SB-10 adjacent to one of the former dry docks. Copper concentrations were highest near the recent alluvium contact and decreased toward the base of the unit. Station DSI-SB-12 is an exception to this trend, with higher concentrations detected in the upper alluvium unit.

Mercury was detected in eight upper alluvium sediment samples and exceeded the SQS value (0.41 mg/kg) in three samples. Stations DSI-SB-03, DSI-SB-09, and DSI-SB-10 had exceedances for mercury. The stations are located in the area offshore of the current dock. Mercury concentrations ranged from non-detect (0.02 U) to 2.4 mg/kg, with the highest concentration at station DSI-SB-09, which is located adjacent to a former dry dock. Mercury concentrations were highest near the recent alluvium contact and decreased toward the base of the unit. Station DSI-SB-09 did not bound the vertical extent of mercury, due to the exceedance occurring in the lowest sample interval from 12.1 to 12.6 feet. Station DSI-SB-10 is bound vertically by the 10 to 11-foot sample interval below the SMS criteria.

Zinc was detected in 11 upper alluvium sediment samples and exceeded the SQS value (410 mg/kg) in two samples. Stations DSI-SB-03 and DSI-SB-10 exceeded SMS criteria in the 10.4 to 11.1-foot and 8.5 to 10-foot sample intervals, respectively. These stations are located offshore of the current dock in the area near the former dry docks. They are bound laterally by stations with concentrations that are below the SMS criteria. A lower sample interval

(11.1 to 11.6-foot interval) in DSI-SB-03 was analyzed and zinc was detected at a concentration below the SQS value. Station DSI-SB-10 is bound vertically by the 10 to 11-foot sample interval below the SMS criteria. Zinc concentrations ranged from 609 J to 1,050 J mg/kg, with the highest concentration at location DSI-SB-10, which is adjacent to former dry dock No. 1. Zinc concentrations were highest near the recent alluvium contact and decreased toward the base of the unit. Station DSI-SB-12 is an exception to this trend, with higher concentrations detected in the upper alluvium unit.

4.3.2.3 Tributyltin

Bulk TBT was analyzed in ten upper alluvium subsurface sediment samples. TBT was detected in eight of the ten samples, and ranged from 3.2 U to 3,900 µg/kg. Four samples exceeded the DMMP SL of 73 µg/kg, including stations DSI-SB-03, DSI-SB-09, DSI-SB-10, and DSI-SB-11, which are located in the area adjacent to the current dock. The highest TBT concentration was at station DSI-SB-03 in the 10.4 to 11.1-foot sample interval. A lower sample interval (11.1 to 11.6-foot interval) in DSI-SB-03 was analyzed and TBT was detected at a concentration below the DMMP SL. Stations DSI-SB-09 and DSI-SB-11 did not bound the vertical extent of TBT due to the exceedance occurring in the lowest sample interval at the base of the core. Station DSI-SB-10 is bound vertically by the 10 to 11-foot sample interval below the DMMP criteria. TBT concentrations were highest near the recent alluvium contact.

4.3.2.4 Semivolatile Organic Compounds

PAHs: Stations DSI-SB-02, DSI-SB-05, DSI-SB-11, and DSI-SB-12 did not have SQS exceedances for PAHs. These locations effectively bound the lateral extent of PAH contamination to the south and north of the Site.

Total LPAH was detected in eight upper alluvium sediment samples and exceeded the SMS SQS value (370 mg/kg-OC) in one sample. Station DSI-SB-10 had an LPAH concentration of 454 mg/kg-OC in the 8.5 to 10-foot sample interval. This station is surrounded on all sides by stations below the SL, effectively bounding the lateral extent of LPAHcontamination. Station DSI-SB-10 is bound vertically by the 10 to 11-foot sample interval, with a LPAH concentration of 17 mg/kg-OC, which is well below the SMS criteria. Total LPAH

concentrations were highest near the recent alluvium contact and decreased towards the base of the unit.

Total HPAH was detected in seven upper alluvium sediment samples and exceeded the SMS SQS value (960 mg/kg-OC) in one sample. Station DSI-SB-10 had an HPAH concentration of 1,224 mg/kg-OC in the 8.5 to 10-foot sample interval. This station is surrounded on all sides by stations below the SMS criteria effectively bounding the lateral extent of HPAH contamination. Station DSI-SB-10 is bound vertically by the 10 to 11-foot sample interval, with a HPAH concentration below detection limits (7.17 U mg/kg-OC), which is well below the SMS criteria. Total HPAH concentrations were highest near the recent alluvium contact and decreased towards the base of the unit.

Chlorobenzenes: 1,2-dichlorobenzene was detected in seven upper alluvium sediment samples and exceeded the SQS value (2.3 mg/kg-OC) in one sample. Station DSI-SB-09 contained an exceedance of 5.1 mg/kg-OC in the 12.1 to 12.6-foot sample interval and is located in the area adjacent to the current dock near the FNC boundary. The stations with exceedances are bounded to the north and the south in the upper alluvium, effectively defining the lateral nature and extent of contamination in the upper alluvium. A lower interval in DSI-SB-03 is being analyzed to vertically bound the nature and extent of contamination.

Phthalates: Bis(2-ethylhexyl)phthalate was detected in five samples and exceeded the SQS value (47 mg/kg-OC) in three samples. Stations DSI-SB-03, DSI-SB-09 and DSI-SB-10 contained exceedances. They are located adjacent to the dock and former dry docks. Exceedances ranged from 63.9 to 117 mg/kg-OC and were generally concentrated in the sample directly beneath the recent alluvium contact. Station DSI-SB-09 did not bound the vertical extent of bis(2-ethylhexyl)phthalate, due to the exceedance occurring in the lowest sample interval at the base of the core. Stations DSI-SM-03 and DSI-SB-10 are bound vertically, with concentrations below detection limits (7.2 U mg/kg-OC), which is well below the SMS criteria.

Phenolics: Phenolics were below detection limits in the majority of the upper alluvium sediment samples.

Miscellaneous Extractables: Dibenzofuran was detected in six samples and exceeded the SQS value of 15 mg/kg-OC in one sample. Station DSI-SB-10 contained an exceedance of 25.5 mg/kg-OC in the 8.5 to 10-foot sample interval, and is located adjacent to the current dock. This exceedance is bounded in all directions, effectively defining the lateral nature and extent of contamination. Station DSI-SB-10 is bound vertically by the 10 to 11-foot sample interval with a concentration below detection limits (7.2 U mg/kg-OC), which is well below the SMS criteria.

4.3.2.5 Volatile Organic Compounds

Acetone was detected in all analyzed upper alluvium subsurface sediment samples. Concentrations ranged from 14 to 64 µg/kg and were highest at station DSI-SB-06, which is located downstream of the Site adjacent to the AML property.

Chlorobenzene was detected in one upper alluvium subsurface sediment sample. The detected concentration of 2.7 µg/kg was located in station DSI-SB-10 in the 10 to 11-foot sample interval. This station is located in the area offshore of the dock. It is bounded laterally by lower concentrations and non-detect samples.

Dichloromethane was detected in two of the five upper alluvium subsurface sediment samples. Detected concentrations ranged from 19 to 22 µg/kg in stations DSI-SB-06 and DSI-SB-02 in the 9.6 to 11-foot and 8.5 to 10-foot sample intervals, respectively. Those stations are located offshore of AML and adjacent to former dry dock No. 2 in the 2005 Glacier dredging area, respectively.

Ethylbenzene was detected in one of the five upper alluvium samples. Station DSI-SB-10 had a concentration of 3.5 µg/kg in the 10 to 11-foot sample interval, which is well below the marine lowest apparent effects threshold (LAET) value of 10 µg/kg. This station is located in the area offshore of the dock and is bounded laterally by lower concentrations and non-detect samples.

4.3.2.6 Polychlorinated Biphenyls

Total PCBs were detected in eight upper alluvium subsurface samples and exceeded the SQS value of 12 mg/kg-OC in five samples. Stations DSI-SB-02, DSI-SB-03, DSI-SB-09, DSI-SB-10, and DSI-SB-11 had samples that exceeded the SLs. Total PCB (U=1/2) exceedances ranged from 21 to 101 mg/kg-OC, with the highest concentration at station DSI-SB-09 in the 12.1 to 12.6-foot sample interval. Detected aroclors included 1248, 1254, and 1260, with aroclor 1254 having the largest concentrations. Total PCB concentrations were highest near the recent alluvium contact and decreased towards the base of the unit. All non-detect samples were at or below the SQS values.

4.3.2.7 Pesticides

Results were non-detect in all four of the upper alluvium subsurface sediment samples that were analyzed for pesticides.

4.3.2.8 Dioxin/Furans

Concentrations of dioxins/furans (reported as Total TEQ mammalian 2005 U=1/2) ranged from 0.51 to 0.56 ng/kg for subsurface sediment samples analyzed within the upper alluvium. A total of two subsurface sediment samples were analyzed for dioxins/furans, at stations DSI-SB-02 and DSI-SB-05.

4.3.3 Lower Alluvium

A total of six subsurface sediment samples were analyzed within the lower alluvium unit, and the following sections describe the sediment quality of the lower alluvium unit. Lower alluvium subsurface sediment samples were analyzed in stations DSI-SB-01, DSI-SB-03, DSI-SB-04, DSI-SB-07, and DSI-SB-13. Depths of the upper contact ranged from 3.1 feet below mudline (at station DSI-SB-01) to 11.9 feet below mudline (at station DSI-SB-07).

4.3.3.1 Conventionals

Lower alluvium subsurface sediment samples were analyzed for TOC and TS. TOC results ranged from 0.13 to 0.95 percent, with four of the six samples outside the acceptable range for OC normalization. TS percentages ranged from 76.9 to 86.7 percent.

4.3.3.2 Metals

Arsenic was detected and exceeded the SQS value (57 mg/kg) in one sample. Station DSI-SB-04 exceeded the SQS value, with a concentration of 802 mg/kg in the 8.3 to 9.3-foot sample interval. DSI-SB-04 also contained exceedances of the SQS values for copper, lead, mercury, and zinc in the 8.3 to 9.3-foot sample interval. Copper was detected at 1,090 mg/kg above the SL (390 mg/kg), lead was detected at 740 mg/kg above the SL (450 mg/kg), mercury was detected at 1.4 mg/kg above the SL (0.41 mg/kg), and zinc was detected at 2,140 mg/kg above the SL of 410 mg/kg. This station is located offshore of the current dock in the nearshore area of the Site. A lower sample interval (the 9.3 to 10.9-foot interval) in DSI-SB-04 was analyzed, and arsenic was detected at a concentration below the SQS value.

4.3.3.3 Tributyltin

Bulk TBT was analyzed in six lower alluvium subsurface sediment samples. TBT was detected in four of the six samples, with concentrations ranging from 3.4 U to 710 µg/kg. A sample collected from station DSI-SB-04 in the 8.3 to 9.3-foot interval exceeded the DMMP SL of 73 µg/kg. The station is located in the area adjacent to the current dock and nearshore area. A lower sample interval (the 9.3 to 10.9-foot interval) in DSI-SB-04 was analyzed and arsenic was detected at a concentration below the DMMP SL. All other samples analyzed from the lower alluvium unit were below the SL.

4.3.3.4 Semivolatile Organic Compounds

PAHs: PAHs were detected in the majority of the lower alluvium subsurface sediment samples and included exceedances of the SLs for acenaphthene, benzo(g,h,i)perylene, fluoranthene, and phenanthrene. Stations DSI-SB-04 and DSI-SB-07 had SQS exceedances for PAHs. These stations are located in the area adjacent to the current dock and downstream of the Site adjacent to the AML property.

Total LPAH was detected in three lower alluvium sediment samples and did not exceed the SQS value (370 mg/kg-OC) in any of those samples. Detected concentrations ranged from 34.1 to 209 mg/kg-OC, with the highest concentration in the 8.3 to 9.3-foot sample interval

of DSI-SB-04. A lower sample interval (the 9.3 to 10.9-foot interval) in DSI-SB-04 was analyzed, and total LPAH was detected at a concentration below the SQS value.

Total HPAH was detected in four lower alluvium sediment samples and did not exceed the SQS value (960 mg/kg-OC) in any of those samples. Detected concentrations ranged from 71.7 to 722 mg/kg-OC, with the highest concentration in the 8.3 to 9.3-foot sample interval of DSI-SB-04. A lower sample interval (the 9.3 to 10.9-foot interval) in DSI-SB-04 was analyzed, and total HPAH was detected at a concentration below the SQS value.

Chlorobenzenes: Chlorobenzenes were detected in only one of the upper alluvium subsurface sediment samples.

Phthalates: Bis(2-ethylhexyl)phthalate was detected and exceeded the SQS value (47 mg/kg-OC) in one sample. Station DSI-SB-04 had a concentration of 126 mg/kg-OC in the 8.3 to 9.3-foot sample interval. This station is located offshore of the current dock. A lower sample interval (the 9.3 to 10.9-foot interval) in DSI-SB-04 was analyzed, and Bis(2-ethylhexyl)phthalate was detected at a concentration below the SQS value.

Phenolics: Phenolics were below detection limits in the majority of the lower alluvium sediment samples.

Miscellaneous Extractables: Miscellaneous extractables were below detection limits in the majority of the lower alluvium sediment samples.

4.3.3.5 Volatile Organic Compounds

VOCs were analyzed in one lower alluvium subsurface sediment sample. The 5 to 6-foot sample interval of station DSI-SB-01 was below detection limits for all VOC compounds, with the exception of acetone detected at 17 µg/kg.

4.3.3.6 Polychlorinated Biphenyls

Total PCBs were detected in all five lower alluvium subsurface samples that were analyzed for PCBs and exceeded the SQS value of 12 mg/kg-OC in two samples. Station DSI-SB-04

exceeded the SQS value in the 8.3 to 9.3-foot sample interval, with a concentration of 130 mg/kg-OC and station DSI-SB-13 exceeded the SQS value in the 4.1 to 5-foot sample interval, with a concentration of 154 mg/kg-OC. These stations are located adjacent to the former graving dock and offshore of the current dock, respectively. Detected aroclors included 1248, 1254, and 1260, with aroclor 1254 having the largest concentration.

4.3.3.7 Pesticides

Pesticides were analyzed in one lower alluvium subsurface sediment sample, DSI-SB-01 in the 5 to 6-foot sample interval. No pesticides were above detection limits.

4.3.3.8 Dioxin/Furans

Dioxin/furans were analyzed in one lower alluvium subsurface sediment sample (11.9 to 12.3-foot sample interval) at DSI-SB-07. A TEQ concentration of 15.9 ng/kg was detected at this location.

5 NEXT STEPS

This Data Memorandum and the associated appendices complete the transmittal of the upland and sediment data collected during the DSI Phase 1 RI program. Consistent with the requirements of the AO schedule of deliverables, the next steps and deliverables to Ecology will include the following:

- Supplemental RI Work Plan: Anchor QEA will develop a Supplemental RI Work Plan. It will consist of a description of remaining data gaps and a plan for collection of additional RI data at the Site as necessary. The Supplemental RI Work Plan will append the existing Phase 1 SAP and QAPP if additional data collection activities are required.
- Supplemental RI Data Collection: Following preparation and Ecology approval of the Supplemental RI Work Plan, Anchor QEA may conduct additional field investigations.
- Upland Interim Action: An upland interim action is planned for the upland and nearshore areas of the Property to support remediation of the upland site area. The interim action will be performed as described in the Interim Action Work Plan and will dovetail cleanup activities by DSI with development activities by AML.

6 REFERENCES

Anchor (Anchor Environmental, L.L.C.), 2006a. Preliminary Investigation Work Plan. Prepared for Duwamish Shipyard, Inc., Seattle, Washington. August 2006.

Anchor, 2006b. Preliminary Investigation Data Report. Prepared for Duwamish Shipyard, Inc., Seattle, Washington. December 2006.

Anchor QEA, 2009. Phase 1 RI. Prepared for Duwamish Shipyard, Inc., Seattle, Washington. October 2009.

Anchor QEA, 2010. RI/FS Work Plan. Prepared for Duwamish Shipyard, Inc., Seattle, Washington. August 2010.

Anchor QEA, 2011. Phase I RI Sampling and Analysis Plan and Quality Assurance Project Plan. Prepared for Duwamish Shipyard, Inc., Seattle, Washington. May 2011.

Ecology (Washington Department of Ecology), 2006a. Letter dated July 10, 2006.

Ecology, 2006b. Letter dated August 3, 2006.

EPA (U.S. Environmental Protection Agency), 1986. Test Methods for the Evaluation of Solid Waste: Physical/Chemical Methods, 3rd Edition. EPA SW-846, 1986.

EPA, 1993. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods – 3rd Edition, Update 4A. EPA SW-846, August 1993.

EPA, 1999. USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review. EPA540/R-99/008, October 1999.

EPA, 2001. Methods for Collection, Storage, and Manipulation of Sediments for Chemical and Toxicological Analyses: Technical Manual. EPA/823/B-01-022, October 2001.

EPA, 2004. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. EPA540-R-04-004, October 2004.

EPA, 2005. National Functional Guidelines for Chlorinated Dibenzo-p-Dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) Data Review. OSWER 9240.1-51, EPA-540-R-05-001, September 2005.

Puget Sound Estuary Program (PSEP), 1997. Recommended protocols for measuring conventional sediment variables in Puget Sound. Prepared for the U.S. Environmental Protection Agency, Region 10, Seattle, Washington.

Windward. 2003. Lower Duwamish Waterway remedial investigation. Phase 1 remedial investigation report. Prepared for Lower Duwamish Waterway Group. Windward Environmental LLC, Seattle, WA.

Windward. 2007. Lower Duwamish Waterway remedial investigation. Data report: Subsurface sediment sampling for chemical analyses. Prepared for Lower Duwamish Waterway Group. Windward Environmental LLC, Seattle, WA.

Windward. 2010. Lower Duwamish Waterway remedial investigation. Prepared for Lower Duwamish Waterway Group. Windward Environmental LLC, Seattle, WA.

TABLES

Table 1
Upland Geoprobe Soil and Groundwater Sampling Summary

Station ID	Environmental Study	Coordinates[1]		Ground Surface Elevation[2]	Sample/Screen Interval (feet bgs)[3]	Sample ID	Soil Testing		Groundwater Chemistry[4]
		Easting	Northing				Soil Chemistry[4]	Physical	
Rail Spur Area									
DSI-GP-01	Remedial Investigation 2009	1267444.94	204366.80	15.6	2.5 to 4.5	DSI-GP-01-2.5-4.5	Arsenic	--	--
					5.5 to 7.5	DSI-GP-01-5.5-7.5	Arsenic	--	--
					4 to 9	DSI-GP-01-GW	--	--	Dissolved Arsenic, SVOCs
DSI-GP-02	Remedial Investigation 2009	1267499.15	204352.94	15.1	2.5 to 5.5	DSI-GP-02-2.5-5	Arsenic	--	--
					5.5 to 7.7	DSI-GP-02-5.5-7.5	Arsenic	--	--
					4 to 9	DSI-GP-02-GW	--	--	Dissolved Arsenic, SVOCs
DSI-GP-03	Remedial Investigation 2009	1267485.17	204444.55	16.0	1.5 to 4	DSI-GP-03-1.5-4	Arsenic	--	--
					5.5 to 8	DSI-GP-03-5.5-8	Arsenic	--	--
					4.5 to 9.5	DSI-GP-03-GW	--	--	Dissolved Arsenic
Northwest Area									
DSI-GP-04	Remedial Investigation 2009	1267562.47	204594.78	15.7	2.5 to 4.5	DSI-GP-04-2.5-4.5	Petroleum Fractionation	--	--
					5.5. to 7.5	DSI-GP-04-5.5-7.5	Petroleum Fractionation	--	--
					4 to 9	DSI-GP-04-GW	--	--	Petroleum
DSI-GP-05	Remedial Investigation 2009	1267499.84	204589.62	16.5	2 to 4.5	DSI-GP-05-2-4.5	Petroleum	--	--
					5.5 to 8	DSI-GP-05-5.5-8	Petroleum	--	--
					5 to 10	DSI-GP-05-GW	--	--	Petroleum
Central Area									
DSI-GP-06	Remedial Investigation 2009	1267588.58	204506.76	15.7	3 to 5	DSI-GP-06-3-5	Petroleum	GS, MC	--
					5.5 to 8	DSI-GP-06-5.5-8	Petroleum	GS, MC	--
					4 to 9	DSI-GP-06-GW	--	--	Petroleum, SVOCs, VOCs
DSI-GP-07	Remedial Investigation 2009	1267662.08	204563.53	15.0	1.5 to 4	DSI-GP-07-1.5-4	Petroleum	--	--
					5.5 to 8	DSI-GP-07-5.5-8	Petroleum	--	--
					4 to 9	DSI-GP-07-GW	--	--	Petroleum, SVOCs, VOCs
UST Removal Area									
DSI-GP-08	Remedial Investigation 2009	1267860.11	204436.11	15.0	2 to 4.5	DSI-GP-08-2-4.5	Petroleum	--	--
					5.5 to 7.5	DSI-GP-08-5.5-7.5	Petroleum	--	--
					4.5 to 9.5	DSI-GP-08-GW	--	--	Petroleum, SVOCs, VOCs
DSI-GP-09	Remedial Investigation 2009	1267877.01	204409.65	15.0	2 to 4.5	DSI-GP-09-2-4.5	Petroleum	--	--
					6 to 8	DSI-GP-09-6-8	Petroleum Fractionation	--	--
					9 to 10	DSI-GP-09-9-10	Petroleum	--	--

Table 1
Upland Geoprobe Soil and Groundwater Sampling Summary

Station ID	Environmental Study	Coordinates[1]		Ground Surface Elevation[2]	Sample/Screen Interval (feet bgs)[3]	Sample ID	Soil Testing		Groundwater Chemistry[4]
		Easting	Northing				Soil Chemistry[4]	Physical	
					5 to 10	DSI-GP-09-GW	--	--	Petroleum, SVOCs, VOCs
DSI-GP-10	Remedial Investigation 2009	1267792.87	204451.34	15.0	2 to 4	DSI-GP-10-2-4	Petroleum, BTEX	--	--
					5.5 to 7.5	DSI-GP-10-5.5-7.5	Petroleum, BTEX	--	--
					4.5 to 9.5	DSI-GP-10-GW	--	--	Petroleum, SVOCs, VOCs
DSI-GP-11	Remedial Investigation 2009	1267873.09	204484.40	15.0	1 to 3.5	DSI-GP-11-1-3.5	Petroleum, BTEX	--	--
					5 to 7.5	DSI-GP-11-5-7.5	Petroleum, BTEX	--	--
					4 to 9	DSI-GP-11-GW	--	--	Petroleum, SVOCs, VOCs
Former Shipyard Nearshore Area									
DSI-GP-12	Remedial Investigation 2009	1267998.94	204597.25	14.4	1 to 3.5	DSI-GP-12-1-3.5	Petroleum, Metals, SVOCs	--	--
					5 to 10	DSI-GP-12-5-10	Petroleum, Metals, SVOCs	--	--
DSI-GP-13	Remedial Investigation 2009	1267988.72	204516.84	14.6	1 to 3.5	DSI-GP-13-1-3.5	Petroleum, Metals, SVOCs	GS, MC	--
					5 to 7.3	DSI-GP-13-5-7.3	Petroleum, Metals, SVOCs	--	--
DSI-GP-14	Remedial Investigation 2009	1267995.40	204444.88	14.2	2.5 to 4.5	DSI-GP-14-2.5-4.5	Petroleum, Metals, SVOCs	--	--
					5 to 7	DSI-GP-14-5-7	Petroleum, Metals, SVOCs	--	--
					8 to 10	DSI-GP-14-8-10	TPH-G	--	--
DSI-GP-15	Remedial Investigation 2009	1267993.21	204385.91	14.2	1.5 to 4	DSI-GP-15-1.5-4	Petroleum, Metals, SVOCs	--	--
					6 to 8	DSI-GP-15-6-8	Petroleum, Metals, SVOCs	--	--
					8 to 10	DSI-GP-15-8-10	TPH-G	--	--
DSI-GP-16	Remedial Investigation 2009	1268022.76	204368.45	14.8	2.1 to 4.5	DSI-GP-16-2.1-4.5	Petroleum, Metals, SVOCs	--	--
					7.5 to 10	DSI-GP-16-7.5-10	Petroleum, Metals, SVOCs	--	--
Parcel D Nearshore Area									
DSI-GP-17	Remedial Investigation 2009	1267974.89	204304.04	14.4	1.5 to 4	DSI-GP-17-1.5-4	Petroleum, Metals, SVOCs	GS, MC	--
					5 to 7.5	DSI-GP-17-5-7.5	Petroleum[6], Metals, SVOCs	GS, MC	--

Table 1
Upland Geoprobe Soil and Groundwater Sampling Summary

Station ID	Environmental Study	Coordinates[1]		Ground Surface Elevation[2]	Sample/Screen Interval (feet bgs)[3]	Sample ID	Soil Testing		Groundwater Chemistry[4]
		Easting	Northing				Soil Chemistry[4]	Physical	
South Property Area									
DSI-GP-19	Remedial Investigation 2009	1267668.90	204346.90	16.0	3 to 5	DSI-GP-19-3-5	Petroleum, Metals, SVOCs	--	--
					5.5 to 8	DSI-GP-19-5.5-8	Petroleum, Metals, SVOCs	--	--
					5 to 10	DSI-GP-19-GW	--	--	Dissolved Arsenic, Petroleum, SVOCs, VOCs
DSI-GP-20	Remedial Investigation 2009	1267785.57	204370.10	15.5	3 to 5	DSI-GP-20-3-5	Petroleum, Metals, SVOCs	--	--
					5.5 to 8	DSI-GP-20-5.5-8	Petroleum, Metals, SVOCs	--	--
					5 to 10	DSI-GP-20-GW	--	--	Dissolved Arsenic, Petroleum, SVOCs, VOCs
DSI-GP-21	Remedial Investigation 2009	1267891.80	204378.83	15.1	2 to 4.5	DSI-GP-21-2-4.5	Petroleum, Metals, SVOCs	--	--
					5.5 to 8	DSI-GP-21-5.5-8	Petroleum, Metals, SVOCs	--	--
					5 to 10	DSI-GP-21-GW	--	--	Dissolved Arsenic, Petroleum, SVOCs, VOCs

Notes:

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, and xylenes

SVOCs Semi-Volatile Organic Compound

VOCs Volatile Organic Compounds

PCBs Polychlorinated Biphenyls

GS Grain Size

MC Moisture Content

1 Horizontal datum: North American Datum of 1983 (NAD) 83 HARN Washington State Plane, North Zone in U.S. Survey Feet

2 Vertical datum: Mean Lower Low Water (MLLW)

3 Actual soil and groundwater testing depth intervals were determined in the field based on observations and the geologic interpretation of conditions encountered.

4 Chemical testing: Petroleum = TPH-G and TPH-Dx (with silica-gel cleanup methodology

Table 2
Upland Monitoring Well and Piezometer Soil and Groundwater Sampling Summary

Station ID	Coordinates[1]		Ground Surface Elevation[2]	Sample Method	Sample/Screen Interval (feet)[3]	Sample ID	Soil Testing		Groundwater Testing		
	Easting	Northing					Soil Chemistry[4]	Physical	Groundwater Chemistry[4]	Geochemical Parameters	Hydrogeologic Testing[5]
Rail Spur Area											
DSI-MW-01	1267511.08	204376.69	15.8	Split Spoon	0.5-2	DSI-MW-01-0.5-2	Arsenic	GS, MC	--	--	X
					5-6.5	DSI-MW-01-5-6.5	Arsenic	GS, MC	--	--	
				Low-Flow	4.6-14.5	DSI-MW-01-072209	--	--	Dissolved Metals, SVOCs, VOCs	DO, redox, cond., pH	
Northwest Area											
DSI-MW-02	1267537.85	204619.49	16.6	Split Spoon	0-3	DSI-MW-02-0-3	Petroleum	GS, MC	--	--	X
					5.5-7	DSI-MW-02-5.5-7	Petroleum	GS, MC	--	--	
				Low-Flow	5.1-15.0	DSI-MW-02-072209	--	--	Dissolved Metals, SVOCs, VOCs, Petroleum	DO, redox, cond., pH, NO_3^-, SO_4^{2-}, H_2S, Cl, alkalinity	
Central Area											
DSI-PZ-01	1267724.47	204468.59	15.3	--	5-14.7	--	--	--	--	Cond., pH	X
DSI-MW-03	1267731.36	204467.03	15.3	Split Spoon	0-3	DSI-MW-03-0-3	Petroleum	GS, MC	--	--	X
					5-6.5	DSI-MW-03-5-6.5	Petroleum	GS, MC	--	--	
				Low-Flow	29.9-39.8	DSI-MW-03-072909	--	--	Dissolved Metals, SVOCs, VOCs, Petroleum	DO, redox, cond., pH, Cl	
UST Removal Area											
DSI-MW-04	1267894.98	204416.16	15.4	Split Spoon	0.5-2.5	DSI-MW-04-0.5-2.5	Petroleum	GS, MC	--	--	--
					5-6.5	DSI-MW-04-5-6.5	Petroleum	GS, MC	--	--	
				Low-Flow	4.6-14.2	DSI-MW-04-072309	--	--	Dissolved Metals, SVOCs, VOCs, Petroleum	DO, redox, cond., pH, NO_3^-, SO_4^{2-}, H_2S, Cl, alkalinity	
Former Shipyard Nearshore Area											
DSI-MW-05	1267969.75	204575.21	15.1	Split Spoon	0.5-3	DSI-MW-05-0.5-3.0	Petroleum, metals, SVOCs	GS, MC	--	--	X
					5-8	DSI-MW-05-5-8	Petroleum, metals, SVOCs	GS, MC	--	--	
				Low-Flow	5.5-15.2	DSI-MW-05-072909	--	--	Dissolved Metals, SVOCs, VOCs, Petroleum	DO, redox, cond., pH, Cl	
DSI-MW-06	1267953.29	204456.31	14.8	Split Spoon	0.5-3.5	DSI-MW-06-0.5-3.5	Petroleum, metals, SVOCs	GS, MC	--	--	X
					5-8	DSI-MW-06-5-8	Petroleum, metals, SVOCs	GS, MC	--	--	
				Low-Flow	5.4-15.1	DSI-MW-06-072909	--	--	Dissolved Metals, SVOCs, VOCs, Petroleum	DO, redox, cond., pH, NO_3^-, SO_4^{2-}, H_2S, Cl, alkalinity	
DSI-MW-07	1267953.32	204463.39	14.8	Low-Flow	30.4-40.0	DSI-MW-07-072409	--	--	Dissolved Metals, SVOCs, VOCs, Petroleum	DO, redox, cond., pH, Cl	--
DSI-MW-08	1267967.62	204366.34	14.9	Split Spoon	0.5-2	DSI-MW-08-0.5-2	Petroleum, metals, SVOCs	--	--	--	X
					5-8	DSI-MW-08-5-8	Petroleum, metals, SVOCs	--	--	--	
				Low-Flow	5.4-15.1	DSI-MW-08-072809	--	--	Dissolved Metals, SVOCs, VOCs, Petroleum	DO, redox, cond., pH, Cl	

Table 2

Upland Monitoring Well and Piezometer Soil and Groundwater Sampling Summary

Station ID	Coordinates[1]		Ground Surface Elevation[2]	Sample Method	Sample/Screen Interval (feet)[3]	Sample ID	Soil Testing		Groundwater Testing		
	Easting	Northing					Soil Chemistry[4]	Physical	Groundwater Chemistry[4]	Geochemical Parameters	Hydrogeologic Testing[5]
Parcel D Nearshore Area											
DSI-MW-09	1267963.77	204267.40	14.5	Low-Flow	5.5-15.3	DSI-MW-09-072809	--	--	Dissolved Metals, SVOCs, VOCs, Petroleum	DO, redox, cond., pH, NO_3^-, SO_4^{2-}, H_2S, Cl, alkalinity	--
DSI-MW-10	1267964.60	204275.46	14.5	Split Spoon	0.5-3.5	DSI-MW-10-0.5-3.5	Petroleum, metals, SVOCs	GS, MC	--	--	--
					5-8	DSI-MW-10-5-8	Petroleum, metals, SVOCs	GS, MC	--	--	
				Low-Flow	30.9-40.7	DSI-MW-10-072809	--	--	Dissolved Metals, SVOCs, VOCs, Petroleum	DO, redox, cond., pH, Cl	

Notes:

SVOCs Semi-Volatile Organic Compound

VOCs Volatile Organic Compounds

PCBs Polychlorinated Biphenyls

GS Grain Size

MC Moisture Content

1 Horizontal datum: North American Datum of 1983 (NAD) 83 HARN Washington State Plane, North Zone in U.S. Survey Feet

2 Vertical datum: Mean Lower Low Water (MLLW)

3 Actual soil and groundwater testing depth intervals were determined in the field based on observations and the geologic interpretation of conditions encountered

4 Chemical testing:
Petroleum = TPH-G and TPH-Dx (with silica-gel cleanup methodology

5 Hydrogeologic testing was performed by installation of transducers for at least a 72-hour period and included measurements of the Duwamish River water level using a piezometer attached to a piling in the south dock area

Table 3
Upland Monitoring Well and Piezometer Construction Details

Station ID	Installation Date	Well Diameter[1]	Screen Interval (feet bgs)	Depth to Well Bottom (feet bgs)
DSI-MW-01	7/13/2009	2-inch	4.6 to 14.5	14.7
DSI-MW-02	7/14/2009	2-inch	5.1 to 15.0	15.2
DSI-MW-03	7/13/2009	2-inch	29.85 to 39.75	40.0
DSI-MW-04	7/14/2009	2-inch	4.6 to 14.2	14.4
DSI-MW-05	7/14/2009	2-inch	5.5 to 15.2	15.4
DSI-MW-06	7/15/2009	2-inch	5.4 to 15.1	15.3
DSI-MW-07	7/15/2009	2-inch	30.4 to 40.0	40.25
DSI-MW-08	7/15/2009	2-inch	5.4 to 15.1	15.2
DSI-MW-09	7/14/2009	2-inch	5.5 to 15.3	15.5
DSI-MW-10	7/15/2009	2-inch	30.9 to 40.7	40.9
DSI-PZ-01	7/13/2009	2-inch	5 to 14.7	14.9

Notes:

bgs below ground surface

ft feet

1 Well casing material consisted of Schedule 40 polyvinyl chloride (PVC), screen of 0.01 in slotted PVC Wells were developed from July 15 to July 23, 2009, prior to groundwater sampling

Table 4
Upland Geotechnical Sampling Summary

Station ID	Coordinates[1]		Surface Elevation[2]	Sample Method	Sample Depth (feet)[3]	Sample ID	Physical Testing				
	Easting	Northing					MC	GS	SG	AL	CuTriax/Consolidation
DSI-GT-01	1267977.21	204525.26	14.6	Split Spoon	2.5 to 4	DSI-GT1-S2	X				
					5 to 6.5	DSI-GT1-S3	X	X			
					10 to 12	DSI-GT1-S4	X			X	X
					12 to 13.5	DSI-GT1-S5	X		X		
					15 to 16.5	DSI-GT1-S6	X	X			
					20 to 21.5	DSI-GT1-S7	X				
					25 to 26.5	DSI-GT1-S8	X			X	
					30 to 31.5	DSI-GT1-S9	X	X			
					35 to 36.5	DSI-GT1-S10	X		X	X	
					40 to 41.5	DSI-GT1-S11	X				
					45 to 46.5	DSI-GT1-S12	X	X			
					50 to 51.5	DSI-GT1-S13	X				
					55 to 56.5	DSI-GT1-S14	X	X			
					60 to 61.5	DSI-GT1-S15	X				
DSI-GT-02	1267979.38	204368.14	14.7	Split Spoon	2.5 to 4	DSI-GT2-S1	X				
					5 to 6.5	DSI-GT2-S2	X	X			
					7.5 to 9	DSI-GT2-S3	X		X	X	
					10 to 11.5	DSI-GT2-S4	X				
					15 to 16.5	DSI-GT2-S5	X				
					20 to 21.5	DSI-GT2-S6	X	X			
					25 to 26.5	DSI-GT2-S7	X				
					30 to 31.5	DSI-GT2-S8	X				
					35 to 36.5	DSI-GT2-S9	X	X			
					40 to 41.5	DSI-GT2-S10	X	X			
					45 to 46.5	DSI-GT2-S11	X				
					50 to 51.5	DSI-GT2-S12	X				
					55 to 56.5	DSI-GT2-S13	X		X		
					60 to 61.5	DSI-GT2-S14	X				
					65 to 66.5	DSI-GT2-S15	X	X			

Notes:

ft	feet	MC	moisture content	AL	Atterberg Limits
GS	grain size	SG	specific gravity		

1 Horizontal datum: North American Datum of 1983 (NAD) 83 HARN Washington State Plane, North Zone in U.S. Survey Feet

2 Vertical datum: Mean Lower Low Water (MLLW)

3 Actual soil testing depth interval was determined in the field based on observations and the geologic interpretation of conditions encountered

Table 5
Summary of Surface Sediment Chemical and Physical Testing

Station ID	Actual Coordinates[1,2]		Water Depth[3] (ft)	Mudline Elevation[1,2] (MLLW)	Sampling Interval	Sediment Sample ID	Surface Sediment Testing		Archive Testing
	Easting (X)	Northing (Y)					Chemistry	Physical	Chemistry
DSI-SS-01	1268047.45	204251.47	19.1	-14.9	0 to 10 cm	DSI-SS-01	TBT, VOCs, SVOCs, Metals, Cr VI, PCBs, Pesticides, D/F	GS, TS, TOC, MC	--
DSI-SS-02	1268218.05	204112.83	39.3	-33.2	0 to 10 cm	DSI-SS-02	TBT, VOCs, SVOCs, Metals, Cr VI, PCBs, Pesticides	GS, TS, TOC, MC	D/F
DSI-SS-03	1268169.28	204300.64	28.1	-20.3	0 to 10 cm	DSI-SS-03	TBT, VOCs, SVOCs, Metals, Cr VI, PCBs, Pesticides	GS, TS, TOC, MC	--
DSI-SS-04	1268145.51	204406.67	29.7	-21.9	0 to 10 cm	DSI-SS-04	TBT, VOCs, SVOCs, Metals, Cr VI, PCBs, Pesticides	GS, TS, TOC, MC	D/F
DSI-SS-05	1268079.88	204648.08	26.1	-21.5	0 to 10 cm	DSI-SS-05	TBT, VOCs, SVOCs, Metals, Cr VI, PCBs, Pesticides, D/F	GS, TS, TOC, MC	--
DSI-SS-06	1268018.54	204759.28	26.4	-20.2	0 to 10 cm	DSI-SS-06	TBT, VOCs, SVOCs, Metals, Cr VI, PCBs, Pesticides	GS, TS, TOC, MC	--
DSI-SS-07	1267971.92	204896.58	30.8	-21.6	0 to 10 cm	DSI-SS-07	TBT, VOCs, SVOCs, Metals, Cr VI, PCBs, Pesticides	GS, TS, TOC, MC	D/F
DSI-SS-08	1268289.08	204317.51	36.1	-32.8	0 to 10 cm	DSI-SS-08	TBT, VOCs, SVOCs, Metals, Cr VI, PCBs, Pesticides, D/F	GS, TS, TOC, MC	--
DSI-SS-09	1268219.38	204563.01	37.9	-35.3	0 to 10 cm	DSI-SS-09	TBT, VOCs, SVOCs, Metals, Cr VI, PCBs, Pesticides	GS, TS, TOC, MC	D/F
DSI-SS-10	1268127.37	204817.34	37.7	-34.7	0 to 10 cm	DSI-SS-10	TBT, VOCs, SVOCs, Metals, Cr VI, PCBs, Pesticides	GS, TS, TOC, MC	--
DSI-SS-11	1268039.92	205062.40	40.7	-35.5	0 to 10 cm	DSI-SS-11	TBT, VOCs, SVOCs, Metals, Cr VI, PCBs, Pesticides, D/F	GS, TS, TOC, MC	--

Notes:

ft	feet	PCBs	Polychlorinated Biphenyls	D/F	Dioxin/Furan	TS	Total Solids
cm	centimeters	TBT	tributyltin	GS	Grain Size (not frozen)	TVS	Total Volatile Solids
SVOCs	Semi-Volatile Organic Compound	Cr	Chromium	MC	Moisture Content	TOC	Total Organic Carbon
VOCs	Volatile Organic Compounds						

1 Surface sediment samples were collected by Van Veen methodology. Station IDs DSI-SS-01 to DSI-SS-07 are co-located surface and subsurface sediment stations. Actual coordinates and mudlines are presented for accepted surface sediment samples.

2 Horizontal Datum is North American Datum of 1983 (NAD) 83 HARN State Plane Washington South, U.S. Survey feet. Vertical datum is Mean Low Low Water (MLLW) mudline determined from continuous surface water level measurements from river transducer.

3 Water depth presented is at the time of sample collection and measured by lead line. Water levels in the Duwamish River are tidally and seasonally influenced.

Table 6
Summary of Subsurface Sediment Chemical and Physical Testing

Station ID	Actual Coordinates[1,2]		Penetration (ft)	Core Recovery (%)	Water Depth[3] f(t)	Mudline Elevation (MLLW)[1,2]	Subsurface Sediment Sample ID	Sample Interval (Recovered) (ft)	Subsurface Sediment Testing		Archive Testing	
	Easting (X)	Northing (Y)							Chemistry	Physical	Chemistry	Physical
DSI-SB-01	1268042.69	204252.05	14.0	86	20.4	-13.3	DSI-SB-01-1-2	1 to 2	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	--	--
							DSI-SB-01-2-3.1	2 to 3.1	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	--	--
							DSI-SB-01-3.1-4	3.1 to 4	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-01-4-5	4 to 5	--	--	--	--
							DSI-SB-01-5-6	5 to 6	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	--	--
							DSI-SB-01-6-7	6 to 7	--	--	TBT	TS, TOC
							DSI-SB-01-7-8	7 to 8	--	--	--	--
							DSI-SB-01-8-9	8 to 9	--	--	--	--
							DSI-SB-01-9-10	9 to 10	--	--	--	--
							DSI-SB-01-10-11	10 to 11	--	--	--	--
							DSI-SB-01-11-11.9	11 to 11.9	--	--	--	--
DSI-SB-02	1268229.02	204122.16	14.0	84	44.8	-33.9	DSI-SB-02-1-2.3	1 to 2.3	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	D/F	GS
							DSI-SB-02-2.3-3.7	2.3 to 3.7	--	--	--	--
							DSI-SB-02-3.7-5.2	3.7 to 5.2	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	D/F	--
							DSI-SB-02-5.2-7	5.2 to 7	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-02-7-8.5	7 to 8.5	--	--	--	--
							DSI-SB-02-8.5-10	8.5 to 10	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	D/F	GS
							DSI-SB-02-10-11.2	10 to 11.2	--	--	--	--
DSI-SB-03	1268175.77	204299.54	11.2	97	26.6	-21.3	DSI-SB-03-1-2	1 to 2	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	--	GS
							DSI-SB-03-2-3.5	2 to 3.5	--	--	--	--
							DSI-SB-03-3.5-4.5	3.5 to 4.5	--	--	--	--
							DSI-SB-03-4.5-5.8	4.5 to 5.8	--	--	--	--
							DSI-SB-03-5.8-7	5.8 to 7	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-03-7-8.5	7 to 8.5	--	--	--	--
							DSI-SB-03-8.5-9.5	8.5 to 9.5	--	--	--	--
							DSI-SB-03-9.5-10.4	9.5 to 10.4	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-03-10.4-11.1	10.4 to 11.1	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-03-11.1-11.6	11.1 to 11.6	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
DSI-SB-04	1268149.82	204408.41	14.0	84	29.2	-22.2	DSI-SB-04-1-2	1 to 2	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	--	--
							DSI-SB-04-2-4	2 to 4	--	--	--	--
							DSI-SB-04-4-5	4 to 5	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	--	--
							DSI-SB-04-5-6	5 to 6	--	--	--	--
							DSI-SB-04-6-7	6 to 7	--	--	--	--
							DSI-SB-04-7-8.3	7 to 8.3	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	--	--
							DSI-SB-04-8.3-9.3	8.3 to 9.3	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC, GS
							DSI-SB-04-9.3-10.9	9.3 to 10.9	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
DSI-SB-05	1268087.01	204645.93	14.0	99	24.9	-20.7	DSI-SB-05-1-2	1 to 2	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	D/F	--
							DSI-SB-05-2-3	2 to 3	--	--	--	--
							DSI-SB-05-3-4	3 to 4	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC, GS
							DSI-SB-05-4-5	4 to 5	--	--	--	--
							DSI-SB-05-5-6	5 to 6	--	--	--	--
							DSI-SB-05-6-7	6 to 7	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	D/F	--
							DSI-SB-05-7-8	7 to 8	--	--	--	--
							DSI-SB-05-8-9.3	8 to 9.3	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	--	--
							DSI-SB-05-9.3-11	9.3 to 11	--	--	SVOCs, Metals, TBT, PCBs, D/F	TS, TOC, GS
							DSI-SB-05-11-12	11 to 12	--	--	--	--
							DSI-SB-05-12-13.4	12 to 13.4	--	--	--	--

Table 6
Summary of Subsurface Sediment Chemical and Physical Testing

Station ID	Actual Coordinates[1,2]		Penetration (ft)	Core Recovery (%)	Water Depth[3] f(t)	Mudline Elevation (MLLW)[1,2]	Subsurface Sediment Sample ID	Sample Interval (Recovered) (ft)	Subsurface Sediment Testing		Archive Testing	
	Easting (X)	Northing (Y)							Chemistry	Physical	Chemistry	Physical
DSI-SB-06	1268024.88	204754.84	14.0	89	25.1	-19.2	DSI-SB-06-1-2	1 to 2	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-06-2-3.3	2 to 3.3	--	--	--	--
							DSI-SB-06-3.3-5	3.3 to 5	--	--	--	--
							DSI-SB-06-5-6.5	5 to 6.5	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-06-6.5-8	6.5 to 8	--	--	--	--
							DSI-SB-06-8-9.6	8 to 9.6	--	--	--	--
							DSI-SB-06-9.6-11	9.6 to 11	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-06-11-12.2	11 to 12.2	--	--	--	--
DSI-SB-07	1267979.73	204866.57	14.0	93	25.2	-20.3	DSI-SB-07-1-2	1 to 2	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	D/F	--
							DSI-SB-07-2-3.5	2 to 3.5	--	--	--	--
							DSI-SB-07-3.5-4.5	3.5 to 4.5	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	--	--
							DSI-SB-07-4.5-5.5	4.5 to 5.5	--	--	--	--
							DSI-SB-07-5.5-6.5	5.5 to 6.5	--	--	--	--
							DSI-SB-07-6.5-7.5	6.5 to 7.5	--	--	SVOCs, Metals, TBT, PCBs, D/F	TS, TOC
							DSI-SB-07-7.5-8.5	7.5 to 8.5	--	--	--	--
							DSI-SB-07-8.5-9.1	8.5 to 9.1	--	--	--	--
							DSI-SB-07-9.1-10.5	9.1 to 10.5	--	--	--	--
							DSI-SB-07-10.5-11.9	10.5 to 11.9	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	D/F	--
							DSI-SB-07-11.9-12.3	11.9 to 12.3	--	--	D/F	--
DSI-SB-08	1268253.10	204225.31	14.0	98	40.5	-31.0	DSI-SB-08-1-2	1 to 2	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-08-2-3	2 to 3	--	--	--	--
							DSI-SB-08-3-4	3 to 4	--	--	--	--
							DSI-SB-08-4-5	4 to 5	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-08-5-5.9	5 to 5.9	--	--	--	--
							DSI-SB-08-5.9-7	5.9 to 7	--	--	--	--
							DSI-SB-08-7-8.7	7 to 8.7	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-08-8.7-10	8.7 to 10	--	--	--	--
							DSI-SB-08-10-11	10 to 11	--	--	--	--
							DSI-SB-08-11-12	11 to 12	--	--	--	--
							DSI-SB-08-12-13.3	12 to 13.3	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
DSI-SB-09	1268195.47	204416.39	14.0	96	31.5	-27.0	DSI-SB-09-1-2	1 to 2	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	D/F	--
							DSI-SB-09-2-3	2 to 3	--	--	--	--
							DSI-SB-09-3-4.5	3 to 4.5	--	--	--	--
							DSI-SB-09-4.5-5.5	4.5 to 5.5	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	--	--
							DSI-SB-09-5.5-7	5.5 to 7	--	--	--	--
							DSI-SB-09-7-8.5	7 to 8.5	--	--	--	--
							DSI-SB-09-8.5-10	8.5 to 10	--	--	SVOCs, Metals, TBT, PCBs, D/F	TS, TOC
							DSI-SB-09-10-11	10 to 11	--	--	--	--
							DSI-SB-09-11-12.1	11 to 12.1	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	D/F	--
							DSI-SB-09-12.1-12.6	12.1 to 12.6	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
DSI-SB-10	1268117.63	204532.11	14.0	97	24.7	-22.2	DSI-SB-10-1-2	1 to 2	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-10-2-3.5	2 to 3.5	--	--	--	--
							DSI-SB-10-3.5-4.5	3.5 to 4.5	--	--	--	--
							DSI-SB-10-4.5-5.5	4.5 to 5.5	--	--	--	--
							DSI-SB-10-5.5-7	5.5 to 7	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-10-7-8.5	7 to 8.5	--	--	--	--
							DSI-SB-10-8.5-10	8.5 to 10	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-10-10-11	10 to 11	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-10-11-12.9	11 to 12.9	--	--	--	--

Table 6
Summary of Subsurface Sediment Chemical and Physical Testing

Station ID	Actual Coordinates[1,2]		Penetration (ft)	Core Recovery (%)	Water Depth[3] f(t)	Mudline Elevation (MLLW)[1,2]	Subsurface Sediment Sample ID	Sample Interval (Recovered) (ft)	Subsurface Sediment Testing		Archive Testing	
	Easting (X)	Northing (Y)							Chemistry	Physical	Chemistry	Physical
DSI-SB-11	1268162.52	204544.00	14.0	91	30.8	-27.6	DSI-SB-11-1-2	1 to 2	SVOC, Metals, Cr VI, TBT, PCBs, VOCs	TS, TOC	--	--
							DSI-SB-11-2-3.5	2 to 3.5	--	--	--	--
							DSI-SB-11-3.5-5	3.5 to 5	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-11-5-6	5 to 6	--	--	--	--
							DSI-SB-11-6-6.9	6 to 6.9	--	--	--	--
							DSI-SB-11-6.9-8	6.9 to 8	--	--	--	--
							DSI-SB-11-8-8.9	8 to 8.9	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-11-8.9-10	8.9 to 10	--	--	--	--
							DSI-SB-11-10-11	10 to 11	--	--	--	--
							DSI-SB-11-11-12.3	11 to 12.3	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
DSI-SB-12	1268029.86	204649.54	14.0	81	6.2	-3.7	DSI-SB-12-1-2	1 to 2	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-12-2-3	2 to 3	--	--	--	--
							DSI-SB-12-3-4.3	3 to 4.3	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-12-4.3-5.8	4.3 to 5.8	--	--	Metals, PCBs	TS, TOC
							DSI-SB-12-5.8-7.1	5.8 to 7.1	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-12-7.1-8	7.1 to 8	--	--	--	--
							DSI-SB-12-8-9	8 to 9	--	--	--	GS
							DSI-SB-12-9-10.7	9 to 10.7	--	--	--	--
DSI-SB-13	1267934.22	204726.82	11.4	81	13.6	-6.1	DSI-SB-13-1-2	1 to 2	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-13-2-3	2 to 3	--	--	--	--
							DSI-SB-13-3-4.1	3 to 4.1	SVOC, Metals, Cr VI, TBT, PCBs, VOCs, Pesticides	TS, TOC	--	--
							DSI-SB-13-4.1-5	4.1 to 5	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-13-5-6	5 to 6	--	--	PCBs	TS, TOC
							DSI-SB-13-6-7	6 to 7	--	--	--	--
							DSI-SB-13-7-8.8	7 to 8.8	--	--	--	--
DSI-SB-14	1268049.28	204899.26	14.0	90	38.0	-28.2	DSI-SB-14-1-2	1 to 2	--	--	--	--
							DSI-SB-14-2-3	2 to 3	--	--	--	--
							DSI-SB-14-3-4	3 to 4	--	--	--	--
							DSI-SB-14-4-5	4 to 5	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-14-5-6	5 to 6	--	--	--	--
							DSI-SB-14-6-7	6 to 7	--	--	--	--
							DSI-SB-14-7-8	7 to 8	--	--	--	--
							DSI-SB-14-8-9	8 to 9	--	--	--	--
							DSI-SB-14-9-10.5	9 to 10.5	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-14-10.5-12.1	10.5 to 12.1	--	--	--	--
DSI-SB-15	1268295.15	204244.97	14.0	95	42.7	-33.2	DSI-SB-15-1-2	1 to 2	--	--	--	--
							DSI-SB-15-2-3	2 to 3	--	--	--	--
							DSI-SB-15-3-4	3 to 4	--	--	--	--
							DSI-SB-15-4-5	4 to 5	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-15-5-6	5 to 6	--	--	--	--
							DSI-SB-15-6-7	6 to 7	--	--	--	--
							DSI-SB-15-7-8	7 to 8	--	--	--	--
							DSI-SB-15-8-9.5	8 to 9.5	--	--	--	--
							DSI-SB-15-9.5-10.5	9.5 to 10.5	--	--	--	--
							DSI-SB-15-10.5-11.5	10.5 to 11.5	--	--	--	--
							DSI-SB-15-11.5-12.5	11.5 to 12.5	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC

Table 6
Summary of Subsurface Sediment Chemical and Physical Testing

Station ID	Actual Coordinates[1,2]		Penetration (ft)	Core Recovery (%)	Water Depth[3] f(t)	Mudline Elevation (MLLW)[1,2]	Subsurface Sediment Sample ID	Sample Interval (Recovered) (ft)	Subsurface Sediment Testing		Archive Testing	
	Easting (X)	Northing (Y)							Chemistry	Physical	Chemistry	Physical
DSI-SB-16	1268239.62	204430.36	14.0	89	41.7	-31.7	DSI-SB-16-1-2	1 to 2	--	--	--	--
							DSI-SB-16-2-3.5	2 to 3.5	--	--	--	--
							DSI-SB-16-3.5-5	3.5 to 5	--	--	--	--
							DSI-SB-16-5-6.5	5 to 6.5	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-16-6.5-7.7	6.5 to 7.7	--	--	--	--
							DSI-SB-16-7.7-8.8	7.7 to 8.8	--	--	--	--
							DSI-SB-16-9.2-10.7	9.2 to 10.7	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-16-10.7-12.1	10.7 to 12.1	--	--	--	--
DSI-SB-17	1268158.30	204671.17	14.0	94	42.5	-32.7	DSI-SB-17-1-2	1 to 2	--	--	--	--
							DSI-SB-17-2-3	2 to 3	--	--	--	--
							DSI-SB-17-3-4	3 to 4	--	--	--	--
							DSI-SB-17-4-5	4 to 5	--	--	--	--
							DSI-SB-17-5-6	5 to 6	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-17-6-7	6 to 7	--	--	--	--
							DSI-SB-17-7-8	7 to 8	--	--	--	--
							DSI-SB-17-8-9	8 to 9	--	--	--	--
							DSI-SB-17-9.4-10.7	9.4 to 10.7	--	--	SVOCs, Metals, TBT, PCBs	TS, TOC
							DSI-SB-17-10.7-12.8	10.7 to 12.8	--	--	--	--

Notes:

ft	feet	PCBs	Polychlorinated Biphen	D/F	Dioxin/Furan	TS	Total Solids
SVOCs	Semi-Volatile Organic Compound	TBT	tributyltin	GS	Grain Size (not frozen)	TVS	Total Volatile Solids
VOCs	Volatile Organic Compounds	Cr	Chromium	MC	Moisture Content	TOC	Total Organic Carbon

1 Subsurface sediment samples were collected by vibratory core sampler. Station IDs DSI-SB-01 to DSI-SB-07 are co-located surface and subsurface sediment stations. Actual coordinates and mudlines are presented for accepted cores only.

2 Horizontal Datum is North American Datum of 1983 (NAD) 83 HARN State Plane Washington South, U.S. Survey feet. Vertical datum is Mean Low Low Water (MLLW) mudline determined from continuous surface water level measurements from river transducer.

3 Water depth presented is at the time of sample collection. Water levels in the Duwamish River are tidally and seasonally influenced. Water depth was determined by lead line.

Table 7
Nearshore Groundwater Chemical Testing Results

Analyte	Property Area:	Shallow Monitoring Wells				Deep Monitoring Wells	
	Location ID:	DSI-MW-05	DSI-MW-06	DSI-MW-08	DSI-MW-09	DSI-MW-07	DSI-MW-10
	Sample ID:	DSI-MW-05-072909	DSI-MW-06-072909	DSI-MW-08-072809	DSI-MW-09-072809	DSI-MW-07-072409	DSI-MW-10-072809
	Sample Date:	07/29/2009	07/29/2009	07/28/2009	07/28/2009	07/24/2009	07/28/2009
	Screen Interval:	5.5 to 15.2 ft	5.4 to 15.1 ft	5.4 to 15.1 ft	5.5 to 15.3 ft	30.4 to 40.0 ft	30.9 to 40.7 ft
Conventional Parameters (mg/L)							
Alkalinity, as Calcium carbonate		--	**174**	--	**152**	--	--
Alkalinity, Bicarbonate		--	**174**	--	**152**	--	--
Alkalinity, Carbonate		--	1 U	--	1 U	--	--
Alkalinity, Hydroxide		--	1 U	--	1 U	--	--
Chloride (total)		**461**	**131**	**193**	**456**	**15,400**	**16,800**
Sulfate		--	**9.5**	--	**72.9**	--	--
Sulfide		--	**0.09**	--	0.05 U	--	--
Conventional Parameters (mg-N/L)							
Nitrate + Nitrite		--	0.1 U	--	0.01 U	--	--
Nitrate as Nitrogen		--	0.1 U	--	0.01 U	--	--
Nitrite as Nitrogen		--	**0.02**	--	0.01 U	--	--
Metals, dissolved (µg/L)							
Antimony		0.2 U	0.2 U	0.2 U	0.2 U	1 U	2 U
Arsenic		**0.5**	**1.1**	**2**	**1.1**	2 U	**3**
Cadmium		0.2 U	0.2 U	0.2 U	0.2 U	1 U	2 U
Chromium		2 U	2 U	2 U	1 U	2 U	5 U
Copper		**1.2**	**0.8**	**0.8**	**1.2**	**2.72 J**	**3.11 J**
Lead		1 U	1 U	1 U	1 U	5 U	10 U
Mercury		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Nickel		**5.2**	**1.8**	**1.2**	**0.9**	2.02 U	2.02 U
Selenium		**0.5**	**0.9**	**0.7**	2 U	10 U	**6**
Silver		0.2 U	0.2 U	0.2 U	0.2 U	1 U	2 U
Zinc		**64**	4 U	4 U	4 U	20 U	40 U
Total Petroleum Hydrocarbons (mg/L)							
Gasoline Range Hydrocarbons		0.25 U	0.25 U	**0.36**	0.25 U	0.25 U	0.25 U
Diesel Range Hydrocarbons		0.25 U	0.25 U	0.25 UJ	0.25 UJ	0.25 U	0.25 UJ
Motor Oil Range		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Semi-Volatile Organic Compounds (µg/L)							
PAHs							
1-Methylnaphthalene		0.01 U	**0.11**	**1.2**	**0.065**	0.01 U	**0.1**
2-Methylnaphthalene		0.01 U	**0.016**	**0.059**	0.01 U	0.01 U	0.01 U
Acenaphthene		0.01 U	**4.0**	**0.7**	**0.41**	**0.19**	**0.26**
Acenaphthylene		0.01 U	0.01 U	0.01 U	**0.083**	0.01 U	**0.028**
Anthracene		0.01 U	**0.024**	0.01 U	**0.017**	0.01 U	**0.15**
Benzo(a)anthracene		0.01 U	0.01 U	0.01 U	**0.034**	0.01 U	**0.011**
Benzo(a)pyrene		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(b)fluoranthene		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(k)fluoranthene		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U

Table 7
Nearshore Groundwater Chemical Testing Results

Analyte	Property Area:	Shallow Monitoring Wells				Deep Monitoring Wells	
	Location ID:	DSI-MW-05	DSI-MW-06	DSI-MW-08	DSI-MW-09	DSI-MW-07	DSI-MW-10
	Sample ID:	DSI-MW-05-072909	DSI-MW-06-072909	DSI-MW-08-072809	DSI-MW-09-072809	DSI-MW-07-072409	DSI-MW-10-072809
	Sample Date:	07/29/2009	07/29/2009	07/28/2009	07/28/2009	07/24/2009	07/28/2009
	Screen Interval:	5.5 to 15.2 ft	5.4 to 15.1 ft	5.4 to 15.1 ft	5.5 to 15.3 ft	30.4 to 40.0 ft	30.9 to 40.7 ft
Benzo(g,h,i)perylene		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Chrysene		0.01 U	0.01 U	0.01 U	**0.042**	0.01 U	**0.015**
Dibenzo(a,h)anthracene		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Fluoranthene		0.01 U	0.01 U	**0.011**	**0.33**	0.01 U	**0.17**
Fluorene		0.01 U	**0.64**	**0.83**	**0.34**	**0.1**	**0.3**
Indeno(1,2,3-c,d)pyrene		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Naphthalene		**0.024**	**0.016**	0.01 U	**0.038**	**0.02**	**0.036**
Phenanthrene		0.01 U	0.01 U	0.01 U	**0.02**	0.01 U	**0.43**
Pyrene		0.01 U	**0.01**	**0.011**	**0.36**	0.01 U	**0.18**
Total PAHs							
Total cPAH TEQ (U = 0)		0.01 U	0.01 U	0.01 U	**0.004**	0.01 U	**0.001**
Total cPAH TEQ (U = 1/2)		0.01 U	0.01 U	0.01 U	**0.011**	0.01 U	**0.008**
Chlorobenzenes							
1,2-Dichlorobenzene		1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,4-Dichlorobenzene		1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,2,4-Trichlorobenzene		1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Hexachlorobenzene		1 U	1 U	1 U	1 U	1 U	1 U
Phthalates							
Dimethyl phthalate		1 U	1 U	1 U	1 U	1 U	1 U
Diethyl phthalate		1 U	1 U	1 U	1 U	1 U	1 U
Di-n-butyl phthalate		1 U	1 U	1 U	1 U	1 U	1 U
Butylbenzyl phthalate		1 U	1 U	1 U	1 U	1 U	1 U
Bis(2-ethylhexyl) phthalate		1 U	1 U	1 U	1 U	1 U	1 U
Di-n-octyl phthalate		1 U	1 U	1 U	1 U	1 U	1 U
Phenols							
2,4-Dimethylphenol		1 U	1 U	1 U	1 U	1 U	1 U
2-Methylphenol (o-Cresol)		1 U	1 U	1 U	1 U	1 U	1 U
4-Methylphenol (p-Cresol)		1 U	1 U	1 U	1 U	1 U	1 U
Pentachlorophenol		5 U	5 U	5 U	5 U	5 U	5 U
Phenol		1 U	1 U	1 U	**2.7**	1 U	1 U
Miscellaneous Extractables							
Dibenzofuran		0.01 U	**0.062**	**0.25**	**0.018**	**0.03**	**0.026**
Hexachlorobutadiene		1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
N-Nitrosodiphenylamine		1 U	1 U	1 U	1 U	1 U	1 U
Benzyl alcohol		5 U	5 U	5 U	5 U	5 U	5 U
Benzoic acid		10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane		1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ

Table 7
Nearshore Groundwater Chemical Testing Results

Analyte	Property Area:	Shallow Monitoring Wells				Deep Monitoring Wells	
	Location ID:	DSI-MW-05	DSI-MW-06	DSI-MW-08	DSI-MW-09	DSI-MW-07	DSI-MW-10
	Sample ID:	DSI-MW-05-072909	DSI-MW-06-072909	DSI-MW-08-072809	DSI-MW-09-072809	DSI-MW-07-072409	DSI-MW-10-072809
	Sample Date:	07/29/2009	07/29/2009	07/28/2009	07/28/2009	07/24/2009	07/28/2009
	Screen Interval:	5.5 to 15.2 ft	5.4 to 15.1 ft	5.4 to 15.1 ft	5.5 to 15.3 ft	30.4 to 40.0 ft	30.9 to 40.7 ft
Volatile Organic Compounds (µg/L)							
1,1,1,2-Tetrachloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2,2-Tetrachloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichlorobenzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3-Dichlorobenzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,4-Dichlorobenzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloropropene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,3-Trichlorobenzene		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dibromo-3-chloropropane		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethene, trans-		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3,5-Trimethylbenzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3-Dichloropropane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3-Dichloropropene, trans-		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2,2-Dichloropropane		0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
2-Butanone		5 U	5 U	5 U	5 U	5 U	5 U
2-Chlorotoluene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2-Hexanone		5 U	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
4-Isopropyltoluene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Acetone		5 U	5 U	**5.2**	5 U	5 U	5 U
Benzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromobenzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromochloromethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromodichloromethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromoform		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromomethane		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Carbon tetrachloride		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroform		0.2 U	0.2 U	0.2 U	**0.2**	**0.2**	**0.2**

Table 7
Nearshore Groundwater Chemical Testing Results

Analyte	Property Area:	Shallow Monitoring Wells				Deep Monitoring Wells	
	Location ID:	DSI-MW-05	DSI-MW-06	DSI-MW-08	DSI-MW-09	DSI-MW-07	DSI-MW-10
	Sample ID:	DSI-MW-05-072909	DSI-MW-06-072909	DSI-MW-08-072809	DSI-MW-09-072809	DSI-MW-07-072409	DSI-MW-10-072809
	Sample Date:	07/29/2009	07/29/2009	07/28/2009	07/28/2009	07/24/2009	07/28/2009
	Screen Interval:	5.5 to 15.2 ft	5.4 to 15.1 ft	5.4 to 15.1 ft	5.5 to 15.3 ft	30.4 to 40.0 ft	30.9 to 40.7 ft
Chloromethane		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dibromomethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dichlorodifluoromethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dichloromethane (Methylene chloride)		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobutadiene		0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
Isopropylbenzene (Cumene)		0.2 U	0.2 U	**1.2**	0.2 U	0.2 U	0.2 U
Naphthalene		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl isobutyl ketone		5 U	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Butylbenzene		0.2 U	0.2 U	**0.4**	0.2 U	0.2 U	0.2 U
n-Propylbenzene		0.2 U	0.2 U	**1.6**	0.2 U	0.2 U	0.2 U
sec-Butylbenzene		0.2 U	0.2 U	**0.7**	0.2 U	0.2 U	0.2 U
Styrene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
tert-Butylbenzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Tetrachloroethene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Toluene		0.2 U	0.2 U	**0.4**	**0.4**	0.2 U	**0.5**
Trichloroethene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Trichlorofluoromethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Vinyl chloride		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
m,p-Xylene		0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
o-Xylene		0.2 U	0.2 U	**0.2**	0.2 U	0.2 U	0.2 U
Total Xylene (U = 0)		0.4 U	0.4 U	**0.2**	0.4 U	0.4 U	0.4 U
Total Xylene (U = 1/2)		0.4 U	0.4 U	**0.4**	0.4 U	0.4 U	0.4 U

Notes:

ft	feet
Bold	Detected result
µg/L	micrograms per liter
mg/L	milligrams per liter
J	Estimated value
U	Compound analyzed, but not detected above detection limit
UJ	Compound analyzed, but not detected above estimated detection limit
PAH	polycyclic aromatic hydrocarbon
MW	monitoring well

Table 8
Summary of Nearshore Groundwater Data

Analyte	Data Summary				
	Detected	Non-detect Minimum Value	Non-detect Maximum Value	Detected Minimum Value	Detected Maximum Value
Metals - Dissolved (µg/L)					
Antimony	0 of 6	0.2	2	--	--
Arsenic	5 of 6	2	2	0.5	3.0
Cadmium	0 of 6	0.2	2	--	--
Chromium	0 of 6	1	5	--	--
Copper	6 of 6	--	--	0.8	3.1
Lead	0 of 6	1	10	--	--
Mercury	0 of 6	0.02	0.02	--	--
Nickel	4 of 6	2.0	2.0	0.9	5.2
Selenium	4 of 6	2	10	0.5	6
Silver	0 of 6	0.2	2	--	--
Zinc	1 of 6	4	40	64	64
Total Petroleum Hydrocarbon (mg/L)					
Gasoline Range Hydrocarbons	1 of 6	0.25	0.25	0.36	0.36
Diesel Range Hydrocarbons	0 of 6	0.25	0.25	--	--
Motor Oil Range	0 of 6	0.5	0.5	--	--
PAHs (µg/L)					
1-Methylnaphthalene	4 of 6	0.01	0.01	0.065	1.2
2-Methylnaphthalene	2 of 6	0.01	0.01	0.016	0.059
Acenaphthene	5 of 6	0.01	0.01	0.19	4
Acenaphthylene	2 of 6	0.01	0.01	0.028	0.083
Anthracene	3 of 6	0.01	0.01	0.017	0.15
Benzo(a)anthracene	2 of 6	0.01	0.01	0.011	0.034
Benzo(a)pyrene	0 of 6	0.01	0.01	--	--
Benzo(b)fluoranthene	0 of 6	0.01	0.01	--	--
Benzo(k)fluoranthene	0 of 6	0.01	0.01	--	--
Benzo(g,h,i)perylene	0 of 6	0.01	0.01	--	--
Chrysene	2 of 6	0.01	0.01	0.015	0.042
Dibenzo(a,h)anthracene	0 of 6	0.01	0.01	--	--
Fluoranthene	3 of 6	0.01	0.01	0.011	0.33
Fluorene	5 of 6	0.01	0.01	0.1	0.83
Indeno(1,2,3-c,d)pyrene	0 of 6	0.01	0.01	--	--
Naphthalene	5 of 6	0.01	0.01	0.016	0.038
Phenanthrene	2 of 6	0.01	0.01	0.02	0.43
Pyrene	4 of 6	0.01	0.01	0.01	0.36
Total cPAH TEF (7 minimum) (U = 0)	2 of 6	0.01	0.01	0.0013	0.004
Total cPAH TEF (7 minimum) (U = 1/2)	2 of 6	0.01	0.01	0.0083	0.011
Chlorobenzenes (µg/L)					
1,2-Dichlorobenzene	0 of 6	1	1	--	--
1,4-Dichlorobenzene	0 of 6	1	1	--	--
1,2,4-Trichlorobenzene	0 of 6	1	1	--	--
Hexachlorobenzene	0 of 6	1	1	--	--
Phthalates (µg/L)					
Dimethyl phthalate	0 of 6	1	1	--	--
Diethyl phthalate	0 of 6	1	1	--	--
Di-n-butyl phthalate	0 of 6	1	1	--	--
Butylbenzyl phthalate	0 of 6	1	1	--	--
Bis(2-ethylhexyl) phthalate	0 of 6	1	1	--	--
Di-n-octyl phthalate	0 of 6	1	1	--	--
Phenols (µg/L)					
2,4-Dimethylphenol	0 of 6	1	1	--	--
2-Methylphenol (o-Cresol)	0 of 6	1	1	--	--
4-Methylphenol (p-Cresol)	0 of 6	1	1	--	--
Pentachlorophenol	0 of 6	5	5	--	--
Phenol	1 of 6	1	1	2.7	2.7
Miscellaneous Extractables (µg/L)					
Dibenzofuran	5 of 6	0.01	0.01	0.018	0.25
Hexachlorobutadiene	0 of 6	1	1	--	--
N-Nitrosodiphenylamine	0 of 6	1	1	--	--
Benzyl alcohol	0 of 6	5	5	--	--
Benzoic acid	0 of 6	10	10	--	--
Hexachloroethane	0 of 6	1	1	--	--

Table 8
Summary of Nearshore Groundwater Data

Analyte	Data Summary				
	Detected	Non-detect Minimum Value	Non-detect Maximum Value	Detected Minimum Value	Detected Maximum Value
Volatile Organic Compounds (µg/L)					
1,1,1,2-Tetrachloroethane	0 of 6	0.2	0.2	--	--
1,2,4-Trichlorobenzene	0 of 6	0.5	0.5	--	--
1,1,1-Trichloroethane	0 of 6	0.2	0.2	--	--
1,1,2,2-Tetrachloroethane	0 of 6	0.2	0.2	--	--
1,2-Dichlorobenzene	0 of 6	0.2	0.2	--	--
1,1,2-Trichloroethane	0 of 6	0.2	0.2	--	--
1,3-Dichlorobenzene	0 of 6	0.2	0.2	--	--
1,1-Dichloroethane	0 of 6	0.2	0.2	--	--
1,4-Dichlorobenzene	0 of 6	0.2	0.2	--	--
1,1-Dichloropropene	0 of 6	0.2	0.2	--	--
1,2,3-Trichlorobenzene	0 of 6	0.5	0.5	--	--
1,2,3-Trichloropropane	0 of 6	0.5	0.5	--	--
1,2,4-Trimethylbenzene	0 of 6	0.2	0.2	--	--
1,2-Dibromo-3-chloropropane	0 of 6	0.5	0.5	--	--
1,2-Dibromoethane (Ethylene dibromide)	0 of 6	0.2	0.2	--	--
1,2-Dichloroethane	0 of 6	0.2	0.2	--	--
1,2-Dichloroethene, trans-	0 of 6	0.2	0.2	--	--
1,2-Dichloropropane	0 of 6	0.2	0.2	--	--
1,3,5-Trimethylbenzene (Mesitylene)	0 of 6	0.2	0.2	--	--
1,3-Dichloropropane	0 of 6	0.2	0.2	--	--
1,3-Dichloropropene, trans-	0 of 6	0.2	0.2	--	--
2,2-Dichloropropane	0 of 6	0.2	0.2	--	--
2-Butanone (MEK)	0 of 6	5	5	--	--
2-Chlorotoluene	0 of 6	0.2	0.2	--	--
2-Hexanone (Methyl butyl ketone)	0 of 6	5	5	--	--
4-Chlorotoluene	0 of 6	0.2	0.2	--	--
4-Isopropyltoluene (4-Cymene)	0 of 6	0.2	0.2	--	--
Acetone	1 of 6	5	5	5.2	5.2
Benzene	0 of 6	0.2	0.2	--	--
Bromobenzene	0 of 6	0.2	0.2	--	--
Bromochloromethane	0 of 6	0.2	0.2	--	--
Bromodichloromethane	0 of 6	0.2	0.2	--	--
Bromoform	0 of 6	0.2	0.2	--	--
Bromomethane	0 of 6	0.5	0.5	--	--
Carbon disulfide	0 of 6	0.2	0.2	--	--
Carbon tetrachloride	0 of 6	0.2	0.2	--	--
Chloroethane	0 of 6	0.2	0.2	--	--
Chloroform	3 of 6	0.2	0.2	0.2	0.2
Chloromethane	0 of 6	0.5	0.5	--	--
Dibromochloromethane	0 of 6	0.2	0.2	--	--
Dibromomethane	0 of 6	0.2	0.2	--	--
Dichlorodifluoromethane	0 of 6	0.2	0.2	--	--
Dichloromethane (Methylene chloride)	0 of 6	0.5	0.5	--	--
Ethylbenzene	0 of 6	0.2	0.2	--	--
Hexachlorobutadiene	0 of 6	0.5	0.5	--	--
Isopropylbenzene (Cumene)	1 of 6	0.2	0.2	1.2	1.2
Naphthalene	0 of 6	0.5	0.5	--	--
Methyl isobutyl ketone (4-Methyl-2-pentanone (MIBK))	0 of 6	5	5	--	--
Methyl tert-butyl ether (MTBE)	0 of 6	0.5	0.5	--	--
n-Butylbenzene	1 of 6	0.2	0.2	0.4	0.4
n-Propylbenzene	1 of 6	0.2	0.2	1.6	1.6
sec-Butylbenzene	1 of 6	0.2	0.2	0.7	0.7
Styrene	0 of 6	0.2	0.2	--	--
tert-Butylbenzene	0 of 6	0.2	0.2	--	--
Tetrachloroethene (PCE)	0 of 6	0.2	0.2	--	--
Toluene	3 of 6	0.2	0.2	0.4	0.5
Trichloroethene (TCE)	0 of 6	0.2	0.2	--	--
Trichlorofluoromethane (Fluorotrichloromethane)	0 of 6	0.2	0.2	--	--
Vinyl chloride	0 of 6	0.2	0.2	--	--
m,p-Xylene	0 of 6	0.4	0.4	--	--
o-Xylene	1 of 6	0.2	0.2	0.2	0.2
Total Xylene (U = 0)	1 of 6	0.4	0.4	0.2	0.2
Total Xylene (U = 1/2)	1 of 6	0.4	0.4	0.4	0.4

Notes:

µg/L	micrograms per liter
mg/L	milligrams per liter
PAHs	Polycyclic Aromatic Hydrocarbons
ND	non-detect
TPH	total petroleum hydrocarbon

Table 9
Upland Groundwater Chemical Testing Results

Analyte	Property Area:	Railspur Area					Northwest Area						
	Location ID:	DSI-MW-01	DSI-GP-01	DSI-GP-02	DSI-GP-03	DSI-01	DSI-MW-02	DSI-GP-04	DSI-GP-05	MW-4	MW-5	DSI-02	DSI-03
	Sample ID:	DSI-MW-01-072209	DSI-GP-01-GW	DSI-GP-02-GW	DSI-GP-03-GW	DSI01-GW	DSI-MW-02-072209	DSI-GP-04-GW	DSI-GP-05-GW	MW-4-GW-060929	MW-5-GW-060929	DSI02-GW	DSI03-GW
	Sample Date:	07/22/2009	07/15/2009	07/15/2009	07/15/2009	09/27/2006	07/22/2009	07/15/2009	07/14/2009	09/29/2006	09/29/2006	09/27/2006	09/27/2006
	Screen Interval:	4.6 to 14.5 ft	4 to 9 ft	4 to 9 ft	4.5 to 9.5 ft	0 to 10 ft	5.1 to 15.0 ft	4 to 9 ft	5 to 10 ft	5 to 17 ft	11 to 16 ft	0 to 10 ft	0 to 10 ft
Conventional Parameters (mg/L)													
Alkalinity, as Calcium carbonate		--	--	--	--	--	**182**	--	--	--	--	--	--
Alkalinity, Bicarbonate		--	--	--	--	--	**182**	--	--	--	--	--	--
Alkalinity, Carbonate		--	--	--	--	--	1 U	--	--	--	--	--	--
Alkalinity, Hydroxide		--	--	--	--	--	1 U	--	--	--	--	--	--
Chloride (total)		**1,670**	--	--	--	--	**740**	--	--	--	--	--	--
Sulfate		--	--	--	--	--	**14.9**	--	--	--	--	--	--
Sulfide		--	--	--	--	--	0.05 U	--	--	--	--	--	--
Conventional Parameters (mg-N/L)													
Nitrate + Nitrite		--	--	--	--	--	0.1 UJ	--	--	--	--	--	--
Nitrate as Nitrogen		--	--	--	--	--	0.1 UJ	--	--	--	--	--	--
Nitrite as Nitrogen		--	--	--	--	--	0.1 UJ	--	--	--	--	--	--
Metals, dissolved (µg/L)													
Antimony		**0.8**	--	--	--		0.2 U	--	--	--	--	--	--
Arsenic		**48.4**	**388**	**25.5**	**3.4**	**68.4**	**0.5**	--	--	**1**	**3.4**	**2.4**	**1.5**
Cadmium		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.2 U	0.2 U	0.2 U
Chromium		1 U	--	--	--	0.5 UJ	2 U	--	--	1 U	**42**	0.5 U	2 U
Copper		**1**	--	--	--	0.5 U	**0.9**	--	--	0.5 U	**14.3**	0.5 U	**0.8**
Lead		1 U	--	--	--	1 U	1 U	--	--	1 U	1 U	1 U	1 U
Mercury		0.02 U	--	--	--	0.1 U	0.02 U	--	--	0.1 U	0.1 U	0.1 U	0.1 U
Nickel		**5.7**	--	--	--		**4**	--	--	--	--	--	--
Selenium		0.5 U	--	--	--		**0.8**	--	--	--	--	--	--
Silver		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	**0.4**	0.2 U	0.2 U
Zinc		4 U	--	--	--	**5**	**15**	--	--	**4**	**8**	4 U	**13**
Metals, total (µg/L)													
Arsenic		--	--	--	--	**84.4**	--	--	--	**1**	**4.9**	**16.4**	**9.5**
Cadmium		--	--	--	--	**0.3**	--	--	--	0.2 U	0.2 U	**0.3**	**0.2**
Chromium		--	--	--	--	**7**	--	--	--	1 U	**54**	**49**	**38**
Copper		--	--	--	--	**18.5**	--	--	--	0.5 U	**29**	**86.7**	**53**
Lead		--	--	--	--	**3**	--	--	--	1 U	**2**	**11**	**8**
Mercury		--	--	--	--	0.1 U	--	--	--	0.1 U	0.1 U	**0.1**	0.1 U
Silver		--	--	--	--	0.2 UJ	--	--	--	0.2 U	**0.8**	**0.3**	**0.3**
Zinc		--	--	--	--	**33**	--	--	--	**4**	**14**	**137**	**147**
Total Petroleum Hydrocarbons (mg/L)													
Gasoline Range Hydrocarbons		--	--	--	--	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Diesel Range Hydrocarbons		--	--	--	--	0.25 U	0.25 U	0.25 U	0.25 UJ	**0.35**	0.25 U	0.25 U	**0.93**
Motor Oil Range		--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U

Table 9
Upland Groundwater Chemical Testing Results

Analyte	Property Area:	Railspur Area					Northwest Area						
	Location ID:	DSI-MW-01	DSI-GP-01	DSI-GP-02	DSI-GP-03	DSI-01	DSI-MW-02	DSI-GP-04	DSI-GP-05	MW-4	MW-5	DSI-02	DSI-03
	Sample ID:	DSI-MW-01-072209	DSI-GP-01-GW	DSI-GP-02-GW	DSI-GP-03-GW	DSI01-GW	DSI-MW-02-072209	DSI-GP-04-GW	DSI-GP-05-GW	MW-4-GW-060929	MW-5-GW-060929	DSI02-GW	DSI03-GW
	Sample Date:	07/22/2009	07/15/2009	07/15/2009	07/15/2009	09/27/2006	07/22/2009	07/15/2009	07/14/2009	09/29/2006	09/29/2006	09/27/2006	09/27/2006
	Screen Interval:	4.6 to 14.5 ft	4 to 9 ft	4 to 9 ft	4.5 to 9.5 ft	0 to 10 ft	5.1 to 15.0 ft	4 to 9 ft	5 to 10 ft	5 to 17 ft	11 to 16 ft	0 to 10 ft	0 to 10 ft
Semi-Volatile Organic Compounds (µg/L)													
PAHs													
1-Methylnaphthalene		**0.024**	0.01 U	0.01 U	--		**0.018**	--	--				
2-Methylnaphthalene		**0.028**	**0.015**	**0.011**	--	0.1 U	**0.02**	--	--	**1.3**	0.01 U	0.07 U	**0.11**
Acenaphthene		0.01 U	0.01 U	0.01 U	--	**0.07**	0.01 U	--	--	**2.9**	0.01 U	**0.03**	**0.01**
Acenaphthylene		0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	--	--	**0.08**	0.01 U	0.01 U	0.01 U
Anthracene		0.01 U	0.01 U	0.01 U	--	**0.02**	0.01 U	--	--	**0.14**	0.01 U	**0.01 J**	**0.02**
Benzo(a)anthracene		0.01 U	0.01 U	0.01 U	--	**0.01 J**	0.01 U	--	--	0.01 U	0.01 U	0.01 U	**0.03**
Benzo(a)pyrene		0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	--	--	0.01 U	0.01 U	0.01 U	**0.02**
Benzo(b)fluoranthene		0.01 U	0.01 UJ	0.01 UJ	--	0.01 U	0.01 U	--	--	0.01 U	0.01 U	0.01 U	**0.02**
Benzo(k)fluoranthene		0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	--	--	0.01 U	0.01 U	0.01 U	**0.03**
Benzo(g,h,i)perylene		0.01 U	0.01 UJ	0.01 UJ	--	0.01 U	0.01 U	--	--	0.01 U	0.01 U	0.01 U	**0.01 J**
Chrysene		0.01 U	0.01 U	0.01 U	--	**0.01**	0.01 U	--	--	0.01 U	0.01 U	**0.01 J**	**0.06**
Dibenzo(a,h)anthracene		0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	--	--	0.01 U	0.01 U	0.01 U	**0.01 J**
Fluoranthene		0.01 U	0.01 U	0.01 U	--	**0.05**	0.01 U	--	--	**0.13**	**0.01 J**	**0.02**	**0.02**
Fluorene		0.01 U	0.01 U	0.01 U	--	**0.06**	0.01 U	--	--	**2**	**0.01 J**	**0.03**	**0.02**
Indeno(1,2,3-c,d)pyrene		0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	--	--	0.01 U	0.01 U	0.01 U	**0.01 J**
Naphthalene		**0.02**	**0.059**	**0.038**	--	**0.12**	0.01 U	--	--	--	**0.01 J**	**0.12**	**0.13**
Phenanthrene		0.01 U	0.01 U	0.01 U	--	**0.14**	0.01 U	--	--	**0.15**	**0.02**	**0.05**	**0.06**
Pyrene		0.01 U	0.01 U	**0.014**	--	**0.04**	0.01 U	--	--	**0.07**	**0.01 J**	**0.02**	**0.01**
Total cPAHs													
Total cPAH TEQ (U = 0)		0.01 U	0.01 U	0.01 U	--	**0.001**	0.01 U	--	--	0.01 U	0.01 U	**0.0001**	**0.031**
Total cPAH TEQ (U = 1/2)		0.01 U	0.01 U	0.01 U	--	**0.008**	0.01 U	--	--	0.01 U	0.01 U	**0.008**	**0.031**
Chlorobenzenes													
1,2-Dichlorobenzene		1 UJ	1 UJ	1 UJ	--	--	1 UJ	--	--	--	--	--	--
1,4-Dichlorobenzene		1 UJ	1 UJ	1 UJ	--	--	1 UJ	--	--	--	--	--	--
1,2,4-Trichlorobenzene		1 UJ	1 UJ	1 UJ	--	--	1 UJ	--	--	--	--	--	--
Hexachlorobenzene		1 U	1 U	1 U	--	--	1 U	--	--	--	--	--	--
Phthalates													
Dimethyl phthalate		1 U	1 U	1 U	--	--	1 U	--	--	--	--	--	--
Diethyl phthalate		1 U	1 U	1 U	--	--	1 U	--	--	--	--	--	--
Di-n-butyl phthalate		1 U	1 U	1 U	--	--	1 U	--	--	--	--	--	--
Butylbenzyl phthalate		1 U	1 U	1 U	--	--	1 U	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate		1 U	1 U	1 U	--	--	1 U	--	--	--	--	--	--
Di-n-octyl phthalate		1 U	1 U	1 U	--	--	1 U	--	--	--	--	--	--
Phenols													
2,4-Dimethylphenol		1 U	1 U	1 U	--	--	1 U	--	--	--	--	--	--
2-Methylphenol (o-Cresol)		1 U	1 U	1 U	--	--	1 U	--	--	--	--	--	--
4-Methylphenol (p-Cresol)		1 U	1 U	1 U	--	--	1 U	--	--	--	--	--	--
Pentachlorophenol		5 U	5 UJ	5 UJ	--	--	5 U	--	--	--	--	--	--
Phenol		1 U	1 U	1 U	--	--	1 U	--	--	--	--	--	--

Table 9
Upland Groundwater Chemical Testing Results

Analyte	Property Area:	Railspur Area					Northwest Area						
	Location ID:	DSI-MW-01	DSI-GP-01	DSI-GP-02	DSI-GP-03	DSI-01	DSI-MW-02	DSI-GP-04	DSI-GP-05	MW-4	MW-5	DSI-02	DSI-03
	Sample ID:	DSI-MW-01-072209	DSI-GP-01-GW	DSI-GP-02-GW	DSI-GP-03-GW	DSI01-GW	DSI-MW-02-072209	DSI-GP-04-GW	DSI-GP-05-GW	MW-4-GW-060929	MW-5-GW-060929	DSI02-GW	DSI03-GW
	Sample Date:	07/22/2009	07/15/2009	07/15/2009	07/15/2009	09/27/2006	07/22/2009	07/15/2009	07/14/2009	09/29/2006	09/29/2006	09/27/2006	09/27/2006
	Screen Interval:	4.6 to 14.5 ft	4 to 9 ft	4 to 9 ft	4.5 to 9.5 ft	0 to 10 ft	5.1 to 15.0 ft	4 to 9 ft	5 to 10 ft	5 to 17 ft	11 to 16 ft	0 to 10 ft	0 to 10 ft
Miscellaneous Extractables													
Dibenzofuran		0.01 U	0.01 U	0.01 U	--	--	0.01 U	--	--	--	--	--	--
Hexachlorobutadiene		1 UJ	1 UJ	1 UJ	--	**0.03**	1 UJ	--	--	**0.13**	0.01 U	**0.01**	**0.01**
N-Nitrosodiphenylamine		1 UJ	1 UJ	1 UJ	--	--	1 UJ	--	--	--	--	--	--
Benzyl alcohol		5 U	5 U	5 U	--	--	5 U	--	--	--	--	--	--
Benzoic acid		10 U	10 U	10 U	--	--	10 U	--	--	--	--	--	--
Hexachloroethane		1 UJ	1 UJ	1 UJ	--	--	1 UJ	--	--	--	--	--	--
Volatile Organic Compounds (µg/L)													
1,1,1,2-Tetrachloroethane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene		0.5 U	--	--	--	0.5 U	0.5 U	--	--	0.5 U	1.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane		0.2 U	--	--	--	**1.0**	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
1,1,2,2-Tetrachloroethane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
1,2-Dichlorobenzene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
1,1,2-Trichloroethane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
1,3-Dichlorobenzene		**0.3**	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
1,1'-Dichloroethane		**0.4**	--	--	--	**0.2**	0.2 U	--	--	**0.4**	0.6 U	0.2 U	0.2 U
1,4-Dichlorobenzene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
1,1'-Dichloroethene		--		--	--	0.2 U	--	--	--	0.2 U	0.6 U	0.2 U	0.2 U
1,1-Dichloropropene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
1,2,3-Trichlorobenzene		0.5 U	--	--	--	0.5 U	0.5 U	--	--	0.5 U	1.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane		0.5 U	--	--	--	0.5 U	0.5 U	--	--	0.5 U	1.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	**0.4**	0.2 U
1,2-Dibromo-3-chloropropane		0.5 U	--	--	--	0.5 U	0.5 U	--	--	0.5 U	1.5 U	0.5 U	0.5 U
1,2-Dibromoethane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
1,2-Dichloroethane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
1,2-Dichloroethene, cis-						**0.5**				0.2 U	0.6 U	0.2 U	**0.2**
1,2-Dichloroethene, trans-		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
1,2-Dichloropropane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
1,3,5-Trimethylbenzene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	**0.3**	0.2 U
1,3-Dichloropropane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
1,3-Dichloropropene, cis-						0.2 U				0.2 U	0.6 U	0.2 U	0.2 U
1,3-Dichloropropene, trans-		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
2,2-Dichloropropane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
2-Butanone (MEK)		5 U	--	--	--	1 U	5 U	--	--	1 U	3 U	1 U	1 U
2-Chlorotoluene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
2-Hexanone		5 U	--	--	--	3 U	5 U	--	--	3 U	9 U	3 U	3 U
4-Chlorotoluene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
4-Isopropyltoluene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Acetone		5 U	--	--	--	**5.4**	5 U	--	--	**4.1**	9 U	**8**	**6.3**
Benzene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Bromobenzene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Bromochloromethane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Bromodichloromethane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Bromoform		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Bromomethane		0.5 U	--	--	--	0.2 U	0.5 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Volatile Organic Compounds (µg/L) (cont.)													
Carbon disulfide		0.2 U	--	--	--	**0.2**	0.2 U	--	--	0.2 U	0.6 U	**0.6**	0.2 U
Carbon tetrachloride		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U

Table 9
Upland Groundwater Chemical Testing Results

Analyte	Property Area:	Railspur Area					Northwest Area						
	Location ID:	DSI-MW-01	DSI-GP-01	DSI-GP-02	DSI-GP-03	DSI-01	DSI-MW-02	DSI-GP-04	DSI-GP-05	MW-4	MW-5	DSI-02	DSI-03
	Sample ID:	DSI-MW-01-072209	DSI-GP-01-GW	DSI-GP-02-GW	DSI-GP-03-GW	DSI01-GW	DSI-MW-02-072209	DSI-GP-04-GW	DSI-GP-05-GW	MW-4-GW-060929	MW-5-GW-060929	DSI02-GW	DSI03-GW
	Sample Date:	07/22/2009	07/15/2009	07/15/2009	07/15/2009	09/27/2006	07/22/2009	07/15/2009	07/14/2009	09/29/2006	09/29/2006	09/27/2006	09/27/2006
	Screen Interval:	4.6 to 14.5 ft	4 to 9 ft	4 to 9 ft	4.5 to 9.5 ft	0 to 10 ft	5.1 to 15.0 ft	4 to 9 ft	5 to 10 ft	5 to 17 ft	11 to 16 ft	0 to 10 ft	0 to 10 ft
Chloroethane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Chloroform		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Chloromethane		0.5 U	--	--	--	0.2 U	0.5 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Dibromochloromethane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Dibromomethane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Dichlorodifluoromethane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Dichloromethane (Methylene chloride)		0.5 U	--	--	--	0.3 U	0.5 U	--	--	**0.3**	0.9 U	0.3 U	0.3 U
Ethylbenzene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Hexachlorobutadiene		0.5 U	--	--	--	--	0.5 U	--	--	--	--	--	--
Isopropylbenzene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Naphthalene		0.5 U	--	--	--	--	0.5 U	--	--	--	--	--	--
Methyl isobutyl ketone		5 U	--	--	--	1 U	5 U	--	--	1 U	3 U	1 U	1 U
Methyl tert-butyl ether		0.5 U	--	--	--	0.2 U	0.5 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
n-Butylbenzene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
n-Propylbenzene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
sec-Butylbenzene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Styrene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
tert-Butylbenzene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Tetrachloroethene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Toluene		0.2 U	--	--	--	**0.5**	0.2 U	--	--	0.2 U	0.6 U	**0.7**	**0.6**
Trichloroethene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Trichlorofluoromethane		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
Vinyl chloride		**0.9**	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	0.2 U	0.2 U
m,p-Xylene		0.4 U	--	--	--	0.4 U	0.4 U	--	--	0.4 U	1.2 U	**0.5**	**0.5**
o-Xylene		0.2 U	--	--	--	0.2 U	0.2 U	--	--	0.2 U	0.6 U	**0.2**	**0.2**
Total Xylene (U = 0)		0.4 U	--	--	--	0.4 U	0.4 U	--	--	0.4 U	1.2 U	**0.7**	**0.7**
Total Xylene (U = 1/2)		0.4 U	--	--	--	0.4 U	0.4 U	--	--	0.4 U	1.2 U	**0.7**	**0.7**
PCB Aroclors (µg/l)													
Aroclor 1016		--	--	--	--	0.02 U	--	--	--	0.02 U	0.02 UJ	0.02 U	0.02 U
Aroclor 1221		--	--	--	--	0.02 U	--	--	--	0.02 U	0.02 UJ	0.02 U	0.02 U
Aroclor 1232		--	--	--	--	0.02 U	--	--	--	0.02 U	0.02 UJ	0.02 U	0.02 U
Aroclor 1242		--	--	--	--	0.02 U	--	--	--	0.02 U	0.02 UJ	0.02 U	0.02 U
Aroclor 1248		--	--	--	--	0.02 U	--	--	--	0.02 U	0.02 UJ	0.02 U	0.02 U
Aroclor 1254		--	--	--	--	0.02 U	--	--	--	0.02 U	0.02 UJ	0.02 U	0.02 U
Aroclor 1260		--	--	--	--	0.02 UJ	--	--	--	0.02 U	0.02 UJ	0.02 UJ	0.02 UJ
Total PCB Aroclors (U = 0)		--	--	--	--	0.02 U	--	--	--	0.02 U	0.02 UJ	0.02 U	0.02 U
Total PCB (U = 1/2)		--	--	--	--	0.02 U	--	--	--	0.02 U	0.02 UJ	0.02 U	0.02 U

Table 9
Upland Groundwater Chemical Testing Results

	Property Area:	Railspur Area					Northwest Area						
	Location ID:	DSI-MW-01	DSI-GP-01	DSI-GP-02	DSI-GP-03	DSI-01	DSI-MW-02	DSI-GP-04	DSI-GP-05	MW-4	MW-5	DSI-02	DSI-03
	Sample ID:	DSI-MW-01-072209	DSI-GP-01-GW	DSI-GP-02-GW	DSI-GP-03-GW	DSI01-GW	DSI-MW-02-072209	DSI-GP-04-GW	DSI-GP-05-GW	MW-4-GW-060929	MW-5-GW-060929	DSI02-GW	DSI03-GW
	Sample Date:	07/22/2009	07/15/2009	07/15/2009	07/15/2009	09/27/2006	07/22/2009	07/15/2009	07/14/2009	09/29/2006	09/29/2006	09/27/2006	09/27/2006
Analyte	Screen Interval:	4.6 to 14.5 ft	4 to 9 ft	4 to 9 ft	4.5 to 9.5 ft	0 to 10 ft	5.1 to 15.0 ft	4 to 9 ft	5 to 10 ft	5 to 17 ft	11 to 16 ft	0 to 10 ft	0 to 10 ft
Pesticides (µg/l)													
4,4'-DDD (p,p'-DDD)		--	--	--	--	0.011 U	--	--	--	0.01 U	0.01 U	0.011 U	0.011 U
4,4'-DDE (p,p'-DDE)		--	--	--	--	0.011 U	--	--	--	0.01 U	0.01 U	0.011 U	0.011 U
4,4'-DDT (p,p'-DDT)		--	--	--	--	0.011 U	--	--	--	0.01 U	0.01 U	0.011 U	0.011 U
Aldrin		--	--	--	--	0.0054 U	--	--	--	0.005 U	0.005 U	0.0056 U	0.0055 U
alpha-BHC		--	--	--	--	0.0054 U	--	--	--	0.005 U	0.005 U	0.0056 U	0.0055 U
beta-BHC		--	--	--	--	0.0054 U	--	--	--	0.005 U	0.005 U	0.0056 U	0.0055 U
alpha-Chlordane		--	--	--	--	0.0054 U	--	--	--	0.005 U	0.005 U	0.0056 U	0.0055 U
delta-BHC		--	--	--	--	0.0054 U	--	--	--	0.005 U	0.005 U	0.0056 U	0.0055 U
Dieldrin		--	--	--	--	0.011 U	--	--	--	0.01 U	0.01 U	0.011 U	0.011 U
Endosulfan-alpha (I)		--	--	--	--	0.0054 U	--	--	--	0.005 U	0.005 U	0.0056 U	0.0055 U
Endosulfan-beta (II)		--	--	--	--	0.011 U	--	--	--	0.01 U	0.01 U	0.011 U	0.011 U
Endosulfan sulfate		--	--	--	--	0.011 U	--	--	--	0.01 U	0.01 U	0.011 U	0.011 U
Endrin		--	--	--	--	0.011 U	--	--	--	0.01 U	0.01 U	0.011 U	0.011 U
Endrin aldehyde		--	--	--	--	0.011 U	--	--	--	0.01 U	0.01 U	0.011 U	0.011 U
Endrin ketone		--	--	--	--	0.011 U	--	--	--	0.01 U	0.01 U	0.011 U	0.011 U
gamma-BHC (Lindane)		--	--	--	--	0.0054 U	--	--	--	0.005 U	0.005 U	0.0056 U	0.0055 U
gamma-Chlordane		--	--	--	--	0.0054 U	--	--	--	0.005 U	0.005 U	0.0056 U	0.0055 U
Heptachlor		--	--	--	--	0.0054 U	--	--	--	0.005 U	0.005 U	0.0056 U	0.0055 U
Heptachlor epoxide		--	--	--	--	0.0054 U	--	--	--	0.005 U	0.005 U	0.0056 U	0.0055 U
Methoxychlor		--	--	--	--	0.054 U	--	--	--	0.05 U	0.05 U	0.056 U	0.055 U
Toxaphene		--	--	--	--	0.54 U	--	--	--	0.5 U	0.5 U	0.56 U	0.55 U
Hexachlorobenzene		--	--	--	--	0.0054 U	--	--	--	0.005 U	0.005 U	0.0056 U	0.0055 U
Hexachlorobutadiene		--	--	--	--	0.0054 U	--	--	--	--	--	0.0056 U	0.0055 U

Table 9
Upland Groundwater Chemical Testing Results

	Central Area					UST Removal Area						
	DSI-GP-06	DSI-GP-07	DSI-04	DSI-05	DSI-08	DSI-MW-04	DSI-GP-08	DSI-GP-09	DSI-GP-10	DSI-GP-11	DSI-06	DSI-07
	DSI-GP-06-GW	DSI-GP-07-GW	DSI04-GW	DSI05-GW	DSI08-GW	DSI-MW-04-072309	DSI-GP-08-GW	DSI-GP-09-GW	DSI-GP-10-GW	DSI-GP-11-GW	DSI06-GW	DSI07-GW
	07/14/2009	07/14/2009	09/27/2006	09/27/2006	09/28/2006	07/23/2009	07/16/2009	07/16/2009	07/16/2009	07/14/2009	09/27/2006	09/28/2006
Analyte	**4 to 9 ft**	**4 to 9 ft**	**0 to 10 ft**	**0 to 10 ft**	**0 to 10 ft**	**4.6 to 14.2 ft**	**4.5 to 9.5 ft**	**5 to 10 ft**	**4.5 to 9.5 ft**	**4 to 9 ft**	**0 to 10 ft**	**0 to 10 ft**
Conventional Parameters (mg/L)												
Alkalinity, as Calcium carbonate	--	--	--	--	--	**177**	--	--	--	--	--	--
Alkalinity, Bicarbonate	--	--	--	--	--	**177**	--	--	--	--	--	--
Alkalinity, Carbonate	--	--	--	--	--	1 U	--	--	--	--	--	--
Alkalinity, Hydroxide	--	--	--	--	--	1 U	--	--	--	--	--	--
Chloride (total)	--	--	--	--	--	**526**	--	--	--	--	--	--
Sulfate	--	--	--	--	--	**55.1**	--	--	--	--	--	--
Sulfide	--	--	--	--	--	**0.086**	--	--	--	--	--	--
Conventional Parameters (mg-N/L)												
Nitrate + Nitrite	--	--	--	--	--	1 UJ	--	--	--	--	--	--
Nitrate as Nitrogen	--	--	--	--	--	1 UJ	--	--	--	--	--	--
Nitrite as Nitrogen	--	--	--	--	--	1 U	--	--	--	--	--	--
Metals, dissolved (µg/L)												
Antimony	--	--	--	--	--	0.2 U	--	--	--	--	--	--
Arsenic	--	--	**2.2**	**0.6**	**1.4**	**2.4**	--	--	--	--	**1.8**	**3.8**
Cadmium	--	--	0.2 U	0.2 U	0.2 U	0.2 U	--	--	--	--	0.2 U	0.2 U
Chromium	--	--	2 U	2 U	2 U	2 U	--	--	--	--	0.5 U	2 U
Copper	--	--	**0.7**	0.5 U	**0.7**	**0.8**	--	--	--	--	0.5 U	**0.6**
Lead	--	--	1 U	1 U	1 U	1 U	--	--	--	--	1 U	1 U
Mercury	--	--	0.1 U	0.1 U	0.1 U	0.02 U	--	--	--	--	0.1 U	0.1 U
Nickel	--	--	--	--	--	**1.6**	--	--	--	--	--	--
Selenium	--	--	--	--	--	2 U	--	--	--	--	--	--
Silver	--	--	0.2 U	0.2 U	0.2 U	0.2 U	--	--	--	--	0.2 U	0.2 U
Zinc	--	--	4 U	**7**	4 U	4 U	--	--	--	--	**5**	**6**
Metals, total (µg/L)												
Arsenic	--	--	**11.2**	**2**	**11.8**	--	--	--	--	--	**2.3**	**9.5**
Cadmium	--	--	**0.2**	0.2 U	**0.3**	--	--	--	--	--	0.2 U	0.2 U
Chromium	--	--	**29**	**6**	**37**	--	--	--	--	--	2 U	**21**
Copper	--	--	**55.6**	**15.2**	**70.4**	--	--	--	--	--	**7.5**	**39.1**
Lead	--	--	**13**	**6**	**12**	--	--	--	--	--	**2**	**6**
Mercury	--	--	0.1 U	0.1 U	**0.12**	--	--	--	--	--	0.1 U	0.1 U
Silver	--	--	0.2 U	0.2 U	**0.4**	--	--	--	--	--	0.2 U	0.2 U
Zinc	--	--	**92**	**25**	**103**	--	--	--	--	--	**9**	**61**
Total Petroleum Hydrocarbons (mg/L)												
Gasoline Range Hydrocarbons	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	**0.32**	**0.38**	0.25 U	0.25 U	0.25 U	0.25 U	**2.0**
Diesel Range Hydrocarbons	0.25 UJ	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ	0.25 U	**1.9**
Motor Oil Range	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U

Table 9
Upland Groundwater Chemical Testing Results

	Central Area					UST Removal Area						
	DSI-GP-06	DSI-GP-07	DSI-04	DSI-05	DSI-08	DSI-MW-04	DSI-GP-08	DSI-GP-09	DSI-GP-10	DSI-GP-11	DSI-06	DSI-07
	DSI-GP-06-GW	DSI-GP-07-GW	DSI04-GW	DSI05-GW	DSI08-GW	DSI-MW-04-072309	DSI-GP-08-GW	DSI-GP-09-GW	DSI-GP-10-GW	DSI-GP-11-GW	DSI06-GW	DSI07-GW
	07/14/2009	07/14/2009	09/27/2006	09/27/2006	09/28/2006	07/23/2009	07/16/2009	07/16/2009	07/16/2009	07/14/2009	09/27/2006	09/28/2006
Analyte	**4 to 9 ft**	**4 to 9 ft**	**0 to 10 ft**	**0 to 10 ft**	**0 to 10 ft**	**4.6 to 14.2 ft**	**4.5 to 9.5 ft**	**5 to 10 ft**	**4.5 to 9.5 ft**	**4 to 9 ft**	**0 to 10 ft**	**0 to 10 ft**
Semi-Volatile Organic Compounds (µg/L)												
PAHs												
1-Methylnaphthalene	0.01 U	0.01 U				**6**	**4.4**	**2.7**	**0.045**	**0.025**	--	--
2-Methylnaphthalene	0.01 U	**0.018**	0.02 U	**0.12**	0.06 U	**0.71**	**3.5**	**3.2**	**0.049**	**0.034**	0.06 U	**32**
Acenaphthene	0.01 U	0.01 U	0.01 U	**0.06**	**0.01 J**	**1.6**	**0.74**	**0.57**	**0.051**	**0.017**	**0.09**	**0.54**
Acenaphthylene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	**0.18**	**0.37**	**1.5**	0.01 U	0.01 U	**0.01 J**	**0.06**
Anthracene	0.01 U	0.01 U	0.01 U	**0.01 J**	**0.01 J**	**0.12**	**0.17**	**0.25**	0.01 U	0.01 U	**0.01 J**	**0.03**
Benzo(a)anthracene	0.01 U	0.01 U	0.01 U	**0.01 J**	0.01 U	0.01 U	**0.039**	**0.043**	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(a)pyrene	0.01 U	0.01 U	0.01 U	**0.01 J**	0.01 U	0.01 U	**0.018**	**0.022**	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(b)fluoranthene	0.01 U	0.01 U	0.01 U	**0.01 J**	0.01 U	0.01 U	**0.014**	**0.011**	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(k)fluoranthene	0.01 U	0.01 U	0.01 U	**0.01 J**	0.01 U	0.01 U	0.01 U	**0.013**	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(g,h,i)perylene	0.01 U	**0.019**	0.01 U	**0.01 J**	0.01 U	0.01 U	**0.02**	**0.02**	0.01 U	**0.017**	0.01 U	**0.01 J**
Chrysene	0.01 U	**0.016**	0.01 U	**0.02**	**0.01 J**	0.01 U	**0.047**	**0.052**	0.01 U	**0.011**	**0.01 J**	**0.01 J**
Dibenzo(a,h)anthracene	0.01 U	**0.018**	0.01 U	0.01 U	0.01 U	0.01 U	**0.018**	**0.018**	0.01 U	**0.017**	0.01 U	0.01 U
Fluoranthene	0.01 U	**0.023**	**0.01**	**0.02**	**0.02**	**0.018**	**0.17**	**0.26**	0.01 U	0.01 U	**0.03**	**0.02**
Fluorene	0.01 U	0.01 U	0.01 U	**0.01**	**0.01 J**	**1.0**	**1.1**	**0.96**	**0.028**	0.01 U	**0.03**	**0.57**
Indeno(1,2,3-c,d)pyrene	0.01 U	**0.02**	0.01 U	**0.01 J**	0.01 U	0.01 U	**0.022**	**0.022**	0.01 U	**0.018**	0.01 U	0.01 U
Naphthalene	**0.088**	**0.033**	**0.07**	**0.16**	**0.08**	**7.2**	**4**	**10**	**0.097**	**0.034**	**0.15**	**4.7**
Phenanthrene	0.01 U	**0.019**	**0.01**	**0.04**	**0.03**	**0.77**	**1.3**	**1.1**	**0.026**	0.01 U	**0.04**	**0.31**
Pyrene	0.01 U	**0.023**	**0.01 J**	**0.02**	**0.01**	**0.014**	**0.2**	**0.3**	0.01 U	0.01 U	**0.05**	**0.02**
Total cPAHs												
Total cPAH TEQ (U = 0)	0.01 U	**0.004**	0.01 U	**0.014**	**0.0001**	0.01 U	**0.03**	**0.03**	0.01 U	**0.004**	**0.0001**	**0.0001**
Total cPAH TEQ (U = 1/2)	0.01 U	**0.01**	0.01 U	**0.015**	**0.008**	0.01 U	**0.03**	**0.03**	0.01 U	**0.01**	**0.008**	**0.008**
Chlorobenzenes												
1,2-Dichlorobenzene	1 UJ	1 UJ	--	--	--	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	--	--
1,4-Dichlorobenzene	1 UJ	1 UJ	--	--	--	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	--	--
1,2,4-Trichlorobenzene	1 UJ	1 UJ	--	--	--	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	--	--
Hexachlorobenzene	1 U	1 U	--	--	--	1 U	1 U	1 U	1 U	1 U	--	--
Phthalates												
Dimethyl phthalate	1 U	1 U	--	--	--	1 U	1 U	1 U	1 U	1 U	--	--
Diethyl phthalate	1 U	1 U	--	--	--	1 U	1 U	1 U	1 U	1 U	--	--
Di-n-butyl phthalate	1 U	1 U	--	--	--	1 U	1 U	1 U	1 U	1 U	--	--
Butylbenzyl phthalate	1 U	1 U	--	--	--	1 U	1 U	1 U	1 U	1 U	--	--
Bis(2-ethylhexyl) phthalate	1 U	1 U	--	--	--	1 U	1 U	1 U	1 U	1 U	--	--
Di-n-octyl phthalate	1 U	1 U	--	--	--	1 U	1 U	1 U	1 U	1 U	--	--
Phenols												
2,4-Dimethylphenol	1 U	1 U	--	--	--	1 U	1 UJ	1 UJ	1 UJ	1 U	--	--
2-Methylphenol (o-Cresol)	1 U	1 U	--	--	--	1 U	1 U	1 U	1 U	1 U	--	--
4-Methylphenol (p-Cresol)	1 U	1 U	--	--	--	1 U	1 U	1 U	1 U	1 U	--	--
Pentachlorophenol	5 UJ	5 UJ	--	--	--	5 U	5 UJ	5 UJ	5 UJ	5 UJ	--	--
Phenol	1 U	1 U	--	--	--	1 U	1 U	1 U	1 U	1 U	--	--

Table 9
Upland Groundwater Chemical Testing Results

	Central Area					UST Removal Area						
	DSI-GP-06	DSI-GP-07	DSI-04	DSI-05	DSI-08	DSI-MW-04	DSI-GP-08	DSI-GP-09	DSI-GP-10	DSI-GP-11	DSI-06	DSI-07
	DSI-GP-06-GW	DSI-GP-07-GW	DSI04-GW	DSI05-GW	DSI08-GW	DSI-MW-04-072309	DSI-GP-08-GW	DSI-GP-09-GW	DSI-GP-10-GW	DSI-GP-11-GW	DSI06-GW	DSI07-GW
	07/14/2009	07/14/2009	09/27/2006	09/27/2006	09/28/2006	07/23/2009	07/16/2009	07/16/2009	07/16/2009	07/14/2009	09/27/2006	09/28/2006
Analyte	**4 to 9 ft**	**4 to 9 ft**	**0 to 10 ft**	**0 to 10 ft**	**0 to 10 ft**	**4.6 to 14.2 ft**	**4.5 to 9.5 ft**	**5 to 10 ft**	**4.5 to 9.5 ft**	**4 to 9 ft**	**0 to 10 ft**	**0 to 10 ft**
Miscellaneous Extractables												
Dibenzofuran	0.01 U	0.01 U	--	--	--	**0.2**	**0.2**	**0.16**	**0.021**	0.01 U		
Hexachlorobutadiene	1 UJ	1 UJ	0.01 U	**0.01 J**	**0.01 J**	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	**0.01 J**	**0.14**
N-Nitrosodiphenylamine	1 UJ	1 UJ	--	--	--	1 U	1 UJ	1 UJ	1 UJ	1 UJ	--	--
Benzyl alcohol	5 U	5 U	--	--	--	5 U	5 U	5 U	5 U	5 U	--	--
Benzoic acid	10 U	10 U	--	--	--	10 U	10 UJ	10 UJ	10 UJ	10 U	--	--
Hexachloroethane	1 UJ	1 UJ	--	--	--	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	--	--
Volatile Organic Compounds (µg/L)												
1,1,1,2-Tetrachloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2,2-Tetrachloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichlorobenzene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3-Dichlorobenzene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1'-Dichloroethane	0.2 U	0.2 U	0.2 U	**0.2**	0.2 U	0.2 U	**0.2**	**0.2**	**0.2**	0.2 U	0.2 U	0.2 U
1,4-Dichlorobenzene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1'-Dichloroethene	--	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	0.2 U	0.2 U
1,1-Dichloropropene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,3-Trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**1.8**	**1.4**	**0.8**	0.2 U	0.2 U	0.2 U	**24**
1,2-Dibromo-3-chloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethene, cis-	--	--	**0.6**	0.2 U	0.2 U	--	--	--	--	--	0.2 U	0.2 U
1,2-Dichloroethene, trans-	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3,5-Trimethylbenzene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.6**	**0.7**	**0.3**	0.2 U	0.2 U	0.2 U	**10**
1,3-Dichloropropane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3-Dichloropropene, cis-	--	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	0.2 U	0.2 U
1,3-Dichloropropene, trans-	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2,2-Dichloropropane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2-Butanone (MEK)	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U
2-Chlorotoluene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2-Hexanone	5 U	5 U	3 U	3 U	3 U	5 U	5 U	5 U	5 U	5 U	3 U	3 U
4-Chlorotoluene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
4-Isopropyltoluene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Acetone	5 U	5 U	**3.8**	3 U	**5.5**	5 U	5 U	5 U	5 U	5 U	**3.8**	3 U
Benzene	0.2 U	0.2 U	0.2 U	**0.2**	**0.3**	**25**	**3.6**	**0.3**	0.2 U	0.2 U	**0.6**	**180**
Bromobenzene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromochloromethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromodichloromethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromoform	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromomethane	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U
Volatile Organic Compounds (µg/L) (cont.)												
Carbon disulfide	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Carbon tetrachloride	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

Table 9
Upland Groundwater Chemical Testing Results

	Central Area					UST Removal Area						
	DSI-GP-06	DSI-GP-07	DSI-04	DSI-05	DSI-08	DSI-MW-04	DSI-GP-08	DSI-GP-09	DSI-GP-10	DSI-GP-11	DSI-06	DSI-07
	DSI-GP-06-GW	DSI-GP-07-GW	DSI04-GW	DSI05-GW	DSI08-GW	DSI-MW-04-072309	DSI-GP-08-GW	DSI-GP-09-GW	DSI-GP-10-GW	DSI-GP-11-GW	DSI06-GW	DSI07-GW
	07/14/2009	07/14/2009	09/27/2006	09/27/2006	09/28/2006	07/23/2009	07/16/2009	07/16/2009	07/16/2009	07/14/2009	09/27/2006	09/28/2006
Analyte	**4 to 9 ft**	**4 to 9 ft**	**0 to 10 ft**	**0 to 10 ft**	**0 to 10 ft**	**4.6 to 14.2 ft**	**4.5 to 9.5 ft**	**5 to 10 ft**	**4.5 to 9.5 ft**	**4 to 9 ft**	**0 to 10 ft**	**0 to 10 ft**
Chloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroform	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloromethane	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U
Dibromochloromethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dibromomethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dichlorodifluoromethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dichloromethane (Methylene chloride)	0.5 U	0.5 U	0.3 U	0.3 U	0.3 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 U	0.3 U
Ethylbenzene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**2.1**	**2.2**	**0.7**	0.2 U	0.2 U	0.2 U	**10**
Hexachlorobutadiene	0.5 U	0.5 U	--	--	--	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	--	--
Isopropylbenzene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.8**	**2**	0.2 U	0.2 U	0.2 U	0.2 U	**25**
Naphthalene	0.5 U	0.5 U	--	--	--	**18**	**15**	**28**	0.5 U	0.5 U	--	--
Methyl isobutyl ketone	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U
Methyl tert-butyl ether	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U
n-Butylbenzene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.6**	0.2 U	0.2 U	0.2 U	0.2 U	**14**
n-Propylbenzene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**1.4**	**8.3**	0.2 U	0.2 U	0.2 U	0.2 U	**94**
sec-Butylbenzene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.2**	**0.5**	0.2 U	0.2 U	0.2 U	0.2 U	**8.2**
Styrene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.4**	0.2 U	0.2 U	0.2 U	0.2 U
tert-Butylbenzene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Tetrachloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Toluene	0.2 U	0.2 U	**0.5**	**0.4**	**0.4**	**1**	**0.2**	**0.6**	0.2 U	0.2 U	**0.4**	**4.4**
Trichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Trichlorofluoromethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Vinyl chloride	0.2 U	**0.2**	**0.6**	**0.3**	**0.4**	0.2 U	0.2 U	**0.2**	**0.2**	0.2 U	0.2 U	0.2 U
m,p-Xylene	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	**3**	**2.5**	**1.2**	0.4 U	0.4 U	**0.4**	**6.4**
o-Xylene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**1.7**	**0.5**	**0.9**	0.2 U	0.2 U	**0.2**	0.2 U
Total Xylene (U = 0)	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	**4.7**	**3**	**2.1**	0.4 U	0.4 U	**0.6**	**6.4**
Total Xylene (U = 1/2)	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	**4.7**	**3**	**2.1**	0.4 U	0.4 U	**0.6**	**6.5**
PCB Aroclors (µg/l)												
Aroclor 1016	--	--	0.02 U	0.02 U	0.02 U	--	--	--	--	--	0.02 U	0.02 U
Aroclor 1221	--	--	0.02 U	0.02 U	0.02 U	--	--	--	--	--	0.02 U	0.08 U
Aroclor 1232	--	--	0.02 U	0.02 U	0.02 U	--	--	--	--	--	0.02 U	0.04 U
Aroclor 1242	--	--	0.02 U	0.02 U	0.02 U	--	--	--	--	--	0.02 U	0.02 U
Aroclor 1248	--	--	0.02 U	0.02 U	0.02 U	--	--	--	--	--	0.02 U	0.02 U
Aroclor 1254	--	--	0.02 U	0.02 U	0.02 U	--	--	--	--	--	0.02 U	0.02 U
Aroclor 1260	--	--	0.02 UJ	0.02 UJ	0.02 U	--	--	--	--	--	0.02 UJ	0.02 UJ
Total PCB Aroclors (U = 0)	--	--	0.02 U	0.02 U	0.02 U	--	--	--	--	--	0.02 U	0.08 U
Total PCB (U = 1/2)	--	--	0.02 U	0.02 U	0.02 U	--	--	--	--	--	0.02 U	0.08 U

Table 9
Upland Groundwater Chemical Testing Results

	Central Area					UST Removal Area						
	DSI-GP-06	DSI-GP-07	DSI-04	DSI-05	DSI-08	DSI-MW-04	DSI-GP-08	DSI-GP-09	DSI-GP-10	DSI-GP-11	DSI-06	DSI-07
	DSI-GP-06-GW	DSI-GP-07-GW	DSI04-GW	DSI05-GW	DSI08-GW	DSI-MW-04-072309	DSI-GP-08-GW	DSI-GP-09-GW	DSI-GP-10-GW	DSI-GP-11-GW	DSI06-GW	DSI07-GW
	07/14/2009	07/14/2009	09/27/2006	09/27/2006	09/28/2006	07/23/2009	07/16/2009	07/16/2009	07/16/2009	07/14/2009	09/27/2006	09/28/2006
Analyte	4 to 9 ft	4 to 9 ft	0 to 10 ft	0 to 10 ft	0 to 10 ft	4.6 to 14.2 ft	4.5 to 9.5 ft	5 to 10 ft	4.5 to 9.5 ft	4 to 9 ft	0 to 10 ft	0 to 10 ft
Pesticides (µg/l)												
4,4'-DDD (p,p'-DDD)	--	--	0.011 U	0.011 U	0.01 U	--	--	--	--	--	0.011 U	0.01 U
4,4'-DDE (p,p'-DDE)	--	--	0.011 U	0.011 U	0.01 U	--	--	--	--	--	0.011 U	0.01 U
4,4'-DDT (p,p'-DDT)	--	--	0.011 U	0.011 U	0.01 U	--	--	--	--	--	0.011 U	0.01 U
Aldrin	--	--	0.0054 U	0.0053 U	0.005 U	--	--	--	--	--	0.0055 U	0.005 U
alpha-BHC	--	--	0.0054 U	0.0053 U	0.005 U	--	--	--	--	--	0.0055 U	0.005 U
beta-BHC	--	--	0.0054 U	0.0053 U	0.005 U	--	--	--	--	--	0.0055 U	0.005 U
alpha-Chlordane	--	--	0.0054 U	0.0053 U	0.005 U	--	--	--	--	--	0.0055 U	0.005 U
delta-BHC	--	--	0.0054 U	0.0053 U	0.005 U	--	--	--	--	--	0.0055 U	0.005 U
Dieldrin	--	--	0.011 U	0.011 U	0.01 U	--	--	--	--	--	0.011 U	0.01 U
Endosulfan-alpha (I)	--	--	0.0054 U	0.0053 U	0.005 U	--	--	--	--	--	0.0055 U	0.005 U
Endosulfan-beta (II)	--	--	0.011 U	0.011 U	0.01 U	--	--	--	--	--	0.011 U	0.01 U
Endosulfan sulfate	--	--	0.011 U	0.011 U	0.01 U	--	--	--	--	--	0.011 U	0.01 U
Endrin	--	--	0.011 U	0.011 U	0.01 U	--	--	--	--	--	0.011 U	0.01 U
Endrin aldehyde	--	--	0.011 U	0.011 U	0.01 U	--	--	--	--	--	0.011 U	0.01 U
Endrin ketone	--	--	0.011 U	0.011 U	0.01 U	--	--	--	--	--	0.011 U	0.01 U
gamma-BHC (Lindane)	--	--	0.0054 U	0.0053 U	0.005 U	--	--	--	--	--	0.0055 U	0.005 U
gamma-Chlordane	--	--	0.0054 U	0.0053 U	0.005 U	--	--	--	--	--	0.0055 U	0.005 U
Heptachlor	--	--	0.0054 U	0.0053 U	0.005 U	--	--	--	--	--	0.0055 U	0.005 U
Heptachlor epoxide	--	--	0.0054 U	0.0053 U	0.005 U	--	--	--	--	--	0.0055 U	0.005 U
Methoxychlor	--	--	0.054 U	0.053 U	0.05 U	--	--	--	--	--	0.055 U	0.05 U
Toxaphene	--	--	0.54 U	0.53 U	0.5 U	--	--	--	--	--	0.55 U	0.5 U
Hexachlorobenzene	--	--	0.0054 U	0.0053 U	0.005 U	--	--	--	--	--	0.0055 U	0.005 U
Hexachlorobutadiene	--	--	0.0054 U	0.0053 U	0.005 U	--	--	--	--	--	0.0055 U	0.005 U

Table 9
Upland Groundwater Chemical Testing Results

Analyte	South Property Area			
	DSI-MW-03	DSI-GP-19	DSI-GP-20	DSI-GP-21
	DSI-MW-03-072909	DSI-GP-19-GW	DSI-GP-20-GW	DSI-GP-21-GW
	07/29/2009	07/16/2009	07/15/2009	07/16/2009
	29.9 to 39.8 ft	5 to 10 ft	5 to 10 ft	5 to 10 ft
Conventional Parameters (mg/L)				
Alkalinity, as Calcium carbonate	--	--	--	--
Alkalinity, Bicarbonate	--	--	--	--
Alkalinity, Carbonate	--	--	--	--
Alkalinity, Hydroxide	--	--	--	--
Chloride (total)	**11,900**	--	--	--
Sulfate	--	--	--	--
Sulfide	--	--	--	--
Conventional Parameters (mg-N/L)				
Nitrate + Nitrite	--	--	--	--
Nitrate as Nitrogen	--	--	--	--
Nitrite as Nitrogen	--	--	--	--
Metals, dissolved (µg/L)				
Antimony	2 U	--	--	--
Arsenic	**7.0**	**1**	**0.8**	0.5 U
Cadmium	2 U	--	--	--
Chromium	5 U	--	--	--
Copper	**2.09 J**	--	--	--
Lead	10 U	--	--	--
Mercury	0.02 U	--	--	--
Nickel	2.02 U	--	--	--
Selenium	**12**	--	--	--
Silver	2 U	--	--	--
Zinc	40 U	--	--	--
Metals, total (µg/L)				
Arsenic	--	--	--	--
Cadmium	--	--	--	--
Chromium	--	--	--	--
Copper	--	--	--	--
Lead	--	--	--	--
Mercury	--	--	--	--
Silver	--	--	--	--
Zinc	--	--	--	--
Total Petroleum Hydrocarbons (mg/L)				
Gasoline Range Hydrocarbons	0.25 U	0.25 U	0.25 U	**0.38**
Diesel Range Hydrocarbons	0.25 U	0.25 U	0.25 U	0.25 U
Motor Oil Range	0.5 U	0.5 U	0.5 U	0.5 U

Table 9
Upland Groundwater Chemical Testing Results

Analyte	South Property Area			
	DSI-MW-03	DSI-GP-19	DSI-GP-20	DSI-GP-21
	DSI-MW-03-072909	DSI-GP-19-GW	DSI-GP-20-GW	DSI-GP-21-GW
	07/29/2009	07/16/2009	07/15/2009	07/16/2009
	29.9 to 39.8 ft	5 to 10 ft	5 to 10 ft	5 to 10 ft
Semi-Volatile Organic Compounds (µg/L)				
PAHs				
1-Methylnaphthalene	0.01 U	**0.021**	**0.013**	**4.6**
2-Methylnaphthalene	0.01 U	**0.04**	**0.029**	**1.2**
Acenaphthene	0.01 U	**0.011**	0.01 U	1 U
Acenaphthylene	0.01 U	0.01 U	0.01 U	**0.069**
Anthracene	0.01 U	0.01 U	0.01 U	**0.027**
Benzo(a)anthracene	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(a)pyrene	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(b)fluoranthene	0.01 U	0.01 U	0.01 UJ	0.01 U
Benzo(k)fluoranthene	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(g,h,i)perylene	0.01 U	0.01 U	0.01 UJ	**0.014**
Chrysene	0.01 U	0.01 U	0.01 U	**0.01**
Dibenzo(a,h)anthracene	0.01 U	0.01 U	0.01 U	0.01 U
Fluoranthene	0.01 U	0.01 U	0.01 U	**0.027**
Fluorene	0.01 U	**0.023**	**0.023**	**0.27**
Indeno(1,2,3-c,d)pyrene	0.01 U	0.01 U	0.01 U	1 U
Naphthalene	**0.016**	**0.062**	**0.056**	**2**
Phenanthrene	0.01 U	**0.021**	**0.023**	**0.16**
Pyrene	0.01 U	0.01 U	0.01 U	**0.033**
Total cPAHs				
Total cPAH TEQ (U = 0)	0.01 U	0.01 U	0.01 U	**0.0001**
Total cPAH TEQ (U = 1/2)	0.01 U	0.01 U	0.01 U	**0.06**
Chlorobenzenes				
1,2-Dichlorobenzene	1 UJ	1 UJ	1 UJ	1 UJ
1,4-Dichlorobenzene	1 UJ	1 UJ	1 UJ	1 UJ
1,2,4-Trichlorobenzene	1 UJ	1 UJ	1 UJ	1 UJ
Hexachlorobenzene	1 U	1 U	1 U	1 U
Phthalates				
Dimethyl phthalate	1 U	1 U	1 U	1 U
Diethyl phthalate	1 U	1 U	1 U	1 U
Di-n-butyl phthalate	1 U	1 U	1 U	1 U
Butylbenzyl phthalate	1 U	1 U	1 U	1 U
Bis(2-ethylhexyl) phthalate	1 U	1 U	1 U	1 U
Di-n-octyl phthalate	1 U	1 U	1 U	1 U
Phenols				
2,4-Dimethylphenol	1 U	1 UJ	1 U	1 UJ
2-Methylphenol (o-Cresol)	1 U	1 U	1 U	1 U
4-Methylphenol (p-Cresol)	1 U	1 UJ	1 U	1 U
Pentachlorophenol	5 U	5 UJ	5 UJ	5 UJ
Phenol	1 U	1 UJ	1 U	1 U

Table 9
Upland Groundwater Chemical Testing Results

Analyte	South Property Area			
	DSI-MW-03	DSI-GP-19	DSI-GP-20	DSI-GP-21
	DSI-MW-03-072909	DSI-GP-19-GW	DSI-GP-20-GW	DSI-GP-21-GW
	07/29/2009	07/16/2009	07/15/2009	07/16/2009
	29.9 to 39.8 ft	5 to 10 ft	5 to 10 ft	5 to 10 ft
Miscellaneous Extractables				
Dibenzofuran	0.01 U	**0.021**	**0.021**	**0.06**
Hexachlorobutadiene	1 UJ	1 UJ	1 UJ	1 UJ
N-Nitrosodiphenylamine	1 U	1 UJ	1 UJ	1 UJ
Benzyl alcohol	5 U	5 UJ	5 U	5 U
Benzoic acid	10 U	10 UJ	10 U	10 UJ
Hexachloroethane	1 UJ	1 UJ	1 UJ	1 UJ
Volatile Organic Compounds (µg/L)				
1,1,1,2-Tetrachloroethane	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2,2-Tetrachloroethane	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichlorobenzene	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichloroethane	0.2 U	0.2 U	0.2 U	0.2 U
1,3-Dichlorobenzene	0.2 U	0.2 U	0.2 U	0.2 U
1,1'-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U
1,4-Dichlorobenzene	0.2 U	0.2 U	0.2 U	0.2 U
1,1'-Dichloroethene	--	--	--	--
1,1-Dichloropropene	0.2 U	0.2 U	0.2 U	0.2 U
1,2,3-Trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	0.2 U	0.2 U	0.2 U	**1**
1,2-Dibromo-3-chloropropane	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethene, cis-	--	--	--	--
1,2-Dichloroethene, trans-	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	0.2 U	0.2 U	0.2 U	0.2 U
1,3,5-Trimethylbenzene	0.2 U	0.2 U	0.2 U	**0.7**
1,3-Dichloropropane	0.2 U	0.2 U	0.2 U	0.2 U
1,3-Dichloropropene, cis-	--	--	--	--
1,3-Dichloropropene, trans-	0.2 U	0.2 U	0.2 U	0.2 U
2,2-Dichloropropane	0.2 UJ	0.2 U	0.2 U	0.2 U
2-Butanone (MEK)	5 U	5 U	5 U	5 U
2-Chlorotoluene	0.2 U	0.2 U	0.2 U	0.2 U
2-Hexanone	5 U	5 U	5 U	5 U
4-Chlorotoluene	0.2 U	0.2 U	0.2 U	0.2 U
4-Isopropyltoluene	0.2 U	0.2 U	0.2 U	0.2 U
Acetone	5 U	5 U	5 U	5 U
Benzene	0.2 U	0.2 U	0.2 U	**15**
Bromobenzene	0.2 U	0.2 U	0.2 U	0.2 U
Bromochloromethane	0.2 U	0.2 U	0.2 U	0.2 U
Bromodichloromethane	0.2 U	0.2 U	0.2 U	0.2 U
Bromoform	0.2 U	0.2 U	0.2 U	0.2 U
Bromomethane	0.5 U	0.5 U	0.5 U	0.5 U
Volatile Organic Compounds (µg/L) (cont.)				
Carbon disulfide	0.2 U	0.2 U	0.2 U	0.2 U
Carbon tetrachloride	0.2 U	0.2 U	0.2 U	0.2 U

Table 9
Upland Groundwater Chemical Testing Results

Analyte	South Property Area			
	DSI-MW-03	DSI-GP-19	DSI-GP-20	DSI-GP-21
	DSI-MW-03-072909	DSI-GP-19-GW	DSI-GP-20-GW	DSI-GP-21-GW
	07/29/2009	07/16/2009	07/15/2009	07/16/2009
	29.9 to 39.8 ft	5 to 10 ft	5 to 10 ft	5 to 10 ft
Chloroethane	0.2 U	0.2 U	0.2 U	0.2 U
Chloroform	0.2 U	0.2 U	0.2 U	0.2 U
Chloromethane	0.5 U	0.5 U	0.5 UJ	0.5 U
Dibromochloromethane	0.2 U	0.2 U	0.2 U	0.2 U
Dibromomethane	0.2 U	0.2 U	0.2 U	0.2 U
Dichlorodifluoromethane	0.2 U	0.2 U	0.2 UJ	0.2 U
Dichloromethane (Methylene chloride)	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.2 U	0.2 U	0.2 U	**0.6**
Hexachlorobutadiene	0.5 U	0.5 U	0.5 UJ	0.5 U
Isopropylbenzene	0.2 U	0.2 U	0.2 U	**2**
Naphthalene	0.5 U	0.5 U	0.5 U	**3.8**
Methyl isobutyl ketone	5 U	5 U	5 U	5 U
Methyl tert-butyl ether	0.5 U	0.5 U	0.5 U	0.5 U
n-Butylbenzene	0.2 U	0.2 U	0.2 U	**0.8**
n-Propylbenzene	0.2 U	0.2 U	0.2 U	**8**
sec-Butylbenzene	0.2 U	0.2 U	0.2 U	**0.7**
Styrene	0.2 U	0.2 U	0.2 U	0.2 U
tert-Butylbenzene	0.2 U	0.2 U	0.2 U	0.2 U
Tetrachloroethene	0.2 U	0.2 U	0.2 U	0.2 U
Toluene	**0.3**	0.2 U	0.2 U	**0.6**
Trichloroethene	0.2 U	0.2 U	0.2 U	0.2 U
Trichlorofluoromethane	0.2 U	0.2 U	0.2 UJ	0.2 U
Vinyl chloride	0.2 U	**0.2**	0.2 UJ	0.2 U
m,p-Xylene	0.4 U	0.4 U	0.4 U	**2.6**
o-Xylene	0.2 U	0.2 U	0.2 U	**0.7**
Total Xylene (U = 0)	0.4 U	0.4 U	0.4 U	**3.3**
Total Xylene (U = 1/2)	0.4 U	0.4 U	0.4 U	**3.3**
PCB Aroclors (µg/l)				
Aroclor 1016	--	--	--	--
Aroclor 1221	--	--	--	--
Aroclor 1232	--	--	--	--
Aroclor 1242	--	--	--	--
Aroclor 1248	--	--	--	--
Aroclor 1254	--	--	--	--
Aroclor 1260	--	--	--	--
Total PCB Aroclors (U = 0)	--	--	--	--
Total PCB (U = 1/2)	--	--	--	--

Table 9
Upland Groundwater Chemical Testing Results

Analyte	South Property Area			
	DSI-MW-03	DSI-GP-19	DSI-GP-20	DSI-GP-21
	DSI-MW-03-072909	DSI-GP-19-GW	DSI-GP-20-GW	DSI-GP-21-GW
	07/29/2009	07/16/2009	07/15/2009	07/16/2009
	29.9 to 39.8 ft	5 to 10 ft	5 to 10 ft	5 to 10 ft
Pesticides (µg/l)				
4,4'-DDD (p,p'-DDD)	--	--	--	--
4,4'-DDE (p,p'-DDE)	--	--	--	--
4,4'-DDT (p,p'-DDT)	--	--	--	--
Aldrin	--	--	--	--
alpha-BHC	--	--	--	--
beta-BHC	--	--	--	--
alpha-Chlordane	--	--	--	--
delta-BHC	--	--	--	--
Dieldrin	--	--	--	--
Endosulfan-alpha (I)	--	--	--	--
Endosulfan-beta (II)	--	--	--	--
Endosulfan sulfate	--	--	--	--
Endrin	--	--	--	--
Endrin aldehyde	--	--	--	--
Endrin ketone	--	--	--	--
gamma-BHC (Lindane)	--	--	--	--
gamma-Chlordane	--	--	--	--
Heptachlor	--	--	--	--
Heptachlor epoxide	--	--	--	--
Methoxychlor	--	--	--	--
Toxaphene	--	--	--	--
Hexachlorobenzene	--	--	--	--
Hexachlorobutadiene	--	--	--	--

Notes:

ft	feet
GW	groundwater
Bold	Detected result
µg/L	micrograms per liter
mg/L	milligrams per liter
J	Estimated value
U	Compound analyzed, but not detected above detection limit
UJ	Compound analyzed, but not detected above estimated detection limit
PAH	polycyclic aromatic hydrocarbon
MW	monitoring well

Table 10
Summary of Upland Groundwater Data

Analyte	Data Summary				
	Detected	Non-detect Minimum Value	Non-detect Maximum Value	Detected Minimum Value	Detected Maximum Value
Metals - Total (µg/L)					
Arsenic	10 of 10	--	--	1.0	84.4
Cadmium	5 of 10	0.2	0.2	0.2	0.3
Chromium	8 of 10	1	2	6	54
Copper	10 of 11	0.5	0.5	2.09	86.7
Lead	9 of 10	1	1	2	13
Mercury	2 of 10	0.1	0.1	0.1	0.12
Nickel	0 of 1	2.02	2.02	--	--
Silver	4 of 10	0.2	0.2	0.3	0.8
Zinc	10 of 10	--	--	4	147
Metals - Dissolved (µg/L)					
Antimony	1 of 4	0.2	2	0.8	0.8
Arsenic	19 of 20	0.5	0.5	0.5	388
Cadmium	0 of 14	0.2	2	--	--
Chromium	1 of 14	0.5	5	42	42
Copper	9 of 14	0.5	0.5	0.6	14.3
Lead	0 of 14	1	10	--	--
Mercury	0 of 14	0.02	0.1	--	--
Nickel	4 of 4	--	--	1.6	18
Selenium	2 of 4	0.5	2	0.8	12
Silver	1 of 14	0.2	2	0.4	0.4
Zinc	8 of 14	4	40	4	15
Total Petroleum Hydrocarbons (mg/L)					
Gasoline Range Hydrocarbons	4 of 24	0.25	0.25	0.32	2
Diesel Range Hydrocarbons	3 of 24	0.25	0.25	0.35	1.9
Motor Oil Range	0 of 24	0.5	0.5	--	--
PAHs (µg/L)					
1-Methylnaphthalene	10 of 15	0.01	0.01	0.013	6
2-Methylnaphthalene	17 of 25	0.01	0.1	0.011	32
Acenaphthene	14 of 25	0.01	1	0.01	2.9
Acenaphthylene	7 of 25	0.01	0.01	0.01	1.5
Anthracene	12 of 25	0.01	0.01	0.01	0.25
Benzo(a)anthracene	5 of 25	0.01	0.01	0.01	0.043
Benzo(a)pyrene	4 of 25	0.01	0.01	0.01	0.022
Benzo(b)fluoranthene	4 of 25	0.01	0.01	0.01	0.02
Benzo(k)fluoranthene	3 of 25	0.01	0.01	0.01	0.03
Benzo(g,h,i)perylene	8 of 25	0.01	0.01	0.01	0.02
Chrysene	12 of 25	0.01	0.01	0.01	0.06
Dibenzo(a,h)anthracene	5 of 25	0.01	0.01	0.01	0.018
Fluoranthene	15 of 25	0.01	0.01	0.01	0.26
Fluorene	16 of 25	0.01	0.01	0.01	2
Indeno(1,2,3-c,d)pyrene	6 of 25	0.01	1	0.01	0.022
Naphthalene	22 of 23	0.01	0.01	0.01	10
Phenanthrene	18 of 25	0.01	0.01	0.01	1.3
Pyrene	16 of 25	0.01	0.01	0.01	0.3
Total cPAH TEF (7 minimum) (U = 0)	12 of 25	0.01	0.01	0.0001	0.033
Total cPAH TEF (7 minimum) (U = 1/2)	12 of 25	0.01	0.01	0.0076	0.057
Chlorobenzenes (µg/L)					
1,2-Dichlorobenzene	0 of 15	1	1	--	--
1,4-Dichlorobenzene	0 of 15	1	1	--	--
1,2,4-Trichlorobenzene	0 of 15	1	1	--	--
Hexachlorobenzene	0 of 15	1	1	--	--
Phthalates (µg/L)					
Dimethyl phthalate	0 of 15	1	1	--	--
Diethyl phthalate	0 of 15	1	1	--	--
Di-n-butyl phthalate	0 of 15	1	1	--	--
Butylbenzyl phthalate	0 of 15	1	1	--	--
Bis(2-ethylhexyl) phthalate	0 of 15	1	1	--	--
Di-n-octyl phthalate	0 of 15	1	1	--	--
Phenols (µg/L)					
2,4-Dimethylphenol	0 of 15	1	1	--	--
2-Methylphenol (o-Cresol)	0 of 15	1	1	--	--
4-Methylphenol (p-Cresol)	0 of 15	1	1	--	--
Pentachlorophenol	0 of 15	5	5	--	--
Phenol	0 of 15	1	1	--	--
Miscellaneous Extractables (µg/L)					
Dibenzofuran	15 of 25	0.01	0.01	0.01	0.2
Hexachlorobutadiene	0 of 15	1	1	--	--
N-Nitrosodiphenylamine	0 of 15	1	1	--	--
Benzyl alcohol	0 of 15	5	5	--	--
Benzoic acid	0 of 15	10	10	--	--
Hexachloroethane	0 of 15	1	1	--	--

Table 10
Summary of Upland Groundwater Data

Analyte	Data Summary				
	Detected	Non-detect Minimum Value	Non-detect Maximum Value	Detected Minimum Value	Detected Maximum Value
Volatile Organic Compounds (µg/L)					
1,1,1,2-Tetrachloroethane	0 of 23	0.2	0.6	--	--
1,2,4-Trichlorobenzene	0 of 23	0.5	1.5	--	--
1,1,1-Trichloroethane	1 of 23	0.2	0.6	1	1
1,1,2,2-Tetrachloroethane	0 of 23	0.2	0.6	--	--
1,2-Dichlorobenzene	0 of 23	0.2	0.6	--	--
1,1,2-Trichloroethane	0 of 23	0.2	0.6	--	--
1,3-Dichlorobenzene	1 of 23	0.2	0.6	0.3	0.3
1,1-Dichloroethane	7 of 23	0.2	0.6	0.2	0.4
1,4-Dichlorobenzene	0 of 23	0.2	0.6	--	--
1,1-Dichloroethene	0 of 10	0.2	0.6	--	--
1,1-Dichloropropene	0 of 23	0.2	0.6	--	--
1,2,3-Trichlorobenzene	0 of 23	0.5	1.5	--	--
1,2,3-Trichloropropane	0 of 23	0.5	1.5	--	--
1,2,4-Trimethylbenzene	6 of 23	0.2	0.6	0.4	24
1,2-Dibromo-3-chloropropane	0 of 23	0.5	1.5	--	--
1,2-Dibromoethane (Ethylene dibromide)	0 of 23	0.2	0.6	--	--
1,2-Dichloroethane	0 of 23	0.2	0.6	--	--
1,2-Dichloroethene, cis-	3 of 10	0.2	0.6	0.2	0.6
1,2-Dichloroethene, trans-	0 of 23	0.2	0.6	--	--
1,2-Dichloropropane	0 of 23	0.2	0.6	--	--
1,3,5-Trimethylbenzene (Mesitylene)	6 of 23	0.2	0.6	0.3	10
1,3-Dichloropropane	0 of 23	0.2	0.6	--	--
1,3-Dichloropropene, cis-	0 of 10	0.2	0.6	--	--
1,3-Dichloropropene, trans-	0 of 23	0.2	0.6	--	--
2,2-Dichloropropane	0 of 23	0.2	0.6	--	--
2-Butanone (MEK)	0 of 23	1	5	--	--
2-Chlorotoluene	0 of 23	0.2	0.6	--	--
2-Hexanone (Methyl butyl ketone)	0 of 23	3	9	--	--
4-Chlorotoluene	0 of 23	0.2	0.6	--	--
4-Isopropyltoluene (4-Cymene)	0 of 23	0.2	0.6	--	--
Acetone	7 of 23	3	9	3.8	8
Benzene	8 of 23	0.2	0.6	0.2	180
Bromobenzene	0 of 23	0.2	0.6	--	--
Bromochloromethane	0 of 23	0.2	0.6	--	--
Bromodichloromethane	0 of 23	0.2	0.6	--	--
Bromoform	0 of 23	0.2	0.6	--	--
Bromomethane	0 of 23	0.2	0.6	--	--
Carbon disulfide	2 of 23	0.2	0.6	0.2	0.6
Carbon tetrachloride (Tetrachloromethane)	0 of 23	0.2	0.6	--	--
Chloroethane	0 of 23	0.2	0.6	--	--
Chloroform	0 of 23	0.2	0.6	--	--
Chloromethane	0 of 23	0.2	0.6	--	--
Dibromochloromethane	0 of 23	0.2	0.6	--	--
Dibromomethane	0 of 23	0.2	0.6	--	--
Dichlorodifluoromethane	0 of 23	0.2	0.6	--	--
Dichloromethane (Methylene chloride)	1 of 23	0.3	0.9	0.3	0.3
Ethylbenzene	5 of 23	0.2	0.6	0.6	10
Hexachlorobutadiene	0 of 13	0.5	0.5	--	--
Isopropylbenzene (Cumene)	4 of 23	0.2	0.6	0.8	25
Naphthalene	6 of 15	0.5	0.5	3.8	28
Methyl isobutyl ketone (4-Methyl-2-pentanone (MIBK))	0 of 23	1	5	--	--
Methyl tert-butyl ether (MTBE)	0 of 23	0.2	0.6	--	--
n-Butylbenzene	3 of 23	0.2	0.6	0.6	14
n-Propylbenzene	4 of 23	0.2	0.6	1.4	94
sec-Butylbenzene	4 of 23	0.2	0.6	0.2	8.2
Styrene	1 of 23	0.2	0.6	0.4	0.4
tert-Butylbenzene	0 of 23	0.2	0.6	--	--
Tetrachloroethene (PCE)	0 of 23	0.2	0.6	--	--
Toluene	13 of 23	0.2	0.6	0.2	4.4
Trichloroethene (TCE)	0 of 23	0.2	0.6	--	--
Trichlorofluoromethane (Fluorotrichloromethane)	0 of 23	0.2	0.6	--	--
Vinyl chloride	8 of 23	0.2	0.6	0.2	0.9
m,p-Xylene	8 of 23	0.4	1.2	0.4	6.4
o-Xylene	7 of 23	0.2	0.6	0.2	1.7
Total Xylene (U = 0)	8 of 23	0.4	1.2	0.6	6.4
Total Xylene (U = 1/2)	8 of 23	0.4	1.2	0.6	6.5
PCB Aroclors (µg/L)					
Aroclor 1016	0 of 10	0.02	0.02	--	--
Aroclor 1221	0 of 10	0.02	0.08	--	--

Table 10
Summary of Upland Groundwater Data

Analyte	Data Summary				
	Detected	Non-detect Minimum Value	Non-detect Maximum Value	Detected Minimum Value	Detected Maximum Value
Aroclor 1232	0 of 10	0.02	0.04	--	--
Aroclor 1242	0 of 10	0.02	0.02	--	--
Aroclor 1248	0 of 10	0.02	0.02	--	--
Aroclor 1254	0 of 10	0.02	0.02	--	--
Aroclor 1260	0 of 10	0.02	0.02	--	--
Total PCB Aroclors (U = 0)	0 of 10	0.02	0.08	--	--
Total PCB Aroclors (U = 1/2)	0 of 10	0.02	0.08	--	--
Pesticides (µg/L)					
4,4'-DDD (p,p'-DDD)	0 of 10	0.01	0.011	--	--
4,4'-DDE (p,p'-DDE)	0 of 10	0.01	0.011	--	--
4,4'-DDT (p,p'-DDT)	0 of 10	0.01	0.011	--	--
Aldrin	0 of 10	0.005	0.0056	--	--
alpha-BHC	0 of 10	0.005	0.0056	--	--
beta-BHC	0 of 10	0.005	0.0056	--	--
alpha-Chlordane (cis-Chlordane)	0 of 10	0.005	0.0056	--	--
delta-BHC	0 of 10	0.005	0.0056	--	--
Dieldrin	0 of 10	0.01	0.011	--	--
Endosulfan-alpha (I)	0 of 10	0.005	0.0056	--	--
Endosulfan-beta (II)	0 of 10	0.01	0.011	--	--
Endosulfan sulfate	0 of 10	0.01	0.011	--	--
Endrin	0 of 10	0.01	0.011	--	--
Endrin aldehyde	0 of 10	0.01	0.011	--	--
Endrin ketone	0 of 10	0.01	0.011	--	--
gamma-BHC (Lindane)	0 of 10	0.005	0.0056	--	--
gamma-Chlordane	0 of 10	0.005	0.0056	--	--
Heptachlor	0 of 10	0.005	0.0056	--	--
Heptachlor epoxide	0 of 10	0.005	0.0056	--	--
Methoxychlor	0 of 10	0.05	0.056	--	--
Toxaphene	0 of 10	0.5	0.56	--	--
Hexachlorobenzene	0 of 10	0.005	0.0056	--	--
Hexachlorobutadiene	0 of 8	0.005	0.0056	--	--

Notes:

µg/L	micrograms per liter
mg/L	milligrams per liter
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	polychlorinated biphenyls
ND	non-detect

Table 11a
Upland Soil Chemical Testing Results - Rail Spur Area

Analyte	Location ID:	DSI-01	DSI-01	DSI-MW-01	DSI-MW-01	DSI-GP-01	DSI-GP-01	DSI-GP-02	DSI-GP-02	DSI-GP-03	DSI-GP-03
	Sample ID:	DSI01-SO-A	DSI01-SO-B	DSI-MW-01-0.5-2.0	DSI-MW-01-5-6.5	DSI-GP-01-2.5-4.5	DSI-GP-01-5.5-7.5	DSI-GP-02-2.5-5.5	DSI-GP-02-5.5-7.5	DSI-GP-03-1.5-4	DSI-GP-03-5.5-8
	Sample Date:	09/27/2006	09/27/2006	07/13/2009	07/13/2009	07/15/2009	07/15/2009	07/15/2009	07/15/2009	07/15/2009	07/15/2009
	Sample Depth:	0 to 3 ft	4 to 6 ft	0.5 to 2.0 ft	5 to 6.5 ft	2.5 to 4.5 ft	5.5 to 7.5 ft	2.5 to 5.5 ft	5.5 to 7.5 ft	1.5 to 4 ft	5.5 to 8 ft
Conventional Parameters (percent)											
Total organic carbon		**1.11**	**0.384**	--	--	--	--	--	--	--	--
Total solids		**88.4**	**80.2**	--	--	--	--	--	--	--	--
Metals (mg/kg)											
Antimony		--	--	--	--	--	--	--	--	--	--
Arsenic		**48.1 J**	**3.5**	**23**	**7**	**8**	**13**	**10**	**6**	**7**	6 U
Cadmium		**0.4**	**0.2**	--	--	--	--	--	--	--	--
Chromium		**20.4**	**15.9**	--	--	--	--	--	--	--	--
Chromium VI		0.125 UJ	0.135 UJ	--	--	--	--	--	--	--	--
Copper		**103 J**	**20.4**	--	--	--	--	--	--	--	--
Lead		**36 J**	**6**	--	--	--	--	--	--	--	--
Mercury		**0.09**	0.05 U	--	--	--	--	--	--	--	--
Nickel		--	--	--	--	--	--	--	--	--	--
Selenium		--	--	--	--	--	--	--	--	--	--
Silver		0.3 U	0.3 U	--	--	--	--	--	--	--	--
Zinc		**192**	**36.8**	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (mg/kg)											
Gasoline Range Hydrocarbons		5.3 U	6.3 U	--	--	--	--	--	--	--	--
Diesel Range Hydrocarbons		**65**	**12**	--	--	--	--	--	--	--	--
Motor Oil Range		**140**	**33**	--	--	--	--	--	--	--	--
Semi-Volatile Organic Compounds (µg/kg)											
PAHs											
1-Methylnaphthalene		--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene		**19**	5 U	--	--	--	--	--	--	--	--
Acenaphthene		**5.8**	5 U	--	--	--	--	--	--	--	--
Acenaphthylene		**9.1**	5 U	--	--	--	--	--	--	--	--
Anthracene		**44**	**8.4**	--	--	--	--	--	--	--	--
Benzo(a)anthracene		**64**	**9.9**	--	--	--	--	--	--	--	--
Benzo(a)pyrene		**56**	**9.4**	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene		**120**	**15**	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene		**65**	**9.4**	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene		**74**	**17**	--	--	--	--	--	--	--	--
Chrysene		**130**	**22**	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene		**18**	5 U	--	--	--	--	--	--	--	--
Fluoranthene		**170**	**36**	--	--	--	--	--	--	--	--
Fluorene		**11**	5 U	--	--	--	--	--	--	--	--
Indeno(1,2,3-c,d)pyrene		**54**	**8.9**	--	--	--	--	--	--	--	--
Naphthalene		**24**	**5**	--	--	--	--	--	--	--	--
Phenanthrene		**68**	**14**	--	--	--	--	--	--	--	--
Pyrene		**140**	**29**	--	--	--	--	--	--	--	--
Total PAHs											
Total cPAH TEQ (U = 0)		**90.3**	**14.7**	--	--	--	--	--	--	--	--
Total cPAH TEQ (U = 1/2)		**90.3**	**15.0**	--	--	--	--	--	--	--	--

Table 11a
Upland Soil Chemical Testing Results - Rail Spur Area

Analyte	Location ID:	DSI-01	DSI-01	DSI-MW-01	DSI-MW-01	DSI-GP-01	DSI-GP-01	DSI-GP-02	DSI-GP-02	DSI-GP-03	DSI-GP-03
	Sample ID:	DSI01-SO-A	DSI01-SO-B	DSI-MW-01-0.5-2.0	DSI-MW-01-5-6.5	DSI-GP-01-2.5-4.5	DSI-GP-01-5.5-7.5	DSI-GP-02-2.5-5.5	DSI-GP-02-5.5-7.5	DSI-GP-03-1.5-4	DSI-GP-03-5.5-8
	Sample Date:	09/27/2006	09/27/2006	07/13/2009	07/13/2009	07/15/2009	07/15/2009	07/15/2009	07/15/2009	07/15/2009	07/15/2009
	Sample Depth:	0 to 3 ft	4 to 6 ft	0.5 to 2.0 ft	5 to 6.5 ft	2.5 to 4.5 ft	5.5 to 7.5 ft	2.5 to 5.5 ft	5.5 to 7.5 ft	1.5 to 4 ft	5.5 to 8 ft
Miscellaneous Extractables											
Dibenzofuran	**12**	5 U	--	--	--	--	--	--	--	--	--
1,1,1,2-Tetrachloroethane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	4.6 U	5.6 U	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	**13**	1.1 U	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,1'-Dichloroethane	**10**	**7.9**	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,1'-Dichloroethene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,1-Dichloropropene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	4.6 U	5.6 U	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	1.8 U	2.2 U	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	4.6 U	5.6 U	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,2-Dichloroethene, cis-	0.9 U	**2.2**	--	--	--	--	--	--	--	--	--
1,2-Dichloroethene, trans-	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,3-Dichloropropane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,3-Dichloropropene, cis-	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
1,3-Dichloropropene, trans-	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
2,2-Dichloropropane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	**11**	**12**	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
2-Hexanone	4.6 U	5.6 U	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
Acetone	**77**	**70**	--	--	--	--	--	--	--	--	--
Benzene	0.9 U	**1.2**	--	--	--	--	--	--	--	--	--
Bromobenzene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
Bromochloromethane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
Bromodichloromethane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
Bromoform	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
Bromomethane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
Carbon disulfide	**1.8**	**11**	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
Chloroethane	**1.5**	1.1 U	--	--	--	--	--	--	--	--	--
Chloroform	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
Chloromethane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
Dibromochloromethane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--
Dibromomethane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	--

Table 11a
Upland Soil Chemical Testing Results - Rail Spur Area

Analyte	Location ID:	DSI-01	DSI-01	DSI-MW-01	DSI-MW-01	DSI-GP-01	DSI-GP-01	DSI-GP-02	DSI-GP-02	DSI-GP-03	DSI-GP-03
	Sample ID:	DSI01-SO-A	DSI01-SO-B	DSI-MW-01-0.5-2.0	DSI-MW-01-5-6.5	DSI-GP-01-2.5-4.5	DSI-GP-01-5.5-7.5	DSI-GP-02-2.5-5.5	DSI-GP-02-5.5-7.5	DSI-GP-03-1.5-4	DSI-GP-03-5.5-8
	Sample Date:	09/27/2006	09/27/2006	07/13/2009	07/13/2009	07/15/2009	07/15/2009	07/15/2009	07/15/2009	07/15/2009	07/15/2009
	Sample Depth:	0 to 3 ft	4 to 6 ft	0.5 to 2.0 ft	5 to 6.5 ft	2.5 to 4.5 ft	5.5 to 7.5 ft	2.5 to 5.5 ft	5.5 to 7.5 ft	1.5 to 4 ft	5.5 to 8 ft
Volatile Organics (µg/kg) (cont.)											
Dichlorodifluoromethane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
Dichloromethane (Methylene chloride)	2.1 U	2.6 U	--	--	--	--	--	--	--	--	
Ethylbenzene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
Isopropylbenzene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
Methyl isobutyl ketone	4.6 U	5.6 U	--	--	--	--	--	--	--	--	
Methyl tert-butyl ether	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
n-Butylbenzene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
n-Propylbenzene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
sec-Butylbenzene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
Styrene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
tert-Butylbenzene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
Tetrachloroethene	**3.7**	**1.3**	--	--	--	--	--	--	--	--	
Toluene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
Trichloroethene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
Trichlorofluoromethane	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
Vinyl chloride	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
m,p-Xylene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
o-Xylene	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
Total Xylene (U = 0)	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
Total Xylene (U = 1/2)	0.9 U	1.1 U	--	--	--	--	--	--	--	--	
BTEX (U = 0)	0.9 U	**1.2**	--	--	--	--	--	--	--	--	
PCB Aroclors (µg/kg)											
Aroclor 1016	9.8 U	9.8 U	--	--	--	--	--	--	--	--	
Aroclor 1221	9.8 U	9.8 U	--	--	--	--	--	--	--	--	
Aroclor 1232	9.8 U	9.8 U	--	--	--	--	--	--	--	--	
Aroclor 1242	9.8 U	9.8 U	--	--	--	--	--	--	--	--	
Aroclor 1248	9.8 U	9.8 U	--	--	--	--	--	--	--	--	
Aroclor 1254	9.8 U	9.8 U	--	--	--	--	--	--	--	--	
Aroclor 1260	**43 J**	**10 J**	--	--	--	--	--	--	--	--	
Total PCB Aroclors (U = 0)	**43**	**10**	--	--	--	--	--	--	--	--	
Total PCB Aroclors (U = 1/2)	**72.4**	**39.4**	--	--	--	--	--	--	--	--	

Table 11a
Upland Soil Chemical Testing Results - Rail Spur Area

Analyte	Location ID:	DSI-01	DSI-01	DSI-MW-01	DSI-MW-01	DSI-GP-01	DSI-GP-01	DSI-GP-02	DSI-GP-02	DSI-GP-03	DSI-GP-03
	Sample ID:	DSI01-SO-A	DSI01-SO-B	DSI-MW-01-0.5-2.0	DSI-MW-01-5-6.5	DSI-GP-01-2.5-4.5	DSI-GP-01-5.5-7.5	DSI-GP-02-2.5-5.5	DSI-GP-02-5.5-7.5	DSI-GP-03-1.5-4	DSI-GP-03-5.5-8
	Sample Date:	09/27/2006	09/27/2006	07/13/2009	07/13/2009	07/15/2009	07/15/2009	07/15/2009	07/15/2009	07/15/2009	07/15/2009
	Sample Depth:	0 to 3 ft	4 to 6 ft	0.5 to 2.0 ft	5 to 6.5 ft	2.5 to 4.5 ft	5.5 to 7.5 ft	2.5 to 5.5 ft	5.5 to 7.5 ft	1.5 to 4 ft	5.5 to 8 ft
Pesticides (µg/kg)											
4,4'-DDD (p,p'-DDD)		3.3 U	3.2 U	--	--	--	--	--	--	--	--
4,4'-DDE (p,p'-DDE)		3.3 U	3.2 U	--	--	--	--	--	--	--	--
4,4'-DDT (p,p'-DDT)		3.3 U	3.2 U	--	--	--	--	--	--	--	--
Aldrin		1.6 U	1.6 U	--	--	--	--	--	--	--	--
alpha-BHC		1.6 U	1.6 U	--	--	--	--	--	--	--	--
beta-BHC		1.6 U	1.6 U	--	--	--	--	--	--	--	--
alpha-Chlordane		1.6 U	1.6 U	--	--	--	--	--	--	--	--
delta-BHC		1.6 U	1.6 U	--	--	--	--	--	--	--	--
Dieldrin		3.3 U	3.2 U	--	--	--	--	--	--	--	--
Endosulfan-alpha (I)		1.6 U	1.6 U	--	--	--	--	--	--	--	--
Endosulfan-beta (II)		3.3 U	3.2 U	--	--	--	--	--	--	--	--
Endosulfan sulfate		3.3 U	3.2 U	--	--	--	--	--	--	--	--
Endrin		3.3 U	3.2 U	--	--	--	--	--	--	--	--
Endrin aldehyde		3.3 U	3.2 U	--	--	--	--	--	--	--	--
Endrin ketone		3.3 U	3.2 U	--	--	--	--	--	--	--	--
gamma-BHC		1.6 U	1.6 U	--	--	--	--	--	--	--	--
gamma-Chlordane		1.6 U	1.6 U	--	--	--	--	--	--	--	--
Heptachlor		1.6 U	1.6 U	--	--	--	--	--	--	--	--
Heptachlor epoxide		1.6 U	1.6 U	--	--	--	--	--	--	--	--
Methoxychlor		16 U	16 U	--	--	--	--	--	--	--	--
Toxaphene		160 U	160 U	--	--	--	--	--	--	--	--
Hexachlorobenzene		1.6 U	1.6 U	--	--	--	--	--	--	--	--
Hexachlorobutadiene		1.6 U	1.6 U	--	--	--	--	--	--	--	--

Notes:

ft	feet
Bold	Detected result
µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
J	Estimated value
U	Compound analyzed, but not detected above detection limit
UJ	Compound analyzed, but not detected above estimated detection limit
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl

Table 11b
Upland Soil Chemical Testing Results - Northwestern Area

Analyte	Location ID:	DSI-02	DSI-02	DSI-03	DSI-03	DSI-MW-02	DSI-MW-02	DSI-GP-04	DSI-GP-04	DSI-GP-05	DSI-GP-05
	Sample ID:	DSI02-SO-A	DSI02-SO-B	DSI03-SO-A	DSI03-SO-B	DSI-MW-02-0-3	DSI-MW-02-5.5-7	DSI-GP-04-2.5-4.5	DSI-GP-04-5.5-7.5	DSI-GP-05-2-4.5	DSI-GP-05-5.5-8
	Sample Date:	09/27/2006	09/27/2006	09/27/2006	09/27/2006	07/14/2009	07/14/2009	07/15/2009	07/15/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	0 to 3 ft	5 to 6.5 ft	0 to 3 ft	5.5 to 7 ft	2.5 to 4.5 ft	5.5 to 7.5 ft	2 to 4.5 ft	5.5 to 8 ft
Conventional Parameters (percent)											
Total organic carbon		**0.305**	**0.698**	**0.325**	**0.781**	--	--	--	--	--	--
Total solids		**96.1**	**78.6**	**96.1**	**89.4**	--	--	--	--	--	--
Metals (mg/kg)											
Antimony		--	--	--	--	--	--	--	--	--	--
Arsenic		**18.9**	**5.8**	**7.1**	**10.4**	--	--	--	--	--	--
Cadmium		--	**0.3**	1 U	**0.5**	--	--	--	--	--	--
Chromium		--	**21.7**	**61**	**34**	--	--	--	--	--	--
Chromium VI		--	0.14 UJ	0.111 UJ	0.126 UJ	--	--	--	--	--	--
Copper		--	**33.6**	**539**	**238**	--	--	--	--	--	--
Lead		--	**32**	**460**	**94**	--	--	--	--	--	--
Mercury		--	**0.2**	0.05 U	0.05 U	--	--	--	--	--	--
Nickel		--	--	--	--						
Selenium		--	--	--	--						
Silver		--	0.4 U	2 U	0.8 U	--	--	--	--	--	--
Zinc		--	**57.7**	**129**	**160**	--	--	--	--	--	--
Total Petroleum Hydrocarbons (mg/kg)											
Gasoline Range Hydrocarbons		4.8 U	**22**	**92**	**110**	**4.9**	**53**	--[1]	--[1]	6.2 U	8.4 U
Diesel Range Hydrocarbons		**15**	**66**	**61**	**380**	**28**	**8.4**	--[1]	--[1]	5.5 U	5.8 U
Motor Oil Range		**170**	**130**	**110**	**310**	**100**	**44**	--[1]	--[1]	11 U	12 U
Semi-Volatile Organic Compounds (µg/kg)											
PAHs											
1-Methylnaphthalene		--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene		**4.7**	**98**	4.7 U	**40**	--	--	--	--	--	--
Acenaphthene		4.7 U	**120**	**5.6**	4.7 U	--	--	--	--	--	--
Acenaphthylene		4.7 U	4.8 U	4.7 U	4.7 U	--	--	--	--	--	--
Anthracene		4.7 U	**100**	**5.1**	**8.5**	--	--	--	--	--	--
Benzo(a)anthracene		4.7 U	**110**	**9.8**	**11**	--	--	--	--	--	--
Benzo(a)pyrene		**5.7**	**110**	**10**	**12**	--	--	--	--	--	--
Benzo(b)fluoranthene		**11**	**72**	**12**	**21**	--	--	--	--	--	--
Benzo(g,h,i)perylene		**5.7**	**38**	**7**	**5.2**	--	--	--	--	--	--
Benzo(k)fluoranthene		**9.4**	**90 J**	**14**	**15**	--	--	--	--	--	--
Chrysene		**10**	**140 J**	**17**	**31**	--	--	--	--	--	--
Dibenzo(a,h)anthracene		4.7 U	**12**	4.7 U	4.7 U	--	--	--	--	--	--
Fluoranthene		**11**	**270**	**26**	**38**	--	--	--	--	--	--
Fluorene		4.7 U	**120**	**5.1**	**19**	--	--	--	--	--	--
Indeno(1,2,3-c,d)pyrene		4.7 U	**37**	**5.6**	4.7 U	--	--	--	--	--	--
Naphthalene		**5.2**	**180**	**6.5**	**12**	--	--	--	--	--	--
Phenanthrene		**7.6**	**410 J**	**27**	**100**	--	--	--	--	--	--
Pyrene		**10**	**280**	**21**	**37**	--	--	--	--	--	--

Table 11b
Upland Soil Chemical Testing Results - Northwestern Area

Analyte	Location ID:	DSI-02	DSI-02	DSI-03	DSI-03	DSI-MW-02	DSI-MW-02	DSI-GP-04	DSI-GP-04	DSI-GP-05	DSI-GP-05
	Sample ID:	DSI02-SO-A	DSI02-SO-B	DSI03-SO-A	DSI03-SO-B	DSI-MW-02-0-3	DSI-MW-02-5.5-7	DSI-GP-04-2.5-4.5	DSI-GP-04-5.5-7.5	DSI-GP-05-2-4.5	DSI-GP-05-5.5-8
	Sample Date:	09/27/2006	09/27/2006	09/27/2006	09/27/2006	07/14/2009	07/14/2009	07/15/2009	07/15/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	0 to 3 ft	5 to 6.5 ft	0 to 3 ft	5.5 to 7 ft	2.5 to 4.5 ft	5.5 to 7.5 ft	2 to 4.5 ft	5.5 to 8 ft
Total PAHs											
Total cPAH TEQ (U = 0)		**7.8**	**144**	**14.3**	**17.0**	--	--	--	--	--	--
Total cPAH TEQ (U = 1/2)		**8.5**	**144**	**14.5**	**17.5**	--	--	--	--	--	--
Chlorobenzenes											
1,2-Dichlorobenzene		--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene		--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene		--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene		--	--	--	--	--	--	--	--	--	--
Phthalates											
Dimethyl phthalate		--	--	--	--	--	--	--	--	--	--
Diethyl phthalate		--	--	--	--	--	--	--	--	--	--
Di-n-butyl phthalate		--	--	--	--	--	--	--	--	--	--
Butylbenzyl phthalate		--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate		--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate		--	--	--	--	--	--	--	--	--	--
Phenols											
2,4-Dimethylphenol		--	--	--	--	--	--	--	--	--	--
2-Methylphenol (o-Cresol)		--	--	--	--	--	--	--	--	--	--
4-Methylphenol (p-Cresol)		--	--	--	--	--	--	--	--	--	--
Pentachlorophenol		--	--	--	--	--	--	--	--	--	--
Phenol		--	--	--	--	--	--	--	--	--	--
Miscellaneous Extractables											
Dibenzofuran		4.7 U	**56**	4.7 U	**9.4**	--	--	--	--	--	--
Hexachlorobutadiene		--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine		--	--	--	--	--	--	--	--	--	--
Benzyl alcohol		--	--	--	--	--	--	--	--	--	--
Benzoic acid		--	--	--	--	--	--	--	--	--	--
Hexachloroethane		--	--	--	--	--	--	--	--	--	--

Table 11b
Upland Soil Chemical Testing Results - Northwestern Area

Analyte	Location ID:	DSI-02	DSI-02	DSI-03	DSI-03	DSI-MW-02	DSI-MW-02	DSI-GP-04	DSI-GP-04	DSI-GP-05	DSI-GP-05
	Sample ID:	DSI02-SO-A	DSI02-SO-B	DSI03-SO-A	DSI03-SO-B	DSI-MW-02-0-3	DSI-MW-02-5.5-7	DSI-GP-04-2.5-4.5	DSI-GP-04-5.5-7.5	DSI-GP-05-2-4.5	DSI-GP-05-5.5-8
	Sample Date:	09/27/2006	09/27/2006	09/27/2006	09/27/2006	07/14/2009	07/14/2009	07/15/2009	07/15/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	0 to 3 ft	5 to 6.5 ft	0 to 3 ft	5.5 to 7 ft	2.5 to 4.5 ft	5.5 to 7.5 ft	2 to 4.5 ft	5.5 to 8 ft
Volatile Organics (µg/kg)											
1,1,1,2-Tetrachloroethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,2,4-Trichlorobenzene		4.8 U	5.2 U	5.2 U	4.6 U	--	--	--	--	--	--
1,1,1-Trichloroethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,2-Dichlorobenzene		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,1,2-Trichloroethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,3-Dichlorobenzene		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,1'-Dichloroethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,4-Dichlorobenzene		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,1'-Dichloroethene		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,1-Dichloropropene		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,2,3-Trichlorobenzene		4.8 U	5.2 U	5.2 U	4.6 U	--	--	--	--	--	--
1,2,3-Trichloropropane		1.9 U	2.1 U	2.1 U	1.8 U	--	--	--	--	--	--
1,2,4-Trimethylbenzene		**3.8**	**100**	1 U	0.9 U	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane		4.8 U	5.2 U	5.2 U	4.6 U	--	--	--	--	--	--
1,2-Dibromoethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,2-Dichloroethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,2-Dichloroethene, cis-		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,2-Dichloroethene, trans-		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,2-Dichloropropane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,3,5-Trimethylbenzene		**1.2**	**39**	1 U	0.9 U	--	--	--	--	--	--
1,3-Dichloropropane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,3-Dichloropropene, cis-		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
1,3-Dichloropropene, trans-		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
2,2-Dichloropropane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
2-Butanone (MEK)		**5.2**	**18**	**11**	**5.2**	--	--	--	--	--	--
2-Chlorotoluene		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
2-Hexanone		4.8 U	5.2 U	5.2 U	4.6 U	--	--	--	--	--	--
4-Chlorotoluene		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
4-Isopropyltoluene		1 U	**6**	1 U	0.9 U	--	--	--	--	--	--
Acetone		**83**	**160**	**85**	41 U	--	--	--	--	--	--
Benzene		1 U	**2**	1 U	0.9 U	--	--	--	--	--	--
Bromobenzene		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Bromochloromethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Bromodichloromethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Bromoform		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Bromomethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Carbon disulfide		**1.2**	**4.9**	**1.4**	**1.2**	--	--	--	--	--	--
Carbon tetrachloride		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Chloroethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Chloroform		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Chloromethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--

Table 11b

Upland Soil Chemical Testing Results - Northwestern Area

Analyte	Location ID:	DSI-02	DSI-02	DSI-03	DSI-03	DSI-MW-02	DSI-MW-02	DSI-GP-04	DSI-GP-04	DSI-GP-05	DSI-GP-05
	Sample ID:	DSI02-SO-A	DSI02-SO-B	DSI03-SO-A	DSI03-SO-B	DSI-MW-02-0-3	DSI-MW-02-5.5-7	DSI-GP-04-2.5-4.5	DSI-GP-04-5.5-7.5	DSI-GP-05-2-4.5	DSI-GP-05-5.5-8
	Sample Date:	09/27/2006	09/27/2006	09/27/2006	09/27/2006	07/14/2009	07/14/2009	07/15/2009	07/15/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	0 to 3 ft	5 to 6.5 ft	0 to 3 ft	5.5 to 7 ft	2.5 to 4.5 ft	5.5 to 7.5 ft	2 to 4.5 ft	5.5 to 8 ft
Volatile Organics (µg/kg) (cont.)											
Dibromochloromethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Dibromomethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Dichlorodifluoromethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Dichloromethane (Methylene chloride)		1.9 U	2.1 U	2.1 U	1.8 U	--	--	--	--	--	--
Ethylbenzene		1 U	**6**	1 U	0.9 U	--	--	--	--	--	--
Isopropylbenzene (Cumene)		1 U	**19**	1 U	0.9 U	--	--	--	--	--	--
Methyl isobutyl ketone		4.8 U	5.2 U	5.2 U	4.6 U	--	--	--	--	--	--
Methyl tert-butyl ether		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
n-Butylbenzene		1 U	**4.4**	1 U	0.9 U	--	--	--	--	--	--
n-Propylbenzene		1 U	**9.9**	1 U	0.9 U	--	--	--	--	--	--
sec-Butylbenzene		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Styrene		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
tert-Butylbenzene		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Tetrachloroethene		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Toluene		**1.8**	1 U	1 U	0.9 U	--	--	--	--	--	--
Trichloroethene		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Trichlorofluoromethane		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
Vinyl chloride		1 U	1 U	1 U	0.9 U	--	--	--	--	--	--
m,p-Xylene		**3.6**	**47**	1 U	0.9 U	--	--	--	--	--	--
o-Xylene		**1.8**	**26**	1 U	0.9 U	--	--	--	--	--	--
Total Xylene (U = 0)		**5.4**	**73**	1 U	0.9 U	--	--	--	--	--	--
Total Xylene (U = 1/2)		**5.4**	**73**	1 U	0.9 U	--	--	--	--	--	--
BTEX (U = 0)		**7.2**	**81**	1 U	0.9 U	--	--	--	--	--	--
PCB Aroclors (µg/kg)											
Aroclor 1016		9.7 U	9.7 U	48 U	9.5 U	--	--	--	--	--	--
Aroclor 1221		9.7 U	9.7 U	48 U	9.5 U	--	--	--	--	--	--
Aroclor 1232		9.7 U	9.7 U	48 U	9.5 U	--	--	--	--	--	--
Aroclor 1242		9.7 U	9.7 U	48 U	9.5 U	--	--	--	--	--	--
Aroclor 1248		9.7 U	9.7 U	48 U	9.5 U	--	--	--	--	--	--
Aroclor 1254		9.7 U	9.7 U	48 U	9.5 U	--	--	--	--	--	--
Aroclor 1260		9.7 UJ	9.7 UJ	**300 J**	**94 J**	--	--	--	--	--	--
Total PCB Aroclors (U = 0)		9.7 U	9.7 U	**300**	**94**	--	--	--	--	--	--
Total PCB Aroclors (U = 1/2)		9.7 U	9.7 U	**444**	**123**	--	--	--	--	--	--

Table 11b
Upland Soil Chemical Testing Results - Northwestern Area

Analyte	Location ID:	DSI-02	DSI-02	DSI-03	DSI-03	DSI-MW-02	DSI-MW-02	DSI-GP-04	DSI-GP-04	DSI-GP-05	DSI-GP-05
	Sample ID:	DSI02-SO-A	DSI02-SO-B	DSI03-SO-A	DSI03-SO-B	DSI-MW-02-0-3	DSI-MW-02-5.5-7	DSI-GP-04-2.5-4.5	DSI-GP-04-5.5-7.5	DSI-GP-05-2-4.5	DSI-GP-05-5.5-8
	Sample Date:	09/27/2006	09/27/2006	09/27/2006	09/27/2006	07/14/2009	07/14/2009	07/15/2009	07/15/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	0 to 3 ft	5 to 6.5 ft	0 to 3 ft	5.5 to 7 ft	2.5 to 4.5 ft	5.5 to 7.5 ft	2 to 4.5 ft	5.5 to 8 ft
Pesticides (µg/kg)											
4,4'-DDD (p,p'-DDD)		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
4,4'-DDE (p,p'-DDE)		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
4,4'-DDT (p,p'-DDT)		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
Aldrin		1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
alpha-BHC		1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
beta-BHC		1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
alpha-Chlordane		1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
delta-BHC		1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
Dieldrin		3.2 U	3.3 U	8.5 U	3.2 U	--	--	--	--	--	--
Endosulfan-alpha (I)		1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
Endosulfan-beta (II)		3.2 U	3.3 U	9.9 U	7.2 U	--	--	--	--	--	--
Endosulfan sulfate		3.2 U	3.3 U	15 U	3.2 U	--	--	--	--	--	--
Endrin		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
Endrin aldehyde		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
Endrin ketone		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
gamma-BHC		1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
gamma-Chlordane		1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
Heptachlor		1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
Heptachlor epoxide		1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
Methoxychlor		16 U	16 U	16 U	16 U	--	--	--	--	--	--
Toxaphene		160 U	160 U	160 U	160 U	--	--	--	--	--	--
Hexachlorobenzene		1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
Hexachlorobutadiene		1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--

Notes:

1 Samples were analyzed for petroleum fractionation and BTEX, results were either non-detect or detected at low levels.

ft feet

Bold Detected result

µg/kg micrograms per kilogram

mg/kg milligrams per kilogram

J Estimated value

U Compound analyzed, but not detected above detection limit

UJ Compound analyzed, but not detected above estimated detection limit

PAH polycyclic aromatic hydrocarbon

PCB polychlorinated biphenyl

Table 11c
Upland Soil Chemical Testing Results - Central Area

Analyte	Location ID:	DSI-04	DSI-04	DSI-05	DSI-05	DSI-08	DSI-08	DSI-MW-03	DSI-MW-03	DSI-GP-06	DSI-GP-06	DSI-GP-07	DSI-GP-07
	Sample ID:	DSI04-SO-A	DSI04-SO-B	DSI05-SO-A	DSI05-SO-B	DSI08-SO-A	DSI08-SO-B	DSI-MW-03-0-3	DSI-MW-03-5-6.5	DSI-GP-06-3-5	DSI-GP-06-5.5-8	DSI-GP-07-1.5-4	DSI-GP-07-5.5-8
	Sample Date:	09/27/2006	09/27/2006	09/27/2006	09/27/2006	09/28/2006	09/28/2006	07/13/2009	07/13/2009	07/14/2009	07/14/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	0 to 3 ft	5 to 6.5 ft	3 to 5 ft	5.5 to 8 ft	1.5 to 4 ft	5.5 to 8 ft
Conventional Parameters (percent)													
Total organic carbon		**0.579**	**0.084**	**1.07**	**0.226**	**0.661**	**0.133**	--	--	--	--	--	--
Total solids		**74.3**	**87.6**	**76.7**	**88.9**	**70.4**	**92.9**	--	--	--	--	--	--
Metals (mg/kg)													
Arsenic		**6.4**	**1.1**	**7.1**	**1.3**	**4.8**	**0.7**	--	--	--	--	--	--
Cadmium		**0.5**	0.2 U	**0.6**	0.2 U	0.3 U	0.2 U	--	--	--	--	--	--
Chromium		**27.2**	**10.4**	**21.1**	**11**	**17.7**	**9.7**	--	--	--	--	--	--
Chromium VI		0.151 UJ	0.127 UJ	0.142 UJ	0.127 UJ	0.16 UJ	0.116 UJ	--	--	--	--	--	--
Copper		**45.9**	**9**	**122**	**11.9**	**31**	**8.5**	--	--	--	--	--	--
Lead		**14**	2 U	**78**	**3**	**11**	2 U	--	--	--	--	--	--
Mercury		**0.15**	0.04 U	**0.27**	0.04 U	**0.1**	0.05 U	--	--	--	--	--	--
Silver		0.4 U	0.3 U	0.4 U	0.3 U	0.4 U	0.3 U	--	--	--	--	--	--
Zinc		**85.4**	**21.9**	**127**	**26.4**	**52.3**	**30.5**	--	--	--	--	--	--
Total Petroleum Hydrocarbons (mg/kg)													
Gasoline Range Hydrocarbons		**20**	6.4 U	**16**	**8.4**	8.8 U	6.7 U	**4**	4.4 U	6.5 U	7.5 U	6.5 U	7.6 U
Diesel Range Hydrocarbons		**40**	5.5 U	**46**	5.7 U	6.7 U	5.4 U	**99**	**27**	5.7 U	6.2 U	**15**	6.4 U
Motor Oil Range		**100**	11 U	**160**	11 U	**21**	11 U	**220**	**70**	12 U	12 U	**48**	13 U
Semi-Volatile Organic Compounds (µg/kg)													
PAHs													
2-Methylnaphthalene		**16**	5 U	**26**	4.7 U	**5**	4.9 U	--	--	--	--	--	--
Acenaphthene		5 U	5 U	4.9 U	4.7 U	5 U	4.9 U	--	--	--	--	--	--
Acenaphthylene		5 U	5 U	**6.4**	4.7 U	5 U	4.9 U	--	--	--	--	--	--
Anthracene		**5.9**	5 U	**12**	4.7 U	5 U	4.9 U	--	--	--	--	--	--
Benzo(a)anthracene		**14**	5 U	**28**	4.7 U	**12**	4.9 U	--	--	--	--	--	--
Benzo(a)pyrene		**8.4**	5 U	**29**	4.7 U	**12**	4.9 U	--	--	--	--	--	--
Benzo(b)fluoranthene		**16**	5 U	**48**	4.7 U	**18**	4.9 U	--	--	--	--	--	--
Benzo(g,h,i)perylene		5 U	5 U	**13**	4.7 U	**8.4**	4.9 U	--	--	--	--	--	--
Benzo(k)fluoranthene		**13**	5 U	**28**	4.7 U	**13**	4.9 U	--	--	--	--	--	--
Chrysene		**25**	5 U	**50**	4.7 U	**22**	4.9 U	--	--	--	--	--	--
Dibenzo(a,h)anthracene		5 U	5 U	4.9 U	4.7 U	5 U	4.9 U	--	--	--	--	--	--
Fluoranthene		**40**	5 U	**96**	4.7 U	**37**	4.9 U	--	--	--	--	--	--
Fluorene		5 U	5 U	**6.9**	4.7 U	5 U	4.9 U	--	--	--	--	--	--
Indeno(1,2,3-c,d)pyrene		**5.4**	5 U	**13**	4.7 U	**7.4**	4.9 U	--	--	--	--	--	--
Naphthalene		**13**	5 U	**53**	4.7 U	5 U	4.9 U	--	--	--	--	--	--
Phenanthrene		**24**	5 U	**91**	4.7 U	**26**	4.9 U	--	--	--	--	--	--
Pyrene		**33**	5 U	**72**	4.7 U	**32**	4.9 U	--	--	--	--	--	--
Total PAHs													
Total cPAH TEQ (U = 0)		**13.5**	5 U	**41.2**	4.7 U	**17.3**	4.9 U	--	--	--	--	--	--
Total cPAH TEQ (U = 1/2)		**13.7**	5 U	**41.4**	4.7 U	**17.5**	4.9 U	--	--	--	--	--	--
Miscellaneous Extractables													
Dibenzofuran		**5.4**	5 U	**16**	4.7 U	5 U	4.9 U	--	--	--	--	--	--

Table 11c
Upland Soil Chemical Testing Results - Central Area

Analyte	Location ID:	DSI-04	DSI-04	DSI-05	DSI-05	DSI-08	DSI-08	DSI-MW-03	DSI-MW-03	DSI-GP-06	DSI-GP-06	DSI-GP-07	DSI-GP-07
	Sample ID:	DSI04-SO-A	DSI04-SO-B	DSI05-SO-A	DSI05-SO-B	DSI08-SO-A	DSI08-SO-B	DSI-MW-03-0-3	DSI-MW-03-5-6.5	DSI-GP-06-3-5	DSI-GP-06-5.5-8	DSI-GP-07-1.5-4	DSI-GP-07-5.5-8
	Sample Date:	09/27/2006	09/27/2006	09/27/2006	09/27/2006	09/28/2006	09/28/2006	07/13/2009	07/13/2009	07/14/2009	07/14/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	0 to 3 ft	5 to 6.5 ft	3 to 5 ft	5.5 to 8 ft	1.5 to 4 ft	5.5 to 8 ft
Volatile Organics (µg/kg)													
1,1,1,2-Tetrachloroethane		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,2,4-Trichlorobenzene		6.5 U	5.6 U	6.4 UJ	6.4 U	6.4 U	5.7 U	--	--	--	--	--	--
1,1,1-Trichloroethane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,2-Dichlorobenzene		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,1,2-Trichloroethane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,3-Dichlorobenzene		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,1'-Dichloroethane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,4-Dichlorobenzene		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,1'-Dichloroethene		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,1-Dichloropropene		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,2,3-Trichlorobenzene		6.5 U	5.6 U	6.4 UJ	6.4 U	6.4 U	5.7 U	--	--	--	--	--	--
1,2,3-Trichloropropane		2.6 U	2.2 U	2.5 UJ	2.6 U	2.6 U	2.3 U	--	--	--	--	--	--
1,2,4-Trimethylbenzene		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane		6.5 U	5.6 U	6.4 UJ	6.4 U	6.4 U	5.7 U	--	--	--	--	--	--
1,2-Dibromoethane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,2-Dichloroethane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,2-Dichloroethene, cis-		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,2-Dichloroethene, trans-		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,2-Dichloropropane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,3,5-Trimethylbenzene		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,3-Dichloropropane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,3-Dichloropropene, cis-		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
1,3-Dichloropropene, trans-		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
2,2-Dichloropropane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
2-Butanone (MEK)		**9.2**	5.6 U	6.4 U	**10**	**6.6**	5.7 U	--	--	--	--	--	--
2-Chlorotoluene		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
2-Hexanone		6.5 U	5.6 U	6.4 U	6.4 U	6.4 U	5.7 U	--	--	--	--	--	--
4-Chlorotoluene		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
4-Isopropyltoluene		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Acetone		**66**	29 U	51 U	**90**	**62**	**49**	--	--	--	--	--	--
Benzene		**1.6**	1.1 U	**1.8**	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Bromobenzene		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Bromochloromethane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Bromodichloromethane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Bromoform		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Bromomethane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Carbon disulfide		**8.6**	1.1 U	1.3 U	**17**	1.3 U	1.2 U	--	--	--	--	--	--
Carbon tetrachloride		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Chloroethane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Chloroform		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Chloromethane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Dibromochloromethane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Dibromomethane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--

Table 11c
Upland Soil Chemical Testing Results - Central Area

Analyte	Location ID:	DSI-04	DSI-04	DSI-05	DSI-05	DSI-08	DSI-08	DSI-MW-03	DSI-MW-03	DSI-GP-06	DSI-GP-06	DSI-GP-07	DSI-GP-07
	Sample ID:	DSI04-SO-A	DSI04-SO-B	DSI05-SO-A	DSI05-SO-B	DSI08-SO-A	DSI08-SO-B	DSI-MW-03-0-3	DSI-MW-03-5-6.5	DSI-GP-06-3-5	DSI-GP-06-5.5-8	DSI-GP-07-1.5-4	DSI-GP-07-5.5-8
	Sample Date:	09/27/2006	09/27/2006	09/27/2006	09/27/2006	09/28/2006	09/28/2006	07/13/2009	07/13/2009	07/14/2009	07/14/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	0 to 3 ft	5 to 6.5 ft	3 to 5 ft	5.5 to 8 ft	1.5 to 4 ft	5.5 to 8 ft
Volatile Organics (µg/kg) (cont.)													
Dichlorodifluoromethane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Dichloromethane (Methylene chloride)		2.6 U	2.2 U	2.5 U	2.6 U	**2.8**	2.3 U	--	--	--	--	--	--
Ethylbenzene		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Isopropylbenzene		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Methyl isobutyl ketone		6.5 U	5.6 U	6.4 U	6.4 U	6.4 U	5.7 U	--	--	--	--	--	--
Methyl tert-butyl ether		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
n-Butylbenzene		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
n-Propylbenzene		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
sec-Butylbenzene		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Styrene		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
tert-Butylbenzene		1.3 U	1.1 U	1.3 UJ	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Tetrachloroethene (PCE)		1.3 U	1.1 U	1.3 U	1.3 U	**3.6**	**1.4**	--	--	--	--	--	--
Toluene		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Trichloroethene (TCE)		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Trichlorofluoromethane		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Vinyl chloride		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
m,p-Xylene		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
o-Xylene		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Total Xylene (U = 0)		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
Total Xylene (U = 1/2)		1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
BTEX (U = 0)		**1.6**	1.1 U	**1.8**	1.3 U	1.3 U	1.2 U	--	--	--	--	--	--
PCB Aroclors (µg/kg)													
Aroclor 1016		9.6 U	9.5 U	9.8 U	9.6 U	9.8 U	9.5 U	--	--	--	--	--	--
Aroclor 1221		9.6 U	9.5 U	9.8 U	9.6 U	9.8 U	9.5 U	--	--	--	--	--	--
Aroclor 1232		9.6 U	9.5 U	9.8 U	9.6 U	9.8 U	9.5 U	--	--	--	--	--	--
Aroclor 1242		9.6 U	9.5 U	9.8 U	9.6 U	9.8 U	9.5 U	--	--	--	--	--	--
Aroclor 1248		9.6 U	9.5 U	9.8 U	9.6 U	9.8 U	9.5 U	--	--	--	--	--	--
Aroclor 1254		9.6 U	9.5 U	39 U	9.6 U	9.8 U	9.5 U	--	--	--	--	--	--
Aroclor 1260		9.6 UJ	9.5 UJ	**46 J**	9.6 UJ	9.8 U	9.5 U	--	--	--	--	--	--
Total PCB Aroclors (U = 0)		9.6 U	9.5 U	**46**	9.6 U	9.8 U	9.5 U	--	--	--	--	--	--
Total PCB Aroclors (U = 1/2)		9.6 U	9.5 U	**90**	9.6 U	9.8 U	9.5 U	--	--	--	--	--	--

Table 11c
Upland Soil Chemical Testing Results - Central Area

Analyte	Location ID:	DSI-04	DSI-04	DSI-05	DSI-05	DSI-08	DSI-08	DSI-MW-03	DSI-MW-03	DSI-GP-06	DSI-GP-06	DSI-GP-07	DSI-GP-07
	Sample ID:	DSI04-SO-A	DSI04-SO-B	DSI05-SO-A	DSI05-SO-B	DSI08-SO-A	DSI08-SO-B	DSI-MW-03-0-3	DSI-MW-03-5-6.5	DSI-GP-06-3-5	DSI-GP-06-5.5-8	DSI-GP-07-1.5-4	DSI-GP-07-5.5-8
	Sample Date:	09/27/2006	09/27/2006	09/27/2006	09/27/2006	09/28/2006	09/28/2006	07/13/2009	07/13/2009	07/14/2009	07/14/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	0 to 3 ft	5 to 6.5 ft	3 to 5 ft	5.5 to 8 ft	1.5 to 4 ft	5.5 to 8 ft
Pesticides (µg/kg)													
4,4'-DDD (p,p'-DDD)		3.2 U	3.1 U	**28**	3.2 U	3.2 U	3.2 U	--	--	--	--	--	--
4,4'-DDE (p,p'-DDE)		3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.2 U	--	--	--	--	--	--
4,4'-DDT (p,p'-DDT)		3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.2 U	--	--	--	--	--	--
Aldrin		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
alpha-BHC		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
beta-BHC		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
alpha-Chlordane		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
delta-BHC		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
Dieldrin		3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.2 U	--	--	--	--	--	--
Endosulfan-alpha (I)		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
Endosulfan-beta (II)		3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.2 U	--	--	--	--	--	--
Endosulfan sulfate		3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.2 U	--	--	--	--	--	--
Endrin		3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.2 U	--	--	--	--	--	--
Endrin aldehyde		3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.2 U	--	--	--	--	--	--
Endrin ketone		3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.2 U	--	--	--	--	--	--
gamma-BHC		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
gamma-Chlordane		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
Heptachlor		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
Heptachlor epoxide		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
Methoxychlor		16 U	16 U	16 U	16 U	16 U	16 U	--	--	--	--	--	--
Toxaphene		160 U	160 U	160 U	160 U	160 U	160 U	--	--	--	--	--	--
Hexachlorobenzene		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--
Hexachlorobutadiene		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	--	--	--	--	--	--

Notes:

1 Samples were analyzed for petroleum fractionation and BTEX, results were either non-detect or detected at low levels.
ft feet
Bold Detected result
µg/kg micrograms per kilogram
mg/kg milligrams per kilogram
J Estimated value
U Compound analyzed, but not detected above detection limit
UJ Compound analyzed, but not detected above estimated detection limit
PAH polycyclic aromatic hydrocarbon
PCB polychlorinated biphenyl

Table 11d
Upland Soil Chemical Testing Results - 2000 UST Removal Area

Analyte	Location ID:	DSI-06	DSI-06	DSI-07	DSI-07	DSI-MW-04	DSI-MW-04	DSI-GP-08	DSI-GP-08	DSI-GP-09	DSI-GP-09
	Sample ID:	DSI06-SO-A	DSI06-SO-B	DSI07-SO-A	DSI07-SO-B	DSI-MW-04-0.5-2.5	DSI-MW-04-5-6.5	DSI-GP-08-2-4.5	DSI-GP-08-5.5-7.5	DSI-GP-09-2-4.5	DSI-GP-09-6-8
	Sample Date:	09/27/2006	09/27/2006	09/28/2006	09/28/2006	07/14/2009	07/14/2009	07/16/2009	07/16/2009	07/16/2009	07/16/2009
	Sample Depth:	0 to 3 ft	4 to 6 ft	0 to 3 ft	3 to 5 ft	0.5 to 2.5 ft	5 to 6.5 ft	2 to 4.5 ft	5.5 to 7.5 ft	2 to 4.5 ft	6 to 8 ft
Conventional Parameters (percent)											
Total organic carbon		**1.37**	**0.308**	**1.05**	**0.097**	--	--	--	--	--	--
Total solids		**78.4**	**90.2**	**74.1**	**95.5**	--	--	--	--	--	--
Metals (mg/kg)											
Arsenic		**7**	**2.2**	**4.3 J**	**1.6**	--	--	--	--	--	--
Cadmium		**0.3**	0.2 U	0.3 U	0.2 U	--	--	--	--	--	--
Chromium		**20**	**15.2**	**19.6**	**25.9**	--	--	--	--	--	--
Chromium VI		0.143 UJ	0.12 UJ	0.15 UJ	0.115 UJ	--	--	--	--	--	--
Copper		**37.1**	**18.2**	**52.1 J**	**10.3**	--	--	--	--	--	--
Lead		**14**	**6**	**11 J**	**3**	--	--	--	--	--	--
Mercury		**0.14**	0.05 U	**0.72 J**	0.04 U	--	--	--	--	--	--
Silver		0.4 U	0.3 U	0.4 U	0.3 U	--	--	--	--	--	--
Zinc		**57.5**	**33.6**	**53.2**	**29.1**	--	--	--	--	--	--
Total Petroleum Hydrocarbons (mg/kg)											
Gasoline Range Hydrocarbons		**120**	**13**	**74**	**36**	**320**	5.2 U	**160**	**430**	**320**	--[1]
Diesel Range Hydrocarbons		**2700**	**2200**	**16**	**20**	**3800**	**17**	**2300**	**400**	**2200**	--[1]
Motor Oil Range		**260**	**190**	**29**	**18**	230 U	12 U	**220**	**33**	**1,200**	--[1]
Semi-Volatile Organic Compounds (µg/kg)											
PAHs											
2-Methylnaphthalene		**33**	27 U	**22**	**66**	--	--	--	--	--	--
Acenaphthene		30 U	27 U	5 U	**9.9**	--	--	--	--	--	--
Acenaphthylene		30 U	**48**	5 U	5 U	--	--	--	--	--	--
Anthracene		30 U	27 U	**5.5**	**7.9**	--	--	--	--	--	--
Benzo(a)anthracene		**30**	**43**	**14**	**6.4**	--	--	--	--	--	--
Benzo(a)pyrene		**39**	**99**	**11**	**5.9**	--	--	--	--	--	--
Benzo(b)fluoranthene		**57**	**91**	**16**	**5.9**	--	--	--	--	--	--
Benzo(g,h,i)perylene		30 U	**54**	**9.5**	5 U	--	--	--	--	--	--
Benzo(k)fluoranthene		**54**	**94**	**14**	5 U	--	--	--	--	--	--
Chrysene		**78**	**120**	**22**	**6.9**	--	--	--	--	--	--
Dibenzo(a,h)anthracene		30 U	27 U	5 U	5 U	--	--	--	--	--	--
Fluoranthene		**120**	**120**	**45**	**15**	--	--	--	--	--	--
Fluorene		30 U	**27**	5 U	**14**	--	--	--	--	--	--
Indeno(1,2,3-c,d)pyrene		30 U	**48**	**7**	5 U	--	--	--	--	--	--
Naphthalene		**57**	**27**	**69**	**47**	--	--	--	--	--	--
Phenanthrene		**90**	**80**	**25**	**13**	--	--	--	--	--	--
Pyrene		**160**	**320**	**34**	**21**	--	--	--	--	--	--
Total PAHs											
Total cPAH TEQ (U = 0)		**53.9**	**128**	**16.3**	**7.2**	--	--	--	--	--	--
Total cPAH TEQ (U = 1/2)		**56.9**	**129**	**16.6**	**7.9**	--	--	--	--	--	--
Miscellaneous Extractables											
Dibenzofuran		30 U	27 U	5 U	5 U	--	--	--	--	--	--

Table 11d

Upland Soil Chemical Testing Results - 2000 UST Removal Area

Analyte	Location ID:	DSI-06	DSI-06	DSI-07	DSI-07	DSI-MW-04	DSI-MW-04	DSI-GP-08	DSI-GP-08	DSI-GP-09	DSI-GP-09
	Sample ID:	DSI06-SO-A	DSI06-SO-B	DSI07-SO-A	DSI07-SO-B	DSI-MW-04-0.5-2.5	DSI-MW-04-5-6.5	DSI-GP-08-2-4.5	DSI-GP-08-5.5-7.5	DSI-GP-09-2-4.5	DSI-GP-09-6-8
	Sample Date:	09/27/2006	09/27/2006	09/28/2006	09/28/2006	07/14/2009	07/14/2009	07/16/2009	07/16/2009	07/16/2009	07/16/2009
	Sample Depth:	0 to 3 ft	4 to 6 ft	0 to 3 ft	3 to 5 ft	0.5 to 2.5 ft	5 to 6.5 ft	2 to 4.5 ft	5.5 to 7.5 ft	2 to 4.5 ft	6 to 8 ft
Volatile Organics (µg/kg)											
1,1,1,2-Tetrachloroethane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,2,4-Trichlorobenzene		470 U	5.5 U	6.1 U	6.2 U	--	--	--	--	--	--
1,1,1-Trichloroethane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,2-Dichlorobenzene		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,1,2-Trichloroethane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,3-Dichlorobenzene		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,1'-Dichloroethane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,4-Dichlorobenzene		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,1'-Dichloroethene		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,1-Dichloropropene		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,2,3-Trichlorobenzene		470 U	5.5 U	6.1 U	6.2 U	--	--	--	--	--	--
1,2,3-Trichloropropane		190 U	2.2 U	2.4 U	2.5 U	--	--	--	--	--	--
1,2,4-Trimethylbenzene		**120**	1.1 U	**3,200**	**51**	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane		470 U	5.5 U	6.1 U	6.2 U	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,2-Dichloroethane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,2-Dichloroethene, cis-		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,2-Dichloroethene, trans-		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,2-Dichloropropane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,3,5-Trimethylbenzene (Mesitylene)		93 U	1.1 U	**80**	**15**	--	--	--	--	--	--
1,3-Dichloropropane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,3-Dichloropropene, cis-		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
1,3-Dichloropropene, trans-		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
2,2-Dichloropropane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
2-Butanone (MEK)		**780**	**13**	**27**	**16**	--	--	--	--	--	--
2-Chlorotoluene		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
2-Hexanone (Methyl butyl ketone)		470 U	5.5 U	6.1 U	6.2 U	--	--	--	--	--	--
4-Chlorotoluene		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
4-Isopropyltoluene (4-Cymene)		93 U	1.1 U	1.2 U	**1.3**	--	--	--	--	--	--
Acetone		**6,500**	**92**	6.1 U	**110**	--	--	--	--	--	--
Benzene		**260**	**1.7**	**50**	**6**	--	--	--	--	--	--
Bromobenzene		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Bromochloromethane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Bromodichloromethane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Bromoform		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Bromomethane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Carbon disulfide		93 U	**30**	**3.3**	**10**	--	--	--	--	--	--
Carbon tetrachloride (Tetrachloromethane)		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Chloroethane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Chloroform		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Chloromethane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--

Table 11d

Upland Soil Chemical Testing Results - 2000 UST Removal Area

Analyte	Location ID:	DSI-06	DSI-06	DSI-07	DSI-07	DSI-MW-04	DSI-MW-04	DSI-GP-08	DSI-GP-08	DSI-GP-09	DSI-GP-09
	Sample ID:	DSI06-SO-A	DSI06-SO-B	DSI07-SO-A	DSI07-SO-B	DSI-MW-04-0.5-2.5	DSI-MW-04-5-6.5	DSI-GP-08-2-4.5	DSI-GP-08-5.5-7.5	DSI-GP-09-2-4.5	DSI-GP-09-6-8
	Sample Date:	09/27/2006	09/27/2006	09/28/2006	09/28/2006	07/14/2009	07/14/2009	07/16/2009	07/16/2009	07/16/2009	07/16/2009
	Sample Depth:	0 to 3 ft	4 to 6 ft	0 to 3 ft	3 to 5 ft	0.5 to 2.5 ft	5 to 6.5 ft	2 to 4.5 ft	5.5 to 7.5 ft	2 to 4.5 ft	6 to 8 ft
Volatile Organics (µg/kg) (cont.)											
Dibromochloromethane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Dibromomethane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Dichlorodifluoromethane		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Dichloromethane (Methylene chloride)		190 U	2.5 U	**2.6**	2.5 U	--	--	--	--	--	--
Ethylbenzene		93 U	1.1 U	**60**	**7.4**	--	--	--	--	--	--
Isopropylbenzene (Cumene)		93 U	1.1 U	**34**	**5**	--	--	--	--	--	--
Methyl isobutyl ketone (4-Methyl-2-pentanone or (MIBK))		470 U	5.5 U	6.1 U	6.2 U	--	--	--	--	--	--
Methyl tert-butyl ether (MTBE)		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
n-Butylbenzene		93 U	1.1 U	**22**	**20**	--	--	--	--	--	--
n-Propylbenzene		93 U	1.1 U	**120**	**28**	--	--	--	--	--	--
sec-Butylbenzene		93 U	1.1 U	1.2 U	**5.4**	--	--	--	--	--	--
Styrene		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
tert-Butylbenzene		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Tetrachloroethene (PCE)		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Toluene		93 U	1.1 U	**5.5**	1.2 U	--	--	--	--	--	--
Trichloroethene (TCE)		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Trichlorofluoromethane (Fluorotrichloromethane)		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
Vinyl chloride		93 U	1.1 U	1.2 U	1.2 U	--	--	--	--	--	--
m,p-Xylene		**290**	**1.5**	**160**	**13**	--	--	--	--	--	--
o-Xylene		**100**	1.1 U	**5.1**	1.2 U	--	--	--	--	--	--
Total Xylene (U = 0)		**390**	**1.5**	**165**	**13**	--	--	--	--	--	--
Total Xylene (U = 1/2)		**390**	**2.1**	**165**	**13.6**	--	--	--	--	--	--
BTEX (U = 0)		**650**	**3.2**	**281**	**26.4**	--	--	--	--	--	--
PCB Aroclors (µg/kg)											
Aroclor 1016		9.7 U	9.7 U	9.7 U	9.6 U	--	--	--	--	--	--
Aroclor 1221		9.7 U	9.7 U	9.7 U	9.6 U	--	--	--	--	--	--
Aroclor 1232		9.7 U	9.7 U	9.7 U	9.6 U	--	--	--	--	--	--
Aroclor 1242		9.7 U	9.7 U	9.7 U	9.6 U	--	--	--	--	--	--
Aroclor 1248		9.7 U	9.7 U	9.7 U	9.6 U	--	--	--	--	--	--
Aroclor 1254		9.7 U	9.7 U	9.7 U	9.6 U	--	--	--	--	--	--
Aroclor 1260		9.7 UJ	9.7 UJ	9.7 U	9.6 U	--	--	--	--	--	--
Total PCB Aroclors (U = 0)		9.7 U	9.7 U	9.7 U	9.6 U	--	--	--	--	--	--
Total PCB Aroclors (U = 1/2)		9.7 U	9.7 U	9.7 U	9.6 U	--	--	--	--	--	--

Table 11d

Upland Soil Chemical Testing Results - 2000 UST Removal Area

Analyte	Location ID:	DSI-06	DSI-06	DSI-07	DSI-07	DSI-MW-04	DSI-MW-04	DSI-GP-08	DSI-GP-08	DSI-GP-09	DSI-GP-09
	Sample ID:	DSI06-SO-A	DSI06-SO-B	DSI07-SO-A	DSI07-SO-B	DSI-MW-04-0.5-2.5	DSI-MW-04-5-6.5	DSI-GP-08-2-4.5	DSI-GP-08-5.5-7.5	DSI-GP-09-2-4.5	DSI-GP-09-6-8
	Sample Date:	09/27/2006	09/27/2006	09/28/2006	09/28/2006	07/14/2009	07/14/2009	07/16/2009	07/16/2009	07/16/2009	07/16/2009
	Sample Depth:	0 to 3 ft	4 to 6 ft	0 to 3 ft	3 to 5 ft	0.5 to 2.5 ft	5 to 6.5 ft	2 to 4.5 ft	5.5 to 7.5 ft	2 to 4.5 ft	6 to 8 ft
Pesticides (µg/kg)											
4,4'-DDD (p,p'-DDD)		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
4,4'-DDE (p,p'-DDE)		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
4,4'-DDT (p,p'-DDT)		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
Aldrin		1.6 U	1.7 U	1.6 U	1.6 U	--	--	--	--	--	--
alpha-BHC		1.6 U	1.7 U	1.6 U	1.6 U	--	--	--	--	--	--
beta-BHC		1.6 U	1.7 U	1.6 U	1.6 U	--	--	--	--	--	--
alpha-Chlordane (cis-Chlordane)		1.6 U	1.7 U	1.6 U	1.6 U	--	--	--	--	--	--
delta-BHC		1.6 U	1.7 U	1.6 U	1.6 U	--	--	--	--	--	--
Dieldrin		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
Endosulfan-alpha (I)		1.6 U	1.7 U	1.6 U	1.6 U	--	--	--	--	--	--
Endosulfan-beta (II)		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
Endosulfan sulfate		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
Endrin		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
Endrin aldehyde		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
Endrin ketone		3.2 U	3.3 U	3.2 U	3.2 U	--	--	--	--	--	--
gamma-BHC (Lindane)		1.6 U	1.7 U	1.6 U	1.6 U	--	--	--	--	--	--
gamma-Chlordane		1.6 U	1.7 U	1.6 U	1.6 U	--	--	--	--	--	--
Heptachlor		1.6 U	1.7 U	1.6 U	1.6 U	--	--	--	--	--	--
Heptachlor epoxide		1.6 U	1.7 U	1.6 U	1.6 U	--	--	--	--	--	--
Methoxychlor		16 U	17 U	16 U	16 U	--	--	--	--	--	--
Toxaphene		160 U	170 U	160 U	160 U	--	--	--	--	--	--
Hexachlorobenzene		1.6 U	1.7 U	1.6 U	1.6 U	--	--	--	--	--	--
Hexachlorobutadiene		1.6 U	1.7 U	1.6 U	1.6 U	--	--	--	--	--	--

Table 11d
Upland Soil Chemical Testing Results - 2000 UST Removal Area

Analyte	Location ID:	DSI-GP-09	DSI-GP-10	DSI-GP-10	DSI-GP-11	DSI-GP-11
	Sample ID:	DSI-GP-09-9-10	DSI-GP-10-2-4	DSI-GP-10-5.5-7.5	DSI-GP-11-1-3.5	DSI-GP-11-5-7.5
	Sample Date:	07/16/2009	07/16/2009	07/16/2009	07/14/2009	07/14/2009
	Sample Depth:	9 to 10 ft	2 to 4 ft	5.5 to 7.5 ft	1 to 3.5 ft	5 to 7.5 ft
Conventional Parameters (percent)						
Total organic carbon		--	--	--	--	--
Total solids		--	--	--	--	--
Metals (mg/kg)						
Arsenic		--	--	--	--	--
Cadmium		--	--	--	--	--
Chromium		--	--	--	--	--
Chromium VI		--	--	--	--	--
Copper		--	--	--	--	--
Lead		--	--	--	--	--
Mercury		--	--	--	--	--
Silver		--	--	--	--	--
Zinc		--	--	--	--	--
Total Petroleum Hydrocarbons (mg/kg)						
Gasoline Range Hydrocarbons		12 U	**560**	8.1 U	**44**	7.8 U
Diesel Range Hydrocarbons		8.1 U	**1,000**	6.4 U	**110**	**27**
Motor Oil Range		16 U	**360**	13 U	**210**	**300**
Semi-Volatile Organic Compounds (µg/kg)						
PAHs						
2-Methylnaphthalene		--	--	--	--	--
Acenaphthene		--	--	--	--	--
Acenaphthylene		--	--	--	--	--
Anthracene		--	--	--	--	--
Benzo(a)anthracene		--	--	--	--	--
Benzo(a)pyrene		--	--	--	--	--
Benzo(b)fluoranthene		--	--	--	--	--
Benzo(g,h,i)perylene		--	--	--	--	--
Benzo(k)fluoranthene		--	--	--	--	--
Chrysene		--	--	--	--	--
Dibenzo(a,h)anthracene		--	--	--	--	--
Fluoranthene		--	--	--	--	--
Fluorene		--	--	--	--	--
Indeno(1,2,3-c,d)pyrene		--	--	--	--	--
Naphthalene		--	--	--	--	--
Phenanthrene		--	--	--	--	--
Pyrene		--	--	--	--	--
Total PAHs						
Total cPAH TEQ (U = 0)		--	--	--	--	--
Total cPAH TEQ (U = 1/2)		--	--	--	--	--
Miscellaneous Extractables						
Dibenzofuran		--	--	--	--	--

Table 11d
Upland Soil Chemical Testing Results - 2000 UST Removal Area

Analyte	Location ID:	DSI-GP-09	DSI-GP-10	DSI-GP-10	DSI-GP-11	DSI-GP-11
	Sample ID:	DSI-GP-09-9-10	DSI-GP-10-2-4	DSI-GP-10-5.5-7.5	DSI-GP-11-1-3.5	DSI-GP-11-5-7.5
	Sample Date:	07/16/2009	07/16/2009	07/16/2009	07/14/2009	07/14/2009
	Sample Depth:	9 to 10 ft	2 to 4 ft	5.5 to 7.5 ft	1 to 3.5 ft	5 to 7.5 ft
Volatile Organics (µg/kg)						
1,1,1,2-Tetrachloroethane		--	--	--	--	--
1,2,4-Trichlorobenzene		--	--	--	--	--
1,1,1-Trichloroethane		--	--	--	--	--
1,1,2,2-Tetrachloroethane		--	--	--	--	--
1,2-Dichlorobenzene		--	--	--	--	--
1,1,2-Trichloroethane		--	--	--	--	--
1,3-Dichlorobenzene		--	--	--	--	--
1,1'-Dichloroethane		--	--	--	--	--
1,4-Dichlorobenzene		--	--	--	--	--
1,1'-Dichloroethene		--	--	--	--	--
1,1-Dichloropropene		--	--	--	--	--
1,2,3-Trichlorobenzene		--	--	--	--	--
1,2,3-Trichloropropane		--	--	--	--	--
1,2,4-Trimethylbenzene		--	--	--	--	--
1,2-Dibromo-3-chloropropane		--	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)		--	--	--	--	--
1,2-Dichloroethane		--	--	--	--	--
1,2-Dichloroethene, cis-		--	--	--	--	--
1,2-Dichloroethene, trans-		--	--	--	--	--
1,2-Dichloropropane		--	--	--	--	--
1,3,5-Trimethylbenzene (Mesitylene)		--	--	--	--	--
1,3-Dichloropropane		--	--	--	--	--
1,3-Dichloropropene, cis-		--	--	--	--	--
1,3-Dichloropropene, trans-		--	--	--	--	--
2,2-Dichloropropane		--	--	--	--	--
2-Butanone (MEK)		--	--	--	--	--
2-Chlorotoluene		--	--	--	--	--
2-Hexanone (Methyl butyl ketone)		--	--	--	--	--
4-Chlorotoluene		--	--	--	--	--
4-Isopropyltoluene (4-Cymene)		--	--	--	--	--
Acetone		--	--	--	--	--
Benzene		--	**19 J**	1.3 U	**2.2**	1.1 U
Bromobenzene		--	--	--	--	--
Bromochloromethane		--	--	--	--	--
Bromodichloromethane		--	--	--	--	--
Bromoform		--	--	--	--	--
Bromomethane		--	--	--	--	--
Carbon disulfide		--	--	--	--	--
Carbon tetrachloride (Tetrachloromethane)		--	--	--	--	--
Chloroethane		--	--	--	--	--
Chloroform		--	--	--	--	--
Chloromethane		--	--	--	--	--

Table 11d
Upland Soil Chemical Testing Results - 2000 UST Removal Area

Analyte	Location ID:	DSI-GP-09	DSI-GP-10	DSI-GP-10	DSI-GP-11	DSI-GP-11
	Sample ID:	DSI-GP-09-9-10	DSI-GP-10-2-4	DSI-GP-10-5.5-7.5	DSI-GP-11-1-3.5	DSI-GP-11-5-7.5
	Sample Date:	07/16/2009	07/16/2009	07/16/2009	07/14/2009	07/14/2009
	Sample Depth:	9 to 10 ft	2 to 4 ft	5.5 to 7.5 ft	1 to 3.5 ft	5 to 7.5 ft
Volatile Organics (µg/kg) (cont.)						
Dibromochloromethane		--	--	--	--	--
Dibromomethane		--	--	--	--	--
Dichlorodifluoromethane		--	--	--	--	--
Dichloromethane (Methylene chloride)		--	--	--	--	--
Ethylbenzene		--	35 UJ	1.3 U	1.2 U	1.1 U
Isopropylbenzene (Cumene)		--	--	--	--	--
Methyl isobutyl ketone (4-Methyl-2-pentanone or (MIBK))		--	--	--	--	--
Methyl tert-butyl ether (MTBE)		--	--	--	--	--
n-Butylbenzene		--	--	--	--	--
n-Propylbenzene		--	--	--	--	--
sec-Butylbenzene		--	--	--	--	--
Styrene		--	--	--	--	--
tert-Butylbenzene		--	--	--	--	--
Tetrachloroethene (PCE)		--	--	--	--	--
Toluene		--	**7.9 J**	1.3 U	1.2 U	1.1 U
Trichloroethene (TCE)		--	--	--	--	--
Trichlorofluoromethane (Fluorotrichloromethane)		--	--	--	--	--
Vinyl chloride		--	--	--	--	--
m,p-Xylene		--	7.7 UJ	1.3 U	**1.8**	1.1 U
o-Xylene		--	13 UJ	1.3 U	1.2 U	1.1 U
Total Xylene (U = 0)		--	13 UJ	1.3 U	**1.8**	1.1 U
Total Xylene (U = 1/2)		--	13 UJ	1.3 U	**2.4**	1.1 U
BTEX (U = 0)		--	--	--	--	--
PCB Aroclors (µg/kg)						
Aroclor 1016		--	--	--	--	--
Aroclor 1221		--	--	--	--	--
Aroclor 1232		--	--	--	--	--
Aroclor 1242		--	--	--	--	--
Aroclor 1248		--	--	--	--	--
Aroclor 1254		--	--	--	--	--
Aroclor 1260		--	--	--	--	--
Total PCB Aroclors (U = 0)		--	--	--	--	--
Total PCB Aroclors (U = 1/2)		--	--	--	--	--

Table 11d
Upland Soil Chemical Testing Results - 2000 UST Removal Area

Analyte	Location ID:	DSI-GP-09	DSI-GP-10	DSI-GP-10	DSI-GP-11	DSI-GP-11
	Sample ID:	DSI-GP-09-9-10	DSI-GP-10-2-4	DSI-GP-10-5.5-7.5	DSI-GP-11-1-3.5	DSI-GP-11-5-7.5
	Sample Date:	07/16/2009	07/16/2009	07/16/2009	07/14/2009	07/14/2009
	Sample Depth:	9 to 10 ft	2 to 4 ft	5.5 to 7.5 ft	1 to 3.5 ft	5 to 7.5 ft
Pesticides (µg/kg)						
4,4'-DDD (p,p'-DDD)		--	--	--	--	--
4,4'-DDE (p,p'-DDE)		--	--	--	--	--
4,4'-DDT (p,p'-DDT)		--	--	--	--	--
Aldrin		--	--	--	--	--
alpha-BHC		--	--	--	--	--
beta-BHC		--	--	--	--	--
alpha-Chlordane (cis-Chlordane)		--	--	--	--	--
delta-BHC		--	--	--	--	--
Dieldrin		--	--	--	--	--
Endosulfan-alpha (I)		--	--	--	--	--
Endosulfan-beta (II)		--	--	--	--	--
Endosulfan sulfate		--	--	--	--	--
Endrin		--	--	--	--	--
Endrin aldehyde		--	--	--	--	--
Endrin ketone		--	--	--	--	--
gamma-BHC (Lindane)		--	--	--	--	--
gamma-Chlordane		--	--	--	--	--
Heptachlor		--	--	--	--	--
Heptachlor epoxide		--	--	--	--	--
Methoxychlor		--	--	--	--	--
Toxaphene		--	--	--	--	--
Hexachlorobenzene		--	--	--	--	--
Hexachlorobutadiene		--	--	--	--	--

Notes:

1	Samples were analyzed for petroleum fractionation and BTEX, results were either non-detect or detected at low levels.
ft	feet
Bold	Detected result
µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
J	Estimated value
U	Compound
UJ	Compound
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-09	DSI-09	DSI-10	DSI-10	DSI-11	DSI-11	DSI-GP-12	DSI-GP-12	DSI-MW-05	DSI-MW-05
	Sample ID:	DSI09-SO-A	DSI09-SO-B	DSI10-SO-A	DSI10-SO-B	DSI11-SO-A	DSI11-SO-B	DSI-GP-12-1-3.5	DSI-GP-12-5-10	DSI-MW-05-0.5-3.0	DSI-MW-05-5-8
	Sample Date:	09/28/2006	09/28/2006	09/28/2006	09/28/2006	09/28/2006	09/28/2006	07/14/2009	07/14/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	1 to 3.5 ft	5 to 10 ft	0.5 to 3 ft	5 to 8 ft
Conventional Parameters (percent)											
Total organic carbon		**0.939**	**2.35**	**1.3**	**0.147**	**1.34**	**0.099**	--	--	--	--
Total solids		**92.6**	**89.6**	**69.7**	**95.3**	**76.1**	**93.7**	--	--	--	--
Metals (mg/kg)											
Antimony							--	20 UJ	7 UJ	5 UJ	6 UJ
Arsenic		**3.7**	**20.2**	**6.2**	**1.9**	**4.4**	**1.4**	20 U	**9**	**12**	6 U
Cadmium		**0.3**	**8.5**	0.3 U	0.2 U	**0.3**	0.2 U	**0.9**	**0.4**	**0.2**	0.3 U
Chromium		**17.4**	**36**	**20.2**	**14.2**	**17.1**	**11.4**	**30 J**	**22.1 J**	**16.1 J**	**11.1 J**
Chromium VI		0.117 UJ	0.124 UJ	0.157 UJ	0.117 UJ	**2.05 J**	0.12 UJ	--	--	--	--
Copper		**65.9**	**3,310**	**29**	**8.8**	**49**	**8.4**	**251 J**	**57.8 J**	**38.6 J**	**11.2 J**
Lead		**118**	**4940**	**8**	**11**	**92**	2 U	**492 J**	**342 J**	**56 J**	3 UJ
Mercury		**0.31**	**0.18**	**0.11**	0.04 U	**0.76**	0.04 U	**0.59**	**0.07**	**0.12**	0.02 U
Nickel		--	--	--	--	--	--	**28 J**	**12 J**	**8 J**	**7 J**
Selenium		--	--	--	--	--	--	0.6 U	0.7 U	0.5 U	0.6 U
Silver		0.3 U	**1.2**	0.4 U	0.3 U	0.4 U	0.3 U	0.9 U	0.4 U	0.3 U	0.4 U
Zinc		**115**	**5,840**	**43.7**	**25.2**	**78.3**	**23**	**386**	**223**	**81**	**42**
Total Petroleum Hydrocarbons (mg/kg)											
Gasoline Range Hydrocarbons		**14**	**200**	8.3 U	6 U	**8**	5.9 U	7.5 U	8.6 U	4.1 U	5.2 U
Diesel Range Hydrocarbons		**42**	**56**	**16**	5.2 U	**120**	5.5 U	**23**	7 U	**43**	6.2 U
Motor Oil Range		**87**	**110**	**39**	10 U	**180**	11 U	**91**	**28**	**180**	**17**
Semi-Volatile Organic Compounds (µg/kg)											
PAHs											
1-Methylnaphthalene		--	--	--	--	--	--	12 U	19 U	19 U	19 U
2-Methylnaphthalene		**47**	**34**	**7.8**	5 U	**19**	4.8 U	**17**	19 U	19 U	19 U
Acenaphthene		**82**	**30**	4.8 U	5 U	**6.9**	4.8 U	**19**	19 U	19 U	19 U
Acenaphthylene		**14**	**5.4**	4.8 U	5 U	**14**	4.8 U	**22**	19 U	**25**	19 U
Anthracene		**87**	**19**	**11**	5 U	**18**	4.8 U	**57**	19 U	**61**	19 U
Benzo(a)anthracene		**160**	**27**	**18**	5 U	**54**	4.8 U	**110**	**51**	**230 J**	19 U
Benzo(a)pyrene		**180**	**23**	**15**	5 U	**61**	4.8 U	**110**	**45**	**220 J**	19 U
Benzo(b)fluoranthene		**240**	**35**	**20**	5 U	**73**	4.8 U	**170**	**61**	**220**	19 U
Benzo(g,h,i)perylene		**110**	**9.9**	**6.3**	5 U	**37**	4.8 U	**62**	**20**	**82 J**	19 U
Benzo(k)fluoranthene		**230**	**26**	**18**	5 U	**67**	4.8 U	**130**	**44**	**230 J**	19 U
Chrysene		**280**	**54**	**23**	5 U	**87**	4.8 U	**140**	**65**	**260 J**	19 U
Dibenzo(a,h)anthracene		**38**	5 U	4.8 U	5 U	**8.4**	4.8 U	**24**	19 U	**37 J**	19 U
Fluoranthene		**480**	**91**	**61**	5 U	**120**	4.8 U	**320**	**160**	**570 J**	19 U
Fluorene		**88**	**35**	**7.3**	5 U	**7.9**	4.8 U	**17**	19 U	19 U	19 U
Indeno(1,2,3-c,d)pyrene		**110**	**9.4**	**6.3**	5 U	**35**	4.8 U	**52**	19 U	**83 J**	19 U
Naphthalene		**74**	**58**	**7.3**	5 U	**24**	4.8 U	**22**	19 U	19 U	19 U
Phenanthrene		**370**	**140**	**27**	5 U	**54**	4.8 U	**270**	**33**	**370 J**	19 U
Pyrene		**400**	**110**	**51**	5 U	**120**	4.8 U	**160**	**110**	**350 J**	19 U

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-09	DSI-09	DSI-10	DSI-10	DSI-11	DSI-11	DSI-GP-12	DSI-GP-12	DSI-MW-05	DSI-MW-05
	Sample ID:	DSI09-SO-A	DSI09-SO-B	DSI10-SO-A	DSI10-SO-B	DSI11-SO-A	DSI11-SO-B	DSI-GP-12-1-3.5	DSI-GP-12-5-10	DSI-MW-05-0.5-3.0	DSI-MW-05-5-8
	Sample Date:	09/28/2006	09/28/2006	09/28/2006	09/28/2006	09/28/2006	09/28/2006	07/14/2009	07/14/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	1 to 3.5 ft	5 to 10 ft	0.5 to 3 ft	5 to 8 ft
Total PAHs											
Total cPAH TEQ (U = 0)		**261**	**33.3**	**21.5**	5 U	**85.6**	4.8 U	**160**	**61.2**	**303**	19 U
Total cPAH TEQ (U = 1/2)		**261**	**33.5**	**21.7**	5 U	**85.6**	4.8 U	**160**	**63.2**	**303**	19 U
Chlorobenzenes											
1,2-Dichlorobenzene		--	--	--	--	--	--	12 U	19 U	19 U	19 U
1,4-Dichlorobenzene		--	--	--	--	--	--	12 U	19 U	19 U	19 U
1,2,4-Trichlorobenzene		--	--	--	--	--	--	12 U	19 U	19 U	19 U
Hexachlorobenzene		--	--	--	--	--	--	**300**	19 U	19 U	19 U
Phthalates											
Dimethyl phthalate		--	--	--	--	--	--	12 U	19 U	19 U	19 U
Diethyl phthalate		--	--	--	--	--	--	12 U	19 U	19 U	19 U
Di-n-butyl phthalate		--	--	--	--	--	--	**15**	19 U	19 U	19 U
Butylbenzyl phthalate		--	--	--	--	--	--	12 U	19 U	19 U	19 U
Bis(2-ethylhexyl) phthalate		--	--	--	--	--	--	**24**	19 U	19 U	19 U
Di-n-octyl phthalate		--	--	--	--	--	--	12 U	19 U	19 U	19 U
Phenols											
2,4-Dimethylphenol		--	--	--	--	--	--	12 UJ	19 UJ	19 UJ	19 UJ
2-Methylphenol (o-Cresol)		--	--	--	--	--	--	12 U	19 U	19 UJ	19 U
4-Methylphenol (p-Cresol)		--	--	--	--	--	--	12 U	19 U	19 UJ	19 U
Pentachlorophenol		--	--	--	--	--	--	62 UJ	96 UJ	97 UJ	97 UJ
Phenol		--	--	--	--	--	--	12 U	19 U	19 U	19 U
Miscellaneous Extractables											
Dibenzofuran		**32**	**18**	**6.8**	5 U	**7.9**	4.8 U	**38**	19 U	19 U	19 U
Hexachlorobutadiene		--	--	--	--	--	--	12 U	19 U	19 U	19 U
N-Nitrosodiphenylamine		--	--	--	--	--	--	12 UJ	19 UJ	19 UJ	19 UJ
Benzyl alcohol		--	--	--	--	--	--	12 U	19 U	19 UJ	19 U
Benzoic acid		--	--	--	--	--	--	120 U	190 U	190 UJ	190 U
Hexachloroethane		--	--	--	--	--	--	12 U	19 U	19 UJ	19 U

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-09	DSI-09	DSI-10	DSI-10	DSI-11	DSI-11	DSI-GP-12	DSI-GP-12	DSI-MW-05	DSI-MW-05
	Sample ID:	DSI09-SO-A	DSI09-SO-B	DSI10-SO-A	DSI10-SO-B	DSI11-SO-A	DSI11-SO-B	DSI-GP-12-1-3.5	DSI-GP-12-5-10	DSI-MW-05-0.5-3.0	DSI-MW-05-5-8
	Sample Date:	09/28/2006	09/28/2006	09/28/2006	09/28/2006	09/28/2006	09/28/2006	07/14/2009	07/14/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	1 to 3.5 ft	5 to 10 ft	0.5 to 3 ft	5 to 8 ft
Volatile Organics (µg/kg)											
1,1,1,2-Tetrachloroethane		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,2,4-Trichlorobenzene		5.2 U	5 UJ	6 U	5.1 U	5.6 U	5.3 U	--	--	--	--
1,1,1-Trichloroethane		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,1,2,2-Tetrachloroethane		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,2-Dichlorobenzene		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,1,2-Trichloroethane		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,3-Dichlorobenzene		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,1'-Dichloroethane		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,4-Dichlorobenzene		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,1'-Dichloroethene		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,1-Dichloropropene		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,2,3-Trichlorobenzene		5.2 U	5 UJ	6 U	5.1 U	5.6 U	5.3 U	--	--	--	--
1,2,3-Trichloropropane		2.1 U	2 UJ	2.4 U	2 U	2.2 U	2.1 U	--	--	--	--
1,2,4-Trimethylbenzene		1 U	**1.4 J**	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,2-Dibromo-3-chloropropane		5.2 U	5 UJ	6 U	5.1 U	5.6 U	5.3 U	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,2-Dichloroethane		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,2-Dichloroethene, cis-		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,2-Dichloroethene, trans-		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,2-Dichloropropane		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,3,5-Trimethylbenzene (Mesitylene)		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,3-Dichloropropane		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,3-Dichloropropene, cis-		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
1,3-Dichloropropene, trans-		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
2,2-Dichloropropane		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
2-Butanone (MEK)		**10**	5 U	**6.5**	5.1 U	**12**	**9.4**	--	--	--	--
2-Chlorotoluene		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
2-Hexanone (Methyl butyl ketone)		5.2 U	5 UJ	6 U	5.1 U	5.6 U	5.3 U	--	--	--	--
4-Chlorotoluene		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
4-Isopropyltoluene (4-Cymene)		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Acetone		**100**	**55**	**55**	35 U	**96**	**70**	--	--	--	--
Benzene		**1**	**1.3**	1.2 U	1 U	**2.3**	1.1 U	--	--	--	--
Bromobenzene		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Bromochloromethane		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Bromodichloromethane		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Bromoform		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Bromomethane		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Carbon disulfide		1 U	**1.6**	1.2 U	**1**	**1.9**	**15**	--	--	--	--
Carbon tetrachloride (Tetrachloromethane)		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-09	DSI-09	DSI-10	DSI-10	DSI-11	DSI-11	DSI-GP-12	DSI-GP-12	DSI-MW-05	DSI-MW-05
	Sample ID:	DSI09-SO-A	DSI09-SO-B	DSI10-SO-A	DSI10-SO-B	DSI11-SO-A	DSI11-SO-B	DSI-GP-12-1-3.5	DSI-GP-12-5-10	DSI-MW-05-0.5-3.0	DSI-MW-05-5-8
	Sample Date:	09/28/2006	09/28/2006	09/28/2006	09/28/2006	09/28/2006	09/28/2006	07/14/2009	07/14/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	1 to 3.5 ft	5 to 10 ft	0.5 to 3 ft	5 to 8 ft
Volatile Organics (µg/kg) (cont.)											
Chloroethane		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Chloroform		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Chloromethane		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Dibromochloromethane		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Dibromomethane		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Dichlorodifluoromethane		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Dichloromethane (Methylene chloride)		2.1 U	2 U	2.4 U	**2.3**	2.2 U	2.1 U	--	--	--	--
Ethylbenzene		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Isopropylbenzene (Cumene)		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Methyl isobutyl ketone (4-Methyl-2-pentanone or (MIBK))		5.2 U	5 U	6 U	5.1 U	5.6 U	5.3 U	--	--	--	--
Methyl tert-butyl ether (MTBE)		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
n-Butylbenzene		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
n-Propylbenzene		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
sec-Butylbenzene		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Styrene		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
tert-Butylbenzene		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Tetrachloroethene (PCE)		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Toluene		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Trichloroethene (TCE)		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Trichlorofluoromethane (Fluorotrichloromethane)		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Vinyl chloride		1 U	1 U	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
m,p-Xylene		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
o-Xylene		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Total Xylene (U = 0)		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
Total Xylene (U = 1/2)		1 U	1 UJ	1.2 U	1 U	1.1 U	1.1 U	--	--	--	--
BTEX (U = 0)		**1**	**1.3**	1.2 U	1 U	**2.3**	1.1 U	--	--	--	--
PCB Aroclors (µg/kg)											
Aroclor 1016		9.6 U	9.8 U	9.8 U	9.4 U	9.8 U	9.9 U	--	--	--	--
Aroclor 1221		9.6 U	9.8 U	9.8 U	9.4 U	9.8 U	9.9 U	--	--	--	--
Aroclor 1232		9.6 U	9.8 U	9.8 U	9.4 U	9.8 U	9.9 U	--	--	--	--
Aroclor 1242		9.6 U	9.8 U	9.8 U	9.4 U	9.8 U	9.9 U	--	--	--	--
Aroclor 1248		9.6 U	9.8 U	9.8 U	9.4 U	9.8 U	9.9 U	--	--	--	--
Aroclor 1254		9.6 U	9.8 U	9.8 U	9.4 U	9.8 U	9.9 U	--	--	--	--
Aroclor 1260		9.6 U	9.8 U	9.8 U	9.4 U	**35**	9.9 U	--	--	--	--
Total PCB Aroclors (U = 0)		9.6 U	9.8 U	9.8 U	9.4 U	**35**	9.9 U	--	--	--	--
Total PCB Aroclors (U = 1/2)		9.6 U	9.8 U	9.8 U	9.4 U	**64.4**	9.9 U	--	--	--	--

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-09	DSI-09	DSI-10	DSI-10	DSI-11	DSI-11	DSI-GP-12	DSI-GP-12	DSI-MW-05	DSI-MW-05
	Sample ID:	DSI09-SO-A	DSI09-SO-B	DSI10-SO-A	DSI10-SO-B	DSI11-SO-A	DSI11-SO-B	DSI-GP-12-1-3.5	DSI-GP-12-5-10	DSI-MW-05-0.5-3.0	DSI-MW-05-5-8
	Sample Date:	09/28/2006	09/28/2006	09/28/2006	09/28/2006	09/28/2006	09/28/2006	07/14/2009	07/14/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	0 to 3 ft	3 to 5 ft	1 to 3.5 ft	5 to 10 ft	0.5 to 3 ft	5 to 8 ft
Pesticides (µg/kg)											
4,4'-DDD (p,p'-DDD)		3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	--	--	--	--
4,4'-DDE (p,p'-DDE)		3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	--	--	--	--
4,4'-DDT (p,p'-DDT)		3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	--	--	--	--
Aldrin		1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	--	--	--	--
alpha-BHC		1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	--	--	--	--
beta-BHC		1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	--	--	--	--
alpha-Chlordane (cis-Chlordane)		1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	--	--	--	--
delta-BHC		1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	--	--	--	--
Dieldrin		3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	--	--	--	--
Endosulfan-alpha (I)		1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	--	--	--	--
Endosulfan-beta (II)		3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	--	--	--	--
Endosulfan sulfate		3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	--	--	--	--
Endrin		3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	--	--	--	--
Endrin aldehyde		3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	--	--	--	--
Endrin ketone		3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	--	--	--	--
gamma-BHC (Lindane)		1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	--	--	--	--
gamma-Chlordane		1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	--	--	--	--
Heptachlor		1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	--	--	--	--
Heptachlor epoxide		1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	--	--	--	--
Methoxychlor		16 U	16 U	16 U	17 U	16 U	16 UJ	--	--	--	--
Toxaphene		160 U	160 U	160 U	170 U	160 U	160 UJ	--	--	--	--
Hexachlorobenzene		1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	--	--	--	--
Hexachlorobutadiene		1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	--	--	--	--

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-GP-13	DSI-GP-13	DSI-GP-14	DSI-GP-14	DSI-GP-14	DSI-MW-06	DSI-MW-06	DSI-GP-15	DSI-GP-15
	Sample ID:	DSI-GP-13-1-3.5	DSI-GP-13-5-7.3	DSI-GP-14-2.5-4.5	DSI-GP-14-5-7	DSI-GP-14-8-10	DSI-MW-06-0.5-3.5	DSI-MW-06-5-8	DSI-GP-15-1.5-4	DSI-GP-15-6-8
	Sample Date:	07/13/2009	07/13/2009	07/13/2009	07/13/2009	07/13/2009	07/15/2009	07/15/2009	07/13/2009	07/13/2009
	Sample Depth:	1 to 3.5 ft	5 to 7.3 ft	2.5 to 4.5 ft	5 to 7 ft	8 to 10 ft	0.5 to 3.5 ft	5 to 8 ft	1.5 to 4 ft	6 to 8 ft
Conventional Parameters (percent)										
Total organic carbon		--	--	--	--	--	--	--	--	--
Total solids		--	--	--	--	--	--	--	--	--
Metals (mg/kg)										
Antimony		5 UJ	6 UJ	6 UJ	6 UJ	--	6 UJ	6 UJ	5 UJ	6 UJ
Arsenic		5 U	6 U	**9**	**8**	--	**6**	6 U	5 U	6 U
Cadmium		0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	0.3 U	0.2 U	0.3 U
Chromium		**15.7**	**13.4**	**22**	**18.1**	--	**10.9**	**10.8**	**11.5**	**12.9**
Chromium VI		--	--	--	--	--	--	--	--	--
Copper		**46.5**	**26.3**	**159**	**85**	--	**19.7**	**21.9**	**8.4**	**11.4**
Lead		**53**	**10**	**98**	**52**	--	**9**	**5**	**3**	3 U
Mercury		**0.16**	**0.06**	**1.63**	**0.68**	--	**0.04**	0.03 U	0.02 U	0.03 U
Nickel		**8**	**11**	**14**	**14**	--	**7**	**8**	**7**	**9**
Selenium		0.5 U	0.6 U	0.6 U	0.6 U	--	0.6 U	0.7 U	0.5 U	0.6 U
Silver		0.3 U	0.4 U	0.3 U	0.4 U	--	0.3 U	0.4 U	0.3 U	0.4 U
Zinc		**98**	**53**	**227**	**133**	--	**34**	**27**	**23**	**25**
Total Petroleum Hydrocarbons (mg/kg)										
Gasoline Range Hydrocarbons		**310**	**17**	**320**	**820**	9.3 U	7.2 U	8.6 U	**140**	**1200**
Diesel Range Hydrocarbons		**1,300**	**160**	**760**	**1,800**	--	**270**	**7.2**	**9000**	**3500**
Motor Oil Range		**750**	**350**	**300**	**270**	--	**40**	**14**	1,000 U	250 U
Semi-Volatile Organic Compounds (µg/kg)										
PAHs										
1-Methylnaphthalene		**860**	**200**	**320**	**5,600**	--	19 U	19 U	**5,200**	**3,100**
2-Methylnaphthalene		**740**	**160**	**150**	**5,900**	--	19 U	19 U	**390**	**200 J**
Acenaphthene		**130**	**64 J**	**110**	**460**	--	19 U	19 U	**330 J**	**200**
Acenaphthylene		33 U	80 U	**41**	58 U	--	19 U	19 U	160 U	77 U
Anthracene		**460**	**89**	**70**	**78**	--	19 U	19 U	**120 J**	**54 J**
Benzo(a)anthracene		**380**	**110**	**120**	**76**	--	19 U	19 U	160 U	77 U
Benzo(a)pyrene		**390**	**120**	**130**	**76**	--	**30**	19 U	160 U	77 U
Benzo(b)fluoranthene		**250**	**83**	**170**	**88**	--	19 U	19 U	160 U	77 U
Benzo(g,h,i)perylene		**97**	80 U	**50**	58 U	--	19 U	19 U	160 U	77 U
Benzo(k)fluoranthene		**420**	**83**	**160**	**91**	--	19 U	19 U	160 U	77 U
Chrysene		**430**	**140**	**180**	**140**	--	**10 J**	19 U	**83 J**	**41 J**
Dibenzo(a,h)anthracene		**21 J**	80 U	**19 J**	58 U	--	19 U	19 U	160 U	77 U
Fluoranthene		**1,300**	**260**	**380**	**260**	--	**21**	19 U	160 U	**51 J**
Fluorene		**610**	**170**	**280**	**1,200**	--	19 U	19 U	**1,700**	**880**
Indeno(1,2,3-c,d)pyrene		**87**	80 U	**50**	58 U	--	19 U	19 U	160 U	77 U
Naphthalene		**190**	**42 J**	30 U	**190**	--	19 U	19 U	**270**	**170**
Phenanthrene		**1,400**	**470**	**300**	**1,300**	--	19 U	19 U	**1,700**	**970**
Pyrene		**1,000**	**320**	**300**	**230**	--	**17 J**	19 U	**180**	**93**

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-GP-13	DSI-GP-13	DSI-GP-14	DSI-GP-14	DSI-GP-14	DSI-MW-06	DSI-MW-06	DSI-GP-15	DSI-GP-15
	Sample ID:	DSI-GP-13-1-3.5	DSI-GP-13-5-7.3	DSI-GP-14-2.5-4.5	DSI-GP-14-5-7	DSI-GP-14-8-10	DSI-MW-06-0.5-3.5	DSI-MW-06-5-8	DSI-GP-15-1.5-4	DSI-GP-15-6-8
	Sample Date:	07/13/2009	07/13/2009	07/13/2009	07/13/2009	07/13/2009	07/15/2009	07/15/2009	07/13/2009	07/13/2009
	Sample Depth:	1 to 3.5 ft	5 to 7.3 ft	2.5 to 4.5 ft	5 to 7 ft	8 to 10 ft	0.5 to 3.5 ft	5 to 8 ft	1.5 to 4 ft	6 to 8 ft
Total PAHs										
Total cPAH TEQ (U = 0)		**510**	**149**	**184**	**103**	--	**30.1**	19 U	**83**	**41**
Total cPAH TEQ (U = 1/2)		**510**	**157**	**184**	**109**	--	**34.9**	19 U	**121**	**58.2**
Chlorobenzenes										
1,2-Dichlorobenzene		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U
1,4-Dichlorobenzene		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U
1,2,4-Trichlorobenzene		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U
Hexachlorobenzene		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U
Phthalates										
Dimethyl phthalate		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U
Diethyl phthalate		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U
Di-n-butyl phthalate		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U
Butylbenzyl phthalate		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U
Bis(2-ethylhexyl) phthalate		**22 J**	80 U	**56**	**38 J**	--	19 U	19 U	160 U	77 U
Di-n-octyl phthalate		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U
Phenols										
2,4-Dimethylphenol		**35**	80 U	**31**	58 U	--	19 U	19 U	160 U	77 U
2-Methylphenol (o-Cresol)		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U
4-Methylphenol (p-Cresol)		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U
Pentachlorophenol		160 U	400 U	150 U	290 U	--	95 UJ	96 UJ	810 U	380 U
Phenol		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U
Miscellaneous Extractables										
Dibenzofuran		**89**	80 U	**70**	**290**	--	19 U	19 U	**420 J**	**240 J**
Hexachlorobutadiene		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U
N-Nitrosodiphenylamine		440 UJ	97 UJ	190 UJ	670 UJ	--	19 UJ	19 UJ	1800 UJ	880 UJ
Benzyl alcohol		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U
Benzoic acid		330 U	800 U	300 U	580 U	--	190 UJ	190 UJ	1600 U	770 U
Hexachloroethane		33 U	80 U	30 U	58 U	--	19 U	19 U	160 U	77 U

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-GP-13	DSI-GP-13	DSI-GP-14	DSI-GP-14	DSI-GP-14	DSI-MW-06	DSI-MW-06	DSI-GP-15	DSI-GP-15
	Sample ID:	DSI-GP-13-1-3.5	DSI-GP-13-5-7.3	DSI-GP-14-2.5-4.5	DSI-GP-14-5-7	DSI-GP-14-8-10	DSI-MW-06-0.5-3.5	DSI-MW-06-5-8	DSI-GP-15-1.5-4	DSI-GP-15-6-8
	Sample Date:	07/13/2009	07/13/2009	07/13/2009	07/13/2009	07/13/2009	07/15/2009	07/15/2009	07/13/2009	07/13/2009
	Sample Depth:	1 to 3.5 ft	5 to 7.3 ft	2.5 to 4.5 ft	5 to 7 ft	8 to 10 ft	0.5 to 3.5 ft	5 to 8 ft	1.5 to 4 ft	6 to 8 ft
Volatile Organics (µg/kg)										
1,1,1,2-Tetrachloroethane		--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene		--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane		--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane		--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene		--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane		--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene		--	--	--	--	--	--	--	--	--
1,1'-Dichloroethane		--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene		--	--	--	--	--	--	--	--	--
1,1'-Dichloroethene		--	--	--	--	--	--	--	--	--
1,1-Dichloropropene		--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene		--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane		--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene		--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane		--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)		--	--	--	--	--	--	--	--	--
1,2-Dichloroethane		--	--	--	--	--	--	--	--	--
1,2-Dichloroethene, cis-		--	--	--	--	--	--	--	--	--
1,2-Dichloroethene, trans-		--	--	--	--	--	--	--	--	--
1,2-Dichloropropane		--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene (Mesitylene)		--	--	--	--	--	--	--	--	--
1,3-Dichloropropane		--	--	--	--	--	--	--	--	--
1,3-Dichloropropene, cis-		--	--	--	--	--	--	--	--	--
1,3-Dichloropropene, trans-		--	--	--	--	--	--	--	--	--
2,2-Dichloropropane		--	--	--	--	--	--	--	--	--
2-Butanone (MEK)		--	--	--	--	--	--	--	--	--
2-Chlorotoluene		--	--	--	--	--	--	--	--	--
2-Hexanone (Methyl butyl ketone)		--	--	--	--	--	--	--	--	--
4-Chlorotoluene		--	--	--	--	--	--	--	--	--
4-Isopropyltoluene (4-Cymene)		--	--	--	--	--	--	--	--	--
Acetone		--	--	--	--	--	--	--	--	--
Benzene		--	--	--	--	--	--	--	--	--
Bromobenzene		--	--	--	--	--	--	--	--	--
Bromochloromethane		--	--	--	--	--	--	--	--	--
Bromodichloromethane		--	--	--	--	--	--	--	--	--
Bromoform		--	--	--	--	--	--	--	--	--
Bromomethane		--	--	--	--	--	--	--	--	--
Carbon disulfide		--	--	--	--	--	--	--	--	--
Carbon tetrachloride (Tetrachloromethane)		--	--	--	--	--	--	--	--	--

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-GP-13	DSI-GP-13	DSI-GP-14	DSI-GP-14	DSI-GP-14	DSI-MW-06	DSI-MW-06	DSI-GP-15	DSI-GP-15
	Sample ID:	DSI-GP-13-1-3.5	DSI-GP-13-5-7.3	DSI-GP-14-2.5-4.5	DSI-GP-14-5-7	DSI-GP-14-8-10	DSI-MW-06-0.5-3.5	DSI-MW-06-5-8	DSI-GP-15-1.5-4	DSI-GP-15-6-8
	Sample Date:	07/13/2009	07/13/2009	07/13/2009	07/13/2009	07/13/2009	07/15/2009	07/15/2009	07/13/2009	07/13/2009
	Sample Depth:	1 to 3.5 ft	5 to 7.3 ft	2.5 to 4.5 ft	5 to 7 ft	8 to 10 ft	0.5 to 3.5 ft	5 to 8 ft	1.5 to 4 ft	6 to 8 ft
Volatile Organics (µg/kg) (cont.)										
Chloroethane		--	--	--	--	--	--	--	--	--
Chloroform		--	--	--	--	--	--	--	--	--
Chloromethane		--	--	--	--	--	--	--	--	--
Dibromochloromethane		--	--	--	--	--	--	--	--	--
Dibromomethane		--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane		--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene chloride)		--	--	--	--	--	--	--	--	--
Ethylbenzene		--	--	--	--	--	--	--	--	--
Isopropylbenzene (Cumene)		--	--	--	--	--	--	--	--	--
Methyl isobutyl ketone (4-Methyl-2-pentanone or (MIBK))		--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether (MTBE)		--	--	--	--	--	--	--	--	--
n-Butylbenzene		--	--	--	--	--	--	--	--	--
n-Propylbenzene		--	--	--	--	--	--	--	--	--
sec-Butylbenzene		--	--	--	--	--	--	--	--	--
Styrene		--	--	--	--	--	--	--	--	--
tert-Butylbenzene		--	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)		--	--	--	--	--	--	--	--	--
Toluene		--	--	--	--	--	--	--	--	--
Trichloroethene (TCE)		--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Fluorotrichloromethane)		--	--	--	--	--	--	--	--	--
Vinyl chloride		--	--	--	--	--	--	--	--	--
m,p-Xylene		--	--	--	--	--	--	--	--	--
o-Xylene		--	--	--	--	--	--	--	--	--
Total Xylene (U = 0)		--	--	--	--	--	--	--	--	--
Total Xylene (U = 1/2)		--	--	--	--	--	--	--	--	--
BTEX (U = 0)		--	--	--	--	--	--	--	--	--
PCB Aroclors (µg/kg)										
Aroclor 1016		--	--	--	--	--	--	--	--	--
Aroclor 1221		--	--	--	--	--	--	--	--	--
Aroclor 1232		--	--	--	--	--	--	--	--	--
Aroclor 1242		--	--	--	--	--	--	--	--	--
Aroclor 1248		--	--	--	--	--	--	--	--	--
Aroclor 1254		--	--	--	--	--	--	--	--	--
Aroclor 1260		--	--	--	--	--	--	--	--	--
Total PCB Aroclors (U = 0)		--	--	--	--	--	--	--	--	--
Total PCB Aroclors (U = 1/2)		--	--	--	--	--	--	--	--	--

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-GP-13	DSI-GP-13	DSI-GP-14	DSI-GP-14	DSI-GP-14	DSI-MW-06	DSI-MW-06	DSI-GP-15	DSI-GP-15
	Sample ID:	DSI-GP-13-1-3.5	DSI-GP-13-5-7.3	DSI-GP-14-2.5-4.5	DSI-GP-14-5-7	DSI-GP-14-8-10	DSI-MW-06-0.5-3.5	DSI-MW-06-5-8	DSI-GP-15-1.5-4	DSI-GP-15-6-8
	Sample Date:	07/13/2009	07/13/2009	07/13/2009	07/13/2009	07/13/2009	07/15/2009	07/15/2009	07/13/2009	07/13/2009
	Sample Depth:	1 to 3.5 ft	5 to 7.3 ft	2.5 to 4.5 ft	5 to 7 ft	8 to 10 ft	0.5 to 3.5 ft	5 to 8 ft	1.5 to 4 ft	6 to 8 ft
Pesticides (µg/kg)										
4,4'-DDD (p,p'-DDD)		--	--	--	--	--	--	--	--	--
4,4'-DDE (p,p'-DDE)		--	--	--	--	--	--	--	--	--
4,4'-DDT (p,p'-DDT)		--	--	--	--	--	--	--	--	--
Aldrin		--	--	--	--	--	--	--	--	--
alpha-BHC		--	--	--	--	--	--	--	--	--
beta-BHC		--	--	--	--	--	--	--	--	--
alpha-Chlordane (cis-Chlordane)		--	--	--	--	--	--	--	--	--
delta-BHC		--	--	--	--	--	--	--	--	--
Dieldrin		--	--	--	--	--	--	--	--	--
Endosulfan-alpha (I)		--	--	--	--	--	--	--	--	--
Endosulfan-beta (II)		--	--	--	--	--	--	--	--	--
Endosulfan sulfate		--	--	--	--	--	--	--	--	--
Endrin		--	--	--	--	--	--	--	--	--
Endrin aldehyde		--	--	--	--	--	--	--	--	--
Endrin ketone		--	--	--	--	--	--	--	--	--
gamma-BHC (Lindane)		--	--	--	--	--	--	--	--	--
gamma-Chlordane		--	--	--	--	--	--	--	--	--
Heptachlor		--	--	--	--	--	--	--	--	--
Heptachlor epoxide		--	--	--	--	--	--	--	--	--
Methoxychlor		--	--	--	--	--	--	--	--	--
Toxaphene		--	--	--	--	--	--	--	--	--
Hexachlorobenzene		--	--	--	--	--	--	--	--	--
Hexachlorobutadiene		--	--	--	--	--	--	--	--	--

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-GP-15	DSI-MW-08	DSI-MW-08	DSI-GP-16	DSI-GP-16
	Sample ID:	DSI-GP-15-8-10	DSI-MW-08-0.5-2	DSI-MW-08-5-8	DSI-GP-16-2.1-4.5	DSI-GP-16-7.5-10
	Sample Date:	07/13/2009	07/15/2009	07/15/2009	07/13/2009	07/13/2009
	Sample Depth:	8 to 10 ft	0.5 to 2 ft	5 to 8 ft	2.1 to 4.5 ft	7.5 to 10 ft
Conventional Parameters (percent)						
Total organic carbon		--	--	--	--	--
Total solids		--	--	--	--	--
Metals (mg/kg)						
Antimony		--	5 UJ	6 UJ	5 UJ	7 UJ
Arsenic		--	**8**	6 U	5 U	7 U
Cadmium		--	**0.3**	0.2 U	0.2 U	0.3 U
Chromium		--	**19.8**	**9.7**	**10.6**	**14**
Chromium VI		--	--	--	--	--
Copper		--	**77.8**	**18.3**	**8**	**18.7**
Lead		--	**56**	**5**	2 U	**6**
Mercury		--	**0.21**	**0.1**	0.02 U	0.03 U
Nickel		--	**17**	**11**	**7**	**10**
Selenium		--	0.5 U	0.6 U	0.5 U	0.7 U
Silver		--	0.3 U	0.4 U	0.3 U	0.4 U
Zinc		--	**91**	**39**	**23**	**43**
Total Petroleum Hydrocarbons (mg/kg)						
Gasoline Range Hydrocarbons		**20**	**8.5**	7.6 U	6.6 U	10 U
Diesel Range Hydrocarbons		--	**140**	**17**	5.2 U	7.2 U
Motor Oil Range		--	**390**	**22**	10 U	14 U
Semi-Volatile Organic Compounds (µg/kg)						
PAHs						
1-Methylnaphthalene		--	56 U	**22**	20 U	19 U
2-Methylnaphthalene		--	56 U	19 U	20 U	19 U
Acenaphthene		--	56 U	19 U	20 U	19 U
Acenaphthylene		--	**54 J**	19 U	20 U	19 U
Anthracene		--	**33 J**	19 U	20 U	19 U
Benzo(a)anthracene		--	**77**	**16 J**	**11 J**	19 U
Benzo(a)pyrene		--	**110 J**	**19**	**12 J**	19 U
Benzo(b)fluoranthene		--	**88 J**	**16 J**	20 U	19 U
Benzo(g,h,i)perylene		--	**73 J**	**14 J**	20 U	19 U
Benzo(k)fluoranthene		--	**70 J**	**11 J**	20 U	19 U
Chrysene		--	**120**	**24**	**12 J**	19 U
Dibenzo(a,h)anthracene		--	56 U	19 U	20 U	19 U
Fluoranthene		--	**140**	**27**	**24**	**16 J**
Fluorene		--	56 U	19 U	20 U	19 U
Indeno(1,2,3-c,d)pyrene		--	**76 J**	**11 J**	20 U	19 U
Naphthalene		--	56 U	19 U	20 U	19 U
Phenanthrene		--	**58**	**12 J**	**15 J**	19 U
Pyrene		--	**120**	**31**	**23**	**12 J**

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-GP-15	DSI-MW-08	DSI-MW-08	DSI-GP-16	DSI-GP-16
	Sample ID:	DSI-GP-15-8-10	DSI-MW-08-0.5-2	DSI-MW-08-5-8	DSI-GP-16-2.1-4.5	DSI-GP-16-7.5-10
	Sample Date:	07/13/2009	07/15/2009	07/15/2009	07/13/2009	07/13/2009
	Sample Depth:	8 to 10 ft	0.5 to 2 ft	5 to 8 ft	2.1 to 4.5 ft	7.5 to 10 ft
Total PAHs						
Total cPAH TEQ (U = 0)	--	**142**	**24.6**	**13.2**	19 U	
Total cPAH TEQ (U = 1/2)	--	**145**	**25.6**	**17.2**	19 U	
Chlorobenzenes						
1,2-Dichlorobenzene	--	56 U	19 U	20 U	19 U	
1,4-Dichlorobenzene	--	56 U	19 U	20 U	19 U	
1,2,4-Trichlorobenzene	--	56 U	19 U	20 U	19 U	
Hexachlorobenzene	--	56 U	19 U	20 U	19 U	
Phthalates						
Dimethyl phthalate	--	56 U	19 U	20 U	19 U	
Diethyl phthalate	--	56 U	19 U	20 U	**19 J**	
Di-n-butyl phthalate	--	56 U	19 U	20 U	19 U	
Butylbenzyl phthalate	--	56 U	19 U	20 U	19 U	
Bis(2-ethylhexyl) phthalate	--	56 U	19 U	20 U	**16 J**	
Di-n-octyl phthalate	--	56 U	19 U	20 U	19 U	
Phenols						
2,4-Dimethylphenol	--	56 U	19 U	20 U	19 U	
2-Methylphenol (o-Cresol)	--	56 U	19 U	20 U	19 U	
4-Methylphenol (p-Cresol)	--	56 U	19 U	20 U	19 U	
Pentachlorophenol	--	280 UJ	96 UJ	98 U	97 U	
Phenol	--	56 U	19 U	20 U	19 U	
Miscellaneous Extractables						
Dibenzofuran	--	56 U	19 U	20 U	19 U	
Hexachlorobutadiene	--	56 U	19 U	20 U	19 U	
N-Nitrosodiphenylamine	--	56 UJ	19 UJ	20 UJ	19 UJ	
Benzyl alcohol	--	56 U	19 U	20 U	19 U	
Benzoic acid	--	560 UJ	190 UJ	200 U	190 U	
Hexachloroethane	--	56 U	19 U	20 U	19 U	

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-GP-15	DSI-MW-08	DSI-MW-08	DSI-GP-16	DSI-GP-16
	Sample ID:	DSI-GP-15-8-10	DSI-MW-08-0.5-2	DSI-MW-08-5-8	DSI-GP-16-2.1-4.5	DSI-GP-16-7.5-10
	Sample Date:	07/13/2009	07/15/2009	07/15/2009	07/13/2009	07/13/2009
	Sample Depth:	8 to 10 ft	0.5 to 2 ft	5 to 8 ft	2.1 to 4.5 ft	7.5 to 10 ft
Volatile Organics (µg/kg)						
1,1,1,2-Tetrachloroethane		--	--	--	--	--
1,2,4-Trichlorobenzene		--	--	--	--	--
1,1,1-Trichloroethane		--	--	--	--	--
1,1,2,2-Tetrachloroethane		--	--	--	--	--
1,2-Dichlorobenzene		--	--	--	--	--
1,1,2-Trichloroethane		--	--	--	--	--
1,3-Dichlorobenzene		--	--	--	--	--
1,1'-Dichloroethane		--	--	--	--	--
1,4-Dichlorobenzene		--	--	--	--	--
1,1'-Dichloroethene		--	--	--	--	--
1,1-Dichloropropene		--	--	--	--	--
1,2,3-Trichlorobenzene		--	--	--	--	--
1,2,3-Trichloropropane		--	--	--	--	--
1,2,4-Trimethylbenzene		--	--	--	--	--
1,2-Dibromo-3-chloropropane		--	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)		--	--	--	--	--
1,2-Dichloroethane		--	--	--	--	--
1,2-Dichloroethene, cis-		--	--	--	--	--
1,2-Dichloroethene, trans-		--	--	--	--	--
1,2-Dichloropropane		--	--	--	--	--
1,3,5-Trimethylbenzene (Mesitylene)		--	--	--	--	--
1,3-Dichloropropane		--	--	--	--	--
1,3-Dichloropropene, cis-		--	--	--	--	--
1,3-Dichloropropene, trans-		--	--	--	--	--
2,2-Dichloropropane		--	--	--	--	--
2-Butanone (MEK)		--	--	--	--	--
2-Chlorotoluene		--	--	--	--	--
2-Hexanone (Methyl butyl ketone)		--	--	--	--	--
4-Chlorotoluene		--	--	--	--	--
4-Isopropyltoluene (4-Cymene)		--	--	--	--	--
Acetone		--	--	--	--	--
Benzene		--	--	--	--	--
Bromobenzene		--	--	--	--	--
Bromochloromethane		--	--	--	--	--
Bromodichloromethane		--	--	--	--	--
Bromoform		--	--	--	--	--
Bromomethane		--	--	--	--	--
Carbon disulfide		--	--	--	--	--
Carbon tetrachloride (Tetrachloromethane)		--	--	--	--	--

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-GP-15	DSI-MW-08	DSI-MW-08	DSI-GP-16	DSI-GP-16
	Sample ID:	DSI-GP-15-8-10	DSI-MW-08-0.5-2	DSI-MW-08-5-8	DSI-GP-16-2.1-4.5	DSI-GP-16-7.5-10
	Sample Date:	07/13/2009	07/15/2009	07/15/2009	07/13/2009	07/13/2009
	Sample Depth:	8 to 10 ft	0.5 to 2 ft	5 to 8 ft	2.1 to 4.5 ft	7.5 to 10 ft
Volatile Organics (µg/kg) (cont.)						
Chloroethane		--	--	--	--	--
Chloroform		--	--	--	--	--
Chloromethane		--	--	--	--	--
Dibromochloromethane		--	--	--	--	--
Dibromomethane		--	--	--	--	--
Dichlorodifluoromethane		--	--	--	--	--
Dichloromethane (Methylene chloride)		--	--	--	--	--
Ethylbenzene		--	--	--	--	--
Isopropylbenzene (Cumene)		--	--	--	--	--
Methyl isobutyl ketone (4-Methyl-2-pentanone or (MIBK))		--	--	--	--	--
Methyl tert-butyl ether (MTBE)		--	--	--	--	--
n-Butylbenzene		--	--	--	--	--
n-Propylbenzene		--	--	--	--	--
sec-Butylbenzene		--	--	--	--	--
Styrene		--	--	--	--	--
tert-Butylbenzene		--	--	--	--	--
Tetrachloroethene (PCE)		--	--	--	--	--
Toluene		--	--	--	--	--
Trichloroethene (TCE)		--	--	--	--	--
Trichlorofluoromethane (Fluorotrichloromethane)		--	--	--	--	--
Vinyl chloride		--	--	--	--	--
m,p-Xylene		--	--	--	--	--
o-Xylene		--	--	--	--	--
Total Xylene (U = 0)		--	--	--	--	--
Total Xylene (U = 1/2)		--	--	--	--	--
BTEX (U = 0)		--	--	--	--	--
PCB Aroclors (µg/kg)						
Aroclor 1016		--	--	--	--	--
Aroclor 1221		--	--	--	--	--
Aroclor 1232		--	--	--	--	--
Aroclor 1242		--	--	--	--	--
Aroclor 1248		--	--	--	--	--
Aroclor 1254		--	--	--	--	--
Aroclor 1260		--	--	--	--	--
Total PCB Aroclors (U = 0)		--	--	--	--	--
Total PCB Aroclors (U = 1/2)		--	--	--	--	--

Table 11e

Upland Soil Chemical Testing Results - Former Shipyard Nearshore Area

Analyte	Location ID:	DSI-GP-15	DSI-MW-08	DSI-MW-08	DSI-GP-16	DSI-GP-16
	Sample ID:	DSI-GP-15-8-10	DSI-MW-08-0.5-2	DSI-MW-08-5-8	DSI-GP-16-2.1-4.5	DSI-GP-16-7.5-10
	Sample Date:	07/13/2009	07/15/2009	07/15/2009	07/13/2009	07/13/2009
	Sample Depth:	8 to 10 ft	0.5 to 2 ft	5 to 8 ft	2.1 to 4.5 ft	7.5 to 10 ft
Pesticides (µg/kg)						
4,4'-DDD (p,p'-DDD)		--	--	--	--	--
4,4'-DDE (p,p'-DDE)		--	--	--	--	--
4,4'-DDT (p,p'-DDT)		--	--	--	--	--
Aldrin		--	--	--	--	--
alpha-BHC		--	--	--	--	--
beta-BHC		--	--	--	--	--
alpha-Chlordane (cis-Chlordane)		--	--	--	--	--
delta-BHC		--	--	--	--	--
Dieldrin		--	--	--	--	--
Endosulfan-alpha (I)		--	--	--	--	--
Endosulfan-beta (II)		--	--	--	--	--
Endosulfan sulfate		--	--	--	--	--
Endrin		--	--	--	--	--
Endrin aldehyde		--	--	--	--	--
Endrin ketone		--	--	--	--	--
gamma-BHC (Lindane)		--	--	--	--	--
gamma-Chlordane		--	--	--	--	--
Heptachlor		--	--	--	--	--
Heptachlor epoxide		--	--	--	--	--
Methoxychlor		--	--	--	--	--
Toxaphene		--	--	--	--	--
Hexachlorobenzene		--	--	--	--	--
Hexachlorobutadiene		--	--	--	--	--

Notes:

	Detected concentration exceeds Site-specific Preliminary Screening Level (Section 3).
ft	feet
Bold	Detected result
µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
J	Estimated value
U	Compound analyzed, but not detected above detection limit
UJ	Compound analyzed, but not detected above estimated detection limit
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl

Table 11f
Upland Soil Chemical Testing Results - South Property Area

Analyte	Location ID:	DSI-GP-19	DSI-GP-19	DSI-GP-20	DSI-GP-20	DSI-GP-21	DSI-GP-21
	Sample ID:	DSI-GP-19-3-5	DSI-GP-19-5.5-8	DSI-GP-20-3-5	DSI-GP-20-5.5-8	DSI-GP-21-2-4.5	DSI-GP-21-5.5-8
	Sample Date:	07/16/2009	07/16/2009	07/15/2009	07/15/2009	07/16/2009	07/16/2009
	Sample Depth:	3 to 5 ft	5.5 to 8 ft	3 to 5 ft	5.5 to 8 ft	2 to 4.5 ft	5.5 to 8 ft
Conventional Parameters (percent)							
Total organic carbon		--	--	--	--	--	--
Total solids		--	--	--	--	--	--
Metals (mg/kg)							
Antimony		5 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Arsenic		**10**	6 U	**24**	6 U	6 U	6 U
Cadmium		0.2 U	0.2 U	0.2 U	0.2 U	**0.5**	0.2 U
Chromium		**12**	**10.8**	**12.1**	**9.5**	**62.4**	**20.6**
Chromium VI		--	--	--	--	--	--
Copper		**10.3**	**9.2**	**16.5**	**9.4**	**26.4**	**18.5**
Lead		**3**	2 U	**7**	2 U	**39**	**50**
Mercury		0.02 U	0.03 U	**0.02**	0.02 U	**0.08**	0.02 U
Nickel		**8**	**8**	**8**	**6**	**12**	**11**
Selenium		0.5 U	0.6 U	0.5 U	0.6 U	0.6 U	0.5 U
Silver		0.3 U	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U
Zinc		**26 J**	**35 J**	**28**	**20**	**117 J**	**81 J**
Total Petroleum Hydrocarbons (mg/kg)							
Gasoline Range Hydrocarbons		6.5 U	7.2 U	7 U	6.6 U	**6.5**	6.5 U
Diesel Range Hydrocarbons		5.5 U	6.3 U	**15**	5.9 U	**10**	**34**
Motor Oil Range		11 U	13 U	**23**	12 U	**20**	**160**
Semi-Volatile Organic Compounds (µg/kg)							
PAHs							
1-Methylnaphthalene		20 U	20 U	**12 J**	20 U	**40**	**28**
2-Methylnaphthalene		20 U	20 U	**15 J**	20 U	**17 J**	**12 J**
Acenaphthene		20 U	20 U	20 U	20 U	19 U	20 U
Acenaphthylene		20 U	20 U	**120**	20 U	**74**	20 U
Anthracene		20 U	20 U	**55**	20 U	**23**	20 U
Benzo(a)anthracene		20 U	20 U	**250**	20 U	**190**	**15 J**
Benzo(a)pyrene		20 U	20 U	**300**	20 U	**230**	**18 J**
Benzo(b)fluoranthene		20 U	20 U	**170**	20 U	**79**	**14 J**
Benzo(g,h,i)perylene		20 U	20 U	**130**	20 U	**110**	20 U
Benzo(k)fluoranthene		20 U	20 U	**180**	20 U	**79**	**14 J**
Chrysene		20 U	20 U	**360**	20 U	**270**	**36**
Dibenzo(a,h)anthracene		20 U	20 U	**48**	20 U	**23**	20 U
Fluoranthene		20 U	20 U	**400**	20 U	**230**	**25**
Fluorene		20 U	20 U	**19 J**	20 U	**9.8 J**	**10 J**
Indeno(1,2,3-c,d)pyrene		20 U	20 U	**120**	20 U	**95**	20 U
Naphthalene		20 U	20 U	**34**	20 U	**63**	**18 J**
Phenanthrene		20 U	20 U	**100**	20 U	**41**	**46**
Pyrene		20 U	20 U	**410**	20 U	**330**	**37**
Total PAHs							
Total cPAH TEQ (U = 0)		20 U	20 U	**380**	20 U	**279**	**22.7**
Total cPAH TEQ (U = 1/2)		20 U	20 U	**380**	20 U	**279**	**24.7**
Chlorobenzenes							
1,2-Dichlorobenzene		20 U	20 U	20 U	20 U	19 U	20 U
1,4-Dichlorobenzene		20 U	20 U	20 U	20 U	19 U	20 U
1,2,4-Trichlorobenzene		20 U	20 U	20 U	20 U	19 U	20 U
Hexachlorobenzene		20 U	20 U	20 U	20 U	19 U	20 U
Phthalates							
Dimethyl phthalate		20 U	20 U	20 U	20 U	19 U	20 U
Diethyl phthalate		20 U	20 U	20 U	20 U	**19**	20 U
Di-n-butyl phthalate		20 U	20 U	20 U	20 U	19 U	20 U
Butylbenzyl phthalate		20 U	20 U	20 U	20 U	19 U	20 U
Bis(2-ethylhexyl) phthalate		20 U	**14 J**	20 U	**21**	**2,600**	**280**
Di-n-octyl phthalate		20 U	20 U	20 U	20 U	19 U	20 U
Phenols							
2,4-Dimethylphenol		20 U	20 U	20 U	20 U	19 U	20 U
2-Methylphenol (o-Cresol)		20 U	20 U	20 U	20 U	19 U	20 U
4-Methylphenol (p-Cresol)		20 U	20 U	20 U	20 U	19 U	20 U
Pentachlorophenol		98 U	99 U	97 UJ	98 UJ	96 U	98 U
Phenol		20 U	20 U	20 U	20 U	**49**	**17 J**
Miscellaneous Extractables							
Dibenzofuran		20 U	20 U	20 U	20 U	19 U	20 U
Hexachlorobutadiene		20 U	20 U	20 U	20 U	19 U	20 U
N-Nitrosodiphenylamine		20 U	20 U	20 UJ	20 UJ	19 U	**34**
Benzyl alcohol		20 U	20 U	20 U	20 UJ	19 U	20 U
Benzoic acid		200 U	200 U	200 UJ	200 UJ	190 U	200 U
Hexachloroethane		20 U	20 U	20 U	20 UJ	19 U	20 U

Notes:

Bold	Detected result	ft	feet
µg/kg	micrograms per kilogram	PAH	polycyclic aromatic hydrocarbon
mg/kg	milligrams per kilogram	PCB	polychlorinated biphenyl
J	Estimated value	TEQ	toxic equivalency quotient
U	Compound analyzed, but not detected above detection limit		
UJ	Compound analyzed, but not detected above estimated detection limit		

Table 11g
Upland Soil Chemical Testing Results - Parcel D Nearshore Area

Analyte	Location ID:	DSI-12	DSI-12	DSI-GP-17	DSI-GP-17	DSI-MW-10	DSI-MW-10
	Sample ID:	DSI12-SO-A	DSI12-SO-B	DSI-GP-17-1.5-4	DSI-GP-17-5-7.5	DSI-MW-10-0.5-3.5	DSI-MW-10-5-8
	Sample Date:	09/28/2006	09/28/2006	07/13/2009	07/13/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	1.5 to 4 ft	5 to 7.5 ft	0.5 to 3.5 ft	5 to 8 ft
Conventional Parameters (percent)							
Total organic carbon		**1.25**	**1.12**	--	--	--	--
Total solids		**87.7**	**86.7**	--	--	--	--
Metals (mg/kg)							
Antimony				5 UJ	7 UJ	5 UJ	6 UJ
Arsenic		**17.1**	**3.3**	5 U	7 U	**25**	**14**
Cadmium		**0.2**	0.2 U	0.2 U	0.3 U	0.2 U	0.3 U
Chromium		**20.1**	**15.5**	**12.8**	**14.3**	**15 J**	**18.3 J**
Chromium VI		0.125 UJ	0.123 UJ	--	--	--	--
Copper		**34.2**	**18.1**	**15**	**18.2**	**27.2 J**	**28 J**
Lead		**20**	**6**	**3**	**3**	**17 J**	**11 J**
Mercury		**0.08**	0.05 U	0.03 U	0.03 U	**0.07**	**0.04**
Nickel				**8**	**10**	**8 J**	**12 J**
Selenium				0.5 U	0.7 U	0.6 U	0.7 U
Silver		0.3 U	0.3 U	0.3 U	0.4 U	0.3 U	0.4 U
Zinc		**77.4**	**36.8**	**44**	**32**	**88**	**56**
Total Petroleum Hydrocarbons (mg/kg)							
Gasoline Range Hydrocarbons		6.6 U	**27**	5.6 U	9.2 U	**270**	**62**
Diesel Range Hydrocarbons		**88**	**170**	**9.2**	6.8 U	**850**	**300**
Motor Oil Range		**130**	**240**	**22**	14 U	**530**	**210**
Semi-Volatile Organic Compounds (µg/kg)							
PAHs							
1-Methylnaphthalene		--	--	20 U	19 U	**300**	**1,000**
2-Methylnaphthalene		**230**	**300**	20 U	19 U	**290**	**330**
Acenaphthene		37 U	**45**	20 U	19 U	**330**	**2,700**
Acenaphthylene		**880**	**1,700**	**30**	19 U	**3,000**	**2,000**
Anthracene		**290**	**450**	**10 J**	19 U	**2,800**	**3,200**
Benzo(a)anthracene		**1,800**	**3,600**	**78**	19 U	**5,000**	**5,300**
Benzo(a)pyrene		**3000**	**7900**	**94**	19 U	**7600**	**6000**
Benzo(b)fluoranthene		**1,700**	**3,400**	**76**	19 U	**4,100**	**3,200**
Benzo(g,h,i)perylene		**1,300**	**2,900**	**38 J**	19 U	**1,900**	**1,200**
Benzo(k)fluoranthene		**2,100**	**5,600**	**83**	19 U	**4,100**	**3,200**
Chrysene		**3,000**	**7,500**	**120**	19 U	**7,300**	**7,200**
Dibenzo(a,h)anthracene		**390**	**900**	**13 J**	19 U	**740**	**490**
Fluoranthene		**2,500**	**6,000**	**120**	19 U	**9,500**	**14,000**
Fluorene		**67**	**53**	20 U	19 U	**1,800**	**3,100**
Indeno(1,2,3-c,d)pyrene		**1,200**	**2,700**	**36 J**	19 U	**1,800**	**1,200**
Naphthalene		**340**	**470**	20 U	19 U	**380**	**510**
Phenanthrene		**510**	**640**	**27**	19 U	**6,800**	**6,300**
Pyrene		**4,000**	**10,000**	**170**	19 U	**9,200**	**11,000**

Table 11g
Upland Soil Chemical Testing Results - Parcel D Nearshore Area

Analyte	Location ID:	DSI-12	DSI-12	DSI-GP-17	DSI-GP-17	DSI-MW-10	DSI-MW-10
	Sample ID:	DSI12-SO-A	DSI12-SO-B	DSI-GP-17-1.5-4	DSI-GP-17-5-7.5	DSI-MW-10-0.5-3.5	DSI-MW-10-5-8
	Sample Date:	09/28/2006	09/28/2006	07/13/2009	07/13/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	1.5 to 4 ft	5 to 7.5 ft	0.5 to 3.5 ft	5 to 8 ft
Total PAHs							
Total cPAH TEQ (U = 0)		**3749**	**9595**	**124**	19 U	**9247**	**7411**
Total cPAH TEQ (U = 1/2)		**3749**	**9595**	**124**	19 U	**9247**	**7411**
Chlorobenzenes							
1,2-Dichlorobenzene		--	--	20 U	19 U	81 U	59 U
1,4-Dichlorobenzene		--	--	20 U	19 U	81 U	59 U
1,2,4-Trichlorobenzene		--	--	20 U	19 U	81 U	59 U
Hexachlorobenzene		--	--	20 U	19 U	81 U	59 U
Phthalates							
Dimethyl phthalate		--	--	20 U	19 U	81 U	59 U
Diethyl phthalate		--	--	**27**	19 U	81 U	59 U
Di-n-butyl phthalate		--	--	20 U	19 U	81 U	59 U
Butylbenzyl phthalate		--	--	20 U	19 U	81 U	59 U
Bis(2-ethylhexyl) phthalate		--	--	20 U	19 U	81 U	59 U
Di-n-octyl phthalate		--	--	20 U	19 U	81 U	59 U
Phenols							
2,4-Dimethylphenol		--	--	20 U	19 U	81 UJ	59 UJ
2-Methylphenol (o-Cresol)		--	--	20 U	19 U	81 U	59 U
4-Methylphenol (p-Cresol)		--	--	**16 J**	19 U	81 U	59 U
Pentachlorophenol		--	--	99 U	97 U	400 UJ	290 UJ
Phenol		--	--	20 U	19 U	81 U	59 U
Miscellaneous Extractables							
Dibenzofuran		37 U	38 U	20 U	19 U	**230**	**360**
Hexachlorobutadiene		--	--	20 U	19 U	81 U	59 U
N-Nitrosodiphenylamine		--	--	20 UJ	19 UJ	81 UJ	59 UJ
Benzyl alcohol		--	--	20 U	19 U	81 U	59 U
Benzoic acid		--	--	200 U	190 U	810 U	590 U
Hexachloroethane		--	--	20 UJ	19 U	81 U	59 U

Table 11g

Upland Soil Chemical Testing Results - Parcel D Nearshore Area

Analyte	Location ID:	DSI-12	DSI-12	DSI-GP-17	DSI-GP-17	DSI-MW-10	DSI-MW-10
	Sample ID:	DSI12-SO-A	DSI12-SO-B	DSI-GP-17-1.5-4	DSI-GP-17-5-7.5	DSI-MW-10-0.5-3.5	DSI-MW-10-5-8
	Sample Date:	09/28/2006	09/28/2006	07/13/2009	07/13/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	1.5 to 4 ft	5 to 7.5 ft	0.5 to 3.5 ft	5 to 8 ft
Volatile Organics (µg/kg)							
1,1,1,2-Tetrachloroethane		1 U	1.1 U	--	--	--	--
1,2,4-Trichlorobenzene		4.9 U	5.4 U	--	--	--	--
1,1,1-Trichloroethane		1 U	1.1 U	--	--	--	--
1,1,2,2-Tetrachloroethane		1 U	1.1 U	--	--	--	--
1,2-Dichlorobenzene		1 U	1.1 U	--	--	--	--
1,1,2-Trichloroethane		1 U	1.1 U	--	--	--	--
1,3-Dichlorobenzene		1 U	1.1 U	--	--	--	--
1,1'-Dichloroethane		1 U	1.1 U	--	--	--	--
1,4-Dichlorobenzene		1 U	1.1 U	--	--	--	--
1,1'-Dichloroethene		1 U	1.1 U	--	--	--	--
1,1-Dichloropropene		1 U	1.1 U	--	--	--	--
1,2,3-Trichlorobenzene		4.9 U	5.4 U	--	--	--	--
1,2,3-Trichloropropane		2 U	2.2 U	--	--	--	--
1,2,4-Trimethylbenzene		1 U	1.1 U	--	--	--	--
1,2-Dibromo-3-chloropropane		4.9 U	5.4 U	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)		1 U	1.1 U	--	--	--	--
1,2-Dichloroethane		1 U	1.1 U	--	--	--	--
1,2-Dichloroethene, cis-		1 U	1.1 U	--	--	--	--
1,2-Dichloroethene, trans-		1 U	1.1 U	--	--	--	--
1,2-Dichloropropane		1 U	1.1 U	--	--	--	--
1,3,5-Trimethylbenzene (Mesitylene)		1 U	1.1 U	--	--	--	--
1,3-Dichloropropane		1 U	1.1 U	--	--	--	--
1,3-Dichloropropene, cis-		1 U	1.1 U	--	--	--	--
1,3-Dichloropropene, trans-		1 U	1.1 U	--	--	--	--
2,2-Dichloropropane		1 U	1.1 U	--	--	--	--
2-Butanone (MEK)		**5.6**	5.4 U	--	--	--	--
2-Chlorotoluene		1 U	1.1 U	--	--	--	--
2-Hexanone (Methyl butyl ketone)		4.9 U	5.4 U	--	--	--	--
4-Chlorotoluene		1 U	1.1 U	--	--	--	--
4-Isopropyltoluene (4-Cymene)		1 U	1.1 U	--	--	--	--
Acetone		**57**	**45**	--	--	--	--
Benzene		**1.4**	**3**	--	--	--	--
Bromobenzene		1 U	1.1 U	--	--	--	--
Bromochloromethane		1 U	1.1 U	--	--	--	--
Bromodichloromethane		1 U	1.1 U	--	--	--	--
Bromoform		1 U	1.1 U	--	--	--	--
Bromomethane		1 U	1.1 U	--	--	--	--
Carbon disulfide		1 U	1.1 U	--	--	--	--
Carbon tetrachloride (Tetrachloromethane)		1 U	1.1 U	--	--	--	--

Table 11g

Upland Soil Chemical Testing Results - Parcel D Nearshore Area

Analyte	Location ID:	DSI-12	DSI-12	DSI-GP-17	DSI-GP-17	DSI-MW-10	DSI-MW-10
	Sample ID:	DSI12-SO-A	DSI12-SO-B	DSI-GP-17-1.5-4	DSI-GP-17-5-7.5	DSI-MW-10-0.5-3.5	DSI-MW-10-5-8
	Sample Date:	09/28/2006	09/28/2006	07/13/2009	07/13/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	1.5 to 4 ft	5 to 7.5 ft	0.5 to 3.5 ft	5 to 8 ft
Volatile Organics (µg/kg) (cont.)							
Chloroethane		1 U	1.1 U	--	--	--	--
Chloroform		1 U	1.1 U	--	--	--	--
Chloromethane		1 U	1.1 U	--	--	--	--
Dibromochloromethane		1 U	1.1 U	--	--	--	--
Dibromomethane		1 U	1.1 U	--	--	--	--
Dichlorodifluoromethane		1 U	1.1 U	--	--	--	--
Dichloromethane (Methylene chloride)		2 U	2.2 U	--	--	--	--
Ethylbenzene		1 U	1.1 U	--	--	--	--
Isopropylbenzene (Cumene)		1 U	1.1 U	--	--	--	--
Methyl isobutyl ketone (4-Methyl-2-pentanone or (MIBK))		4.9 U	5.4 U	--	--	--	--
Methyl tert-butyl ether (MTBE)		1 U	1.1 U	--	--	--	--
n-Butylbenzene		1 U	1.1 U	--	--	--	--
n-Propylbenzene		1 U	1.1 U	--	--	--	--
sec-Butylbenzene		1 U	1.1 U	--	--	--	--
Styrene		1 U	1.1 U	--	--	--	--
tert-Butylbenzene		1 U	1.1 U	--	--	--	--
Tetrachloroethene (PCE)		1 U	1.1 U	--	--	--	--
Toluene		1 U	**3.4**	--	--	--	--
Trichloroethene (TCE)		1 U	1.1 U	--	--	--	--
Trichlorofluoromethane (Fluorotrichloromethane)		1 U	1.1 U	--	--	--	--
Vinyl chloride		1 U	1.1 U	--	--	--	--
m,p-Xylene		1 U	1.1 U	--	--	--	--
o-Xylene		1 U	1.1 U	--	--	--	--
Total Xylene (U = 0)		1 U	1.1 U	--	--	--	--
Total Xylene (U = 1/2)		1 U	1.1 U	--	--	--	--
BTEX (U = 0)		**1.4**	**6.4**	--	--	--	--
PCB Aroclors (µg/kg)							
Aroclor 1016		29 U	29 U	--	--	--	--
Aroclor 1221		29 U	29 U	--	--	--	--
Aroclor 1232		29 U	29 U	--	--	--	--
Aroclor 1242		29 U	29 U	--	--	--	--
Aroclor 1248		29 U	29 U	--	--	--	--
Aroclor 1254		29 U	29 U	--	--	--	--
Aroclor 1260		29 U	29 U	--	--	--	--
Total PCB Aroclors (U = 0)		29 U	29 U	--	--	--	--
Total PCB Aroclors (U = 1/2)		29 U	29 U	--	--	--	--

Table 11g
Upland Soil Chemical Testing Results - Parcel D Nearshore Area

Analyte	Location ID:	DSI-12	DSI-12	DSI-GP-17	DSI-GP-17	DSI-MW-10	DSI-MW-10
	Sample ID:	DSI12-SO-A	DSI12-SO-B	DSI-GP-17-1.5-4	DSI-GP-17-5-7.5	DSI-MW-10-0.5-3.5	DSI-MW-10-5-8
	Sample Date:	09/28/2006	09/28/2006	07/13/2009	07/13/2009	07/14/2009	07/14/2009
	Sample Depth:	0 to 3 ft	3 to 5 ft	1.5 to 4 ft	5 to 7.5 ft	0.5 to 3.5 ft	5 to 8 ft
Pesticides (µg/kg)							
4,4'-DDD (p,p'-DDD)		3.3 U	3.3 U	--	--	--	--
4,4'-DDE (p,p'-DDE)		3.3 U	3.3 U	--	--	--	--
4,4'-DDT (p,p'-DDT)		3.3 U	12 U	--	--	--	--
Aldrin		1.6 U	1.6 U	--	--	--	--
alpha-BHC		1.6 U	1.6 U	--	--	--	--
beta-BHC		4 U	3.1 U	--	--	--	--
alpha-Chlordane (cis-Chlordane)		1.6 U	1.6 U	--	--	--	--
delta-BHC		1.6 U	1.6 U	--	--	--	--
Dieldrin		3.3 U	3.3 U	--	--	--	--
Endosulfan-alpha (I)		1.6 U	1.6 U	--	--	--	--
Endosulfan-beta (II)		3.3 U	3.3 U	--	--	--	--
Endosulfan sulfate		19 U	21 U	--	--	--	--
Endrin		14 U	17 U	--	--	--	--
Endrin aldehyde		3.3 U	3.3 U	--	--	--	--
Endrin ketone		15 U	16 U	--	--	--	--
gamma-BHC (Lindane)		1.6 U	1.6 U	--	--	--	--
gamma-Chlordane		1.6 U	1.6 U	--	--	--	--
Heptachlor		1.6 U	1.6 U	--	--	--	--
Heptachlor epoxide		1.6 U	3.8 U	--	--	--	--
Methoxychlor		16 U	16 U	--	--	--	--
Toxaphene		160 U	160 U	--	--	--	--
Hexachlorobenzene		1.6 U	1.6 U	--	--	--	--
Hexachlorobutadiene		1.6 U	1.6 U	--	--	--	--

Notes:

ft	feet
Bold	Detected result
µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
J	Estimated value
U	Compound analyzed, but not detected above detection limit
UJ	Compound analyzed, but not detected above estimated detection limit
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl

Table 12
Upland Soil Physical Testing Results

	Project Area:	Rail Spur Area		Northwestern Area		Central Area		
	Location ID:	DSI-MW-01	DSI-MW-01	DSI-MW-02	DSI-MW-02	DSI-GP-06	DSI-GP-06	DSI-MW-03
	Sample ID:	DSI-MW-01-0.5-2.0	DSI-MW-01-5-6.5	DSI-MW-02-0-3	DSI-MW-02-5.5-7	DSI-GP-06-3-5	DSI-GP-06-5.5-8	DSI-MW-03-0-3
	Sample Date:	7/13/2009	7/13/2009	7/14/2009	7/14/2009	7/14/2009	7/14/2009	7/13/2009
	Depth:	0.5 to 2 ft	5 to 6.5 ft	0 to 3 ft	5.5 to 7 ft	3 to 5 ft	5.5 to 8 ft	0 to 3 ft
Conventional Parameters (percent)								
Moisture (water) content		**15.8**	**27.0**	**5.2**	**18.9**	**18.7**	**22.7**	**16.3**
Grain Size (percent)								
Fines (silt + clay)		--	**9.2**	**11.9**	**10.1**	--	**11.9**	--
Percent passing < 1.3 micron sieve		**4.2**	--	--	--	**3.5**	--	**5.9**
Percent retained 1.3 micron sieve		**0.8**	--	--	--	**0.7**	--	**1.7**
Percent retained 3.2 micron sieve		**3.4**	--	--	--	**2.1**	--	**3.8**
Percent retained 7 micron sieve		**1.3**	--	--	--	**2.1**	--	**2.5**
Percent retained 9 micron sieve		**1.7**	--	--	--	0.1 U	--	**3.8**
Percent retained 13 micron sieve		**3.8**	--	--	--	**1.4**	--	**2.5**
Percent retained 22 micron sieve		**5.9**	--	--	--	**1.4**	--	**4.2**
Percent retained 32 micron sieve		**20.3**	--	--	--	**3.7**	--	**7.3**
Percent retained 75 micron sieve (#200)		**11.8**	**16.3**	**2.6**	**13.2**	**7.9**	**19.5**	**7.7**
Percent retained 150 micron sieve (#100)		**4.8**	**22.2**	**3.7**	**23.4**	**17.3**	**16.9**	**9.5**
Percent retained 250 micron sieve (#60)		**7.0**	**29.7**	**6.6**	**33.7**	**33.6**	**17.1**	**15.0**
Percent retained 425 micron sieve (#40)		**7.5**	**18.8**	**7.4**	**15.8**	**19.9**	**10.3**	**11.5**
Percent retained 850 micron sieve (#20)		**6.2**	**3.0**	**7.5**	**2.2**	**4.0**	**2.4**	**6.2**
Percent retained 2000 micron sieve (#10)		**9.1**	**0.4**	**10.8**	**0.6**	**1.2**	**0.5**	**8.4**
Percent retained 4750 micron sieve (#4)		**6.5**	**0.4**	**12.6**	**1.0**	**1.3**	**0.3**	**7.5**
Percent retained 9500 micron sieve		**2.6**	0.1 U	**6.8**	0.1 U	0.1 U	0.1 U	**2.3**
Percent retained 12500 micron sieve		**3.1**	0.1 U	**14.1**	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 19000 micron sieve		0.1 U	0.1 U	**9.9**	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 25K micron sieve		0.1 U	0.1 U	**6.1**	0.1 U	0.1 U	**21.2**	0.1 U
Percent retained 37.5K micron sieve		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 50K micron sieve		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 75K micron sieve		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total Gravel		**21.3**	**0.8**	**60.3**	**1.6**	**2.5**	**22.0**	**18.2**
Total Sand		**37.3**	**90.0**	**27.8**	**88.3**	**82.7**	**66.2**	**49.9**
Total Silt		**36.4**	--	--	--	**10.7**	--	**24.1**
Total Clay		**5.0**	--	--	--	**4.2**	--	**7.6**
Total Fines (silt + clay)		**41.4**	--	--	--	**14.9**	--	**31.7**

Table 12
Upland Soil Physical Testing Results

	Project Area:	UST Removal Area		Former Shipyard Nearshore Area			Parcel D Nearshore Area	
	Location ID:	DSI-MW-04	DSI-MW-04	DSI-GP-13	DSI-MW-06	DSI-MW-06	DSI-GP-17	DSI-GP-17
	Sample ID:	DSI-MW-04-0.5-2.5	DSI-MW-04-5-6.5	DSI-GP-13-1-3.5	DSI-MW-06-0.5-3.5	DSI-MW-06-5-8	DSI-GP-17-1.5-4	DSI-GP-17-5-7.5
	Sample Date:	7/14/2009	7/14/2009	7/13/2009	7/15/2009	7/15/2009	7/13/2009	7/13/2009
	Depth:	0.5 to 2.5 ft	5 to 6.5 ft	1 to 3.5 ft	0.5 to 3.5 ft	5 to 8 ft	1.5 to 4 ft	5 to 7.5 ft
Conventional Parameters (percent)								
Moisture (water) content		**19.3**	**26.9**	**11.6**	**15.5**	**31.5**	**8.8**	**39.5**
Grain Size (percent)								
Fines (silt + clay)		--	**5.4**	**3.2**	**3.9**	**2.4**	**16.8**	--
Percent passing < 1.3 micron sieve		**7.7**	--	**1.4**	**2.0**	**2.4**	--	**7.8**
Percent retained 1.3 micron sieve		**6.4**	--	**2.3**	**4.9**	**2.9**	--	**6.2**
Percent retained 3.2 micron sieve		**7.7**	--	**2.8**	**2.9**	**4.8**	--	**10.9**
Percent retained 7 micron sieve		**8.4**	--	**1.8**	**2.4**	**1.9**	--	**8.5**
Percent retained 9 micron sieve		**1.9**	--	**2.8**	**4.9**	**1.4**	--	**5.4**
Percent retained 13 micron sieve		**10.3**	--	**4.1**	**5.4**	**2.9**	--	**7.8**
Percent retained 22 micron sieve		**5.1**	--	**10.5**	**16.8**	**4.8**	--	**9.3**
Percent retained 32 micron sieve		**6.8**	--	**10.5**	**7.9**	**18.7**	--	**5.4**
Percent retained 75 micron sieve (#200)		**6.9**	**12.6**	**11.8**	**10.0**	**23.6**	**4.5**	**13.8**
Percent retained 150 micron sieve (#100)		**7.7**	**28.6**	**22.8**	**18.6**	**22.4**	**15.6**	**13.2**
Percent retained 250 micron sieve (#60)		**10.4**	**39.2**	**22.2**	**14.5**	**5.7**	**34.9**	**8.1**
Percent retained 425 micron sieve (#40)		**7.6**	**13.0**	**3.4**	**2.4**	**1.0**	**21.1**	**3.0**
Percent retained 850 micron sieve (#20)		**2.3**	**0.8**	**0.5**	**0.9**	**0.7**	**3.8**	**0.6**
Percent retained 2000 micron sieve (#10)		**3.1**	**0.2**	0.1 U	**1.3**	**0.2**	**0.6**	**0.1**
Percent retained 4750 micron sieve (#4)		**5.0**	**0.3**	0.1 U	**1.2**	**1.3**	**0.7**	0.1 U
Percent retained 9500 micron sieve		**2.5**	0.1 U	0.1 U	0.1 U	**2.9**	**1.9**	0.1 U
Percent retained 12500 micron sieve		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 19000 micron sieve		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 25K micron sieve		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 37.5K micron sieve		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 50K micron sieve		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 75K micron sieve		0.1 U	0.1 U	**0.5**	**3.4**	**5.1**	0.1 U	0.1 U
Total Gravel		**10.6**	**0.5**	**70.7**	**53.4**	**71.4**	**3.2**	**0.1**
Total Sand		**34.9**	**94.2**	**24.3**	**37.3**	**18.7**	**79.9**	**38.7**
Total Silt		**40.2**	--	**4.6**	**5.9**	**4.8**	--	**47.3**
Total Clay		**14.1**	--	**28.9**	**43.2**	**23.5**	--	**14.0**
Total Fines (silt + clay)		**54.3**	--	--	--	--	--	**61.3**

Notes:

ft	feet	U	Compound analyzed, but not detected above detection limit
Bold	Detected result	UJ	Compound analyzed, but not detected above estimated
J	Estimated value		

Table 13
Upland Soil Geotechnical Testing Results

	Location ID:	DSI-GT-01	DSI-GT-01	DSI-GT-01	DSI-GT-01	DSI-GT-01	DSI-GT-01	DSI-GT-01	DSI-GT-01	DSI-GT-01	DSI-GT-01	DSI-GT-01	DSI-GT-01	DSI-GT-01	DSI-GT-01	DSI-GT-02
	Sample ID:	DSI-GT1-S2	DSI-GT1-S3	DSI-GT1-S4	DSI-GT1-S5	DSI-GT1-S6	DSI-GT1-S7	DSI-GT1-S8	DSI-GT1-S9	DSI-GT1-S10	DSI-GT1-S11	DSI-GT1-S12	DSI-GT1-S14	DSI-GT1-S15	DSI-GT2-S1
	Sample Date:	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009
	Depth:	2.5-4 ft	5-6.5 ft	10-12 ft	12-13.5 ft	15-16.5 ft	20-21.5 ft	25-26.5 ft	30-31.5 ft	35-36.5 ft	40-41.5 ft	45-46.5 ft	55-56.5 ft	60-61.5 ft	2.5-4 ft
Conventional Parameters															
Atterberg Classification		--	--	-- CL-ML	--	--	--	-- Non-Plastic	--	-- CL-ML	--	--	--	--	--
Conventional Parameters (percent)															
Liquid limit		--	--	26.6	--	--	--	--	--	26.6	--	--	--	--	--
Moisture (water) content		22.2	28.6	42.2	45.1	29.7	25.8	34.0	40.3	38.6	39.5	38.8	38.6	33.8	13.6
Plastic limit		--	--	21.0	--	--	--	--	--	21.0	--	--	--	--	--
Plasticity index		--	--	5.6	--	--	--	--	--	5.6	--	--	--	--	--
Specific gravity		--	--	--	2.7	--	--	--	--	2.7	--	--	--	--	--
Grain Size (percent)															
Fines (silt + clay)		--	9.0	--	--	8.9	--	--	--	--	--	--	--	--	--
Percent passing < 1.3 micron sieve		--	--	--	--	--	--	--	4.0	--	--	4.0	5.3	--	--
Percent retained 1.3 micron sieve		--	--	--	--	--	--	--	2.0	--	--	1.0	2.6	--	--
Percent retained 3.2 micron sieve		--	--	--	--	--	--	--	2.0	--	--	1.0	3.3	--	--
Percent retained 7 micron sieve		--	--	--	--	--	--	--	1.0	--	--	1.0	2.0	--	--
Percent retained 9 micron sieve		--	--	--	--	--	--	--	3.5	--	--	2.0	3.3	--	--
Percent retained 13 micron sieve		--	--	--	--	--	--	--	3.5	--	--	3.0	5.9	--	--
Percent retained 22 micron sieve		--	--	--	--	--	--	--	5.5	--	--	3.0	9.2	--	--
Percent retained 32 micron sieve		--	--	--	--	--	--	--	15.4	--	--	12.8	33.6	--	--
Percent retained 75 micron sieve (#200)		--	21.7	--	--	14.5	--	--	29.4	--	--	22.4	26.4	--	--
Percent retained 150 micron sieve (#100)		--	28.0	--	--	26.8	--	--	23.4	--	--	34.7	7.1	--	--
Percent retained 250 micron sieve (#60)		--	28.0	--	--	33.2	--	--	7.9	--	--	13.4	1.2	--	--
Percent retained 425 micron sieve (#40)		--	10.3	--	--	15.9	--	--	0.9	--	--	1.0	0.1	--	--
Percent retained 850 micron sieve (#20)		--	1.4	--	--	0.6	--	--	0.6	--	--	0.2	0.1 U	--	--
Percent retained 2000 micron sieve (#10)		--	1.1	--	--	0.1	--	--	0.7	--	--	0.4	0.1 U	--	--
Percent retained 4750 micron sieve (#4)		--	0.5	--	--	0.1 U	--	--	0.1	--	--	0.2	0.1 U	--	--
Percent retained 9500 micron sieve		--	0.1 U	--	--	0.1 U	--	--	0.1 U	--	--	0.1 U	0.1 U	--	--
Percent retained 12500 micron sieve		--	0.1 U	--	--	0.1 U	--	--	0.1 U	--	--	0.1 U	0.1 U	--	--
Percent retained 19000 micron sieve		--	0.1 U	--	--	0.1 U	--	--	0.1 U	--	--	0.1 U	0.1 U	--	--
Percent retained 25K micron sieve		--	0.1 U	--	--	0.1 U	--	--	0.1 U	--	--	0.1 U	0.1 U	--	--
Percent retained 37.5K micron sieve		--	0.1 U	--	--	0.1 U	--	--	0.1 U	--	--	0.1 U	0.1 U	--	--
Percent retained 50K micron sieve		--	0.1 U	--	--	0.1 U	--	--	0.1 U	--	--	0.1 U	0.1 U	--	--
Percent retained 75K micron sieve		--	0.1 U	--	--	0.1 U	--	--	0.1 U	--	--	0.1 U	0.1 U	--	--
Total Gravel		--	1.6	--	--	0.1	--	--	0.8	--	--	0.6	0.1 U	--	--
Total Sand		--	89.4	--	--	91.0	--	--	62.2	--	--	71.7	34.8	--	--
Total Silt		--	--	--	--	--	--	--	30.9	--	--	22.8	57.3	--	--
Total Clay		--	--	--	--	--	--	--	6.0	--	--	5.0	7.9	--	--
Total Fines (silt + clay)		--	--	--	--	--	--	--	36.9	--	--	27.8	65.2	--	--

Table 13
Upland Soil Geotechnical Testing Results

	Location ID:	DSI-GT-02	DSI-GT-02	DSI-GT-02	DSI-GT-02	DSI-GT-02	DSI-GT-02	DSI-GT-02	DSI-GT-02	DSI-GT-02	DSI-GT-02	DSI-GT-02	DSI-GT-02	DSI-GT-02	DSI-GT-02
	Sample ID:	DSI-GT2-S2	DSI-GT2-S3	DSI-GT2-S4	DSI-GT2-S5	DSI-GT2-S6	DSI-GT2-S7	DSI-GT2-S8	DSI-GT2-S9	DSI-GT2-S10	DSI-GT2-S11	DSI-GT2-S12	DSI-GT2-S13	DSI-GT2-S14	DSI-GT2-S15
	Sample Date:	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009	7/16/2009
	Depth:	5-6.5 ft	7.5-9 ft	10-11.5 ft	15-16.5 ft	20-21.5 ft	25-26.5 ft	30-31.5 ft	35-36.5 ft	40-41.5 ft	45-46.5 ft	50-51.5 ft	55-56.5 ft	60-61.5 ft	65-66.5 ft
Conventional Parameters															
Atterberg Classification		--	-- ML	--	--	--	--	--	--	--	--	--	--	--	--
Conventional Parameters (percent)															
Liquid limit		--	**49.6**	--	--	--	--	--	--	--	--	--	--	--	--
Moisture (water) content		**34.6**	**67.7**	**46.2**	**30.1**	**26.2**	**39.0**	**38.6**	**29.3**	**29.3**	**34.1**	**36.0**	**27.7**	**36.4**	**36.1**
Plastic limit		--	**32.1**	--	--	--	--	--	--	--	--	--	--	--	--
Plasticity index		--	**17.5**	--	--	--	--	--	--	--	--	--	--	--	--
Specific gravity		--	**2.6**	--	--	--	--	--	--	--	--	--	**2.7**	--	--
Grain Size (percent)															
Fines (silt + clay)		--	--	--	--	**8.1**	--	--	--	--	--	--	--	--	**17.4**
Percent passing < 1.3 micron sieve		**3.2**	--	--	--	--	--	--	**2.0**	**3.1**	--	--	--	--	--
Percent retained 1.3 micron sieve		**0.6**	--	--	--	--	--	--	**0.7**	**0.6**	--	--	--	--	--
Percent retained 3.2 micron sieve		0.1 U	--	--	--	--	--	--	**1.3**	**1.8**	--	--	--	--	--
Percent retained 7 micron sieve		**1.3**	--	--	--	--	--	--	0.1 U	**0.6**	--	--	--	--	--
Percent retained 9 micron sieve		**1.3**	--	--	--	--	--	--	0.1 U	**2.5**	--	--	--	--	--
Percent retained 13 micron sieve		**0.6**	--	--	--	--	--	--	**1.3**	0.1 U	--	--	--	--	--
Percent retained 22 micron sieve		**2.6**	--	--	--	--	--	--	**1.3**	**2.5**	--	--	--	--	--
Percent retained 32 micron sieve		**11.9**	--	--	--	--	--	--	**9.6**	**13.1**	--	--	--	--	--
Percent retained 75 micron sieve (#200)		**40.0**	--	--	--	**4.3**	--	--	**32.6**	**27.6**	--	--	--	--	**35.1**
Percent retained 150 micron sieve (#100)		**27.2**	--	--	--	**7.7**	--	--	**36.1**	**31.8**	--	--	--	--	**34.2**
Percent retained 250 micron sieve (#60)		**7.5**	--	--	--	**27.5**	--	--	**13.8**	**12.8**	--	--	--	--	**10.1**
Percent retained 425 micron sieve (#40)		**1.6**	--	--	--	**33.4**	--	--	**1.2**	**2.0**	--	--	--	--	**1.7**
Percent retained 850 micron sieve (#20)		**0.6**	--	--	--	**12.0**	--	--	**0.1**	**0.3**	--	--	--	--	**0.9**
Percent retained 2000 micron sieve (#10)		**0.5**	--	--	--	**3.8**	--	--	0.1 U	**0.6**	--	--	--	--	**0.6**
Percent retained 4750 micron sieve (#4)		**1.1**	--	--	--	**2.0**	--	--	0.1 U	**0.8**	--	--	--	--	0.1 U
Percent retained 9500 micron sieve		0.1 U	--	--	--	**1.2**	--	--	0.1 U	0.1 U	--	--	--	--	0.1 U
Percent retained 12500 micron sieve		0.1 U	--	--	--	0.1 U	--	--	0.1 U	0.1 U	--	--	--	--	0.1 U
Percent retained 19000 micron sieve		0.1 U	--	--	--	0.1 U	--	--	0.1 U	0.1 U	--	--	--	--	0.1 U
Percent retained 25K micron sieve		0.1 U	--	--	--	0.1 U	--	--	0.1 U	0.1 U	--	--	--	--	0.1 U
Percent retained 37.5K micron sieve		0.1 U	--	--	--	0.1 U	--	--	0.1 U	0.1 U	--	--	--	--	0.1 U
Percent retained 50K micron sieve		0.1 U	--	--	--	0.1 U	--	--	0.1 U	0.1 U	--	--	--	--	0.1 U
Percent retained 75K micron sieve		0.1 U	--	--	--	0.1 U	--	--	0.1 U	0.1 U	--	--	--	--	0.1 U
Total Gravel		**1.6**	--	--	--	**7.0**	--	--	0.1 U	**1.4**	--	--	--	--	**0.6**
Total Sand		**76.9**	--	--	--	**84.9**	--	--	**83.8**	**74.5**	--	--	--	--	**82.0**
Total Silt		**17.7**	--	--	--	--	--	--	**13.5**	**20.5**	--	--	--	--	--
Total Clay		**3.8**	--	--	--	--	--	--	**2.7**	**3.7**	--	--	--	--	--
Total Fines (silt + clay)		**21.5**	--	--	--	--	--	--	**16.2**	**24.2**	--	--	--	--	--

Notes:

ft	feet	U	Compound analyzed, but not detected above detection limit
Bold	Detected result	UJ	Compound analyzed, but not detected above estimated detection limit
J	Estimated value		

Table 14
Summary of Soil Data

Analyte	Data Summary				
	Detected	Non-detect Minimum Value	Non-detect Maximum Value	Detected Minimum Value	Detected Maximum Value
General Chemistry					
Total organic carbon	24 of 24	--	--	0.084	2.35
Total solids	24 of 24	--	--	69.7	96.1
Metals (mg/kg)					
Antimony	0 of 27	5.0	20	--	--
Arsenic	41 of 59	5.0	20	0.7	48.1
Cadmium	17 of 51	0.2	2.0	0.2	8.5
Chromium	51 of 51	--	--	5.0	62.4
Chromium VI	1 of 23	0.11	0.16	2.1	2.1
Copper	51 of 51	--	--	8.0	3,310
Lead	42 of 51	2.0	20	3.0	4,940
Mercury	28 of 51	0.02	0.05	0.02	1.63
Nickel	27 of 27	--	--	6.0	28
Selenium	0 of 27	0.5	0.7	--	--
Silver	1 of 51	0.3	3.0	1.2	1.2
Zinc	51 of 51	--	--	20	5,840
Total Petroleum Hydrocarbons (mg/kg)					
Gasoline Range Hydrocarbons	36 of 74	4.1	12	4.0	1,200
Diesel Range Hydrocarbons	51 of 72	5.2	8.1	7.2	12,000
Motor Oil Range	49 of 72	10	1100	14	1,200
PAHs (µg/kg)					
1-Methylnaphthalene	12 of 27	12	56	12	5,600
2-Methylnaphthalene	28 of 51	4.7	56	4.7	5,900
Acenaphthene	17 of 51	4.7	56	5.6	2,700
Acenaphthylene	16 of 51	4.7	160	5.4	3,000
Anthracene	29 of 51	4.7	30	5.1	3,200
Benzo(a)anthracene	34 of 51	4.7	160	6.4	5,300
Benzo(a)pyrene	36 of 51	4.7	160	5.7	7,900
Benzo(b)fluoranthene	34 of 51	4.7	160	5.9	4,100
Benzo(k)fluoranthene	33 of 51	4.7	160	9.4	5,600
Benzo(g,h,i)perylene	28 of 51	4.7	160	5.2	2,900
Chrysene	38 of 51	4.7	20	6.9	7,500
Dibenzo(a,h)anthracene	15 of 51	4.7	160	8.4	900
Fluoranthene	38 of 51	4.7	160	11	14,000
Fluorene	25 of 51	4.7	56	5.1	3,100
Indeno(1,2,3-c,d)pyrene	26 of 51	4.7	160	5.4	2,700
Naphthalene	26 of 51	4.7	270	5.0	510
Phenanthrene	37 of 51	4.7	20	7.6	6,800
Pyrene	39 of 51	4.7	20	10	11,000
Total cPAH TEF (7 minimum) (U = 0)	38 of 51	4.7	20	7.949	9,595
Total cPAH TEF (7 minimum) (U = 1/2)	38 of 51	4.7	20	0.41	9,595
Chlorobenzenes (µg/kg)					
1,2-Dichlorobenzene	0 of 51	0.9	160	--	--
1,4-Dichlorobenzene	0 of 51	0.9	160	--	--
1,2,4-Trichlorobenzene	0 of 51	4.6	470	--	--
Hexachlorobenzene	1 of 51	1.6	160	300	300
Phthalates (µg/kg)					
Dimethyl phthalate	0 of 27	12	160	--	--
Diethyl phthalate	3 of 27	12	160	19	27
Di-n-butyl phthalate	1 of 27	19	160	15	15
Butylbenzyl phthalate	0 of 27	12	160	--	--
Bis(2-ethylhexyl) phthalate	10 of 27	19	160	14	2600
Di-n-octyl phthalate	0 of 27	12	160	--	--
Phenols (µg/kg)					
2,4-Dimethylphenol	0 of 27	12	160	--	--
2-Methylphenol (o-Cresol)	0 of 27	12	160	--	--
4-Methylphenol (p-Cresol)	1 of 27	12	160	16	16
Pentachlorophenol	0 of 27	62	810	--	--
Phenol	2 of 27	12	160	17	49
Miscellaneous Extractables (µg/kg)					
Dibenzofuran	17 of 51	4.7	80	5.4	420
Hexachlorobutadiene	0 of 51	1.6	160	--	--
N-Nitrosodiphenylamine	0 of 27	12	1800	--	--
Benzyl alcohol	0 of 27	12	160	--	--
Benzoic acid	0 of 27	120	1600	--	--
Hexachloroethane	0 of 27	12	160	--	--

Table 14
Summary of Soil Data

Analyte	Data Summary				
	Detected	Non-detect Minimum Value	Non-detect Maximum Value	Detected Minimum Value	Detected Maximum Value
Volatile Organic Compounds (µg/kg)					
1,1,1,2-Tetrachloroethane	0 of 24	0.9	93	--	--
1,2,4-Trichlorobenzene	0 of 51	4.6	470	--	--
1,1,1-Trichloroethane (TCA)	1 of 24	0.9	93	13	13
1,1,2,2-Tetrachloroethane	0 of 24	0.9	93	--	--
1,2-Dichlorobenzene	0 of 51	0.9	160	--	--
1,1,2-Trichloroethane	0 of 24	0.9	93	--	--
1,3-Dichlorobenzene	0 of 24	0.9	93	--	--
1,1-Dichloroethane	2 of 24	0.9	93	7.9	10
1,4-Dichlorobenzene	0 of 51	0.9	160	--	--
1,1-Dichloroethene	0 of 24	0.9	93	--	--
1,1-Dichloropropene	0 of 24	0.9	93	--	--
1,2,3-Trichlorobenzene	0 of 24	4.6	470	--	--
1,2,3-Trichloropropane	0 of 24	1.8	190	--	--
1,2,4-Trimethylbenzene	6 of 24	0.9	1.3	1.4	3200
1,2-Dibromo-3-chloropropane	0 of 24	4.6	470	--	--
1,2-Dibromoethane (Ethylene dibromide)	0 of 24	0.9	93	--	--
1,2-Dichloroethane	0 of 24	0.9	93	--	--
1,2-Dichloroethene, cis-	1 of 24	0.9	93	2.2	2.2
1,2-Dichloroethene, trans-	0 of 24	0.9	93	--	--
1,2-Dichloropropane	0 of 24	0.9	93	--	--
1,3,5-Trimethylbenzene (Mesitylene)	4 of 24	0.9	93	1.2	80
1,3-Dichloropropane	0 of 24	0.9	93	--	--
1,3-Dichloropropene, cis-	0 of 24	0.9	93	--	--
1,3-Dichloropropene, trans-	0 of 24	0.9	93	--	--
2,2-Dichloropropane	0 of 24	0.9	93	--	--
2-Butanone (MEK)	18 of 24	5.0	6.4	5.2	780
2-Chlorotoluene	0 of 24	0.9	93	--	--
2-Hexanone (Methyl butyl ketone)	0 of 24	4.6	470	--	--
4-Chlorotoluene	0 of 24	0.9	93	--	--
4-Isopropyltoluene (4-Cymene)	2 of 24	0.9	93	1.3	6
Acetone	19 of 24	6.1	51	45	6,500
Benzene	15 of 31	0.9	1600	1.0	260
Bromobenzene	0 of 24	0.9	93	--	--
Bromochloromethane	0 of 24	0.9	93	--	--
Bromodichloromethane	0 of 24	0.9	93	--	--
Bromoform	0 of 24	0.9	93	--	--
Bromomethane	0 of 24	0.9	93	--	--
Carbon disulfide	15 of 24	1.0	93	1.0	30
Carbon tetrachloride (Tetrachloromethane)	0 of 24	0.9	93	--	--
Chloroethane	1 of 24	0.9	93	1.5	1.5
Chloroform	0 of 24	0.9	93	--	--
Chloromethane	0 of 24	0.9	93	--	--
Dibromochloromethane	0 of 24	0.9	93	--	--
Dibromomethane	0 of 24	0.9	93	--	--
Dichlorodifluoromethane	0 of 24	0.9	93	--	--
Dichloromethane (Methylene chloride)	3 of 24	1.8	190	2.3	2.8
Ethylbenzene	3 of 31	0.9	1600	6.0	60
Isopropylbenzene (Cumene)	3 of 24	0.9	93	5.0	34
Naphthalene	2 of 2	--	--	47	69
Methyl isobutyl ketone (4-Methyl-2-pentanone (MIBK))	0 of 24	4.6	470	--	--
Methyl tert-butyl ether (MTBE)	0 of 27	0.9	1600	--	--
n-Butylbenzene	3 of 24	0.9	93	4.4	22
n-Propylbenzene	3 of 24	0.9	93	9.9	120
sec-Butylbenzene	1 of 24	0.9	93	5.4	5.4
Styrene	0 of 24	0.9	93	--	--
tert-Butylbenzene	0 of 24	0.9	93	--	--
Tetrachloroethene (PCE)	4 of 24	0.9	93	1.3	3.7
Toluene	4 of 31	0.9	1600	1.8	7.9
Trichloroethene (TCE)	0 of 24	0.9	93	--	--
Trichlorofluoromethane (Fluorotrichloromethane)	0 of 24	0.9	93	--	--
Vinyl chloride	0 of 24	0.9	93	--	--
m,p-Xylene	7 of 31	0.9	3100	1.5	290
o-Xylene	4 of 31	0.9	1600	1.8	100
Total Xylene (U = 0)	7 of 28	0.9	13	1.5	390
Total Xylene (U = 1/2)	7 of 28	0.9	13	2.05	390

Table 14
Summary of Soil Data

Analyte	Data Summary				
	Detected	Non-detect Minimum Value	Non-detect Maximum Value	Detected Minimum Value	Detected Maximum Value
PCB Aroclors (µg/kg)					
Aroclor 1016	0 of 24	9.4	48	--	--
Aroclor 1221	0 of 24	9.4	48	--	--
Aroclor 1232	0 of 24	9.4	48	--	--
Aroclor 1242	0 of 24	9.4	48	--	--
Aroclor 1248	0 of 24	9.4	48	--	--
Aroclor 1254	0 of 24	9.4	48	--	--
Aroclor 1260	6 of 24	9.4	29	10	300
Total PCB Aroclors (U = 0)	6 of 24	9.4	29	10	300
Total PCB Aroclors (U = 1/2)	6 of 24	9.5	29	39.4	444
Pesticides (µg/kg)					
4,4'-DDD (p,p'-DDD)	1 of 24	3.1	3.3	28	28
4,4'-DDE (p,p'-DDE)	0 of 24	3.1	3.3	--	--
4,4'-DDT (p,p'-DDT)	0 of 24	3.1	12	--	--
Aldrin	0 of 24	1.6	1.7	--	--
alpha-BHC	0 of 24	1.6	1.7	--	--
beta-BHC	0 of 24	1.6	4.0	--	--
alpha-Chlordane (cis-Chlordane)	0 of 24	1.6	1.7	--	--
delta-BHC	0 of 24	1.6	1.7	--	--
Dieldrin	0 of 24	3.1	8.5	--	--
Endosulfan-alpha (I)	0 of 24	1.6	1.7	--	--
Endosulfan-beta (II)	0 of 24	3.1	9.9	--	--
Endosulfan sulfate	0 of 24	3.1	21	--	--
Endrin	0 of 24	3.1	17	--	--
Endrin aldehyde	0 of 24	3.1	3.3	--	--
Endrin ketone	0 of 24	3.1	16	--	--
gamma-BHC (Lindane)	0 of 24	1.6	1.7	--	--
gamma-Chlordane	0 of 24	1.6	1.7	--	--
Heptachlor	0 of 24	1.6	1.7	--	--
Heptachlor epoxide	0 of 24	1.6	3.8	--	--
Methoxychlor	0 of 24	16	17	--	--
Toxaphene	0 of 24	160	170	--	--
Hexachlorobenzene	1 of 51	1.6	160	300	300
Hexachlorobutadiene	0 of 51	1.6	160	--	--

Notes:

µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	polychlorinated biphenyls
ND	non-detect

Table 15

Surface Sediment Chemical and Physical Testing Results [1]

Analyte	Location ID	DSI-SS-01	DSI-SS-02	DSI-SS-03	DSI-SS-04	DSI-SS-05	DSI-SS-06	DSI-SS-07	DSI-SS-08	DSI-SS-09	DSI-SS-10	DSI-SS-11
	Sample ID	DSI-SS-01	DSI-SS-02	DSI-SS-03	DSI-SS-04	DSI-SS-05	DSI-SS-06	DSI-SS-07	DSI-SS-08	DSI-SS-09	DSI-SS-10	DSI-SS-11
	Sample Date	3/7/2011	3/8/2011	3/8/2011	3/7/2011	3/7/2011	3/7/2011	3/8/2011	3/7/2011	3/7/2011	3/7/2011	3/7/2011
	Depth	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm
	SMS SQS											
Conventional Parameters (percent)												
Moisture content	--	**123.2**	**128.7**	**126.6**	**119.7**	**112.2**	**118.3**	**102.8**	**116.2**	**97.2**	**109.4**	**120.1**
Total organic carbon	--	**2.54**	**2.63**	**2.09**	**2.73**	**2.45**	**2.52**	**2.28**	**1.39**	**2.12**	**1.65**	**2.58**
Percent fines [2]	--	**97.3**	**96.3**	**96.8**	**95**	**93.7**	**95.5**	**96.9**	**93.3**	**95**	**95.5**	**95.8**
Total solids	--	**45.4**	**44.2**	**45.3**	**47.2**	**48.3**	**46.7**	**50.2**	**47.3**	**50.5**	**50.9**	**45.7**
Total volatile solids	--	**9.36**	**9.55**	**9.62**	**9.17**	**9.28**	**8.98**	**7.84**	**8.62**	**8.57**	**7.79**	**8.86**
Metals (mg/kg)												
Antimony	--	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ
Arsenic	57	**24.2**	**12.4**	**14.8**	**16.4**	**24**	**18.4**	**30.1**	**11**	**13.3**	**18.9**	**27.8**
Beryllium	--	**0.5**	**0.4**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**
Cadmium	5.1	**0.6**	**0.5**	**0.5**	**0.6**	**0.5**	**0.6**	**1.2**	0.4 U	**0.6**	**0.5**	**0.5**
Chromium	260	**36 J**	**27 J**	**30 J**	**32 J**	**32 J**	**34 J**	**35 J**	**27 J**	**33 J**	**33 J**	**28 J**
Chromium VI [3]	--	**-- R**	**-- R**	**-- R**	**-- R**	**-- R**	**-- R**	**-- R**	**-- R**	**-- R**	**-- R**	**-- R**
Copper	390	**93.3**	**47.3**	**58.8**	**67.1**	**87.7**	**112**	**107**	**42.1**	**65.1**	**82.8**	**59**
Lead	450	**34**	**15**	**22**	**27**	**39**	**36**	**48**	**13**	**26**	**49**	**20**
Mercury	0.41	**0.19**	**0.12**	**0.18**	**0.19**	**0.14**	**0.21**	**0.23**	**0.1**	**0.2**	**0.16**	**0.13**
Nickel	--	**28**	**23**	**25**	**25**	**25**	**25**	**27**	**23**	**27**	**25**	**23**
Selenium	--	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Silver	6.1	0.7 U	0.6 U	0.7 U	0.6 U	0.6 U	0.7 U	0.6 U	0.6 U	0.6 U	0.6 U	0.7 U
Thallium	--	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Zinc	410	**160**	**90**	**106**	**131**	**154**	**155**	**188**	**82**	**118**	**255**	**102**
Organometallic Compounds (µg/kg)												
Tributyltin (bulk sediment)	73	**30**	**7.2**	**15**	**29**	**180**	**74**	**170**	3.6 U	**7.2**	**87**	**32**
Organometallic Compounds (µg/L)												
Tributyltin (interstitial water)	--	**0.22 J**	0.005 UJ	0.005 UJ	0.007 UJ	0.011 UJ	0.008 UJ	0.009 UJ	0.005 UJ	0.007 UJ	0.022 UJ	0.007 UJ
PAHs (µg/kg)												
1-Methylnaphthalene	--	**66**	**26**	19 U	**9.5 J**	**11 J**	**11 J**	20 U	19 U	**21**	**16 J**	**11 J**
2-Methylnaphthalene	--	**21**	20 U	19 U	**17 J**	**28**	**15 J**	**12 J**	19 U	**12 J**	**11 J**	**16 J**
Acenaphthene	--	**25**	20 U	**13 J**	**32**	**52**	**37**	**20**	19 U	**11 J**	**18 J**	**16 J**
Acenaphthylene	--	19 U	20 U	19 U	**12 J**	**14 J**	**16 J**	20 U	19 U	19 U	19 U	19 U
Anthracene	--	**51**	**9.8 J**	**28**	**63**	**630**	**74**	**47**	**23**	**40**	**55**	**30**
Benzo(a)anthracene	--	**130**	**32**	**94**	**190**	**330**	**270**	**170**	**21**	**130**	**160**	**87**
Benzo(a)pyrene	--	**96**	**30**	**60**	**140**	**270**	**240**	**160 J**	**21**	**120**	**130**	**82**
Benzo(b,j,k)fluoranthenes	--	**240**	**74**	**150**	**360**	**610**	**540**	**360**	**52**	**280**	**280**	**180**
Benzo(g,h,i)perylene	--	**63**	**21**	**38**	**79**	**140**	**120**	**100**	**17 J**	**80**	**82**	**59**
Chrysene	--	**200**	**46**	**130**	**290**	**450**	**320**	**240 J**	**48**	**190**	**210**	**120**
Dibenzo(a,h)anthracene	--	**19**	20 U	**14 J**	**29**	**50**	**40**	**44**	19 U	**25**	**22**	**19**
Fluoranthene	--	**300**	**70**	**210**	**560**	**760**	**530**	**350 J**	**52**	**240**	**380**	**220**
Fluorene	--	**51**	**11 J**	**17 J**	**33**	**95**	**42**	**25**	19 U	**16 J**	**21**	**19**
Indeno(1,2,3-c,d)pyrene	--	**56**	**18 J**	**36**	**73**	**140**	**110**	**90**	**15 J**	**72**	**75**	**52**
Naphthalene	--	**38**	20 U	19 U	**28**	**42**	**28**	**17 J**	19 U	**23**	**20**	**27**
Phenanthrene	--	**150**	**43**	**110**	**160**	**450**	**240**	**150**	**31**	**100**	**210**	**120**
Pyrene	--	**250**	**71**	**180**	**420**	**640**	**450**	**450 J**	**48**	**240**	**360**	**200**
Total SMS LPAH (U = 0)	--	**315**	**64**	**168**	**328**	**1,283**	**437**	**259**	**54**	**190**	**324**	**212**

Table 15

Surface Sediment Chemical and Physical Testing Results [1]

Analyte	Location ID	DSI-SS-01	DSI-SS-02	DSI-SS-03	DSI-SS-04	DSI-SS-05	DSI-SS-06	DSI-SS-07	DSI-SS-08	DSI-SS-09	DSI-SS-10	DSI-SS-11
	Sample ID	DSI-SS-01	DSI-SS-02	DSI-SS-03	DSI-SS-04	DSI-SS-05	DSI-SS-06	DSI-SS-07	DSI-SS-08	DSI-SS-09	DSI-SS-10	DSI-SS-11
	Sample Date	3/7/2011	3/8/2011	3/8/2011	3/7/2011	3/7/2011	3/7/2011	3/8/2011	3/7/2011	3/7/2011	3/7/2011	3/7/2011
	Depth	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm
	SMS SQS											
Total SMS HPAH (U = 0)	--	**1,114**	**288**	**762**	**1,781**	**2,780**	**2,080**	**1,604**	**222**	**1,097**	**1,419**	**839**
PAHs (mg/kg-OC)												
1-Methylnaphthalene	--	**2.6**	**1.0**	0.91 U	**0.35 J**	**0.45 J**	**0.44 J**	0.88 U	1.4 U	**1.0**	**1 J**	**0.4 J**
2-Methylnaphthalene	38	**0.8**	0.76 U	0.91 U	**0.62 J**	**1.1**	**0.60 J**	**0.53 J**	1.4 U	**0.6 J**	**0.7 J**	**0.6 J**
Acenaphthene	16	**1.0**	0.76 U	**0.62 J**	**1.2**	**2.1**	**1.5**	**0.9**	1.4 U	**0.5 J**	**1 J**	**0.6J**
Acenaphthylene	66	0.75 U	0.76 U	0.91 U	**0.44 J**	**0.57 J**	**0.63 J**	0.88 U	1.4 U	0.9 U	1 U	0.7 U
Anthracene	220	**2.0**	**0.37 J**	**1.3**	**2.3**	**26**	**2.9**	**2.1**	**1.7**	**1.9**	**3.3**	**1.2**
Benzo(a)anthracene	110	**5.1**	**1.2**	**4.5**	**7.0**	**13**	**11**	**7.5**	**1.5**	**6.1**	**10**	**3.4**
Benzo(a)pyrene	99	**3.8**	**1.1**	**2.9**	**5.1**	**11**	**10**	**7.0 J**	**1.5**	**5.7**	**7.9**	**3.2**
Benzo(b,j,k)fluoranthenes		**9.4**	**2.8**	**7.2**	**13**	**25**	**21**	**16**	**3.7**	**13**	**17**	**7.0**
Benzo(g,h,i)perylene	31	**2.5**	**0.8**	**1.8**	**2.9**	**5.7**	**4.8**	**4.4**	**1.2 J**	**3.8**	**5.0**	**2.3**
Chrysene	110	**7.9**	**1.7**	**6.2**	**11**	**18**	**13**	**11 J**	**3.5**	**9.0**	**13**	**4.7**
Dibenzo(a,h)anthracene	12	**0.7**	0.76 U	**0.67 J**	**1.1**	**2.0**	**1.6**	**1.9**	1.4 U	**1.2**	**1.3**	**0.7**
Fluoranthene	160	**12**	**2.7**	**10**	**21**	**31**	**21**	**15 J**	**3.7**	**11**	**23**	**8.5**
Fluorene	23	**2.0**	**0.42 J**	**0.81 J**	**1.2**	**3.9**	**1.7**	**1.1**	1.4 U	**0.75 J**	**1.3**	**0.7**
Indeno(1,2,3-c,d)pyrene	34	**2.2**	**0.68 J**	**1.7**	**2.7**	**5.7**	**4.4**	**3.9**	**1.1 J**	**3.4**	**4.5**	**2.0**
Naphthalene	99	**1.5**	0.76 U	0.91 U	**1.0**	**1.7**	**1.1**	**0.75 J**	1.4 U	**1.1**	**1.2**	**1.0**
Phenanthrene	100	**5.9**	**1.6**	**5.3**	**5.9**	**18**	**10**	**6.6**	**2.2**	**4.7**	**13**	**4.7**
Pyrene	1000	**10**	**2.7**	**8.6**	**15**	**26**	**18**	**20 J**	**3.5**	**11**	**22**	**7.8**
Total SMS LPAH (U = 0)	370	**12**	**2.4**	**8.0**	**12**	**52**	**17**	**11**	**3.9**	**9.0**	**20**	**8.2**
Total SMS HPAH (U = 0)	960	**44**	**11**	**36**	**65**	**113**	**83**	**70**	**16**	**52**	**86**	**33**
Chlorobenzenes (µg/kg)												
1,2-Dichlorobenzene	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
1,3-Dichlorobenzene	--	19 U	20 U	19 U	19 U	19 U	19 U	20 UJ	19 U	19 U	19 U	19 U
1,4-Dichlorobenzene	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	**2.7 J**	1.7 U	1.6 U	1.7 U	1.9 U
1,2,4-Trichlorobenzene	--	4.7 U	4.9 U	4.8 U	4.8 U	4.8 U	4.8 U	4.9 UJ	4.8 U	4.7 U	4.7 U	4.8 U
Hexachlorobenzene	--	0.98 U	**3**	1 U	0.98 U	0.98 U	0.98 U	0.99 U	0.98 U	0.98 U	0.97 U	0.99 U
Chlorobenzenes (mg/kg-OC)												
1,2-Dichlorobenzene	2.3	0.07 U	0.07 U	0.09 U	0.07 U	0.07 U	0.07 U	0.07 U	0.1 U	0.08 U	0.1 U	0.07 U
1,3-Dichlorobenzene	--	0.75 U	0.76 U	0.91 U	0.7 U	0.78 U	0.75 U	0.88 UJ	1.4 U	0.9 U	1.2 U	0.74 U
1,4-Dichlorobenzene	3.1	0.07 U	0.07 U	0.09 U	0.07 U	0.07 U	0.07 U	**0.12 J**	0.1 U	0.08 U	0.1 U	0.07 U
1,2,4-Trichlorobenzene	0.81	0.19 U	0.19 U	0.23 U	0.18 U	0.2 U	0.19 U	0.21 UJ	0.35 U	0.22 U	0.28 U	0.19 U
Hexachlorobenzene	0.38	0.04 U	**0.1**	0.048 U	0.04 U	0.04 U	0.039 U	0.04 U	0.07 U	0.05 U	0.06 U	0.04 U
Phthalates (µg/kg)												
Dimethyl phthalate	--	19 U	20 U	19 U	19 U	19 U	19 U	20 U	19 U	19 U	19 U	19 U
Diethyl phthalate	--	5.1 U	7.7 U	6.6 U	5.2 U	5.1 U	5.2 U	6.7 U	5.2 U	5.1 U	5.1 U	5.5 U
Di-n-butyl phthalate	--	19 U	20 U	**12 J**	19 U	**14 J**	19 U	20 U	19 U	19 U	19 U	19 U
Butylbenzyl phthalate	--	**15 J**	20 UJ	**9.7 J**	**12 J**	19 U	19 U	**16 J**	**9.6 J**	**14 J**	**15 J**	**13 J**
Bis(2-ethylhexyl) phthalate	--	**100**	**470**	**87**	**87**	**73**	**74**	**390 J**	**89**	**140**	**98**	**120**
Di-n-octyl phthalate	--	19 U	20 UJ	19 UJ	19 U	19 U	19 U	20 UJ	19 U	19 U	19 U	19 U
Phthalates (mg/kg-OC)												
Dimethyl phthalate	53	0.75 U	0.76 U	0.91 U	0.7 U	0.78 U	0.75 U	0.88 U	1.4 U	0.9 U	1.2 U	0.74 U
Diethyl phthalate	61	0.20 U	0.2928 U	0.32 U	0.19 U	0.2 U	0.21 U	0.29 U	0.3741 U	0.24 U	0.30 U	0.21 U

Table 15

Surface Sediment Chemical and Physical Testing Results [1]

Analyte	Location ID	DSI-SS-01	DSI-SS-02	DSI-SS-03	DSI-SS-04	DSI-SS-05	DSI-SS-06	DSI-SS-07	DSI-SS-08	DSI-SS-09	DSI-SS-10	DSI-SS-11
	Sample ID	DSI-SS-01	DSI-SS-02	DSI-SS-03	DSI-SS-04	DSI-SS-05	DSI-SS-06	DSI-SS-07	DSI-SS-08	DSI-SS-09	DSI-SS-10	DSI-SS-11
	Sample Date	3/7/2011	3/8/2011	3/8/2011	3/7/2011	3/7/2011	3/7/2011	3/8/2011	3/7/2011	3/7/2011	3/7/2011	3/7/2011
	Depth	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm
	SMS SQS											
Di-n-butyl phthalate	220	0.75 U	0.76 U	**0.57 J**	0.7 U	**0.57 J**	0.75 U	0.88 U	1.4 U	0.9 U	1.2 U	0.74 U
Butylbenzyl phthalate	4.9	**0.59 J**	0.76 UJ	**0.46 J**	**0.44 J**	0.78 U	0.75 U	**0.70 J**	**0.69 J**	**0.66 J**	**0.90 J**	**0.50 J**
Bis(2-ethylhexyl) phthalate	47	**3.9**	**18**	**4.2**	**3.2**	**3.0**	**2.9**	**17 J**	**6.4**	**6.6**	**5.9**	**4.7**
Di-n-octyl phthalate	58	0.75 U	0.76 UJ	0.91 UJ	0.7 U	0.78 U	0.75 U	0.88 UJ	1.4 U	0.9 U	1.2 U	0.74 U
Phenols (µg/kg)												
2,4-Dimethylphenol	29	19 U	20 UJ	19 UJ	19 U	19 U	19 U	20 UJ	19 U	19 U	19 U	19 U
2-Methylphenol (o-Cresol)	63	19 U	20 U	19 U	19 U	19 U	19 U	20 U	19 U	19 U	19 U	19 U
4-Methylphenol (p-Cresol)	670	**420**	**13 J**	**14 J**	**370**	**360**	**280**	**18 J**	**220**	**180**	**160**	**180**
Pentachlorophenol	360	14 U	13 U	13 U	13 U	--	17 U	18 U	13 U	12 U	12 U	13 U
Phenol	420	**170**	**18 J**	**18 J**	**65**	**200**	**99**	**38**	**77**	**100**	**58**	**63**
Phenols (mg/kg-OC)												
2,4-Dimethylphenol	--	0.75 U	0.76 UJ	0.91 UJ	0.7 U	0.78 U	0.75 U	0.88 UJ	1.4 U	0.9 U	1.2 U	0.74 U
2-Methylphenol (o-Cresol)	--	0.75 U	0.76 U	0.91 U	0.7 U	0.78 U	0.75 U	0.88 U	1.4 U	0.9 U	1.2 U	0.74 U
4-Methylphenol (p-Cresol)	--	**17**	**0.49 J**	**0.67 J**	**14**	**15**	**11**	**0.79 J**	**16**	**8.5**	**10**	**7.0**
Pentachlorophenol	--	0.55 U	0.49 U	0.62 U	0.48 U	--	0.67 U	0.79 U	0.4 U	0.57 U	0.73 U	0.50 U
Phenol	--	**6.7**	**0.68 J**	**0.86 J**	**2.4**	**8.2**	**3.9**	**1.7**	**5.5**	**4.7**	**3.5**	**2.4**
Miscellaneous Extractables (µg/kg) [4]												
Dibenzofuran	--	**27**	20 U	**9.7 J**	**30**	**55**	**32**	**16 J**	19 U	**15 J**	**15 J**	**18 J**
Hexachlorobutadiene	--	0.98 U	0.98 U	1 U	0.98 U	0.98 U	0.98 U	0.99 U	0.98 U	0.98 U	0.97 U	0.99 U
N-Nitrosodiphenylamine	--	**8.9**	4.9 UJ	4.8 UJ	4.8 U	4.8 U	4.8 U	4.9 UJ	4.8 U	4.7 U	4.7 U	4.8 U
Benzoic acid	650	**600**	**210**	**100 J**	**460**	**320**	**380**	**120 J**	**240**	**360**	**390**	**690**
Benzyl alcohol	57	**320**	**160**	**73**	**290**	**250**	**240**	**65**	**140**	**180**	**230**	**390**
Hexachloroethane	--	19 U	20 U	19 U	19 U	19 U	19 U	20 U	19 U	19 U	19 U	19 U
Miscellaneous Extractables (mg/kg-OC) [4]												
Dibenzofuran	15	**1.1**	0.76 U	**0.46 J**	**1.1**	**2.2**	**1.3**	**0.70 J**	1.4 U	**0.71 J**	**0.90 J**	**0.70 J**
Hexachlorobutadiene	3.9	0.04 U	0.04 U	0.05 U	0.04 U	0.04 U	0.04 U	0.04 U	0.07 U	0.05 U	0.06 U	0.04 U
N-Nitrosodiphenylamine	11	**0.4**	0.19 UJ	0.23 UJ	0.18 U	0.2 U	0.19 U	0.21 UJ	0.35 U	0.22 U	0.28 U	0.19 U
Benzyl alcohol	--	**13**	**6.1**	**3.5**	**11**	**10**	**10**	**2.9**	**10**	**8.5**	**14**	**15**
Benzoic acid	--	**24**	**8.0**	**4.8 J**	**17**	**13**	**15**	**5.3 J**	**17**	**17**	**24**	**27**
Hexachloroethane	--	0.75 U	0.76 U	0.91 U	0.7 U	0.78 U	0.75 U	0.88 U	1.4 U	0.9 U	1.2 U	0.74 U
PCB Aroclors (µg/kg)												
Aroclor 1016	--	3.9 U	8.6 U	3.9 U	3.9 U	4 U	8.3 U	7.9 U	3.9 U	8 U	8.7 UJ	4 U
Aroclor 1221	--	3.9 U	8.6 U	3.9 U	3.9 U	4 U	8.3 U	7.9 U	3.9 U	8 U	8.7 UJ	4 U
Aroclor 1232	--	3.9 U	8.6 U	3.9 U	3.9 U	4 U	8.3 U	7.9 U	3.9 U	8 U	8.7 UJ	4 U
Aroclor 1242	--	3.9 U	8.6 U	3.9 U	3.9 U	4 U	8.3 U	7.9 U	3.9 U	8 U	8.7 UJ	4 U
Aroclor 1248	--	**32**	**21**	**25**	**37**	**34**	**55**	**71**	**15**	40 U	**73 J**	**34**
Aroclor 1254	--	**44**	**30**	**32**	**47**	**51**	**77**	**110**	**22**	**78**	**85 J**	**42**
Aroclor 1260	--	**26**	**21**	**18**	**26**	**33**	**61**	**73**	**13**	**47**	**39**	**24**
Total PCB Aroclors (U = 0)	--	**102**	**72**	**75**	**110**	**118**	**193**	**254**	**50**	**125**	**197**	**100**
Total PCB Aroclors (U = 1/2)	--	**109.8**	**89.2**	**82.8**	**117.8**	**126**	**209.6**	**269.8**	**57.8**	**161**	**214.4**	**108**
PCB Aroclors (mg/kg-OC)												
Aroclor 1016	--	0.15 U	0.32 U	0.19 U	0.14 U	0.16 U	0.33 U	0.35 U	0.28 U	0.38 U	0.53 UJ	0.16 U
Aroclor 1221	--	0.15 U	0.32 U	0.19 U	0.14 U	0.16 U	0.33 U	0.35 U	0.28 U	0.38 U	0.53 UJ	0.16 U
Aroclor 1232	--	0.15 U	0.32 U	0.19 U	0.14 U	0.16 U	0.33 U	0.35 U	0.28 U	0.38 U	0.53 UJ	0.16 U

Table 15

Surface Sediment Chemical and Physical Testing Results [1]

Analyte	Location ID	DSI-SS-01	DSI-SS-02	DSI-SS-03	DSI-SS-04	DSI-SS-05	DSI-SS-06	DSI-SS-07	DSI-SS-08	DSI-SS-09	DSI-SS-10	DSI-SS-11
	Sample ID	DSI-SS-01	DSI-SS-02	DSI-SS-03	DSI-SS-04	DSI-SS-05	DSI-SS-06	DSI-SS-07	DSI-SS-08	DSI-SS-09	DSI-SS-10	DSI-SS-11
	Sample Date	3/7/2011	3/8/2011	3/8/2011	3/7/2011	3/7/2011	3/7/2011	3/8/2011	3/7/2011	3/7/2011	3/7/2011	3/7/2011
	Depth	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm
	SMS SQS											
Aroclor 1242	--	0.15 U	0.32 U	0.19 U	0.14 U	0.16 U	0.33 U	0.35 U	0.28 U	0.38 U	0.53 UJ	0.16 U
Aroclor 1248	--	**1.3**	**0.8**	**1.2**	**1.4**	**1.4**	**2.2**	**3.1**	**1.1**	1.9 U	**4.4 J**	**1.3**
Aroclor 1254	--	**1.7**	**1.1**	**1.5**	**1.7**	**2.1**	**3.1**	**4.8**	**1.6**	**3.7**	**5.2 J**	**1.6**
Aroclor 1260	--	**1.0**	**0.8**	**0.9**	**1.0**	**1.3**	**2.4**	**3.2**	**0.9**	**2.2**	**2.4**	**0.9**
Total PCB Aroclors (U = 0)	12	**4.0**	**2.7**	**3.6**	**4.0**	**4.8**	**7.7**	**11.1**	**3.6**	**5.9**	**11.9**	**3.9**
Total PCB Aroclors (U = 1/2)	12	**4.3**	**3.4**	**4.0**	**4.3**	**5.1**	**8.3**	**11.8**	**4.2**	**7.6**	**13.0**	**4.2**
Volatile Organics (µg/kg)												
1,1,1-Trichloroethane	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
1,1,2-Trichloroethane	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
1,1-Dichloroethane	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
1,1-Dichloroethene	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
1,2-Dichlorobenzene	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
1,2-Dichloroethane	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
1,3,5-Trimethylbenzene (Mesitylene)	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
1,4-Dichlorobenzene	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	--	1.7 U	1.6 U	1.7 U	1.9 U
Acetone	--	**79**	**76**	**80**	**57**	**43**	**80**	**68**	**58**	**80**	**65**	**140**
Benzene	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Carbon tetrachloride (Tetrachloromethane)	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Chlorobenzene	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Chloroethane	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Chloroform	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Chloromethane	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Dichloromethane (Methylene chloride)	--	3.6 U	3.6 U	3.8 U	3.5 U	3.4 U	3.6 U	3.4 U	3.5 U	3.2 U	3.4 U	3.7 U
Ethylbenzene	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Hexachlorobutadiene	--	0.98 U	0.98 U	1 U	0.98 U	0.98 U	0.98 U	0.99 U	0.98 U	0.98 U	0.97 U	0.99 U
m,p-Xylene	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
o-Xylene	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Styrene	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Tetrachloroethene (PCE)	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Toluene	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Trichloroethene (TCE)	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Vinyl chloride	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Total Xylene (U = 0)	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Total Xylene (U = 1/2)	--	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.9 U
Pesticides (µg/kg)												
4,4'-DDD (p,p'-DDD)	--	2 U	2 U	**2.8**	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4,4'-DDE (p,p'-DDE)	--	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4,4'-DDT (p,p'-DDT)	--	2 U	2 U	2 U	**5.5**	2 U	**2.7**	**4.7**	2 U	2 U	2 U	2 U
Aldrin	--	0.98 U	0.98 U	1 U	0.98 U	0.98 U	0.98 U	0.99 U	0.98 U	0.98 U	0.97 U	0.99 U
alpha-Chlordane (cis-Chlordane)	--	0.98 U	0.98 U	1 U	0.98 U	0.98 U	0.98 U	0.99 U	0.98 U	0.98 U	0.97 U	0.99 U
alpha-Hexachlorocyclohexane (BHC)	--	0.98 U	0.98 U	1 U	0.98 U	0.98 U	0.98 U	0.99 U	0.98 U	0.98 U	0.97 U	0.99 U
beta-Chlordane (trans-Chlordane)	--	0.98 U	0.98 U	1 U	0.98 U	0.98 U	0.98 U	0.99 U	0.98 U	0.98 U	0.97 U	0.99 U
beta-Hexachlorocyclohexane (BHC)	--	0.98 U	0.98 U	1 U	0.98 U	0.98 U	0.98 U	0.99 U	0.98 U	0.98 U	0.97 U	0.99 U
delta-Hexachlorocyclohexane (BHC)	--	0.98 UJ	0.98 UJ	1 UJ	0.98 UJ	0.98 UJ	0.98 UJ	0.99 UJ	0.98 UJ	0.98 UJ	0.97 UJ	0.99 UJ
Dieldrin	--	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Endosulfan sulfate	--	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U

Table 15

Surface Sediment Chemical and Physical Testing Results [1]

Analyte	Location ID	DSI-SS-01	DSI-SS-02	DSI-SS-03	DSI-SS-04	DSI-SS-05	DSI-SS-06	DSI-SS-07	DSI-SS-08	DSI-SS-09	DSI-SS-10	DSI-SS-11
	Sample ID	DSI-SS-01	DSI-SS-02	DSI-SS-03	DSI-SS-04	DSI-SS-05	DSI-SS-06	DSI-SS-07	DSI-SS-08	DSI-SS-09	DSI-SS-10	DSI-SS-11
	Sample Date	3/7/2011	3/8/2011	3/8/2011	3/7/2011	3/7/2011	3/7/2011	3/8/2011	3/7/2011	3/7/2011	3/7/2011	3/7/2011
	Depth	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm
	SMS SQS											
Endosulfan-alpha (I)	--	0.98 U	0.98 U	1 U	0.98 U	0.98 U	0.98 U	0.99 U	0.98 U	0.98 U	0.97 U	0.99 U
Endosulfan-beta (II)	--	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Endrin	--	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Endrin aldehyde	--	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Endrin ketone	--	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
gamma-Hexachlorocyclohexane (BHC) (Lindane)	--	0.98 U	0.98 U	1 U	0.98 U	0.98 U	0.98 U	0.99 U	0.98 U	0.98 U	0.97 U	0.99 U
Heptachlor	--	0.98 U	0.98 U	1 U	5.9 U	4.3 U	0.98 U	0.99 U	2.3 U	1.7 U	0.97 U	0.99 U
Heptachlor epoxide	--	0.98 U	0.98 UJ	1 UJ	4.4 U	0.98 U	1.6 U	0.99 UJ	0.98 U	0.98 U	0.97 U	0.99 U
Methoxychlor	--	9.8 U	9.8 U	10 U	9.8 U	9.8 U	9.8 U	9.9 U	9.8 U	9.8 U	9.7 U	9.9 U
Toxaphene	--	98 U	98 U	100 U	98 U	98 U	98 U	99 U	98 U	98 U	97 U	99 U
Total DDx (U = 0)	--	2 U	2 U	**2.8**	**5.5**	2 U	**2.7**	**4.7**	2 U	2 U	2 U	2 U
Total DDx (U = 1/2)	--	2 U	2 U	**4.8**	**7.5**	2 U	**4.7**	**6.7**	2 U	2 U	2 U	2 U
Dioxin Furans (ng/kg)												
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	--	**0.568 J**	**0.331 J**	--	**0.5 J**	**0.461 J**	--	**0.619 J**	**0.358 J**	**0.415 J**	--	**0.373 J**
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	--	**2.14**	**1.16 J**	--	**1.63 J**	**1.83**	--	**2 J**	**0.77 J**	**1.67 J**	--	**1.07**
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	**3.3**	**1.15 J**	--	**1.88 J**	**2.61**	--	**2.6**	**0.948 J**	**2.09**	--	**1.26 J**
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	**18.9**	**4.1**	--	**8.97**	**13.4**	--	**12.3**	**3.48**	**9.6**	--	**6.41**
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	--	**7.56**	**2.76**	--	**4.19**	**5.93**	--	**6.25**	**2.53**	**4.58**	--	**3.21**
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	--	**643**	**94.9**	--	**263**	**447**	--	**380**	**103**	**272**	--	**199**
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	--	**6250**	**870**	--	**2550**	**5090**	--	**3480**	**883**	**2310**	--	**1960**
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	--	**1.39**	**0.672 J**	--	**1.14**	**1.24**	--	**1.52**	**0.473 J**	**1.25**	--	**0.745 J**
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	--	**1.51 J**	**0.552 J**	--	**0.898 J**	**1.14 J**	--	**1.25 J**	0.379 U	**0.863 J**	--	**0.602 J**
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	--	**3.86**	**0.845 J**	--	**1.67**	**2.32**	--	**2.57**	**0.622 J**	**1.7**	--	**1.21**
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	--	**27.1**	**3.13**	--	**7.5**	**17.9**	--	**10.6**	**2.07**	**6.39**	--	**5.29**
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	**5.32**	**1.14 J**	--	**2.08**	**3.86**	--	**2.78**	**0.958 J**	**1.98 J**	--	**1.48 J**
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	--	**4.26**	**0.708 J**	--	**1.52 J**	**2.81**	--	**1.98 J**	0.422 U	**1.32 J**	--	**0.907 J**
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	**9.09**	**1.41 J**	--	**2.89**	**5.98**	--	**4.05**	**1.21 J**	**2.85**	--	**2.13**
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	--	**205**	**18.7**	--	**47**	**71.9**	--	**67.8**	**19**	**50.7**	--	**34.3**
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	--	**17.8**	**1.77 J**	--	**4.87**	**9.37**	--	**6.84**	**1.68 J**	**4.39**	--	**4.01**
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	--	**608**	**56.1**	--	**173**	**233**	--	**254**	**60.5**	**196**	--	**116**
Total Tetrachlorodibenzo-p-dioxin (TCDD)	--	**11.5 J**	**8.59 J**	--	**8.71 J**	**8.75 J**	--	**10 J**	**5.3 J**	**8.98 J**	--	**5.91 J**
Total Pentachlorodibenzo-p-dioxin (PeCDD)	--	**27.2**	**10.7 J**	--	**15.2 J**	**16.6 J**	--	**17.2 J**	**6.32 J**	**14.1 J**	--	**9.07**
Total Hexachlorodibenzo-p-dioxin (HxCDD)	--	**151**	**35.9**	--	**83.7**	**127**	--	**105**	**31.3 J**	**79.8**	--	**45.5**
Total Heptachlorodibenzo-p-dioxin (HpCDD)	--	**1510**	**235 J**	--	**750 J**	**1460**	--	**974 J**	**262**	**695 J**	--	**423**
Total Tetrachlorodibenzofuran (TCDF)	--	**25.3 J**	**12.8 J**	--	**24 J**	**25.4 J**	--	**33.1 J**	**9.85 J**	**26.4 J**	--	**14.9 J**
Total Pentachlorodibenzofuran (PeCDF)	--	**58.5 J**	**17.1 J**	--	**35.6 J**	**35.2 J**	--	**47.8 J**	**11.9 J**	**35.7 J**	--	**19.6 J**
Total Hexachlorodibenzofuran (HxCDF)	--	**269**	**34.1 J**	--	**89 J**	**153 J**	--	**114**	**26 J**	**83.1 J**	--	**52.9 J**

Table 15

Surface Sediment Chemical and Physical Testing Results [1]

Analyte	Location ID	DSI-SS-01	DSI-SS-02	DSI-SS-03	DSI-SS-04	DSI-SS-05	DSI-SS-06	DSI-SS-07	DSI-SS-08	DSI-SS-09	DSI-SS-10	DSI-SS-11
	Sample ID	DSI-SS-01	DSI-SS-02	DSI-SS-03	DSI-SS-04	DSI-SS-05	DSI-SS-06	DSI-SS-07	DSI-SS-08	DSI-SS-09	DSI-SS-10	DSI-SS-11
	Sample Date	3/7/2011	3/8/2011	3/8/2011	3/7/2011	3/7/2011	3/7/2011	3/8/2011	3/7/2011	3/7/2011	3/7/2011	3/7/2011
	Depth	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm
	SMS SQS											
Total Heptachlorodibenzofuran (HpCDF)	--	**780**	**65**	--	**192**	**290**	--	**277**	**62.5**	**207**	--	**132**
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2)	--	**22.3**	**4.7**	--	**9.6**	**15.3**	--	**13.3**	**4.0**	**9.6**	--	**7.0**
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0)	--	**22.3**	**4.7**	--	**9.6**	**15.3**	--	**13.3**	**4.0**	**9.6**	--	**7.0**

Notes:

1) Surface sediment data includes only Phase 1 RI data collected in March 2008; LDW surface data is not presented in Table 1.

2) Percent fines calculated as percent material passing the 75 micron (#200) sieve.

3) Chromium VI data is non-detect at all sample locations, and were rejected due to interference in the matrix spike.

4) Miscellaneous extracable detections for benzyl alcohol and benzoic acid are observed throughout the Lower Duwamish Waterway site at concentrations that exceed SQS screening levels.

Definitions:

SMS	Sediment Management Standards
SQS	Sediment Quality Standards
LDW FS	Lower Duwamish Waterway Feasibility Study
DMMP	Dredged Material Management Program
cm	centimeter
µg/L	micrograms per liter
µg/kg	micrograms per kilogram
mg/L	milligrams per liter
mg/kg	milligrams per kilogram
ng/kg	nanograms per kilogram
OC	organic carbon
PAHs	polycyclic aromatic hydrocarbons
HPAH	high molecular weight PAH
LPAH	low molecular weight PAH
PCBs	polychlorinated biphenyls

	Detected concentration is greater than SMS SQS screening level
Bold	Detected result
J	Estimated value
U	Compound analyzed, but not detected above detection limit
UJ	Compound analyzed, but not detected above estimated detection limit
R	Rejected

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-02	DSI-SB-02	DSI-SB-02	DSI-SB-02	DSI-SB-03
	Sample ID	DSI-SB-01-1-2	DSI-SB-01-2-3.1	DSI-SB-01-3.1-4	DSI-SB-01-5-6	DSI-SB-01-6-7	DSI-SB-02-1-2.3	DSI-SB-02-3.7-5.2	DSI-SB-02-5.2-7	DSI-SB-02-8.5-10	DSI-SB-03-1-2
	Sample Date	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/14/2011
	Depth	1 to 2 feet	2 to 3.1 feet	3.1 to 4 feet	5 to 6 feet	6 to 7 feet	1 to 2.3 feet	3.7 to 5.2 feet	5.2 to 7 feet	8.5 to 10 feet	1 to 2 feet
	Stratigraphic Unit	Recent	Recent	Upper Alluvium	Upper Alluvium	Upper Alluvium	Recent	Recent	Upper Alluvium	Upper Alluvium	Recent
	SMS SQS										
Conventional Parameters (percent)											
Total organic carbon	--	**1.7**	**1.26**	**0.498 J**	**0.186**	**0.31 J**	**2.41**	**3.46**	**0.822 J**	**0.655**	**2.94**
Percent fines [2]	--	--	--	--	--	--	**98.2**	--	--	**56.8**	**96.1**
Total solids	--	**54.9**	**70.2**	**78.1**	**79.6**	**76.9**	**48.6**	**59.8**	**74.2**	**78.1**	**49.8**
Total volatile solids	--	--	--	--	--	--	--	--	--	--	--
Metals (mg/kg)											
Antimony	--	0.3 UJ	**0.5 J**	**0.4 J**	0.2 UJ	--	0.4 UJ	**2.4 J**	0.3 UJ	0.2 UJ	0.4 UJ
Arsenic	57	**36**	**95**	**14**	**6.3**	--	**16**	**330**	**11**	**1.3**	**21**
Beryllium	--	**0.50**	**0.40**	**0.10**	0.1 U	--	**0.40**	**0.50**	**0.10**	0.1 U	**0.40**
Cadmium	5.1	0.8 U	**0.90**	0.2 U	0.2 U	--	**0.70**	**1.6**	**0.80**	0.2 U	**0.80**
Chromium	260	**47**	**101**	**14**	**11**	--	**36**	**48**	**24**	**8.0**	**40**
Chromium VI [3]	--	**-- R**	**-- R**	--	**-- R**	--	**-- R**	**-- R**	--	**-- R**	**5.9**
Copper	390	**499**	**691**	**39**	**19**	--	**86.9 J**	**361 J**	**59**	**13.7 J**	**134**
Lead	450	**93**	**133**	**13**	**11**	--	**39**	**270**	**36**	2 U	**58**
Mercury	0.41	**0.16**	**0.33**	**-- R**	0.02 U	--	**0.18**	**0.91**	**0.09 J**	0.02 U	**0.36 J**
Nickel	--	**35**	**39**	**9.0**	**8.0**	--	**27**	**29**	**11**	**5.0**	**27**
Selenium	--	0.8 U	0.7 U	0.6 U	0.6 U	--	1 U	0.8 U	0.6 U	0.6 U	1 U
Silver	6.1	1 U	1 U	0.4 U	0.4 U	--	0.6 U	**0.80**	**0.60**	0.4 U	0.6 U
Thallium	--	0.3 U	0.3 U	0.2 U	0.2 U	--	0.4 U	**0.40**	0.3 U	0.2 U	0.4 U
Zinc	410	**354 J**	**1,510 J**	**69**	**45 J**	--	**145 J**	**891 J**	**86**	**16 J**	**202**
Organometallic Compounds (µg/kg)											
Tributyltin (bulk sediment)	73	**52**	**120**	**15**	**58 J**	3.5 U	**31**	**740**	**4**	**22 J**	**62**
PAHs (µg/kg)											
1-Methylnaphthalene	--	**9.8 J**	**14 J**	**16 J**	18 U	--	19 U	**28**	18 U	19 U	**10 J**
2-Methylnaphthalene	--	**17 J**	**24**	19 U	18 U	--	19 U	**36**	18 U	19 U	**16 J**
Acenaphthene	--	**16 J**	**31**	19 U	18 U	--	19 U	**77**	18 U	19 U	**18 J**
Acenaphthylene	--	**30**	**14 J**	19 U	18 U	--	19 U	22 U	18 U	19 U	19 U
Anthracene	--	**68**	**91**	19 U	18 U	--	**35**	**210**	**11 J**	19 U	**65**
Benzo(a)anthracene	--	**220**	**310**	**30**	18 U	--	**110**	**680**	**32**	19 U	**220**
Benzo(a)pyrene	--	**300**	**310**	**22**	18 U	--	**110**	**540**	**32**	19 U	**260**
Benzo(b,j,k)fluoranthenes	--	**840**	**680**	**63**	18 U	--	**280**	**1,200**	**87**	19 U	**670**
Benzo(g,h,i)perylene	--	**160**	**150**	**17 J**	18 U	--	**76**	**330**	**27**	19 U	**160**
Chrysene	--	**420**	**430 J**	**63**	18 U	--	**150**	**820**	**40**	19 U	**360**
Dibenzo(a,h)anthracene	--	**67**	**49**	19 U	18 U	--	**19**	**110**	18 U	19 U	**61**
Fluoranthene	--	**300**	**890**	**64**	18 U	--	**250**	**1,900**	**60**	19 U	**340**
Fluorene	--	**25**	**38**	19 U	18 U	--	**24**	**71**	18 U	19 U	**25**
Indeno(1,2,3-c,d)pyrene	--	**160**	**160**	**11 J**	18 U	--	**68**	**300**	**24**	19 U	**150**
Naphthalene	--	**26**	**16 J**	19 U	18 U	--	**38**	**61**	**13 J**	19 U	**29**
Phenanthrene	--	**140**	**360**	**170 J**	18 U	--	**110**	**590**	**35**	19 U	**190**
Pyrene	--	**770**	**940**	**150**	18 U	--	**260**	**1,600**	**130**	19 U	**800**
Total SMS HPAH (U = 0)	--	**2,397**	**3,239**	**357**	18 U	--	**1,043**	**6,280**	**345**	19 U	**2,351**
Total SMS LPAH (U = 0)	--	**305**	**550**	**170**	18 U	--	**207**	**1,009**	**59**	19 U	**327**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-02	DSI-SB-02	DSI-SB-02	DSI-SB-02	DSI-SB-03
	Sample ID	DSI-SB-01-1-2	DSI-SB-01-2-3.1	DSI-SB-01-3.1-4	DSI-SB-01-5-6	DSI-SB-01-6-7	DSI-SB-02-1-2.3	DSI-SB-02-3.7-5.2	DSI-SB-02-5.2-7	DSI-SB-02-8.5-10	DSI-SB-03-1-2
	Sample Date	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/14/2011
	Depth	1 to 2 feet	2 to 3.1 feet	3.1 to 4 feet	5 to 6 feet	6 to 7 feet	1 to 2.3 feet	3.7 to 5.2 feet	5.2 to 7 feet	8.5 to 10 feet	1 to 2 feet
	Stratigraphic Unit	Recent	Recent	Upper Alluvium	Upper Alluvium	Upper Alluvium	Recent	Recent	Upper Alluvium	Upper Alluvium	Recent
	SMS SQS										
PAHs (mg/kg-OC)											
1-Methylnaphthalene	--	**0.58 J**	**1.1 J**	**3.2 J**	9.7 U	--	0.79 U	**0.8**	2.2 U	2.9 U	**0.34 J**
2-Methylnaphthalene	38	**1 J**	**1.9**	3.8 U	9.7 U	--	0.79 U	**1.0**	2.2 U	2.9 U	**0.54 J**
Acenaphthene	16	**0.94 J**	**2.5**	3.8 U	9.7 U	--	0.79 U	**2.2**	2.2 U	2.9 U	**0.61 J**
Acenaphthylene	66	**1.8**	**1.1 J**	3.8 U	9.7 U	--	0.79 U	0.64 U	2.2 U	2.9 U	0.65 U
Anthracene	220	**4.0**	**7.2**	3.8 U	9.7 U	--	**1.5**	**6.1**	**1.3 J**	2.9 U	**2.2**
Benzo(a)anthracene	110	**12.9**	**24.6**	**6.0**	9.7 U	--	**4.6**	**19.7**	**3.9**	2.9 U	**7.5**
Benzo(a)pyrene	99	**17.6**	**24.6**	**4.4**	9.7 U	--	**4.6**	**15.6**	**3.9**	2.9 U	**8.8**
Benzo(b,j,k)fluoranthenes	--	**49.4**	**54.0**	**12.7**	9.7 U	--	**11.6**	**34.7**	**10.6**	2.9 U	**22.8**
Benzo(g,h,i)perylene	31	**9.4**	**11.9**	**3.4 J**	9.7 U	--	**3.2**	**9.5**	**3.3**	2.9 U	**5.4**
Chrysene	110	**24.7**	**34.1 J**	**12.7**	9.7 U	--	**6.2**	**23.7**	**4.9**	2.9 U	**12.2**
Dibenzo(a,h)anthracene	12	**3.9**	**3.9**	3.8 U	9.7 U	--	**0.8**	**3.2**	2.2 U	2.9 U	**2.1**
Fluoranthene	160	**17.6**	**70.6**	**12.9**	9.7 U	--	**10.4**	**54.9**	**7.3**	2.9 U	**11.6**
Fluorene	23	**1.5**	**3.0**	3.8 U	9.7 U	--	**1.0**	**2.1**	2.2 U	2.9 U	**0.9**
Indeno(1,2,3-c,d)pyrene	34	**9.4**	**12.7**	**2.2 J**	9.7 U	--	**2.8**	**8.7**	**2.9**	2.9 U	**5.1**
Naphthalene	99	**1.5**	**1.3 J**	3.8 U	9.7 U	--	**1.6**	**1.8**	**1.6 J**	2.9 U	**1.0**
Phenanthrene	100	**8.2**	**28.6**	**34.1 J**	9.7 U	--	**4.6**	**17.1**	**4.3**	2.9 U	**6.5**
Pyrene	1000	**45.3**	**74.6**	**30.1**	9.7 U	--	**10.8**	**46.2**	**15.8**	2.9 U	**27.2**
Total SMS HPAH (U = 0)	960	**141**	**257.1**	**71.7**	9.7 U	--	**43.3**	**182**	**42.0**	2.9 U	**80.0**
Total SMS LPAH (U = 0)	370	**17.9**	**43.7**	**34.1**	9.7 U	--	**8.6**	**29.2**	**7.2**	2.9 U	**11.1**
Chlorobenzenes (µg/kg)											
1,2-Dichlorobenzene	--	1.7 U	1.3 U	4.7 U	1.2 U	--	1.9 U	**12**	4.6 U	**3.5 J**	1.9 U
1,3-Dichlorobenzene	--	20 U	20 U	19 U	18 U	--	19 U	19 U	18 U	19 U	19 U
1,4-Dichlorobenzene	--	1.7 U	1.3 U	4.7 U	1.2 U	--	**3.5 J**	**5.4 J**	4.6 U	1.1 U	1.9 U
1,2,4-Trichlorobenzene	--	4.9 U	4.9 U	4.7 U	4.5 U	--	4.8 U	4.8 U	4.6 U	4.6 U	4.7 U
Hexachlorobenzene	--	0.99 U	0.98 U	--	0.98 U	--	0.97 U	4.8 U	4.6 U	4.6 U	0.99 U
Chlorobenzenes (mg/kg-OC)											
1,2-Dichlorobenzene	2.3	0.1 U	0.1 U	0.94 U	0.6 U	--	0.08 U	**0.3**	0.56 U	**0.53 J**	0.06 U
1,3-Dichlorobenzene	--	1.2 U	1.6 U	3.8 U	9.7 U	--	0.79 U	0.55 U	2.2 U	2.9 U	0.65 U
1,4-Dichlorobenzene	3.1	0.1 U	0.1 U	0.94 U	0.6 U	--	**0.15 J**	**0.16 J**	0.56 U	0.2 U	0.06 U
1,2,4-Trichlorobenzene	0.81	0.29 U	0.39 U	0.94 U	2.4 U	--	0.20 U	0.14 U	0.56 U	0.70 U	0.16 U
Hexachlorobenzene	0.38	0.06 U	0.08 U	--	0.53 U	--	0.04 U	0.14 U	0.56 U	0.70 U	0.03 U
Phthalates (µg/kg)											
Dimethyl phthalate	--	**15 J**	**8.9 J**	19 U	18 U	--	19 U	**23**	18 U	19 U	19 U
Diethyl phthalate	--	5.3 U	**6.2**	5 U	**5.1**	--	**4.9 J**	**7.6**	5 U	**15**	**40**
Di-n-butyl phthalate	--	**13 J**	**11 J**	19 U	18 U	--	19 U	19 U	18 U	19 U	46 U
Butylbenzyl phthalate	--	**30**	**15 J**	19 U	18 U	--	**21**	19 U	18 U	19 U	**38 J**
Bis(2-ethylhexyl) phthalate	--	**670**	**440 J**	25 U	37 U	--	**170**	**760**	61 U	29 U	**240**
Di-n-octyl phthalate	--	20 U	**25**	19 U	18 U	--	19 U	19 U	18 U	19 U	19 U
Phthalates (mg/kg-OC)											
Dimethyl phthalate	53	**0.88 J**	**0.71 J**	3.8 U	9.7 U	--	0.79 U	**0.7**	2.2 U	2.9 U	0.65 U
Diethyl phthalate	61	0.31 U	**0.5**	1.0 U	**2.7**	--	**0.20 J**	**0.2**	0.61 U	**2.3**	**1.4**
Di-n-butyl phthalate	220	**0.76 J**	**0.87 J**	3.8 U	9.7 U	--	0.79 U	0.55 U	2.2 U	2.9 U	1.6 U
Butylbenzyl phthalate	4.9	**1.8**	**1.2 J**	3.8 U	9.7 U	--	**0.9**	0.55 U	2.2 U	2.9 U	**1.3 J**
Bis(2-ethylhexyl) phthalate	47	**39.4**	**35 J**	5.0 U	20 U	--	**7.1**	**22**	7.4 U	4.4 U	**8.2**
Di-n-octyl phthalate	58	1.2 U	**2.0**	3.8 U	9.7 U	--	0.79 U	0.55 U	2.2 U	2.9 U	0.65 U

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-02	DSI-SB-02	DSI-SB-02	DSI-SB-02	DSI-SB-03
	Sample ID	DSI-SB-01-1-2	DSI-SB-01-2-3.1	DSI-SB-01-3.1-4	DSI-SB-01-5-6	DSI-SB-01-6-7	DSI-SB-02-1-2.3	DSI-SB-02-3.7-5.2	DSI-SB-02-5.2-7	DSI-SB-02-8.5-10	DSI-SB-03-1-2
	Sample Date	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/14/2011
	Depth	1 to 2 feet	2 to 3.1 feet	3.1 to 4 feet	5 to 6 feet	6 to 7 feet	1 to 2.3 feet	3.7 to 5.2 feet	5.2 to 7 feet	8.5 to 10 feet	1 to 2 feet
	Stratigraphic Unit	Recent	Recent	Upper Alluvium	Upper Alluvium	Upper Alluvium	Recent	Recent	Upper Alluvium	Upper Alluvium	Recent
	SMS SQS										
Phenols (µg/kg)											
2,4-Dimethylphenol	29	20 U	20 U	19 UJ	18 U	--	19 UJ	19 UJ	18 UJ	19 UJ	19 UJ
2-Methylphenol (o-Cresol)	63	20 U	20 U	19 U	18 U	--	19 U	19 U	18 U	19 U	19 U
4-Methylphenol (p-Cresol)	670	**24**	**9.9 J**	19 U	18 U	--	**32**	**54**	18 U	19 U	**21**
Pentachlorophenol	360	**25 J**	14 U	7.6 U	7.7 U	--	12 U	**150 J**	8.1 U	8.1 U	12 U
Phenol	420	**47**	20 U	**12 J**	18 U	--	**120**	**120**	**15 J**	19 U	**42**
Phenols (mg/kg-OC)											
2,4-Dimethylphenol	--	1.2 U	1.6 U	3.8 U	9.7 U	--	0.79 UJ	0.55 UJ	2.2 UJ	2.9 UJ	0.65 UJ
2-Methylphenol (o-Cresol)	--	1.2 U	1.6 U	3.8 U	9.7 U	--	0.79 U	0.55 U	2.2 U	2.9 U	0.65 U
4-Methylphenol (p-Cresol)	--	**1.4**	**0.79 J**	3.8 U	9.7 U	--	**1.3**	**1.6**	2.2 U	2.9 U	**0.7**
Pentachlorophenol	--	**1.5 J**	1.1 U	1.5 U	4.1 U	--	0.50 U	**4.3 J**	0.99 U	1.2 U	0.41 U
Phenol	--	**2.8**	1.6 U	**2.4 J**	9.7 U	--	**5.0**	**3.5**	**1.8 J**	2.9 U	**1.4**
Miscellaneous Extractables (µg/kg) [4]											
Dibenzofuran	--	**20**	**22**	**20**	18 U	--	19 U	**61**	18 U	19 U	**21**
Hexachlorobutadiene	--	0.99 U	0.98 U	4.7 U	0.98 U	--	0.97 U	4.8 U	4.6 U	4.6 U	0.99 U
N-Nitrosodiphenylamine	--	4.9 U	4.9 U	4.7 U	4.5 U	--	4.8 U	**23**	4.6 U	4.6 U	19 U
Benzyl alcohol	57	**43**	20 U	19 UJ	18 U	--	**280**	**85**	18 UJ	19 U	**85**
Benzoic acid	650	**120 J**	200 UJ	190 UJ	180 U	--	**430 J**	190 UJ	180 U	190 UJ	**130 J**
Hexachloroethane	--	20 U	20 UJ	19 U	18 U	--	19 U	19 U	18 U	19 U	19 U
Miscellaneous Extractables (mg/kg-OC) [4]											
Dibenzofuran	15	**1.2**	**1.7**	**4.0**	9.7 U	--	0.79 U	**1.8**	2.2 U	2.9 U	**0.7**
Hexachlorobutadiene	3.9	0.06 U	0.08 U	0.9 U	0.5 U	--	0.04 U	0.1 U	0.6 U	0.7 U	0.03 U
N-Nitrosodiphenylamine	11	0.29 U	0.4 U	0.94 U	2.4 U	--	0.20 U	**0.7**	0.56 U	0.70 U	0.65 U
Benzyl alcohol	--	**2.5**	1.6 U	3.8 U	9.7 U	--	**11.6**	**2.5**	2.2 UJ	2.9 U	**2.9**
Benzoic acid	--	**7.1 J**	16 UJ	38 UJ	97 U	--	**17 J**	5.5 UJ	22 U	29 UJ	**4.4 J**
Hexachloroethane	--	1.2 U	1.6 U	3.8 U	9.7 U	--	0.79 U	0.55 U	2.2 U	2.9 U	0.65 U
PCB Aroclors (µg/kg)											
Aroclor 1016	--	3.8 U	38 U	3.8 U	3.9 U	--	3.9 U	20 U	3.8 U	3.9 U	4 U
Aroclor 1221	--	3.8 U	38 U	3.8 U	3.9 U	--	3.9 U	20 U	3.8 U	3.9 U	4 U
Aroclor 1232	--	3.8 U	38 U	3.8 U	3.9 U	--	3.9 U	20 U	3.8 U	3.9 U	4 U
Aroclor 1242	--	3.8 U	38 U	3.8 U	3.9 U	--	3.9 U	20 U	3.8 U	3.9 U	4 U
Aroclor 1248	--	**28**	**290**	38 U	3.9 U	--	29 U	**250**	**68**	3.9 U	**32**
Aroclor 1254	--	**40**	**490**	**72**	**4.3**	--	**46**	**260**	**72**	3.9 U	**41**
Aroclor 1260	--	**25**	**190**	**26**	3.9 U	--	**35**	**220**	**28**	3.9 U	**29**
Total PCB Aroclors (U = 0)	--	**93**	**970**	**98**	**4.3**	--	**81**	**730**	**168**	3.9 U	**102**
Total PCB Aroclors (U = 1/2)	--	**101**	**1,046**	**125**	**16**	--	**103**	**770**	**176**	3.9 U	**110**
PCB Aroclors (mg/kg-OC)											
Aroclor 1016	--	0.22 U	3.0 U	0.76 U	2.1 U	--	0.16 U	0.58 U	0.46 U	0.60 U	0.14 U
Aroclor 1221	--	0.22 U	3.0 U	0.76 U	2.1 U	--	0.16 U	0.58 U	0.46 U	0.60 U	0.14 U
Aroclor 1232	--	0.22 U	3.0 U	0.76 U	2.1 U	--	0.16 U	0.58 U	0.46 U	0.60 U	0.14 U
Aroclor 1242	--	0.22 U	3.0 U	0.76 U	2.1 U	--	0.16 U	0.58 U	0.46 U	0.60 U	0.14 U
Aroclor 1248	--	**1.6**	**23**	7.6 U	2.1 U	--	1.2 U	**7.2**	**8.3**	0.60 U	**1.1**
Aroclor 1254	--	**2.4**	**39**	**14**	**2.3**	--	**1.9**	**7.5**	**8.8**	0.60 U	**1.4**
Aroclor 1260	--	**1.5**	**15**	**5.2**	2.1 U	--	**1.5**	**6.4**	**3.4**	0.60 U	**1.0**
Total PCB Aroclors (U = 0)	12	**5.5**	**77**	**20**	**2.3**	--	**3.4**	**21**	**20**	0.60 U	**3.5**
Total PCB Aroclors (U = 1/2)	12	**5.9**	**83**	**25**	**8.6**	--	**4.3**	**22**	**21**	0.60 U	**3.7**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-02	DSI-SB-02	DSI-SB-02	DSI-SB-02	DSI-SB-03
	Sample ID	DSI-SB-01-1-2	DSI-SB-01-2-3.1	DSI-SB-01-3.1-4	DSI-SB-01-5-6	DSI-SB-01-6-7	DSI-SB-02-1-2.3	DSI-SB-02-3.7-5.2	DSI-SB-02-5.2-7	DSI-SB-02-8.5-10	DSI-SB-03-1-2
	Sample Date	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/14/2011
	Depth	1 to 2 feet	2 to 3.1 feet	3.1 to 4 feet	5 to 6 feet	6 to 7 feet	1 to 2.3 feet	3.7 to 5.2 feet	5.2 to 7 feet	8.5 to 10 feet	1 to 2 feet
	Stratigraphic Unit	Recent	Recent	Upper Alluvium	Upper Alluvium	Upper Alluvium	Recent	Recent	Upper Alluvium	Upper Alluvium	Recent
	SMS SQS										
Volatile Organics (µg/kg)											
1,1,1-Trichloroethane	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
1,1,2-Trichloroethane	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
1,1-Dichloroethane	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
1,1-Dichloroethene	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
1,2-Dichloroethane	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
1,3,5-Trimethylbenzene (Mesitylene)	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Acetone	--	**59**	**99**	--	**17**	--	**82**	**54**	--	**25**	**130**
Benzene	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Carbon tetrachloride (Tetrachloromethane)	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Chlorobenzene	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Chloroethane	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Chloroform	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Chloromethane	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Dichloromethane (Methylene chloride)	--	3.5 U	2.7 U	--	2.4 U	--	3.9 U	2.9 U	--	**22**	3.7 U
Ethylbenzene		1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
m,p-Xylene	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
o-Xylene	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Styrene	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Tetrachloroethene (PCE)	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Toluene	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Trichloroethene (TCE)	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Vinyl chloride	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Total Xylene (U = 0)	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Total Xylene (U = 1/2)	--	1.7 U	1.3 U	--	1.2 U	--	1.9 U	1.5 U	--	1.1 U	1.9 U
Pesticides (µg/kg)											
4,4'-DDD (p,p'-DDD)	--	2 U	2 U	--	2 U	--	2 U	9.7 U	--	--	2 U
4,4'-DDE (p,p'-DDE)	--	2 U	2 U	--	2 U	--	2 U	9.7 U	--	--	2 U
4,4'-DDT (p,p'-DDT)	--	2 U	**11**	--	2 U	--	3.5 U	9.7 U	--	--	4.4 U
Aldrin	--	0.99 U	0.98 U	--	0.98 U	--	0.97 U	4.8 U	--	--	0.99 U
alpha-Chlordane (cis-Chlordane)	--	0.99 U	0.98 U	--	0.98 U	--	0.97 U	4.8 U	--	--	0.99 U
alpha-Hexachlorocyclohexane (BHC)	--	0.99 U	0.98 U	--	0.98 U	--	0.97 U	4.8 U	--	--	0.99 U
beta-Chlordane (trans-Chlordane)	--	0.99 U	0.98 U	--	0.98 U	--	0.97 U	4.8 U	--	--	0.99 U
beta-Hexachlorocyclohexane (BHC)	--	0.99 U	0.98 U	--	0.98 U	--	0.97 U	4.8 U	--	--	0.99 U
delta-Hexachlorocyclohexane (BHC)	--	0.99 UJ	0.98 UJ	--	0.98 UJ	--	0.97 UJ	4.8 UJ	--	--	0.99 UJ
Dieldrin	--	2 U	2 U	--	2 U	--	2 U	9.7 U	--	--	2 U
Endosulfan sulfate	--	2 UJ	2 UJ	--	2 UJ	--	2 U	9.7 U	--	--	2 U
Endosulfan-alpha (I)	--	0.99 U	0.98 U	--	0.98 U	--	0.97 U	4.8 U	--	--	0.99 U
Endosulfan-beta (II)	--	2 U	2 U	--	2 U	--	2 U	9.7 U	--	--	2 U
Endrin	--	2 U	2 U	--	2 U	--	2 U	9.7 U	--	--	2 U
Endrin aldehyde	--	2 UJ	2 UJ	--	2 UJ	--	**3.4 J**	9.7 U	--	--	2 U
Endrin ketone	--	2 U	2 U	--	2 U	--	2 U	9.7 U	--	--	2 U
gamma-Hexachlorocyclohexane (BHC) (Lindane)	--	0.99 U	0.98 U	--	0.98 U	--	0.97 U	4.8 U	--	--	0.99 U
Heptachlor	--	0.99 U	0.98 U	--	0.98 U	--	0.97 U	4.8 U	--	--	0.99 U
Heptachlor epoxide	--	0.99 U	5.3 U	--	0.98 U	--	0.97 U	5.6 U	--	--	0.99 U
Methoxychlor	--	9.9 U	9.8 U	--	9.8 U	--	9.7 U	48 U	--	--	9.9 U

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-01	DSI-SB-02	DSI-SB-02	DSI-SB-02	DSI-SB-02	DSI-SB-03
	Sample ID	DSI-SB-01-1-2	DSI-SB-01-2-3.1	DSI-SB-01-3.1-4	DSI-SB-01-5-6	DSI-SB-01-6-7	DSI-SB-02-1-2.3	DSI-SB-02-3.7-5.2	DSI-SB-02-5.2-7	DSI-SB-02-8.5-10	DSI-SB-03-1-2
	Sample Date	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/14/2011
	Depth	1 to 2 feet	2 to 3.1 feet	3.1 to 4 feet	5 to 6 feet	6 to 7 feet	1 to 2.3 feet	3.7 to 5.2 feet	5.2 to 7 feet	8.5 to 10 feet	1 to 2 feet
	Stratigraphic Unit	Recent	Recent	Upper Alluvium	Upper Alluvium	Upper Alluvium	Recent	Recent	Upper Alluvium	Upper Alluvium	Recent
	SMS SQS										
Toxaphene	--	99 U	98 U	--	98 U	--	97 U	480 U	--	--	99 U
Total DDx (U = 0)	--	2 U	**11**	--	2 U	--	3.5 U	9.7 U	--	--	4.4 U
Total DDx (U = 1/2)	--	2 U	**13**	--	2 U	--	3.5 U	9.7 U	--	--	4.4 U
Dioxin Furans (ng/kg)											
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	--	**0.532 J**	**2.10**	--	**0.0575 J**	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	--	**2.38 J**	**7.1 J**	--	**0.291 J**	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	**2.87**	**7.96**	--	**0.16 J**	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	**12.4**	**62.2**	--	**0.257 J**	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	**6.72**	**27.7**	--	0.27 U	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	--	**333**	**1,930**	--	**1.27 J**	--
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	--	--	--	--	--	--	**3,060**	**20,600**	--	**7.82**	--
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	--	**1.59**	**3.23**	--	0.331 UJ	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	**1.36 J**	**2.97**	--	0.642 U	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	**2.44**	**7.33**	--	0.279 UJ	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	**9.20**	**38.0**	--	0.701 UJ	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	**2.85**	**8.90**	--	0.294 UJ	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	**1.84 J**	**7.41**	--	0.0427 U	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	**3.98**	**13.5**	--	**0.136 J**	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	**61.9**	**270**	--	0.595 U	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	**5.70**	**24.5**	--	**0.109 J**	--
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	--	--	--	--	--	--	**207**	**829**	--	0.371 U	--
Total Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	--	**12.1 J**	**20.6 J**	--	**1.04 J**	--
Total Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	--	**20 J**	**54.2 J**	--	**1.01 J**	--
Total Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	**106**	**427**	--	**1.61 J**	--
Total Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	--	**920 J**	**3800 J**	--	**2.65 J**	--
Total Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	--	**34.9 J**	**78.9 J**	--	**2.8 J**	--
Total Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	**48.7 J**	**125 J**	--	**2.78 J**	--
Total Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	**106 J**	**437 J**	--	1.79 UJ	--
Total Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	**241**	**1,230**	--	0.851 UJ	--
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2)	--	--	--	--	--	--	**12.8**	**57.1**	--	**0.56**	--
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0)	--	--	--	--	--	--	**12.8**	**57.1**	--	**0.42**	--

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-03	DSI-SB-03	DSI-SB-03	DSI-SB-03	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-05
	Sample ID	DSI-SB-03-5.8-7	DSI-SB-03-9.5-10.4	DSI-SB-03-10.4-11.1	DSI-SB-03-11.1-11.6	DSI-SB-04-1-2	DSI-SB-04-4-5	DSI-SB-04-7-8.3	DSI-SB-04-8.3-9.3	DSI-SB-04-9.3-10.9	DSI-SB-05-1-2
	Sample Date	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/9/2011	3/9/2011	3/9/2011	3/9/2011	3/9/2011	3/10/2011
	Depth	5.8 to 7 feet	9.5 to 10.4 feet	10.4 to 11.1 feet	11.1 to 11.6 feet	1 to 2 feet	4 to 5 feet	7 to 8.3 feet	8.3 to 9.3 feet	9.3 to 10.9 feet	1 to 2 feet
	Stratigraphic Unit	Recent	Recent	Upper Alluvium	Lower Alluvium	Recent	Recent	Recent	Lower Alluvium	Lower Alluvium	Recent
	SMS SQS										
Conventional Parameters (percent)											
Total organic carbon	--	**1.73**	**2.49**	**2.19**	**0.957**	**2.54**	**2.42**	**1.65**	**0.954 J**	**0.68**	**1.85**
Percent fines [2]	--	--	--	--	--	--	--	--	**62.9**	--	--
Total solids	--	**74**	**70.2**	**60.4**	**78.4**	**50.9**	**54.6**	**69.7**	**79.2**	**75.8**	**52.7**
Total volatile solids	--	--	--	--	--	**8.54**	**7.24**	**3.51**	--	--	--
Metals (mg/kg)											
Antimony	--	**4.5 J**	**3.1 J**	**0.6 J**	**2.9 J**	0.4 UJ	0.3 UJ	**5 J**	**10 J**	0.3 UJ	**0.5 J**
Arsenic	57	**147**	**191**	**205**	**41.1 J**	**30**	**60**	**550**	**802**	**22.1 J**	**53**
Beryllium	--	**0.30**	**0.20**	**0.50**	0.1 U	**0.40**	**0.50**	**0.90**	**0.40**	0.1 U	**0.40**
Cadmium	5.1	**1.1**	**0.90**	**1.3**	0.2 U	**0.90**	**1.1**	**4.0**	**2.5**	0.3 U	**0.80**
Chromium	260	**68**	**65**	**49 J**	**10.5 J**	**44**	**67**	**223**	**98**	**12.9 J**	**45**
Chromium VI [3]	--	0.538 U	0.563 U	--	--	**-- R**	**-- R**	**-- R**	--	--	**-- R**
Copper	390	**381**	**474**	**375 J**	**23.4 J**	**242**	**578**	**1,740**	**1,090**	**14.5 J**	**212**
Lead	450	**286**	**243**	**261 J**	**10 J**	**80**	**223**	**1,340**	**740**	3 UJ	**79**
Mercury	0.41	**0.25 J**	**0.22 J**	**1.39 J**	**-- R**	**0.30**	**0.31**	**2.7**	**1.4 J**	**-- R**	**0.39**
Nickel	--	**28**	**17**	**25**	**7**	**29**	**37**	**69**	**44**	**10**	**29**
Selenium	--	0.6 U	0.7 U	0.8 UJ	0.6 U	1 U	0.9 U	0.7 U	**0.60**	0.6 U	0.9 U
Silver	6.1	**0.60**	**0.80**	1 U	0.4 U	0.6 U	1 U	**2.0**	**1.5**	0.4 U	0.6 U
Thallium	--	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U	**0.30**	**0.50**	0.3 U	0.4 U
Zinc	410	**924**	**701**	**609 J**	**42 J**	**309 J**	**896 J**	**4,110 J**	**2,140**	**23 J**	**293 J**
Organometallic Compounds (µg/kg)											
Tributyltin (bulk sediment)	73	**150**	**620**	**3,900**	**94 J**	**69**	**380**	**1,500**	**710**	3.5 U	**50**
PAHs (µg/kg)											
1-Methylnaphthalene	--	**37**	**45**	**80 J**	20 U	**26**	**15 J**	**320**	57 U	18 U	**13 J**
2-Methylnaphthalene	--	**48**	**58**	**75 J**	20 U	**40**	**25**	**110**	57 U	18 U	**20**
Acenaphthene	--	**320**	**130**	**380**	20 U	**150**	**30**	**1,900**	**250**	**73**	**31**
Acenaphthylene	--	**11 J**	**28**	**75 J**	20 U	**32**	**26**	**73**	57 U	18 U	**34**
Anthracene	--	**180**	**160**	**550**	20 U	**350**	**130**	**1,000**	**220**	18 U	**270**
Benzo(a)anthracene	--	**450**	**460**	**1,800**	**33**	**760**	**380**	**2600 J**	**750**	18 U	**600**
Benzo(a)pyrene	--	**290**	**340**	**1,400**	**22**	**660**	**440**	**1600 J**	**450**	18 U	**640**
Benzo(b,j,k)fluoranthenes	--	**610**	**740**	**3,100**	**16 J**	**1,400**	**990**	**3200 J**	**1,100**	18 U	**1,500**
Benzo(g,h,i)perylene	--	**160**	**200**	**840**	**52**	**390**	**230**	**720**	**340**	18 U	**260**
Chrysene	--	**520**	**550**	**2,100**	**37**	**1,100**	**520**	**2,400**	**830**	18 U	**910**
Dibenzo(a,h)anthracene	--	**67**	**75**	**260**	20 U	**130**	**80**	**310**	**110**	18 U	**110**
Fluoranthene	--	**1,600**	**1,200**	**4,900**	**110**	**1,700**	**600**	--	**2,200**	**16 J**	**810**
Fluorene	--	**250**	**120**	**300**	20 U	**190**	**37**	**420**	**100**	18 U	**55**
Indeno(1,2,3-c,d)pyrene	--	**160**	**190**	**830**	**13 J**	**380**	**220**	**780**	**310**	18 U	**270**
Naphthalene	--	**110**	**210**	**250**	20 U	**92**	**39**	**790 J**	**120**	**18**	**46**
Phenanthrene	--	**900**	**700**	**2,100**	**28**	**1,500**	**270**	**3,000**	**1,300**	**47**	**360**
Pyrene	--	**1,700**	**1,300**	**4,100**	**90**	**1,800**	**1,400**	**7,700**	**1,900**	**15 J**	**1,100**
Total SMS HPAH (U = 0)	--	**4,947**	**4,315**	**16,230**	**321**	**6,920**	**3,870**	**16,110**	**6,890**	**31**	**4,700**
Total SMS LPAH (U = 0)	--	**1,771**	**1,348**	**3,655**	**28**	**2,314**	**532**	**7,183**	**1,990**	**138**	**796**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-03	DSI-SB-03	DSI-SB-03	DSI-SB-03	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-05
	Sample ID	DSI-SB-03-5.8-7	DSI-SB-03-9.5-10.4	DSI-SB-03-10.4-11.1	DSI-SB-03-11.1-11.6	DSI-SB-04-1-2	DSI-SB-04-4-5	DSI-SB-04-7-8.3	DSI-SB-04-8.3-9.3	DSI-SB-04-9.3-10.9	DSI-SB-05-1-2
	Sample Date	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/9/2011	3/9/2011	3/9/2011	3/9/2011	3/9/2011	3/10/2011
	Depth	5.8 to 7 feet	9.5 to 10.4 feet	10.4 to 11.1 feet	11.1 to 11.6 feet	1 to 2 feet	4 to 5 feet	7 to 8.3 feet	8.3 to 9.3 feet	9.3 to 10.9 feet	1 to 2 feet
	Stratigraphic Unit	Recent	Recent	Upper Alluvium	Lower Alluvium	Recent	Recent	Recent	Lower Alluvium	Lower Alluvium	Recent
	SMS SQS										
PAHs (mg/kg-OC)											
1-Methylnaphthalene	--	**2.1**	**1.8**	**3.7 J**	2.1 U	**1.0**	**0.62 J**	**19.4**	6.0 U	2.6 U	**0.70 J**
2-Methylnaphthalene	38	**2.8**	**2.3**	**3.4 J**	2.1 U	**1.6**	**1.0**	**6.7**	6.0 U	2.6 U	**1.1**
Acenaphthene	16	**18.5**	**5.2**	**17.4**	2.1 U	**5.9**	**1.2**	**115**	**26.2**	**10.7**	**1.7**
Acenaphthylene	66	**0.64 J**	**1.1**	**3.4 J**	2.1 U	**1.3**	**1.1**	**4.4**	6.0 U	2.6 U	**1.8**
Anthracene	220	**10.4**	**6.4**	**25.1**	2.1 U	**13.8**	**5.4**	**60.6**	**23.1**	2.6 U	**14.6**
Benzo(a)anthracene	110	**26.0**	**18.5**	**82.2**	**3.4**	**29.9**	**15.7**	**158 J**	**78.6**	2.6 U	**32.4**
Benzo(a)pyrene	99	**16.8**	**13.7**	**63.9**	**2.3**	**26.0**	**18.2**	**97 J**	**47.2**	2.6 U	**34.6**
Benzo(b,j,k)fluoranthenes	--	**35.3**	**29.7**	**141.6**	**1.7 J**	**55.1**	**40.9**	**194 J**	**115.3**	2.6 U	**81.1**
Benzo(g,h,i)perylene	31	**9.2**	**8.0**	**38.4**	**5.4**	**15.4**	**9.5**	**43.6**	**35.6**	2.6 U	**14.1**
Chrysene	110	**30.1**	**22.1**	**95.9**	**3.9**	**43.3**	**21.5**	**145**	**87.0**	2.6 U	**49.2**
Dibenzo(a,h)anthracene	12	**3.9**	**3.0**	**11.9**	2.1 U	**5.1**	**3.3**	**18.8**	**11.5**	2.6 U	**5.9**
Fluoranthene	160	**92.5**	**48.2**	**224**	**11.5**	**66.9**	**24.8**	**--**	**231**	**2.4 J**	**43.8**
Fluorene	23	**14.5**	**4.8**	**13.7**	2.1 U	**7.5**	**1.5**	**25.5**	**10.5**	2.6 U	**3.0**
Indeno(1,2,3-c,d)pyrene	34	**9.2**	**7.6**	**37.9**	**1.4 J**	**15.0**	**9.1**	**47.3**	**32.5**	2.6 U	**14.6**
Naphthalene	99	**6.4**	**8.4**	**11.4**	2.1 U	**3.6**	**1.6**	**47.9 J**	**12.6**	**2.6**	**2.5**
Phenanthrene	100	**52.0**	**28.1**	**95.9**	**2.9**	**59.1**	**11.2**	**182**	**136**	**6.9**	**19.5**
Pyrene	1000	**98.3**	**52.2**	**187**	**9.4**	**70.9**	**57.9**	**467**	**199**	**2.2 J**	**59.5**
Total SMS HPAH (U = 0)	960	**286**	**173**	**741**	**33.5**	**272**	**160**	**976**	**722**	**4.6**	**254**
Total SMS LPAH (U = 0)	370	**102**	**54.1**	**167**	**2.9**	**91.1**	**22.0**	**435**	**209**	**20.3**	**43.0**
Chlorobenzenes (µg/kg)											
1,2-Dichlorobenzene	--	1.2 U	1.3 U	**20**	4.9 U	1.8 UJ	**7.8**	**12**	**21**	**14**	1.8 U
1,3-Dichlorobenzene	--	18 U	20 U	94 U	20 U	19 U	20 U	19 U	57 U	18 U	19 U
1,4-Dichlorobenzene	--	1.2 U	1.3 U	**7**	4.9 U	1.8 UJ	**6.4**	**5.1 J**	4.7 U	4.6 U	1.8 U
1,2,4-Trichlorobenzene	--	4.6 U	4.9 U	4.7 U	4.9 U	4.8 U	4.9 U	4.7 U	4.7 U	4.6 U	4.7 U
Hexachlorobenzene	--	0.98 U	0.97 U	4.7 U	4.9 U	0.99 U	1.6 U	0.98 U	4.7 U	4.6 U	0.99 U
Chlorobenzenes (mg/kg-OC)											
1,2-Dichlorobenzene	2.3	0.07 U	0.05 U	**0.9**	0.5 U	0.07 UJ	**0.3**	**0.7**	**2.2**	**2.1**	0.1 U
1,3-Dichlorobenzene	--	1.0 U	0.80 U	4.3 U	2.1 U	0.75 U	0.83 U	1.2 U	6.0 U	2.6 U	1.0 U
1,4-Dichlorobenzene	3.1	0.07 U	0.05 U	**0.3**	0.5 U	0.07 UJ	**0.3**	**0.31 J**	0.49 U	0.7 U	0.1 U
1,2,4-Trichlorobenzene	0.81	0.27 U	0.20 U	0.21 U	0.5 U	0.19 U	0.20 U	0.28 U	0.49 U	0.7 U	0.25 U
Hexachlorobenzene	0.38	0.057 U	0.039 U	0.21 U	0.5 U	0.039 U	0.066 U	0.059 U	0.49 U	0.7 U	0.05 U
Phthalates (µg/kg)											
Dimethyl phthalate	--	18 U	20 U	94 U	20 U	19 U	**69**	19 U	57 U	18 U	**37**
Diethyl phthalate	--	**6.6**	5.2 U	**--**	61 U	5.2 U	5.3 U	5 U	5.1 U	14 U	**20**
Di-n-butyl phthalate	--	18 U	20 U	94 U	20 U	**17 J**	**40**	**160**	**80**	18 U	**17 J**
Butylbenzyl phthalate	--	18 UJ	20 UJ	94 U	20 U	**29**	**28**	19 U	57 U	18 U	**26**
Bis(2-ethylhexyl) phthalate	--	**240**	**870**	**1400**	**28**	**200**	**270**	**890 J**	**1200**	23 U	**740**
Di-n-octyl phthalate	--	18 U	20 U	94 U	20 U	19 U	20 U	19 UJ	57 U	18 U	**36**
Phthalates (mg/kg-OC)											
Dimethyl phthalate	53	1.0 U	0.80 U	4.3 U	2.1 U	0.75 U	**2.9**	1.2 U	6.0 U	2.6 U	**2.0**
Diethyl phthalate	61	**0.4**	0.21 U	**--**	6.4 U	0.20 U	0.22 U	0.30 U	0.53 U	2.1 U	**1.1**
Di-n-butyl phthalate	220	1.0 U	0.80 U	4.3 U	2.1 U	**0.67 J**	**1.7**	**9.7**	**8.4**	2.6 U	**0.92 J**
Butylbenzyl phthalate	4.9	1.0 UJ	0.80 U	4.3 U	2.1 U	**1.1**	**1.2**	1.2 U	6.0 U	2.6 U	**1.4**
Bis(2-ethylhexyl) phthalate	47	**13.9**	**34.9**	**63.9**	**2.9**	**7.9**	**11.2**	**54 J**	**126.0**	3.4 U	**40.0**
Di-n-octyl phthalate	58	1.0 U	0.80 U	4.3 U	2.1 U	0.75 U	0.83 U	1.2 U	6.0 U	2.6 U	**1.9**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-03	DSI-SB-03	DSI-SB-03	DSI-SB-03	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-05
	Sample ID	DSI-SB-03-5.8-7	DSI-SB-03-9.5-10.4	DSI-SB-03-10.4-11.1	DSI-SB-03-11.1-11.6	DSI-SB-04-1-2	DSI-SB-04-4-5	DSI-SB-04-7-8.3	DSI-SB-04-8.3-9.3	DSI-SB-04-9.3-10.9	DSI-SB-05-1-2
	Sample Date	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/9/2011	3/9/2011	3/9/2011	3/9/2011	3/9/2011	3/10/2011
	Depth	5.8 to 7 feet	9.5 to 10.4 feet	10.4 to 11.1 feet	11.1 to 11.6 feet	1 to 2 feet	4 to 5 feet	7 to 8.3 feet	8.3 to 9.3 feet	9.3 to 10.9 feet	1 to 2 feet
	Stratigraphic Unit	Recent	Recent	Upper Alluvium	Lower Alluvium	Recent	Recent	Recent	Lower Alluvium	Lower Alluvium	Recent
	SMS SQS										
Phenols (µg/kg)											
2,4-Dimethylphenol	29	18 UJ	**20 J**	94 UJ	39 UJ	19 U	20 U	**22**	57 UJ	37 UJ	19 U
2-Methylphenol (o-Cresol)	63	18 U	**45**	94 U	20 U	19 U	20 U	**11 J**	57 U	18 U	**7.5 J**
4-Methylphenol (p-Cresol)	670	**15 J**	**130**	**52 J**	39 U	**110**	**53**	**130**	57 U	37 U	**43**
Pentachlorophenol	360	8 U	84 U	**160 J**	24 U	18 U	**57 J**	**86 J**	**56**	23 U	18 U
Phenol	420	**110**	**160**	**56 J**	20 U	**75**	**110**	**97**	**45 J**	**16 J**	**58**
Phenols (mg/kg-OC)											
2,4-Dimethylphenol	--	1.0 UJ	**0.80 J**	4.3 UJ	4.1 UJ	0.75 U	0.83 U	**1.3**	6.0 UJ	5.4 UJ	1.0 U
2-Methylphenol (o-Cresol)	--	1.0 U	**1.8**	4.3 UJ	2.1 U	0.75 U	0.83 U	**0.67 J**	6.0 U	2.6 U	**0.41 J**
4-Methylphenol (p-Cresol)	--	**0.87 J**	**5.2**	**2.4 J**	4.1 U	**4.3**	**2.2**	**7.9**	6.0 U	5.4 U	**2.3**
Pentachlorophenol	--	0.46 U	3.4 U	**7.3 J**	2.5 U	0.71 U	**2.4 J**	**5.2 J**	**5.9**	3.4 U	0.97 U
Phenol	--	**6.4**	**6.4**	**2.6 J**	2.1 U	**3.0**	**4.5**	**5.9**	**4.7 J**	**2.4 J**	**3.1**
Miscellaneous Extractables (µg/kg) [4]											
Dibenzofuran	--	**180**	**74**	**180**	20 U	**110**	**26**	**250**	**120**	18 U	**30**
Hexachlorobutadiene	--	0.98 U	0.97 U	4.7 U	4.9 U	0.99 U	0.98 U	0.98 U	4.7 U	4.6 U	0.99 U
N-Nitrosodiphenylamine	--	18 U	20 U	**39**	4.9 U	19 U	20 U	19 U	4.7 U	4.6 U	4.7 U
Benzyl alcohol	57	18 U	**9.7 J**	94 UJ	20 U	**140**	**86**	**11 J**	57 UJ	18 U	**97**
Benzoic acid	650	180 UJ	200 UJ	940 U	390 UJ	**380**	**310**	190 UJ	570 U	370 U	**180 J**
Hexachloroethane	--	18 U	20 U	94 U	20 UJ	19 U	20 U	19 UJ	57 U	18 U	19 U
Miscellaneous Extractables (mg/kg-OC) [4]											
Dibenzofuran	15	**10.0**	**3.0**	**8.2**	2.1 U	**4.3**	**1.1**	**15.2**	**12.6**	2.6 U	**1.6**
Hexachlorobutadiene	3.9	0.06 U	0.04 U	0.2 U	0.5 U	0.04 U	0.04 U	0.06 U	0.5 U	0.7 U	0.05 U
N-Nitrosodiphenylamine	11	1.0 U	0.80 U	**1.8**	0.5 U	0.75 U	0.83 U	1.2 U	0.49 U	0.7 U	0.25 U
Benzyl alcohol	--	1.0 U	**0.39 J**	4.3 UJ	2.1 U	**5.5**	**3.6**	**0.67 J**	6.0 UJ	2.6 U	**5.2**
Benzoic acid	--	10 UJ	8.0 UJ	43 U	40.8 UJ	**15.0**	**12.8**	12 UJ	60 U	54.4 U	**9.7 J**
Hexachloroethane	--	1.0 U	0.80 U	4.3 U	2.1 UJ	0.75 U	0.83 U	1.2 UJ	6.0 U	2.6 U	1.0 U
PCB Aroclors (µg/kg)											
Aroclor 1016	--	3.9 U	19 U	38 U	3.7 U	4 U	7.3 U	75 U	19 U	3.8 U	3.9 U
Aroclor 1221	--	3.9 U	19 U	38 U	3.7 U	4 U	7.3 U	75 U	19 U	3.8 U	3.9 U
Aroclor 1232	--	3.9 U	19 U	38 U	3.7 U	4 U	7.3 U	75 U	19 U	3.8 U	3.9 U
Aroclor 1242	--	3.9 U	19 U	38 U	3.7 U	4 U	7.3 U	75 U	19 U	3.8 U	3.9 U
Aroclor 1248	--	29 U	140 U	**490**	**13**	**75**	**190**	**790**	**390**	3.8 U	**64**
Aroclor 1254	--	**59**	**370**	**840**	**22**	**100**	**230**	**1,300**	**640**	3.8 U	**97**
Aroclor 1260	--	**27**	**110**	**260**	**7.9**	**59**	**90**	**380**	**170**	3.8 U	**77**
Total PCB Aroclors (U = 0)	--	**86**	**480**	**1,590**	**42.9**	**234**	**510**	**2,470**	**1,200**	3.8 U	**238**
Total PCB Aroclors (U = 1/2)	--	**108**	**588**	**1,666**	**50.3**	**242**	**525**	**2,620**	**1,238**	3.8 U	**246**
PCB Aroclors (mg/kg-OC)											
Aroclor 1016	--	0.23 U	0.76 U	1.7 U	0.4 U	0.16 U	0.30 U	4.5 U	2 U	0.6 U	0.21 U
Aroclor 1221	--	0.23 U	0.76 U	1.7 U	0.4 U	0.16 U	0.30 U	4.5 U	2 U	0.6 U	0.21 U
Aroclor 1232	--	0.23 U	0.76 U	1.7 U	0.4 U	0.16 U	0.30 U	4.5 U	2 U	0.6 U	0.21 U
Aroclor 1242	--	0.23 U	0.76 U	1.7 U	0.4 U	0.16 U	0.30 U	4.5 U	2 U	0.6 U	0.21 U
Aroclor 1248	--	1.7 U	5.6 U	**22**	**1.4**	**3.0**	**7.9**	**48**	**41**	0.6 U	**3.5**
Aroclor 1254	--	**3.4**	**15**	**38**	**2.3**	**3.9**	**9.5**	**79**	**67**	0.6 U	**5.2**
Aroclor 1260	--	**1.6**	**4.4**	**12**	**0.8**	**2.3**	**3.7**	**23**	**18**	0.6 U	**4.2**
Total PCB Aroclors (U = 0)	12	**5.0**	**19**	**73**	**4.5**	**9.2**	**21**	**150**	**126**	0.6 U	**13**
Total PCB Aroclors (U = 1/2)	12	**6.3**	**24**	**76**	**5.3**	**9.5**	**22**	**159**	**130**	0.6 U	**13**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-03	DSI-SB-03	DSI-SB-03	DSI-SB-03	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-05
	Sample ID	DSI-SB-03-5.8-7	DSI-SB-03-9.5-10.4	DSI-SB-03-10.4-11.1	DSI-SB-03-11.1-11.6	DSI-SB-04-1-2	DSI-SB-04-4-5	DSI-SB-04-7-8.3	DSI-SB-04-8.3-9.3	DSI-SB-04-9.3-10.9	DSI-SB-05-1-2
	Sample Date	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/9/2011	3/9/2011	3/9/2011	3/9/2011	3/9/2011	3/10/2011
	Depth	5.8 to 7 feet	9.5 to 10.4 feet	10.4 to 11.1 feet	11.1 to 11.6 feet	1 to 2 feet	4 to 5 feet	7 to 8.3 feet	8.3 to 9.3 feet	9.3 to 10.9 feet	1 to 2 feet
	Stratigraphic Unit	Recent	Recent	Upper Alluvium	Lower Alluvium	Recent	Recent	Recent	Lower Alluvium	Lower Alluvium	Recent
	SMS SQS										
Volatile Organics (µg/kg)											
1,1,1-Trichloroethane	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
1,1,2-Trichloroethane	--	1.2 U	1.3 U	--	--	1.8 UJ	1.8 U	1.4 U	--	--	1.8 U
1,1-Dichloroethane	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
1,1-Dichloroethene	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
1,2-Dichloroethane	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
1,3,5-Trimethylbenzene (Mesitylene)	--	1.2 U	1.3 U	--	--	1.8 UJ	1.8 U	1.4 U	--	--	1.8 U
Acetone	--	**72**	**37**	--	--	**110 J**	**320**	**130**	--	--	**55**
Benzene	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
Carbon tetrachloride (Tetrachloromethane)	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
Chlorobenzene	--	1.2 U	1.3 U	--	--	1.8 UJ	1.8 U	1.4 U	--	--	1.8 U
Chloroethane	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
Chloroform	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
Chloromethane	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
Dichloromethane (Methylene chloride)	--	2.4 U	2.6 U	--	--	3.7 U	**3.9**	2.7 U	--	--	3.7 U
Ethylbenzene		1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
m,p-Xylene	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
o-Xylene	--	1.2 U	1.3 U	--	--	1.8 UJ	1.8 U	1.4 U	--	--	1.8 U
Styrene	--	1.2 U	1.3 U	--	--	1.8 UJ	1.8 U	1.4 U	--	--	1.8 U
Tetrachloroethene (PCE)	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
Toluene	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
Trichloroethene (TCE)	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
Vinyl chloride	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
Total Xylene (U = 0)	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
Total Xylene (U = 1/2)	--	1.2 U	1.3 U	--	--	1.8 U	1.8 U	1.4 U	--	--	1.8 U
Pesticides (µg/kg)											
4,4'-DDD (p,p'-DDD)	--	2 U	1.9 U	--	--	2 U	2 U	16 U	--	--	2 U
4,4'-DDE (p,p'-DDE)	--	2 U	8 U	--	--	2 U	2 U	**15 J**	--	--	2 U
4,4'-DDT (p,p'-DDT)	--	4.5 U	23 U	--	--	**3.6**	6.3 U	**76 J**	--	--	**5.6**
Aldrin	--	0.98 U	0.97 U	--	--	0.99 U	1.2 U	4.7 U	--	--	0.99 U
alpha-Chlordane (cis-Chlordane)	--	0.98 U	0.97 U	--	--	0.99 U	0.98 U	0.98 U	--	--	0.99 U
alpha-Hexachlorocyclohexane (BHC)	--	0.98 U	0.97 U	--	--	0.99 U	0.98 U	0.98 U	--	--	0.99 U
beta-Chlordane (trans-Chlordane)	--	0.98 U	0.97 U	--	--	0.99 U	0.98 U	0.98 U	--	--	0.99 U
beta-Hexachlorocyclohexane (BHC)	--	0.98 U	0.97 U	--	--	0.99 U	3.1 U	1.9 U	--	--	0.99 U
delta-Hexachlorocyclohexane (BHC)	--	0.98 UJ	0.97 UJ	--	--	0.99 UJ	0.98 UJ	0.98 UJ	--	--	0.99 UJ
Dieldrin	--	2 U	1.9 U	--	--	2 U	2 U	25 U	--	--	2 U
Endosulfan sulfate	--	2 U	1.9 U	--	--	2 UJ	2 UJ	28 UJ	--	--	27 UJ
Endosulfan-alpha (I)	--	0.98 U	0.97 U	--	--	0.99 U	0.98 U	3.6 U	--	--	0.99 U
Endosulfan-beta (II)	--	2 U	\	--	--	2 U	2 U	2 U	--	--	2 U
Endrin	--	2 U	9.9 U	--	--	2 U	2 U	20 U	--	--	2 U
Endrin aldehyde	--	2 U	4 U	--	--	2 UJ	2 UJ	5 UJ	--	--	2 UJ
Endrin ketone	--	2 U	1.9 U	--	--	2 U	5.3 U	2 U	--	--	2 U
gamma-Hexachlorocyclohexane (BHC) (Lindane)	--	0.98 U	0.97 U	--	--	0.99 U	4.2 U	0.98 U	--	--	0.99 U
Heptachlor	--	0.98 U	0.97 U	--	--	0.99 U	0.98 U	0.98 U	--	--	0.99 U
Heptachlor epoxide	--	1.9 U	9.8 U	--	--	1.6 U	4 U	21 U	--	--	2.3 U
Methoxychlor	--	9.8 U	19 U	--	--	9.9 U	9.8 U	28 U	--	--	9.9 U

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-03	DSI-SB-03	DSI-SB-03	DSI-SB-03	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-04	DSI-SB-05
	Sample ID	DSI-SB-03-5.8-7	DSI-SB-03-9.5-10.4	DSI-SB-03-10.4-11.1	DSI-SB-03-11.1-11.6	DSI-SB-04-1-2	DSI-SB-04-4-5	DSI-SB-04-7-8.3	DSI-SB-04-8.3-9.3	DSI-SB-04-9.3-10.9	DSI-SB-05-1-2
	Sample Date	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/9/2011	3/9/2011	3/9/2011	3/9/2011	3/9/2011	3/10/2011
	Depth	5.8 to 7 feet	9.5 to 10.4 feet	10.4 to 11.1 feet	11.1 to 11.6 feet	1 to 2 feet	4 to 5 feet	7 to 8.3 feet	8.3 to 9.3 feet	9.3 to 10.9 feet	1 to 2 feet
	Stratigraphic Unit	Recent	Recent	Upper Alluvium	Lower Alluvium	Recent	Recent	Recent	Lower Alluvium	Lower Alluvium	Recent
	SMS SQS										
Toxaphene	--	98 U	97 U	--	--	99 U	98 U	250 U	--	--	99 U
Total DDx (U = 0)	--	4.5 U	23 U	--	--	**3.6**	6.3 U	**91**	--	--	**5.6**
Total DDx (U = 1/2)	--	4.5 U	23 U	--	--	**5.6**	6.3 U	**99**	--	--	**7.6**
Dioxin Furans (ng/kg)											
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	--	--	--	--	--	**0.665 J**
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	--	--	--	--	--	**3.25 J**
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--	--	--	**4.47**
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--	--	--	**21.7**
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--	--	--	**10.0**
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	--	--	--	--	--	**695**
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	--	--	--	--	--	--	--	--	--	--	**6,900**
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	--	--	--	--	--	**2.37**
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--	--	--	--	**2.00**
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--	--	--	--	**4.26**
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	**20.6**
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	**4.99**
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	**4.08**
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	**7.44**
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--	--	--	--	**119**
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--	--	--	--	**13.5**
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	--	--	--	--	--	--	--	--	--	--	**397**
Total Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	--	--	--	--	--	**15.1 J**
Total Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	--	--	--	--	--	**31.1 J**
Total Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--	--	--	**217**
Total Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	--	--	--	--	--	**2130 J**
Total Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	--	--	--	--	--	**44.8 J**
Total Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--	--	--	--	**81 J**
Total Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	**211 J**
Total Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--	--	--	--	**497**
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2)	--	--	--	--	--	--	--	--	--	--	**23.3**
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0)	--	--	--	--	--	--	--	--	--	--	**23.3**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-05	DSI-SB-05	DSI-SB-05	DSI-SB-05	DSI-SB-06	DSI-SB-06	DSI-SB-06	DSI-SB-07	DSI-SB-07	DSI-SB-07
	Sample ID	DSI-SB-05-3-4	DSI-SB-05-6-7	DSI-SB-05-8-9.3	DSI-SB-05-9.3-11	DSI-SB-06-1-2	DSI-SB-06-5-6.5	DSI-SB-06-9.6-11	DSI-SB-07-1-2	DSI-SB-07-3.5-4.5	DSI-SB-07-6.5-7.5
	Sample Date	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/11/2011	3/11/2011	3/11/2011	3/9/2011	3/9/2011	3/9/2011
	Depth	3 to 4 feet	6 to 7 feet	8 to 9.3 feet	9.3 to 11 feet	1 to 2 feet	5 to 6.5 feet	9.6 to 11 feet	1 to 2 feet	3.5 to 4.5 feet	6.5 to 7.5 feet
	Stratigraphic Unit	Recent	Recent	Recent	Upper Alluvium	Recent	Recent	Upper Alluvium	Recent	Recent	Recent
	SMS SQS										
Conventional Parameters (percent)											
Total organic carbon	--	**2.4 J**	**1.7**	**1.26**	**0.316 J**	**2.78**	**2.27**	**1.07**	**2.45**	**1.99**	**2.38**
Percent fines [2]	--	**97.2**	--	--	**89.8**	--	--	--	--	--	--
Total solids	--	**61.3**	**70.7**	**74**	**72.9**	**52.1**	**59**	**76.6**	**53.5**	**48.4**	**60**
Total volatile solids	--	--	--	--	--	--	--	--	**7.5**	**11.14**	--
Metals (mg/kg)											
Antimony	--	**0.3 J**	0.3 UJ	**5.9 J**	0.3 UJ	0.4 UJ	**0.5 J**	0.3 UJ	0.4 UJ	**3.4 J**	0.3 UJ
Arsenic	57	**61**	**58**	**1,290**	**18**	**43**	**36**	**6.2**	**26**	**346**	**20**
Beryllium	--	**0.50**	**0.70**	**0.70**	**0.10**	**0.40**	**0.40**	**0.10**	**0.50**	**0.50**	**0.40**
Cadmium	5.1	**0.80**	**2.0**	**4.0**	0.3 U	**1.0**	**1.7**	**0.40**	**0.80**	**2.1**	**2.0**
Chromium	260	**46**	**78**	**120**	**13**	**47 J**	**64**	**18**	**41**	**132**	**58.6 J**
Chromium VI [3]	--	--	-- R	-- R	--	--	-- R	-- R	-- R	-- R	--
Copper	390	**783**	**1,970**	**1,460**	**19**	**292 J**	**250 J**	**32 J**	**190**	**487**	**191 J**
Lead	450	**77**	**150**	**1,090**	**3.0**	**152 J**	**240**	**17**	**77**	**974**	**107 J**
Mercury	0.41	**0.24 J**	**0**	**3.3**	-- R	**0.37 J**	**1.1**	**0.15**	**0.31**	**1.3**	**1.15 J**
Nickel	--	**31**	**29**	**66**	**9.0**	**31**	**28**	**10**	**30**	**32**	**26**
Selenium	--	0.8 U	0.7 U	3 U	0.6 U	1 UJ	0.8 U	0.6 U	0.9 U	1 U	0.8 UJ
Silver	6.1	1 U	2 U	**2.7**	0.4 U	0.5 U	**1.4**	0.4 U	0.5 U	**1.4**	**3.7**
Thallium	--	0.3 U	0.3 U	**0.70**	0.3 U	0.4 U	0.3 U	0.3 U	0.4 U	0.4 U	0.3 U
Zinc	410	**396**	**1,070 J**	**3,590 J**	**29**	**499 J**	**337 J**	**46 J**	**249 J**	**857 J**	**213 J**
Organometallic Compounds (µg/kg)											
Tributyltin (bulk sediment)	73	**380**	**2,400**	**1,400**	**3.8**	**580**	**7.3**	3.4 U	**37**	**240**	3.6 U
PAHs (µg/kg)											
1-Methylnaphthalene	--	**12 J**	**21**	**41**	18 U	**11 J**	**27**	18 U	**11 J**	**45**	**31**
2-Methylnaphthalene	--	**22**	**24**	**51**	18 U	**17 J**	**50**	18 U	**20**	**96**	**46**
Acenaphthene	--	**48**	**180**	**210**	18 U	**29**	**46**	**27**	**33**	**230**	**78**
Acenaphthylene	--	18 U	**24**	**23**	18 U	**23**	28 U	18 U	**19 J**	**29**	**24**
Anthracene	--	**130**	**270**	**570**	18 U	**92**	**140**	**40 J**	**95**	**440**	**150**
Benzo(a)anthracene	--	**340**	**990**	**1,700**	18 U	**340**	**330**	**98 J**	**310**	**1,100**	**260**
Benzo(a)pyrene	--	**430**	**840**	**1,100**	18 U	**390**	**400**	**98 J**	**380**	**750**	**210**
Benzo(b,j,k)fluoranthenes	--	**1,200**	**1,700**	**2,200**	18 U	**950**	**850**	**190 J**	**820**	**1,800**	**480**
Benzo(g,h,i)perylene	--	**290**	**360**	**490**	18 U	**240**	**160**	**58 J**	**170**	**360**	**130**
Chrysene	--	**540**	**1,200**	**1,800**	18 U	**700**	**460**	**120 J**	**400**	**1,400**	**320**
Dibenzo(a,h)anthracene	--	**93**	**140**	**210**	18 U	**90**	**49**	**22**	**62**	**160**	**62**
Fluoranthene	--	**780**	**2,400**	**7,100**	**9.2 J**	**590**	**1,300**	**170 J**	**550**	**2,900**	**730**
Fluorene	--	**40**	**77**	**200**	18 U	**33**	**75**	**29**	**36**	**600**	**140**
Indeno(1,2,3-c,d)pyrene	--	**280**	**370**	**520**	18 U	**220**	**160**	**54 J**	**170**	**380**	**110**
Naphthalene	--	**67**	**39**	**170**	18 U	**35**	**100**	**100**	**51**	**100**	**120**
Phenanthrene	--	**420**	**640**	**2,400**	18 U	**270**	**330**	**100**	**260**	**2,400**	**570**
Pyrene	--	**1,300**	**2,800**	**5,900**	18 U	**920**	**900**	**500 J**	**1,400**	**2,600**	**810**
Total SMS HPAH (U = 0)	--	**4,053**	**9,100**	**18,820**	**9**	**3,490**	**3,759**	**1,120**	**3,442**	**9,650**	**2,632**
Total SMS LPAH (U = 0)	--	**705**	**1,230**	**3,573**	18 U	**482**	**691**	**296**	**494**	**3,799**	**1,082**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-05	DSI-SB-05	DSI-SB-05	DSI-SB-05	DSI-SB-06	DSI-SB-06	DSI-SB-06	DSI-SB-07	DSI-SB-07	DSI-SB-07
	Sample ID	DSI-SB-05-3-4	DSI-SB-05-6-7	DSI-SB-05-8-9.3	DSI-SB-05-9.3-11	DSI-SB-06-1-2	DSI-SB-06-5-6.5	DSI-SB-06-9.6-11	DSI-SB-07-1-2	DSI-SB-07-3.5-4.5	DSI-SB-07-6.5-7.5
	Sample Date	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/11/2011	3/11/2011	3/11/2011	3/9/2011	3/9/2011	3/9/2011
	Depth	3 to 4 feet	6 to 7 feet	8 to 9.3 feet	9.3 to 11 feet	1 to 2 feet	5 to 6.5 feet	9.6 to 11 feet	1 to 2 feet	3.5 to 4.5 feet	6.5 to 7.5 feet
	Stratigraphic Unit	Recent	Recent	Recent	Upper Alluvium	Recent	Recent	Upper Alluvium	Recent	Recent	Recent
	SMS SQS										
PAHs (mg/kg-OC)											
1-Methylnaphthalene	--	**0.5 J**	**1.2**	**3.3**	5.70 U	**0.40 J**	**1.2**	1.68 U	**0.45 J**	**2.3**	**1.3**
2-Methylnaphthalene	38	**0.9**	**1.4**	**4.0**	5.70 U	**0.61 J**	**2.2**	1.68 U	**0.8**	**4.8**	**1.9**
Acenaphthene	16	**2.0**	**10.6**	**16.7**	5.70 U	**1.0**	**2.0**	**2.5**	**1.3**	**11.6**	**3.3**
Acenaphthylene	66	0.75 U	**1.4**	**1.8**	5.70 U	**0.8**	1.23 U	1.68 U	**0.78 J**	**1.5**	**1.0**
Anthracene	220	**5.4**	**15.9**	**45.2**	5.70 U	**3.3**	**6.2**	**3.74 J**	**3.9**	**22.1**	**6.3**
Benzo(a)anthracene	110	**14.2**	**58.2**	**135**	5.70 U	**12.2**	**14.5**	**9.16 J**	**12.7**	**55.3**	**10.9**
Benzo(a)pyrene	99	**17.9**	**49.4**	**87.3**	5.70 U	**14.0**	**17.6**	**9.16 J**	**15.5**	**37.7**	**8.8**
Benzo(b,j,k)fluoranthenes	--	**50.0**	**100**	**174.6**	5.70 U	**34.2**	**37.4**	**17.8 J**	**33.5**	**90.5**	**20.2**
Benzo(g,h,i)perylene	31	**12.1**	**21.2**	**38.9**	5.70 U	**8.6**	**7.0**	**5.4 J**	**6.9**	**18.1**	**5.5**
Chrysene	110	**22.5**	**70.6**	**143**	5.70 U	**25.2**	**20.3**	**11.2 J**	**16.3**	**70.4**	**13.4**
Dibenzo(a,h)anthracene	12	**3.9**	**8.2**	**16.7**	5.70 U	**3.2**	**2.2**	**2.1**	**2.5**	**8.0**	**2.6**
Fluoranthene	160	**32.5**	**141**	**563**	**2.91 J**	**21.2**	**57.3**	**15.9 J**	**22.4**	**146**	**30.7**
Fluorene	23	**1.7**	**4.5**	**15.9**	5.70 U	**1.2**	**3.3**	**2.7**	**1.5**	**30.2**	**5.9**
Indeno(1,2,3-c,d)pyrene	34	**11.7**	**21.8**	**41.3**	5.70 U	**7.9**	**7.0**	**5.05 J**	**6.9**	**19.1**	**4.6**
Naphthalene	99	**2.8**	**2.3**	**13.5**	5.70 U	**1.3**	**4.4**	**9.3**	**2.1**	**5.0**	**5.0**
Phenanthrene	100	**17.5**	**37.6**	**190**	5.70 U	**9.7**	**14.5**	**9.3**	**10.6**	**121**	**23.9**
Pyrene	1000	**54.2**	**165**	**468**	5.70 U	**33.1**	**39.6**	**46.7 J**	**57.1**	**131**	**34.0**
Total SMS HPAH (U = 0)	960	**169**	**535**	**1,494**	**2.9**	**126**	**166**	**105**	**140**	**485**	**111**
Total SMS LPAH (U = 0)	370	**29.4**	**72.4**	**284**	5.70 U	**17.3**	**30.4**	**27.7**	**20.2**	**191**	**45.5**
Chlorobenzenes (µg/kg)											
1,2-Dichlorobenzene	--	4.6 U	**95**	**72**	4.6 U	4.7 U	**4.1 J**	**2.4 J**	1.8 U	**4.8**	4.9 U
1,3-Dichlorobenzene	--	18 U	**14 J**	**6.4 J**	18 U	19 U	18 U	18 U	20 U	19 U	20 U
1,4-Dichlorobenzene	--	4.6 U	**27**	**14 J**	4.6 U	4.7 U	**4.4 J**	1.1 U	1.8 U	1.9 UJ	**7.1**
1,2,4-Trichlorobenzene	--	4.6 U	**12 J**	**7.2 J**	4.6 U	4.7 U	**2.4 J**	4.6 U	4.9 U	4.8 U	**5.9**
Hexachlorobenzene	--	4.6 U	0.98 U	4.5 U	4.6 U	4.7 U	4.6 U	0.97 U	0.99 U	0.98 U	4.9 U
Chlorobenzenes (mg/kg-OC)											
1,2-Dichlorobenzene	2.3	0.19 U	**5.6**	**5.7**	1.5 U	0.17 U	**0.18 J**	**0.22 J**	0.07 U	**0.2**	0.21 U
1,3-Dichlorobenzene	--	0.75 U	**0.82 J**	**0.51 J**	5.7 U	0.68 U	0.79 U	1.7 U	0.82 U	0.95 U	0.84 U
1,4-Dichlorobenzene	3.1	0.19 U	**1.6**	**1.1 J**	1.5 U	0.17 U	**0.19 J**	0.1 U	0.07 U	0.1 UJ	**0.3**
1,2,4-Trichlorobenzene	0.81	0.19 U	**0.71 J**	**0.57 J**	1.5 U	0.17 U	**0.11 J**	0.43 U	0.2 U	0.24 U	**0.2**
Hexachlorobenzene	0.38	0.19 U	0.058 U	0.36 U	1.5 U	0.17 U	0.20 U	0.091 U	0.04 U	0.049 U	0.21 U
Phthalates (µg/kg)											
Dimethyl phthalate	--	18 U	19 U	18 U	18 U	**17 J**	18 U	18 U	**12 J**	19 U	20 U
Diethyl phthalate	--	5.4 U	5.2 U	4.9 U	5 U	6.8 U	**4.4 J**	**3.1 J**	5.3 U	5.2 U	5.3 U
Di-n-butyl phthalate	--	**12 J**	**6.7 J**	**8.2 J**	18 U	**9.4 J**	18 U	18 U	20 U	**280**	**24**
Butylbenzyl phthalate	--	**26**	19 U	18 U	18 U	**29**	18 U	18 UJ	**21**	19 U	20 U
Bis(2-ethylhexyl) phthalate	--	**410**	**360**	**590**	18 U	**380**	**780**	34 U	**150**	**550**	**440**
Di-n-octyl phthalate	--	18 U	**28**	18 U	18 U	19 U	18 U	18 U	20 U	19 U	20 U
Phthalates (mg/kg-OC)											
Dimethyl phthalate	53	0.75 U	1.1 U	1.4 U	5.7 U	**0.61 J**	0.79 U	1.7 U	**0.49 J**	0.95 U	0.84 U
Diethyl phthalate	61	0.23 U	0.31 U	0.39 U	1.6 U	0.24 U	**0.19 J**	**0.29 J**	0.22 U	0.26 U	0.22 U
Di-n-butyl phthalate	220	**0.5 J**	**0.39 J**	**0.65 J**	5.7 U	**0.34 J**	0.79 U	1.7 U	0.82 U	**14.1**	**1.0**
Butylbenzyl phthalate	4.9	**1.1**	1.1 U	1.4 U	5.7 U	**1.0**	0.79 U	1.7 U	**0.9**	0.95 U	0.84 U
Bis(2-ethylhexyl) phthalate	47	**17.1**	**21.2**	**46.8**	5.7 U	**13.7**	**34.4**	3.2 U	**6.1**	**27.6**	**18.5**
Di-n-octyl phthalate	58	0.75 U	**1.6**	1.4 U	5.7 U	0.68 U	0.79 U	1.7 U	0.82 U	0.95 U	0.84 U

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-05	DSI-SB-05	DSI-SB-05	DSI-SB-05	DSI-SB-06	DSI-SB-06	DSI-SB-06	DSI-SB-07	DSI-SB-07	DSI-SB-07
	Sample ID	DSI-SB-05-3-4	DSI-SB-05-6-7	DSI-SB-05-8-9.3	DSI-SB-05-9.3-11	DSI-SB-06-1-2	DSI-SB-06-5-6.5	DSI-SB-06-9.6-11	DSI-SB-07-1-2	DSI-SB-07-3.5-4.5	DSI-SB-07-6.5-7.5
	Sample Date	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/11/2011	3/11/2011	3/11/2011	3/9/2011	3/9/2011	3/9/2011
	Depth	3 to 4 feet	6 to 7 feet	8 to 9.3 feet	9.3 to 11 feet	1 to 2 feet	5 to 6.5 feet	9.6 to 11 feet	1 to 2 feet	3.5 to 4.5 feet	6.5 to 7.5 feet
	Stratigraphic Unit	Recent	Recent	Recent	Upper Alluvium	Recent	Recent	Upper Alluvium	Recent	Recent	Recent
	SMS SQS										
Phenols (µg/kg)											
2,4-Dimethylphenol	29	18 UJ	19 U	18 U	18 UJ	19 UJ	**100 J**	18 UJ	20 U	**16 J**	20 UJ
2-Methylphenol (o-Cresol)	63	18 U	19 U	18 U	18 U	19 U	18 U	18 U	20 U	19 U	20 U
4-Methylphenol (p-Cresol)	670	**35**	**36**	**38**	18 U	**22**	**45**	18 U	**44**	**35**	**27**
Pentachlorophenol	360	15 U	**100 J**	**88 J**	8 U	**19 J**	**41 J**	8 U	25 UJ	**87 J**	10 U
Phenol	420	**61**	**20**	**43**	18 U	**210**	**100**	18 U	**33**	**120**	**54**
Phenols (mg/kg-OC)											
2,4-Dimethylphenol	--	0.75 UJ	1.1 U	1.4 U	5.7 UJ	0.68 UJ	**4.4 J**	1.7 UJ	0.82 U	**0.80 J**	0.84 UJ
2-Methylphenol (o-Cresol)	--	0.75 U	1.1 U	1.4 U	5.7 U	0.68 U	0.79 U	1.7 U	0.82 U	0.95 U	0.84 U
4-Methylphenol (p-Cresol)	--	**1.5**	**2.1**	**3.0**	5.7 U	**0.8**	**2.0**	1.7 U	**1.8**	**1.8**	**1.1**
Pentachlorophenol	--	0.63 U	**5.9 J**	**7.0 J**	2.5 U	**0.68 J**	**1.8 J**	0.75 U	1.0 UJ	**4.4 J**	0.42 U
Phenol	--	**2.5**	**1.2**	**3.4**	5.7 U	**7.6**	**4.4**	1.7 U	**1.3**	**6.0**	**2.3**
Miscellaneous Extractables (µg/kg) [4]											
Dibenzofuran	--	**32**	**50**	**130**	18 U	**26**	**54**	**22**	**28**	**220**	**62**
Hexachlorobutadiene	--	4.6 U	0.98 U	4.5 U	4.6 U	4.7 U	4.6 U	0.97 U	0.99 U	0.98 U	4.9 U
N-Nitrosodiphenylamine	--	4.6 U	19 U	28 U	4.6 U	4.7 U	**12**	4.6 U	20 U	19 U	**25**
Benzyl alcohol	57	18 UJ	19 U	18 U	18 UJ	19 UJ	**89**	18 U	**37**	**32**	20 UJ
Benzoic acid	650	**220**	190 U	180 U	180 U	**73 J**	**440 J**	180 UJ	200 U	190 U	**50 J**
Hexachloroethane	--	18 U	19 U	18 U	18 U	19 U	18 U	18 U	20 U	19 U	20 U
Miscellaneous Extractables (mg/kg-OC) [4]											
Dibenzofuran	15	**1.3**	**2.9**	**10.3**	5.7 U	**0.9**	**2.4**	**2.1**	**1.1**	**11.1**	**2.6**
Hexachlorobutadiene	3.9	0.2 U	0.06 U	0.4 U	1.5 U	0.2 U	0.2 U	0.09 U	0.04 U	0.05 U	0.2 U
N-Nitrosodiphenylamine	11	0.19 U	1.1 U	2.2 U	1.5 U	0.17 U	**0.5**	0.43 U	0.82 U	0.95 U	**1.1**
Benzyl alcohol	--	0.75 UJ	1.1 U	1.4 U	5.7 UJ	0.68 UJ	**3.9**	1.7 U	**1.5**	**1.6**	0.84 UJ
Benzoic acid	--	**9.2**	11 U	14 U	57 U	**2.6 J**	**19 J**	17 UJ	8.2 U	9.5 U	**2.1 J**
Hexachloroethane	--	0.75 U	1.1 U	1.4 U	5.7 U	0.68 U	0.79 U	1.7 U	0.82 U	0.95 U	0.84 U
PCB Aroclors (µg/kg)											
Aroclor 1016	--	3.8 U	3.7 U	380 U	3.8 U	20 U	20 U	3.8 U	4 U	130 U	40 U
Aroclor 1221	--	3.8 U	3.7 U	380 U	3.8 U	20 U	20 U	3.8 U	4 U	130 U	40 U
Aroclor 1232	--	3.8 U	3.7 U	380 U	3.8 U	20 U	20 U	3.8 U	4 U	130 U	40 U
Aroclor 1242	--	3.8 U	3.7 U	380 U	3.8 U	20 U	20 U	3.8 U	4 U	130 U	40 U
Aroclor 1248	--	**24**	**85**	3800 U	3.8 U	**120**	**480**	15 U	**91**	**1,200**	**520**
Aroclor 1254	--	**48**	**140**	**8,900**	3.8 U	**210**	**520**	**29**	**150**	**1,400**	**810**
Aroclor 1260	--	**36**	**65**	950 U	3.8 U	**84**	**140**	**19**	**78**	**370**	**620**
Total PCB Aroclors (U = 0)	--	**108**	**290**	**8,900**	3.8 U	**414**	**1,140**	**48**	**319**	**2,970**	**1,950**
Total PCB Aroclors (U = 1/2)	--	**116**	**297**	**12,035**	3.8 U	**454**	**1,180**	**63**	**327**	**3,230**	**2,030**
PCB Aroclors (mg/kg-OC)											
Aroclor 1016	--	0.16 U	0.22 U	30 U	1.2 U	0.72 U	0.88 U	0.36 U	0.16 U	6.5 U	1.7 U
Aroclor 1221	--	0.16 U	0.22 U	30 U	1.2 U	0.72 U	0.88 U	0.36 U	0.16 U	6.5 U	1.7 U
Aroclor 1232	--	0.16 U	0.22 U	30 U	1.2 U	0.72 U	0.88 U	0.36 U	0.16 U	6.5 U	1.7 U
Aroclor 1242	--	0.16 U	0.22 U	30 U	1.2 U	0.72 U	0.88 U	0.36 U	0.16 U	6.5 U	1.7 U
Aroclor 1248	--	**1.0**	**5.0**	302 U	1.2 U	**4.3**	**21**	1.4 U	**3.7**	**60**	**22**
Aroclor 1254	--	**2.0**	**8.2**	**706**	1.2 U	**7.6**	**23**	**2.7**	**6.1**	**70**	**34**
Aroclor 1260	--	**1.5**	**3.8**	75 U	1.2 U	**3.0**	**6.2**	**1.8**	**3.2**	**19**	**26**
Total PCB Aroclors (U = 0)	12	**4.5**	**17**	**706**	1.2 U	**15**	**50**	**4.5**	**13**	**149**	**82**
Total PCB Aroclors (U = 1/2)	12	**4.8**	**17**	**955**	1.2 U	**16**	**52**	**5.9**	**13**	**162**	**85**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-05	DSI-SB-05	DSI-SB-05	DSI-SB-05	DSI-SB-06	DSI-SB-06	DSI-SB-06	DSI-SB-07	DSI-SB-07	DSI-SB-07
	Sample ID	DSI-SB-05-3-4	DSI-SB-05-6-7	DSI-SB-05-8-9.3	DSI-SB-05-9.3-11	DSI-SB-06-1-2	DSI-SB-06-5-6.5	DSI-SB-06-9.6-11	DSI-SB-07-1-2	DSI-SB-07-3.5-4.5	DSI-SB-07-6.5-7.5
	Sample Date	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/11/2011	3/11/2011	3/11/2011	3/9/2011	3/9/2011	3/9/2011
	Depth	3 to 4 feet	6 to 7 feet	8 to 9.3 feet	9.3 to 11 feet	1 to 2 feet	5 to 6.5 feet	9.6 to 11 feet	1 to 2 feet	3.5 to 4.5 feet	6.5 to 7.5 feet
	Stratigraphic Unit	Recent	Recent	Recent	Upper Alluvium	Recent	Recent	Upper Alluvium	Recent	Recent	Recent
	SMS SQS										
Volatile Organics (µg/kg)											
1,1,1-Trichloroethane	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
1,1,2-Trichloroethane	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
1,1-Dichloroethane	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
1,1-Dichloroethene	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
1,2-Dichloroethane	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
1,3,5-Trimethylbenzene (Mesitylene)	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	**32 J**	--
Acetone	--	--	**100**	**50**	--	--	**150**	**64**	**68**	**320**	--
Benzene	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
Carbon tetrachloride (Tetrachloromethane)	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
Chlorobenzene	--	--	**6.2**	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
Chloroethane	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
Chloroform	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
Chloromethane	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
Dichloromethane (Methylene chloride)	--	--	**2.7**	2.5 U	--	--	3.3 U	**19**	3.6 U	**5.9**	--
Ethylbenzene		--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	**18**	--
m,p-Xylene	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	**26**	--
o-Xylene	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	**17**	--
Styrene	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
Tetrachloroethene (PCE)	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
Toluene	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	**2.1**	--
Trichloroethene (TCE)	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
Vinyl chloride	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	1.9 U	--
Total Xylene (U = 0)	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	**43**	--
Total Xylene (U = 1/2)	--	--	1.3 U	1.3 U	--	--	1.7 U	1.1 U	1.8 U	**43**	--
Pesticides (µg/kg)											
4,4'-DDD (p,p'-DDD)	--	--	2 U	9.8 U	--	--	10 U	1.9 U	2 U	**15 J**	--
4,4'-DDE (p,p'-DDE)	--	--	2 U	**25**	--	--	21 U	1.9 U	2 U	**9.8 J**	--
4,4'-DDT (p,p'-DDT)	--	--	**3.4**	**130**	--	--	46 U	3.9 U	18 U	**40**	--
Aldrin	--	--	0.98 U	4.9 U	--	--	5 U	0.97 U	0.99 U	2.3 U	--
alpha-Chlordane (cis-Chlordane)	--	--	0.98 U	4.9 U	--	--	5 U	0.97 U	0.99 U	0.98 U	--
alpha-Hexachlorocyclohexane (BHC)	--	--	0.98 U	4.9 U	--	--	5 U	0.97 U	0.99 U	0.98 U	--
beta-Chlordane (trans-Chlordane)	--	--	0.98 U	4.9 U	--	--	5 U	0.97 U	0.99 U	0.98 U	--
beta-Hexachlorocyclohexane (BHC)	--	--	0.98 U	4.9 U	--	--	5 U	0.97 U	0.99 U	0.98 U	--
delta-Hexachlorocyclohexane (BHC)	--	--	0.98 UJ	4.9 UJ	--	--	5 UJ	0.97 UJ	0.99 UJ	0.98 UJ	--
Dieldrin	--	--	2 U	41 U	--	--	10 U	1.9 U	2 U	16 U	--
Endosulfan sulfate	--	--	2 UJ	9.8 UJ	--	--	10 U	1.9 U	2 UJ	2 UJ	--
Endosulfan-alpha (I)	--	--	0.98 U	4.9 U	--	--	5 U	0.97 U	0.99 U	0.98 U	--
Endosulfan-beta (II)	--	--	2 U	9.8 U	--	--	10 U	1.9 U	2 U	2 U	--
Endrin	--	--	2 U	9.8 U	--	--	21 U	1.9 U	2 U	14 U	--
Endrin aldehyde	--	--	2 UJ	35 UJ	--	--	10 U	1.9 U	2 UJ	4 UJ	--
Endrin ketone	--	--	2 U	48 U	--	--	10 U	1.9 U	2 U	2 U	--
gamma-Hexachlorocyclohexane (BHC) (Lindane)	--	--	0.98 U	4.9 U	--	--	5 U	0.97 U	0.99 U	0.98 U	--
Heptachlor	--	--	0.98 U	4.9 U	--	--	5 U	0.97 U	0.99 U	0.98 U	--
Heptachlor epoxide	--	--	0.98 U	36 U	--	--	32 U	1.5 U	0.99 U	13 U	--
Methoxychlor	--	--	9.8 U	49 U	--	--	50 U	9.7 U	18 U	24 U	--

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-05	DSI-SB-05	DSI-SB-05	DSI-SB-05	DSI-SB-06	DSI-SB-06	DSI-SB-06	DSI-SB-07	DSI-SB-07	DSI-SB-07
	Sample ID	DSI-SB-05-3-4	DSI-SB-05-6-7	DSI-SB-05-8-9.3	DSI-SB-05-9.3-11	DSI-SB-06-1-2	DSI-SB-06-5-6.5	DSI-SB-06-9.6-11	DSI-SB-07-1-2	DSI-SB-07-3.5-4.5	DSI-SB-07-6.5-7.5
	Sample Date	3/10/2011	3/10/2011	3/10/2011	3/10/2011	3/11/2011	3/11/2011	3/11/2011	3/9/2011	3/9/2011	3/9/2011
	Depth	3 to 4 feet	6 to 7 feet	8 to 9.3 feet	9.3 to 11 feet	1 to 2 feet	5 to 6.5 feet	9.6 to 11 feet	1 to 2 feet	3.5 to 4.5 feet	6.5 to 7.5 feet
	Stratigraphic Unit	Recent	Recent	Recent	Upper Alluvium	Recent	Recent	Upper Alluvium	Recent	Recent	Recent
	SMS SQS										
Toxaphene	--	--	98 U	490 U	--	--	500 U	97 U	99 U	98 U	--
Total DDx (U = 0)	--	--	**3.4**	**155**	--	--	46 U	3.9 U	18 U	**64.8**	--
Total DDx (U = 1/2)	--	--	**5.4**	**160**	--	--	46 U	3.9 U	18 U	**64.8**	--
Dioxin Furans (ng/kg)											
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	**0.41 J**	--	**0.081 J**	--	--	--	**1.01 J**	--	**1.58 J**
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	**2.02 J**	--	**0.186 J**	--	--	--	**4.35 J**	--	**6.23 J**
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	**3.37**	--	0.0427 U	--	--	--	**5.75**	--	**8.70**
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	**38.9**	--	**0.306 J**	--	--	--	**30.8**	--	**73.0**
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	**7.84**	--	**0.291 J**	--	--	--	**13.2**	--	**21.8**
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	**2,120**	--	**8.40**	--	--	--	**994**	--	**2,230**
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	--	--	**26,200**	--	**78.4**	--	--	--	**10,100**	--	**20,200**
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	--	--	**1.21**	--	0.0791 U	--	--	--	**2.64**	--	**5.70**
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	**0.996 J**	--	**0.0751 J**	--	--	--	**2.54**	--	**6.94**
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	**1.94**	--	**0.0553 J**	--	--	--	**5.29**	--	**21.6**
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	**13.7**	--	**0.229 J**	--	--	--	**30.1**	--	**162**
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	**3.44**	--	**0.0771 J**	--	--	--	**7.23**	--	**31.0**
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	--	--	**2.84**	--	0.0397 U	--	--	--	**6.17**	--	**27.5**
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	**6.59**	--	0.033 U	--	--	--	**10.3**	--	**42.1**
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	--	--	**199**	--	**1.27 J**	--	--	--	**193**	--	**890**
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	--	--	**30.3**	--	**0.18 J**	--	--	--	**21.5**	--	**100**
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	--	--	**998**	--	**3.54 J**	--	--	--	**681**	--	**4,660**
Total Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	**18.2 J**	--	**1.76 J**	--	--	--	**19.2 J**	--	**42.5 J**
Total Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	**81.2 J**	--	**1.53 J**	--	--	--	**40.3 J**	--	**82.7 J**
Total Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	**356**	--	**3.94 J**	--	--	--	**264**	--	**395**
Total Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	**3600 J**	--	**15.7 J**	--	--	--	**2720 J**	--	**3970 J**
Total Tetrachlorodibenzofuran (TCDF)	--	--	**20.9 J**	--	**0.176 J**	--	--	--	**51.7 J**	--	**206 J**
Total Pentachlorodibenzofuran (PeCDF)	--	--	**43.9 J**	--	**0.372 J**	--	--	--	**110 J**	--	**392 J**
Total Hexachlorodibenzofuran (HxCDF)	--	--	**204**	--	**2.08 J**	--	--	--	**354 J**	--	**1,490**
Total Heptachlorodibenzofuran (HpCDF)	--	--	**992**	--	**5.32 J**	--	--	--	**852**	--	**4,600**
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2)	--	--	**42.5**	--	**0.509**	--	--	--	**33.0**	--	**91.3**
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0)	--	--	**42.5**	--	**0.499**	--	--	--	**33.0**	--	**91.3**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-07	DSI-SB-07	DSI-SB-08	DSI-SB-08	DSI-SB-08	DSI-SB-08	DSI-SB-09	DSI-SB-09	DSI-SB-09	DSI-SB-09
	Sample ID	DSI-SB-07-10.5-11.9	DSI-SB-07-11.9-12.3	DSI-SB-08-1-2	DSI-SB-08-4-5	DSI-SB-08-7-8.7	DSI-SB-08-12-13.3	DSI-SB-09-1-2	DSI-SB-09-4.5-5.5	DSI-SB-09-8.5-10	DSI-SB-09-11-12.1
	Sample Date	3/9/2011	3/9/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/10/2011	3/10/2011	3/10/2011	3/10/2011
	Depth	10.5 to 11.9 feet	11.9 to 12.3 feet	1 to 2 feet	4 to 5 feet	7 to 8.7 feet	12 to 13.3 feet	1 to 2 feet	4.5 to 5.5 feet	8.5 to 10 feet	11 to 12.1 feet
	Stratigraphic Unit	Recent	Lower Alluvium	Recent	Recent	Recent	Recent	Recent	Recent	Recent	Recent
	SMS SQS										
Conventional Parameters (percent)											
Total organic carbon	--	**1.82**	**0.935**	**2.92**	**2.04**	**1.04**	**2.34**	**2.32**	**1.89**	**2.05**	**1.77**
Percent fines [2]	--	--	--	--	--	--	--	--	--	--	--
Total solids	--	**54.6**	**76.9**	**54**	**53.3**	**73.2**	**67.2**	**50.5**	**61.7**	**59.3**	**71.5**
Total volatile solids	--	**7.94**	--	--	--	--	--	--	--	--	--
Metals (mg/kg)											
Antimony	--	0.3 UJ	0.2 UJ	**0.4 J**	0.4 UJ	**2.2 J**	**1.8 J**	0.4 UJ	**1.6 J**	**4 J**	**5 J**
Arsenic	57	**13**	**3.3**	**53**	**29**	**454**	**342**	**16**	**566**	**965**	**791**
Beryllium	--	**0.40**	0.1 U	**0.40**	**0.50**	**0.80**	**0.60**	**0.40**	**0.70**	**0.50**	**0.70**
Cadmium	5.1	**1.3**	0.2 U	**0.90**	**0.90**	**2.0**	**2.2**	**0.80**	**3.2**	**3.9**	**3.0**
Chromium	260	**46**	**13.3 J**	**40**	**40 J**	**79**	**75**	**41**	**78**	**142 J**	**97**
Chromium VI [3]	--	**-- R**	--	**-- R**	--	**-- R**	**-- R**	**-- R**	**-- R**	--	**-- R**
Copper	390	**73**	**36.1 J**	**172 J**	**227 J**	**2,040 J**	**1,470 J**	**147**	**1,630**	**1,380 J**	**1,810**
Lead	450	**44**	**27 J**	**83**	**72 J**	**600**	**966**	**62**	**473**	**811 J**	**900**
Mercury	0.41	**0.69**	**0.35 J**	**0.27**	**0.24 J**	**1.6**	**0.49**	**0.30**	**0.23**	**1.33 J**	**0.83**
Nickel	--	**26**	**8.0**	**27**	**29**	**39**	**38**	**26**	**29**	**54**	**47**
Selenium	--	0.9 U	0.6 UJ	0.9 U	0.9 UJ	0.7 U	0.8 U	1 U	**0.80**	**1.5 J**	**0.80**
Silver	6.1	**1.2**	0.4 U	0.5 U	**0.60**	**3**	**1.0**	0.6 U	**1.0**	**2.0**	**2.0**
Thallium	--	0.3 U	0.2 U	0.4 U	0.4 U	**0.30**	**0.50**	0.4 U	**0.40**	**0.40**	**1.1**
Zinc	410	**118 J**	**41 J**	**320 J**	**240 J**	**2,230 J**	**1,350 J**	**396 J**	**3,080 J**	**1,980 J**	**2,650 J**
Organometallic Compounds (µg/kg)											
Tributyltin (bulk sediment)	73	3.5 U	3.4 U	**94**	**230**	**4,200**	**990**	**45**	**3,200**	**6,500**	**1,100**
PAHs (µg/kg)											
1-Methylnaphthalene	--	**1,700**	**69**	19 U	**12 J**	**29**	**85**	**20**	**200**	**110**	**130**
2-Methylnaphthalene	--	**2,600**	**89**	19 U	**16 J**	**30**	**61**	**34**	**270**	**94**	**130**
Acenaphthene	--	**2,700**	**300**	19 U	**18 J**	**140**	**420**	**27**	**480**	**470**	**1,000**
Acenaphthylene	--	**48**	**19**	19 U	20 U	30 U	30 U	**32**	**45**	**56 J**	**58**
Anthracene	--	**990**	**90**	**120**	**42**	**420**	**660**	**110**	**990**	**830**	**2,700**
Benzo(a)anthracene	--	**920**	**530 J**	**240**	**160**	**1,100**	**1,400**	**310**	**2,800**	**1,900**	**3,700**
Benzo(a)pyrene	--	**570**	**460**	**190**	**220**	**710**	**980**	**390**	**2,300**	**1,300**	**2,900**
Benzo(b,j,k)fluoranthenes	--	**1,100**	**940 J**	**490**	**530**	**1,500**	**1,900**	**970**	**3,900**	**2,700**	**4,900**
Benzo(g,h,i)perylene	--	**240**	**240**	**120**	**150**	**400**	**540**	**250**	**1,100**	**680**	**1,300**
Chrysene	--	**1,000**	**620 J**	**350**	**220**	**1,200**	**1,400**	**460**	**3,000**	**2,200**	**3,400**
Dibenzo(a,h)anthracene	--	**92**	**92**	**46**	**46**	**130**	**180**	**73**	**480**	**260**	**510**
Fluoranthene	--	**3,400**	**950**	**470**	**320**	**3,300**	**3,300**	**500**	**6,300**	**6,300**	**9,500**
Fluorene	--	**2,600**	**60**	**30**	**18 J**	**120**	**330**	**38**	**510**	**310**	**1,500**
Indeno(1,2,3-c,d)pyrene	--	**260**	**220**	**110**	**140**	**400**	**550**	**220**	**1,200**	**670**	**1,500**
Naphthalene	--	**8,700**	**570**	**21**	**27**	**43**	**1,300**	**72**	**140**	**270**	**330**
Phenanthrene	--	**7,000**	**170**	**180**	**150**	**1,300**	**2,000**	**250**	**4,100**	**3,700**	**9,000**
Pyrene	--	**2,700**	**1,200**	**520**	**650**	**2,800**	**2,900**	**860**	**5,600**	**4,900**	**7,100**
Total SMS HPAH (U = 0)	--	**9,182**	**4,312**	**2,046**	**1,906**	**10,040**	**11,250**	**3,063**	**22,780**	**18,210**	**29,910**
Total SMS LPAH (U = 0)	--	**22,038**	**1,209**	**351**	**255**	**2,023**	**4,710**	**529**	**6,265**	**5,636**	**14,588**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-07	DSI-SB-07	DSI-SB-08	DSI-SB-08	DSI-SB-08	DSI-SB-08	DSI-SB-09	DSI-SB-09	DSI-SB-09	DSI-SB-09
	Sample ID	DSI-SB-07-10.5-11.9	DSI-SB-07-11.9-12.3	DSI-SB-08-1-2	DSI-SB-08-4-5	DSI-SB-08-7-8.7	DSI-SB-08-12-13.3	DSI-SB-09-1-2	DSI-SB-09-4.5-5.5	DSI-SB-09-8.5-10	DSI-SB-09-11-12.1
	Sample Date	3/9/2011	3/9/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/10/2011	3/10/2011	3/10/2011	3/10/2011
	Depth	10.5 to 11.9 feet	11.9 to 12.3 feet	1 to 2 feet	4 to 5 feet	7 to 8.7 feet	12 to 13.3 feet	1 to 2 feet	4.5 to 5.5 feet	8.5 to 10 feet	11 to 12.1 feet
	Stratigraphic Unit	Recent	Lower Alluvium	Recent	Recent	Recent	Recent	Recent	Recent	Recent	Recent
	SMS SQS										
PAHs (mg/kg-OC)											
1-Methylnaphthalene	--	**93.4**	**7.4**	0.65 U	**0.59 J**	**2.8**	**3.6**	**0.9**	**10.6**	**5.4**	**7.3**
2-Methylnaphthalene	38	**143**	**9.5**	0.65 U	**0.78 J**	**2.9**	**2.6**	**1.5**	**14.3**	**4.6**	**7.3**
Acenaphthene	16	**148**	**32.1**	0.65 U	**0.88 J**	**13.5**	**17.9**	**1.2**	**25.4**	**22.9**	**56.5**
Acenaphthylene	66	**2.6**	**2.0**	0.65 U	0.98 U	2.88 U	1.2821 U	**1.4**	**2.4**	**2.73 J**	**3.3**
Anthracene	220	**54.4**	**9.6**	**4.1**	**2.1**	**40.4**	**28.2**	**4.7**	**52.4**	**40.5**	**153**
Benzo(a)anthracene	110	**50.5**	**56.7 J**	**8.2**	**7.8**	**106**	**59.8**	**13.4**	**148**	**92.7**	**209**
Benzo(a)pyrene	99	**31.3**	**49.2**	**6.5**	**10.8**	**68.3**	**41.9**	**16.8**	**122**	**63.4**	**164**
Benzo(b,j,k)fluoranthenes	--	**60.4**	**101 J**	**16.8**	**26.0**	**144**	**81.2**	**41.8**	**206**	**131.7**	**277**
Benzo(g,h,i)perylene	31	**13.2**	**25.7**	**4.1**	**7.4**	**38.5**	**23.1**	**10.8**	**58.2**	**33.2**	**73.4**
Chrysene	110	**54.9**	**66.3 J**	**12.0**	**10.8**	**115**	**59.8**	**19.8**	**159**	**107.3**	**192**
Dibenzo(a,h)anthracene	12	**5.1**	**9.8**	**1.6**	**2.3**	**12.5**	**7.7**	**3.1**	**25.4**	**12.7**	**28.8**
Fluoranthene	160	**187**	**102**	**16.1**	**15.7**	**317**	**141**	**21.6**	**333**	**307**	**537**
Fluorene	23	**143**	**6.4**	**1.0**	**0.88 J**	**11.5**	**14.1**	**1.6**	**27.0**	**15.1**	**84.7**
Indeno(1,2,3-c,d)pyrene	34	**14.3**	**23.5**	**3.8**	**6.9**	**38.5**	**23.5**	**9.5**	**63.5**	**32.7**	**84.7**
Naphthalene	99	**478**	**61.0**	**0.7**	**1.3**	**4.1**	**55.6**	**3.1**	**7.4**	**13.2**	**18.6**
Phenanthrene	100	**385**	**18.2**	**6.2**	**7.4**	**125**	**85.5**	**10.8**	**217**	**180**	**508**
Pyrene	1000	**148**	**128**	**17.8**	**31.9**	**269**	**124**	**37.1**	**296**	**239.0**	**401**
Total SMS HPAH (U = 0)	960	**505**	**461**	**70.1**	**93.4**	**965**	**481**	**132**	**1,205**	**888**	**1,690**
Total SMS LPAH (U = 0)	370	**1,211**	**129**	**12.0**	**12.5**	**195**	**201**	**22.8**	**331**	**275**	**824**
Chlorobenzenes (µg/kg)											
1,2-Dichlorobenzene	--	**1.9**	4.8 U	**9**	**4.9**	**37**	**170**	1.9 U	**150**	**120**	**120**
1,3-Dichlorobenzene	--	19 U	19 U	19 U	20 U	19 U	19 U	20 U	**8.6 J**	94 U	**9.2 J**
1,4-Dichlorobenzene	--	1.7 U	4.8 U	**3.3 J**	4.9 U	**7 J**	**28 J**	**6**	**22**	**22**	**37**
1,2,4-Trichlorobenzene	--	4.7 U	4.8 U	**3.3 J**	4.9 U	**6.7**	**4.8**	4.9 U	**39**	**15**	**14 J**
Hexachlorobenzene	--	0.98 U	4.8 U	0.99 U	4.9 U	4.8 U	4.8 U	0.99 U	4.8 U	4.7 U	4.6 U
Chlorobenzenes (mg/kg-OC)											
1,2-Dichlorobenzene	2.3	**0.1**	0.51 U	**0.3**	**0.2**	**3.6**	**7.3**	0.08 U	**7.9**	**5.9**	**6.8**
1,3-Dichlorobenzene	--	1.0 U	2.0 U	0.65 U	0.98 U	1.8 U	0.81 U	0.86 U	**0.46 J**	4.6 U	**0.52 J**
1,4-Dichlorobenzene	3.1	0.09 U	0.51 U	**0.11 J**	0.24 U	**0.67 J**	**1.2 J**	**0.3**	**1.2**	**1.1**	**2.1**
1,2,4-Trichlorobenzene	0.81	0.26 U	0.51 U	**0.11 J**	0.24 U	**0.6**	**0.2**	0.21 U	**2.1**	**0.7**	**0.79 J**
Hexachlorobenzene	0.38	0.054 U	0.51 U	0.034 U	0.24 U	0.46 U	0.21 U	0.043 U	0.25 U	0.23 U	0.26 U
Phthalates (µg/kg)											
Dimethyl phthalate	--	19 U	19 U	**20**	**9.9 J**	19 U	19 U	**12 J**	19 U	94 U	18 U
Diethyl phthalate	--	5.1 U	5.1 U	**5.5**	5.3 U	**36**	**6.8**	**9.7 J**	**6.7 J**	5.1 U	**34**
Di-n-butyl phthalate	--	19 U	19 U	25 U	**13 J**	25 U	19 U	**27**	**38**	94 U	18 U
Butylbenzyl phthalate	--	19 U	19 U	19 U	**21**	19 U	19 U	**41**	**36**	94 U	18 U
Bis(2-ethylhexyl) phthalate	--	**42**	19 U	**180**	**420**	**2000**	**7700**	**430**	--	780 U	--
Di-n-octyl phthalate	--	19 U	19 U	19 U	20 U	**81**	19 U	20 U	**76**	94 U	18 U
Phthalates (mg/kg-OC)											
Dimethyl phthalate	53	1.0 U	2.0 U	**0.7**	**0.49 J**	1.8 U	0.81 U	**0.52 J**	1.0 U	4.9 U	1.0 U
Diethyl phthalate	61	0.28 U	0.55 U	**0.2**	0.26 U	**3.5**	**0.3**	**0.42 J**	**0.35 J**	0.25 U	**1.9**
Di-n-butyl phthalate	220	1.0 U	2.0 U	0.86 U	**0.64 J**	2.4 U	0.81 U	**1.2**	**2.0**	4.6 U	1.0 U
Butylbenzyl phthalate	4.9	1.0 U	2.0 U	0.65 U	**1.0**	1.8 U	0.81 U	**1.8**	**1.9**	4.6 U	1.0 U
Bis(2-ethylhexyl) phthalate	47	**2.3**	2.0 U	**6.2**	**20.6**	**192.0**	**329.0**	**18.5**	--	38 U	--
Di-n-octyl phthalate	58	1.0 U	2.0 U	0.65 U	0.98 U	**7.8**	0.81 U	0.86 U	**4.0**	4.6 U	1.0 U

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-07	DSI-SB-07	DSI-SB-08	DSI-SB-08	DSI-SB-08	DSI-SB-08	DSI-SB-09	DSI-SB-09	DSI-SB-09	DSI-SB-09
	Sample ID	DSI-SB-07-10.5-11.9	DSI-SB-07-11.9-12.3	DSI-SB-08-1-2	DSI-SB-08-4-5	DSI-SB-08-7-8.7	DSI-SB-08-12-13.3	DSI-SB-09-1-2	DSI-SB-09-4.5-5.5	DSI-SB-09-8.5-10	DSI-SB-09-11-12.1
	Sample Date	3/9/2011	3/9/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/10/2011	3/10/2011	3/10/2011	3/10/2011
	Depth	10.5 to 11.9 feet	11.9 to 12.3 feet	1 to 2 feet	4 to 5 feet	7 to 8.7 feet	12 to 13.3 feet	1 to 2 feet	4.5 to 5.5 feet	8.5 to 10 feet	11 to 12.1 feet
	Stratigraphic Unit	Recent	Lower Alluvium	Recent	Recent	Recent	Recent	Recent	Recent	Recent	Recent
	SMS SQS										
Phenols (µg/kg)											
2,4-Dimethylphenol	29	**18 J**	19 UJ	19 UJ	20 UJ	19 UJ	**19 J**	20 U	**14 J**	94 UJ	**54**
2-Methylphenol (o-Cresol)	63	19 U	19 U	19 U	20 U	19 U	19 U	20 U	**12 J**	94 U	**54**
4-Methylphenol (p-Cresol)	670	**58**	19 U	19 U	**25**	**33**	**40**	**52**	**51**	**100**	**350**
Pentachlorophenol	360	**50 J**	7.8 U	12 U	12 U	**65 J**	**21 J**	21 U	**310 J**	**170**	**25 J**
Phenol	420	**89**	19 U	**25**	**58**	**23**	**79**	**83**	**41**	**99**	**140**
Phenols (mg/kg-OC)											
2,4-Dimethylphenol	--	**0.99 J**	2.0 UJ	0.65 UJ	0.98 UJ	1.8 UJ	**0.81 J**	0.86 U	**0.74 J**	4.6 UJ	**3.1**
2-Methylphenol (o-Cresol)	--	1.0 U	2.0 U	0.65 U	0.98 U	1.8 U	0.81 U	0.86 U	**0.63 J**	4.6 U	**3.1**
4-Methylphenol (p-Cresol)	--	**3.2**	2.0 U	0.65 U	**1.2**	**3.2**	**1.7**	**2.2**	**2.7**	**4.9**	**20.0**
Pentachlorophenol	--	**2.7 J**	0.83 U	0.41 U	0.59 U	**6.3 J**	**0.90 J**	0.91 U	**16 J**	**8.3**	**1.4 J**
Phenol	--	**4.9**	2.0 U	**0.9**	**2.8**	**2.2**	**3.4**	**3.6**	**2.2**	**4.8**	**7.9**
Miscellaneous Extractables (µg/kg) [4]											
Dibenzofuran	--	**1900**	**41**	19 U	**18 J**	**48**	**240**	**38**	**340**	**180**	**800**
Hexachlorobutadiene	--	0.98 U	4.8 U	0.99 U	4.9 U	4.8 U	4.8 U	0.99 U	4.8 U	4.7 U	4.6 U
N-Nitrosodiphenylamine	--	19 U	4.8 U	**3.5 J**	4.9 U	**19**	**30**	4.9 U	33 U	**32**	100 U
Benzyl alcohol	57	**19**	19 UJ	**35**	20 UJ	19 U	**39**	**150**	**18 J**	94 UJ	18 U
Benzoic acid	650	190 U	190 UJ	190 UJ	**96 J**	190 UJ	190 UJ	**330**	190 U	**160 J**	180 U
Hexachloroethane	--	19 U	19 UJ	19 U	20 U	19 U	19 U	20 U	19 U	94 U	18 U
Miscellaneous Extractables (mg/kg-OC) [4]											
Dibenzofuran	15	**104.4**	**4.4**	0.65 U	**0.88 J**	**4.6**	**10.3**	**1.6**	**18.0**	**8.8**	**45.2**
Hexachlorobutadiene	3.9	0.05 U	0.5 U	0.03 U	0.2 U	0.5 U	0.2 U	0.04 U	0.3 U	0.2 U	0.3 U
N-Nitrosodiphenylamine	11	1.0 U	0.51 U	**0.12 J**	0.24 U	**1.8**	**1.3**	0.21 U	1.7 U	**1.6**	5.6 U
Benzyl alcohol	--	**1.0**	2.0 UJ	**1.2**	0.98 UJ	1.8 U	**1.7**	**6.5**	**0.95 J**	4.6 UJ	1.0 U
Benzoic acid	--	10 U	20 UJ	6.5 UJ	**4.7 J**	18 UJ	8.1 UJ	**14.2**	10 U	**7.8 J**	10 U
Hexachloroethane	--	1.0 U	2.0 UJ	0.65 U	0.98 U	1.8 U	0.81 U	0.86 U	1.0 U	4.6 U	1.0 U
PCB Aroclors (µg/kg)											
Aroclor 1016	--	71 U	3.8 U	4 U	3.8 U	20 U	20 U	3.8 U	160 U	76 U	38 U
Aroclor 1221	--	71 U	3.8 U	4 U	3.8 U	20 U	20 U	3.8 U	160 U	76 U	38 U
Aroclor 1232	--	71 U	3.8 U	4 U	3.8 U	20 U	20 U	3.8 U	160 U	76 U	38 U
Aroclor 1242	--	71 U	3.8 U	4 U	3.8 U	20 U	20 U	**61.0**	160 U	76 U	38 U
Aroclor 1248	--	**280**	11 U	30 U	**76**	200 U	**430**	3.8 U	**1,900**	**770**	**310**
Aroclor 1254	--	**420**	**15**	**51**	**140**	**420**	**530**	**45**	**3,400**	**1,400**	**420**
Aroclor 1260	--	**160**	**11**	**30**	**96**	**89**	**140**	**27**	**1,200**	**1,600**	**840**
Total PCB Aroclors (U = 0)	--	**860**	**26**	**81**	**312**	**509**	**1,100**	**133**	**6,500**	**3,770**	**1,570**
Total PCB Aroclors (U = 1/2)	--	**1,002**	**39**	**104**	**320**	**649**	**1,140**	**141**	**6,820**	**3,922**	**1,646**
PCB Aroclors (mg/kg-OC)											
Aroclor 1016	--	3.9 U	0.41 U	0.14 U	0.19 U	1.9 U	0.85 U	0.16 U	8.5 U	3.7 U	2.1 U
Aroclor 1221	--	3.9 U	0.41 U	0.14 U	0.19 U	1.9 U	0.85 U	0.16 U	8.5 U	3.7 U	2.1 U
Aroclor 1232	--	3.9 U	0.41 U	0.14 U	0.19 U	1.9 U	0.85 U	0.16 U	8.5 U	3.7 U	2.1 U
Aroclor 1242	--	3.9 U	0.41 U	0.14 U	0.19 U	1.9 U	0.85 U	**2.6**	8.5 U	3.7 U	2.1 U
Aroclor 1248	--	**15**	1.8 U	1.0 U	**3.7**	19 U	**18**	0.16 U	**101**	**38**	**18**
Aroclor 1254	--	**23**	**1.6**	**1.7**	**6.9**	**40**	**23**	**1.9**	**180**	**68**	**24**
Aroclor 1260	--	**8.8**	**1.2**	**1.0**	**4.7**	**8.6**	**6.0**	**1.2**	**63**	**78**	**47**
Total PCB Aroclors (U = 0)	12	**47**	**2.8**	**2.8**	**15**	**49**	**47**	**5.7**	**344**	**184**	**89**
Total PCB Aroclors (U = 1/2)	12	**55**	**4.2**	**3.6**	**16**	**62**	**49**	**6.1**	**361**	**191**	**93**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-07	DSI-SB-07	DSI-SB-08	DSI-SB-08	DSI-SB-08	DSI-SB-08	DSI-SB-09	DSI-SB-09	DSI-SB-09	DSI-SB-09
	Sample ID	DSI-SB-07-10.5-11.9	DSI-SB-07-11.9-12.3	DSI-SB-08-1-2	DSI-SB-08-4-5	DSI-SB-08-7-8.7	DSI-SB-08-12-13.3	DSI-SB-09-1-2	DSI-SB-09-4.5-5.5	DSI-SB-09-8.5-10	DSI-SB-09-11-12.1
	Sample Date	3/9/2011	3/9/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/10/2011	3/10/2011	3/10/2011	3/10/2011
	Depth	10.5 to 11.9 feet	11.9 to 12.3 feet	1 to 2 feet	4 to 5 feet	7 to 8.7 feet	12 to 13.3 feet	1 to 2 feet	4.5 to 5.5 feet	8.5 to 10 feet	11 to 12.1 feet
	Stratigraphic Unit	Recent	Lower Alluvium	Recent	Recent	Recent	Recent	Recent	Recent	Recent	Recent
	SMS SQS										
Volatile Organics (µg/kg)											
1,1,1-Trichloroethane	--	1.7 U	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
1,1,2-Trichloroethane	--	1.7 U	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
1,1-Dichloroethane	--	1.7 U	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
1,1-Dichloroethene	--	1.7 U	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
1,2-Dichloroethane	--	1.7 U	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
1,3,5-Trimethylbenzene (Mesitylene)	--	**47**	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	**29**
Acetone	--	**76**	--	**160**	--	**53**	**53**	**61**	**64**	--	**110**
Benzene	--	1.7 U	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
Carbon tetrachloride (Tetrachloromethane)	--	1.7 U	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
Chlorobenzene	--	1.7 U	--	1.7 U	--	1.3 U	**98**	1.9 U	1.6 U	--	**110**
Chloroethane	--	1.7 U	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
Chloroform	--	1.7 U	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
Chloromethane	--	1.7 U	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
Dichloromethane (Methylene chloride)	--	3.5 U	--	3.4 U	--	**19**	**6.7**	3.9 U	3.2 U	--	**7.3**
Ethylbenzene		**31**	--	1.7 U	--	1.3 U	**120**	1.9 U	1.6 U	--	**120**
m,p-Xylene	--	**34**	--	1.7 U	--	**3.3**	**4.1**	1.9 U	1.6 U	--	**9.4**
o-Xylene	--	**28**	--	1.7 U	--	**3**	**3.7**	1.9 U	1.6 U	--	**8.3**
Styrene	--	1.7 U	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
Tetrachloroethene (PCE)	--	1.7 U	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
Toluene	--	**2.8**	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
Trichloroethene (TCE)	--	1.7 U	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
Vinyl chloride	--	1.7 U	--	1.7 U	--	1.3 U	1.5 U	1.9 U	1.6 U	--	3 U
Total Xylene (U = 0)	--	**62**	--	1.7 U	--	**6.3**	**7.8**	1.9 U	1.6 U	--	**17.7**
Total Xylene (U = 1/2)	--	**62**	--	1.7 U	--	**6.3**	**7.8**	1.9 U	1.6 U	--	**17.7**
Pesticides (µg/kg)											
4,4'-DDD (p,p'-DDD)	--	2 U	--	3.9 U	--	10 U	**40**	2 U	10 U	--	9.7 U
4,4'-DDE (p,p'-DDE)	--	2 U	--	14 U	--	10 U	9.7 U	2 U	**220**	--	9.7 U
4,4'-DDT (p,p'-DDT)	--	2 U	--	56 U	--	47 U	**60**	2 U	**570**	--	9.7 U
Aldrin	--	0.98 U	--	0.99 U	--	5 U	4.8 U	0.99 U	59 U	--	4.8 U
alpha-Chlordane (cis-Chlordane)	--	0.98 U	--	0.99 U	--	5 U	4.8 U	0.99 U	73 U	--	4.8 U
alpha-Hexachlorocyclohexane (BHC)	--	0.98 U	--	0.99 U	--	5 U	4.8 U	0.99 U	5.1 U	--	4.8 U
beta-Chlordane (trans-Chlordane)	--	0.98 U	--	0.99 U	--	5 U	4.8 U	0.99 U	5.1 U	--	4.8 U
beta-Hexachlorocyclohexane (BHC)	--	0.98 U	--	0.99 U	--	5 U	4.8 U	0.99 U	5.1 U	--	4.8 U
delta-Hexachlorocyclohexane (BHC)	--	0.98 UJ	--	0.99 UJ	--	5 UJ	**6.8 J**	0.99 UJ	5.1 UJ	--	4.8 UJ
Dieldrin	--	2 U	--	2 U	--	10 U	9.7 U	2 U	140 U	--	9.7 U
Endosulfan sulfate	--	2 UJ	--	2 U	--	10 U	9.7 U	2 UJ	10 UJ	--	9.7 UJ
Endosulfan-alpha (I)	--	0.98 U	--	21 U	--	5 U	4.8 U	0.99 U	42 U	--	4.8 U
Endosulfan-beta (II)	--	2 U	--	30 U	--	10 U	9.7 U	2 U	180 U	--	9.7 U
Endrin	--	2 U	--	37 U	--	20 U	9.7 U	2 U	200 U	--	59 U
Endrin aldehyde	--	2 UJ	--	13 U	--	10 U	9.7 U	2 UJ	98 UJ	--	9.7 UJ
Endrin ketone	--	2 U	--	2 U	--	10 U	9.7 U	2 U	140 U	--	9.7 U
gamma-Hexachlorocyclohexane (BHC) (Lindane)	--	0.98 U	--	0.99 U	--	5 U	4.8 U	0.99 U	5.1 U	--	4.8 U
Heptachlor	--	0.98 U	--	0.99 U	--	5 U	4.8 U	0.99 U	9.4 U	--	4.8 U
Heptachlor epoxide	--	2.5 U	--	21 U	--	22 U	21 U	0.99 U	260 U	--	46 U
Methoxychlor	--	9.8 U	--	87 U	--	50 U	48 U	9.9 U	480 U	--	190 U

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-07	DSI-SB-07	DSI-SB-08	DSI-SB-08	DSI-SB-08	DSI-SB-08	DSI-SB-09	DSI-SB-09	DSI-SB-09	DSI-SB-09
	Sample ID	DSI-SB-07-10.5-11.9	DSI-SB-07-11.9-12.3	DSI-SB-08-1-2	DSI-SB-08-4-5	DSI-SB-08-7-8.7	DSI-SB-08-12-13.3	DSI-SB-09-1-2	DSI-SB-09-4.5-5.5	DSI-SB-09-8.5-10	DSI-SB-09-11-12.1
	Sample Date	3/9/2011	3/9/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/10/2011	3/10/2011	3/10/2011	3/10/2011
	Depth	10.5 to 11.9 feet	11.9 to 12.3 feet	1 to 2 feet	4 to 5 feet	7 to 8.7 feet	12 to 13.3 feet	1 to 2 feet	4.5 to 5.5 feet	8.5 to 10 feet	11 to 12.1 feet
	Stratigraphic Unit	Recent	Lower Alluvium	Recent	Recent	Recent	Recent	Recent	Recent	Recent	Recent
	SMS SQS										
Toxaphene	--	98 U	--	99 U	--	500 U	480 U	99 U	1500 U	--	480 U
Total DDx (U = 0)	--	2 U	--	56 U	--	47 U	**100**	2 U	**790**	--	9.7 U
Total DDx (U = 1/2)	--	2 U	--	56 U	--	47 U	**105**	2 U	**795**	--	9.7 U
Dioxin Furans (ng/kg)											
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	--	**1.53**	**0.169 J**	--	--	--	--	**0.793 J**	--	**1.56**	**1.61**
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	--	**11.9 J**	**0.8 J**	--	--	--	--	**3.19 J**	--	**4.28 J**	**3.73 J**
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	**24.7**	**0.935 J**	--	--	--	--	**4.18**	--	**3.79**	**4.31**
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	**589**	**12.3**	--	--	--	--	**24.5**	--	**40.3**	**31.2**
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	--	**61.5**	**2.34**	--	--	--	--	**10.0**	--	**15.4**	**13.4**
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	--	**19,400**	**321**	--	--	--	--	**762**	--	**1,550**	**924**
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	--	**169,000**	**3290**	--	--	--	--	**6,970**	--	**19,500**	**10,200**
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	--	**9.83**	**0.939 J**	--	--	--	--	**2.42**	--	**3.69**	**2.69**
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	--	**34.9**	**1.93 J**	--	--	--	--	**2.37**	--	**2.12**	**3.03**
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	--	**110**	**2.8**	--	--	--	--	**5.11**	--	**5.18**	**4.23**
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	--	**1,330**	**39.2**	--	--	--	--	**29.1**	--	**24.6**	**13.2**
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	**196**	**5.98**	--	--	--	--	**6.54**	--	**6.33**	**4.52**
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	--	**244**	**6.29 J**	--	--	--	--	**6.35**	--	**4.86**	**4.62**
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	**333**	**9.27**	--	--	--	--	**9.16**	--	**10.8**	**2.44 J**
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	--	**8,800**	**166**	--	--	--	--	**168**	--	**217**	**114**
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	--	**1,100**	**25.4**	--	--	--	--	**17.9**	--	**24.2**	**9.26**
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	--	**53,500**	**524**	--	--	--	--	**653**	--	**825**	**359**
Total Tetrachlorodibenzo-p-dioxin (TCDD)	--	**51.7 J**	**5.1 J**	--	--	--	--	**15.2 J**	--	**18.5 J**	**12.5 J**
Total Pentachlorodibenzo-p-dioxin (PeCDD)	--	**342 J**	**10.3 J**	--	--	--	--	**31 J**	--	**69.9 J**	**32.2 J**
Total Hexachlorodibenzo-p-dioxin (HxCDD)	--	**2,430**	**67.4 J**	--	--	--	--	**212 J**	--	**347**	**200**
Total Heptachlorodibenzo-p-dioxin (HpCDD)	--	**25600 J**	**592**	--	--	--	--	**2130 J**	--	**3010 J**	**1850 J**
Total Tetrachlorodibenzofuran (TCDF)	--	**180**	**12.9 J**	--	--	--	--	**58.9 J**	--	**61.3 J**	**42.6 J**
Total Pentachlorodibenzofuran (PeCDF)	--	**1840 J**	**57.9 J**	--	--	--	--	**104 J**	--	**93.1 J**	**86.5 J**
Total Hexachlorodibenzofuran (HxCDF)	--	**15,200**	**264 J**	--	--	--	--	**307**	--	**393**	**266 J**
Total Heptachlorodibenzofuran (HpCDF)	--	**28,400**	**725**	--	--	--	--	**770**	--	**1,070**	**477**
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2)	--	**686**	**15.9**	--	--	--	--	**26.6**	--	**42.4**	**28.0**
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0)	--	**686**	**15.9**	--	--	--	--	**26.6**	--	**42.4**	**28.0**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-09	DSI-SB-10	DSI-SB-10	DSI-SB-10	DSI-SB-10	DSI-SB-11	DSI-SB-11	DSI-SB-11	DSI-SB-11	DSI-SB-12
	Sample ID	DSI-SB-09-12.1-12.6	DSI-SB-10-1-2	DSI-SB-10-5.5-7	DSI-SB-10-8.5-10	DSI-SB-10-10-11	DSI-SB-11-1-2	DSI-SB-11-3.5-5	DSI-SB-11-8-8.9	DSI-SB-11-11-12.3	DSI-SB-12-1-2
	Sample Date	3/10/2011	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/15/2011
	Depth	12.1 to 12.6 feet	1 to 2 feet	5.5 to 7 feet	8.5 to 10 feet	10 to 11 feet	1 to 2 feet	3.5 to 5 feet	8 to 8.9 feet	11 to 12.3 feet	1 to 2 feet
	Stratigraphic Unit	Upper Alluvium	Recent	Recent	Upper Alluvium	Upper Alluvium	Recent	Recent	Recent	Upper Alluvium	Recent
	SMS SQS										
Conventional Parameters (percent)											
Total organic carbon	--	**1.7**	**2.81**	**1.3**	**0.94**	**0.265**	**3.66**	**2.45**	**1.47**	**1.1**	**2.1**
Percent fines [2]	--	--	--	--	--	--	--	--	--	--	--
Total solids	--	**70.9**	**48.8**	**71.5**	**74.9**	**77.6**	**51.3**	**51.5**	**65**	**70.6**	**75.6**
Total volatile solids	--	--	--	--	--	--	--	--	--	--	--
Metals (mg/kg)											
Antimony	--	0.3 UJ	0.4 UJ	**157 J**	**2.3 J**	0.3 UJ	0.4 UJ	0.4 UJ	**3.7 J**	0.3 UJ	**3 J**
Arsenic	57	**16**	**37**	**919**	**303**	**12**	**17**	**22**	**888**	**10**	**184 J**
Beryllium	--	**0.20**	**0.40**	**0.50**	**0.30**	0.1 U	**0.40**	**0.40**	**0.50**	**0.20**	0.3 U
Cadmium	5.1	**1.0**	**0.90**	**3.1**	**1.1**	0.2 U	**0.80**	**0.70**	**4.2**	**0.60**	**1.4**
Chromium	260	**52.5 J**	**49**	**223**	**66.9 J**	**11**	**38**	**36.5 J**	**198**	**25**	**95 J**
Chromium VI [3]	--	--	0.807 U	0.553 U	--	0.511 U	**-- R**	--	**-- R**	**-- R**	0.513 U
Copper	390	**507 J**	**318**	**1,270**	**595 J**	**13**	**112 J**	**161 J**	**1,530 J**	**82.3 J**	**1,200 J**
Lead	450	**217 J**	**93**	**857**	**433 J**	2 U	**47**	**46 J**	**1,000**	**40**	**588 J**
Mercury	0.41	**2.39 J**	**0.44 J**	**0.84 J**	**0.65 J**	0.03 UJ	**0.22**	**0.24 J**	**1.1**	**0.31**	**2.78 J**
Nickel	--	**28**	**28**	**80**	**25**	**7.0**	**27**	**29**	**114**	**15**	**56 J**
Selenium	--	0.6 UJ	1 U	**1.0**	0.7 UJ	0.6 U	0.9 U	1 UJ	**1.0**	0.7 U	0.6 U
Silver	6.1	**0.60**	0.6 U	**2.0**	**0.60**	0.4 U	0.6 U	0.5 U	**2.0**	0.4 U	0.9 U
Thallium	--	0.3 U	0.4 U	**0.50**	0.3 U	0.3 U	0.4 U	0.4 U	**0.30**	0.3 U	0.3 U
Zinc	410	**356 J**	**326**	**2,800**	**1,050 J**	**20**	**258 J**	**171 J**	**2,490 J**	**87 J**	**1,100 J**
Organometallic Compounds (µg/kg)											
Tributyltin (bulk sediment)	73	**1,100**	**180**	**4,400**	**2,400**	3.2 U	**64**	**120**	**15,000**	**970**	**230**
PAHs (µg/kg)											
1-Methylnaphthalene	--	96 U	**13 J**	**79**	98 U	19 U	19 U	**13 J**	**71**	19 U	**68**
2-Methylnaphthalene	--	**53 J**	**24**	**40**	98 U	19 U	**26**	**18 J**	**65**	19 U	**98**
Acenaphthene	--	**130**	**68**	**3,200**	**480**	**26**	**19**	**18 J**	**420**	**23**	**300**
Acenaphthylene	--	96 U	**31**	19 U	98 U	19 U	**19**	19 U	37 U	19 U	**52**
Anthracene	--	**320**	**200**	**860**	**580**	19 U	**97**	**52**	**1,100**	**50**	**600**
Benzo(a)anthracene	--	**1,100**	**640**	**1,500**	**1,300**	19 U	**230**	**180**	**2,800**	**130**	**1,900**
Benzo(a)pyrene	--	**900**	**500**	**990**	**960**	19 U	**250**	**220**	**1,900**	**130**	**1,800**
Benzo(b,j,k)fluoranthenes	--	**1,700**	**1,400**	**2,000**	**2,000**	19 U	**620**	**560**	**3,600**	**290**	**3,600**
Benzo(g,h,i)perylene	--	**490**	**250**	**470**	**510**	19 U	**160**	**110**	**910**	**74**	**950**
Chrysene	--	**1,200**	**880**	**1,600**	**1,400**	19 U	**400**	**310**	**3,100**	**150**	**2,000**
Dibenzo(a,h)anthracene	--	**210**	**100**	**190**	**200**	19 U	**48**	**42**	**340**	**23**	**320**
Fluoranthene	--	**3,200**	**1,300**	**5,900**	**3,800**	19 U	**410**	**370**	**7,800**	**280**	**4,500**
Fluorene	--	**150**	**84**	**460**	**370**	19 U	**44**	**18 J**	**270**	**30**	**280**
Indeno(1,2,3-c,d)pyrene	--	**480**	**260**	**460**	**540**	19 U	**140**	**120**	**980**	**69**	**940**
Naphthalene	--	**96**	**47**	**330**	**240**	**20**	**50**	**33**	**200**	**42**	**130**
Phenanthrene	--	**840**	**540**	**7,100**	**2,600**	19 U	**240**	**160**	**3,600**	**150**	**2,100**
Pyrene	--	**2,800**	**--**	**--**	**2,800**	19 U	**600**	**560**	**6,800**	**550**	**5,900**
Total SMS HPAH (U = 0)	--	**10,380**	**3,930**	**11,110**	**11,510**	19 U	**2,238**	**1,912**	**24,630**	**1,406**	**18,310**
Total SMS LPAH (U = 0)	--	**1,536**	**970**	**11,950**	**4,270**	**46**	**469**	**281**	**5,590**	**295**	**3,462**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-09	DSI-SB-10	DSI-SB-10	DSI-SB-10	DSI-SB-10	DSI-SB-11	DSI-SB-11	DSI-SB-11	DSI-SB-11	DSI-SB-12
	Sample ID	DSI-SB-09-12.1-12.6	DSI-SB-10-1-2	DSI-SB-10-5.5-7	DSI-SB-10-8.5-10	DSI-SB-10-10-11	DSI-SB-11-1-2	DSI-SB-11-3.5-5	DSI-SB-11-8-8.9	DSI-SB-11-11-12.3	DSI-SB-12-1-2
	Sample Date	3/10/2011	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/15/2011
	Depth	12.1 to 12.6 feet	1 to 2 feet	5.5 to 7 feet	8.5 to 10 feet	10 to 11 feet	1 to 2 feet	3.5 to 5 feet	8 to 8.9 feet	11 to 12.3 feet	1 to 2 feet
	Stratigraphic Unit	Upper Alluvium	Recent	Recent	Upper Alluvium	Upper Alluvium	Recent	Recent	Recent	Upper Alluvium	Recent
	SMS SQS										
PAHs (mg/kg-OC)											
1-Methylnaphthalene	--	5.65 U	**0.46 J**	**6.1**	10.4 U	7.17 U	0.52 U	**0.53 J**	**4.8**	1.72 U	**3.2**
2-Methylnaphthalene	38	**3.12 J**	**0.9**	**3.1**	10.4 U	7.17 U	**0.7**	**0.73 J**	**4.4**	1.72 U	**4.7**
Acenaphthene	16	**7.6**	**2.4**	**246**	**51.1**	**9.8**	**0.5**	**0.73 J**	**28.6**	**2.1**	**14.3**
Acenaphthylene	66	5.65 U	**1.1**	1.46 U	10.4 U	7.17 U	**0.5**	0.78 U	2.51 U	1.72 U	**2.5**
Anthracene	220	**18.8**	**7.1**	**66.2**	**61.7**	7.17 U	**2.7**	**2.1**	**74.8**	**4.5**	**28.6**
Benzo(a)anthracene	110	**64.7**	**22.8**	**115**	**138**	7.17 U	**6.3**	**7.3**	**190**	**11.8**	**90.5**
Benzo(a)pyrene	99	**52.9**	**17.8**	**76.2**	**102**	7.17 U	**6.8**	**9.0**	**129**	**11.8**	**85.7**
Benzo(b,j,k)fluoranthenes	--	**100**	**49.8**	**154**	**213**	7.17 U	**16.9**	**22.9**	**245**	**26.4**	**171**
Benzo(g,h,i)perylene	31	**28.8**	**8.9**	**36.2**	**54.3**	7.17 U	**4.4**	**4.5**	**61.9**	**6.7**	**45.2**
Chrysene	110	**70.6**	**31.3**	**123**	**149**	7.17 U	**10.9**	**12.7**	**211**	**13.6**	**95.2**
Dibenzo(a,h)anthracene	12	**12.4**	**3.6**	**14.6**	**21**	7.17 U	**1.3**	**1.7**	**23.1**	**2.1**	**15.2**
Fluoranthene	160	**188**	**46.3**	**454**	**404**	7.17 U	**11.2**	**15.1**	**531**	**25.5**	**214**
Fluorene	23	**8.8**	**3.0**	**35.4**	**39.4**	7.17 U	**1.2**	**0.7347 J**	**18.4**	**2.7**	**13.3**
Indeno(1,2,3-c,d)pyrene	34	**28.2**	**9.3**	**35.4**	**57.4**	7.17 U	**3.8**	**4.9**	**66.7**	**6.3**	**44.8**
Naphthalene	99	**5.6**	**1.7**	**25.4**	**25.5**	**7.5**	**1.4**	**1.3**	**13.6**	**3.8**	**6.2**
Phenanthrene	100	**49.4**	**19.2**	**546**	**277**	7.17 U	**6.6**	**6.5**	**245**	**13.6**	**100**
Pyrene	1000	**165**	--	--	**298**	7.17 U	**16.4**	**22.9**	**463**	**50.0**	**281**
Total SMS HPAH (U = 0)	960	**611**	**140**	**855**	**1,224**	7.17 U	**61.1**	**78.0**	**1,676**	**128**	**872**
Total SMS LPAH (U = 0)	370	**90.4**	**34.5**	**919**	**454**	**17.4**	**12.8**	**11.5**	**380**	**26.8**	**165**
Chlorobenzenes (µg/kg)											
1,2-Dichlorobenzene	--	**86**	1.9 U	**27**	**16**	**8.1**	**2.9 J**	4.8 U	**61**	**2.4 J**	1.2 U
1,3-Dichlorobenzene	--	96 U	19 U	19 U	98 U	19 U	19 U	19 U	19 U	19 U	19 U
1,4-Dichlorobenzene	--	**32**	1.9 U	**6 J**	**5.9**	1.2 U	**5.3 J**	4.8 U	**15 J**	**2.5 J**	1.2 U
1,2,4-Trichlorobenzene	--	**6.3**	4.7 U	4.8 U	4.9 U	4.7 U	4.8 U	4.8 U	**8.6**	4.8 U	4.8 U
Hexachlorobenzene	--	4.8 U	0.97 U	4.8 U	4.9 U	0.97 U	4.8 U	4.8 U	4.7 U	0.98 U	0.98 U
Chlorobenzenes (mg/kg-OC)											
1,2-Dichlorobenzene	2.3	**5.1**	0.07 U	**2.1**	**1.7**	**3.1**	**0.08 J**	0.20 U	**4.1**	**0.22 J**	0.06 U
1,3-Dichlorobenzene	--	5.6 U	0.68 U	1.5 U	10.4 U	7.2 U	0.52 U	0.78 U	1.3 U	1.7 U	0.90 U
1,4-Dichlorobenzene	3.1	**1.9**	0.07 U	**0.46 J**	**0.6**	0.5 U	**0.14 J**	0.20 U	**1.0 J**	**0.23 J**	0.06 U
1,2,4-Trichlorobenzene	0.81	**0.4**	0.17 U	0.37 U	0.52 U	1.8 U	0.13 U	0.20 U	**0.6**	0.44 U	0.23 U
Hexachlorobenzene	0.38	0.28 U	0.035 U	0.37 U	0.52 U	0.37 U	0.13 U	0.20 U	0.32 U	0.089 U	0.047 U
Phthalates (µg/kg)											
Dimethyl phthalate	--	96 U	19 U	19 U	98 U	19 U	19 U	19 U	**21**	19 U	19 U
Diethyl phthalate	--	5.2 U	5.1 U	5.2 U	5.3 U	5.1 U	**5.1**	5.1 U	**3.9 J**	**4.8 J**	5.2 U
Di-n-butyl phthalate	--	96 U	120 U	**320**	**200**	19 U	19 U	**31**	25 U	19 U	**69**
Butylbenzyl phthalate	--	96 U	**25 J**	**22 J**	98 U	19 U	**410**	**14 J**	**21**	19 U	19 U
Bis(2-ethylhexyl) phthalate	--	**1100**	**300**	**880**	**1100**	19 U	**980**	**280**	**800**	**410**	**800**
Di-n-octyl phthalate	--	96 U	19 U	19 U	98 U	19 U	19 U	19 U	19 U	19 U	19 UJ
Phthalates (mg/kg-OC)											
Dimethyl phthalate	53	5.6 U	0.68 U	1.5 U	10 U	7.2 U	0.52 U	0.78 U	**1.4**	1.7 U	0.90 U
Diethyl phthalate	61	0.31 U	0.18 U	0.4 U	0.56 U	1.9 U	**0.1**	0.21 U	**0.27 J**	**0.44 J**	0.25 U
Di-n-butyl phthalate	220	5.6 U	4.3 U	**24.6**	**21.3**	7.2 U	0.52 U	**1.3**	1.7 U	1.7 U	**3.3**
Butylbenzyl phthalate	4.9	5.6 U	**0.89 J**	**1.7 J**	10 U	7.2 U	**11.2**	**0.57 J**	**1.4**	1.7 U	0.90 U
Bis(2-ethylhexyl) phthalate	47	**64.7**	**10.7**	**67.7**	**117.0**	7.2 U	**26.8**	**11.4**	**54.4**	**37.3**	**38.1**
Di-n-octyl phthalate	58	5.6 U	0.68 U	1.5 U	10 U	7.2 U	0.52 U	0.78 U	1.3 U	1.7 U	0.90 UJ

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-09	DSI-SB-10	DSI-SB-10	DSI-SB-10	DSI-SB-10	DSI-SB-11	DSI-SB-11	DSI-SB-11	DSI-SB-11	DSI-SB-12
	Sample ID	DSI-SB-09-12.1-12.6	DSI-SB-10-1-2	DSI-SB-10-5.5-7	DSI-SB-10-8.5-10	DSI-SB-10-10-11	DSI-SB-11-1-2	DSI-SB-11-3.5-5	DSI-SB-11-8-8.9	DSI-SB-11-11-12.3	DSI-SB-12-1-2
	Sample Date	3/10/2011	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/15/2011
	Depth	12.1 to 12.6 feet	1 to 2 feet	5.5 to 7 feet	8.5 to 10 feet	10 to 11 feet	1 to 2 feet	3.5 to 5 feet	8 to 8.9 feet	11 to 12.3 feet	1 to 2 feet
	Stratigraphic Unit	Upper Alluvium	Recent	Recent	Upper Alluvium	Upper Alluvium	Recent	Recent	Recent	Upper Alluvium	Recent
	SMS SQS										
Phenols (µg/kg)											
2,4-Dimethylphenol	29	96 UJ	19 UJ	19 UJ	98 UJ	19 UJ	19 UJ	19 UJ	19 UJ	19 UJ	**16 J**
2-Methylphenol (o-Cresol)	63	96 U	19 U	19 U	98 U	19 U	19 U	19 U	19 U	19 U	19 U
4-Methylphenol (p-Cresol)	670	96 U	**29**	**36**	98 U	19 U	**35**	**48**	**60**	19 U	**57**
Pentachlorophenol	360	**68 J**	13 U	**39 J**	**26**	7.8 U	**14 J**	12 U	24 UJ	8.5 U	**67**
Phenol	420	**53 J**	**49**	19 U	98 U	19 U	**94**	**140**	**47**	**36**	**130**
Phenols (mg/kg-OC)											
2,4-Dimethylphenol	--	5.6 UJ	0.67 UJ	1.5 UJ	10 UJ	7.0 UJ	0.52 UJ	0.78 UJ	1.3 UJ	1.7 UJ	**0.76 J**
2-Methylphenol (o-Cresol)	--	5.6 U	0.67 U	1.5 U	10 U	7.0 U	0.52 U	0.78 U	1.3 U	1.7 U	0.90 U
4-Methylphenol (p-Cresol)	--	5.6 U	**1.0**	**2.8**	10 U	7.0 U	**1.0**	**2.0**	**4.1**	1.7 U	**2.7**
Pentachlorophenol	--	**4 J**	0.46 U	**3 J**	**2.8**	3.0 U	**0.38 J**	0.49 U	1.6 UJ	0.77 U	**3.2**
Phenol	--	**3.1 J**	**1.7**	1.5 U	10 U	7.0 U	**2.6**	**5.7**	**3.2**	**3.3**	**6.2**
Miscellaneous Extractables (µg/kg) [4]											
Dibenzofuran	--	**77 J**	**67**	**780**	**240**	19 U	**28**	**16 J**	**110**	**23**	**160**
Hexachlorobutadiene	--	4.8 U	0.97 U	4.8 U	4.9 U	0.97 U	4.8 U	4.8 U	4.7 U	0.98 U	0.98 U
N-Nitrosodiphenylamine	--	**100**	19 U	19 U	**23**	19 UJ	4.8 U	4.8 U	**34**	**18**	19 U
Benzyl alcohol	57	96 UJ	**130**	19 U	98 UJ	19 UJ	**240**	19 UJ	19 U	19 U	19 U
Benzoic acid	650	960 U	**250 J**	190 UJ	980 U	190 UJ	**380 J**	**180 J**	190 UJ	190 UJ	**98 J**
Hexachloroethane	--	96 U	19 U	19 U	98 U	19 U	19 U	19 U	19 U	19 U	19 U
Miscellaneous Extractables (mg/kg-OC) [4]											
Dibenzofuran	15	**4.5 J**	**2.4**	**60.0**	**25.5**	7.2 U	**0.8**	**0.65 J**	**7.5**	**2.1**	**7.6**
Hexachlorobutadiene	3.9	0.3 U	0.03 U	0.4 U	0.5 U	0.4 U	0.1 U	0.2 U	0.3 U	0.1 U	0.05 U
N-Nitrosodiphenylamine	11	**5.9**	0.68 U	1.5 U	**2.4**	7.2 UJ	0.13 U	0.20 U	**2.3**	**1.6**	0.90 U
Benzyl alcohol	--	5.6 UJ	**4.6**	1.5 U	10 UJ	7.2 UJ	**6.6**	0.78 UJ	1.3 U	1.7 U	0.90 U
Benzoic acid	--	56 U	**8.9 J**	15 UJ	104 U	72 UJ	**10 J**	**7.3 J**	13 UJ	17 UJ	**4.7 J**
Hexachloroethane	--	5.6 U	0.68 U	1.5 U	10 U	7.2 U	0.52 U	0.78 U	1.3 U	1.7 U	0.90 U
PCB Aroclors (µg/kg)											
Aroclor 1016	--	38 U	3.9 U	20 U	19 U	3.9 U	4 U	3.9 U	20 U	4 U	39 U
Aroclor 1221	--	38 U	3.9 U	20 U	19 U	3.9 U	4 U	3.9 U	20 U	4 U	39 U
Aroclor 1232	--	38 U	3.9 U	20 U	19 U	3.9 U	4 U	3.9 U	20 U	4 U	39 U
Aroclor 1242	--	38 U	3.9 U	20 U	19 U	3.9 U	4 U	3.9 U	20 U	4 U	39 UJ
Aroclor 1248	--	**630**	**51**	**200**	**170**	3.9 U	**40**	**46**	200 U	**130**	**450 J**
Aroclor 1254	--	**870**	**63**	**280**	**210**	3.9 U	**53**	**80**	**420**	**110**	**520 J**
Aroclor 1260	--	**140**	**40**	**130**	**62**	3.9 U	**32**	**62**	**460**	**98**	**260 J**
Total PCB Aroclors (U = 0)	--	**1,640**	**154**	**610**	**442**	3.9 U	**125**	**188**	**880**	**338**	**1,230**
Total PCB Aroclors (U = 1/2)	--	**1,716**	**162**	**650**	**480**	3.9 U	**133**	**196**	**1,020**	**346**	**1,308**
PCB Aroclors (mg/kg-OC)											
Aroclor 1016	--	2.2 U	0.14 U	1.5 U	2.0 U	1.5 U	0.11 U	0.16 U	1.4 U	0.36 U	1.9 U
Aroclor 1221	--	2.2 U	0.14 U	1.5 U	2.0 U	1.5 U	0.11 U	0.16 U	1.4 U	0.36 U	1.9 U
Aroclor 1232	--	2.2 U	0.14 U	1.5 U	2.0 U	1.5 U	0.11 U	0.16 U	1.4 U	0.36 U	1.9 U
Aroclor 1242	--	2.2 U	0.14 U	1.5 U	2.0 U	1.5 U	0.11 U	0.16 U	1.4 U	0.36 U	1.9 UJ
Aroclor 1248	--	**37**	**1.8**	**15**	**18**	1.5 U	**1.1**	**1.9**	14 U	**12**	**21 J**
Aroclor 1254	--	**51**	**2.2**	**22**	**22**	1.5 U	**1.4**	**3.3**	**29**	**10**	**25 J**
Aroclor 1260	--	**8.2**	**1.4**	**10**	**6.6**	1.5 U	**0.9**	**2.5**	**31**	**8.9**	**12 J**
Total PCB Aroclors (U = 0)	12	**96**	**5.5**	**47**	**47**	1.5 U	**3.4**	**7.7**	**60**	**31**	**59**
Total PCB Aroclors (U = 1/2)	12	**101**	**5.8**	**50**	**51**	1.5 U	**3.6**	**8.0**	**69**	**31**	**62**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-09	DSI-SB-10	DSI-SB-10	DSI-SB-10	DSI-SB-10	DSI-SB-11	DSI-SB-11	DSI-SB-11	DSI-SB-11	DSI-SB-12
	Sample ID	DSI-SB-09-12.1-12.6	DSI-SB-10-1-2	DSI-SB-10-5.5-7	DSI-SB-10-8.5-10	DSI-SB-10-10-11	DSI-SB-11-1-2	DSI-SB-11-3.5-5	DSI-SB-11-8-8.9	DSI-SB-11-11-12.3	DSI-SB-12-1-2
	Sample Date	3/10/2011	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/15/2011
	Depth	12.1 to 12.6 feet	1 to 2 feet	5.5 to 7 feet	8.5 to 10 feet	10 to 11 feet	1 to 2 feet	3.5 to 5 feet	8 to 8.9 feet	11 to 12.3 feet	1 to 2 feet
	Stratigraphic Unit	Upper Alluvium	Recent	Recent	Upper Alluvium	Upper Alluvium	Recent	Recent	Recent	Upper Alluvium	Recent
	SMS SQS										
Volatile Organics (µg/kg)											
1,1,1-Trichloroethane	--	--	1.9 U	1.2 U	--	1.2 U	1.8 U	--	1.3 U	1.2 U	1.2 U
1,1,2-Trichloroethane	--	--	1.9 U	1.2 U	--	1.2 U	1.8 U	--	1.3 U	1.2 U	1.2 U
1,1-Dichloroethane	--	--	1.9 U	1.2 U	--	1.2 U	1.8 U	--	1.3 U	1.2 U	1.2 U
1,1-Dichloroethene	--	--	1.9 U	1.2 U	--	1.2 U	1.8 U	--	1.3 U	1.2 U	1.2 U
1,2-Dichloroethane	--	--	1.9 U	1.2 U	--	1.2 U	1.8 U	--	1.3 U	1.2 U	1.2 U
1,3,5-Trimethylbenzene (Mesitylene)	--	--	1.9 U	**1.3**	--	1.2 U	1.8 U	--	**2.4**	1.2 U	1.2 U
Acetone	--	--	**230**	**97**	--	**14**	**76**	--	**90**	**23**	**80**
Benzene	--	--	1.9 U	1.2 U	--	1.2 U	1.8 U	--	**4.7**	1.2 U	1.2 U
Carbon tetrachloride (Tetrachloromethane)	--	--	1.9 U	1.2 U	--	1.2 U	1.8 U	--	1.3 U	1.2 U	1.2 U
Chlorobenzene	--	--	1.9 U	**5.7**	--	**2.7**	1.8 U	--	**13**	1.2 U	1.2 U
Chloroethane	--	--	1.9 U	1.2 U	--	1.2 U	1.8 U	--	1.3 U	1.2 U	1.2 U
Chloroform	--	--	1.9 U	1.2 U	--	1.2 U	1.8 U	--	1.3 U	1.2 U	1.2 U
Chloromethane	--	--	1.9 U	1.2 U	--	1.2 U	1.8 U	--	1.3 U	1.2 U	1.2 U
Dichloromethane (Methylene chloride)	--	--	3.8 U	2.5 U	--	2.4 U	**4.2**	--	2.7 U	2.4 U	2.3 U
Ethylbenzene		--	1.9 U	**8.3**	--	**3.5**	1.8 U	--	**17**	1.2 U	1.2 U
m,p-Xylene	--	--	1.9 U	**4.8**	--	1.2 U	1.8 U	--	**2.4**	1.2 U	1.2 U
o-Xylene	--	--	1.9 U	**10**	--	**4.1**	1.8 U	--	**8.1**	1.2 U	1.2 U
Styrene	--	--	1.9 U	1.2 U	--	1.2 U	1.8 U	--	1.3 U	1.2 U	1.2 U
Tetrachloroethene (PCE)	--	--	1.9 U	1.2 U	--	1.2 U	1.8 U	--	1.3 U	1.2 U	1.2 U
Toluene	--	--	1.9 U	**3**	--	1.2 U	1.8 U	--	1.3 U	1.2 U	1.2 U
Trichloroethene (TCE)	--	--	1.9 U	1.2 U	--	1.2 U	1.8 U	--	1.3 U	1.2 U	1.2 U
Vinyl chloride	--	--	1.9 U	1.2 U	--	1.2 U	1.8 U	--	1.3 U	1.2 U	1.2 U
Total Xylene (U = 0)	--	--	1.9 U	**14.8**	--	**4.1**	1.8 U	--	**10.5**	1.2 U	1.2 U
Total Xylene (U = 1/2)	--	--	1.9 U	**14.8**	--	**4.7**	1.8 U	--	**10.5**	1.2 U	1.2 U
Pesticides (µg/kg)											
4,4'-DDD (p,p'-DDD)	--	--	2 U	9.8 U	--	1.9 U	--	--	22 U	2 U	2 U
4,4'-DDE (p,p'-DDE)	--	--	2 U	9.8 U	--	1.9 U	--	--	9.8 U	2 U	14 U
4,4'-DDT (p,p'-DDT)	--	--	2 U	30 U	--	1.9 U	--	--	48 U	6.1 U	35 UJ
Aldrin	--	--	0.97 U	4.9 U	--	0.97 U	--	--	4.9 U	0.98 U	7.1 U
alpha-Chlordane (cis-Chlordane)	--	--	0.97 U	4.9 U	--	0.97 U	--	--	4.9 U	0.98 U	0.98 U
alpha-Hexachlorocyclohexane (BHC)	--	--	0.97 U	4.9 U	--	0.97 U	--	--	4.9 U	0.98 U	0.98 U
beta-Chlordane (trans-Chlordane)	--	--	0.97 U	4.9 U	--	0.97 U	--	--	4.9 U	0.98 U	0.98 U
beta-Hexachlorocyclohexane (BHC)	--	--	0.97 U	4.9 U	--	0.97 U	--	--	4.9 U	0.98 U	0.98 U
delta-Hexachlorocyclohexane (BHC)	--	--	**12 J**	4.9 UJ	--	0.97 UJ	--	--	4.9 UJ	0.98 UJ	6.1 UJ
Dieldrin	--	--	2 U	9.8 U	--	1.9 U	--	--	9.8 U	2 U	11 U
Endosulfan sulfate	--	--	2.8 U	9.8 U	--	1.9 U	--	--	9.8 U	2 U	2 U
Endosulfan-alpha (I)	--	--	0.97 U	4.9 U	--	0.97 U	--	--	4.9 U	0.98 U	20 U
Endosulfan-beta (II)	--	--	2 U	9.8 U	--	1.9 U	--	--	9.8 U	2 U	2 U
Endrin	--	--	3 U	19 U	--	1.9 U	--	--	23 U	3.1 U	15 U
Endrin aldehyde	--	--	2 U	9.8 U	--	18 U	--	--	14 U	2 U	4.6 U
Endrin ketone	--	--	2 U	9.8 U	--	1.9 U	--	--	9.8 U	2 U	2 U
gamma-Hexachlorocyclohexane (BHC) (Lindane)	--	--	0.97 U	4.9 U	--	0.97 U	--	--	4.9 U	0.98 U	0.98 U
Heptachlor	--	--	0.97 U	4.9 U	--	0.97 U	--	--	4.9 U	0.98 U	2.8 U
Heptachlor epoxide	--	--	0.97 U	14 U	--	0.97 U	--	--	15 U	4.7 U	22 U
Methoxychlor	--	--	9.7 U	49 U	--	9.7 U	--	--	49 U	9.8 U	30 UJ

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-09	DSI-SB-10	DSI-SB-10	DSI-SB-10	DSI-SB-10	DSI-SB-11	DSI-SB-11	DSI-SB-11	DSI-SB-11	DSI-SB-12
	Sample ID	DSI-SB-09-12.1-12.6	DSI-SB-10-1-2	DSI-SB-10-5.5-7	DSI-SB-10-8.5-10	DSI-SB-10-10-11	DSI-SB-11-1-2	DSI-SB-11-3.5-5	DSI-SB-11-8-8.9	DSI-SB-11-11-12.3	DSI-SB-12-1-2
	Sample Date	3/10/2011	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/11/2011	3/11/2011	3/11/2011	3/11/2011	3/15/2011
	Depth	12.1 to 12.6 feet	1 to 2 feet	5.5 to 7 feet	8.5 to 10 feet	10 to 11 feet	1 to 2 feet	3.5 to 5 feet	8 to 8.9 feet	11 to 12.3 feet	1 to 2 feet
	Stratigraphic Unit	Upper Alluvium	Recent	Recent	Upper Alluvium	Upper Alluvium	Recent	Recent	Recent	Upper Alluvium	Recent
	SMS SQS										
Toxaphene	--	--	97 U	490 U	--	97 U	--	--	490 U	98 U	98 U
Total DDx (U = 0)	--	--	2 U	30 U	--	1.9 U	--	--	48 U	6.1 U	35 U
Total DDx (U = 1/2)	--	--	2 U	30 U	--	1.9 U	--	--	48 U	6.1 U	35 U
Dioxin Furans (ng/kg)											
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	--	--	--	--	--	--	--	--	--	--	--
Total Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	--	--	--	--	--	--
Total Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	--	--	--	--	--	--
Total Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--	--	--	--
Total Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	--	--	--	--	--	--
Total Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	--	--	--	--	--	--
Total Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--	--	--	--	--
Total Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	--
Total Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--	--	--	--	--
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2)	--	--	--	--	--	--	--	--	--	--	--
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0)	--	--	--	--	--	--	--	--	--	--	--

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-12	DSI-SB-12	DSI-SB-12	DSI-SB-13	DSI-SB-13	DSI-SB-13	DSI-SB-13	DSI-SB-14	DSI-SB-14	DSI-SB-15
	Sample ID	DSI-SB-12-3-4.3	DSI-SB-12-4.3-5.8	DSI-SB-12-5.8-7.1	DSI-SB-13-1-2	DSI-SB-13-3-4.1	DSI-SB-13-4.1-5	DSI-SB-13-5-6	DSI-SB-14-4-5	DSI-SB-14-9-10.5	DSI-SB-15-4-5
	Sample Date	3/15/2011	3/15/2011	3/15/2011	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/15/2011	3/15/2011	3/15/2011
	Depth	3 to 4.3 feet	4.3 to 5.8 feet	5.8 to 7.1 feet	1 to 2 feet	3 to 4.1 feet	4.1 to 5 feet	5 to 6 feet	4 to 5 feet	9 to 10.5 feet	4 to 5 feet
	Stratigraphic Unit	Recent	Upper Alluvium	Upper Alluvium	Recent	Recent	Lower Alluvium	Lower Alluvium	Recent	Recent	Recent
	SMS SQS										
Conventional Parameters (percent)											
Total organic carbon	--	**1.44**	**1.17**	**1.42**	**2.05**	**1.95**	**0.126**	**0.111**	**2.14**	**2.05**	**2.22**
Percent fines [2]	--	--	--	--	--	--	--	--	--	--	--
Total solids	--	**85**	**71.6**	**73.7**	**60**	**50.7**	**86.7**	**93.6**	**54.2**	**55.4**	**53.6**
Total volatile solids	--	--	--	--	--	--	--	--	--	--	--
Metals (mg/kg)											
Antimony	--	**1.1 J**	0.3 UJ	0.3 UJ	**3.6 J**	**0.8 J**	0.2 UJ	--	0.4 UJ	0.3 UJ	0.4 UJ
Arsenic	57	**45.2 J**	**17**	**27.4 J**	**596**	**104**	**11**	--	**12**	**62**	**20**
Beryllium	--	0.1 U	**0.10**	0.1 U	**0.80**	**0.60**	0.1 U	--	**0.40**	**0.50**	**0.40**
Cadmium	5.1	**0.50**	0.3 U	0.3 U	**2.8**	**1.0**	0.2 U	--	**0.60**	**1.0**	**0.90**
Chromium	260	**36.2 J**	**16.2 J**	**17.5 J**	**89**	**51**	**9.2 J**	--	**35.3 J**	**35 J**	**36.1 J**
Chromium VI [3]	--	0.469 U	--	0.534 U	0.656 U	0.767 U	--	--	--	--	--
Copper	390	**189 J**	**26.3 J**	**40.3 J**	**1,270**	**240**	**18.3 J**	--	**81.6 J**	**219 J**	**105 J**
Lead	450	**273 J**	**11 J**	**38 J**	**749**	**201**	**7 J**	--	**33 J**	**131 J**	**69 J**
Mercury	0.41	**0.7 J**	**0.24 J**	**0.09 J**	**0.72 J**	**0.74 J**	**-- R**	--	**0.18 J**	**0.44 J**	**0.29 J**
Nickel	--	**22 J**	**9.0**	**10 J**	**35**	**23**	**7.0**	--	**29**	**22**	**28**
Selenium	--	0.6 U	0.7 UJ	0.7 U	0.8 U	1 U	0.5 UJ	--	0.9 UJ	0.9 UJ	0.9 UJ
Silver	6.1	0.4 U	0.4 U	0.4 U	**1.0**	1 U	0.3 U	--	0.5 U	**0.60**	0.5 U
Thallium	--	0.2 U	0.3 U	0.3 U	**0.40**	0.4 U	0.2 U	--	0.4 U	0.3 U	0.4 U
Zinc	410	**298 J**	**38 J**	**50 J**	**3,380**	**344**	**30 J**	--	**130 J**	**300 J**	**174 J**
Organometallic Compounds (µg/kg)											
Tributyltin (bulk sediment)	73	**3**	--	**4**	**3,600**	**950**	**19**	--	**29**	**630**	**140**
PAHs (µg/kg)											
1-Methylnaphthalene	--	**13 J**	--	**20**	**68**	**20**	19 U	--	**12 J**	**14 J**	19 U
2-Methylnaphthalene	--	**20**	--	**27**	**99**	**59**	19 U	--	**16 J**	**20**	**13 J**
Acenaphthene	--	**31**	--	**18 J**	**570**	19 U	19 U	--	**15 J**	**40**	**20**
Acenaphthylene	--	**20**	--	**11 J**	**29**	19 U	19 U	--	20 U	20 U	19 U
Anthracene	--	**78**	--	**36**	**870**	**310**	19 U	--	**35**	**100**	**36**
Benzo(a)anthracene	--	**190**	--	**81**	**2,600**	**1,100**	**11 J**	--	**98**	**330**	**120**
Benzo(a)pyrene	--	**270**	--	**130**	**2,300**	**1,400**	**17 J**	--	**130**	**280**	**150**
Benzo(b,j,k)fluoranthenes	--	**570**	--	**290**	**4,200**	**3,000**	**42**	--	**350**	**600**	**370**
Benzo(g,h,i)perylene	--	**140**	--	**78**	**1,100**	**690**	**11 J**	--	**100**	**180**	**110**
Chrysene	--	**280**	--	**110**	**3,100**	**1,700**	**17 J**	--	**150**	**380**	**170**
Dibenzo(a,h)anthracene	--	**50**	--	**24**	**430**	**250**	19 U	--	**31**	**55**	**39**
Fluoranthene	--	**530**	--	**150**	**6,500**	**3,100**	**29**	--	**200**	**830**	**240**
Fluorene	--	**32**	--	**20**	**390**	**120**	19 U	--	**18 J**	**40**	**27**
Indeno(1,2,3-c,d)pyrene	--	**130**	--	**74**	**1,000**	**660**	**10 J**	--	**91**	**160**	**100**
Naphthalene	--	**38**	--	**44**	**260**	**91**	19 U	--	**28**	**30**	**17 J**
Phenanthrene	--	**250**	--	**100**	**3,600**	**880**	19 U	--	**140**	**360**	**140**
Pyrene	--	**1,400**	--	**590**	**6,000**	**5,100**	**99**	--	**340**	**880**	**390**
Total SMS HPAH (U = 0)	--	**2,990**	--	**1,237**	**23,030**	**14,000**	**194**	--	**1,140**	**3,095**	**1,319**
Total SMS LPAH (U = 0)	--	**449**	--	**229**	**5,719**	**1,401**	19 U	--	**236**	**570**	**240**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-12	DSI-SB-12	DSI-SB-12	DSI-SB-13	DSI-SB-13	DSI-SB-13	DSI-SB-13	DSI-SB-14	DSI-SB-14	DSI-SB-15
	Sample ID	DSI-SB-12-3-4.3	DSI-SB-12-4.3-5.8	DSI-SB-12-5.8-7.1	DSI-SB-13-1-2	DSI-SB-13-3-4.1	DSI-SB-13-4.1-5	DSI-SB-13-5-6	DSI-SB-14-4-5	DSI-SB-14-9-10.5	DSI-SB-15-4-5
	Sample Date	3/15/2011	3/15/2011	3/15/2011	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/15/2011	3/15/2011	3/15/2011
	Depth	3 to 4.3 feet	4.3 to 5.8 feet	5.8 to 7.1 feet	1 to 2 feet	3 to 4.1 feet	4.1 to 5 feet	5 to 6 feet	4 to 5 feet	9 to 10.5 feet	4 to 5 feet
	Stratigraphic Unit	Recent	Upper Alluvium	Upper Alluvium	Recent	Recent	Lower Alluvium	Lower Alluvium	Recent	Recent	Recent
	SMS SQS										
PAHs (mg/kg-OC)											
1-Methylnaphthalene	--	**0.90 J**	--	**1.4**	**3.3**	**1.0**	15.1 U	--	**0.56 J**	**0.68 J**	0.86 U
2-Methylnaphthalene	38	**1.4**	--	**1.9**	**4.8**	**3.0**	15.1 U	--	**0.75 J**	**1.0**	**0.59 J**
Acenaphthene	16	**2.2**	--	**1.27 J**	**27.8**	0.97 U	15.1 U	--	**0.70 J**	**2.0**	**0.9**
Acenaphthylene	66	**1.4**	--	**0.77 J**	**1.4**	0.97 U	15.1 U	--	0.93 U	0.98 U	0.86 U
Anthracene	220	**5.4**	--	**2.5**	**42.4**	**15.9**	15.1 U	--	**1.6**	**4.9**	**1.6**
Benzo(a)anthracene	110	**13.2**	--	**5.7**	**127**	**56.4**	**8.7 J**	--	**4.6**	**16.1**	**5.4**
Benzo(a)pyrene	99	**18.8**	--	**9.2**	**112**	**71.8**	**13.5 J**	--	**6.1**	**13.7**	**6.8**
Benzo(b,j,k)fluoranthenes	--	**39.6**	--	**20.4**	**205**	**154**	**33.3**	--	**16.4**	**29.3**	**16.7**
Benzo(g,h,i)perylene	31	**9.7**	--	**5.5**	**53.7**	**35.4**	**8.7 J**	--	**4.7**	**8.8**	**5.0**
Chrysene	110	**19.4**	--	**7.7**	**151**	**87.2**	**13.5 J**	--	**7.0**	**18.5**	**7.7**
Dibenzo(a,h)anthracene	12	**3.5**	--	**1.7**	**21.0**	**12.8**	15.1 U	--	**1.4**	**2.7**	**1.8**
Fluoranthene	160	**36.8**	--	**10.6**	**317**	**159**	**23.0**	--	**9.3**	**40.5**	**10.8**
Fluorene	23	**2.2**	--	**1.4**	**19.0**	**6.2**	15.1 U	--	**0.84 J**	**2.0**	**1.2**
Indeno(1,2,3-c,d)pyrene	34	**9.0**	--	**5.2**	**48.8**	**33.8**	**7.9 J**	--	**4.3**	**7.8**	**4.5**
Naphthalene	99	**2.6**	--	**3.1**	**12.7**	**4.7**	15.1 U	--	**1.3**	**1.5**	**0.77 J**
Phenanthrene	100	**17.4**	--	**7.0**	**176**	**45.1**	15.1 U	--	**6.5**	**17.6**	**6.3**
Pyrene	1000	**97.2**	--	**41.5**	**293**	**262**	**78.6**	--	**15.9**	**42.9**	**17.6**
Total SMS HPAH (U = 0)	960	**208**	--	**87.1**	**1,123**	**718**	**154**	--	**53.3**	**151**	**59.4**
Total SMS LPAH (U = 0)	370	**31.2**	--	**16.1**	**279**	**71.8**	15.1 U	--	**11.0**	**27.8**	**10.8**
Chlorobenzenes (µg/kg)											
1,2-Dichlorobenzene	--	1.2 U	--	1.2 U	**15 J**	1.8 U	4.7 U	--	4.9 U	**7.8**	4.8 U
1,3-Dichlorobenzene	--	19 U	--	19 U	19 U	19 U	19 U	--	20 U	20 U	19 U
1,4-Dichlorobenzene	--	1.2 U	--	1.2 U	1.5 U	1.8 U	4.7 U	--	4.9 U	4.9 U	4.8 U
1,2,4-Trichlorobenzene	--	4.7 U	--	4.7 U	4.8 U	4.8 U	4.7 U	--	4.9 U	4.9 U	4.8 U
Hexachlorobenzene	--	0.97 U	--	0.96 UJ	4.8 U	4.8 U	4.7 U	--	4.9 U	4.9 U	4.8 U
Chlorobenzenes (mg/kg-OC)											
1,2-Dichlorobenzene	2.3	0.08 U	--	0.08 U	**0.73 J**	0.09 U	3.7 U	--	0.23 U	**0.4**	0.22 U
1,3-Dichlorobenzene	--	1.3 U	--	1.3 U	0.93 U	0.97 U	15.1 U	--	0.93 U	0.98 U	0.86 U
1,4-Dichlorobenzene	3.1	0.08 U	--	0.08 U	0.07 U	0.09 U	3.7 U	--	0.23 U	0.24 U	0.22 U
1,2,4-Trichlorobenzene	0.81	0.33 U	--	0.33 U	0.23 U	0.25 U	3.7 U	--	0.23 U	0.24 U	0.22 U
Hexachlorobenzene	0.38	0.067 U	--	0.068 UJ	0.23 U	0.25 U	3.7 U	--	0.23 U	0.24 U	0.22 U
Phthalates (µg/kg)											
Dimethyl phthalate	--	19 U	--	19 U	**11 J**	19 U	19 U	--	20 U	20 U	**11 J**
Diethyl phthalate	--	5.1 U	--	5 U	**7.6**	5.2 U	5 U	--	5.3 U	5.2 U	5.2 U
Di-n-butyl phthalate	--	**20**	--	19 U	19 U	19 U	19 U	--	20 U	20 U	**14 J**
Butylbenzyl phthalate	--	19 U	--	19 U	19 UJ	19 UJ	19 U	--	**18 J**	**26**	**16 J**
Bis(2-ethylhexyl) phthalate	--	**640 J**	--	**11 J**	**970**	**680**	19 U	--	170 U	**390**	**220**
Di-n-octyl phthalate	--	19 UJ	--	19 UJ	19 U	19 U	19 U	--	20 U	20 U	19 U
Phthalates (mg/kg-OC)											
Dimethyl phthalate	53	1.32 U	--	1.3 U	**0.54 J**	0.97 U	15 U	--	0.93 U	0.98 U	**0.50 J**
Diethyl phthalate	61	0.35 U	--	0.35 U	**0.4**	0.27 U	4.0 U	--	0.25 U	0.25 U	0.23 U
Di-n-butyl phthalate	220	**1.4**	--	1.3 U	0.93 U	0.97 U	15 U	--	0.93 U	0.98 U	**0.63 J**
Butylbenzyl phthalate	4.9	1.3 U	--	1.3 U	0.93 UJ	0.97 U	15 U	--	**0.84 J**	**1.3**	**0.72 J**
Bis(2-ethylhexyl) phthalate	47	**44 J**	--	**0.77 J**	**47.3**	**34.9**	15 U	--	7.9 U	**19.0**	**9.9**
Di-n-octyl phthalate	58	1.3 UJ	--	1.3 UJ	0.93 U	0.97 U	15 U	--	0.93 U	0.98 U	0.86 U

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-12	DSI-SB-12	DSI-SB-12	DSI-SB-13	DSI-SB-13	DSI-SB-13	DSI-SB-13	DSI-SB-14	DSI-SB-14	DSI-SB-15
	Sample ID	DSI-SB-12-3-4.3	DSI-SB-12-4.3-5.8	DSI-SB-12-5.8-7.1	DSI-SB-13-1-2	DSI-SB-13-3-4.1	DSI-SB-13-4.1-5	DSI-SB-13-5-6	DSI-SB-14-4-5	DSI-SB-14-9-10.5	DSI-SB-15-4-5
	Sample Date	3/15/2011	3/15/2011	3/15/2011	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/15/2011	3/15/2011	3/15/2011
	Depth	3 to 4.3 feet	4.3 to 5.8 feet	5.8 to 7.1 feet	1 to 2 feet	3 to 4.1 feet	4.1 to 5 feet	5 to 6 feet	4 to 5 feet	9 to 10.5 feet	4 to 5 feet
	Stratigraphic Unit	Recent	Upper Alluvium	Upper Alluvium	Recent	Recent	Lower Alluvium	Lower Alluvium	Recent	Recent	Recent
	SMS SQS										
Phenols (µg/kg)											
2,4-Dimethylphenol	29	19 UJ	--	19 UJ	19 UJ	19 UJ	19 UJ	--	20 UJ	20 UJ	19 UJ
2-Methylphenol (o-Cresol)	63	19 U	--	19 U	**12 J**	19 U	19 U	--	20 U	20 U	19 U
4-Methylphenol (p-Cresol)	670	**17 J**	--	**26**	**28**	**31**	19 U	--	**26**	**32**	**55**
Pentachlorophenol	360	16 U	--	8.7 U	**69 J**	**35 J**	7.2 U	--	12 U	**38 J**	24 UJ
Phenol	420	**26**	--	**57**	**59**	**58**	19 U	--	**180**	**20**	**20**
Phenols (mg/kg-OC)											
2,4-Dimethylphenol	--	1.3 UJ	--	1.3 UJ	0.93 UJ	0.97 UJ	15 UJ	--	0.93 UJ	0.98 UJ	0.86 UJ
2-Methylphenol (o-Cresol)	--	1.3 U	--	1.3 U	**0.59 J**	0.97 U	15 U	--	0.93 U	0.98 U	0.86 U
4-Methylphenol (p-Cresol)	--	**1.2 J**	--	**1.8**	**1.4**	**1.6**	15 U	--	**1.2**	**1.6**	**2.5**
Pentachlorophenol	--	1.1 U	--	0.61 U	**3.4 J**	**1.8 J**	5.7 U	--	0.56 U	**1.9 J**	1.1 UJ
Phenol	--	**1.8**	--	**4.0**	**2.9**	**3.0**	15 U	--	**8.4**	**1.0**	**0.9**
Miscellaneous Extractables (µg/kg) [4]											
Dibenzofuran	--	**24**	--	**20**	**230**	19 U	19 U	--	**17 J**	**21**	**18 J**
Hexachlorobutadiene	--	0.97 U	--	0.96 UJ	4.8 U	4.8 U	4.7 U	--	4.9 U	4.9 U	4.8 U
N-Nitrosodiphenylamine	--	19 U	--	19 U	19 U	19 U	4.7 U	--	4.9 U	**6.2**	4.8 U
Benzyl alcohol	57	19 U	--	19 U	**200**	**42**	19 UJ	--	20 UJ	20 UJ	19 UJ
Benzoic acid	650	190 UJ	--	190 U	190 UJ	**320 J**	190 U	--	**170 J**	200 U	**35 J**
Hexachloroethane	--	19 UJ	--	19 U	19 U	19 U	19 U	--	20 U	20 U	19 U
Miscellaneous Extractables (mg/kg-OC) [4]											
Dibenzofuran	15	**1.7**	--	**1.4**	**11.2**	0.97 U	15 U	--	**0.79 J**	**1.0**	**0.81 J**
Hexachlorobutadiene	3.9	0.07 U	--	0.07 UJ	0.2 U	0.2 U	3.7 U	--	0.2 U	0.2 U	0.2 U
N-Nitrosodiphenylamine	11	1.3 U	--	--	--	--	3.7 U	--	0.23 U	**0.3**	0.22 U
Benzyl alcohol	--	1.3 U	--	1.3 U	**9.8**	**2.2**	15 UJ	--	0.93 UJ	0.98 UJ	0.86 UJ
Benzoic acid	--	13 UJ	--	13 U	9.3 UJ	**16 J**	151 U	--	**7.9 J**	9.8 U	**1.58 J**
Hexachloroethane	--	1.3 UJ	--	1.3 U	0.93 U	0.97 U	15 U	--	0.93 U	0.98 U	0.86 U
PCB Aroclors (µg/kg)											
Aroclor 1016	--	3.9 U	3.6 U	3.8 U	33 U	20 U	3.8 U	3.8 U	3.8 U	19 U	3.8 U
Aroclor 1221	--	3.9 U	3.6 U	3.8 U	33 U	20 U	3.8 U	3.8 U	3.8 U	19 U	3.8 U
Aroclor 1232	--	3.9 U	3.6 U	3.8 U	33 U	20 U	3.8 U	3.8 U	3.8 U	19 U	3.8 U
Aroclor 1242	--	3.9 U	3.6 U	3.8 U	33 U	20 U	3.8 U	3.8 U	3.8 U	19 U	3.8 U
Aroclor 1248	--	**180**	8.5 U	**12**	250 U	150 U	77 U	3.8 U	**45**	**180**	**69**
Aroclor 1254	--	**170**	**15**	**16**	**530**	**280**	**160**	3.8 U	**75**	**320**	**110**
Aroclor 1260	--	**120**	**12**	**7.5**	**160**	**160**	**35**	3.8 U	**61**	**110**	**87**
Total PCB Aroclors (U = 0)	--	**470**	**27**	**36**	**690**	**440**	**195**	3.8 U	**181**	**610**	**266**
Total PCB Aroclors (U = 1/2)	--	**478**	**38**	**43**	**881**	**555**	**241**	3.8 U	**189**	**648**	**274**
PCB Aroclors (mg/kg-OC)											
Aroclor 1016	--	0.27 U	0.31 U	0.27 U	1.6 U	1.0 U	3.0 U	3.4 U	0.18 U	0.93 U	0.17 U
Aroclor 1221	--	0.27 U	0.31 U	0.27 U	1.6 U	1.0 U	3.0 U	3.4 U	0.18 U	0.93 U	0.17 U
Aroclor 1232	--	0.27 U	0.31 U	0.27 U	1.6 U	1.0 U	3.0 U	3.4 U	0.18 U	0.93 U	0.17 U
Aroclor 1242	--	0.27 U	0.31 U	0.27 U	1.6 U	1.0 U	3.0 U	3.4 U	0.18 U	0.93 U	0.17 U
Aroclor 1248	--	**13**	0.73 U	**0.8**	12 U	7.7 U	61 U	3.4 U	**2.1**	**8.8**	**3.1**
Aroclor 1254	--	**12**	**1.3**	**1.1**	**25.9**	**14.4**	**127.0**	3.4 U	**3.5**	**15.6**	**5.0**
Aroclor 1260	--	**8.3**	**1.0**	**0.5**	**7.8**	**8.2**	**27.8**	3.4 U	**2.9**	**5.4**	**3.9**
Total PCB Aroclors (U = 0)	12	**33**	**2.3**	**2.5**	**33.7**	**22.6**	**154.8**	3.4 U	**8.5**	**29.8**	**12.0**
Total PCB Aroclors (U = 1/2)	12	**33**	**3.3**	**3.0**	**43.0**	**28.5**	**191.3**	3.4 U	**8.8**	**31.6**	**12.3**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-12	DSI-SB-12	DSI-SB-12	DSI-SB-13	DSI-SB-13	DSI-SB-13	DSI-SB-13	DSI-SB-14	DSI-SB-14	DSI-SB-15
	Sample ID	DSI-SB-12-3-4.3	DSI-SB-12-4.3-5.8	DSI-SB-12-5.8-7.1	DSI-SB-13-1-2	DSI-SB-13-3-4.1	DSI-SB-13-4.1-5	DSI-SB-13-5-6	DSI-SB-14-4-5	DSI-SB-14-9-10.5	DSI-SB-15-4-5
	Sample Date	3/15/2011	3/15/2011	3/15/2011	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/15/2011	3/15/2011	3/15/2011
	Depth	3 to 4.3 feet	4.3 to 5.8 feet	5.8 to 7.1 feet	1 to 2 feet	3 to 4.1 feet	4.1 to 5 feet	5 to 6 feet	4 to 5 feet	9 to 10.5 feet	4 to 5 feet
	Stratigraphic Unit	Recent	Upper Alluvium	Upper Alluvium	Recent	Recent	Lower Alluvium	Lower Alluvium	Recent	Recent	Recent
	SMS SQS										
Volatile Organics (µg/kg)											
1,1,1-Trichloroethane	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
1,1,2-Trichloroethane	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
1,1-Dichloroethane	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
1,1-Dichloroethene	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
1,2-Dichloroethane	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
1,3,5-Trimethylbenzene (Mesitylene)	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Acetone	--	**36**	--	**53**	**170**	**85**	--	--	--	--	--
Benzene	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Carbon tetrachloride (Tetrachloromethane)	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Chlorobenzene	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Chloroethane	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Chloroform	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Chloromethane	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Dichloromethane (Methylene chloride)	--	2.3 U	--	2.4 U	2.9 U	3.6 U	--	--	--	--	--
Ethylbenzene		1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
m,p-Xylene	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
o-Xylene	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Styrene	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Tetrachloroethene (PCE)	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Toluene	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Trichloroethene (TCE)	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Vinyl chloride	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Total Xylene (U = 0)	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Total Xylene (U = 1/2)	--	1.2 U	--	1.2 U	1.5 U	1.8 U	--	--	--	--	--
Pesticides (µg/kg)											
4,4'-DDD (p,p'-DDD)	--	1.9 U	--	1.9 UJ	16 U	9.9 U	--	--	--	--	--
4,4'-DDE (p,p'-DDE)	--	6.1 U	--	1.9 UJ	16 U	9.9 U	--	--	--	--	--
4,4'-DDT (p,p'-DDT)	--	21 UJ	--	1.9 UJ	61 U	9.9 U	--	--	--	--	--
Aldrin	--	0.97 U	--	0.96 UJ	8.2 U	4.9 U	--	--	--	--	--
alpha-Chlordane (cis-Chlordane)	--	0.97 U	--	0.96 UJ	8.2 U	4.9 U	--	--	--	--	--
alpha-Hexachlorocyclohexane (BHC)	--	0.97 U	--	0.96 UJ	8.2 U	4.9 U	--	--	--	--	--
beta-Chlordane (trans-Chlordane)	--	0.97 U	--	0.96 UJ	8.2 U	4.9 U	--	--	--	--	--
beta-Hexachlorocyclohexane (BHC)	--	0.97 U	--	0.96 UJ	8.2 U	4.9 U	--	--	--	--	--
delta-Hexachlorocyclohexane (BHC)	--	0.97 UJ	--	0.96 UJ	8.2 UJ	4.9 UJ	--	--	--	--	--
Dieldrin	--	5.1 U	--	1.9 UJ	16 U	9.9 U	--	--	--	--	--
Endosulfan sulfate	--	1.9 U	--	1.9 UJ	16 U	9.9 U	--	--	--	--	--
Endosulfan-alpha (I)	--	0.97 U	--	0.96 UJ	8.2 U	4.9 U	--	--	--	--	--
Endosulfan-beta (II)	--	1.9 U	--	1.9 UJ	16 U	9.9 U	--	--	--	--	--
Endrin	--	13 U	--	1.9 UJ	31 U	9.9 U	--	--	--	--	--
Endrin aldehyde	--	8 U	--	1.9 UJ	16 U	9.9 U	--	--	--	--	--
Endrin ketone	--	1.9 U	--	1.9 UJ	16 U	9.9 U	--	--	--	--	--
gamma-Hexachlorocyclohexane (BHC) (Lindane)	--	0.97 U	--	0.96 UJ	8.2 U	4.9 U	--	--	--	--	--
Heptachlor	--	2.2 U	--	0.96 UJ	8.2 U	4.9 U	--	--	--	--	--
Heptachlor epoxide	--	11 U	--	0.96 UJ	27 U	9.5 U	--	--	--	--	--
Methoxychlor	--	32 UJ	--	9.6 UJ	82 U	49 U	--	--	--	--	--

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-12	DSI-SB-12	DSI-SB-12	DSI-SB-13	DSI-SB-13	DSI-SB-13	DSI-SB-13	DSI-SB-14	DSI-SB-14	DSI-SB-15
	Sample ID	DSI-SB-12-3-4.3	DSI-SB-12-4.3-5.8	DSI-SB-12-5.8-7.1	DSI-SB-13-1-2	DSI-SB-13-3-4.1	DSI-SB-13-4.1-5	DSI-SB-13-5-6	DSI-SB-14-4-5	DSI-SB-14-9-10.5	DSI-SB-15-4-5
	Sample Date	3/15/2011	3/15/2011	3/15/2011	3/14/2011	3/14/2011	3/14/2011	3/14/2011	3/15/2011	3/15/2011	3/15/2011
	Depth	3 to 4.3 feet	4.3 to 5.8 feet	5.8 to 7.1 feet	1 to 2 feet	3 to 4.1 feet	4.1 to 5 feet	5 to 6 feet	4 to 5 feet	9 to 10.5 feet	4 to 5 feet
	Stratigraphic Unit	Recent	Upper Alluvium	Upper Alluvium	Recent	Recent	Lower Alluvium	Lower Alluvium	Recent	Recent	Recent
	SMS SQS										
Toxaphene	--	97 U	--	96 UJ	820 U	490 U	--	--	--	--	--
Total DDx (U = 0)	--	21 U	--	1.9 UJ	61 U	9.9 U	--	--	--	--	--
Total DDx (U = 1/2)	--	21 U	--	1.9 UJ	61 U	9.9 U	--	--	--	--	--
Dioxin Furans (ng/kg)											
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	--	--	--	--	--	--	--	--	--	--	--
Total Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	--	--	--	--	--	--
Total Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	--	--	--	--	--	--
Total Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--	--	--	--
Total Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	--	--	--	--	--	--
Total Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	--	--	--	--	--	--
Total Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--	--	--	--	--
Total Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--	--	--	--
Total Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--	--	--	--	--
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2)	--	--	--	--	--	--	--	--	--	--	--
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0)	--	--	--	--	--	--	--	--	--	--	--

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-15	DSI-SB-16	DSI-SB-16	DSI-SB-17	DSI-SB-17
	Sample ID	DSI-SB-15-11.5-12.5	DSI-SB-16-5-6.5	DSI-SB-16-9.2-10.7	DSI-SB-17-5-6	DSI-SB-17-9.4-10.7
	Sample Date	3/15/2011	3/15/2011	3/15/2011	3/16/2011	3/16/2011
	Depth	11.5 to 12.5 feet	5 to 6.5 feet	9.2 to 10.7 feet	5 to 6 feet	9.4 to 10.7 feet
	Stratigraphic Unit	Recent	Recent	Recent	Recent	Recent
	SMS SQS					
Conventional Parameters (percent)						
Total organic carbon	--	**2.25**	**2.1**	**1.87**	**2.07**	**2.19**
Percent fines [2]	--	--	--	--	--	--
Total solids	--	**62.2**	**54.5**	**59.2**	**56.1**	**59.3**
Total volatile solids	--	--	--	--	--	--
Metals (mg/kg)						
Antimony	--	0.3 UJ	**0.5 J**	0.3 UJ	0.3 UJ	0.3 UJ
Arsenic	57	**12**	**194**	**65**	**118**	**21**
Beryllium	--	**0.40**	**0.50**	**0.40**	**0.50**	**0.40**
Cadmium	5.1	**1.3**	**1.2**	**1.5**	**1.5**	**1.4**
Chromium	260	**35.4 J**	**39.5 J**	**39.6 J**	**43 J**	**39.9 J**
Chromium VI [3]	--	--	--	--	--	--
Copper	390	**63.6 J**	**247 J**	**179 J**	**241 J**	**82 J**
Lead	450	**50 J**	**191 J**	**163 J**	**208 J**	**70 J**
Mercury	0.41	**0.31 J**	**0.4 J**	**0.5 J**	**0.5 J**	**0.39 J**
Nickel	--	**21**	**39**	**25**	**29**	**24**
Selenium	--	0.7 UJ	0.8 UJ	0.8 UJ	0.8 UJ	0.9 UJ
Silver	6.1	**0.70**	**0.80**	**0.80**	1 U	**0.90**
Thallium	--	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Zinc	410	**111 J**	**490 J**	**280 J**	**445 J**	**131 J**
Organometallic Compounds (µg/kg)						
Tributyltin (bulk sediment)	73	3.8 U	**570**	**28**	**480**	**12**
PAHs (µg/kg)						
1-Methylnaphthalene	--	**250**	**16 J**	**12 J**	**13 J**	**11 J**
2-Methylnaphthalene	--	**79**	**20**	**18 J**	**20**	**17 J**
Acenaphthene	--	**4,600**	**42**	**18 J**	**36**	**11 J**
Acenaphthylene	--	**60 J**	**15 J**	19 U	**14 J**	19 U
Anthracene	--	**3,800**	**87**	**44**	**90**	**29**
Benzo(a)anthracene	--	**3,700**	**360**	**100**	**310**	**73**
Benzo(a)pyrene	--	**1,600**	**370**	**110**	**320**	**90**
Benzo(b,j,k)fluoranthenes	--	**3,900**	**790**	**230**	**690**	**200**
Benzo(g,h,i)perylene	--	**640**	**230**	**71**	**200**	**59**
Chrysene	--	**4,900**	**420**	**120**	**390**	**96**
Dibenzo(a,h)anthracene	--	**320**	**81**	**26**	**59**	**27**
Fluoranthene	--	**14,000**	**840**	**210**	**760**	**130**
Fluorene	--	**7,700**	**41**	**22**	**30**	**16 J**
Indeno(1,2,3-c,d)pyrene	--	**630**	**210**	**63**	**180**	**52**
Naphthalene	--	**52 J**	**33**	**31**	**32**	**28**
Phenanthrene	--	**26,000**	**330**	**120**	**290**	**82**
Pyrene	--	**10,000**	**1,000**	**320**	**930**	**270**
Total SMS HPAH (U = 0)	--	**35,790**	**3,511**	**1,020**	**3,149**	**797**
Total SMS LPAH (U = 0)	--	**42,212**	**548**	**235**	**492**	**166**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-15	DSI-SB-16	DSI-SB-16	DSI-SB-17	DSI-SB-17
	Sample ID	DSI-SB-15-11.5-12.5	DSI-SB-16-5-6.5	DSI-SB-16-9.2-10.7	DSI-SB-17-5-6	DSI-SB-17-9.4-10.7
	Sample Date	3/15/2011	3/15/2011	3/15/2011	3/16/2011	3/16/2011
	Depth	11.5 to 12.5 feet	5 to 6.5 feet	9.2 to 10.7 feet	5 to 6 feet	9.4 to 10.7 feet
	Stratigraphic Unit	Recent	Recent	Recent	Recent	Recent
	SMS SQS					
PAHs (mg/kg-OC)						
1-Methylnaphthalene	--	**11.1**	**0.76 J**	**0.64 J**	**0.63 J**	**0.50 J**
2-Methylnaphthalene	38	**3.5**	**1.0**	**0.96 J**	**1.0**	**0.78 J**
Acenaphthene	16	**204**	**2.0**	**0.96 J**	**1.7**	**0.50 J**
Acenaphthylene	66	**2.7 J**	**0.71 J**	1.0 U	**0.68 J**	0.87 U
Anthracene	220	**169**	**4.1**	**2.4**	**4.3**	**1.3**
Benzo(a)anthracene	110	**164**	**17.1**	**5.3**	**15.0**	**3.3**
Benzo(a)pyrene	99	**71.1**	**17.6**	**5.9**	**15.5**	**4.1**
Benzo(b,j,k)fluoranthenes	--	**173**	**37.6**	**12.3**	**33.3**	**9.1**
Benzo(g,h,i)perylene	31	**28.4**	**11.0**	**3.8**	**9.7**	**2.7**
Chrysene	110	**218**	**20.0**	**6.4**	**18.8**	**4.4**
Dibenzo(a,h)anthracene	12	**14.2**	**3.9**	**1.4**	**2.9**	**1.2**
Fluoranthene	160	**622**	**40.0**	**11.2**	**36.7**	**5.9**
Fluorene	23	**342**	**2.0**	**1.2**	**1.4**	**0.73 J**
Indeno(1,2,3-c,d)pyrene	34	**28.0**	**10.0**	**3.4**	**8.7**	**2.4**
Naphthalene	99	**2.3 J**	**1.6**	**1.7**	**1.5**	**1.3**
Phenanthrene	100	**1,156**	**15.7**	**6.4**	**14.0**	**3.7**
Pyrene	1000	**444**	**47.6**	**17.1**	**44.9**	**12.3**
Total SMS HPAH (U = 0)	960	**1,591**	**167**	**54.5**	**152**	**36.4**
Total SMS LPAH (U = 0)	370	**1,876**	**26.1**	**12.6**	**23.8**	**7.6**
Chlorobenzenes (µg/kg)						
1,2-Dichlorobenzene	--	20 U	**7.3**	4.7 U	**8.2**	4.6 U
1,3-Dichlorobenzene	--	79 U	20 U	19 U	19 U	19 U
1,4-Dichlorobenzene	--	20 U	**5.8**	**4.9**	**5.7**	4.6 U
1,2,4-Trichlorobenzene	--	20 U	4.9 U	4.7 U	4.8 U	4.6 U
Hexachlorobenzene	--	20 U	4.9 U	4.7 U	4.8 U	4.6 U
Chlorobenzenes (mg/kg-OC)						
1,2-Dichlorobenzene	2.3	0.89 U	**0.3**	0.25 U	**0.4**	0.21 U
1,3-Dichlorobenzene	--	3.5 U	0.95 U	1.0 U	0.92 U	0.87 U
1,4-Dichlorobenzene	3.1	0.89 U	**0.3**	**0.3**	**0.3**	0.21 U
1,2,4-Trichlorobenzene	0.81	0.89 U	0.23 U	0.25 U	0.23 U	0.21 U
Hexachlorobenzene	0.38	0.89 U	0.23 U	0.25 U	0.23 U	0.21 U
Phthalates (µg/kg)						
Dimethyl phthalate	--	79 U	20 U	19 U	19 U	19 U
Diethyl phthalate	--	21 U	7.2 U	7.4 U	6.8 U	5.1 U
Di-n-butyl phthalate	--	79 U	20 U	19 U	19 U	19 U
Butylbenzyl phthalate	--	79 U	**26**	19 U	**24**	19 U
Bis(2-ethylhexyl) phthalate	--	79 U	**610**	**710**	**610**	**220**
Di-n-octyl phthalate	--	79 U	20 U	19 U	19 U	19 U
Phthalates (mg/kg-OC)						
Dimethyl phthalate	53	3.5 U	0.95 U	1.0 U	0.92 U	0.87 U
Diethyl phthalate	61	0.93 U	0.34 U	0.40 U	0.33 U	0.23 U
Di-n-butyl phthalate	220	3.5 U	0.95 U	1.0 U	0.92 U	0.87 U
Butylbenzyl phthalate	4.9	3.5 U	**1.2**	1.0 U	**1.2**	0.87 U
Bis(2-ethylhexyl) phthalate	47	3.5 U	**29.0**	**38.0**	**29.5**	**10**
Di-n-octyl phthalate	58	3.5 U	0.95 U	1.0 U	0.92 U	0.87 U

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-15	DSI-SB-16	DSI-SB-16	DSI-SB-17	DSI-SB-17
	Sample ID	DSI-SB-15-11.5-12.5	DSI-SB-16-5-6.5	DSI-SB-16-9.2-10.7	DSI-SB-17-5-6	DSI-SB-17-9.4-10.7
	Sample Date	3/15/2011	3/15/2011	3/15/2011	3/16/2011	3/16/2011
	Depth	11.5 to 12.5 feet	5 to 6.5 feet	9.2 to 10.7 feet	5 to 6 feet	9.4 to 10.7 feet
	Stratigraphic Unit	Recent	Recent	Recent	Recent	Recent
	SMS SQS					
Phenols (µg/kg)						
2,4-Dimethylphenol	29	79 UJ	20 UJ	19 UJ	19 UJ	19 UJ
2-Methylphenol (o-Cresol)	63	79 U	20 U	19 U	19 U	19 U
4-Methylphenol (p-Cresol)	670	79 U	**33**	**32**	**31**	**34**
Pentachlorophenol	360	9.7 U	**33 J**	11 U	11 U	11 U
Phenol	420	79 U	**26**	**22**	**29**	**15 J**
Phenols (mg/kg-OC)						
2,4-Dimethylphenol	--	3.5 UJ	0.95 UJ	1.0 UJ	0.92 UJ	0.87 UJ
2-Methylphenol (o-Cresol)	--	3.5 U	0.95 U	1.0 U	0.92 U	0.87 U
4-Methylphenol (p-Cresol)	--	3.5 U	**1.6**	**1.7**	**1.5**	**1.6**
Pentachlorophenol	--	0.43 U	**1.6 J**	0.59 U	0.53 U	0.50 U
Phenol	--	3.5 U	**1.2**	**1.2**	**1.4**	**0.68 J**
Miscellaneous Extractables (µg/kg) [4]						
Dibenzofuran	--	**4400**	**28**	**17 J**	**22**	**13 J**
Hexachlorobutadiene	--	20 U	4.9 U	4.7 U	4.8 U	4.6 U
N-Nitrosodiphenylamine	--	**180**	**7.9**	**4.9**	**8.4**	4.6 U
Benzyl alcohol	57	79 UJ	20 UJ	19 UJ	19 UJ	19 UJ
Benzoic acid	650	790 U	**41 J**	**54 J**	**54 J**	190 U
Hexachloroethane	--	79 U	20 U	19 U	19 U	19 U
Miscellaneous Extractables (mg/kg-OC) [4]						
Dibenzofuran	15	**195.6**	**1.3**	**0.90 J**	**1.1**	**0.59 J**
Hexachlorobutadiene	3.9	0.9 U	0.2 U	0.3 U	0.2 U	0.2 U
N-Nitrosodiphenylamine	11	**8.0**	**0.4**	**0.3**	**0.4**	0.21 U
Benzyl alcohol	--	3.5 UJ	0.95 UJ	1.0 UJ	0.92 UJ	0.87 UJ
Benzoic acid	--	35 U	**2.0 J**	**2.9 J**	**2.6 J**	8.7 U
Hexachloroethane	--	3.5 U	0.95 U	1.0 U	0.92 U	0.87 U
PCB Aroclors (µg/kg)						
Aroclor 1016	--	20 U	19 U	39 U	20 U	37 U
Aroclor 1221	--	20 U	19 U	39 U	20 U	37 U
Aroclor 1232	--	20 U	19 U	39 U	20 U	37 U
Aroclor 1242	--	20 U	19 U	39 U	20 U	37 U
Aroclor 1248	--	**130**	**110**	**360**	**180**	**400**
Aroclor 1254	--	**180**	**190**	**410**	**280**	**500**
Aroclor 1260	--	**81**	**74**	**160**	**220**	**150**
Total PCB Aroclors (U = 0)	--	**391**	**374**	**930**	**680**	**1,050**
Total PCB Aroclors (U = 1/2)	--	**431**	**412**	**1,008**	**720**	**1,124**
PCB Aroclors (mg/kg-OC)						
Aroclor 1016	--	0.89 U	0.90 U	2.1 U	0.97 U	1.7 U
Aroclor 1221	--	0.89 U	0.90 U	2.1 U	0.97 U	1.7 U
Aroclor 1232	--	0.89 U	0.90 U	2.1 U	0.97 U	1.7 U
Aroclor 1242	--	0.89 U	0.90 U	2.1 U	0.97 U	1.7 U
Aroclor 1248	--	**5.8**	**5.2**	**19.3**	**8.7**	**18.3**
Aroclor 1254	--	**8.0**	**9.0**	**21.9**	**13.5**	**22.8**
Aroclor 1260	--	**3.6**	**3.5**	**8.6**	**10.6**	**6.8**
Total PCB Aroclors (U = 0)	12	**17.4**	**17.8**	**49.7**	**32.9**	**47.9**
Total PCB Aroclors (U = 1/2)	12	**19.2**	**19.6**	**53.9**	**34.8**	**51.3**

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-15	DSI-SB-16	DSI-SB-16	DSI-SB-17	DSI-SB-17
	Sample ID	DSI-SB-15-11.5-12.5	DSI-SB-16-5-6.5	DSI-SB-16-9.2-10.7	DSI-SB-17-5-6	DSI-SB-17-9.4-10.7
	Sample Date	3/15/2011	3/15/2011	3/15/2011	3/16/2011	3/16/2011
	Depth	11.5 to 12.5 feet	5 to 6.5 feet	9.2 to 10.7 feet	5 to 6 feet	9.4 to 10.7 feet
	Stratigraphic Unit	Recent	Recent	Recent	Recent	Recent
	SMS SQS					
Volatile Organics (µg/kg)						
1,1,1-Trichloroethane	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--
1,3,5-Trimethylbenzene (Mesitylene)	--	--	--	--	--	--
Acetone	--	--	--	--	--	--
Benzene	--	--	--	--	--	--
Carbon tetrachloride (Tetrachloromethane)	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--
Dichloromethane (Methylene chloride)	--	--	--	--	--	--
Ethylbenzene		--	--	--	--	--
m,p-Xylene	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--
Styrene	--	--	--	--	--	--
Tetrachloroethene (PCE)	--	--	--	--	--	--
Toluene	--	--	--	--	--	--
Trichloroethene (TCE)	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--
Total Xylene (U = 0)	--	--	--	--	--	--
Total Xylene (U = 1/2)	--	--	--	--	--	--
Pesticides (µg/kg)						
4,4'-DDD (p,p'-DDD)	--	--	--	--	--	--
4,4'-DDE (p,p'-DDE)	--	--	--	--	--	--
4,4'-DDT (p,p'-DDT)	--	--	--	--	--	--
Aldrin	--	--	--	--	--	--
alpha-Chlordane (cis-Chlordane)	--	--	--	--	--	--
alpha-Hexachlorocyclohexane (BHC)	--	--	--	--	--	--
beta-Chlordane (trans-Chlordane)	--	--	--	--	--	--
beta-Hexachlorocyclohexane (BHC)	--	--	--	--	--	--
delta-Hexachlorocyclohexane (BHC)	--	--	--	--	--	--
Dieldrin	--	--	--	--	--	--
Endosulfan sulfate	--	--	--	--	--	--
Endosulfan-alpha (I)	--	--	--	--	--	--
Endosulfan-beta (II)	--	--	--	--	--	--
Endrin	--	--	--	--	--	--
Endrin aldehyde	--	--	--	--	--	--
Endrin ketone	--	--	--	--	--	--
gamma-Hexachlorocyclohexane (BHC) (Lindane)	--	--	--	--	--	--
Heptachlor	--	--	--	--	--	--
Heptachlor epoxide	--	--	--	--	--	--
Methoxychlor	--	--	--	--	--	--

Table 16

Subsurface Sediment Chemical Testing Results [1]

Analytes	Location ID	DSI-SB-15	DSI-SB-16	DSI-SB-16	DSI-SB-17	DSI-SB-17
	Sample ID	DSI-SB-15-11.5-12.5	DSI-SB-16-5-6.5	DSI-SB-16-9.2-10.7	DSI-SB-17-5-6	DSI-SB-17-9.4-10.7
	Sample Date	3/15/2011	3/15/2011	3/15/2011	3/16/2011	3/16/2011
	Depth	11.5 to 12.5 feet	5 to 6.5 feet	9.2 to 10.7 feet	5 to 6 feet	9.4 to 10.7 feet
	Stratigraphic Unit	Recent	Recent	Recent	Recent	Recent
	SMS SQS					
Toxaphene	--	--	--	--	--	--
Total DDx (U = 0)	--	--	--	--	--	--
Total DDx (U = 1/2)	--	--	--	--	--	--
Dioxin Furans (ng/kg)						
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	--
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	--	--	--	--	--	--
Total Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	--
Total Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	--
Total Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--
Total Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	--
Total Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	--
Total Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--
Total Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--
Total Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2)	--	--	--	--	--	--
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0)	--	--	--	--	--	--

Table 16
Subsurface Sediment Chemical Testing Results 1

Notes:
1) Subsurface sediment data includes only Phase 1 RI data collected in March 2008; LDW subsurface data is not presented in Table 2.
2) Percent fines calculated as percent material passing the 75 micron (#200) sieve.
3) Chromium VI data is non-detect at all sample locations, and were rejected at select sample locations due to interference in the matrix spike.
4) Miscellaneous extracable detections for benzyl alcohol and benzoic acid are observed throughout the Lower

Definitions:

	Detected concentration is greater than SMS SQS screening level
Bold	Detected result
µg/L	micrograms per liter
µg/kg	micrograms per kilogram
mg/L	milligrams per liter
mg/kg	milligrams per kilogram
ng/kg	nanograms per kilogram
OC	organic carbon
LAET	lowest apparent effects threshold
PAHs	Polycyclic Aromatic Hydrocarbons
SMS	Sediment Management Standards
SQS	Sediment Quality Standards
PCBs	polychlorinated biphenyls
Bold	Detected result
J	Estimated value
U	Compound analyzed, but not detected above detection limit
UJ	Compound analyzed, but not detected above estimated detection limit
R	Rejected

Table 17
Summary of Surface Sediment Data

Analyte	Data Summary				
	Detected	Non-Detect Minimum Value	Non-Detect Maximum Value	Detected Minimum Value	Detected Maximum Value
Conventional Parameters (percent)					
Moisture content	11 of 11	--	--	97.2	129
Total organic carbon	11 of 11	--	--	1.39	2.73
Total solids	11 of 11	--	--	44.2	50.9
Total volatile solids	11 of 11	--	--	7.79	9.62
Metals (mg/kg)					
Antimony	0 of 11	0.4	0.4	--	--
Arsenic	11 of 11	--	--	11	30.1
Beryllium	11 of 11	--	--	0.4	0.5
Cadmium	10 of 11	0.4	0.4	0.5	1.2
Chromium	11 of 11	--	--	27	36
Chromium VI	0 of 11	--	--	--	--
Copper	11 of 11	--	--	42.1	112
Lead	11 of 11	--	--	13	49
Mercury	11 of 11	--	--	0.1	0.23
Nickel	11 of 11	--	--	23	28
Selenium	0 of 11	1	1	--	--
Silver	0 of 11	0.6	0.7	--	--
Thallium	0 of 11	0.4	0.4	--	--
Zinc	11 of 11	--	--	82	255
Organometallic Compounds (µg/kg)					
Tributyltin (bulk sediment)	10 of 11	3.6	3.6	7.2	180
Organometallic Compounds (µg/L)					
Tributyltin (interstitial water)	1 of 11	0.005	0.011	0.22	0.22
PAHs (µg/kg)					
1-Methylnaphthalene	8 of 11	19	20	9.5	66
2-Methylnaphthalene	8 of 11	19	20	11	28
Acenaphthene	9 of 11	19	20	11	52
Acenaphthylene	3 of 11	19	20	12	16
Anthracene	11 of 11	--	--	9.8	630
Benzo(a)anthracene	11 of 11	--	--	21	330
Benzo(a)pyrene	11 of 11	--	--	21	270
Benzo(b,j,k)fluoranthenes	11 of 11	--	--	52	610
Benzo(g,h,i)perylene	11 of 11	--	--	17	140
Chrysene	11 of 11	--	--	46	450
Dibenzo(a,h)anthracene	9 of 11	19	20	14	50
Fluoranthene	11 of 11	--	--	52	760
Fluorene	10 of 11	19	19	11	95
Indeno(1,2,3-c,d)pyrene	11 of 11	--	--	15	140
Naphthalene	8 of 11	19	20	17	42
Phenanthrene	11 of 11	--	--	31	450
Pyrene	11 of 11	--	--	48	640
Total SMS LPAH (U = 0)	11 of 11	--	--	54	1,311
Total SMS HPAH (U = 0)	11 of 11	--	--	274	3,390
Total cPAH TEQ (U = 0)	11 of 11	--	--	30.3	388
Total cPAH TEQ (U = 1/2)	11 of 11	--	--	31.2	388
Total SMS PAH (U = 0)	--	--	--	--	--
Total PAH (U=0)	11 of 11	--	--	328	4,701
Total PAH (U=1/2)	11 of 11	--	--	385	4,701

Table 17
Summary of Surface Sediment Data

Analyte	Data Summary				
	Detected	Non-Detect Minimum Value	Non-Detect Maximum Value	Detected Minimum Value	Detected Maximum Value
Chlorobenzenes (µg/kg)					
1,2-Dichlorobenzene	0 of 11	1.6	1.9	--	--
1,3-Dichlorobenzene	0 of 11	19	20	--	--
1,4-Dichlorobenzene	1 of 11	1.6	1.9	2.7	2.7
1,2,4-Trichlorobenzene	0 of 11	4.7	4.9	--	--
Hexachlorobenzene	1 of 11	0.97	1	3	3
Phthalates (µg/kg)					
Dimethyl phthalate	0 of 11	19	20	--	--
Diethyl phthalate	0 of 11	5.1	7.7	--	--
Di-n-butyl phthalate	2 of 11	19	20	12	14
Butylbenzyl phthalate	8 of 11	19	20	9.6	16
Bis(2-ethylhexyl) phthalate	11 of 11	--	--	73	470
Di-n-octyl phthalate	0 of 11	19	20	--	--
Phenols (µg/kg)					
2,4-Dimethylphenol	0 of 11	19	20	--	--
2-Methylphenol (o-Cresol)	0 of 11	19	20	--	--
4-Methylphenol (p-Cresol)	11 of 11	--	--	13	420
Pentachlorophenol	0 of 11	12	24	--	--
Phenol	11 of 11	--	--	18	200
Miscellaneous Extractables (µg/kg)					
Dibenzofuran	9 of 11	19	20	9.7	55
Hexachlorobutadiene	0 of 11	0.97	1	--	--
N-Nitrosodiphenylamine	1 of 11	4.7	4.9	8.9	8.9
Benzoic acid	11 of 11	--	--	100	690
Benzyl alcohol	11 of 11	--	--	65	390
Hexachloroethane	0 of 11	19	20	--	--
PAHs (mg/kg-OC)					
1-Methylnaphthalene	8 of 11	0.88	1.4	0.35	2.6
2-Methylnaphthalene	8 of 11	0.76	1.4	0.53	1.1
Acenaphthene	9 of 11	0.76	1.4	0.52	2.1
Acenaphthylene	3 of 11	0.74	1.4	0.44	0.63
Anthracene	11 of 11	--	--	0.37	25.7
Benzo(a)anthracene	11 of 11	--	--	1.2	13.5
Benzo(a)pyrene	11 of 11	--	--	1.1	11.0
Benzo(b,j,k)fluoranthenes	11 of 11	--	--	2.8	24.9
Benzo(g,h,i)perylene	11 of 11	--	--	0.8	5.7
Chrysene	11 of 11	--	--	1.7	18.4
Dibenzo(a,h)anthracene	9 of 11	0.76	1.4	0.67	2.0
Fluoranthene	11 of 11	--	--	2.7	31.0
Fluorene	10 of 11	1.4	1.4	0.42	3.9
Indeno(1,2,3-c,d)pyrene	11 of 11	--	--	0.68	5.7
Naphthalene	8 of 11	0.76	1.4	0.75	1.7
Phenanthrene	11 of 11	--	--	1.6	18.4
Pyrene	11 of 11	--	--	2.7	26.1
Total SMS LPAH (U = 0)	11 of 11	--	--	2.4	53.5
Total SMS HPAH (U = 0)	11 of 11	--	--	13.8	138
Total cPAH TEQ (U = 0)	11 of 11	--	--	1.6	15.8
Total cPAH TEQ (U = 1/2)	11 of 11	--	--	1.7	15.8
Total PAH (U=0)	11 of 11	--	--	16.2	192

Table 17
Summary of Surface Sediment Data

Analyte	Data Summary				
	Detected	Non-Detect Minimum Value	Non-Detect Maximum Value	Detected Minimum Value	Detected Maximum Value
Total PAH (U=1/2)	11 of 11	--	--	18.1	192
Chlorobenzenes (mg/kg-OC)					
1,2-Dichlorobenzene	0 of 11	0.07	0.12	--	--
1,3-Dichlorobenzene	0 of 11	0.7	1.4	--	--
1,4-Dichlorobenzene	1 of 11	0.07	0.12	0.12	0.12
1,2,4-Trichlorobenzene	0 of 11	0.18	0.35	--	--
Hexachlorobenzene	1 of 11	0.04	0.07	0.11	0.11
Phthalates (mg/kg-OC)					
Dimethyl phthalate	0 of 11	0.7	1.4	--	--
Diethyl phthalate	0 of 11	0.19	0.37	--	--
Di-n-butyl phthalate	2 of 11	0.70	1.4	0.57	0.57
Butylbenzyl phthalate	8 of 11	0.75	0.78	0.44	0.91
Bis(2-ethylhexyl) phthalate	11 of 11	--	--	2.9	17.9
Di-n-octyl phthalate	0 of 11	0.70	1.4	--	--
Phenols (mg/kg-OC)					
2,4-Dimethylphenol	0 of 11	0.70	1.4	--	--
2-Methylphenol (o-Cresol)	0 of 11	0.70	1.4	--	--
4-Methylphenol (p-Cresol)	11 of 11	--	--	0.49	16.5
Pentachlorophenol	0 of 11	0.48	1.0	--	--
Phenol	11 of 11	--	--	0.68	8.2
Miscellaneous Extractables (mg/kg-OC)					
Dibenzofuran	9 of 11	0.76	1.4	0.46	2.2
Hexachlorobutadiene	0 of 11	0.04	0.07	--	--
N-Nitrosodiphenylamine	1 of 11	0.18	0.35	0.35	0.35
Benzoic acid	11 of 11	--	--	4.8	26.7
Benzyl alcohol	11 of 11	--	--	2.9	15.1
Hexachloroethane	0 of 11	0.70	1.4	--	--
PCB Aroclors (µg/kg)					
Aroclor 1016	0 of 11	3.9	8.7	--	--
Aroclor 1221	0 of 11	3.9	8.7	--	--
Aroclor 1232	0 of 11	3.9	8.7	--	--
Aroclor 1242	0 of 11	3.9	8.7	--	--
Aroclor 1248	10 of 11	40	40	15	73
Aroclor 1254	11 of 11	--	--	22	110
Aroclor 1260	11 of 11	--	--	13	73
Total PCB Aroclors (U = 0)	11 of 11	--	--	50	254
Total PCB Aroclors (U = 1/2)	11 of 11	--	--	57.8	270
PCB Aroclors (mg/kg-OC)					
Aroclor 1016	0 of 11	0.14	0.53	--	--
Aroclor 1221	0 of 11	0.14	0.53	--	--
Aroclor 1232	0 of 11	0.14	0.53	--	--
Aroclor 1242	0 of 11	0.14	0.53	--	--
Aroclor 1248	10 of 11	1.9	1.9	0.80	4.4
Aroclor 1254	11 of 11	--	--	1.1	5.2
Aroclor 1260	11 of 11	--	--	0.80	3.2
Total PCB Aroclors (U = 0)	11 of 11	--	--	2.7	11.9
Total PCB Aroclors (U = 1/2)	11 of 11	--	--	3.4	13.0

Table 17
Summary of Surface Sediment Data

Analyte	Data Summary				
	Detected	Non-Detect Minimum Value	Non-Detect Maximum Value	Detected Minimum Value	Detected Maximum Value
Volatile Organic Compounds (µg/kg)					
1,1,1-Trichloroethane (TCA)	0 of 11	1.6	1.9	--	--
1,1,2-Trichloroethane	0 of 11	1.6	1.9	--	--
1,1-Dichloroethane	0 of 11	1.6	1.9	--	--
1,1-Dichloroethene	0 of 11	1.6	1.9	--	--
1,2-Dichlorobenzene	0 of 11	1.6	1.9	--	--
1,2-Dichloroethane	0 of 11	1.6	1.9	--	--
1,3,5-Trimethylbenzene (Mesitylene)	0 of 11	1.6	1.9	--	--
Acetone	11 of 11	--	--	43	140
Benzene	0 of 11	1.6	1.9	--	--
Carbon tetrachloride (Tetrachloromethane)	0 of 11	1.6	1.9	--	--
Chlorobenzene	0 of 11	1.6	1.9	--	--
Chloroethane	0 of 11	1.6	1.9	--	--
Chloroform	0 of 11	1.6	1.9	--	--
Chloromethane	0 of 11	1.6	1.9	--	--
Dichloromethane (Methylene chloride)	0 of 11	3.2	3.8	--	--
Ethylbenzene	0 of 11	1.6	1.9	--	--
m,p-Xylene	0 of 11	1.6	1.9	--	--
o-Xylene	0 of 11	1.6	1.9	--	--
Styrene	0 of 11	1.6	1.9	--	--
Tetrachloroethene (PCE)	0 of 11	1.6	1.9	--	--
Toluene	0 of 11	1.6	1.9	--	--
Trichloroethene (TCE)	0 of 11	1.6	1.9	--	--
Vinyl chloride	0 of 11	1.6	1.9	--	--
Total Xylene (U = 0)	0 of 11	1.6	1.9	--	--
Total Xylene (U = 1/2)	0 of 11	1.6	1.9	--	--
Pesticides (µg/kg)					
4,4'-DDD (p,p'-DDD)	1 of 11	2	2	2.8	2.8
4,4'-DDE (p,p'-DDE)	0 of 11	2	2	--	--
4,4'-DDT (p,p'-DDT)	3 of 11.	2	2	2.7	5.5
Aldrin	0 of 11	0.97	1	--	--
alpha-Chlordane (cis-Chlordane)	0 of 11	0.97	1	--	--
alpha-Hexachlorocyclohexane (BHC)	0 of 11	0.97	1	--	--
beta-Chlordane (trans-Chlordane)	0 of 11	0.97	1	--	--
beta-Hexachlorocyclohexane (BHC)	0 of 11	0.97	1	--	--
delta-Hexachlorocyclohexane (BHC)	0 of 11	0.97	1	--	--
Dieldrin	0 of 11	2	2	--	--
Endosulfan sulfate	0 of 11	2	2	--	--
Endosulfan-alpha (I)	0 of 11	0.97	1	--	--
Endosulfan-beta (II)	0 of 11	2	2	--	--
Endrin	0 of 11	2	2	--	--
Endrin aldehyde	0 of 11	2	2	--	--
Endrin ketone	0 of 11	2	2	--	--
gamma-Hexachlorocyclohexane (BHC) (Lindane)	0 of 11	0.97	1	--	--
Heptachlor	0 of 11	0.97	5.9	--	--
Heptachlor epoxide	0 of 11	0.97	4.4	--	--
Methoxychlor	0 of 11	9.7	10	--	--
Toxaphene	0 of 11	97	100	--	--
Total DDx (U = 0)	4 of 11	2	2	2.7	5.5
Total DDx (U = 1/2)	4 of 11	2	2	4.7	7.5
Dioxin Furans (ng/kg)					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	8 of 8	--	--	0.331	0.619

Table 17
Summary of Surface Sediment Data

Analyte	Data Summary				
	Detected	Non-Detect Minimum Value	Non-Detect Maximum Value	Detected Minimum Value	Detected Maximum Value
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	8 of 8	--	--	0.77	2.14
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	8 of 8	--	--	0.948	3.3
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	8 of 8	--	--	3.48	18.9
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	8 of 8	--	--	2.53	7.56
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	8 of 8	--	--	94.9	643
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	8 of 8	--	--	870	6,250
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	8 of 8	--	--	0.473	1.52
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	7 of 8	0.379	0.379	0.552	1.51
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	8 of 8	--	--	0.622	3.86
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	8 of 8	--	--	2.07	27.1
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	8 of 8	--	--	0.958	5.32
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	7 of 8	0.422	0.422	0.708	4.26
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	8 of 8	--	--	1.21	9.09
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	8 of 8	--	--	18.7	205
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	8 of 8	--	--	1.68	17.8
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	8 of 8	--	--	56.1	608
Total Tetrachlorodibenzo-p-dioxin (TCDD)	8 of 8	--	--	5.3	11.5
Total Pentachlorodibenzo-p-dioxin (PeCDD)	8 of 8	--	--	6.32	27.2
Total Hexachlorodibenzo-p-dioxin (HxCDD)	8 of 8	--	--	31.3	151
Total Heptachlorodibenzo-p-dioxin (HpCDD)	8 of 8	--	--	235	1,510
Total Tetrachlorodibenzofuran (TCDF)	8 of 8	--	--	9.85	33.1
Total Pentachlorodibenzofuran (PeCDF)	8 of 8	--	--	11.9	58.5
Total Hexachlorodibenzofuran (HxCDF)	8 of 8	--	--	26	269
Total Heptachlorodibenzofuran (HpCDF)	8 of 8	--	--	62.5	780
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2)	8 of 8	--	--	4.0	22.3
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0)	8 of 8	--	--	4.0	22.3

Notes:

ND	non-detect
SMS	Sediment Management Standards
SQS	Sediment Quality Standards
LDW FS	Lower Duwamish Waterway Feasibility Study
DMMP	Dredged Material Management Program
µg/kg	micrograms per kilogram
µg/L	micograms per liter
mg/kg	milligrams per kilogram
ng/kg	nanograms per kilogram
PCBs	polychlorinated biphenyls
PAHs	Polycyclic Aromatic Hydrocarbons
HPAH	high molecular weight PAH
LPAH	low molecular weight PAH
OC	organic carbon

Table 18
Summary of Subsurface Sediment Data

Analyte	Data Summary				
	Detected	Non-Detect Minimum Value	Non-Detect Maximum Value	Detected Minimum Value	Detected Maximum Value
Conventional Parameters (percent)					
Total organic carbon	78 of 78	--	--	0.11	3.66
Total solids	78 of 78	--	--	47.5	86.7
Total volatile solids	6 of 6	--	--	3.51	11.14
Metals (mg/kg)					
Antimony	35 of 77	0.2	10	0.3	280
Arsenic	76 of 77	6	6	1.3	1,890
Beryllium	54 of 62	0.1	0.3	0.1	0.9
Cadmium	63 of 77	0.2	0.8	0.4	4.2
Chromium	77 of 77	--	--	8	223
Chromium VI	1 of 38	0.469	0.807	5.92	5.92
Copper	77 of 77	--	--	7.5	2,040
Lead	74 of 77	2	2	3	1,350
Mercury	68 of 74	0.02	0.03	0.09	4.34
Nickel	77 of 77	--	--	5	114
Selenium	6 of 77	0.5	40	0.6	1.5
Silver	31 of 77	0.3	2	0.5	3.7
Thallium	12 of 77	0.2	40	0.3	1.1
Zinc	77 of 77	--	--	16	4,110
Organometallic Compounds (µg/kg)					
Tributyltin (bulk sediment)	68 of 76	3.2	3.8	3.4	15,000
PAHs (µg/kg)					
1-Methylnaphthalene	1 of 6	18	19	16	16
2-Methylnaphthalene	1 of 6	18	19	26	26
Acenaphthene	2 of 6	18	19	19	26
Acenaphthylene	1 of 6	18	19	19	19
Anthracene	1 of 6	18	19	97	97
Benzo(a)anthracene	3 of 6	18	19	11	230
Benzo(a)pyrene	3 of 6	18	19	17	250
Benzo(bj,k)fluoranthenes	3 of 6	18	19	42	620
Benzo(g,h,i)perylene	3 of 6	18	19	11	160
Chrysene	3 of 6	18	19	17	400
Dibenzo(a,h)anthracene	1 of 6	18	19	48	48
Fluoranthene	4 of 6	18	19	9.2	410
Fluorene	1 of 6	18	19	44	44
Indeno(1,2,3-c,d)pyrene	3 of 6	18	19	10	140
Naphthalene	2 of 6	18	100	20	50
Phenanthrene	2 of 6	18	19	170	240
Pyrene	3 of 6	18	19	99	600
Total PAH (U=0)	5 of 6	18	19	9	3,353
Total PAH (U=1/2)	5 of 6	18	18	144	3,353
Total cPAH TEQ (U = 0)	3 of 6	18	19	23	358
Total cPAH TEQ (U = 1/2)	3 of 6	18	19	24	358
Total SMS HPAH (U = 0)	4 of 6	18	19	9	2,238
Total SMS LPAH (U = 0)	3 of 6	18	19	46.0	469
Chlorobenzenes (µg/kg)					
1,2-Dichlorobenzene	2 of 6	1.2	4.7	2.9	8.1
1,3-Dichlorobenzene	0 of 6	18	19	--	--
1,4-Dichlorobenzene	1 of 6	1.2	4.7	2.5	37
1,2,4-Trichlorobenzene	0 of 6	4.5	4.8	--	--
Hexachlorobenzene	0 of 6	0.97	4.8	--	--

Table 18
Summary of Subsurface Sediment Data

Analyte	Data Summary				
	Detected	Non-Detect Minimum Value	Non-Detect Maximum Value	Detected Minimum Value	Detected Maximum Value
Phthalates (µg/kg)					
Dimethyl phthalate	0 of 6	18	19	--	--
Diethyl phthalate	2 of 6	5	5.1	5.1	5.1
Di-n-butyl phthalate	0 of 6	18	19	--	--
Butylbenzyl phthalate	1 of 6	18	19	410	410
Bis(2-ethylhexyl) phthalate	1 of 6	18	37	980	980
Di-n-octyl phthalate	0 of 6	18	19	--	--
Phenols (µg/kg)					
2,4-Dimethylphenol	13 of 73	5.9	98	4.3	100
2-Methylphenol (o-Cresol)	11 of 73	5.9	98	4.1	54
4-Methylphenol (p-Cresol)	47 of 73	18	100	9.9	350
Pentachlorophenol	34 of 73	7.2	84	14	800
Phenol	53 of 73	18	100	12	210
Miscellaneous Extractables (µg/kg)					
Dibenzofuran	2 of 6	18	19	20	28
Hexachlorobutadiene	0 of 6	0.97	4.8	--	--
N-Nitrosodiphenylamine	18 of 73	4.5	640	3.5	180
Benzyl alcohol	25 of 73	18	98	9.7	280
Benzoic acid	30 of 73	60	980	35	440
Hexachloroethane	0 of 73	18	100	--	--
Phenols (mg/kg-OC)					
2,4-Dimethylphenol	13 of 73	0.19	15.1	0.33	4.4
2-Methylphenol (o-Cresol)	11 of 73	0.23	15.1	0.13	3.1
4-Methylphenol (p-Cresol)	47 of 73	0.65	15.1	0.71	19.8
Pentachlorophenol	34 of 73	0.41	5.7	0.38	42.6
Phenol	53 of 73	1.5	15.1	0.68	8.4
Miscellaneous Extractables (mg/kg-OC)					
Dibenzofuran	52 of 67	0.65	15.1	0.59	196
Hexachlorobutadiene	0 of 67	0.03	3.7	--	--
N-Nitrosodiphenylamine	18 of 67	0.13	34.0	0.12	8.0
Benzyl alcohol	25 of 73	0.68	15.1	0.39	11.6
Benzoic acid	30 of 73	3.9	150.8	1.6	19.9
Hexachloroethane	0 of 73	0.52	15.1	--	--
PCB Aroclors (µg/kg)					
Aroclor 1016	0 of 77	3.6	380	--	--
Aroclor 1221	0 of 77	3.6	380	--	--
Aroclor 1232	0 of 77	3.6	380	--	--
Aroclor 1242	4 of 77	3.6	380	31	370
Aroclor 1248	53 of 77	3.8	3,800	12	1,900
Aroclor 1254	73 of 77	3.8	3.9	4.3	8,900
Aroclor 1260	71 of 77	3.8	950	7.5	1,600
Total PCB Aroclors (U = 0)	73 of 77	3.8	3.9	4.3	8,900
Total PCB Aroclors (U = 1/2)	73 of 77	3.8	3.9	16	12,035

Table 18
Summary of Subsurface Sediment Data

Analyte	Data Summary				
	Detected	Non-Detect Minimum Value	Non-Detect Maximum Value	Detected Minimum Value	Detected Maximum Value
PCB Aroclors (mg/kg-OC)					
Aroclor 1016	0 of 77	0.11	30.2	--	--
Aroclor 1221	0 of 77	0.11	30.2	--	--
Aroclor 1232	0 of 77	0.11	30.2	--	--
Aroclor 1242	4 of 77	0.11	30.2	2.6	19.7
Aroclor 1248	53 of 77	0.16	302	0.85	101
Aroclor 1254	73 of 77	0.60	3.5	1.1	706
Aroclor 1260	71 of 77	0.60	75.4	0.53	78.0
Total SMS PCB Aroclors (U = 0)	69 of 71	0.60	3.5	2.3	706
Total PCB Aroclors (U = 1/2)	69 of 71	0.60	3.5	3.0	955
Volatile Organic Compounds (µg/kg)					
1,1,1-Trichloroethane (TCA)	0 of 37	1.1	3	--	--
1,1,2-Trichloroethane	0 of 37	1.1	3	--	--
1,1-Dichloroethane	0 of 37	1.1	3	--	--
1,1-Dichloroethene	0 of 37	1.1	3	--	--
1,2-Dichlorobenzene	1 of 17	1.2	1.9	1.9	1.9
1,2-Dichloroethane	0 of 37	1.1	3	--	--
1,3,5-Trimethylbenzene (Mesitylene)	5 of 37	1.1	1.9	1.3	47
1,4-Dichlorobenzene	0 of 20	1.1	1.9	--	--
Acetone	37 of 37	--	--	14	320
Benzene	1 of 37	1.1	3	4.7	4.7
Carbon tetrachloride (Tetrachloromethane)	0 of 37	1.1	3	--	--
Chlorobenzene	6 of 37	1.1	1.9	2.7	110
Chloroethane	0 of 37	1.1	3	--	--
Chloroform	0 of 37	1.1	3	--	--
Chloromethane	0 of 37	1.1	3	--	--
Dichloromethane (Methylene chloride)	9 of 37	2.3	3.9	2.7	22
Ethylbenzene	7 of 37	1.1	1.9	3.5	120
Hexachlorobutadiene	0 of 73	0.96	20	--	--
m,p-Xylene	7 of 37	1.1	1.9	2.4	34
o-Xylene	8 of 37	1.1	1.9	3	28
Styrene	0 of 37	1.1	3	--	--
Tetrachloroethene (PCE)	0 of 37	1.1	3	--	--
Toluene	3 of 37	1.1	3	2.1	3
Trichloroethene (TCE)	0 of 37	1.1	3	--	--
Vinyl chloride	0 of 37	1.1	3	--	--
Total Xylene (U = 0)	8 of 37	1.1	1.9	4.1	62
Total Xylene (U = 1/2)	8 of 37	1.1	1.9	4.7	62
Pesticides (µg/kg)					
4,4'-DDD (p,p'-DDD)	2 of 36	1.9	22	15	40
4,4'-DDE (p,p'-DDE)	4 of 36	1.9	21	9.8	220
4,4'-DDT (p,p'-DDT)	9 of 36	1.9	61	3.4	570
Aldrin	0 of 36	0.96	59	--	--
alpha-Chlordane (cis-Chlordane)	0 of 36	0.96	73	--	--
alpha-Hexachlorocyclohexane (BHC)	0 of 36	0.96	8.2	--	--
beta-Chlordane (trans-Chlordane)	0 of 36	0.96	8.2	--	--
beta-Hexachlorocyclohexane (BHC)	0 of 36	0.96	8.2	--	--
delta-Hexachlorocyclohexane (BHC)	0 of 36	0.96	12	--	--
Dieldrin	0 of 36	1.9	140	--	--

Table 18
Summary of Subsurface Sediment Data

Analyte	Data Summary				
	Detected	Non-Detect Minimum Value	Non-Detect Maximum Value	Detected Minimum Value	Detected Maximum Value
Endosulfan sulfate	0 of 36	1.9	28	--	--
Endosulfan-alpha (I)	0 of 36	0.96	42	--	--
Endosulfan-beta (II)	0 of 36	1.9	180	--	--
Endrin	0 of 36	1.9	200	--	--
Endrin aldehyde	0 of 36	1.9	98	--	--
Endrin ketone	0 of 36	1.9	140	--	--
gamma-Hexachlorocyclohexane (BHC) (Lindane)	0 of 36	0.96	8.2	--	--
Heptachlor	0 of 36	0.96	9.4	--	--
Heptachlor epoxide	0 of 36	0.96	260	--	--
Methoxychlor	0 of 36	9.6	480	--	--
Toxaphene	0 of 36	96	1,500	--	--
Total DDx (U = 0)	9 of 36	1.9	61	3.4	790
Total DDx (U = 1/2)	9 of 36	1.9	61	5.4	795
Dioxin Furans (ng/kg)					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	19 of 19	--	--	0.0575	3.36
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	19 of 19	--	--	0.186	11.9
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	18 of 19	0.0427	0.0427	0.16	24.7
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	19 of 19	--	--	0.257	589
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	18 of 19	0.27	0.27	0.291	61.5
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	19 of 19	--	--	1.27	19,400
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	19 of 19	--	--	7.82	169,000
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	17 of 19	0.0791	0.331	1.16	9.83
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	18 of 19	0.642	0.642	0.0751	34.9
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	18 of 19	0.279	0.279	0.0553	110
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	18 of 19	0.701	0.701	0.229	1,330
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	18 of 19	0.294	0.294	0.0771	196
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	16 of 19	0.0397	0.537	0.226	244
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	18 of 19	0.033	0.033	0.136	333
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	18 of 19	0.595	0.595	1.27	8,800
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	19 of 19	--	--	0.109	1,100
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	18 of 19	0.371	0.371	3.54	53,500
Total Tetrachlorodibenzo-p-dioxin (TCDD)	12 of 12	--	--	1.04	51.7
Total Pentachlorodibenzo-p-dioxin (PeCDD)	12 of 12	--	--	1.01	342
Total Hexachlorodibenzo-p-dioxin (HxCDD)	12 of 12	--	--	1.61	2,430
Total Heptachlorodibenzo-p-dioxin (HpCDD)	12 of 12	--	--	2.65	25,600
Total Tetrachlorodibenzofuran (TCDF)	12 of 12	--	--	0.176	206

Table 18
Summary of Subsurface Sediment Data

Analyte	Data Summary				
	Detected	Non-Detect Minimum Value	Non-Detect Maximum Value	Detected Minimum Value	Detected Maximum Value
Total Pentachlorodibenzofuran (PeCDF)	12 of 12	--	--	0.372	1,840
Total Hexachlorodibenzofuran (HxCDF)	11 of 12	1.79	1.79	2.08	15,200
Total Heptachlorodibenzofuran (HpCDF)	11 of 12	0.851	0.851	5.32	28,400
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2)	19 of 19	--	--	0.51	686
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0)	19 of 19	--	--	0.42	686

Notes:

ND	non-detect
SMS	Sediment Management Standards
SQS	Sediment Quality Standards
LDW FS	Lower Duwamish Waterway Feasibility Study
DMMP	Dredged Material Management Program
µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
PCBs	polychlorinated biphenyls
PAHs	Polycyclic Aromatic Hydrocarbons
HPAH	high molecular weight PAH
LPAH	low molecular weight PAH
OC	organic carbon

Table 19

Surface and Subsurface Sediment Physical Testing Results

Location ID	DSI-SS-01	DSI-SS-02	DSI-SS-03	DSI-SS-04	DSI-SS-05	DSI-SS-06	DSI-SS-07	DSI-SS-08	DSI-SS-09	DSI-SS-10	DSI-SS-11
Sample ID	DSI-SS-01	DSI-SS-02	DSI-SS-03	DSI-SS-04	DSI-SS-05	DSI-SS-06	DSI-SS-07	DSI-SS-08	DSI-SS-09	DSI-SS-10	DSI-SS-11
Sample Date	3/7/2011	3/8/2011	3/8/2011	3/7/2011	3/7/2011	3/7/2011	3/8/2011	3/7/2011	3/7/2011	3/7/2011	3/7/2011
Depth	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm	0 to 10 cm
Stratigraphic Unit	Recent	Recent	Recent	Recent	Recent	Recent	Recent	Recent	Recent	Recent	Recent
Grain Size (percent)											
Percent passing < 1.3 micron sieve	**14**	**14.1**	**12.6**	**12.3**	**12.1**	**15**	**11.7**	**13**	**12.1**	**13.5**	**14.9**
Percent retained 1.3 micron sieve	**9.4**	**7**	**7.9**	**7.7**	**9.1**	**10**	**6.7**	**9.5**	**10.4**	**7.8**	**10.4**
Percent retained 3.2 micron sieve	**13.2**	**14.9**	**14.2**	**14.6**	**14.3**	**12.5**	**15**	**11.3**	**11.2**	**12.1**	**11.2**
Percent retained 7 micron sieve	**14.8**	**12.5**	**11**	**8.5**	**7.5**	**11.7**	**11.7**	**13.8**	**13.8**	**8.5**	**12.7**
Percent retained 9 micron sieve	**7.8**	**9.4**	**8.7**	**8.5**	**7.5**	**7.5**	**9.2**	**6.1**	**7.8**	**7.1**	**6**
Percent retained 13 micron sieve	**11.7**	**11.7**	**12.6**	**12.3**	**9.8**	**11.7**	**12.5**	**12.1**	**10.4**	**11.4**	**11.2**
Percent retained 22 micron sieve	**10.9**	**10.2**	**8.7**	**10**	**9.8**	**10**	**10**	**9.5**	**8.6**	**7.1**	**9.7**
Percent retained 32 micron sieve	**12.3**	**14.6**	**18.9**	**17.5**	**15.3**	**11.6**	**9**	**16.5**	**17.2**	**11.3**	**15.5**
Percent retained 75 micron sieve (#200)	**2.7**	**3.7**	**3.2**	**5**	**6.3**	**4.5**	**3.1**	**6.7**	**5**	**4.5**	**4.2**
Percent retained 150 micron sieve (#100)	**0.7**	**0.2**	**0.4**	**0.8**	**2.8**	**2.4**	**2.1**	**0.4**	**1.4**	**1.6**	**1.1**
Percent retained 250 micron sieve (#60)	**0.7**	**0.2**	**0.2**	**0.5**	**2.3**	**1.6**	**3**	**0.2**	**0.9**	**2.4**	**1.4**
Percent retained 425 micron sieve (#40)	**0.9**	**0.5**	**0.5**	**1**	**1.4**	**0.7**	**1.8**	**0.4**	**0.7**	**1.9**	**1.2**
Percent retained 850 micron sieve (#20)	**0.8**	**1**	**1.2**	**1.3**	**1.3**	**0.4**	**1.2**	**0.5**	**0.5**	**1.5**	**0.5**
Percent retained 2000 micron sieve (#10)	0.1 U	0.1 U	0.1 U	**0.1**	**0.4**	**0.1**	**1.2**	0.1 U	0.1 U	**1.5**	0.1 U
Percent retained 4750 micron sieve (#4)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.1**	**0.4**	0.1 U	0.1 U	**2.4**	0.1 U
Percent retained 9500 micron sieve	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**1.2**	0.1 U	0.1 U	**1.1**	0.1 U
Percent retained 12500 micron sieve	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.2**	0.1 U	0.1 U	**1.2**	0.1 U
Percent retained 19000 micron sieve	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**2.8**	0.1 U
Percent retained 25K micron sieve	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 37.5K micron sieve	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 50K micron sieve	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 75K micron sieve	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

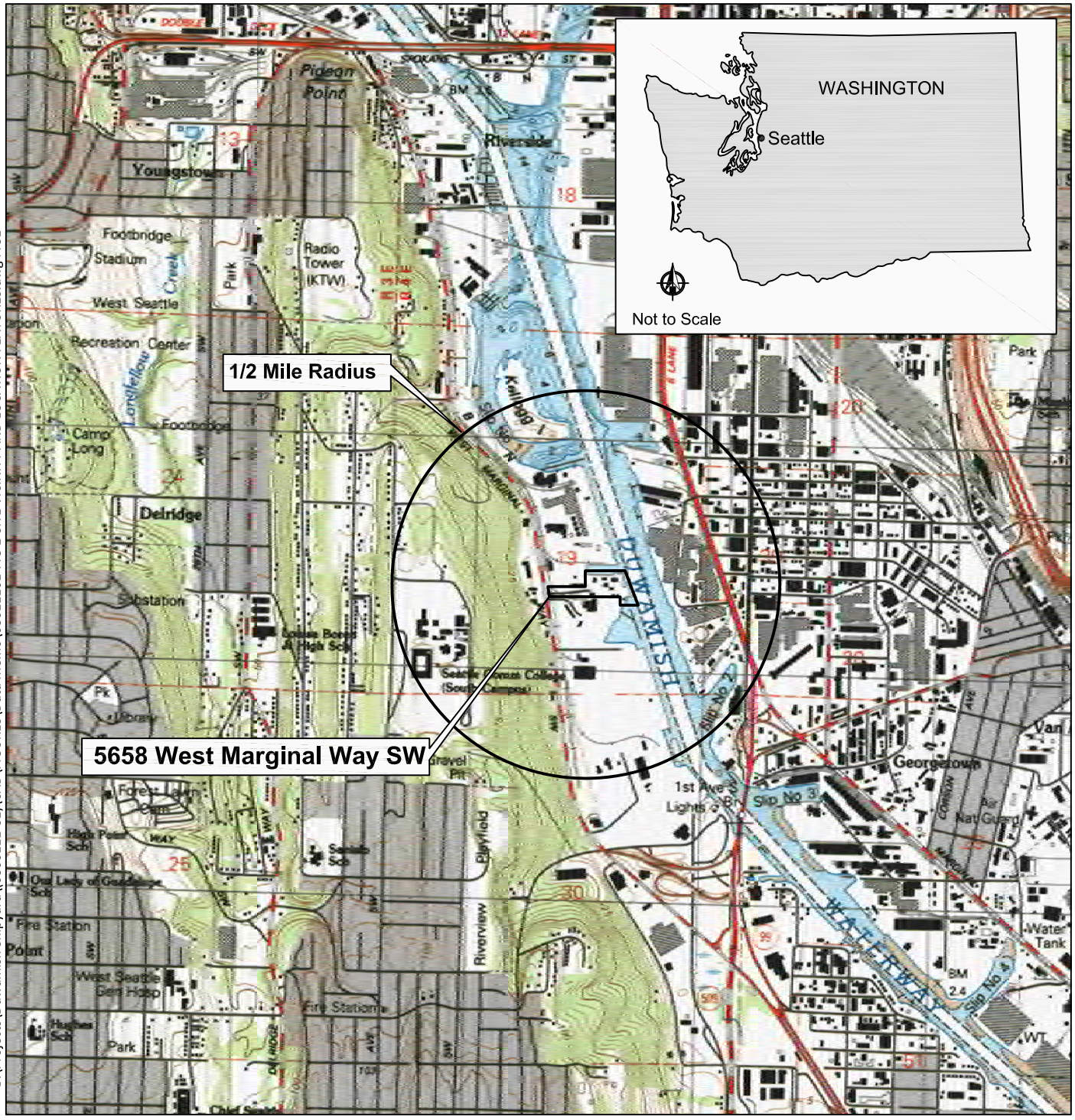
Table 19
Surface and Subsurface Sediment Physical Testing Results

Location ID	DSI-SB-02	DSI-SB-02	DSI-SB-03	DSI-SB-04	DSI-SB-05	DSI-SB-05	DSI-SB-12
Sample ID	DSI-SB-02-1-2.3	DSI-SB-02-8.5-10	DSI-SB-03-1-2	DSI-SB-04-8.3-9.3	DSI-SB-05-3-4	DSI-SB-05-9.3-11	DSI-SB-12-8-9
Sample Date	3/11/2011	3/11/2011	3/14/2011	3/9/2011	3/10/2011	3/10/2011	3/15/2011
Depth	1 to 2.3 feet	8.5 to 10 feet	1 to 2 feet	8.3 to 9.3 feet	3 to 4 feet	9.3 to 11 feet	8 to 9 feet
Stratigraphic Unit	Recent	Upper Alluvium	Recent	Lower Alluvium	Recent	Upper Alluvium	Lower Alluvium
Grain Size (percent)							
Percent passing < 1.3 micron sieve	**13**	**2.6**	**8.9**	**4.3**	**5.7**	**2.5**	**1.7**
Percent retained 1.3 micron sieve	**8.7**	**0.4**	**8.1**	**0.7**	**5**	**0.5**	0.1 U
Percent retained 3.2 micron sieve	**16.5**	**2.2**	**12.9**	**3.6**	**9.5**	**2**	**0.9**
Percent retained 7 micron sieve	**11.3**	**1.3**	**8.9**	**2.9**	**6.3**	**1.5**	**0.9**
Percent retained 9 micron sieve	**5.2**	**1.3**	**9.7**	**2.9**	**6.9**	**1.5**	0.1 U
Percent retained 13 micron sieve	**13.9**	**2.6**	**11.3**	**2.9**	**8.8**	**1**	0.1 U
Percent retained 22 micron sieve	**10.4**	**5.7**	**10.5**	**7.2**	**6.3**	**2**	**0.9**
Percent retained 32 micron sieve	**16.7**	**19.6**	**21.4**	**22.2**	**10.3**	**0.5**	**1.2**
Percent retained 75 micron sieve (#200)	**1.8**	**43.2**	**3.9**	**37.1**	**2.8**	**10.2**	**16.3**
Percent retained 150 micron sieve (#100)	**0.5**	**19**	**1.2**	**14.5**	**2**	**17.4**	**46.9**
Percent retained 250 micron sieve (#60)	**0.6**	**2**	**0.8**	**1.4**	**3.6**	**24.8**	**28.5**
Percent retained 425 micron sieve (#40)	**0.7**	**0.1**	**1**	**0.1**	**14.5**	**22.2**	**2.3**
Percent retained 850 micron sieve (#20)	**0.7**	0.1 U	**0.8**	**0.1**	**15.7**	**9.9**	**0.2**
Percent retained 2000 micron sieve (#10)	**0.1**	0.1 U	**0.4**	**0.1**	**1.2**	**1.8**	**0.1**
Percent retained 4750 micron sieve (#4)	0.1 U	0.1 U	**0.2**	0.1 U	**1.5**	**1.7**	**0.1**
Percent retained 9500 micron sieve	0.1 U	0.1 U	**0.3**	0.1 U	0.1 U	**0.5**	0.1 U
Percent retained 12500 micron sieve	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 19000 micron sieve	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 25K micron sieve	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 37.5K micron sieve	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 50K micron sieve	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 75K micron sieve	--	--	--	--	--	--	--

Notes:

cm	centimeters
Bold	Detected result
J	Estimated value
U	Compound analyzed, but not detected above detection limit
UJ	Compound analyzed, but not detected above estimated detection limit
R	Rejected

FIGURES



B:\Projects\Duwamish Shipyard\(0800111-01)\CAD\FIGURES\Data Memo\080111101-FIG 1-SITE VICINITY AND LOCATION FEATURES.dwg FIG1

Jul 14, 2011 7:31am epipkin

SOURCE: Base map prepared from Terrain Navigator Pro, USGS 7.5 minute quadrangle map, South Seattle.

0 2000

Scale in Feet

Figure 1
Site Vicinty and Location Features
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.

ANCHOR QEA

B:\Projects\Duwamish Shipyard\(0800111-01)\CAD\FIGURES\Phase 1 RI Data Memo\0800111-01-FIG 2-Upland Historical Site Features.dwg FIG2

Sep 19, 2011 10:09am epipkin

Graving Dock
ALASKA MARINE LINES

FORMER DUWAMISH SHIPYARD

MW4
CRANE RAILS
DSI-MW-02
CONC. RET. WALL
A/C
DSI03
UST
DSI08
DSI09
DSI-GP-05
MW5
DSI-GP-04
DSI04
DSI-GP-07
DSI-GP-06
DSI02
DSI-GP-03
DSI-MW-03
DSI-PZ-01
DSI-GP-10
DSI-GP-11
DSI-MW-05
DSI-GT-01
DSI-GP-13
DSI-MW-07
DSI10
DSI-MW-06
DSI-GP-14
DSI07
DSI-GP-08
DSI05
DSI06
DSI-GP-09
DSI-MW-04
DSI-GP-15
DSI-GT-02
DSI-GP-21
DSI-MW-08
DSI-GP-16
DSI-GP-20
DSI11
DSI-GP-17
DSI-MW-10
DSI-MW-09
DSI12
DSI-MW-01
DSI-GP-01
DSI01
DSI-GP-02
DSI-GP-19
CONC. RETAINING WALL
Municipal Sanitary Sewer Line
Connection to Metro System in this Area (Sanitary Sewer)
W. Marginal Way South
GLACIER NORTHWEST
Existing Bulkhead
Wastewater Treatment System
Paint Mixing Shed
Machine Shop
Steel Shop
Pipe Shop
Crane
BOLLARDS
Shed
Spent Grit Storage
Office
Winch House
Centrifugal Stormwater Separator System
Saw
Warehouse
Marine Railway
4 UST's
Former Side Tracking Ways
Electric and Joiner Shops
Spent Grit Storage
Haz. Waste Storage
Former Septic Tank
Storage and Paint Shop
Solvent Still
Waste Oil
Tanks
Lab
Lunch Room
Laboratory
Shipping
Drum Storage
Loading Platform & Shed
Small Parts Blasting Shed
RAILS TO BE REMOVED
RAILS TO BE REMOVED

LEGEND:

- Former Stormwater Line
- Municipal Sanitary Sewer Line
- Top of Bank
- Subject Property Boundary
- Former Glacier NW Feature
- Topographic and Bathymetric Contours in Feet (MLLW)
- Former Catch Basin Location

2006 PI LOCATIONS
- Monitoring Well (Not Located in 2009)
- Geoprobe

2009 UPLAND RI LOCATIONS
- Monitoring Well/Piezometer
- Deep Monitoring Well
- Hydrogeologic Testing (Transducer)
- Geoprobe - Soil and Groundwater
- Geoprobe - Soil Only
- Geotechnical Boring

0 75
Scale in Feet

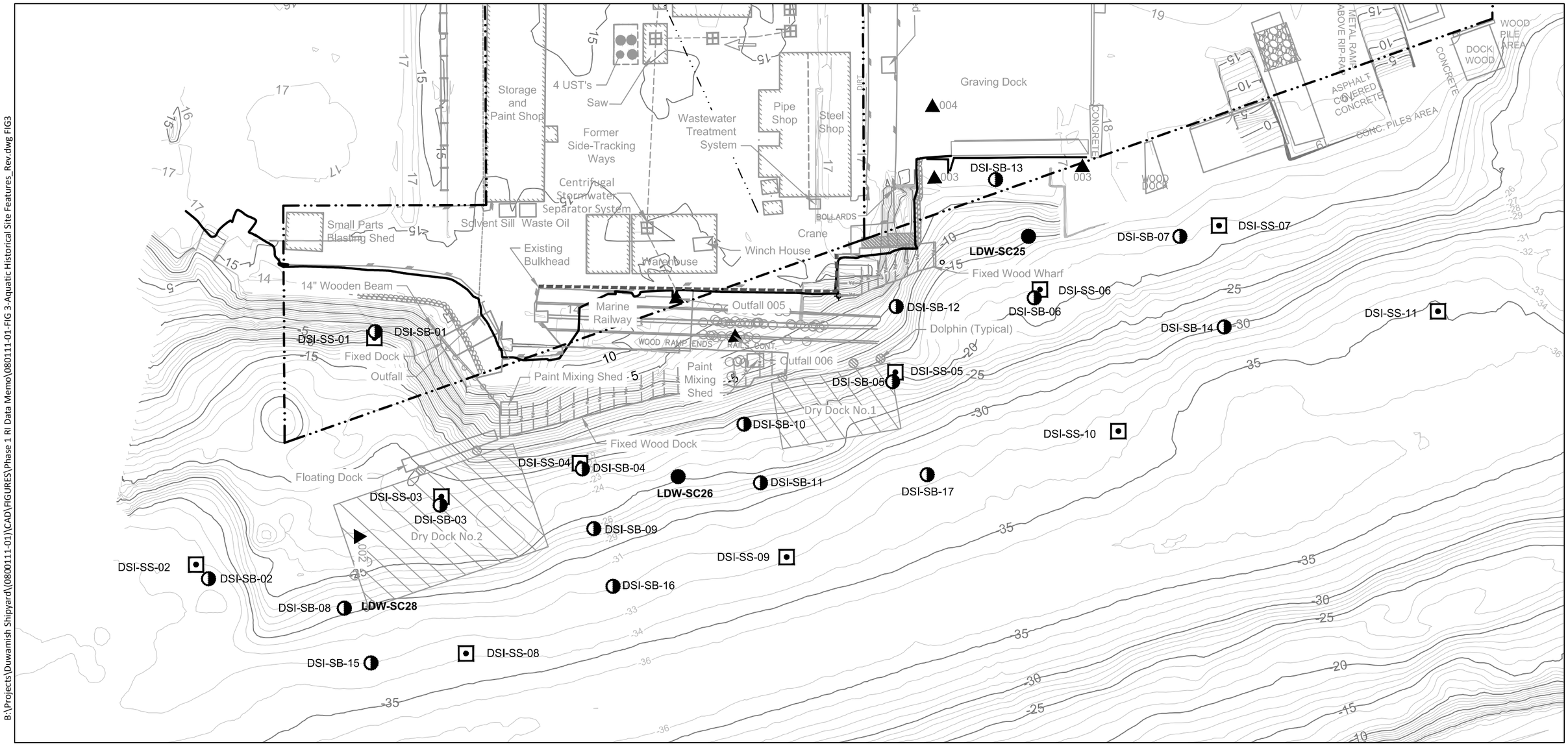
SURVEY SOURCE: Bathymetric survey by Blue Water, 10/2008
Topographic survey by APS Survey and Mapping, LLC.
Underdock survey by AML and DSI, 12/2006

HORIZONTAL DATUM: Washington State Plane North, NAD83 Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

NOTES:
1. Historical operations presented are consistent with the 104e response.
2. Former Glacier NW features acquired from Figure 1-2, Glacier Northwest, Inc. - Reichold, Inc Site. ERM. November, 2010.

ANCHOR QEA

Figure 2
Upland Historical Property Operational Features and Existing Sampling Locations
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.



B:\Projects\Duwamish Shipyard\(0800111-01)\CAD\FIGURES\Phase 1 RI Data Memo\080111-01-FIG 3-Aquatic Historical Site Features_Rev.dwg FIG3

Sep 19, 2011 10:10am epipkin

SURVEY SOURCE: Bathymetric survey by Blue Water, 10/2006
Topographic survey by APS Survey and Mapping, LLC.
Underdock survey by AML and DSI, 12/2006.
HORIZONTAL DATUM: Washington State Plane North, NAD83 Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW).
NOTES:
1. Historical operations presented are consistent with the 104e response.
2. Previous subsurface core LDW-SC28 is shown in original location. Location reporting was inconsistent in RI.

LEGEND:

- Former Stormwater Line
- Municipal Sanitary Sewer Line
- Top of Bank
- Subject Property Boundary
- Former NPDES Outfall
- Topographic and Bathymetric Contours in Feet (MLLW)
- Former Catch Basin Location
- RI Surface Sediment Station
- Previous Surface Sediment Station
- RI Subsurface Sediment Station
- Previous Subsurface Sediment Station

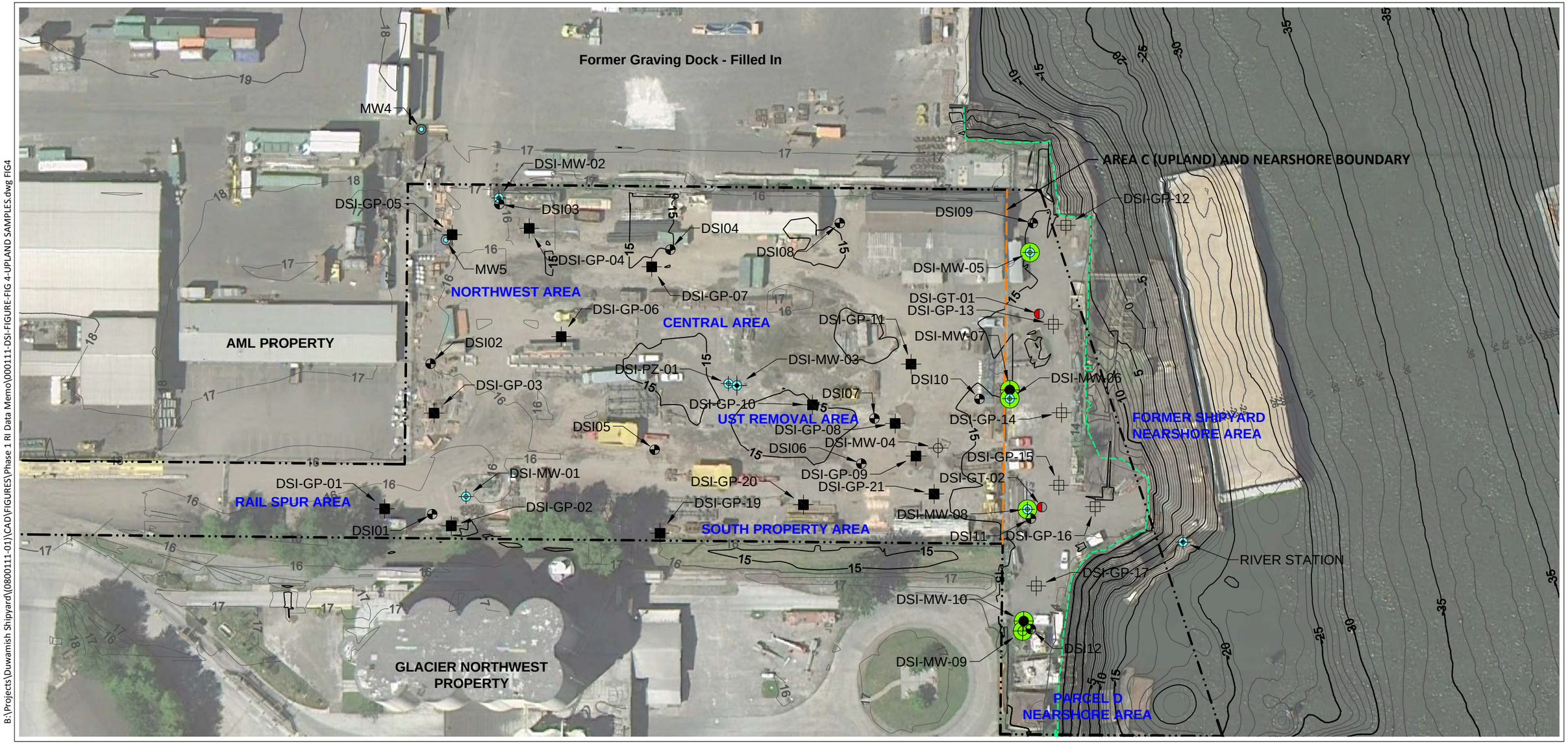
0 75
Scale in Feet

ANCHOR QEA

Figure 3
Aquatic Historical Property Operational Features and Existing Sampling Locations
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.

B:\Projects\Duwamish Shipyard\(0800111-01)\CAD\FIGURES\Phase 1 RI Data Memo\000111-DSI-FIGURE-FIG 4-UPLAND SAMPLES.dwg FIG4

Sep 07, 2011 2:29pm epipkin



HORIZONTAL DATUM: Washington State Plane North, NAD83.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

NOTES:
1. Aerial photo acquired from Google Earth Pro, 2010.

LEGEND:

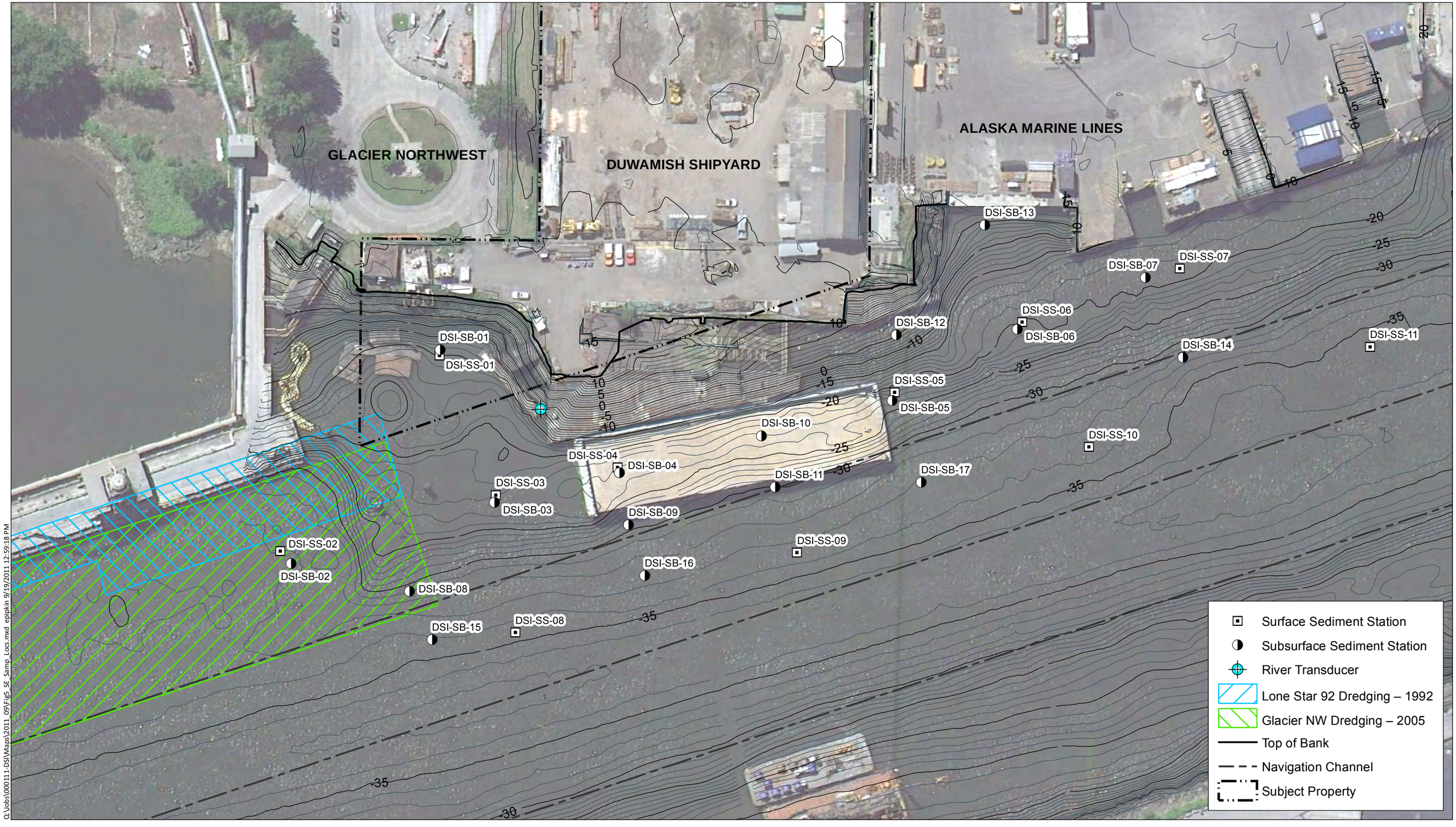
2006 PI LOCATIONS
- Monitoring Well (Not Located in 2009)
- Geoprobe

2009 UPLAND RI LOCATIONS
- Monitoring Well/Piezometer
- Deep Monitoring Well
- Hydrogeologic Testing (Transducer)
- Geoprobe - Soil and Groundwater
- Geoprobe - Soil Only
- Geotechnical Boring
- Nearshore Monitoring Well
- Top of Bank
- Property Boundary

0 80
Scale in Feet

ANCHOR QEA

Figure 4
2006 and 2009 Upland Investigation Sample Locations
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.

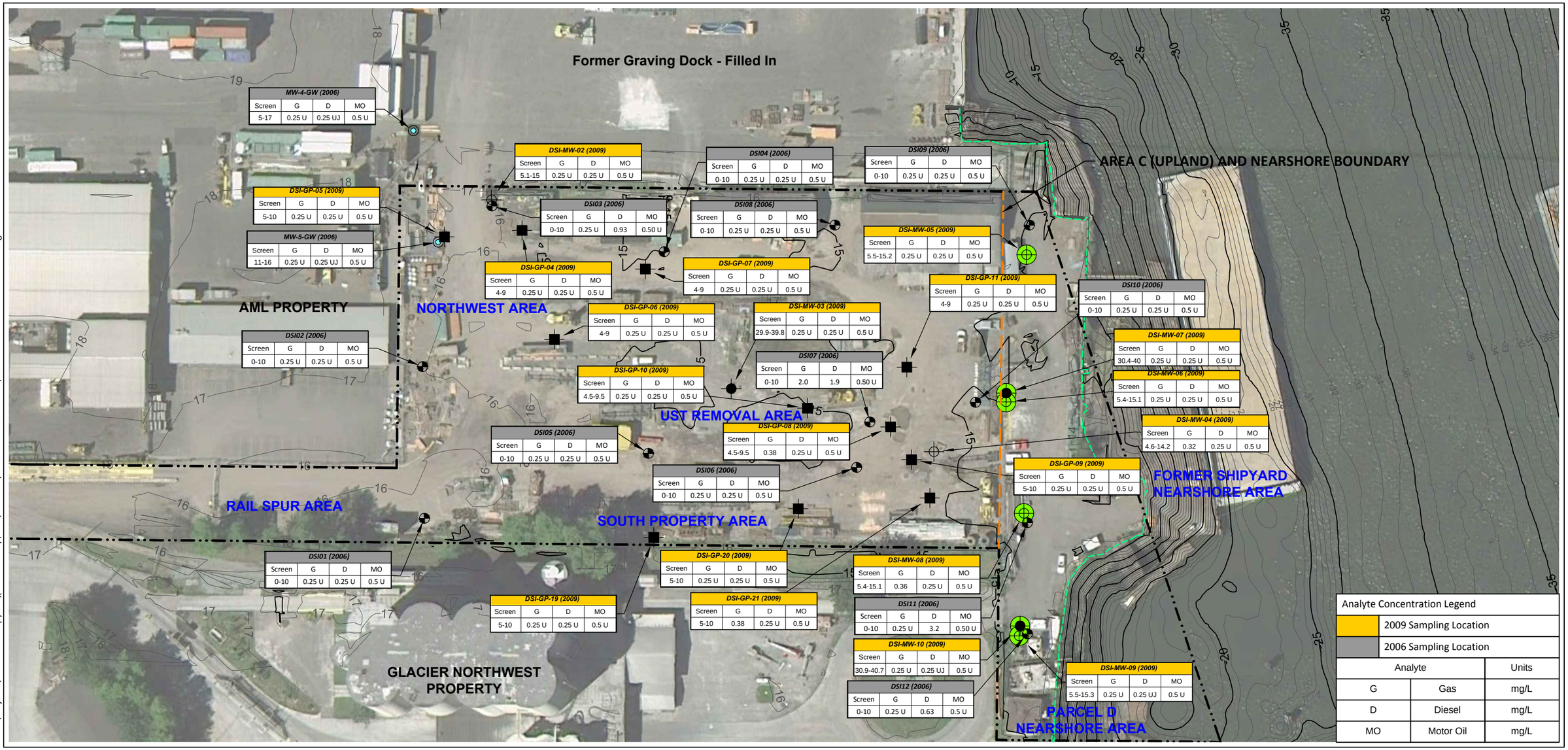


Q:\Jobs\000111-DSI\Maps\2011_09\Fig5_SE_Samp_Locs.mxd epipkin 9/19/2011 12:59:18 PM

NOTES:
1. Horizontal Datum: Washington State Plane, North, NAD-83 (Feet).
2. Vertical Datum: MLLW (Feet).
3. Aerial photo acquired from Google Earth Pro, 2010.
4. Sample locations are presented for accepted grabs and cores only.

Feet
0 40 80

Figure 5
Sediment RI Sampling Locations
Phase I RI Data Memorandum
Duwamish Shipyard, Inc.



B:\Projects\Duwamish Shipyard\(0800111-01)\CAD\FIGURES\Phase 1 RI Data Memo\000111-DSI-FIGURE 6-TPH GW.dwg FIG6

Sep 19, 2011 9:13am epipkin

HORIZONTAL DATUM: Washington State Plane North, NAD83.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

NOTES:
1. Aerial photo acquired from Google Earth Pro, 2010.
2. Screen interval is presented as feet below ground surface.
3. U indicates analyte was not detected.
4. J indicates analyte concentration is estimated.

LEGEND:

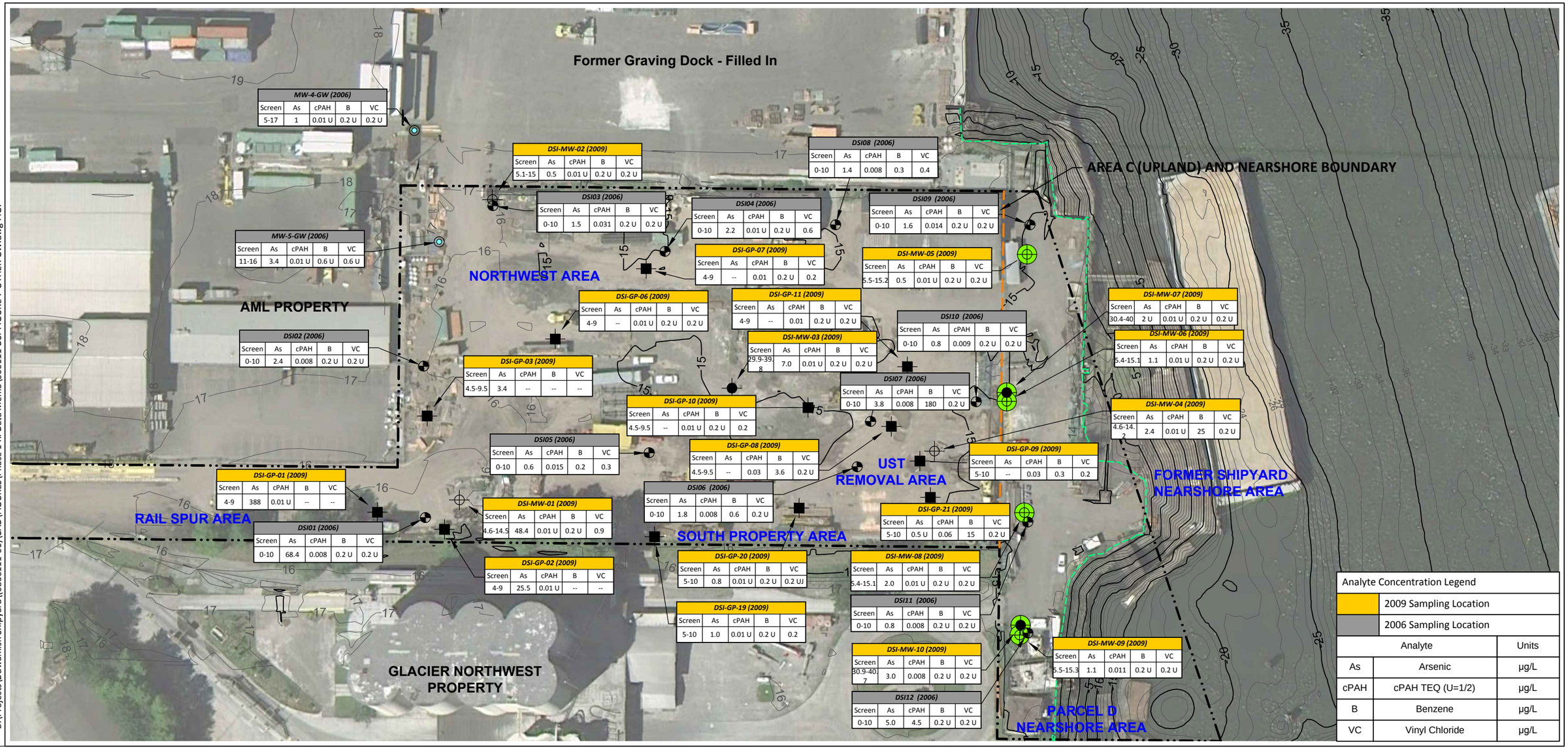
2006 PI LOCATIONS
- Monitoring Well (Not Located in 2009)
- Geoprobe

2009 UPLAND RI LOCATIONS
- Monitoring Well/Piezometer
- Deep Monitoring Well
- Geoprobe - Soil and Groundwater
- Nearshore Monitoring Well
- Top of Bank
- Property Boundary

0 80
Scale in Feet

Figure 6
2006 and 2009 Groundwater Sampling Results - Total Petroleum Hydrocarbons
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.

ANCHOR QEA



B:\Projects\Duwamish Shipyard\(0800111-01)\CAD\FIGURES\Phase 1 RI Data Memo\000111-DSI-FIGURE 7-OTHER GW.dwg FIG7

Sep 19, 2011 9:25am epikpin

HORIZONTAL DATUM: Washington State Plane North, NAD83.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

NOTES:
1. Aerial photo acquired from Google Earth Pro, 2010.
2. Screen interval is presented as feet below surface.
3. U indicates analyte was not detected.
4. J indicates analyte concentration is estimated.

LEGEND:

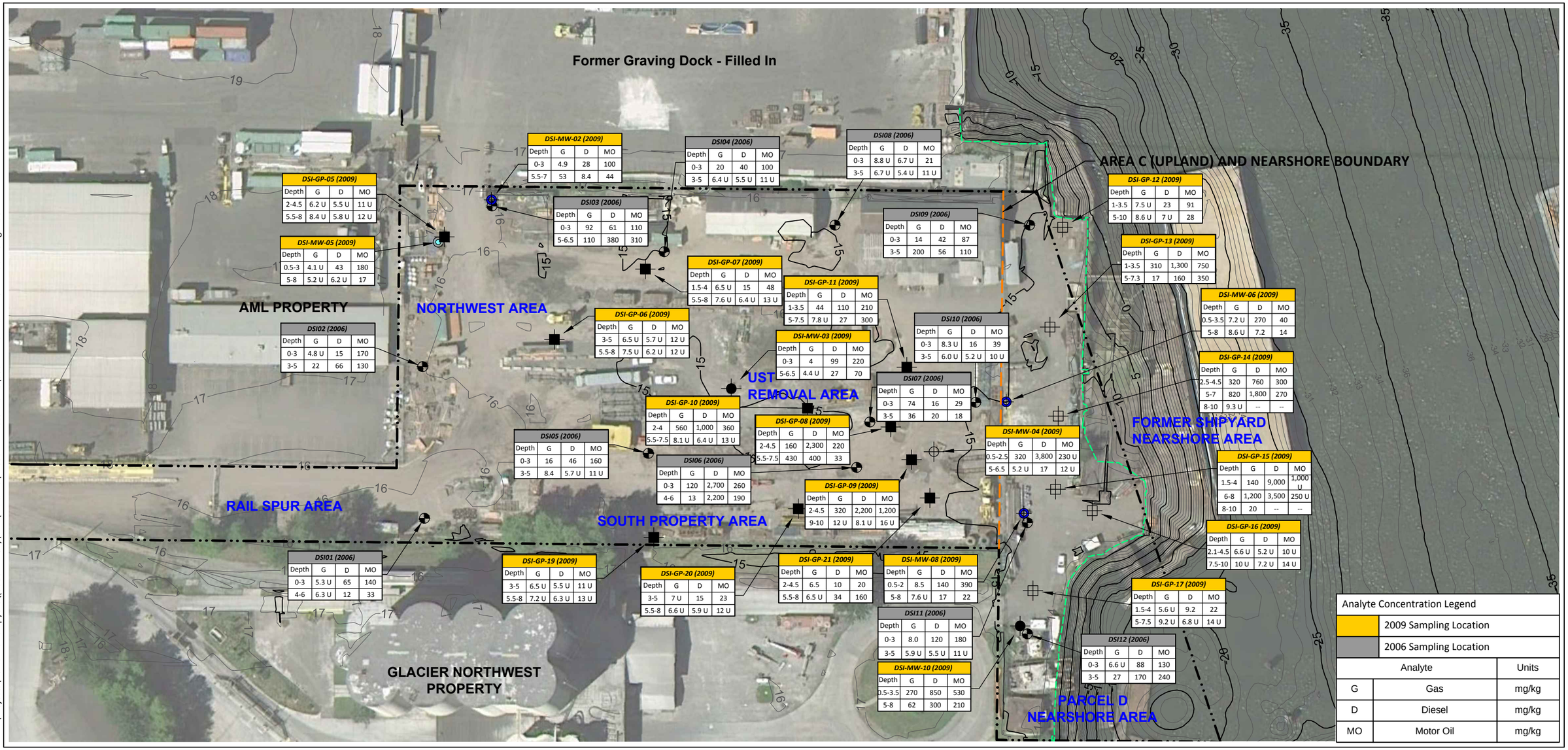
2006 PI LOCATIONS
- Monitoring Well (Not Located in 2009)
- Geoprobe

2009 UPLAND RI LOCATIONS
- Monitoring Well/Piezometer
- Deep Monitoring Well
- Geoprobe - Soil and Groundwater
- Nearshore Monitoring Well
- Top of Bank
- Property Boundary

0 80
Scale in Feet

ANCHOR QEA

Figure 7
2006 and 2009 Groundwater Sampling Results - Selected Constituents
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.



B:\Projects\Duwamish Shipyard\(0800111-01)\CAD\FIGURES\Phase 1 RI Data Memo\000111-DSI-FIGURE 8-TPH SOIL.dwg FIG8

Sep 19, 2011 9:31am epipkin

HORIZONTAL DATUM: Washington State Plane North, NAD83.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

NOTES:
1. Aerial photo acquired from Google Earth Pro, 2010.
2. Soil sample depth is presented as feet below ground surface.
3. U indicates analyte was not detected.
4. J indicates analyte concentration is estimated.

LEGEND:

2006 PI LOCATIONS
- Monitoring Well (Not Located in 2009)
- Geoprobe

2009 UPLAND RI LOCATIONS
- Monitoring Well/Piezometer
- Deep Monitoring Well
- Geoprobe - Soil and Groundwater
- Geoprobe - Soil Only
- Top of Bank
- Property Boundary

0 80
Scale in Feet

Figure 8
2006 and 2009 Soil Sampling Results - Total Petroleum Hydrocarbons
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.

ANCHOR QEA

B:\Projects\Duwamish Shipyard\(0800111-01)\CAD\FIGURES\Phase 1 RI Data Memo\0800111-DSI-FIGURE 9-OTHER SOIL.dwg FIG9

Sep 19, 2011 10:06am epipkin

Former Graving Dock - Filled In

AREA C (UPLAND) AND NEARSHORE BOUNDARY

NORTHWEST AREA

AML PROPERTY

UST REMOVAL AREA

FORMER SHIPYARD NEARSHORE AREA

RAIL SPUR AREA

SOUTH PROPERTY AREA

GLACIER NORTHWEST PROPERTY

PARCEL D NEARSHORE AREA

DSI02 (2006)

Depth	As	cPAH	B	Z
0-3	18.9	8.5	1 U	57
3-5	5.8	14	2	57.7

DSI-MW-01 (2009)

Depth	As	cPAH	B	Z
0.5-2	23	--	--	--
5-6.5	7	--	--	--

DSI-GP-01 (2009)

Depth	As	cPAH	B	Z
2-4.5	8	--	--	--
5.5-7.5	13	--	--	--

DSI01 (2006)

Depth	As	cPAH	B	Z
0-3	48.1 J	90.3	0.9 U	192
4-6	3.5	15.0	1.2	36.8

DSI-GP-03 (2009)

Depth	As	cPAH	B	Z
1.5-4	7	--	--	--
5.5-8	6 U	--	--	--

DSI05 (2006)

Depth	As	cPAH	B	Z
0-3	7.1	41.4	1.8	127
3-5	1.3	4.7 U	1.3 U	26.4

DSI-GP-02 (2009)

Depth	As	cPAH	B	Z
2.5-5.5	10	--	--	--
5.5-7.5	6	--	--	--

DSI04 (2006)

Depth	As	cPAH	B	Z
0-3	6.4	13.7	1.6	85.4
3-5	1.1	5 U	1.1 U	21.9

DSI03 (2006)

Depth	As	cPAH	B	Z
0-3	7.1	14.5	1 U	129
5-6.5	10.4	17.5	0.9 U	160

DSI-GP-11 (2009)

Depth	As	cPAH	B	Z
1-3.5	--	--	2.2	--
5-7.5	--	--	1.1 U	--

DSI07 (2006)

Depth	As	cPAH	B	Z
0-3	4.3 J	16.6	50	53.2
3-5	1.6	7.9	6	29.1

DSI-GP-10 (2009)

Depth	As	cPAH	B	Z
2-4	--	--	19 J	--
5.5-7.5	--	--	1.3 U	--

DSI06 (2006)

Depth	As	cPAH	B	Z
0-3	7	56.9	260	57.5
4-6	2.2	129	1.7	33.6

DSI-GP-20 (2009)

Depth	As	cPAH	B	Z
3-5	24	380	--	28
5.5-8	6 U	20 U	--	20

DSI-GP-19 (2009)

Depth	As	cPAH	B	Z
3-5	10	20 U	--	26 J
5.5-8	6 U	20 U	--	35 J

DSI-MW-10 (2009)

Depth	As	cPAH	B	Z
0.5-3.5	25	9,247	--	88
5-8	14	7,411	--	56

DSI08 (2006)

Depth	As	cPAH	B	Z
0-3	4.8	17.5	1.3 U	52.3
3-5	0.7	4.9 U	1.2 U	30.5

DSI09 (2006)

Depth	As	cPAH	B	Z
0-3	3.7	261	1	115
3-5	20.2	33.5	1.3	5,840

DSI10 (2006)

Depth	As	cPAH	B	Z
0-3	6.2	21.7	1.2 U	43.7
3-5	1.9	5 U	1 U	25.2

DSI11 (2006)

Depth	As	cPAH	B	Z
0-3	4.4	85.6	2.3	78.3
3-5	1.4	4.8 U	1.1 U	23

DSI12 (2006)

Depth	As	cPAH	B	Z
0-3	17.1	3,749	1.4	77.4
3-5	3.3	9,595	3	36.8

DSI-GP-12 (2009)

Depth	As	cPAH	B	Z
1-3.5	20 U	160	--	386
5-10	9	63.2	--	223

DSI-GP-13 (2009)

Depth	As	cPAH	B	Z
1-3.5	5 U	510	--	98
5-7.3	6 U	157	--	53

DSI-GP-14 (2009)

Depth	As	cPAH	B	Z
2.5-4.5	9	184	--	227
5-7	8	109	--	133

DSI-GP-15 (2009)

Depth	As	cPAH	B	Z
1.5-4	5 U	121	--	23
6-8	6 U	58.2	--	25

DSI-GP-16 (2009)

Depth	As	cPAH	B	Z
2.1-4.5	5 U	17.2	--	23
7.5-10	7 U	19 U	--	43

DSI-GP-17 (2009)

Depth	As	cPAH	B	Z
1.5-4	5 U	124	--	44
5-7.5	7 U	19 U	--	32

DSI-GP-21 (2009)

Depth	As	cPAH	B	Z
2-4.5	6 U	279	--	117 J
5.5-8	6 U	24.7	--	81 J

Analyte Concentration Legend

2009 Sampling Location

2006 Sampling Location

Analyte		Units
As	Arsenic	mg/kg
cPAH	cPAH TEQ (U=1/2)	µg/kg
B	Benzene	µg/kg
Z	Zinc	mg/kg

HORIZONTAL DATUM: Washington State Plane North, NAD83.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

NOTES:
1. Aerial photo acquired from Google Earth Pro, 2010.
2. Soil sample depth is presented as feet below ground surface.
3. U indicates analyte not detected.
4. J indicates analyte concentration is estimated.

LEGEND:

2006 PI LOCATIONS
- Monitoring Well (Not Located in 2009)
- Geoprobe

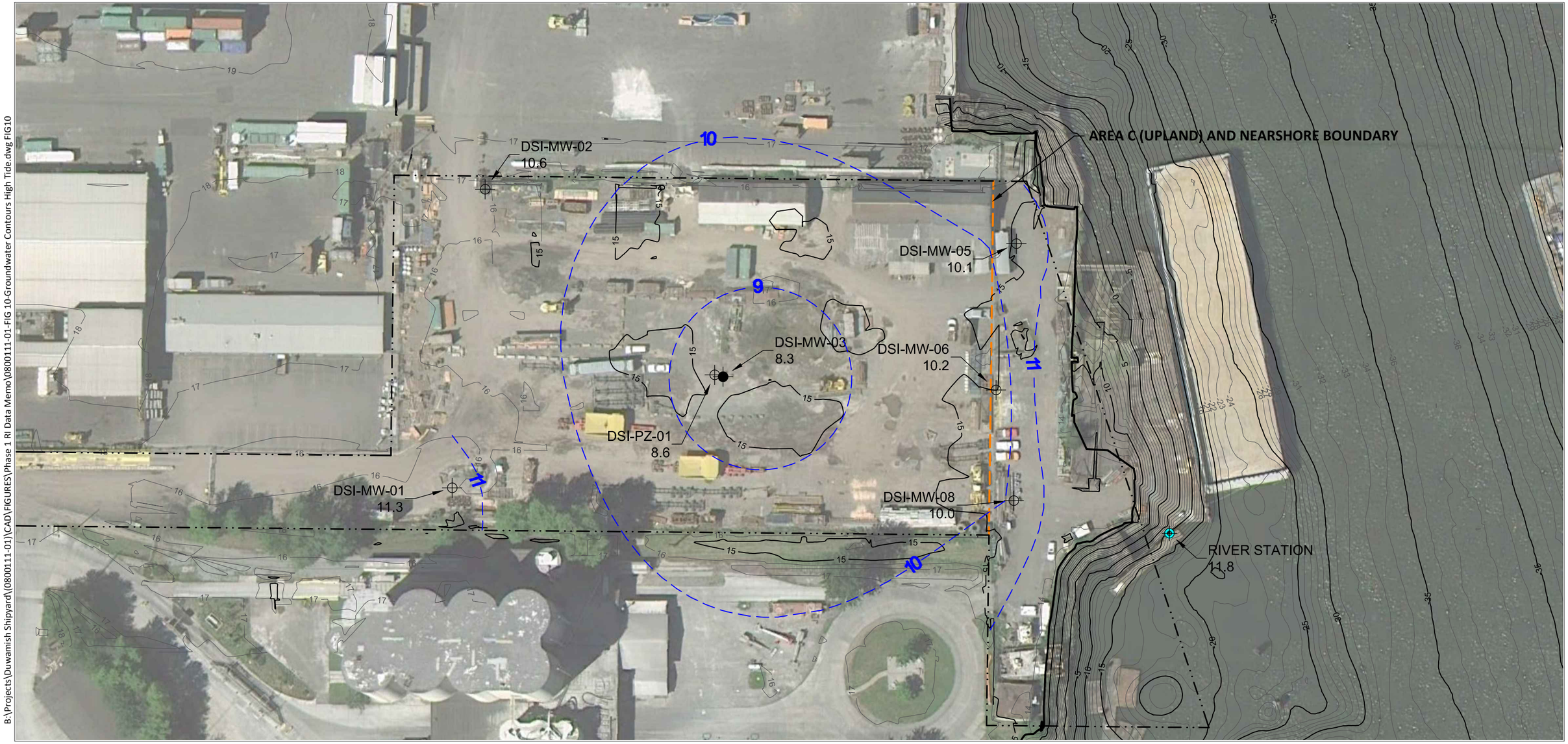
2009 UPLAND RI LOCATIONS
- Monitoring Well/Piezometer
- Deep Monitoring Well
- Geoprobe - Soil and Groundwater
- Geoprobe - Soil Only

- Top of Bank
- Property Boundary

0 80
Scale in Feet

ANCHOR QEA

Figure 9
2006 and 2009 Soil Sampling Results - Selected Constituents
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.



B:\Projects\Duwamish Shipyard\(0800111-01)\CAD\FIGURES\Phase 1 RI Data Memo\0800111-01-FIG 10-Groundwater Contours High Tide.dwg FIG10
Sep 19, 2011 9:01am epipkin

HORIZONTAL DATUM: Washington State Plane North, NAD83.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

NOTES:
1. Groundwater elevation from high-high tide event on August 6, 2009 at 6:45pm.
2. Aerial photo acquired from Google Earth Pro, 2010.
3. Wells only presented for those included in transducer study.

LEGEND: 2009 UPLAND RI LOCATIONS

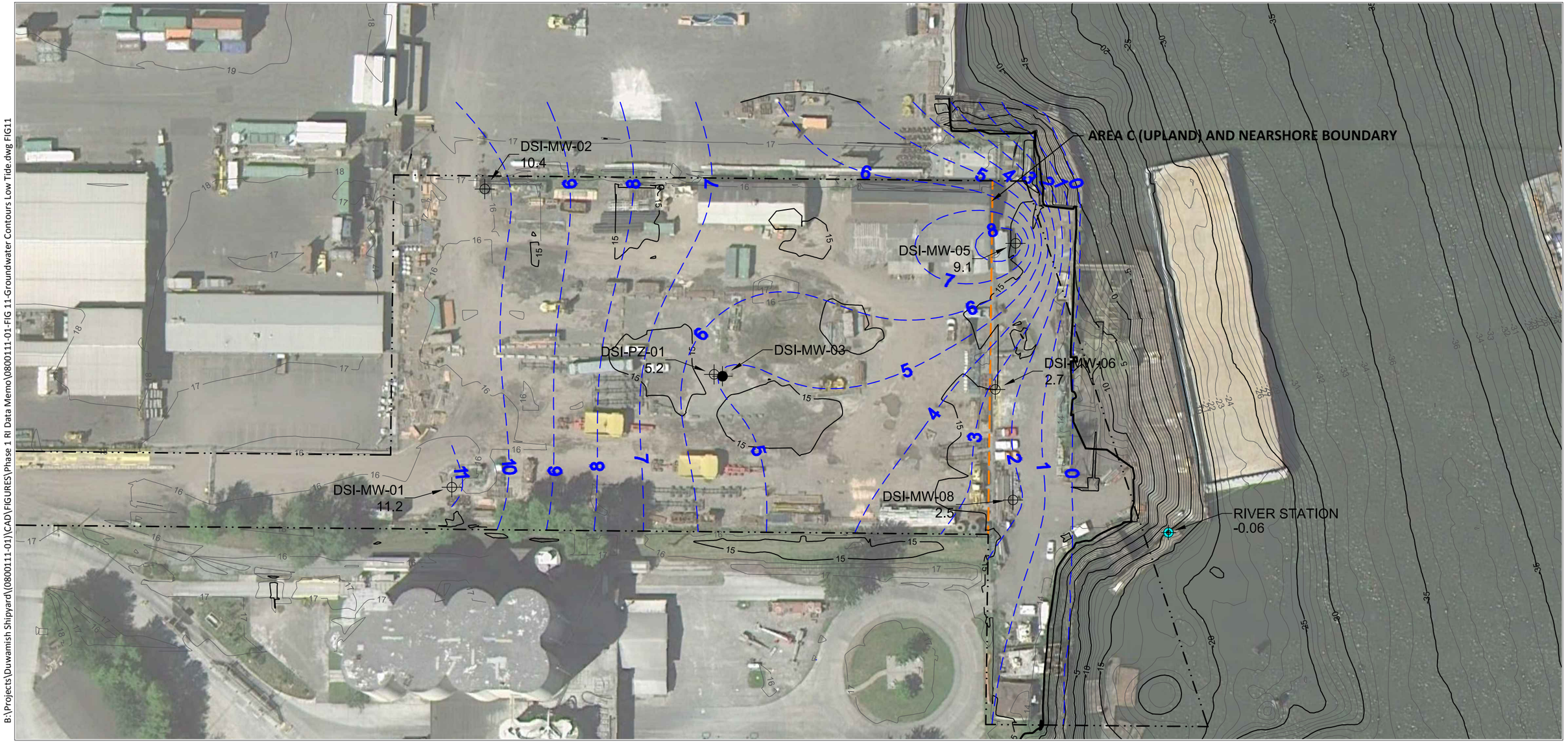
- Monitoring Well/Piezometer
- Deep Monitoring Well
- Hydrogeologic Testing (Transducer)
- Top of Bank
- Property Boundary
- 6 Groundwater Contour (1-foot interval, Note 1)

0 80
Scale in Feet

ANCHOR QEA

Figure 10
Groundwater Contours - High High Tide
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.

B:\Projects\Duwamish Shipyard\(0800111-01)\CAD\FIGURES\Phase 1 RI Data Memo\0800111-01-FIG 11-Groundwater Contours Low Tide.dwg FIG11
Sep 19, 2011 9:09am epipkin



HORIZONTAL DATUM: Washington State Plane North, NAD83.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

NOTES:
1. Groundwater elevation from low-low tide event on August 7, 2009 at 12:20pm.
2. Aerial photo acquired from Google Earth Pro, 2010.
3. Wells only presented for those included in transducer study.

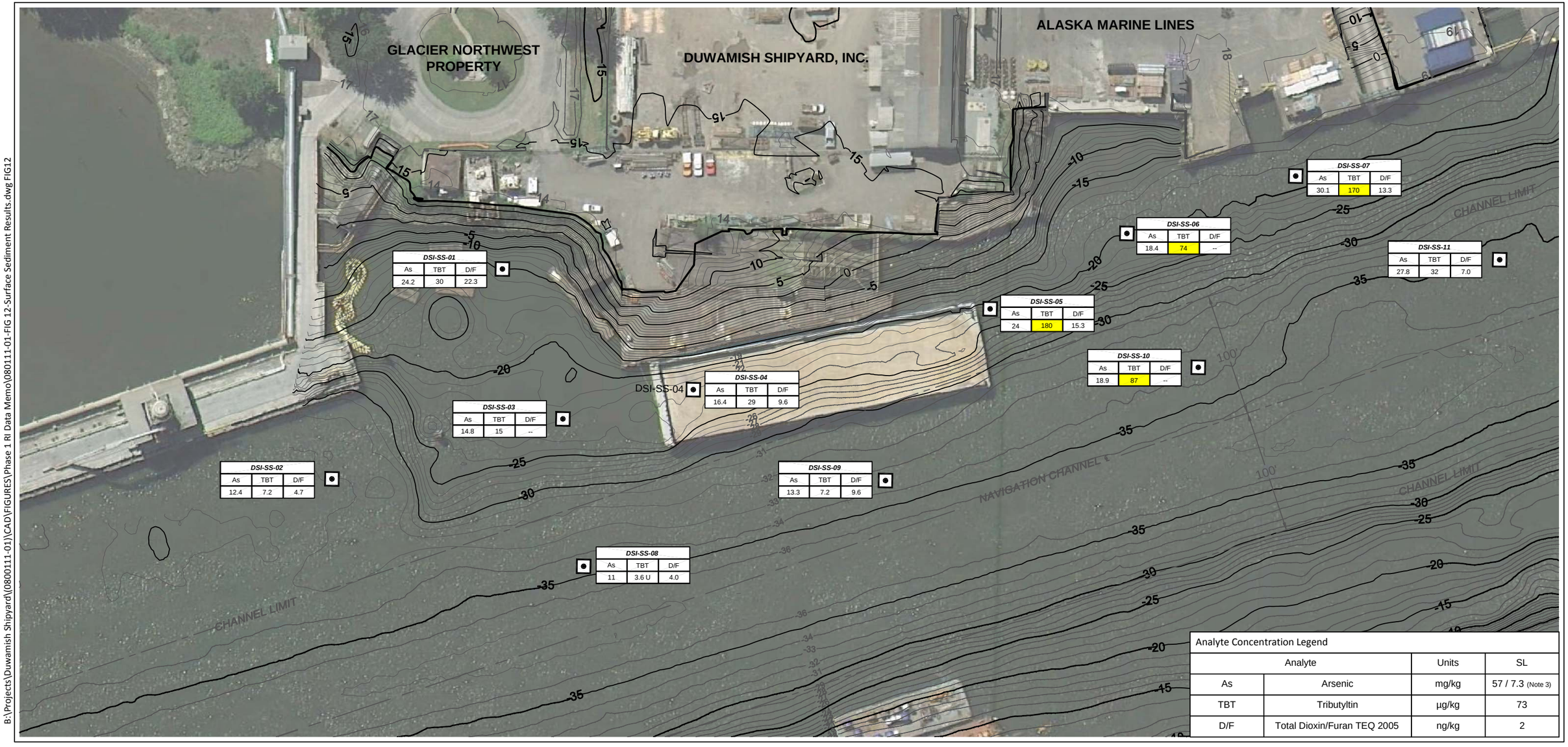
LEGEND: 2009 UPLAND RI LOCATIONS

- Monitoring Well/Piezometer
- Deep Monitoring Well
- River Transducer
- Top of Bank
- Property Boundary
- 6 Groundwater Contour (1-foot interval, Note 1)

0 80
Scale in Feet

ANCHOR QEA

Figure 11
Groundwater Contours - Low Low Tide
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.



Analyte Concentration Legend			
Analyte		Units	SL
As	Arsenic	mg/kg	57 / 7.3 (Note 3)
TBT	Tributyltin	µg/kg	73
D/F	Total Dioxin/Furan TEQ 2005	ng/kg	2

HORIZONTAL DATUM: Washington State Plane North, NAD83.
VERTICAL DATUM: Mean Lower Low Water (MLLW).
NOTES:

1. Aerial photo acquired from Google Earth Pro, 2010.
2. Sample locations are presented for accepted surface grabs only.
3. Arsenic SMS SQS criteria is 57 mg/kg.
4. Toxic equivalency (TEQ) values were calculated for the validated dioxin/furan congeners using the 2005 World Health Organization's toxic equivalency factors for mammals. Undetected congeners were assigned a concentration equal to half the detection limit (ND=1/2).
5. TBT DMMP screening level is 73 ug/kg.

LEGEND:

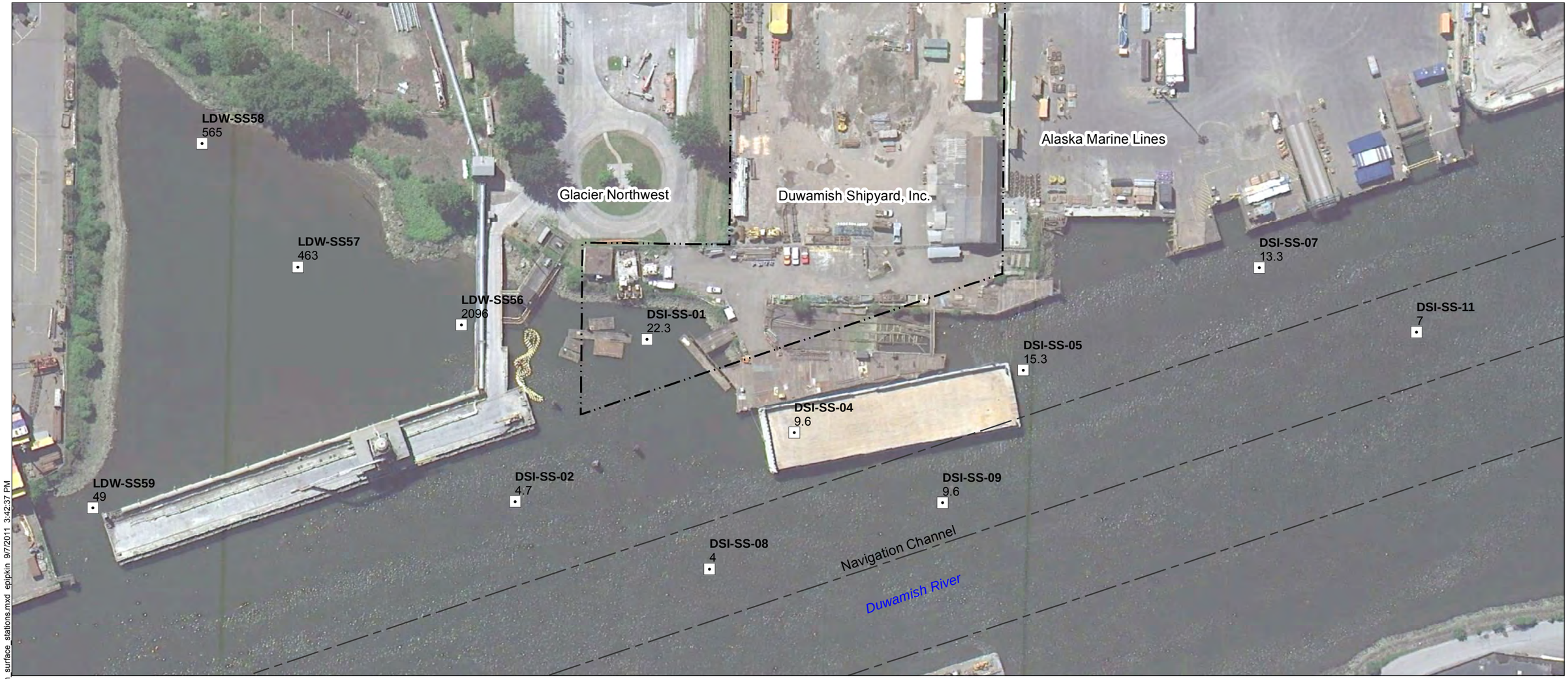
- Top of Bank
- Surface Sediment Station
- Exceeds DMMP SL for TBT

0 80
Scale in Feet

B:\Projects\Duwamish Shipyard\(0800111-01)\CAD\FIGURES\Phase 1 RI Data Memo\080111-01-FIG 12-Surface Sediment Results.dwg FIG12
Sep 07, 2011 3:33pm epipkin

ANCHOR QEA

Figure 12
Surface Sediment Sampling Results - Selected Constituents
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.



HORIZONTAL DATUM: Washington State Plane North, NAD83 Feet.

NOTES:
1. Toxic equivalency (TEQ) values were calculated for the validated dioxin/furan congeners using the 2005 World Health Organization's toxic equivalency factors for mammals. Undetected congeners were assigned a concentration equal to half the detection limit (ND=1/2).
2. Sample depth intervals presented for recovered depths.
3. Aerial photo acquired from Google Earth Pro, 2010.

LEGEND

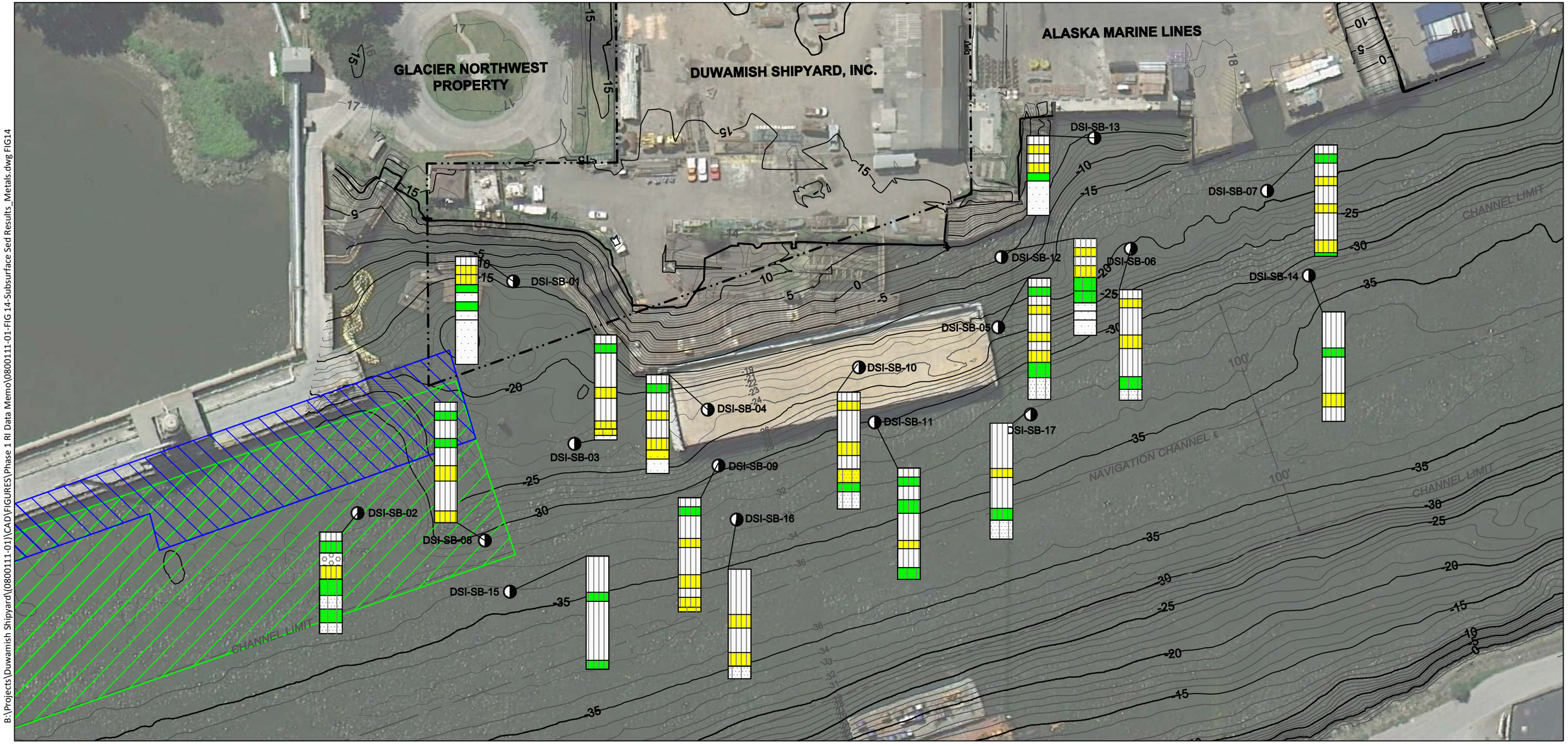
- Surface Sediment Station
- Subject Property
- Navigation Channel

Feet
0 75 150

Q:\Jobs\000111-DSI\Maps\2011_09\DSI_ecology_Dioxin_surface_stations.mxd epipkin 9/7/2011 3:42:37 PM

ANCHOR QEA

Figure 13
DSI and Glacier Bay - Surface Sediment Dioxin TEQ
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.



B:\Projects\Duwamish Shipyard\(0800111-01)\CAD\FIGURES\Phase 1 RI Data Memo\0800111-01-FIG 14-Subsurface Sed Results_Metals.dwg FIG14

Sep 07, 2011 4:24pm epipkin

HORIZONTAL DATUM: Washington State Plane North, NAD83.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

NOTES:
1. Aerial photo acquired from Google Earth Pro, 2010.
2. Sample locations are presented for accepted cores only from the LDW RI and DSI RI.

LEGEND:

- Topographic and Bathymetric Contours in Feet (MLLW)
- Subject Property Boundary
- Subsurface Sediment Station
- LDW Subsurface Sediment Station
- Top of Bank
- Navigation Channel
- Lone Star 92 Dredging - 1992
- Glacier NW Dredging - 2005
- Exceeds SMS SQS
- Below Site SMS SQS

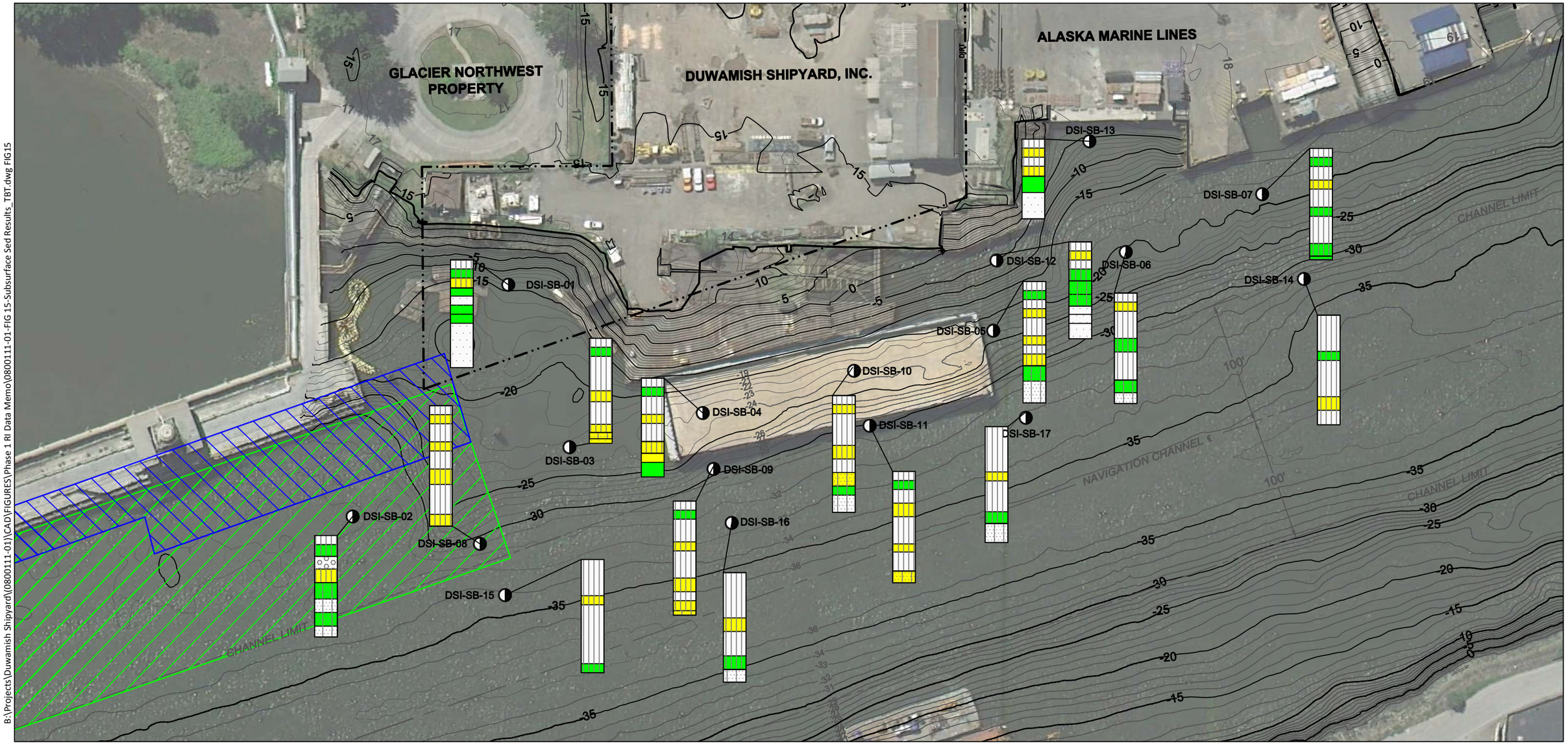
STRATIGRAPHIC UNIT

- RECENT ALLUVIUM
- UPPER ALLUVIUM
- LOWER ALLUVIUM
- GLACIER CAP (DSI-SB-02)

0 80
Scale in Feet

ANCHOR QEA

Figure 14
Subsurface Sediment Results - Metals
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.



B:\Projects\Duwamish Shipyard\(0800111-01)\CAD\FIGURES\Phase 1 RI Data Memo\\0800111-01-FIG 15-Subsurface Sed Results_TBT.dwg FIG15

Sep 07, 2011 4:28pm epipkin

HORIZONTAL DATUM: Washington State Plane North, NAD83.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

NOTES:
1. Aerial photo acquired from Google Earth Pro, 2010.
2. Sample locations are presented for accepted cores only from the LDW RI and DSI RI.

LEGEND:

- Topographic and Bathymetric Contours in Feet (MLLW)
- Subject Property Boundary
- Subsurface Sediment Station
- Top of Bank
- Navigation Channel
- Lone Star 92 Dredging - 1992
- Glacier NW Dredging - 2005
- Exceeds DMMP SL
- Below DMMP SL

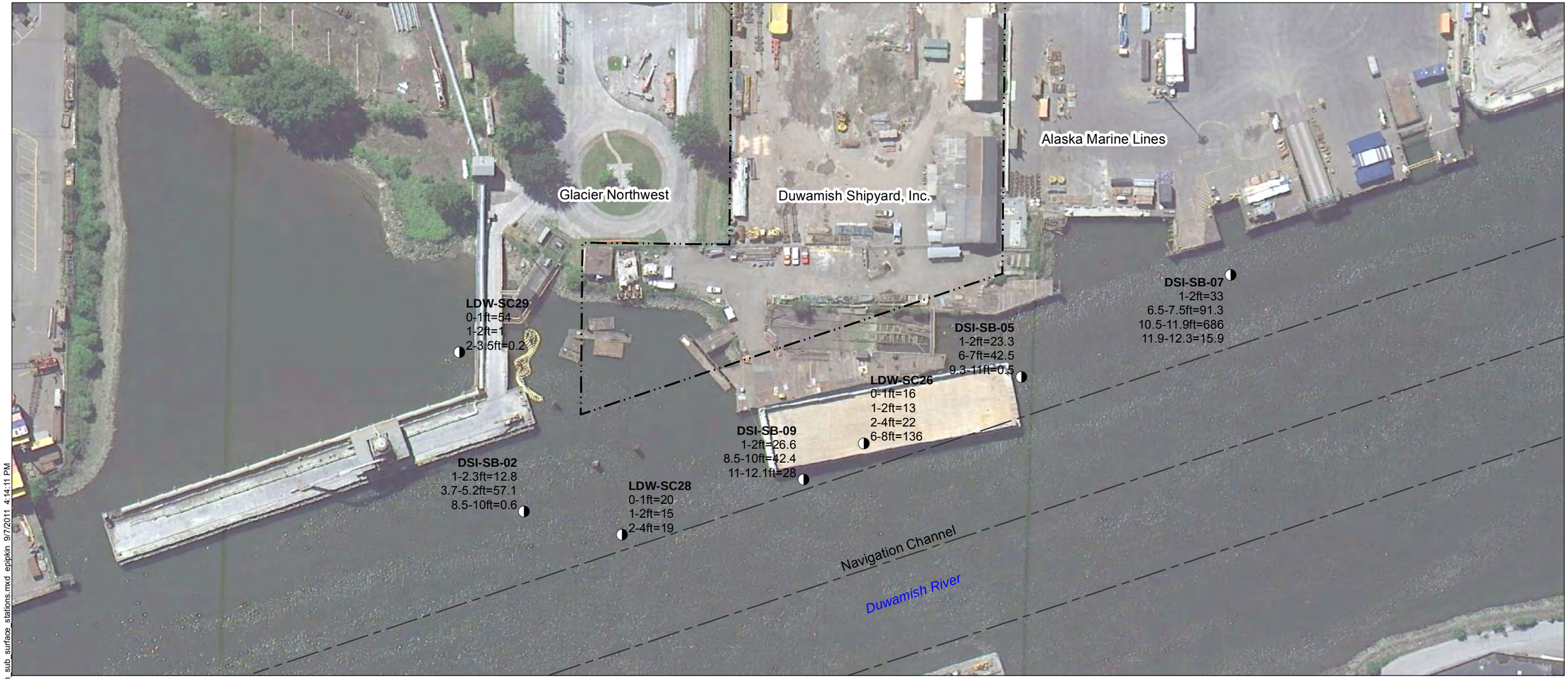
STRATIGRAPHIC UNIT

- RECENT ALLUVIUM
- UPPER ALLUVIUM
- LOWER ALLUVIUM
- GLACIER CAP (DSI-SB-02)

0 80
Scale in Feet

Figure 15
Subsurface Sediment Results - TBT
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.

ANCHOR QEA



Q:\Jobs\000111-DSI\Maps\2011_09\DSI_ecology_Dioxin_sub_surface_stations.mxd epipkin 9/7/2011 4:14:11 PM

HORIZONTAL DATUM: Washington State Plane North, NAD83 Feet.

NOTES:
1. Toxic equivalency (TEQ) values were calculated for the validated dioxin/furan congeners using the 2005 World Health Organization's toxic equivalency factors for mammals. Undetected congeners were assigned a concentration equal to half the detection limit (ND=1/2).
2. Sample depth intervals presented for recovered depths.
3. Aerial photo acquired from Google Earth Pro, 2010.

LEGEND

- Subsurface Sediment Station
- Subject Property
- Navigation Channel

Feet
0 75 150

ANCHOR QEA

Figure 16
Subsurface Sediment Dioxin TEQ
Phase 1 RI Data Memorandum
Duwamish Shipyard, Inc.

APPENDIX A
SUMMARY OF PREVIOUS SITE INVESTIGATIONS

Table A-1
Environmental Studies Summary

Existing Environmental Study[1]	Prepared By	Prepared For	Date	Purpose	Medium	No. Sample Stations	Station Type	Station ID
Previous Environmental Studies								
Results of Sampling and Analysis Sediment Monitoring Plan	Hart Crowser	Duwamish Shipyard, Inc.	November 17, 1993	NPDES Monitoring	Sediments	4	Surface Grab	SS-1 to SS-4
EPA Site Investigation						4	Surface Grab	DR054, DR090, DR120, DR121
Preliminary Investigation Data Report	Anchor Environmental	Duwamish Shipyard, Inc.	December 2006	Site Characterization	Upland	12	Soil-Geoprobe	DSI01 to DSI12
						12	GW-Geoprobe	DSI01 to DSI12
						2	GW-Monitoring Well	MW4 and MW5
						10	Catch Basin Solids	DSI13 to DSI23
Lower Duwamish Waterway Remdial Investigation Report-Final	Windward Environmental	EPA, Ecology	July 9, 2010	LDW Sediment Characterization	Sediments	9	Surface Grab	LDW-SS44 to LDW-SS49, LDW-SS51, LDW-SS53, LDW-SS55
						3	Subsurface Core	LDW-SC25, LDW-SC26, LDW-SC28
Remedial Investigation								
Phase 1 Remedial Investigation	Anchor QEA	Duwamish Shipyard, Inc.	July 2011	Site Characterization	Upland	20	Soil-Geoprobe	DSI-GP-01 to DSI-GP-17, DSI-GP-19 to DSI-GP-21
						8	Soil-Monitoring Well	DSI-MW-01 to DSI-MW-6, DSI-MW-08, DSI-MW-10
						14	GW-Geoprobe	DSI-GP-01 to DSI-GP-17, DSI-GP-19 to DSI-GP-21
						10	GW-Monitoring Well	DSI-MW-01 to DSI-MW-10
					Sediments	11	Surface Grab	DSI-SS-01 to DSI-SS-11
						17	Subsurface Core	DSI-SB-01 to DSI-SB-17

Notes:

1. Results of the Phase 1 RI and Preliminary Investigation are presented in this Phase 1 RI Data Memorandum. Results of the Lower Duwamish Waterway RI Report are presented in Appendix B.

EPA = U.S. Environmental Protection Agency

GW = groundwater

Hart Crowser = Hart Crowser, Inc.

NPDES = National Pollutant Discharge Elimination System

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC28	LDW-SC28	LDW-SC28
					Sample ID	LDW-SC26-0-1	LDW-SC26-1-2	LDW-SC26-2-4	LDW-SC26-6-8	DW-SC26-11.1-12.	LDW-SC28-0-1	LDW-SC28-1-2	LDW-SC28-2-4
					Sample Date	2/22/2006	2/22/2006	2/22/2006	2/22/2006	2/22/2006	2/24/2006	2/24/2006	2/24/2006
					Sample Depth	0-1 ft	1-2 ft	2-4 ft	6-8 ft	11.1-12.1 ft	0-1 ft	1-2 ft	2-4 ft
						West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI
Sediment Grain Size (Percent)													
Rocks (total calc'd)	--	--	--	--		0.8	0.6	0.1	--	--	0.7	1.3	1
Sand (total calc'd)	--	--	--	--		13.5	9.4	14.5	--	--	24.9	16.7	13
Silt (total calc'd)	--	--	--	--		61.9	64.2	60.6	--	--	54.9	62.4	63
Clay (total calc'd)	--	--	--	--		23.7	25.9	24.8	--	--	19.5	19.6	23.1
Fines (percent silt+clay)	--	--	--	--		85.6	90.1	85.4	--	--	74.4	82	86
Conventional Parameters													
Total Organic Carbon (TOC)	--	--	--	--		1.4	2.04	2.08	1.88	0.912	2.59	2.07	3.14
Total solids	--	--	--	--		47.7	53.1	54.3	62.25	77	52.25	52.4	49.1
Total solids (preserved)	--	--	--	--		--	--	--	--	--	--	--	--
Ammonia (total as nitrogen)	--	--	--	--		--	--	--	--	--	--	--	--
Sulfides (total)	--	--	--	--		--	--	--	--	--	--	--	--
Metals (mg/kg dry weight)													
Aluminum	--	--	--	--		--	--	--	--	--	--	--	--
Antimony	--	--	--	--		10 UJ	9 UJ	10 J	280 J	6 UJ	25 J	9 UJ	10 J
Arsenic	57	93	--	--		40	36	***67***	***1890***	6 U	***114***	18	30
Barium	--	--	--	--		--	--	--	--	--	--	--	--
Beryllium	--	--	--	--		--	--	--	--	--	--	--	--
Cadmium	5.1	6.7	--	--		0.5	0.5	0.6	4	0.3 U	0.6	0.6	0.4 U
Calcium	--	--	--	--		--	--	--	--	--	--	--	--
Chromium	260	270	--	--		37	61.7	38.7	160	14	37	32.4	33
Cobalt	--	--	--	--		11.2	11.9	15.8	106	4.8	13.7	9.4	11.4
Copper	390	390	--	--		146	173	***544***	***1950***	23	212	173	197
Iron	--	--	--	--		--	--	--	--	--	--	--	--
Lead	450	530	--	--		58 J	57 J	91 J	***1350***	9	114	40	65
Magnesium	--	--	--	--		--	--	--	--	--	--	--	--
Manganese	--	--	--	--		--	--	--	--	--	--	--	--
Mercury	0.41	0.59	--	--		0.28 J	0.28 J	***0.69 J***	***4.34***	--	0.37	0.2	0.24
Molybdenum	--	--	--	--		3	3.1	5.9	166	1.2	9.9 J	1 J	2 J
Nickel	--	--	--	--		27	32	26	60	12	23	23	25
Potassium	--	--	--	--		--	--	--	--	--	--	--	--
Selenium	--	--	--	--		10 U	9 U	9 U	40 U	6 U	9 U	9 U	10 U
Silver	6.1	6.1	--	--		0.6 U	0.5 U	0.8	3	0.4 U	0.5 U	0.5 U	0.6 U
Sodium	--	--	--	--		--	--	--	--	--	--	--	--
Thallium	--	--	--	--		10 U	9 U	9 U	40 U	6 U	9 U	9 U	10 U
Tin	--	--	--	--		--	--	--	--	--	--	--	--
Vanadium	--	--	--	--		78.9	78.5	80.1	67	47.7	67.5	68.9	71.1
Zinc	410	960	--	--		198	191	319	***3700***	43.1	405	203	244

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC28	LDW-SC28	LDW-SC28
					Sample ID	LDW-SC26-0-1	LDW-SC26-1-2	LDW-SC26-2-4	LDW-SC26-6-8	DW-SC26-11.1-12.	LDW-SC28-0-1	LDW-SC28-1-2	LDW-SC28-2-4
					Sample Date	2/22/2006	2/22/2006	2/22/2006	2/22/2006	2/22/2006	2/24/2006	2/24/2006	2/24/2006
					Sample Depth	0-1 ft	1-2 ft	2-4 ft	6-8 ft	11.1-12.1 ft	0-1 ft	1-2 ft	2-4 ft
						West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI
Organometallic Compounds (µg/kg dry weight)													
Monobutyltin as ion	--	--	--	--		3.9 U	4.5	6	9.1	--	4 U	3.9 U	3.9 U
Dibutyltin as ion	--	--	--	--		16	24	87	520	--	25 J	15	25
Tributyltin as ion	--	--	--	--		130	130	590	6200	--	160	55	120
Tetrabutyltin as ion	--	--	--	--		--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg organic carbon)													
2-Methylnaphthalene	38	64	--	--		7.1 U	2.9 U	4.8 U	5.9	--	2.3 U	2.9 U	1.9 U
Acenaphthylene	66	66	--	--		7.1 U	2.9 U	4.8 U	3.4 J	--	2.3 U	2.9 U	1.9 U
Acenaphthene	16	57	--	--		7.1 U	2.9 U	4.8 U	**48**	--	2.3 U	2.9 U	1.9 U
Anthracene	220	1200	--	--		5.6 J	2.5 J	3.6 J	69	--	3.9	2.3 J	1.5 J
Benzo(a)anthracene	110	270	--	--		19	8.3	15	**200**	--	12	7.7	4.5
Benzo(a)pyrene	99	210	--	--		24	13	19	**150**	--	10	7.2	5.4
Benzo(g,h,i)perylene	31	78	--	--		5.8 J	4	5.8	**53**	--	4.6	4	2.4
Chrysene	110	460	--	--		28	14	20	**210**	--	27	12	8.6
Dibenzo(a,h)anthracene	12	33	--	--		7.1 U	2.9 U	4.8 U	**21 J**	--	1.3 J	2 J	1.2 J
Fluoranthene	160	1200	--	--		36	18	36	**530**	--	37	6.3	3.8
Fluorene	23	79	--	--		7.1 U	2.9 U	4.8 U	22	--	1.5 J	2.9 U	1.9 U
Indeno(1,2,3-cd)pyrene	34	88	--	--		7.9	5.4	7.7	**53**	--	5	4.3	2.7
Naphthalene	99	170	--	--		7.1 U	2.9 U	4.8 U	12	--	2.3 U	2.9 U	1.9 U
Phenanthrene	100	480	--	--		14	5.4	12	**300**	--	12	5.8	3.8
Pyrene	1000	1400	--	--		33	20	42	520	--	37	17 J	13 J
Benzofluoranthenes (total-calc'd)	230	450	--	--		64	32	45	**280**	--	31	19	15
Total LPAH (calc'd)	370	780	--	--		19 J	7.8 J	15 J	**450 J**	--	17 J	8.2 J	5.4 J
Total HPAH (calc'd)	960	5300	--	--		220 J	110	190	**2000 J**	--	170 J	80 J	56 J
PAHs (µg/kg dry weight)													
1-Methylnaphthalene	--	--	--	--		99 U	60 U	100 U	84	--	60 U	60 U	60 U
2-Methylnaphthalene	--	--	670	1400		99 U	60 U	100 U	110	--	60 U	60 U	60 U
Acenaphthylene	--	--	1300	1300		99 U	60 U	100 U	63 J	--	60 U	60 U	60 U
Acenaphthene	--	--	500	730		99 U	60 U	100 U	900	--	60 U	60 U	60 U
Anthracene	--	--	960	4400		79 J	51 J	74 J	1300	--	100	48 J	47 J
Benzo(a)anthracene	--	--	1300	1600		260	170	310	3700	--	320	160	140
Benzo(a)pyrene	--	--	1600	3000		340	260	400	2800	--	270	150	170
Benzo(e)pyrene	--	--	--	--		--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--		470	340	480	3500	--	470	250	250
Benzo(k)fluoranthene	--	--	--	--		430	320	460	1700	--	340	150	210
Benzo(g,h,i)perylene	--	--	670	720		81 J	82	120	1000	--	120	83	74
Chrysene	--	--	1400	2800		390	280	420	3900	--	690	250	270
Dibenzo(a,h)anthracene	--	--	230	540		99 U	60 U	100 U	400 J	--	34 J	42 J	38 J
Fluoranthene	--	--	1700	2500		500	370	750	10000	--	950	130	120

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC28	LDW-SC28	LDW-SC28
					Sample ID	LDW-SC26-0-1	LDW-SC26-1-2	LDW-SC26-2-4	LDW-SC26-6-8	DW-SC26-11.1-12.	LDW-SC28-0-1	LDW-SC28-1-2	LDW-SC28-2-4
					Sample Date	2/22/2006	2/22/2006	2/22/2006	2/22/2006	2/22/2006	2/24/2006	2/24/2006	2/24/2006
					Sample Depth	0-1 ft	1-2 ft	2-4 ft	6-8 ft	11.1-12.1 ft	0-1 ft	1-2 ft	2-4 ft
						West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI
Fluorene	--	--	540	1000		99 U	60 U	100 U	420	--	40 J	60 U	60 U
Indeno(1,2,3-cd)pyrene	--	--	600	690		110	110	160	1000	--	130	89	85
Naphthalene	--	--	2100	2400		99 U	60 U	100 U	220	--	60 U	60 U	60 U
Phenanthrene	--	--	1500	5400		190	110	240	5600	--	300	120	120
Pyrene	--	--	2600	3300		460	400	880	9700	--	960	360 J	410 J
Benzofluoranthenes (total-calc'd)	--	--	3200	3600		900	660	940	5200	--	810	400	460
Total LPAH (calc'd)	--	--	5200	13000		270 J	160 J	310 J	8500 J	--	440 J	170 J	170 J
Total HPAH (calc'd)	--	--	12000	17000		3040 J	2330	3980	38000 J	--	4280 J	1660 J	1770 J
Total PAH (calc'd)	--	--	--	--		3310 J	2490 J	4290 J	46000 J	--	4720 J	1830 J	1930 J
Benzenes (mg/kg organic carbon)													
1,2-Dichlorobenzene	2.3	2.3	--	--		0.42 U	0.29 U	0.43	***3.9***	--	0.23 U	0.29 U	0.19 U
1,4-Dichlorobenzene	3.1	9	--	--		0.26 J	0.29 U	0.23 J	0.59	--	0.14 J	0.29 U	0.19 U
1,2,4-Trichlorobenzene	0.81	1.8	--	--		0.42 U	0.29 U	0.29 U	0.52	--	0.23 U	0.29 UJ	0.19 UJ
Hexachlorobenzene	0.38	2.3	--	--		**0.42 U**	0.29 U	0.29 U	0.35 U	--	0.23 U	0.29 U	0.19 U
Benzenes (µg/kg dry weight)													
1,2-Dichlorobenzene	--	--	35	50		5.9 U	6 U	9	73	--	6 U	6 U	6 U
1,3-Dichlorobenzene	--	--	--	--		99 U	60 U	100 U	6.5 U	--	60 U	60 U	60 U
1,4-Dichlorobenzene	--	--	110	120		3.6 J	6 U	4.8 J	11	--	3.6 J	6 U	6 U
1,2,4-Trichlorobenzene	--	--	31	51		5.9 U	6 U	6 U	9.8	--	6 U	6 UJ	6 UJ
Hexachlorobenzene	--	--	22	70		5.9 U	6 U	6 U	6.5 U	--	6 U	6 U	6 U
Nitrobenzene	--	--	--	--		99 U	60 U	100 U	65 U	--	60 U	60 U	60 U
Phthalates (mg/kg organic carbon)													
Bis(2-ethylhexyl)phthalate	47	78	--	--		24	16	28	***200***	--	20 U	15 U	8.9 U
Butyl benzyl phthalate	4.9	64	--	--		3.4	1.8	2	1.6 J	--	1.3	1.3	0.83
Diethyl phthalate	61	110	--	--		7.1 U	2.9 U	4.8 U	3.5 U	--	2.3 U	2.9 U	1.9 U
Dimethyl phthalate	53	53	--	--		7.1 U	2.9 U	4.8 U	1.1	--	2.3 U	2.9 U	1.9 U
Di-n-butyl phthalate	220	1700	--	--		7.1 U	2.9 U	4.8 U	3.5 U	--	2.3 U	2.9 U	1.9 U
Di-n-octyl phthalate	58	4500	--	--		7.1 U	2.9 U	4.8 U	3 J	--	2.3 U	2.9 U	1.9 U
Phthalates (µg/kg dry weight)													
Bis(2-ethylhexyl)phthalate	--	--	1300	1900		330	320	590	3800	--	510 U	310 U	280 U
Butyl benzyl phthalate	--	--	63	900		48	36	41	30 J	--	34	27	26
Diethyl phthalate	--	--	200	1200		99 U	60 U	100 U	65 U	--	60 U	60 U	60 U
Dimethyl phthalate	--	--	71	160		99 U	60 U	100 U	20	--	60 U	60 U	60 U
Di-n-butyl phthalate	--	--	1400	5100		99 U	60 U	100 U	65 U	--	60 U	60 U	60 U
Di-n-octyl phthalate	--	--	6200	--		99 U	60 U	100 U	57 J	--	60 U	60 U	60 U
Phenols (µg/kg dry weight)													
2-Chlorophenol	--	--	--	--		99 U	60 U	100 U	65 U	--	60 U	60 U	60 U
4-Chloro-3-methylphenol	--	--	--	--		500 U	300 U	500 U	330 U	--	300 U	300 U	300 U
2,4-Dichlorophenol	--	--	--	--		500 U	300 U	500 U	330 U	--	300 U	300 U	300 U

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC28	LDW-SC28	LDW-SC28
					Sample ID	LDW-SC26-0-1	LDW-SC26-1-2	LDW-SC26-2-4	LDW-SC26-6-8	DW-SC26-11.1-12.	LDW-SC28-0-1	LDW-SC28-1-2	LDW-SC28-2-4
					Sample Date	2/22/2006	2/22/2006	2/22/2006	2/22/2006	2/22/2006	2/24/2006	2/24/2006	2/24/2006
					Sample Depth	0-1 ft	1-2 ft	2-4 ft	6-8 ft	11.1-12.1 ft	0-1 ft	1-2 ft	2-4 ft
						West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI
2,4-Dimethylphenol	29	29	--	--		5.9 UJ	6 UJ	6 UJ	24 J	--	6 UJ	6 UJ	6 UJ
2,4-Dinitrophenol	--	--	--	--		990 UJ	600 UJ	1000 UJ	650 U	--	600 UJ	600 UJ	600 UJ
2-Methylphenol	63	63	--	--		5.9 UJ	6 UJ	6 UJ	12	--	6 U	6 UJ	4.2 J
4-Methylphenol	670	670	--	--		99 U	60 U	100 U	48 J	--	60 U	60 U	60 U
2,4,5-Trichlorophenol	--	--	--	--		500 U	300 U	500 U	330 U	--	300 U	300 U	300 U
2,4,6-Trichlorophenol	--	--	--	--		500 U	300 U	500 U	330 U	--	300 U	300 U	300 U
2-Nitrophenol	--	--	--	--		500 U	300 U	500 U	330 U	--	300 U	300 U	300 U
4-Nitrophenol	--	--	--	--		500 U	300 U	500 U	330 U	--	300 U	300 U	300 U
Pentachlorophenol	360	690	--	--		20 J	30 U	24 J	***800***	--	32	30 U	30 U
Phenol	420	1200	--	--		99 U	60 U	100 U	65 U	--	210	150	110
Misc Extractables (mg/kg organic carbon)													
Dibenzofuran	15	58	--	--		7.1 U	2.9 U	4.8 U	**19**	--	2.3 U	2.9 U	1.9 U
Hexachlorobutadiene	3.9	6.2	--	--		0.42 U	0.29 U	0.29 U	0.35 U	--	0.23 U	0.29 U	0.19 U
N-Nitrosodiphenylamine	11	11	--	--		2.1 U	1.2 U	1.8 U	***34 U***	--	1.4 U	1.1 U	0.73 U
Misc Extractables (µg/kg dry weight)													
2-Nitroaniline	--	--	--	--		500 U	300 U	500 U	330 U	--	300 U	300 U	300 U
3-Nitroaniline	--	--	--	--		500 UJ	300 UJ	500 UJ	330 U	--	300 U	300 U	300 U
4-Nitroaniline	--	--	--	--		500 U	300 U	500 U	330 U	--	300 U	300 U	300 U
3,3'-Dichlorobenzidine	--	--	--	--		500 UJ	300 UJ	500 UJ	330 U	--	300 UJ	300 UJ	300 UJ
4-Chloroaniline	--	--	--	--		500 UJ	300 UJ	500 UJ	330 U	--	300 UJ	300 UJ	300 UJ
Aniline	--	--	--	--		99 UJ	60 UJ	100 UJ	65 U	--	60 UJ	60 UJ	60 UJ
Benzyl alcohol	57	73	--	--		30 U	30 U	30 U	33 U	--	***110***	30 U	30 U
Benzoic acid	650	650	--	--		160	100	80	590 U	--	200 J	98 J	85 J
Carbazole	--	--	--	--		--	--	--	--	--	--	--	--
Dibenzofuran	--	--	540	700		99 U	60 U	100 U	360	--	60 U	60 U	60 U
Hexachlorobutadiene	--	--	11	120		5.9 U	6 U	6 U	6.5 U	--	6 U	6 U	6 U
Hexachloroethane	--	--	--	--		99 U	60 U	100 U	65 U	--	60 U	60 U	60 U
Hexachlorocyclopentadiene	--	--	--	--		500 U	300 U	500 U	330 U	--	300 UJ	300 UJ	300 UJ
Isophorone	--	--	--	--		99 U	60 U	100 U	65 U	--	60 U	60 U	60 U
N-Nitroso-di-n-propylamine	--	--	--	--		30 UJ	30 UJ	30 UJ	33 U	--	30 U	30 UJ	30 UJ
N-Nitrosodimethylamine	--	--	--	--		30 U	30 U	30 U	33 U	--	30 U	30 U	30 U
N-Nitrosodiphenylamine	--	--	28	40		30 U	24 U	38 U	640 U	--	35 U	22 U	23 U
Ethers (µg/kg dry weight)													
4-Bromophenyl phenyl ether	--	--	--	--		99 U	60 U	100 U	65 U	--	60 U	60 U	60 U
4-Chlorophenyl phenyl ether	--	--	--	--		99 U	60 U	100 U	65 U	--	60 U	60 U	60 U
bis(2-chloroethyl)ether	--	--	--	--		99 U	60 U	100 U	65 U	--	60 U	60 U	60 U
bis(2-chloroisopropyl)ether	--	--	--	--		99 U	60 U	100 U	65 U	--	60 U	60 U	60 U
Pesticides (µg/kg dry weight)													
2,4'-DDD	--	--	--	--		--	--	--	--	--	--	--	--

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC28	LDW-SC28	LDW-SC28
					Sample ID	LDW-SC26-0-1	LDW-SC26-1-2	LDW-SC26-2-4	LDW-SC26-6-8	DW-SC26-11.1-12.	LDW-SC28-0-1	LDW-SC28-1-2	LDW-SC28-2-4
					Sample Date	2/22/2006	2/22/2006	2/22/2006	2/22/2006	2/22/2006	2/24/2006	2/24/2006	2/24/2006
					Sample Depth	0-1 ft	1-2 ft	2-4 ft	6-8 ft	11.1-12.1 ft	0-1 ft	1-2 ft	2-4 ft
						West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI
2,4'-DDE	--	--	--	--		--	--	--	--	--	--	--	--
2,4'-DDT	--	--	--	--		--	--	--	--	--	--	--	--
4,4'-DDD	--	--	--	--		--	--	--	--	--	--	--	--
4,4'-DDE	--	--	--	--		--	--	--	--	--	--	--	--
4,4'-DDT	--	--	--	--		--	--	--	--	--	--	--	--
Aldrin	--	--	--	--		--	--	--	--	--	--	--	--
alpha-Chlordane	--	--	--	--		--	--	--	--	--	--	--	--
alpha-BHC	--	--	--	--		--	--	--	--	--	--	--	--
beta-BHC	--	--	--	--		--	--	--	--	--	--	--	--
delta-BHC	--	--	--	--		--	--	--	--	--	--	--	--
gamma-BHC	--	--	--	--		--	--	--	--	--	--	--	--
gamma-Chlordane	--	--	--	--		--	--	--	--	--	--	--	--
Oxychlordane	--	--	--	--		--	--	--	--	--	--	--	--
Dieldrin	--	--	--	--		--	--	--	--	--	--	--	--
alpha-Endosulfan	--	--	--	--		--	--	--	--	--	--	--	--
beta-Endosulfan	--	--	--	--		--	--	--	--	--	--	--	--
Endosulfan sulfate	--	--	--	--		--	--	--	--	--	--	--	--
Endrin	--	--	--	--		--	--	--	--	--	--	--	--
Endrin aldehyde	--	--	--	--		--	--	--	--	--	--	--	--
Endrin ketone	--	--	--	--		--	--	--	--	--	--	--	--
Heptachlor	--	--	--	--		--	--	--	--	--	--	--	--
Heptachlor epoxide	--	--	--	--		--	--	--	--	--	--	--	--
Toxaphene	--	--	--	--		--	--	--	--	--	--	--	--
Total aldrin/dieldrin (calc'd)	--	--	--	--		--	--	--	--	--	--	--	--
DDTs (total-calc'd)	--	--	--	--		--	--	--	--	--	--	--	--
Total Chlordane (calc'd)	--	--	--	--		--	--	--	--	--	--	--	--
Herbicides (µg/kg dry weight)													
Methoxychlor	--	--	--	--		--	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Aroclors (mg/kg organic carbon)													
PCBs (total calc'd)	12	65	--	--		**20**	11	**15**	***120***	**15**	**17**	**17 J**	9.2
PCB Aroclors (µg/kg dry weight)													
Aroclor-1016	--	--	--	--		7.9 U	7.9 U	8 U	170 U	4 U	39 U	77 U	40 U
Aroclor-1221	--	--	--	--		7.9 U	7.9 U	8 U	170 U	4 U	39 U	77 U	40 U
Aroclor-1232	--	--	--	--		7.9 U	7.9 U	8 U	170 U	4 U	39 U	77 U	40 U
Aroclor-1242	--	--	--	--		7.9 U	7.9 U	8 U	370	31	39 U	77 U	40 U
Aroclor-1248	--	--	--	--		60	48	60	170 U	4 U	99	65 J	55
Aroclor-1254	--	--	--	--		110	81	140	1300	67	180	110	110
Aroclor-1260	--	--	--	--		110	97	110	610	42	160	180	120
PCBs (total calc'd)	--	--	130	1000		280	226	310	2300	140	440	360 J	290

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	Location ID	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC28	LDW-SC28	LDW-SC28
				Sample ID	LDW-SC26-0-1	LDW-SC26-1-2	LDW-SC26-2-4	LDW-SC26-6-8	DW-SC26-11.1-12.	LDW-SC28-0-1	LDW-SC28-1-2	LDW-SC28-2-4
				Sample Date	2/22/2006	2/22/2006	2/22/2006	2/22/2006	2/22/2006	2/24/2006	2/24/2006	2/24/2006
				Sample Depth	0-1 ft	1-2 ft	2-4 ft	6-8 ft	11.1-12.1 ft	0-1 ft	1-2 ft	2-4 ft
			SMS 2LAET[a]		West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI
PCBs Congeners (ng/kg dry weight)												
PCB-018	--	--	--	--	--	--	--	--	--	--	--	--
PCB-028	--	--	--	--	--	--	--	--	--	--	--	--
PCB-044	--	--	--	--	--	--	--	--	--	--	--	--
PCB-055	--	--	--	--	--	--	--	--	--	--	--	--
PCB-066	--	--	--	--	--	--	--	--	--	--	--	--
PCB-077	--	--	--	--	--	--	--	--	--	--	--	--
PCB-081	--	--	--	--	--	--	--	--	--	--	--	--
PCB-090	--	--	--	--	--	--	--	--	--	--	--	--
PCB-101	--	--	--	--	--	--	--	--	--	--	--	--
PCB-105	--	--	--	--	--	--	--	--	--	--	--	--
PCB-110	--	--	--	--	--	--	--	--	--	--	--	--
PCB-114	--	--	--	--	--	--	--	--	--	--	--	--
PCB-118	--	--	--	--	--	--	--	--	--	--	--	--
PCB-123	--	--	--	--	--	--	--	--	--	--	--	--
PCB-126	--	--	--	--	--	--	--	--	--	--	--	--
PCB-128	--	--	--	--	--	--	--	--	--	--	--	--
PCB-129	--	--	--	--	--	--	--	--	--	--	--	--
PCB-138	--	--	--	--	--	--	--	--	--	--	--	--
PCB-153	--	--	--	--	--	--	--	--	--	--	--	--
PCB-156	--	--	--	--	--	--	--	--	--	--	--	--
PCB-157	--	--	--	--	--	--	--	--	--	--	--	--
PCB-167	--	--	--	--	--	--	--	--	--	--	--	--
PCB-169	--	--	--	--	--	--	--	--	--	--	--	--
PCB-170	--	--	--	--	--	--	--	--	--	--	--	--
PCB-180	--	--	--	--	--	--	--	--	--	--	--	--
PCB-187	--	--	--	--	--	--	--	--	--	--	--	--
PCB-189	--	--	--	--	--	--	--	--	--	--	--	--
PCB-195	--	--	--	--	--	--	--	--	--	--	--	--
PCB-206	--	--	--	--	--	--	--	--	--	--	--	--
PCB-209	--	--	--	--	--	--	--	--	--	--	--	--
PCB Toxic Equivalents Quotient(TEQ) - Bird - Half	--	--	--	--	--	--	--	--	--	--	--	--
PCB TEQ - Mammal - Half DL	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin/Furans (ng/kg dry weight)												
1,2,3,4,6,7,8-HpCDD	--	--	--	--	486	393	732	5930	--	638	513	496
1,2,3,4,6,7,8-HpCDF	--	--	--	--	106	63.6	118	873	--	143	73.8	87.8
1,2,3,4,7,8,9-HpCDF	--	--	--	--	9.01	5.67	11	63.4	--	12.1	6.35	8.85
1,2,3,4,7,8-HxCDD	--	--	--	--	2.83	2.87	3.9	11.2	--	3.39	2.51	2.7
1,2,3,4,7,8-HxCDF	--	--	--	--	11.7	9.12	15.9	40.6	--	14.1	10.5	26.6

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC26	LDW-SC28	LDW-SC28	LDW-SC28
					Sample ID	LDW-SC26-0-1	LDW-SC26-1-2	LDW-SC26-2-4	LDW-SC26-6-8	DW-SC26-11.1-12.	LDW-SC28-0-1	LDW-SC28-1-2	LDW-SC28-2-4
					Sample Date	2/22/2006	2/22/2006	2/22/2006	2/22/2006	2/22/2006	2/24/2006	2/24/2006	2/24/2006
					Sample Depth	0-1 ft	1-2 ft	2-4 ft	6-8 ft	11.1-12.1 ft	0-1 ft	1-2 ft	2-4 ft
						West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI
1,2,3,6,7,8-HxCDD	--	--	--	--		16.9	14.1	24.4	184	--	21.8	17.5	18.7
1,2,3,6,7,8-HxCDF	--	--	--	--		3.56	2.99	4.5	12.7	--	3.84	3.03	5.78
1,2,3,7,8,9-HxCDD	--	--	--	--		10.5	9.44	13.5	52.3	--	11.4	9.85	10.1
1,2,3,7,8,9-HxCDF	--	--	--	--		0.226 J	0.283 J	0.361 J	0.983 J	--	0.436 J	0.537 U	0.413 J
1,2,3,7,8-PeCDD	--	--	--	--		1.9	1.77	2.69	10.5	--	2.05	1.71	1.81
1,2,3,7,8-PeCDF	--	--	--	--		1.51	1.32	1.73	3.24	--	1.37	1.16	1.56
2,3,4,6,7,8-HxCDF	--	--	--	--		2.62	2.23	3.51	9.77	--	3.01	2.12	3.1
2,3,4,7,8-PeCDF	--	--	--	--		3.46	2.67	3.94	5.92	--	3.68	2.47	5.25
2,3,7,8-TCDD	--	--	--	--		0.485	0.524	0.829	3.36	--	0.636	0.524	0.551
2,3,7,8-TCDF	--	--	--	--		1.6	1.16	1.66	3.32	--	1.8	1.26	1.31
OCDD	--	--	--	--		4540	3450	7140	62000	--	6770	3710	5480
OCDF	--	--	--	--		347	176	393	4420	--	517	237	219
Dioxin/furan TEQ - Bird - Half DL	--	--	--	--		12.9 J	10.4 J	16.3 J	59.4 J	--	14.9 J	10.7	16 J
Dioxin/furan TEQ - Fish Sheboygan - Half DL	--	--	--	--		10.7 J	8.8 J	14.4 J	57.2 J	--	12.8 J	9.39	15.6 J
Dioxin/furan TEQ - Fish WHO - Half DL	--	--	--	--		9.89 J	8.33 J	13.2 J	53.5 J	--	11.8 J	8.42	12.4 J
Dioxin/furan TEQ - Mammal WHO 1998 - Half DL	--	--	--	--		15.7 J	12.9 J	21.7 J	124 J	--	19.2 J	14.6	18.4 J
						15.9 J	13.1 J	22.4 J	136 J	--	19.9 J	14.8	18.5 J

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC28	LDW-SC28	LDW-SS49	LDW-SS51	LDW-SS53	DR120	DR121	LDW-SC25	LDW-SC25
					Sample ID	LDW-SC28-5.5-7.5	LDW-SC28-12-12.6	LDW-SS49-010	LDW-SS51-010	LDW-SS53-010	SD-DR120-0000	SD-DR121-0000	LDW-SC25-0-1	LDW-SC25-1-2
					Sample Date	2/24/2006	2/24/2006	1/26/2005	1/18/2005	2/2/2005	8/12/1998	8/31/1998	2/17/2006	2/17/2006
					Sample Depth	5.5-7.5 ft	12-12.6 FT	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-1 ft	1-2 ft
						West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - AML	West Nav. Channel - AML
Sediment Grain Size (Percent)														
Rocks (total calc'd)	--	--	--	--	--	--	--	5.1	0.5	0.1 U	1.8	0.01 U	1.3	1.3
Sand (total calc'd)	--	--	--	--	--	--	--	37.1	22.7	11.3	41	5 J	20.5	17.3
Silt (total calc'd)	--	--	--	--	--	--	--	37.5	54.1	64.7	42	68	56.8	58.7
Clay (total calc'd)	--	--	--	--	--	--	--	20.3	22.6	24	15	26	21.5	22.7
Fines (percent silt+clay)	--	--	--	--	--	--	--	57.8	76.7	88.7	57	94	78.3	81.4
Conventional Parameters														
Total Organic Carbon (TOC)	--	--	--	--	1.61	1.31	2.47	2.13	2.64	2.78	2.39	1.94	1.47	
Total solids	--	--	--	--	68.4	64.2	53.1	47.9	44.7	--	--	47.5	52.2	
Total solids (preserved)	--	--	--	--	--	--	56.7	39.6	42.8	--	--	--	--	
Ammonia (total as nitrogen)	--	--	--	--	--	--	27.6	8.06	5.99	--	--	--	--	
Sulfides (total)	--	--	--	--	--	--	73	19 J	28	--	--	--	--	
Metals (mg/kg dry weight)														
Aluminum	--	--	--	--	--	--	--	--	--	--	19000	27000	--	--
Antimony	--	--	--	--	130 J	7 UJ	1.8 J	0.4 UJ	0.4 U	10 UJ	10 UJ	10 UJ	16 J	
Arsenic	57	93	--	--	***760***	17	***171***	16.9	39.7	19	18	50	**91**	
Barium	--	--	--	--	--	--	--	--	--	89	97	--	--	
Beryllium	--	--	--	--	--	--	--	--	--	0.42	0.48	--	--	
Cadmium	5.1	6.7	--	--	1.4	0.6	1	0.6	0.7	0.54	0.42	0.4	0.5	
Calcium	--	--	--	--	--	--	--	--	--	10000	8000	--	--	
Chromium	260	270	--	--	65	28	53	38	42	28	39	42	44.7	
Cobalt	--	--	--	--	50	7.6	24	10.5	12	10	11	11.6	14.5	
Copper	390	390	--	--	***1480***	68.5	***605***	127	163 J	180	110	327	339	
Iron	--	--	--	--	--	--	--	--	--	32000 J	38000 J	--	--	
Lead	450	530	--	--	***583***	37	210	64	74	53	47	76	98	
Magnesium	--	--	--	--	--	--	--	--	--	8100	9800	--	--	
Manganese	--	--	--	--	--	--	--	--	--	420	440	--	--	
Mercury	0.41	0.59	--	--	***0.72***	0.3	0.36	0.3	0.31	0.21	0.27	0.27	0.3	
Molybdenum	--	--	--	--	61	9.9	18	2	3	--	--	4	6.5	
Nickel	--	--	--	--	37	17	30	24	26	21	24	24	26	
Potassium	--	--	--	--	--	--	--	--	--	2700	3400	--	--	
Selenium	--	--	--	--	20 U	7 U	20 U	10 UJ	10 U	1	18 J	10 U	9 U	
Silver	6.1	6.1	--	--	2	0.5	1 U	0.8	0.7 U	0.39	0.35	0.6 U	0.5 U	
Sodium	--	--	--	--	--	--	--	--	--	13000	13000	--	--	
Thallium	--	--	--	--	20 U	7 U	0.4 U	0.4 U	0.4 U	0.12	0.1	10 U	9 U	
Tin	--	--	--	--	--	--	--		--	9	19	--	--	
Vanadium	--	--	--	--	92	59.2	79	73.2	81.1	54	83	73.1	75.1	
Zinc	410	960	--	--	***1880***	97.5	**768**	190	247 J	240	170	263	**503**	

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC28	LDW-SC28	LDW-SS49	LDW-SS51	LDW-SS53	DR120	DR121	LDW-SC25	LDW-SC25
					Sample ID	LDW-SC28-5.5-7.5	LDW-SC28-12-12.6	LDW-SS49-010	LDW-SS51-010	LDW-SS53-010	SD-DR120-0000	SD-DR121-0000	LDW-SC25-0-1	LDW-SC25-1-2
					Sample Date	2/24/2006	2/24/2006	1/26/2005	1/18/2005	2/2/2005	8/12/1998	8/31/1998	2/17/2006	2/17/2006
					Sample Depth	5.5-7.5 ft	12-12.6 FT	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-1 ft	1-2 ft
						West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - AML	West Nav. Channel - AML
Organometallic Compounds (µg/kg dry weight)														
Monobutyltin as ion	--	--	--	--		46	3.9 U	8 J	--	--	--	19 J	12	13
Dibutyltin as ion	--	--	--	--		960	5.6 U	59	7.8	5.6 U	--	29 J	72	64
Tributyltin as ion	--	--	--	--		3400	4.8	140	28	6.3	--	120 J	220	350
Tetrabutyltin as ion	--	--	--	--		--	--	--	--	--	--	5 UJ	--	--
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg organic carbon)														
2-Methylnaphthalene	38	64	--	--		4.1 U	4.7 U	4 U	0.94 U	0.76 U	3.2	0.84 U	3.5 U	4.1 U
Acenaphthylene	66	66	--	--		4.1 U	4.7 U	4 U	0.94 U	0.76 U	1.8	0.84 U	3.5 U	2.1 J
Acenaphthene	16	57	--	--		14	2.4 J	2 J	0.94 U	0.76 U	6.1	0.84	2 J	2.4 J
Anthracene	220	1200	--	--		28	2.4 J	6.1	1.8	3.4	17	2.9	8.8	10
Benzo(a)anthracene	110	270	--	--		81	8.4	13	6.1	42	86	10	26	43
Benzo(a)pyrene	99	210	--	--		59	9.2	11	5.6	16	22	9.6	26	40
Benzo(g,h,i)perylene	31	78	--	--		27	4.7 J	6.1	1.8	2.2	14	6.7	6.7	9.5
Chrysene	110	460	--	--		87	8.4	23	13	17	**120**	15	47	67
Dibenzo(a,h)anthracene	12	33	--	--		**12**	3.3	4 U	0.94 U	1.3	5.8	1.7	3.5 U	3.3 J
Fluoranthene	160	1200	--	--		**250**	24	40	15	28	**500**	25	47	95
Fluorene	23	79	--	--		9.9	4.7 U	2.8 J	0.94 U	1.1	6.8	1.3	2.7 J	2.5 J
Indeno(1,2,3-cd)pyrene	34	88	--	--		25	5.3	5.7	2.2	7.6	17	7.1	9.3	14
Naphthalene	99	170	--	--		2.8 J	6.1	4 U	0.94 U	0.76 U	3.6	0.84 U	3.5 U	4.1 U
Phenanthrene	100	480	--	--		**110**	7	20	5.2	6.8	**140**	7.1	21	23
Pyrene	1000	1400	--	--		220	23	29	11	16	180	19	47	120
Benzofluoranthenes (total-calc'd)	230	450	--	--		110	18	21	13	42	100	23	64	110
Total LPAH (calc'd)	370	780	--	--		160 J	18 J	31 J	7	11	180	12	35 J	40 J
Total HPAH (calc'd)	960	5300	--	--		880	100 J	150	68	170	**1000**	120	270	500 J
PAHs (µg/kg dry weight)														
1-Methylnaphthalene	--	--	--	--		66 U	61 U	--	--	--	--	--	68 U	60 U
2-Methylnaphthalene	--	--	670	1400		66 U	61 U	98 U	20 U	20 U	90	20 U	68 U	60 U
Acenaphthylene	--	--	1300	1300		66 U	61 U	98 U	20 U	20 U	50	20 U	68 U	31 J
Acenaphthene	--	--	500	730		220	32 J	50 J	20 U	20 U	170	20	38 J	35 J
Anthracene	--	--	960	4400		450	32 J	150	39	91	480	70	170	150
Benzo(a)anthracene	--	--	1300	1600		1300	110	320	130	1100	2400	250	500	630
Benzo(a)pyrene	--	--	1600	3000		950	120	280	120	410	620	230	500	590
Benzo(e)pyrene	--	--	--	--		--	--	--	--	--	--	--		
Benzo(b)fluoranthene	--	--	--	--		1000	98	320	170	780	2000	320	720	850
Benzo(k)fluoranthene	--	--	--	--		830	140	200	110	320	890	220	530	720
Benzo(g,h,i)perylene	--	--	670	720		440	61 J	150	38	59	380	160	130	140
Chrysene	--	--	1400	2800		1400	110	570	270	460	3300	360	920	990
Dibenzo(a,h)anthracene	--	--	230	540		200	43	98 U	20 U	34	160	40	68 U	48 J
Fluoranthene	--	--	1700	2500		4100	310	1000	330	750	14000	600	910	1400

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC28	LDW-SC28	LDW-SS49	LDW-SS51	LDW-SS53	DR120	DR121	LDW-SC25	LDW-SC25
					Sample ID	LDW-SC28-5.5-7.5	LDW-SC28-12-12.6	LDW-SS49-010	LDW-SS51-010	LDW-SS53-010	SD-DR120-0000	SD-DR121-0000	LDW-SC25-0-1	LDW-SC25-1-2
					Sample Date	2/24/2006	2/24/2006	1/26/2005	1/18/2005	2/2/2005	8/12/1998	8/31/1998	2/17/2006	2/17/2006
					Sample Depth	5.5-7.5 ft	12-12.6 FT	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-1 ft	1-2 ft
						West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - AML	West Nav. Channel - AML
Fluorene	--	--	540	1000		160	61 U	68 J	20 U	29	190	30	52 J	37 J
Indeno(1,2,3-cd)pyrene	--	--	600	690		400	69	140	46	200	470	170	180	200
Naphthalene	--	--	2100	2400		45 J	80	98 U	20 U	20 U	100	20 U	68 U	60 U
Phenanthrene	--	--	1500	5400		1700	92	490	110	180	3900	170	410	340
Pyrene	--	--	2600	3300		3600	300	720	240	420	4900	460	920	1800
Benzofluoranthenes (total-calc'd)	--	--	3200	3600		1800	240	520	280	1100	2900	540	1250	1570
Total LPAH (calc'd)	--	--	5200	13000		2600 J	236 J	760 J	150	300	4900	290	670 J	590 J
Total HPAH (calc'd)	--	--	12000	17000		14200	1360 J	3700	1450	4500	29000	2810	5310	7400 J
Total PAH (calc'd)	--	--	--	--		16800 J	1600 J	4500 J	1600	4800	34000	3100	5980 J	8000 J
Benzenes (mg/kg organic carbon)														
1,2-Dichlorobenzene	2.3	2.3	--	--		***9.9***	0.47 U	***4 U***	0.31 U	0.76 U	0.72 U	0.84 U	0.35 U	0.41 U
1,4-Dichlorobenzene	3.1	9	--	--		1.5	0.47 U	**4 U**	0.31 U	0.76 U	0.72 U	0.84 U	0.35 U	0.41 U
1,2,4-Trichlorobenzene	0.81	1.8	--	--		0.68	0.47 UJ	***4 U***	0.31 U	0.76 U	0.72 U	**0.84 U**	0.35 UJ	0.41 UJ
Hexachlorobenzene	0.38	2.3	--	--		**0.41 U**	**0.47 U**	***4 U***	0.31 U	0.038 U	**0.72 U**	**0.84 U**	0.35 U	**0.41 U**
Benzenes (µg/kg dry weight)														
1,2-Dichlorobenzene	--	--	35	50		160	6.1 U	98 U	6.6 U	20 U	20 U	20 U	6.8 U	6 U
1,3-Dichlorobenzene	--	--	--	--		7.2	61 U	98 U	20 U	20 U	20 U	20 U	68 U	60 U
1,4-Dichlorobenzene	--	--	110	120		24	6.1 U	98 U	6.6 U	20 U	20 U	20 U	6.8 U	6 U
1,2,4-Trichlorobenzene	--	--	31	51		11	6.1 UJ	98 U	6.6 U	20 U	20 U	20 U	6.8 UJ	6 UJ
Hexachlorobenzene	--	--	22	70		6.6 U	6.1 U	98 U	6.6 U	0.99 U	20 U	20 U	6.8 U	6 U
Nitrobenzene	--	--	--	--		66 U	61 U	98 U	20 U	20 U	20 U	20 U	68 U	60 U
Phthalates (mg/kg organic carbon)														
Bis(2-ethylhexyl)phthalate	47	78	--	--		**62**	7.3	6.5	5.6 U	7.6	16	14	18	22
Butyl benzyl phthalate	4.9	64	--	--		1.7	0.47 U	4 U	1.3	0.95	0.72 U	1.3	1.4	2.2
Diethyl phthalate	61	110	--	--		4.1 U	4.7 U	4 U	0.31 U	0.76 U	0.72 U	0.84 U	3.5 U	4.1 U
Dimethyl phthalate	53	53	--	--		0.99	4.7 U	4 U	0.31 U	0.76 U	0.72 U	0.84 U	3.5 U	4.1 U
Di-n-butyl phthalate	220	1700	--	--		4.1 U	2.4 J	4 U	0.94 U	0.76 U	1.1	0.84 U	3.5 U	5.6 U
Di-n-octyl phthalate	58	4500	--	--		3.5 J	4.7 U	4 U	0.94 U	0.76 U	0.72 U	0.84 U	3.5 U	4.1 U
Phthalates (µg/kg dry weight)														
Bis(2-ethylhexyl)phthalate	--	--	1300	1900		1000	96	160	120 U	200	440	340	350	320
Butyl benzyl phthalate	--	--	63	900		28	6.1 U	98 U	28	25	20 U	30	27	32
Diethyl phthalate	--	--	200	1200		66 U	61 U	98 U	6.6 U	20 U	20 U	20 U	68 U	60 U
Dimethyl phthalate	--	--	71	160		16	61 U	98 U	6.6 U	20 U	20 U	20 U	68 U	60 U
Di-n-butyl phthalate	--	--	1400	5100		66 U	31 J	98 U	20 U	20 U	30	20 U	68 U	83 U
Di-n-octyl phthalate	--	--	6200	--		56 J	61 U	98 U	20 U	20 U	20 U	20 U	68 U	60 U
Phenols (µg/kg dry weight)														
2-Chlorophenol	--	--	--	--		66 U	61 U	98 U	20 U	20 U	20 U	20 U	68 U	60 U
4-Chloro-3-methylphenol	--	--	--	--		330 U	310 U	490 U	98 U	99 U	40 U	40 U	340 U	300 U
2,4-Dichlorophenol	--	--	--	--		330 U	310 U	490 U	98 U	99 U	60 U	60 U	340 U	300 U

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC28	LDW-SC28	LDW-SS49	LDW-SS51	LDW-SS53	DR120	DR121	LDW-SC25	LDW-SC25
					Sample ID	LDW-SC28-5.5-7.5	LDW-SC28-12-12.6	LDW-SS49-010	LDW-SS51-010	LDW-SS53-010	SD-DR120-0000	SD-DR121-0000	LDW-SC25-0-1	LDW-SC25-1-2
					Sample Date	2/24/2006	2/24/2006	1/26/2005	1/18/2005	2/2/2005	8/12/1998	8/31/1998	2/17/2006	2/17/2006
					Sample Depth	5.5-7.5 ft	12-12.6 FT	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-1 ft	1-2 ft
						West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - AML	West Nav. Channel - AML
2,4-Dimethylphenol	29	29	--	--		8.5 J	4.3 J	***98 U***	6.6 U	20 U	20 U	20 U	6.8 UJ	6 UJ
2,4-Dinitrophenol	--	--	--	--		660 U	610 UJ	980 U	200 UJ	200 U	200 U	200 U	680 UJ	600 UJ
2-Methylphenol	63	63	--	--		6.6	6.1 U	***98 U***	6.6 U	20 U	20 U	20 U	4.1 J	6 U
4-Methylphenol	670	670	--	--		37 J	61 U	98 U	20 U	20 U	20 U	20 U	68 U	60 U
2,4,5-Trichlorophenol	--	--	--	--		330 U	310 U	490 U	98 U	99 U	200 U	200 U	340 U	300 U
2,4,6-Trichlorophenol	--	--	--	--		330 U	310 U	490 U	98 U	99 U	200 U	200 U	340 U	300 U
2-Nitrophenol	--	--	--	--		330 U	310 U	490 U	98 U	99 U	100 U	100 U	340 U	300 U
4-Nitrophenol	--	--	--	--		330 U	310 U	490 U	98 U	99 U	100 U	100 U	340 U	300 U
Pentachlorophenol	360	690	--	--		**410**	31 U	**490 U**	33 UJ	99 U	100 U	100 U	20 J	21 J
Phenol	420	1200	--	--		66 U	61 U	240	20 U	59 U	80	30	68 U	60 U
Misc Extractables (mg/kg organic carbon)														
Dibenzofuran	15	58	--	--		5	4.7 U	4 U	0.94 U	0.76 U	12	0.84	3.5 U	4.1 U
Hexachlorobutadiene	3.9	6.2	--	--		0.41 U	0.47 U	**4 U**	0.31 U	0.038 U	0.72 U	0.84 U	0.35 U	0.41 U
N-Nitrosodiphenylamine	11	11	--	--		***19 U***	2.3 UJ	4 U	0.31 U	0.76 U	1.4 U	1.7 U	1.7 U	2.2 U
Misc Extractables (µg/kg dry weight)														
2-Nitroaniline	--	--	--	--		330 U	310 U	490 U	98 U	99 U	100 U	100 U	340 U	300 U
3-Nitroaniline	--	--	--	--		330 U	310 U	490 U	98 U	99 U	200 U	200 U	340 UJ	300 UJ
4-Nitroaniline	--	--	--	--		330 U	310 U	490 U	98 U	99 U	100 U	100 U	340 U	300 U
3,3'-Dichlorobenzidine	--	--	--	--		330 U	310 U	490 U	98 U	99 U	200 U	200 U	340 UJ	300 UJ
4-Chloroaniline	--	--	--	--		330 U	310 U	490 U	98 U	99 U	60 U	60 U	340 UJ	300 UJ
Aniline	--	--	--	--		66 U	61 U	98 U	20 U	20 U	--	--	68 UJ	60 UJ
Benzyl alcohol	57	73	--	--		33 U	31 U	***98 U***	20 UJ	20 U	50 U	50 U	26 J	19 J
Benzoic acid	650	650	--	--		320 J	610 U	***980 U***	66 U	200 U	200 U	200 U	75 UJ	60 UJ
Carbazole	--	--	--	--		--	--	53 J	20 U	26	320	20	--	--
Dibenzofuran	--	--	540	700		80	61 U	98 U	20 U	20 U	320	20	68 U	60 U
Hexachlorobutadiene	--	--	11	120		6.6 U	6.1 U	98 U	6.6 U	0.99 U	20 U	20 U	6.8 U	6 U
Hexachloroethane	--	--	--	--		66 U	61 U	98 U	20 U	20 U	20 U	20 U	68 U	60 U
Hexachlorocyclopentadiene	--	--	--	--		330 U	310 UJ	490 U	98 U	99 U	100 UJ	100 UJ	340 UJ	300 UJ
Isophorone	--	--	--	--		66 U	61 U	98 U	20 U	20 U	20 U	20 U	68 U	60 U
N-Nitroso-di-n-propylamine	--	--	--	--		33 U	31 UJ	490 U	33 U	99 U	40 U	40 U	34 UJ	30 UJ
N-Nitrosodimethylamine	--	--	--	--		33 U	31 U	98 U	33 U	99 U	--	--	34 U	30 U
N-Nitrosodiphenylamine	--	--	28	40		300 U	30 UJ	98 U	6.6 U	20 U	40 U	40 U	33 U	32 U
Ethers (µg/kg dry weight)														
4-Bromophenyl phenyl ether	--	--	--	--		66 U	61 U	98 U	20 U	20 U	40 U	40 U	68 U	60 U
4-Chlorophenyl phenyl ether	--	--	--	--		66 U	61 U	98 U	20 U	20 U	20 U	20 U	68 U	60 U
bis(2-chloroethyl)ether	--	--	--	--		66 U	61 U	98 U	20 U	20 U	40 U	40 U	68 U	60 U
bis(2-chloroisopropyl)ether	--	--	--	--		66 U	61 U	98 U	20 U	20 U	40 U	40 U	68 U	60 U
Pesticides (µg/kg dry weight)														
2,4'-DDD	--	--	--	--		--	--	--	--	--	--	--	--	--

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	Location ID	LDW-SC28	LDW-SC28	LDW-SS49	LDW-SS51	LDW-SS53	DR120	DR121	LDW-SC25	LDW-SC25
				Sample ID	LDW-SC28-5.5-7.5	LDW-SC28-12-12.6	LDW-SS49-010	LDW-SS51-010	LDW-SS53-010	SD-DR120-0000	SD-DR121-0000	LDW-SC25-0-1	LDW-SC25-1-2
				Sample Date	2/24/2006	2/24/2006	1/26/2005	1/18/2005	2/2/2005	8/12/1998	8/31/1998	2/17/2006	2/17/2006
				Sample Depth	5.5-7.5 ft	12-12.6 FT	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-1 ft	1-2 ft
				SMS 2LAET[a]	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - AML	West Nav. Channel - AML
2,4'-DDE	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDE	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--
Aldrin	--	--	--	--	--	--	--	--	--	--	--	--	--
alpha-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--
alpha-BHC	--	--	--	--	--	--	--	--	--	--	--	--	--
beta-BHC	--	--	--	--	--	--	--	--	--	--	--	--	--
delta-BHC	--	--	--	--	--	--	--	--	--	--	--	--	--
gamma-BHC	--	--	--	--	--	--	--	--	--	--	--	--	--
gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--
Oxychlordane	--	--	--	--	--	--	--	--	--	--	--	--	--
Dieldrin	--	--	--	--	--	--	--	--	--	--	--	--	--
alpha-Endosulfan	--	--	--	--	--	--	--	--	--	--	--	--	--
beta-Endosulfan	--	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan sulfate	--	--	--	--	--	--	--	--	--	--	--	--	--
Endrin	--	--	--	--	--	--	--	--	--	--	--	--	--
Endrin aldehyde	--	--	--	--	--	--	--	--	--	--	--	--	--
Endrin ketone	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor epoxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Toxaphene	--	--	--	--	--	--	--	--	--	--	--	--	--
Total aldrin/dieldrin (calc'd)	--	--	--	--	--	--	--	--	--	--	--	--	--
DDTs (total-calc'd)	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Chlordane (calc'd)	--	--	--	--	--	--	--	--	--	--	--	--	--
Herbicides (µg/kg dry weight)													
Methoxychlor	--	--	--	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Aroclors (mg/kg organic carbon)													
PCBs (total calc'd)	12	65	--	--	***200***	**41**	2.8	7.3 J	8.3	6.8	4.1	**16**	**24**
PCB Aroclors (µg/kg dry weight)													
Aroclor-1016	--	--	--	--	310 U	25 U	20 U	20 UJ	20 U	20 UJ	20 U	20 U	20 U
Aroclor-1221	--	--	--	--	310 U	25 U	20 U	20 UJ	20 U	40 U	40 U	20 U	20 U
Aroclor-1232	--	--	--	--	310 U	25 U	20 U	20 UJ	20 U	20 U	20 U	20 U	20 U
Aroclor-1242	--	--	--	--	310 U	25 U	20 U	25 J	60 U	20 U	20 U	20 U	20 U
Aroclor-1248	--	--	--	--	310 U	190	40 U	20 UJ	70 U	20 U	20 U	55	64
Aroclor-1254	--	--	--	--	2600	220	39	72	120	92	46	140	170
Aroclor-1260	--	--	--	--	610	130	31	58	95	96	52	110	130
PCBs (total calc'd)	--	--	130	1000	3200	540	70	155 J	220	188	98	310	360

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	Location ID	LDW-SC28	LDW-SC28	LDW-SS49	LDW-SS51	LDW-SS53	DR120	DR121	LDW-SC25	LDW-SC25
				Sample ID	LDW-SC28-5.5-7.5	LDW-SC28-12-12.6	LDW-SS49-010	LDW-SS51-010	LDW-SS53-010	SD-DR120-0000	SD-DR121-0000	LDW-SC25-0-1	LDW-SC25-1-2
				Sample Date	2/24/2006	2/24/2006	1/26/2005	1/18/2005	2/2/2005	8/12/1998	8/31/1998	2/17/2006	2/17/2006
				Sample Depth	5.5-7.5 ft	12-12.6 FT	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-1 ft	1-2 ft
				SMS 2LAET[a]	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - AML	West Nav. Channel - AML
PCBs Congeners (ng/kg dry weight)													
PCB-018	--	--	--	--	--	--	--	--	--	1000 UJ	1000 UJ	--	--
PCB-028	--	--	--	--	--	--	--	--	--	2000 J	1000 J	--	--
PCB-044	--	--	--	--	--	--	--	--	--	3000 J	1000 J	--	--
PCB-055	--	--	--	--	--	--	--	--	--	4000 J	2000 J	--	--
PCB-066	--	--	--	--	--	--	--	--	--	10000 U	2000 UJ	--	--
PCB-077	--	--	--	--	--	--	--	--	--	1000 U	1000 UJ	--	--
PCB-081	--	--	--	--	--	--	--	--	--	1000 UJ	1000 U	--	--
PCB-090	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-101	--	--	--	--	--	--	--	--	--	5000 J	3000 J	--	--
PCB-105	--	--	--	--	--	--	--	--	--	3000 J	1000 J	--	--
PCB-110	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-114	--	--	--	--	--	--	--	--	--	1000 UJ	1000 UJ	--	--
PCB-118	--	--	--	--	--	--	--	--	--	7000	3000 J	--	--
PCB-123	--	--	--	--	--	--	--	--	--	2000 UJ	1000 UJ	--	--
PCB-126	--	--	--	--	--	--	--	--	--	1000 U	1000 UJ	--	--
PCB-128	--	--	--	--	--	--	--	--	--	2000 J	1000 UJ	--	--
PCB-129	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-138	--	--	--	--	--	--	--	--	--	13000 J	7000 J	--	--
PCB-153	--	--	--	--	--	--	--	--	--	9000 J	5000 J	--	--
PCB-156	--	--	--	--	--	--	--	--	--	2000 J	1000 UJ	--	--
PCB-157	--	--	--	--	--	--	--	--	--	1000 UJ	1000 UJ	--	--
PCB-167	--	--	--	--	--	--	--	--	--	1000 UJ	1000 UJ	--	--
PCB-169	--	--	--	--	--	--	--	--	--	1000 U	1000 U	--	--
PCB-170	--	--	--	--	--	--	--	--	--	4000 J	2000 J	--	--
PCB-180	--	--	--	--	--	--	--	--	--	8000 J	4000 J	--	--
PCB-187	--	--	--	--	--	--	--	--	--	5000 J	3000 J	--	--
PCB-189	--	--	--	--	--	--	--	--	--	1000 UJ	1000 UJ	--	--
PCB-195	--	--	--	--	--	--	--	--	--	1000 J	1000 UJ	--	--
PCB-206	--	--	--	--	--	--	--	--	--	1000	1000 UJ	--	--
PCB-209	--	--	--	--	--	--	--	--	--	1000 U	1000 UJ	--	--
PCB Toxic Equivalents Quotient(TEQ) - Bird - Half	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB TEQ - Mammal - Half DL	--	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin/Furans (ng/kg dry weight)													
1,2,3,4,6,7,8-HpCDD	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDF	--	--	--	--	--	--	--	--	--	--	--	--	--

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC28	LDW-SC28	LDW-SS49	LDW-SS51	LDW-SS53	DR120	DR121	LDW-SC25	LDW-SC25
					Sample ID	LDW-SC28-5.5-7.5	LDW-SC28-12-12.6	LDW-SS49-010	LDW-SS51-010	LDW-SS53-010	SD-DR120-0000	SD-DR121-0000	LDW-SC25-0-1	LDW-SC25-1-2
					Sample Date	2/24/2006	2/24/2006	1/26/2005	1/18/2005	2/2/2005	8/12/1998	8/31/1998	2/17/2006	2/17/2006
					Sample Depth	5.5-7.5 ft	12-12.6 FT	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-1 ft	1-2 ft
						West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - DSI	West Nav. Channel - AML	West Nav. Channel - AML
1,2,3,6,7,8-HxCDD	--	--	--	--		--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	--	--	--	--		--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	--	--	--	--		--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	--	--	--	--		--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	--	--	--	--		--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	--	--	--	--		--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	--	--	--	--		--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	--	--	--	--		--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	--	--	--	--		--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	--	--	--	--		--	--	--	--	--	--	--	--	--
OCDD	--	--	--	--		--	--	--	--	--	--	--	--	--
OCDF	--	--	--	--		--	--	--	--	--	--	--	--	--
Dioxin/furan TEQ - Bird - Half DL	--	--	--	--		--	--	--	--	--	--	--	--	--
Dioxin/furan TEQ - Fish Sheboygan - Half DL	--	--	--	--		--	--	--	--	--	--	--	--	--
Dioxin/furan TEQ - Fish WHO - Half DL	--	--	--	--		--	--	--	--	--	--	--	--	--
Dioxin/furan TEQ - Mammal WHO 1998 - Half DL	--	--	--	--		--	--	--	--	--	--	--	--	--
						--	--	--	--	--	--	--	--	--

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC25	LDW-SC25	LDW-SC25	LDW-SS44	DR054	DR090	SS-1	SS-2	SS-3	SS-4
					Sample ID	LDW-SC25-2-4	LDW-SC25-4-6	LDW-SC25-8-9.1	LDW-SS44-010	SD-DR054-0000	SD-DR090-0000	SS-1	SS-2	SS-3	SS-4
					Sample Date	2/17/2006	2/17/2006	2/17/2006	1/21/2005	8/12/1998	8/12/1998	8/17/1993	8/17/1993	8/17/1993	8/17/1993
					Sample Depth	2-4 ft	4-6 ft	8-9.1 ft	0-10 cm	0-10 cm	0-10 cm	0-8 cm	0-8 cm	0-5 cm	0-10 cm
						West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML
Sediment Grain Size (Percent)															
Rocks (total calc'd)	--	--	--	--		0.3	--	--	61.7	5.7 J	1.3 J				
Sand (total calc'd)	--	--	--	--		19.4	--	--	16.5	19.1 J	11.3 J	29	57	19	17
Silt (total calc'd)	--	--	--	--		55.6	--	--	14.7	45	56	55	27	52	60
Clay (total calc'd)	--	--	--	--		24.5	--	--	7.1	26	31	16	16	29	22
Fines (percent silt+clay)	--	--	--	--		80.1	--	--	21.8	71	87				
Conventional Parameters															
Total Organic Carbon (TOC)	--	--	--	--		1.69	1.63	0.11	1.53	2.36	2.13	1.9	2.74	2.35	1.54
Total solids	--	--	--	--		54.4	52.6	76.8	74.2	--	--	47.3	67.13	49.1	49.5
Total solids (preserved)	--	--	--	--		--	--	--	51.3	--	--	--	--	--	--
Ammonia (total as nitrogen)	--	--	--	--		--	--	--	6.73	--	--	--	--	--	--
Sulfides (total)	--	--	--	--		--	--	--	150 J	--	--	--	--	--	--
Metals (mg/kg dry weight)															
Aluminum	--	--	--	--		--	--	--	--	25000	21000	--	--	--	--
Antimony	--	--	--	--		30 J	30 J	6 UJ	0.9 J	10 UJ	10 UJ	3.1 J	120 J	5 J	29 J
Arsenic	57	93	--	--		***170***	***250***	8	46.8	24	9	41	1130	75	120
Barium	--	--	--	--		--	--	--	--	110	82	--	--	--	--
Beryllium	--	--	--	--		--	--	--	--	0.49	0.46	0.4	0.7	0.4	0.6
Cadmium	5.1	6.7	--	--		0.8 U	1.5	0.2 U	0.7	0.37	0.25	0.7	3.5	0.6	1.5
Calcium	--	--	--	--		--	--	--	--	8400	5700	--	--	--	--
Chromium	260	270	--	--		45	55	8.3	33.2	34	27	44	145	51	48
Cobalt	--	--	--	--		20	22	3.3	9.8	12	12	--	--	--	--
Copper	390	390	--	--		***541***	***663***	7.5	214	140	53	361 J	1970 J	507 J	247 J
Iron	--	--	--	--		--	--	--	--	35000 J	28000 J	--	--	--	--
Lead	450	530	--	--		173	310	2 U	68	49	21	109 J	854 J	144 J	102 J
Magnesium	--	--	--	--		--	--	--	--	9400	8000	--	--	--	--
Manganese	--	--	--	--		--	--	--	--	440	370	--	--	--	--
Mercury	0.41	0.59	--	--		0.4	--	--	0.23	0.17	0.15	0.27	0.35	.3 J	0.25
Molybdenum	--	--	--	--		10	16	0.7	4.5	--	--	--	--	--	--
Nickel	--	--	--	--		27	28	5	21	28	23	31	59	32	34
Potassium	--	--	--	--		--	--	--	--	3200	2600	--	--	--	--
Selenium	--	--	--	--		20 U	20 U	6 U	9 U	0.5 J	0.6 J	0.2 U	0.9	.2 U	.2 U
Silver	6.1	6.1	--	--		1 U	1 U	0.4 U	0.5 U	0.28	0.2	0.6 U	1 U	.6 U	.6 U
Sodium	--	--	--	--		--	--	--	--	12000	9800	--	--	--	--
Thallium	--	--	--	--		20 U	20 U	6 U	0.3 U	0.13	0.11	1 U	.8 U	1 U	1 U
Tin	--	--	--	--		--	--	--	--	10	2	--	--	--	--
Vanadium	--	--	--	--		79	89	37.5	61	70	57	--	--	--	--
Zinc	410	960	--	--		**750**	***1420***	17.6	242	170	93	335 J	4440 J	418 J	526 J

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC25	LDW-SC25	LDW-SC25	LDW-SS44	DR054	DR090	SS-1	SS-2	SS-3	SS-4
					Sample ID	LDW-SC25-2-4	LDW-SC25-4-6	LDW-SC25-8-9.1	LDW-SS44-010	SD-DR054-0000	SD-DR090-0000	SS-1	SS-2	SS-3	SS-4
					Sample Date	2/17/2006	2/17/2006	2/17/2006	1/21/2005	8/12/1998	8/12/1998	8/17/1993	8/17/1993	8/17/1993	8/17/1993
					Sample Depth	2-4 ft	4-6 ft	8-9.1 ft	0-10 cm	0-10 cm	0-10 cm	0-8 cm	0-8 cm	0-5 cm	0-10 cm
						West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML
Organometallic Compounds (µg/kg dry weight)															
Monobutyltin as ion	--	--	--	--	18	7.8 U	3.8 U	--	40 J	10 J	6 UJ	1.2 UJ	18.8 J	4.6 J	
Dibutyltin as ion	--	--	--	--	150	92	5.4 U	--	21 J	14	58.3 J	171.9 J	85.9 J	38.5 J	
Tributyltin as ion	--	--	--	--	720	1000	3.6 U	--	190	54	226 J	431.7 J	418.1 J	159.1 J	
Tetrabutyltin as ion	--	--	--	--	--	--	--	--	6	5 U	--	--	--	--	
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg organic carbon)															
2-Methylnaphthalene	38	64	--	--	3.6 U	--	--	3.8 U	0.85 U	0.94 U	4.2	6.9	3.3 U	4.8 U	
Acenaphthylene	66	66	--	--	3.6 U	--	--	3.8 U	0.85 U	0.94 U	2.6 J	3.6	3.3 U	4.8 U	
Acenaphthene	16	57	--	--	7.1	--	--	3.8 U	0.85	0.94 U	14	30.7	3.2 J	4.8 U	
Anthracene	220	1200	--	--	13	--	--	13	4.7	3.3	11	51.1	13.2	9.7	
Benzo(a)anthracene	110	270	--	--	39	--	--	37	14	8.9	58	83.9	31.5	24.7	
Benzo(a)pyrene	99	210	--	--	41	--	--	31	12	8.5	41	51.1	27.2	24	
Benzo(g,h,i)perylene	31	78	--	--	9.5	--	--	11	8.1	5.2	24	28.1	12.8	14.9	
Chrysene	110	460	--	--	54	--	--	42	21	13	84	109.5	51.1	36.4	
Dibenzo(a,h)anthracene	12	33	--	--	3.1 J	--	--	3.8 U	2.1	1.4	8.9	9.1	4.7	5.2	
Fluoranthene	160	1200	--	--	120	--	--	61	38	21	2.1 J	354	89.4	63.6	
Fluorene	23	79	--	--	4.5	--	--	4.1	1.7	1.4	22 U	43.8	4.3	2.9 J	
Indeno(1,2,3-cd)pyrene	34	88	--	--	12	--	--	11	8.9	5.2	32	40.1	21.3	20.1	
Naphthalene	99	170	--	--	2.4 J	--	--	3.8 U	0.85 U	0.94 U	3.6 J	5.5	1.7 J	4.8 U	
Phenanthrene	100	480	--	--	31	--	--	29	10	7	**100**	**259.1**	**26.8**	**26.6**	
Pyrene	1000	1400	--	--	95	--	--	72	29	17	110	222.6	63.8	49.4	
Benzofluoranthenes (total-calc'd)	230	450	--	--	96	--	--	69	28	18	110		67.2	53.3	
Total LPAH (calc'd)	370	780	--	--	59 J	--	--	46	17	12	130 J	393.8	52.4 J	53.7 J	
Total HPAH (calc'd)	960	5300	--	--	470 J	--	--	330	160	98	470 J	998.2	356.2	276.6	
PAHs (µg/kg dry weight)															
1-Methylnaphthalene	--	--	--	--	60 U	--	--	--	--	--	--	--	--	--	
2-Methylnaphthalene	--	--	670	1400	60 U	--	--	58 U	20 U	20 U	79	190	77 U	74 U	
Acenaphthylene	--	--	1300	1300	60 U	--	--	58 U	20 U	20 U	49 J	100	77 U	74 U	
Acenaphthene	--	--	500	730	120	--	--	58 U	20	20 U	270	840	75 J	74 U	
Anthracene	--	--	960	4400	220	--	--	200	110	70	200	51100	310	150	
Benzo(a)anthracene	--	--	1300	1600	660	--	--	570	330	190	1100	2300	740	380	
Benzo(a)pyrene	--	--	1600	3000	700	--	--	470	290	180	780	1400	640	370	
Benzo(e)pyrene	--	--	--	--											
Benzo(b)fluoranthene	--	--	--	--	840	--	--	510	360	200	1000	1800	740	460	
Benzo(k)fluoranthene	--	--	--	--	780	--	--	550	300	190	1100	1700	840	360	
Benzo(g,h,i)perylene	--	--	670	720	160	--	--	170	190	110	450	770	300	230	
Chrysene	--	--	1400	2800	910	--	--	650	490	280	1600	3000	1200	560	
Dibenzo(a,h)anthracene	--	--	230	540	53 J	--	--	58 U	50	30	170	250	110	80	
Fluoranthene	--	--	1700	2500	2100	--	--	940	890	440	40 J	9700	2100	980	

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC25	LDW-SC25	LDW-SC25	LDW-SS44	DR054	DR090	SS-1	SS-2	SS-3	SS-4
					Sample ID	LDW-SC25-2-4	LDW-SC25-4-6	LDW-SC25-8-9.1	LDW-SS44-010	SD-DR054-0000	SD-DR090-0000	SS-1	SS-2	SS-3	SS-4
					Sample Date	2/17/2006	2/17/2006	2/17/2006	1/21/2005	8/12/1998	8/12/1998	8/17/1993	8/17/1993	8/17/1993	8/17/1993
					Sample Depth	2-4 ft	4-6 ft	8-9.1 ft	0-10 cm	0-10 cm	0-10 cm	0-8 cm	0-8 cm	0-5 cm	0-10 cm
						West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML
Fluorene	--	--	540	1000		76	--	--	63	40	30	420 U	1200	100	45 J
Indeno(1,2,3-cd)pyrene	--	--	600	690		210	--	--	170	210	110	610	1100	500	310
Naphthalene	--	--	2100	2400		41 J	--	--	58 U	20 U	20 U	69 J	150	39 J	74 U
Phenanthrene	--	--	1500	5400		530	--	--	450	240	150	1900	259100	630	410
Pyrene	--	--	2600	3300		1600	--	--	1100	690	360	2100	6100	1500	760
Benzofluoranthenes (total-calc'd)	--	--	3200	3600		1620	--	--	1060	660	390	2100			
Total LPAH (calc'd)	--	--	5200	13000		990 J	--	--	710	410	250	2490 J	10790	1231 J	827 J
Total HPAH (calc'd)	--	--	12000	17000		8000 J	--	--	5100	3800	2090	8950 J	27350	8370	4260
Total PAH (calc'd)	--	--	--	--		9000 J	--	--	5800	4210	2340	11440 J	38140	9601	5087
Benzenes (mg/kg organic carbon)															
1,2-Dichlorobenzene	2.3	2.3	--	--		0.46	--	--	0.43 U	0.85 U	0.94 U	***4.1 U***	***2.8 U***	***3.3 U***	***4.8 U***
1,4-Dichlorobenzene	3.1	9	--	--		0.25 J	--	--	0.43 U	0.85 U	0.94 U	**4.1 U**	***2.8 U***	***3.3 U***	***4.8 U***
1,2,4-Trichlorobenzene	0.81	1.8	--	--		0.36 UJ	--	--	0.43 U	**0.85 U**	**0.94 U**	***4.1 U***	***2.8 U***	***3.3 U***	***4.8 U***
Hexachlorobenzene	0.38	2.3	--	--		0.36 U	--	--	0.22 UJ	**0.85 U**	**0.94 U**	***4.1 U***	***2.8 U***	***3.3 U***	***4.8 U***
Benzenes (µg/kg dry weight)															
1,2-Dichlorobenzene	--	--	35	50		7.8	--	--	6.6 U	20 U	20 U	77 U	78 U	77 U	74 U
1,3-Dichlorobenzene	--	--	--	--		60 U	--	--	58 U	20 U	20 U	77 U	78 U	77 U	74 U
1,4-Dichlorobenzene	--	--	110	120		4.2 J	--	--	6.6 U	20 U	20 U	77 U	78 U	77 U	74 U
1,2,4-Trichlorobenzene	--	--	31	51		6 UJ	--	--	6.6 U	20 U	20 U	77 U	78 U	77 U	74 U
Hexachlorobenzene	--	--	22	70		6 U	--	--	3.3 UJ	20 U	20 U	77 U	78 U	77 U	74 U
Nitrobenzene	--	--	--	--		60 U	--	--	58 U	20 U	20 U	77 U			
Phthalates (mg/kg organic carbon)															
Bis(2-ethylhexyl)phthalate	47	78	--	--		44	--	--	7.8	19	15	**53**	**65.7**	**40.4**	**142.9**
Butyl benzyl phthalate	4.9	64	--	--		3.7	--	--	0.43 U	1.7	1.4	**5.1**	**2.8 U**	**5.1**	**4.8 U**
Diethyl phthalate	61	110	--	--		3.6 U	--	--	0.72 U	0.85 U	0.94 U	4.1 U	2.8 U	3.3 U	4.8 U
Dimethyl phthalate	53	53	--	--		3.6 U	--	--	0.43 U	0.85 U	0.94 U	2.5 J	2.8 U	3.3 U	4.8 U
Di-n-butyl phthalate	220	1700	--	--		3.6 U	--	--	3.8 U	0.85 U	0.94 U	44	2.8 U	3.3 U	4.8 U
Di-n-octyl phthalate	58	4500	--	--		3.6 U	--	--	3.8 U	0.85 U	0.94 U	4.1 U	2.8 U	3.3 U	4.8 U
Phthalates (µg/kg dry weight)															
Bis(2-ethylhexyl)phthalate	--	--	1300	1900		740	--	--	120	450	320	1000	1800	950	2200
Butyl benzyl phthalate	--	--	63	900		62	--	--	6.6 U	40	30	96	78 U	120	74 U
Diethyl phthalate	--	--	200	1200		60 U	--	--	11 U	20 U	20 U	77 U	78 U	77 U	74 U
Dimethyl phthalate	--	--	71	160		60 U	--	--	6.6 U	20 U	20 U	48 J	78 U	77 U	74 U
Di-n-butyl phthalate	--	--	1400	5100		60 U	--	--	58 U	20 U	20 U	830	78 U	77 U	74 U
Di-n-octyl phthalate	--	--	6200	--		60 U	--	--	58 U	20 U	20 U	77 U	78 U	77 U	74 U
Phenols (µg/kg dry weight)															
2-Chlorophenol	--	--	--	--		60 U	--	--	58 U	20 U	20 U	77 U			
4-Chloro-3-methylphenol	--	--	--	--		300 U	--	--	290 U	40 U	40 U	150 U			
2,4-Dichlorophenol	--	--	--	--		300 U	--	--	290 U	60 U	60 U	230 U			

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	SMS 2LAET[a]	Location ID	LDW-SC25	LDW-SC25	LDW-SC25	LDW-SS44	DR054	DR090	SS-1	SS-2	SS-3	SS-4
					Sample ID	LDW-SC25-2-4	LDW-SC25-4-6	LDW-SC25-8-9.1	LDW-SS44-010	SD-DR054-0000	SD-DR090-0000	SS-1	SS-2	SS-3	SS-4
					Sample Date	2/17/2006	2/17/2006	2/17/2006	1/21/2005	8/12/1998	8/12/1998	8/17/1993	8/17/1993	8/17/1993	8/17/1993
					Sample Depth	2-4 ft	4-6 ft	8-9.1 ft	0-10 cm	0-10 cm	0-10 cm	0-8 cm	0-8 cm	0-5 cm	0-10 cm
						West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML
2,4-Dimethylphenol	29	29	--	--		7.8	--	--	6.6 U	20 U	20 U	***77 U***			
2,4-Dinitrophenol	--	--	--	--		600 UJ	--	--	580 U	200 U	200 U	770 U			
2-Methylphenol	63	63	--	--		8.4 J	--	--	6.6 U	20 U	20 U	***77 U***			
4-Methylphenol	670	670	--	--		60 U	--	--	58 U	20 U	20 U	77 U			
2,4,5-Trichlorophenol	--	--	--	--		300 U	--	--	290 U	200 U	200 U	380 U			
2,4,6-Trichlorophenol	--	--	--	--		300 U	--	--	290 U	200 U	200 U	380 U			
2-Nitrophenol	--	--	--	--		300 U	--	--	290 U	100 U	100 U	380 U			
4-Nitrophenol	--	--	--	--		300 U	--	--	290 U	100 U	100 U	380 U			
Pentachlorophenol	360	690	--	--		37 J	--	--	33 UJ	100 U	100 U	**380 U**			
Phenol	420	1200	--	--		60 U	--	--	58 U	70	20 U	72 J			
Misc Extractables (mg/kg organic carbon)															
Dibenzofuran	15	58	--	--		3.3 J	--	--	3.8 U	0.85	0.94 U	13	24.1	2.8 J	4.8 U
Hexachlorobutadiene	3.9	6.2	--	--		0.36 U	--	--	0.43 U	0.85 U	0.94 U	**4.1 U**	**2.8 U**	**3.3 U**	**4.8 U**
N-Nitrosodiphenylamine	11	11	--	--		3.4 U	--	--	0.43 U	1.7 U	1.9 U	4.1 U	2.8 U	3.3 U	4.8 U
Misc Extractables (µg/kg dry weight)															
2-Nitroaniline	--	--	--	--		300 U	--	--	290 U	100 U	100 U	380 U			
3-Nitroaniline	--	--	--	--		300 UJ	--	--	290 U	200 U	200 U	380 U			
4-Nitroaniline	--	--	--	--		300 U	--	--	290 U	100 U	100 U	380 U			
3,3'-Dichlorobenzidine	--	--	--	--		300 UJ	--	--	290 U	200 U	200 U	380 U			
4-Chloroaniline	--	--	--	--		300 UJ	--	--	290 U	60 U	60 U	230 U			
Aniline	--	--	--	--		60 UJ	--	--	58 U	--	--	--	--	--	--
Benzyl alcohol	57	73	--	--		20 J	--	--	33 U	50 U	50 U	***77 U***	78 U	***77 U***	***74 U***
Benzoic acid	650	650	--	--		77 U	--	--	66 U	200 U	200 U	***770 U***	780 U	***770 U***	***740 U***
Carbazole	--	--	--	--		--	--	--	58 U	30	30	77 U			
Dibenzofuran	--	--	540	700		56 J	--	--	58 U	20	20 U	250	660	66 J	74 U
Hexachlorobutadiene	--	--	11	120		6 U	--	--	6.6 U	20 U	20 U	77 U			
Hexachloroethane	--	--	--	--		60 U	--	--	58 U	20 U	20 U	77 U			
Hexachlorocyclopentadiene	--	--	--	--		300 UJ	--	--	290 U	100 U	100 U	380 U			
Isophorone	--	--	--	--		60 U	--	--	58 U	20 U	20 U	77 U			
N-Nitroso-di-n-propylamine	--	--	--	--		30 U	--	--	33 U	40 U	40 U	77 U			
N-Nitrosodimethylamine	--	--	--	--		30 U	--	--	33 U	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	28	40		58 U	--	--	6.6 U	40 U	40 U	770 U	78 U	3.3 U	74 U
Ethers (µg/kg dry weight)															
4-Bromophenyl phenyl ether	--	--	--	--		60 U	--	--	58 U	40 U	40 U	77 U			
4-Chlorophenyl phenyl ether	--	--	--	--		60 U	--	--	58 U	20 U	20 U	77 U			
bis(2-chloroethyl)ether	--	--	--	--		60 U	--	--	58 U	40 U	40 U	77 U			
bis(2-chloroisopropyl)ether	--	--	--	--		60 U	--	--	58 U	40 U	40 U	77 U			
Pesticides (µg/kg dry weight)															
2,4'-DDD	--	--	--	--		--	--	--	--	--	--	--	--	--	--

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	Location ID	LDW-SC25	LDW-SC25	LDW-SC25	LDW-SS44	DR054	DR090	SS-1	SS-2	SS-3	SS-4
				Sample ID	LDW-SC25-2-4	LDW-SC25-4-6	LDW-SC25-8-9.1	LDW-SS44-010	SD-DR054-0000	SD-DR090-0000	SS-1	SS-2	SS-3	SS-4
				Sample Date	2/17/2006	2/17/2006	2/17/2006	1/21/2005	8/12/1998	8/12/1998	8/17/1993	8/17/1993	8/17/1993	8/17/1993
				Sample Depth	2-4 ft	4-6 ft	8-9.1 ft	0-10 cm	0-10 cm	0-10 cm	0-8 cm	0-8 cm	0-5 cm	0-10 cm
				SMS 2LAET[a]	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML
2,4'-DDE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aldrin	--	--	--	--	--	--	--	--	--	--	--	--	--	--
alpha-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--
alpha-BHC	--	--	--	--	--	--	--	--	--	--	--	--	--	--
beta-BHC	--	--	--	--	--	--	--	--	--	--	--	--	--	--
delta-BHC	--	--	--	--	--	--	--	--	--	--	--	--	--	--
gamma-BHC	--	--	--	--	--	--	--	--	--	--	--	--	--	--
gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Oxychlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dieldrin	--	--	--	--	--	--	--	--	--	--	--	--	--	--
alpha-Endosulfan	--	--	--	--	--	--	--	--	--	--	--	--	--	--
beta-Endosulfan	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan sulfate	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Endrin	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Endrin aldehyde	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Endrin ketone	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor epoxide	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toxaphene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total aldrin/dieldrin (calc'd)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DDTs (total-calc'd)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Chlordane (calc'd)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Herbicides (µg/kg dry weight)														
Methoxychlor	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Aroclors (mg/kg organic carbon)														
PCBs (total calc'd)	12	65	--	--	**25**	**49 J**	--	6.7 J	4.1	3.1	--	--	--	--
PCB Aroclors (µg/kg dry weight)														
Aroclor-1016	--	--	--	--	20 U	3.9 U	3.9 U	20 U	20 UJ	20 UJ	--	--	--	--
Aroclor-1221	--	--	--	--	20 U	3.9 U	3.9 U	20 U	40 U	40 U	--	--	--	--
Aroclor-1232	--	--	--	--	20 U	3.9 U	3.9 U	20 U	20 U	20 U	--	--	--	--
Aroclor-1242	--	--	--	--	20 U	78 J	3.9 U	24 J	20 U	20 U	--	--	--	--
Aroclor-1248	--	--	--	--	82	3.9 U	3.9 U	20 U	20 U	20 U	--	--	--	--
Aroclor-1254	--	--	--	--	200	470	3.9 U	45	50	39	--	--	--	--
Aroclor-1260	--	--	--	--	150	250	3.9 U	34	47	27	--	--	--	--
PCBs (total calc'd)	--	--	130	1000	430	800 J	3.9 U	103 J	97	66	--	--	--	--

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	Location ID	LDW-SC25	LDW-SC25	LDW-SC25	LDW-SS44	DR054	DR090	SS-1	SS-2	SS-3	SS-4
				Sample ID	LDW-SC25-2-4	LDW-SC25-4-6	LDW-SC25-8-9.1	LDW-SS44-010	SD-DR054-0000	SD-DR090-0000	SS-1	SS-2	SS-3	SS-4
				Sample Date	2/17/2006	2/17/2006	2/17/2006	1/21/2005	8/12/1998	8/12/1998	8/17/1993	8/17/1993	8/17/1993	8/17/1993
				Sample Depth	2-4 ft	4-6 ft	8-9.1 ft	0-10 cm	0-10 cm	0-10 cm	0-8 cm	0-8 cm	0-5 cm	0-10 cm
				SMS 2LAET[a]	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML
PCBs Congeners (ng/kg dry weight)														
PCB-018	--	--	--	--	--	--	--	--	1000 UJ	1000 UJ	--	--	--	--
PCB-028	--	--	--	--	--	--	--	--	2000 J	1000 J	--	--	--	--
PCB-044	--	--	--	--	--	--	--	--	1000 J	1000 J	--	--	--	--
PCB-055	--	--	--	--	--	--	--	--	2000 J	2000 J	--	--	--	--
PCB-066	--	--	--	--	--	--	--	--	6000 U	4000 U	--	--	--	--
PCB-077	--	--	--	--	--	--	--	--	1000 U	1000 U	--	--	--	--
PCB-081	--	--	--	--	--	--	--	--	1000 UJ	1000 UJ	--	--	--	--
PCB-090	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-101	--	--	--	--	--	--	--	--	3000 J	2000 J	--	--	--	--
PCB-105	--	--	--	--	--	--	--	--	2000 J	1000 UJ	--	--	--	--
PCB-110	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-114	--	--	--	--	--	--	--	--	1000 UJ	1000 UJ	--	--	--	--
PCB-118	--	--	--	--	--	--	--	--	3000	2000	--	--	--	--
PCB-123	--	--	--	--	--	--	--	--	1000 UJ	1000 UJ	--	--	--	--
PCB-126	--	--	--	--	--	--	--	--	1000 U	1000 U	--	--	--	--
PCB-128	--	--	--	--	--	--	--	--	1000 J	1000 UJ	--	--	--	--
PCB-129	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-138	--	--	--	--	--	--	--	--	8000 J	5000 UJ	--	--	--	--
PCB-153	--	--	--	--	--	--	--	--	6000 J	3000 J	--	--	--	--
PCB-156	--	--	--	--	--	--	--	--	1000 UJ	1000 UJ	--	--	--	--
PCB-157	--	--	--	--	--	--	--	--	1000 UJ	1000 UJ	--	--	--	--
PCB-167	--	--	--	--	--	--	--	--	1000 UJ	1000 UJ	--	--	--	--
PCB-169	--	--	--	--	--	--	--	--	1000 U	1000 U	--	--	--	--
PCB-170	--	--	--	--	--	--	--	--	3000 J	1000 UJ	--	--	--	--
PCB-180	--	--	--	--	--	--	--	--	4000 J	2000 J	--	--	--	--
PCB-187	--	--	--	--	--	--	--	--	3000 J	1000 J	--	--	--	--
PCB-189	--	--	--	--	--	--	--	--	1000 UJ	1000 UJ	--	--	--	--
PCB-195	--	--	--	--	--	--	--	--	1000 UJ	1000 UJ	--	--	--	--
PCB-206	--	--	--	--	--	--	--	--	1000 U	1000 U	--	--	--	--
PCB-209	--	--	--	--	--	--	--	--	1000 U	1000 U	--	--	--	--
PCB Toxic Equivalents Quotient(TEQ) - Bird - Half	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB TEQ - Mammal - Half DL	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin/Furans (ng/kg dry weight)														
1,2,3,4,6,7,8-HpCDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDF	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table A-2

Summary of Available Lower Duwamish Waterway Sediment Concentrations – Adjacent to Duwamish Shipyard Property

Analyte Group	SMS SQS	SMS CSL	SMS LAET[a]	Location ID	LDW-SC25	LDW-SC25	LDW-SC25	LDW-SS44	DR054	DR090	SS-1	SS-2	SS-3	SS-4
				Sample ID	LDW-SC25-2-4	LDW-SC25-4-6	LDW-SC25-8-9.1	LDW-SS44-010	SD-DR054-0000	SD-DR090-0000	SS-1	SS-2	SS-3	SS-4
				Sample Date	2/17/2006	2/17/2006	2/17/2006	1/21/2005	8/12/1998	8/12/1998	8/17/1993	8/17/1993	8/17/1993	8/17/1993
				Sample Depth	2-4 ft	4-6 ft	8-9.1 ft	0-10 cm	0-10 cm	0-10 cm	0-8 cm	0-8 cm	0-5 cm	0-10 cm
				SMS 2LAET[a]	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML	West Nav. Channel - AML
1,2,3,6,7,8-HxCDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OCDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OCDF	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin/furan TEQ - Bird - Half DL	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin/furan TEQ - Fish Sheboygan - Half DL	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin/furan TEQ - Fish WHO - Half DL	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin/furan TEQ - Mammal WHO 1998 - Half DL	--	--	--	--	--	--	--	--	--	--	--	--	--	--
					--	--	--	--	--	--	--	--	--	--

Notes:

µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
ng/kg	nanograms per kilogram
cm	centimeters
ft	feet
--	No numerical criterion of this type or sample not analyzed for this chemical
[a]	The sample concentration was compared to the SMS lowest apparent effects threshold (LAET) and second LAET (2LAET) criteria if the percent TOC was below 0.5
AML	Alaska Marine Lines
DSI	Duwamish Shipyard, Inc.
SMS	Sediment
SQS	Sediment
U	The analyte was analyzed for, but not detected above the method reporting limit
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
UJ	The analyte was not detected at the estimated detection limit.
C	The metal analyte is estimated below the reporting limit
	Non-detected concentration above either the SMS SQS and/or Cleanup Screening
Bold	Detected concentration greater than or equal to SMS SQS and less than SMS Cleanup
Bold	Detected concentration greater than or equal to SMS CSL criteria

Table A-3
2006 Preliminary Investigation Upland Soil and Groundwater Sampling Summary

Station ID	Coordinates[1]		Ground Surface Elevation[2]	Sample/ Screen Interval (ft bgs)[3]	Sample ID	Soil Testing		Groundwater Chemistry[4]
	Easting	Northing				Soil Chemistry[4]	Physical[5]	
Rail Spur Area								
DSI01	1267483.65	204362.38	15.8	0-3	DSI01-SO-A	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				4-6	DSI01-SO-B	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				0-10	DSI01-GW	--	--	Petroleum, Metals (T/D), PAHs, VOCs, Pesticides, PCBs
Northwest Area								
DSI02	1267482.28	204484.72	16.5	0-3	DSI02-SO-A	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				3-5	DSI02-SO-B	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				0-10	DSI02-GW	--	--	Petroleum, Metals (T/D), PAHs, VOCs, Pesticides, PCBs
DSI03	1267538.20	204614.54	16.6	0-3	DSI03-SO-A	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				5-6.5	DSI03-SO-B	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				0-10	DSI03-GW	--	--	Petroleum, Metals (T/D), PAHs, VOCs, Pesticides, PCBs
MW-4[7]	1267474.81	204675.26	20.1	5-17	MW-4-GW-060929	--	--	Petroleum, Metals (T/D), PAHs, VOCs, Pesticides, PCBs, DO, redox, cond., pH
MW-5[7]	1267494.81	204585.26	16.5	11-16	MW-5-GW-060929	--	--	Petroleum, Metals (T/D), PAHs, VOCs, Pesticides, PCBs, DO, redox, cond., pH
Central Area								
DSI04	1267677.30	204577.53	15.0	0-3	DSI04-SO-A	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				3-5	DSI04-SO-B	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				0-10	DSI04-GW	--	--	Petroleum, Metals (T/D), PAHs, VOCs, Pesticides, PCBs
DSI05	1267664.49	204414.79	15.4	0-3	DSI05-SO-A	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				3-5	DSI05-SO-B	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				0-10	DSI05-GW	--	--	Petroleum, Metals (T/D), PAHs, VOCs, Pesticides, PCBs
DSI08	1267815.08	204599.08	15.1	0-3	DSI08-SO-A	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				3-5	DSI08-SO-B	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				0-10	DSI08-GW	--	--	Petroleum, Metals (T/D), PAHs, VOCs, Pesticides, PCBs
UST Removal Area								
DSI06	1267832.57	204403.48	15.4	0-3	DSI06-SO-A	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				4-6	DSI06-SO-B	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				0-10	DSI06-GW	--	--	Petroleum, Metals (T/D), PAHs, VOCs, Pesticides, PCBs
DSI07	1267843.29	204440.17	15.3	0-3	DSI07-SO-A	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				3-5	DSI07-SO-B	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				0-10	DSI07-GW	--	--	Petroleum, Metals (T/D), PAHs, VOCs, Pesticides, PCBs
Former Shipyard Nearshore Area								
DSI09	1267972.09	204599.10	15.1	0-3	DSI09-SO-A	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				3-5	DSI09-SO-B	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				0-10	DSI09-GW	--	--	Petroleum, Metals (T/D), PAHs, VOCs, Pesticides, PCBs
DSI10	1267928.63	204456.02	15.0	0-3	DSI10-SO-A	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				3-5	DSI10-SO-B	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				0-10	DSI10-GW	--	--	Petroleum, Metals (T/D), PAHs, VOCs, Pesticides, PCBs
DSI11	1267970.43	204358.81	14.7	0-3	DSI11-SO-A	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				3-5	DSI11-SO-B	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				0-10	DSI11-GW	--	--	Petroleum, Metals (T/D), PAHs, VOCs, Pesticides, PCBs

Table A-3
2006 Preliminary Investigation Upland Soil and Groundwater Sampling Summary

Station ID	Coordinates[1]		Ground Surface Elevation[2]	Sample/ Screen Interval (ft bgs)[3]	Sample ID	Soil Testing		Groundwater Chemistry[4]
	Easting	Northing				Soil Chemistry[4]	Physical[5]	
Parcel D Nearshore Area								
DSI12	1267970.42	204269.04	14.4	0-3	DSI12-SO-A	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				3-5	DSI12-SO-B	Petroleum, Metals, PAHs, VOCs, Pesticides, PCBs	--	--
				0-10	DSI12-GW	--	--	Petroleum, Metals (T/D), PAHs, VOCs, Pesticides, PCBs

Notes:

bgs = below ground surface

ft = feet

PAHs = polycyclic aromatic hydrocarbons

PCBs = Polychlorinated Biphenyl

VOCs = volatile organic compounds

1. Horizontal datum: North American Datum (NAD) 83 High Accuracy Reference Network (HARN) Washington State Plane, North Zone in U.S. Survey Feet
2. Vertical datum: Mean Lower Low Water (MLLW)
3. Actual soil and groundwater testing depth intervals were determined in the field based on observations and the geologic interpretation of conditions encountered. Sampling was conducted using low flow methodology.
4. Chemical testing: Petroleum = TPH-G and TPH-Dx (with silica-gel cleanup methodology); BTEX = benzene, toluene, ethylbenzene, and xylenes; SVOCs = Semi-Volatile Organic Compounds;
5. Physical testing: GS = Grain Size, MC = Moisture Content

APPENDIX B

RI SAMPLING DETAILS

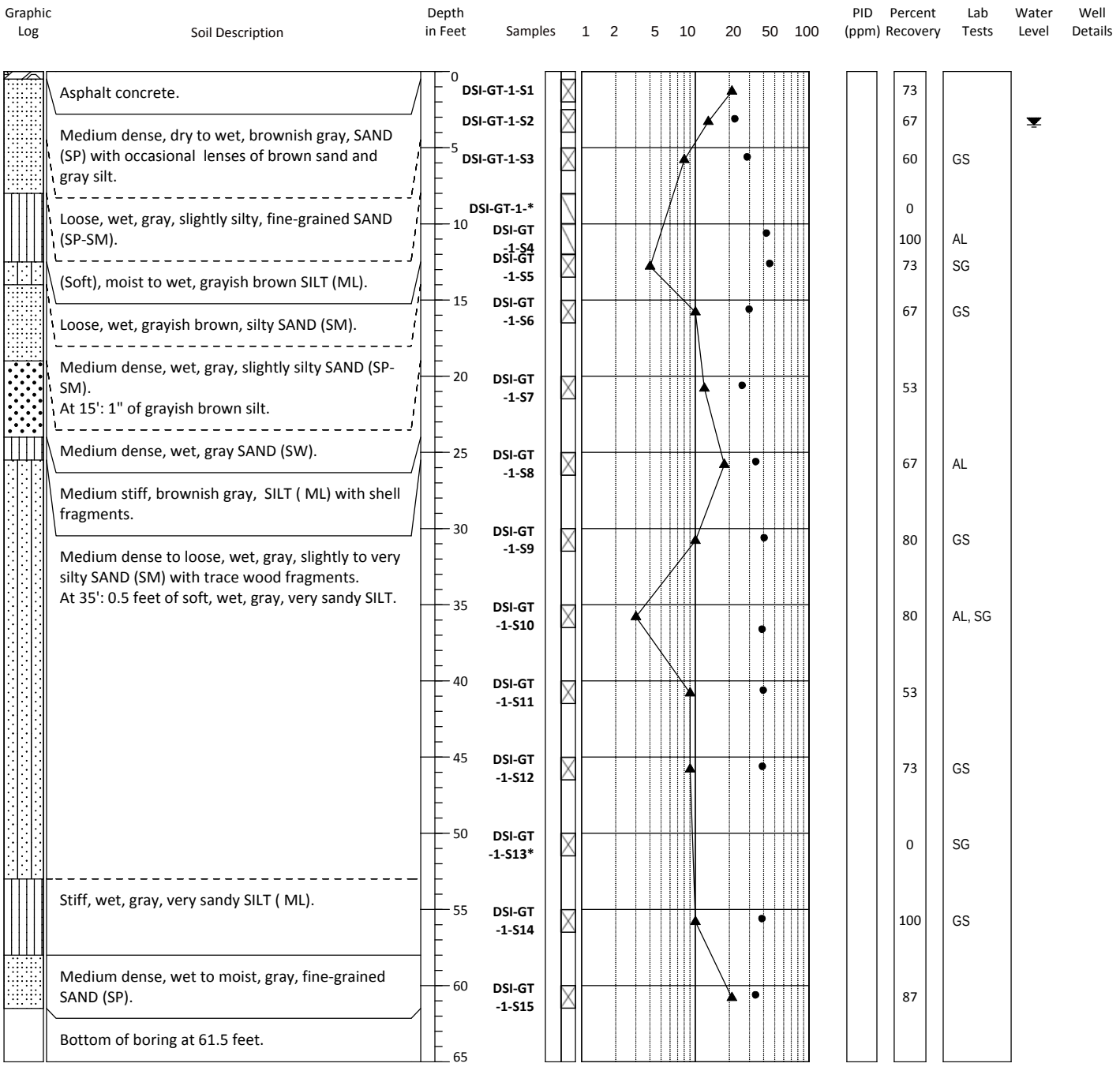
Monitoring Well Log

Sheet: 1 of 1

DSI-GT-1

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **14.6**
Project #: **080111-01**	Groundwater Depth (BGS): **3.5**
Client: **DSI**	Northing: **204525.3** Easting: **1267977.2**
Date: **7/16/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Gregory Drilling**	Vertical Datum: **MLLW**
Operator: **Corey James**	Method: **Mud Rotary**
Logged By: **Wes MacDonald**	Groundwater Screen Interval: **NA**

▲ STANDARD PENETRATION



● Water Content (percent)

ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.

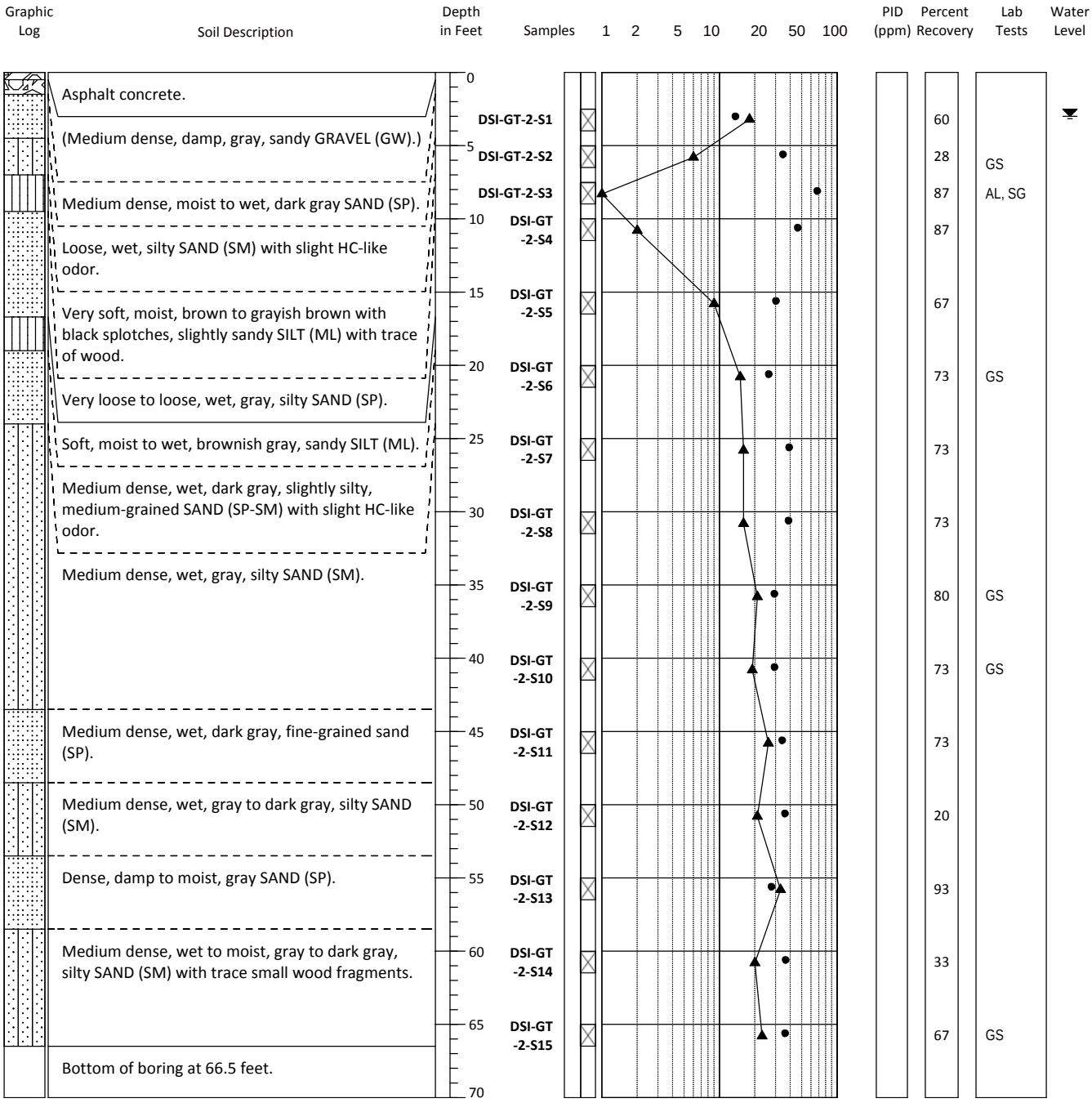
^Additional samples taken approximately 5 ft. away to obtain more material for chemistry analyses.

Monitoring Well Log

DSI-GT-2

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **14.7**
Project #: **080111-01**	Groundwater Depth (BGS): **3.0**
Client: **DSI**	Northing: **204368.1** Easting: **1267979.4**
Date: **7/16/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Gregory Drilling**	Vertical Datum: **MLLW**
Operator: **Corey James**	Method: **Mud Rotary**
Logged By: **Wes MacDonald**	Groundwater Screen Interval: **NA**

▲ STANDARD PENETRATION



ANCHOR QEA
1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.

^Additional samples taken approximately 5 ft. away to obtain more material for chemistry analyses.

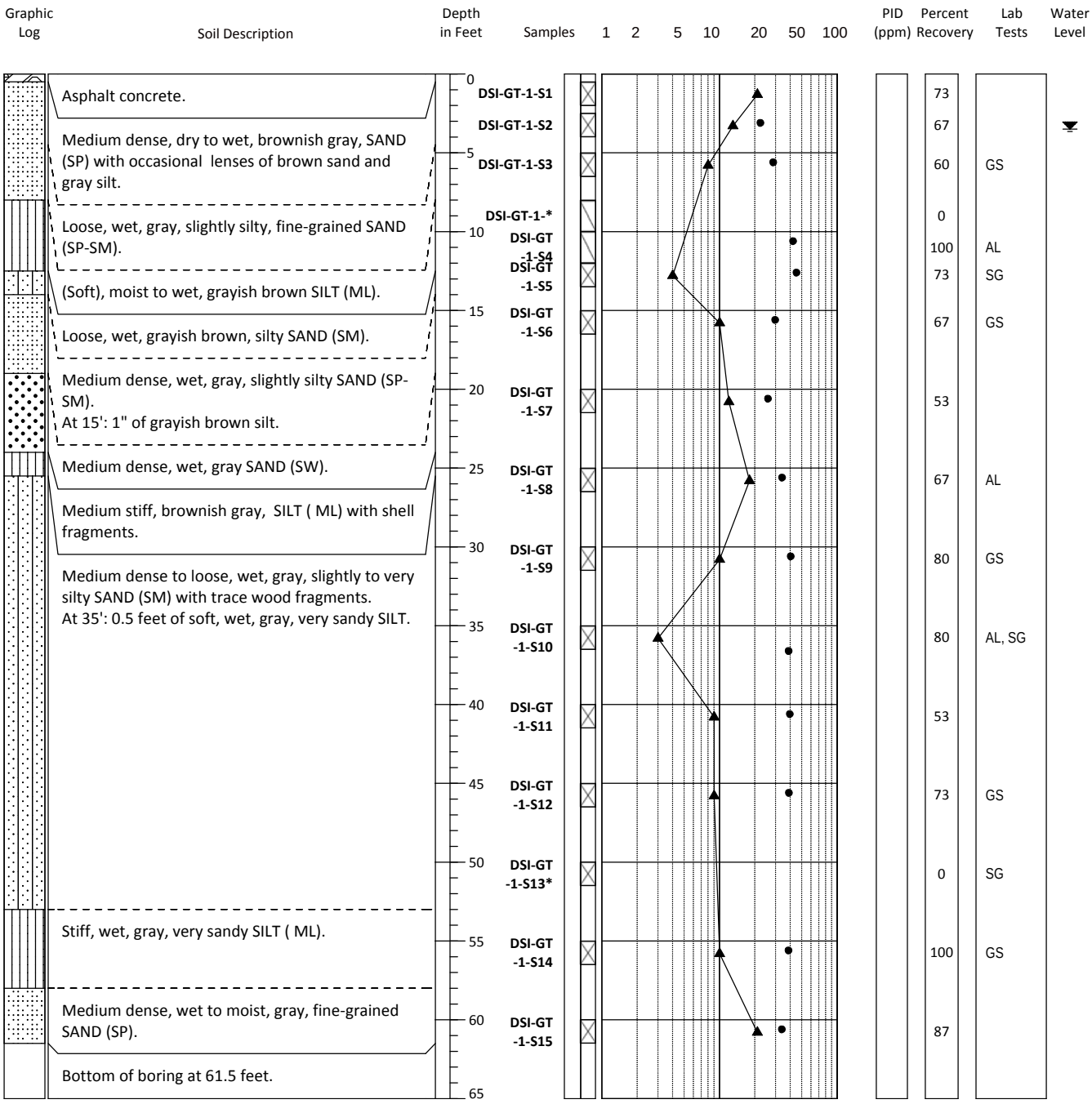
Monitoring Well Log

Sheet: 1 of 1

DSI-GT-1

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **14.6**
Project #: **080111-01**	Groundwater Depth (BGS): **3.5**
Client: **DSI**	Northing: **204525.3** Easting: **1267977.2**
Date: **7/16/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Gregory Drilling**	Vertical Datum: **MLLW**
Operator: **Corey James**	Method: **Mud Rotary**
Logged By: **Wes MacDonald**	Groundwater Screen Interval: **NA**

▲ STANDARD PENETRATION



● Water Content (percent)

ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.

^Additional samples taken approximately 5 ft. away to obtain more material for chemistry analyses.

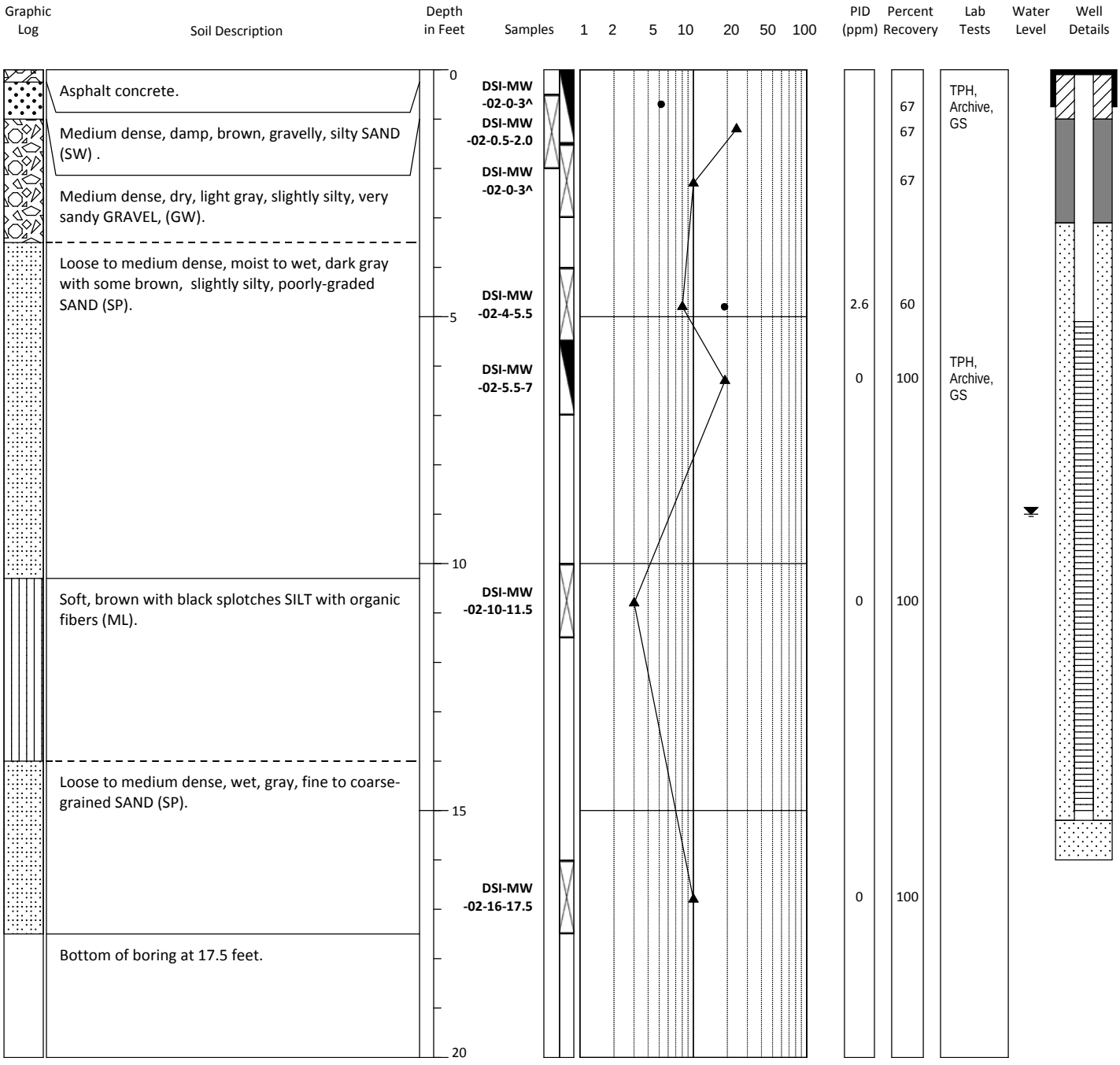
Monitoring Well Log

Sheet: 1 of 1

DSI-MW-02

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **16.6**
Project #: **080111-01**	Groundwater Depth (BGS): **3.0**
Client: **DSI**	Northing: **204619.5** Easting: **1267537.9**
Date: **7/14/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Gregory Drilling**	Vertical Datum: **MLLW**
Operator: **Corey James**	Method: **Hollow-Stem Auger**
Logged By: **Wes MacDonald**	Groundwater Screen Interval: **5.1 - 15**

▲ STANDARD PENETRATION



● Water Content (percent)

ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.

^Additional samples taken approximately 5 ft. away to obtain more material for chemistry analyses.

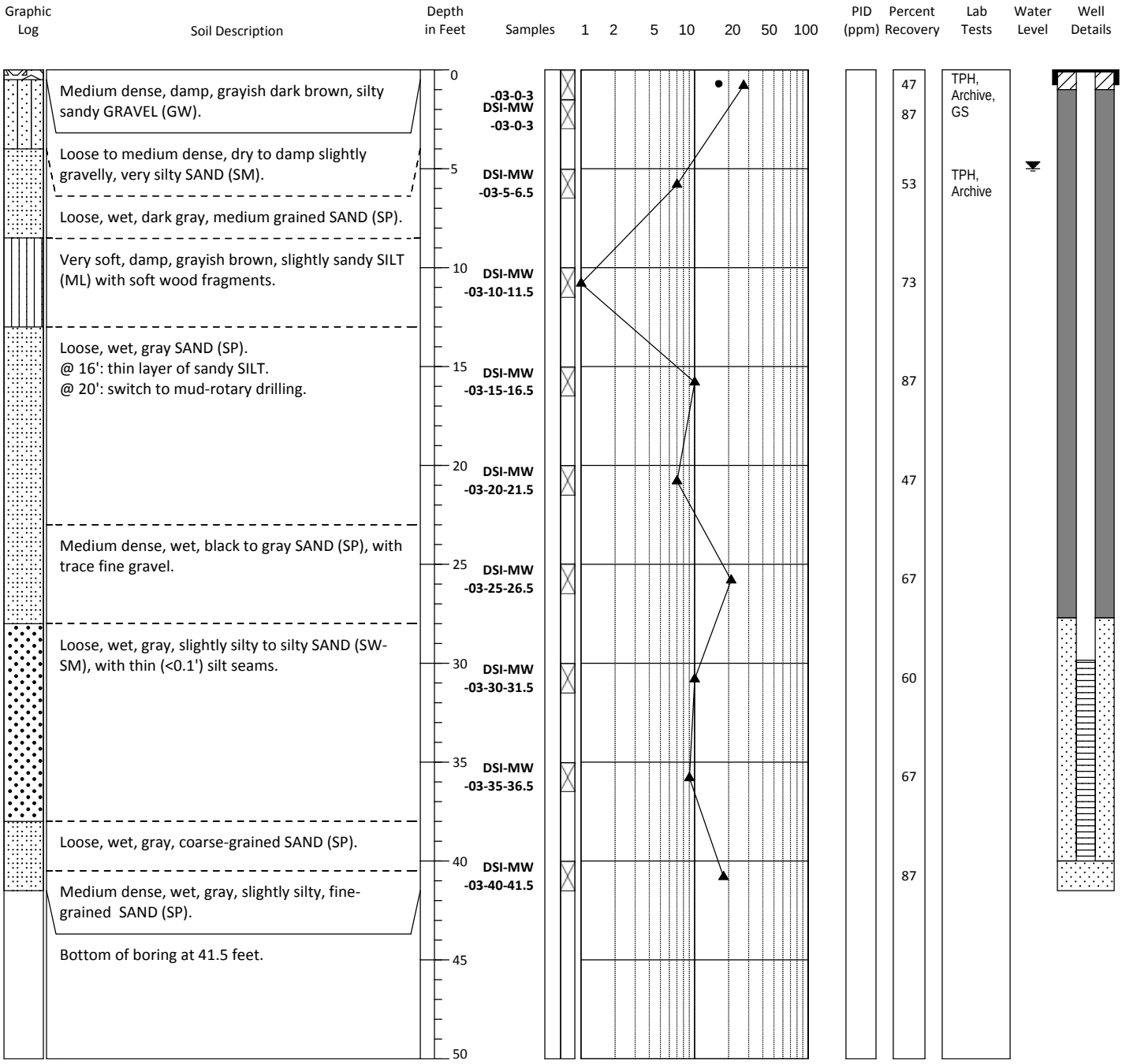
Monitoring Well Log

Sheet: 1 of 1

DSI-MW-03

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.3**
Project #: **080111-01**	Groundwater Depth (BGS): **5.0**
Client: **DSI**	Northing: **204467.0** Easting: **1267731.4**
Date: **7/13/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Gregory Drilling**	Vertical Datum: **MLLW**
Operator: **Corey James**	Method: **Hollow-Stem Auger and Mud-Rotary**
Logged By: **Wes MacDonald**	Groundwater Screen Interval: **29.85 - 39.75**

▲ STANDARD PENETRATION



● Water Content (percent)

ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.

^Additional samples taken approximately 5 ft. away to obtain more material for chemistry analyses.

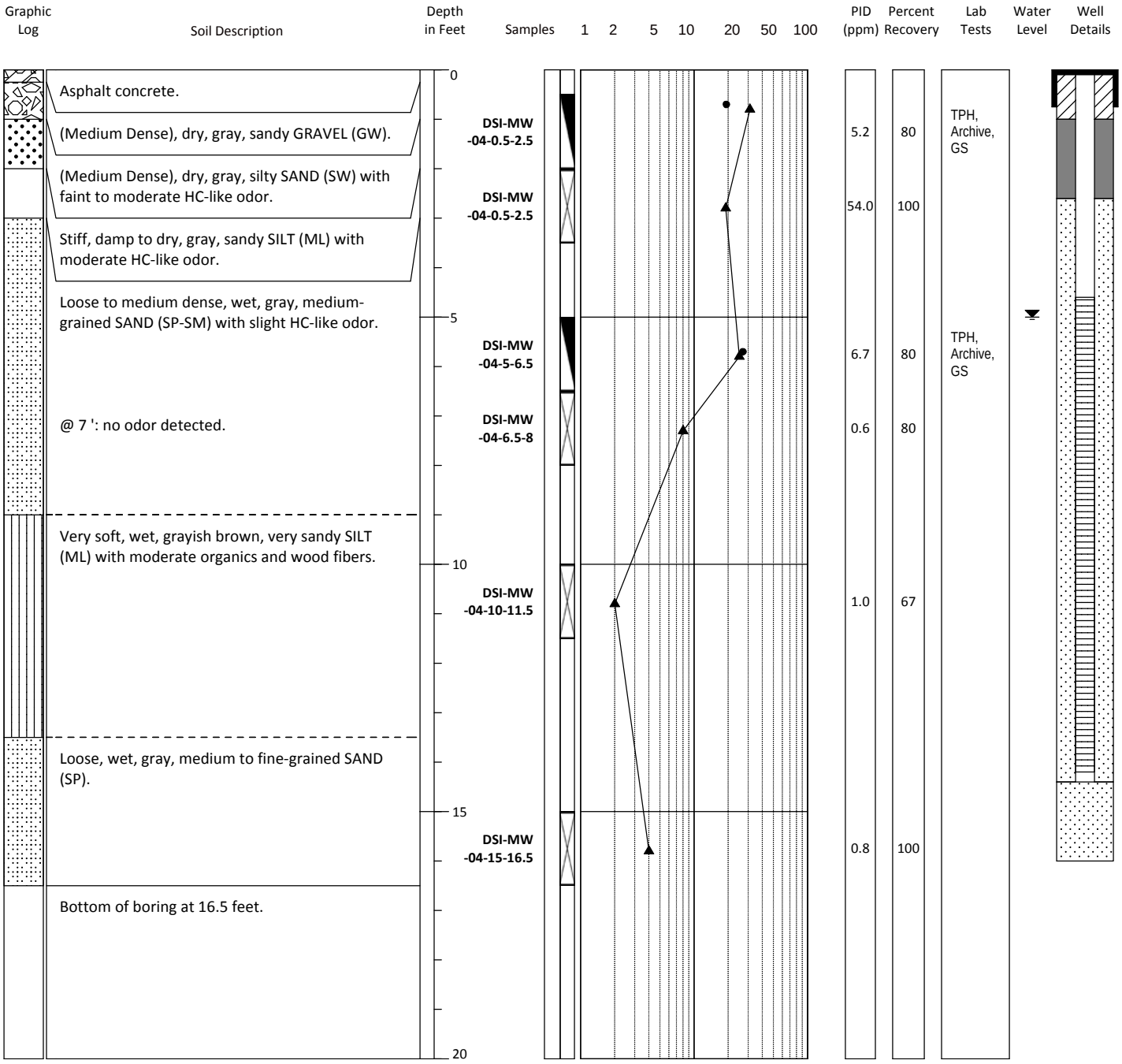
Monitoring Well Log

Sheet: 1 of 1

DSI-MW-04

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.4**
Project #: **080111-01**	Groundwater Depth (BGS): **5.0**
Client: **DSI**	Northing: **204416.2** Easting: **1267895.0**
Date: **7/14/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Gregory Drilling**	Vertical Datum: **MLLW**
Operator: **Corey James**	Method: **Hollow-Stem Auger**
Logged By: **Wes MacDonald**	Groundwater Screen Interval: **4.6 - 14.2**

▲ STANDARD PENETRATION



● Water Content (percent)

ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.

^Additional samples taken approximately 5 ft. away to obtain more material for chemistry analyses.

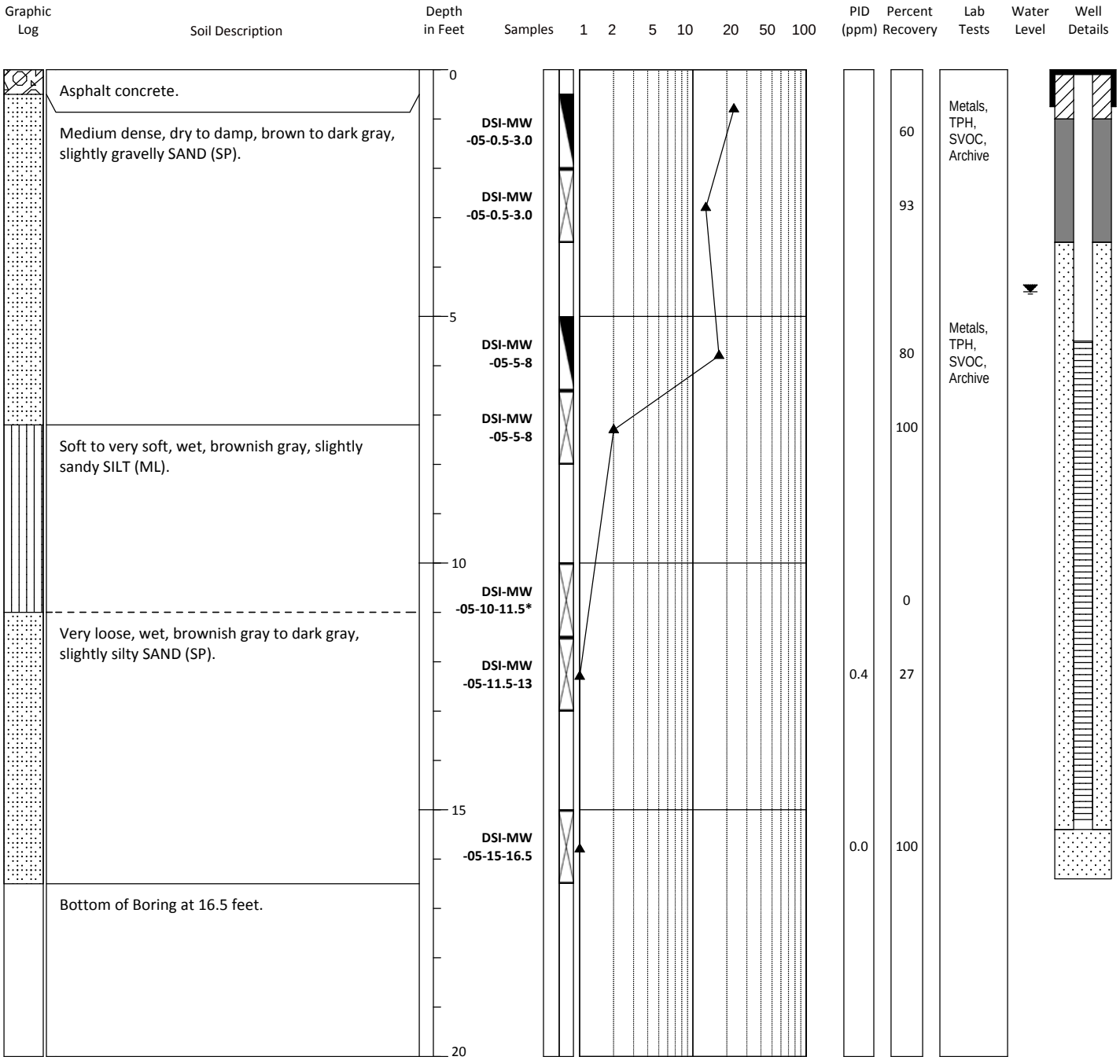
Monitoring Well Log

Sheet: 1 of 1

DSI-MW-05

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.1**
Project #: **080111-01**	Groundwater Depth (BGS): **4.5**
Client: **DSI**	Northing: **204575.2** Easting: **1267969.8**
Date: **7/14/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Gregory Drilling**	Vertical Datum: **MLLW**
Operator: **Corey James**	Method: **Hollow-Stem Auger**
Logged By: **Wes MacDonald**	Groundwater Screen Interval: **5.5 - 15.2**

▲ STANDARD PENETRATION



● Water Content (percent)

ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.

^Additional samples taken approximately 5 ft. away to obtain more material for chemistry analyses.

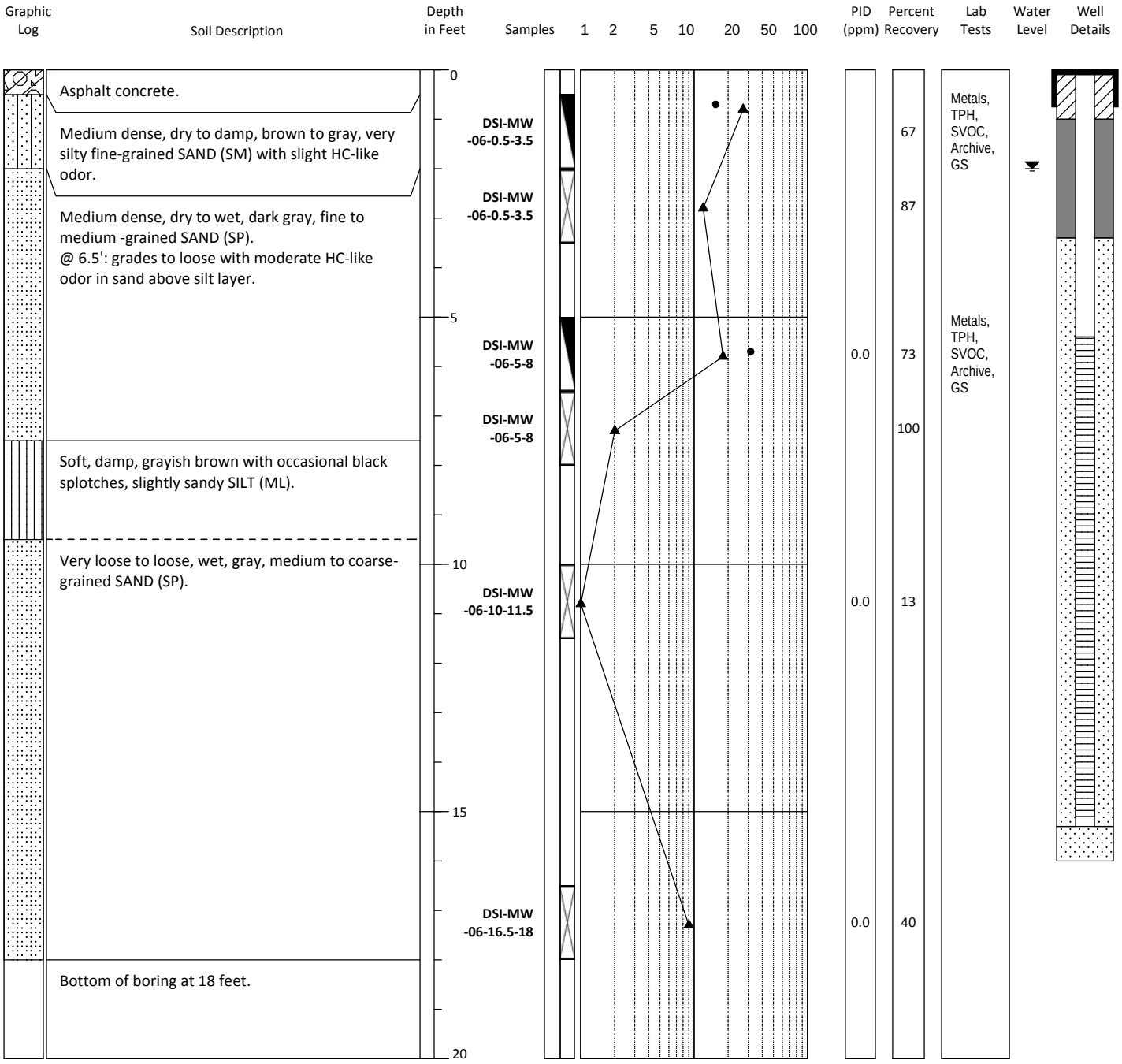
Monitoring Well Log

Sheet: 1 of 1

DSI-MW-06

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **14.8**
Project #: **080111-01**	Groundwater Depth (BGS): **2.0**
Client: **DSI**	Northing: **204456.3** Easting: **1267953.3**
Date: **7/15/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Gregory Drilling**	Vertical Datum: **MLLW**
Operator: **Corey James**	Method: **Hollow-Stem Auger**
Logged By: **Wes MacDonald**	Groundwater Screen Interval: **5.4 - 15.1**

▲ STANDARD PENETRATION



● Water Content (percent)

ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.

^Additional samples taken approximately 5 ft. away to obtain more material for chemistry analyses.

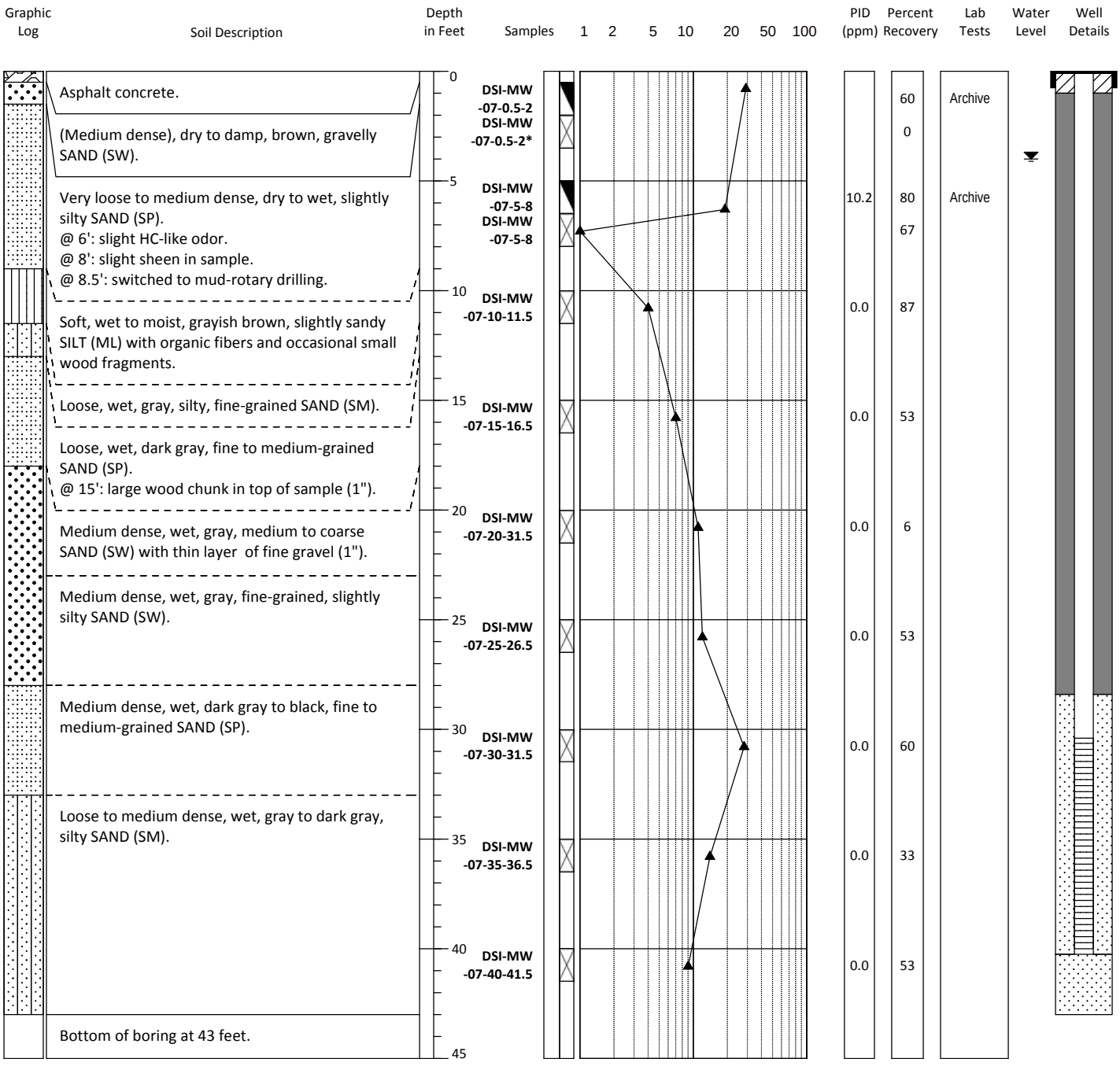
Monitoring Well Log

Sheet: 1 of 1

DSI-MW-07

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **14.8**
Project #: **080111-01**	Groundwater Depth (BGS): **4.0**
Client: **DSI**	Northing: **204463.4** Easting: **1267953.3**
Date: **7/15/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Gregory Drilling**	Vertical Datum: **MLLW**
Operator: **Corey James**	Method: **Hollow-Stem Auger and Mud-Rotary**
Logged By: **Wes MacDonald**	Groundwater Screen Interval: **30.4 - 40**

▲ STANDARD PENETRATION



● Water Content (percent)

ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.

^Additional samples taken approximately 5 ft. away to obtain more material for chemistry analyses.

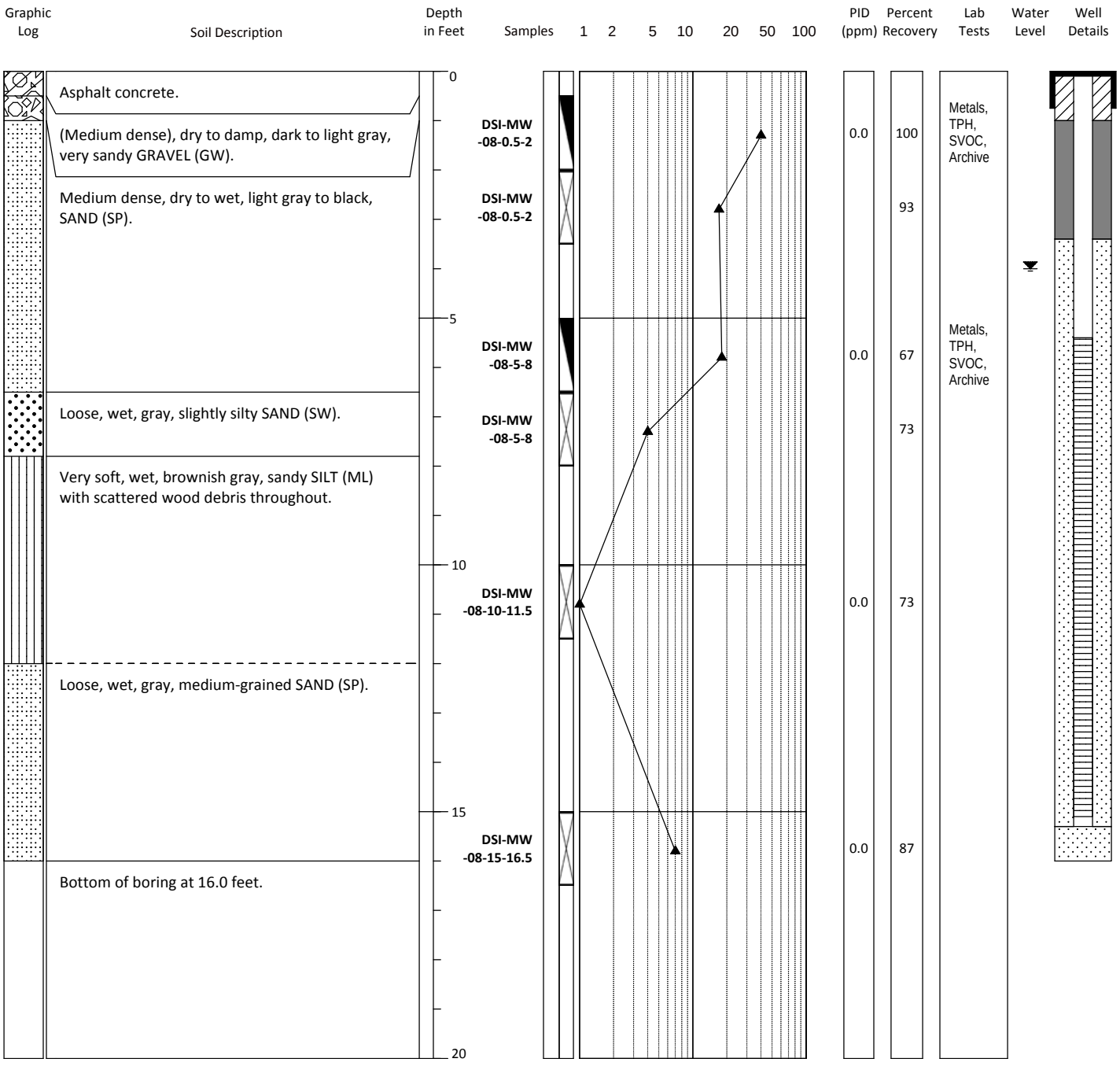
Monitoring Well Log

Sheet: 1 of 1

DSI-MW-08

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **14.9**
Project #: **080111-01**	Groundwater Depth (BGS): **4.0**
Client: **DSI**	Northing: **204366.3** Easting: **1267967.6**
Date: **7/15/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Gregory Drilling**	Vertical Datum: **MLLW**
Operator: **Corey James**	Method: **Hollow-Stem Auger**
Logged By: **Wes MacDonald**	Groundwater Screen Interval: **30.4 - 40**

▲ STANDARD PENETRATION



● Water Content (percent)

ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.

^Additional samples taken approximately 5 ft. away to obtain more material for chemistry analyses.

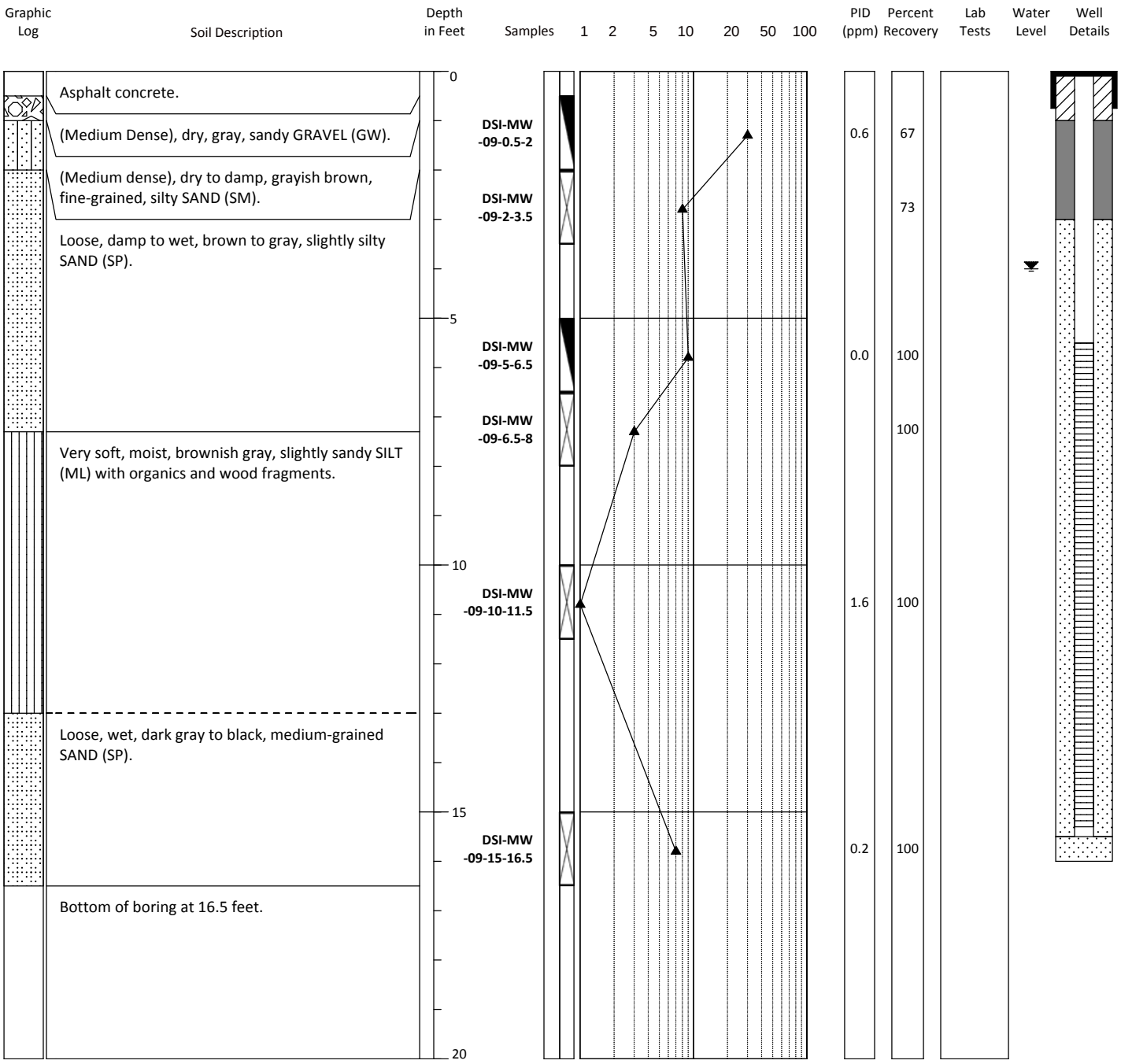
Monitoring Well Log

Sheet: 1 of 1

DSI-MW-09

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **14.5**
Project #: **080111-01**	Groundwater Depth (BGS): **4.0**
Client: **DSI**	Northing: **204267.4** Easting: **1267963.8**
Date: **7/14/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Gregory Drilling**	Vertical Datum: **MLLW**
Operator: **Corey James**	Method: **Hollow-Stem Auger**
Logged By: **Wes MacDonald**	Groundwater Screen Interval: **5.5 - 15.3**

▲ STANDARD PENETRATION



● Water Content (percent)

ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.

^Additional samples taken approximately 5 ft. away to obtain more material for chemistry analyses.

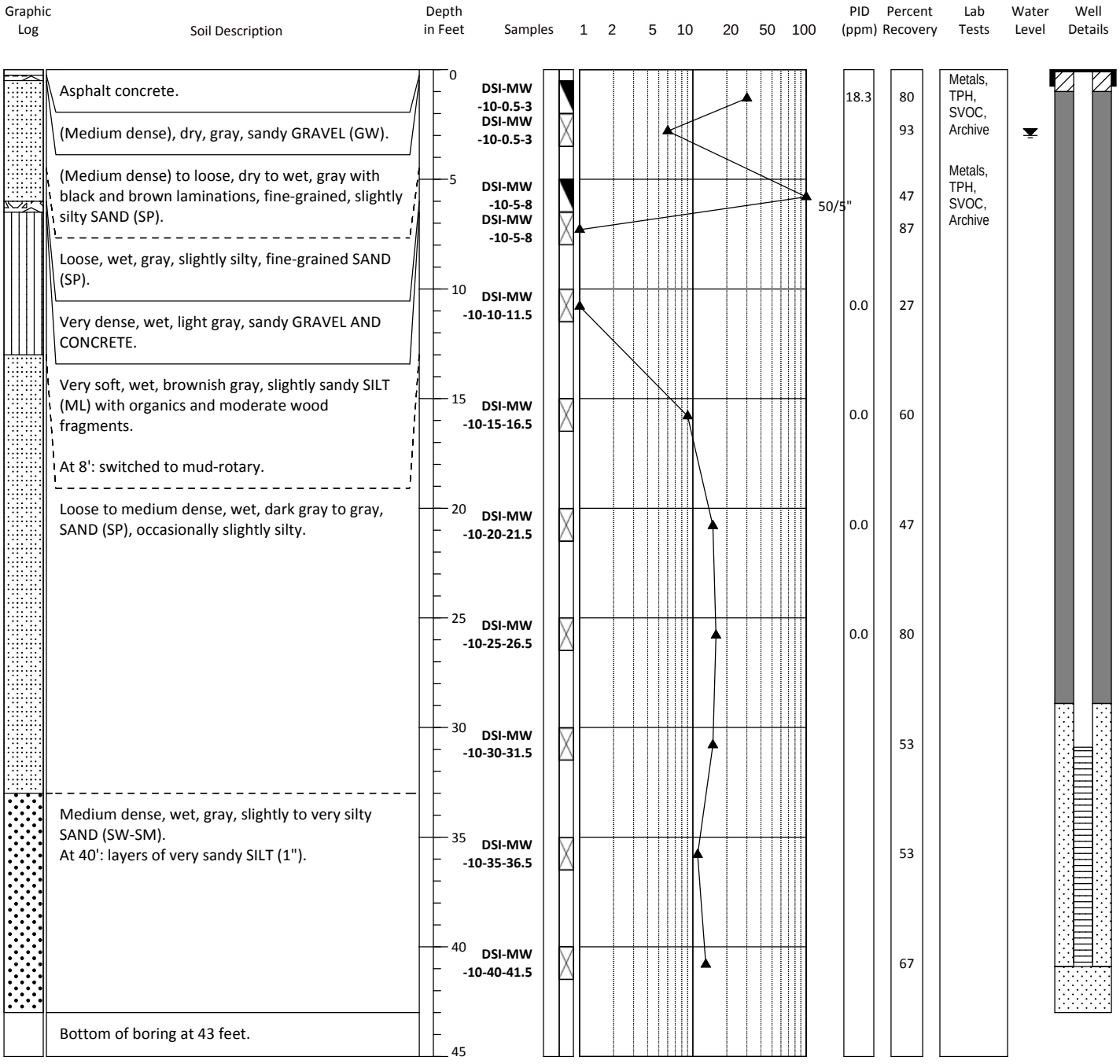
Monitoring Well Log

Sheet: 1 of 1

DSI-MW-10

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **14.5**
Project #: **080111-01**	Groundwater Depth (BGS): **4.0**
Client: **DSI**	Northing: **204275.5** Easting: **1267964.6**
Date: **7/14/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Gregory Drilling**	Vertical Datum: **MLLW**
Operator: **Corey James**	Method: **Hollow-Stem Auger and Mud-Rotary**
Logged By: **Wes MacDonald**	Groundwater Screen Interval: **30.9 - 40.7**

▲ STANDARD PENETRATION



● Water Content (percent)

ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.

^Additional samples taken approximately 5 ft. away to obtain more material for chemistry analyses.

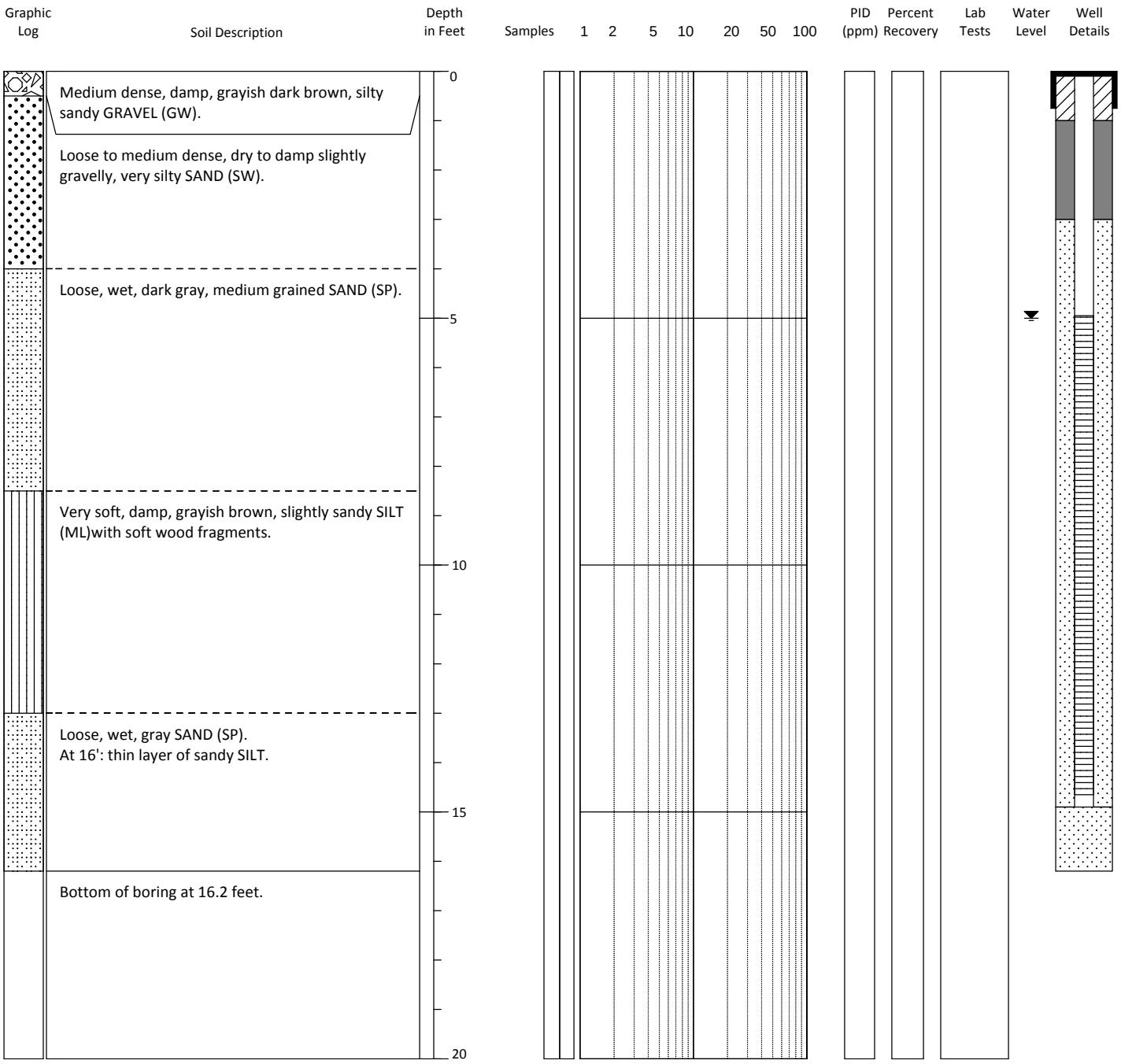
Monitoring Well Log

Sheet: 1 of 1

DSI-PZ-01

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.3**
Project #: **080111-01**	Groundwater Depth (BGS): **5.0**
Client: **DSI**	Northing: **204468.6** Easting: **1267724.5**
Date: **7/13/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Gregory Drilling**	Vertical Datum: **MLLW**
Operator: **Corey James**	Method: **Hollow-Stem Auger**
Logged By: **Wes MacDonald**	Groundwater Screen Interval: **4.95 - 14.65**

▲ STANDARD PENETRATION



● Water Content (percent)

ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.

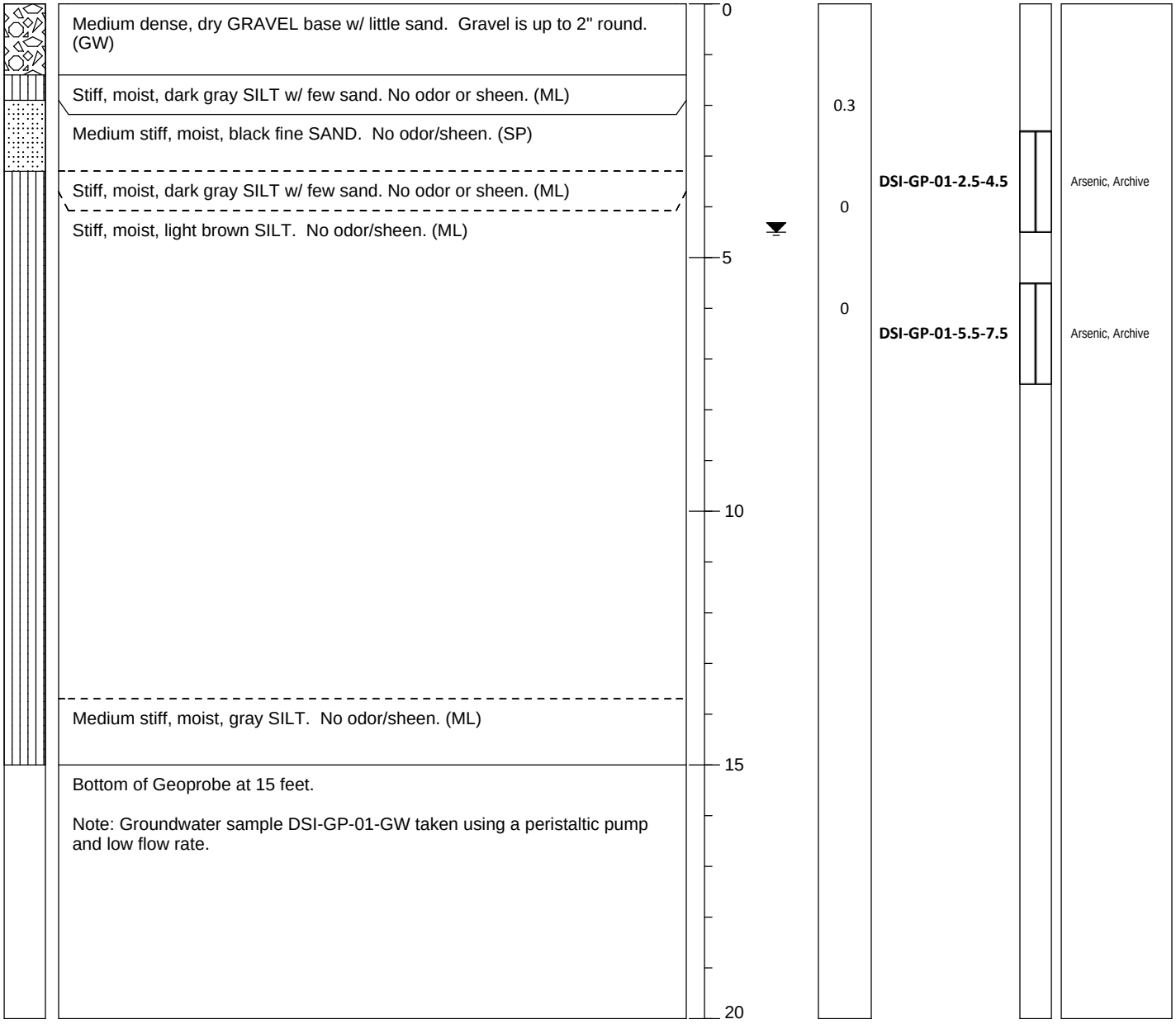
^Additional samples taken approximately 5 ft. away to obtain more material for chemistry analyses.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-01

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.63**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **4.5**
Client: **DSI**	Northing: **204366.8** Easting: **1267444.9**
Date: **7/15/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Nathan Soccorsy**	Temporary Groundwater Screen Interval: **4-9 - 6.5'**



ANCHOR QEA

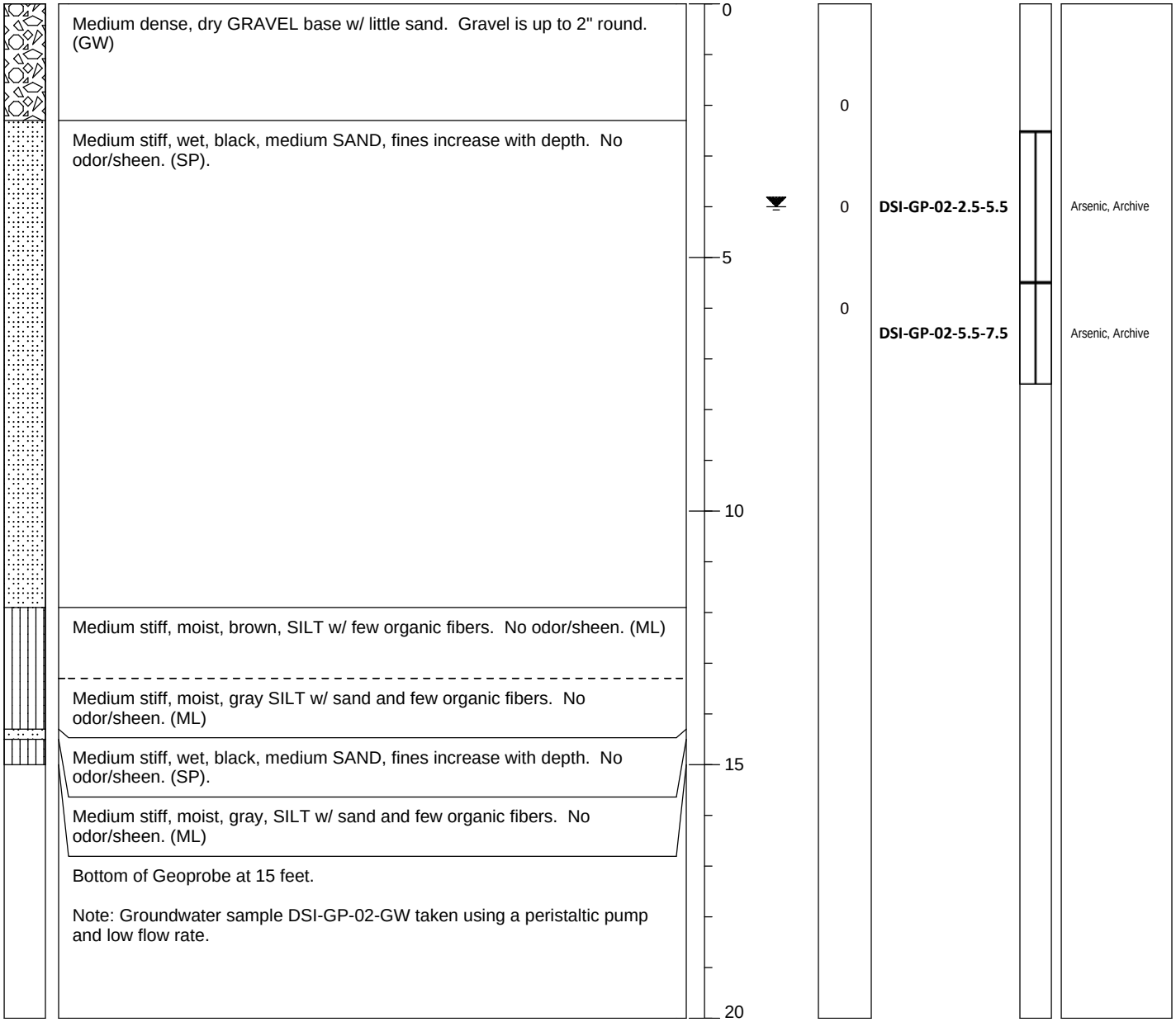
1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

DSI-GP-02

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.14**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **4.0**
Client: **DSI**	Northing: **204352.9** Easting: **1267499.2**
Date: **7/15/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Nathan Soccorsy**	Temporary Groundwater Screen Interval: **4-9 - 6.5'**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

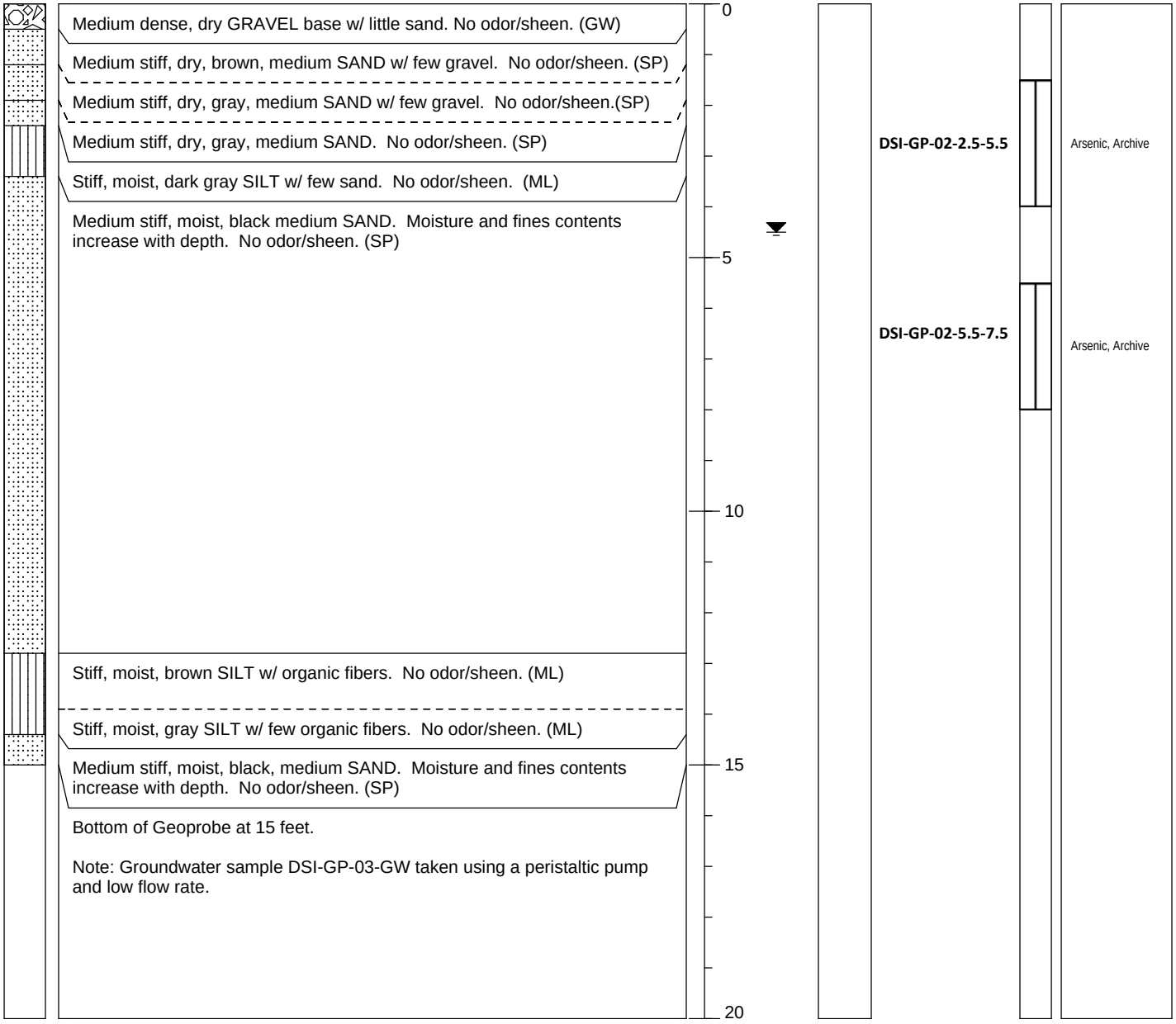
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-03

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **16.00**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **4.5**
Client: **DSI**	Northing: **204444.5** Easting: **1267485.2**
Date: **7/15/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Nathan Soccorsy**	Temporary Groundwater Screen Interval: **4.5 - 9.5'**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-04

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.74**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **4.0**
Client: **DSI**	Northing: **204594.8** Easting: **1267562.5**
Date: **7/15/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Nathan Soccorsy**	Temporary Groundwater Screen Interval: **4.0 - 9.0'**

Graphic Log	Sediment Description	Depth in Feet	Water Level	PID	Samples	Lab Tests
	Medium dense, dry, GRAVEL base w/ little sand. Gravel up to 2" round. No odor/sheen. (GW)	0				
	Stiff, damp, dark gray, SILT w/ few fine sand. No odor/sheen. (ML)					
	Medium dense, damp, dark brown to dark gray, fine to medium SAND w/ few silt. Slight to moderate diesel-like odor, no sheen.(SM) @ 4': dampens to moist, no odor/sheen	5	▽		**DSI-GP-04-2.5-4.5**	VPH/EPH, Archive
	Medium dense, moist, dark brown to dark gray, fine SAND w/ few silt. No odor/sheen. (SM)				**DSI-GP-04-5.5-7.5**	VPH/EPH, Archive
	Medium dense, moist, dark grey silty fine SAND. No odor/sheen. (SM)	10				
	Medium stiff, moist, brown w/ dark gray mottling, SILT w/ few fine sand and moderate wood fibers. (ML) @ 14.3': 2" layer of silty fine SAND.	15				
	Bottom of Geoprobe at 15 feet. Note: Groundwater sample DSI-GP-04-GW taken using a peristaltic pump and low flow rate.	20				

ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

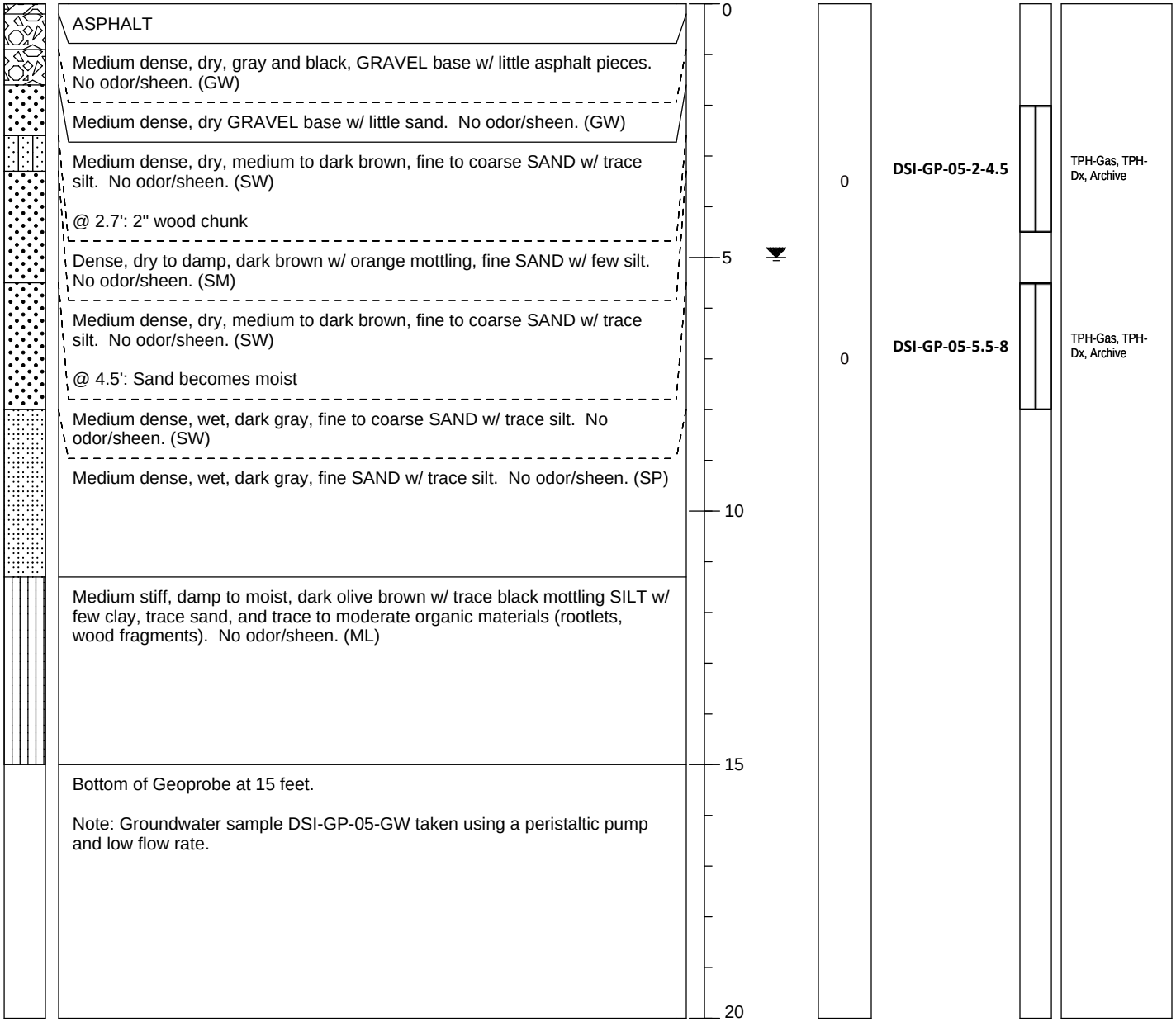
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-05

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **16.54**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **5.0**
Client: **DSI**	Northing: **204589.6** Easting: **1267499.8**
Date: **7/14/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **5.0 - 10.0'**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

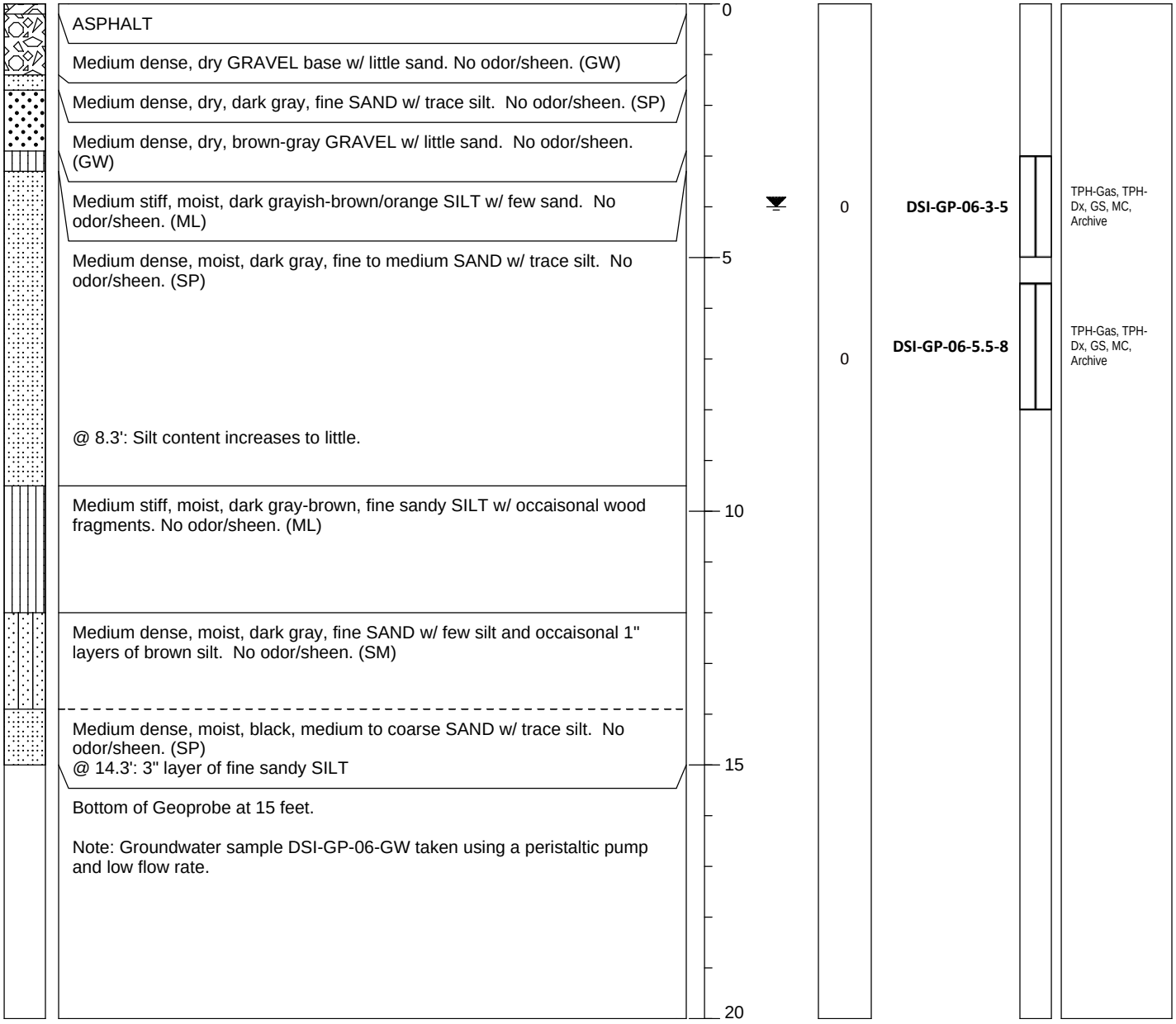
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-06

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.72**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **4.0**
Client: **DSI**	Northing: **204589.6** Easting: **1267499.8**
Date: **7/14/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **5.0 - 10.0'**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

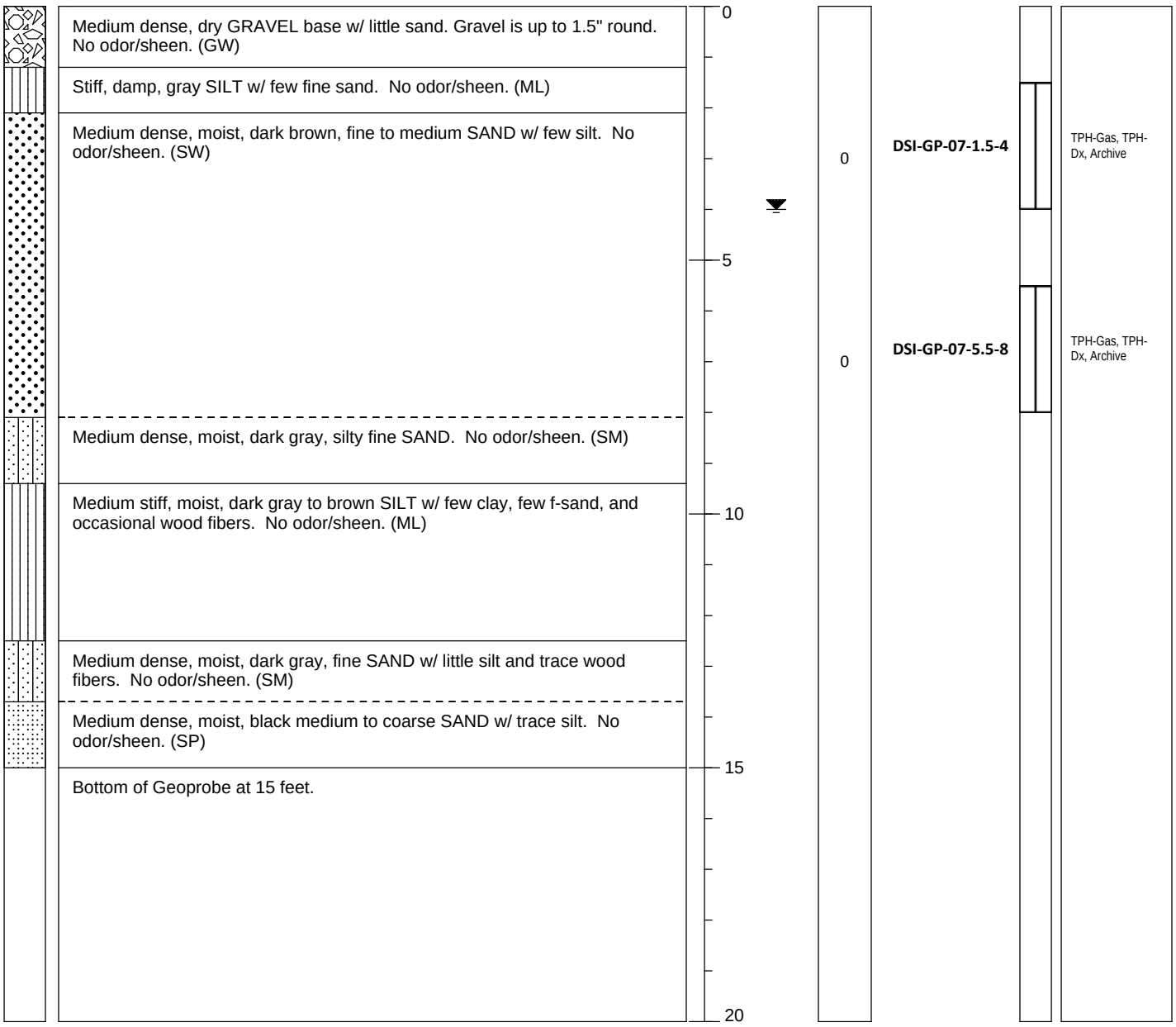
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-07

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.00**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **4.0**
Client: **DSI**	Northing: **204563.5** Easting: **1267662.1**
Date: **7/14/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **4.0 - 9.0'**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

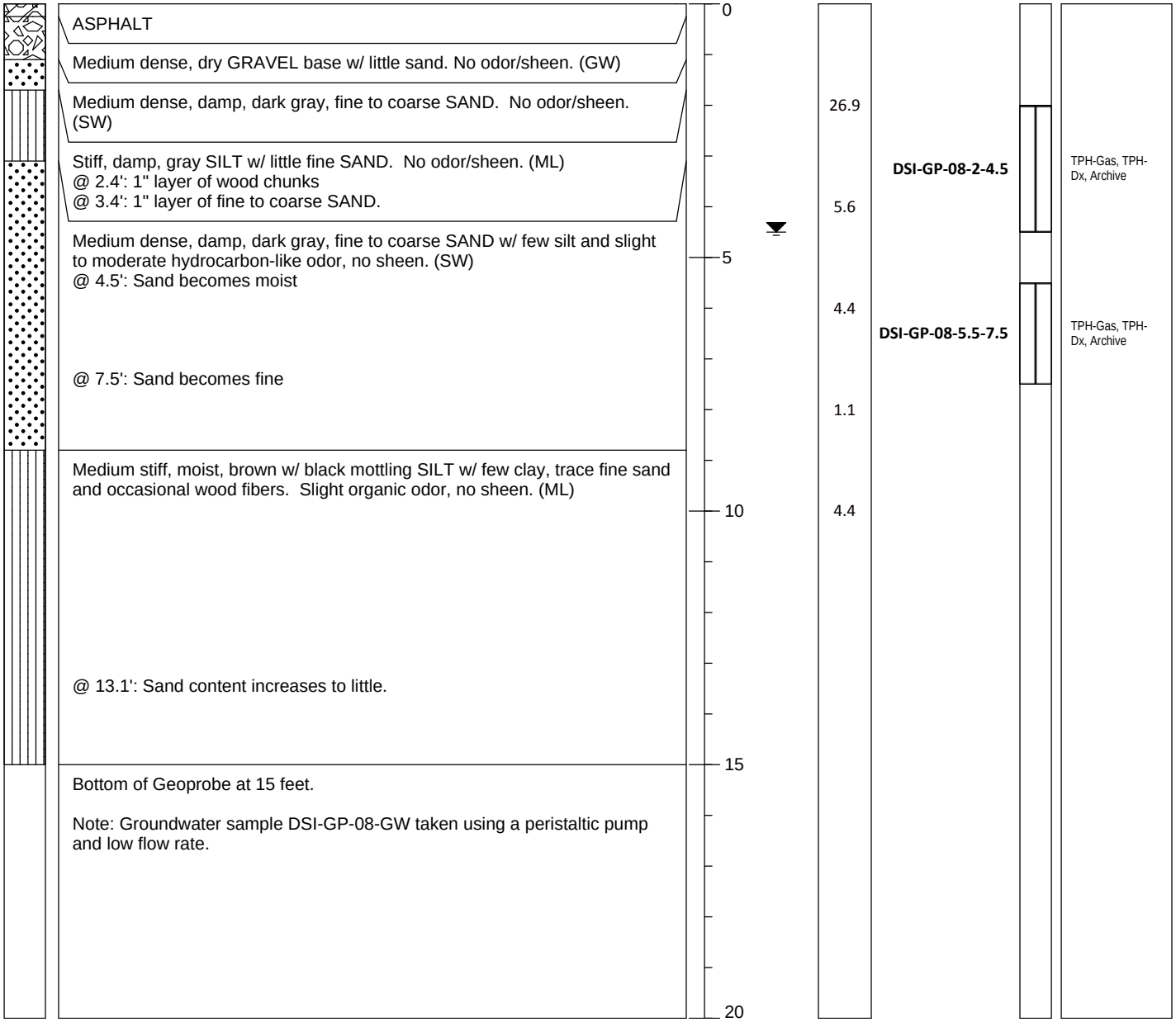
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-08

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.00**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **4.5**
Client: **DSI**	Northing: **204436.1** Easting: **1267860.1**
Date: **7/16/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **4.5 - 9.5'**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

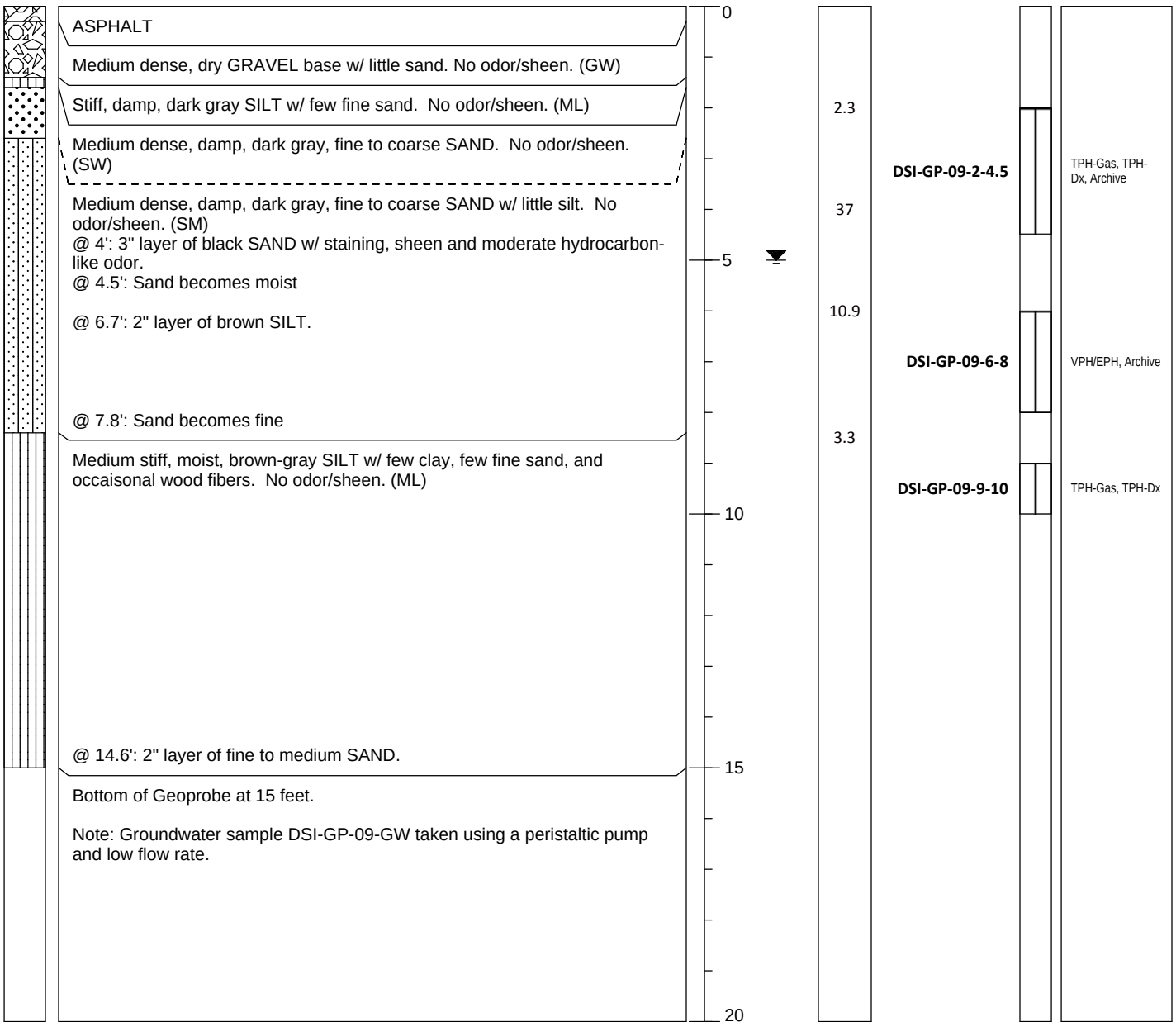
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-09

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.00**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **5.0**
Client: **DSI**	Northing: **204409.6** Easting: **1267877.0**
Date: **7/16/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **5.0 - 10.0'**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

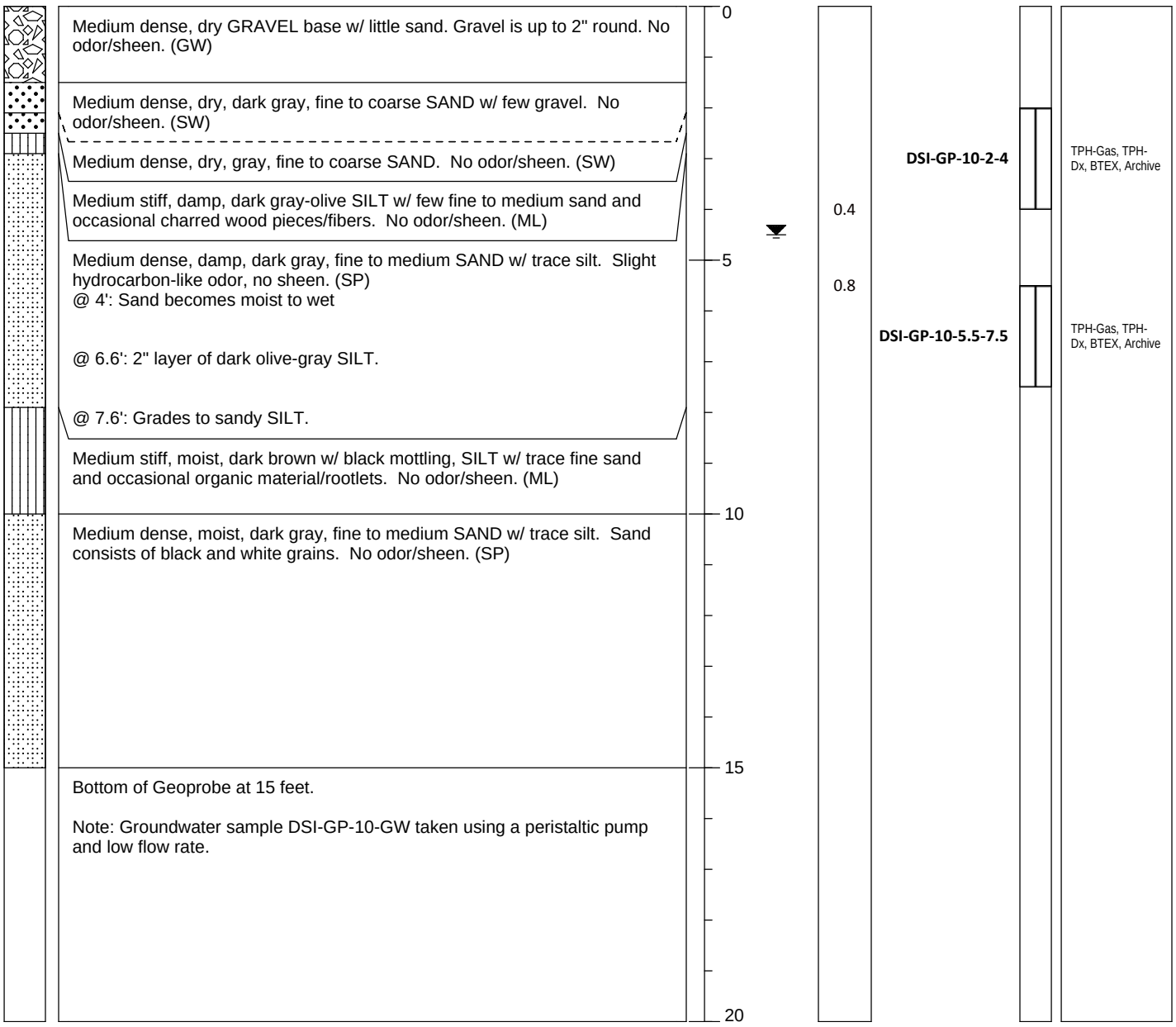
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-10

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.00**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **4.5**
Client: **DSI**	Northing: **204451.3** Easting: **1267792.9**
Date: **7/16/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **4.5 - 9.5'**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

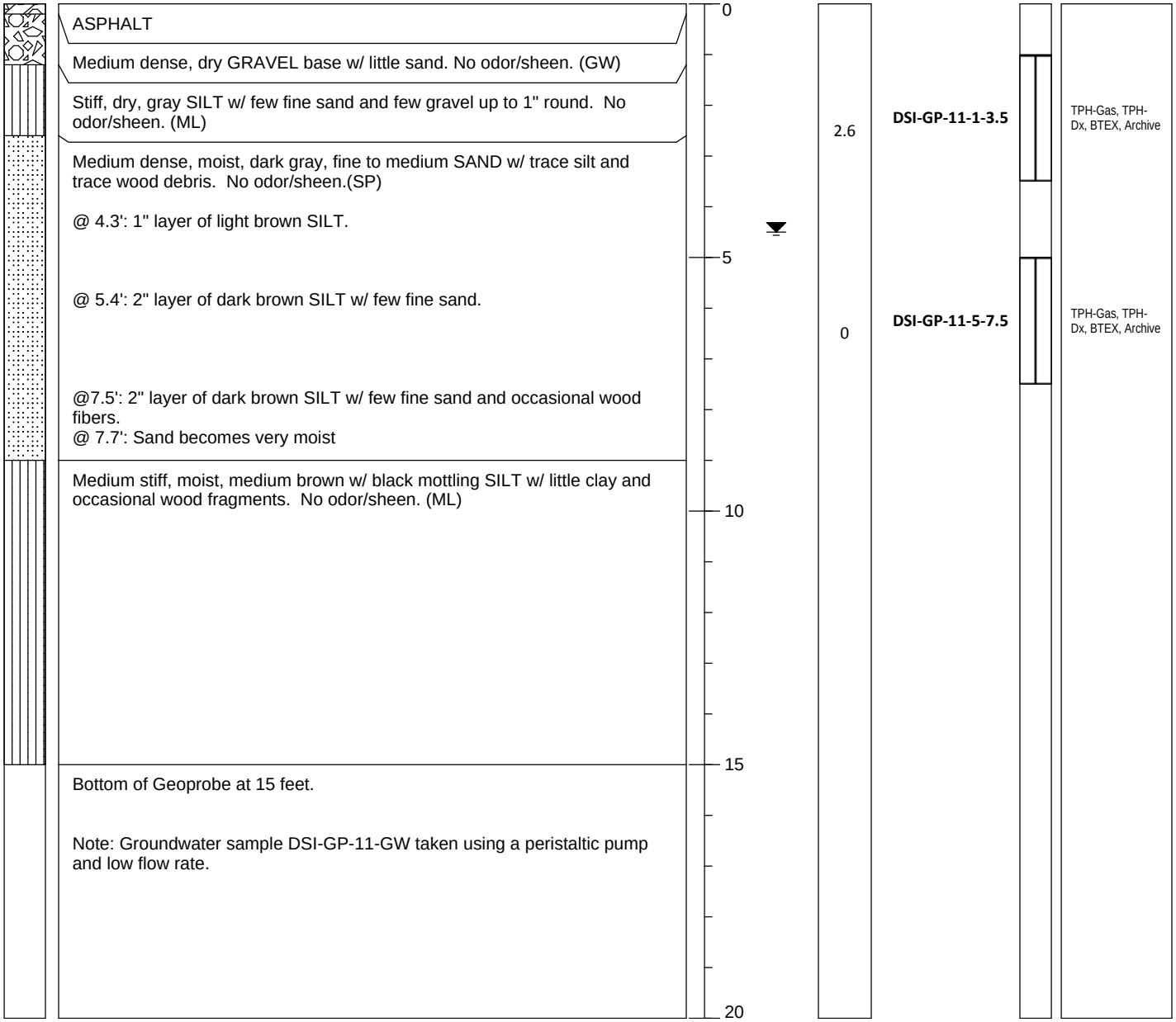
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-11

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.00**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **4.5**
Client: **DSI**	Northing: **204484.4** Easting: **1267873.1**
Date: **7/14/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **4.0 - 9.0'**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

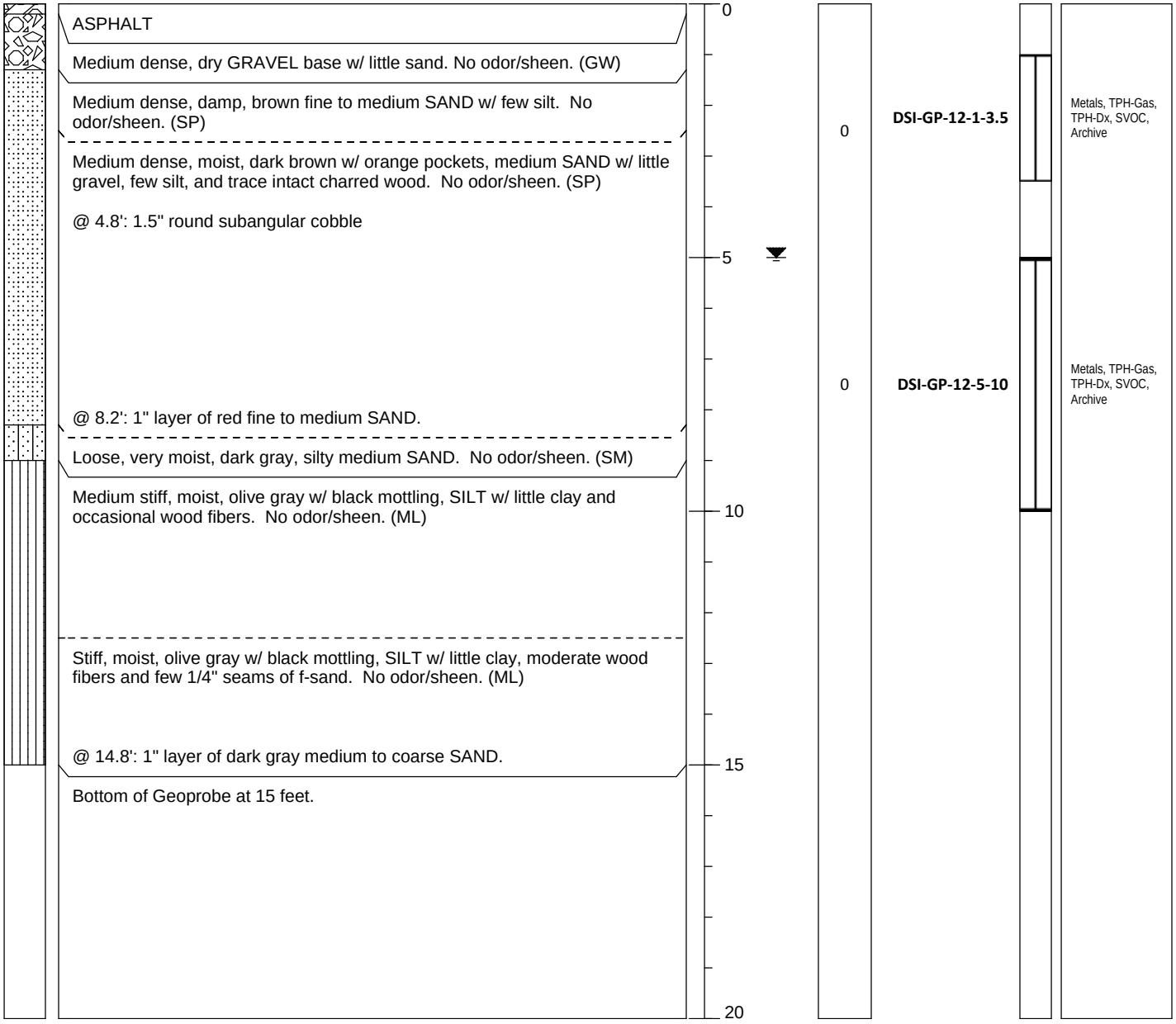
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-12

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **14.44**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **5.0**
Client: **DSI**	Northing: **204597.2** Easting: **1267998.9**
Date: **7/14/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **NA**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

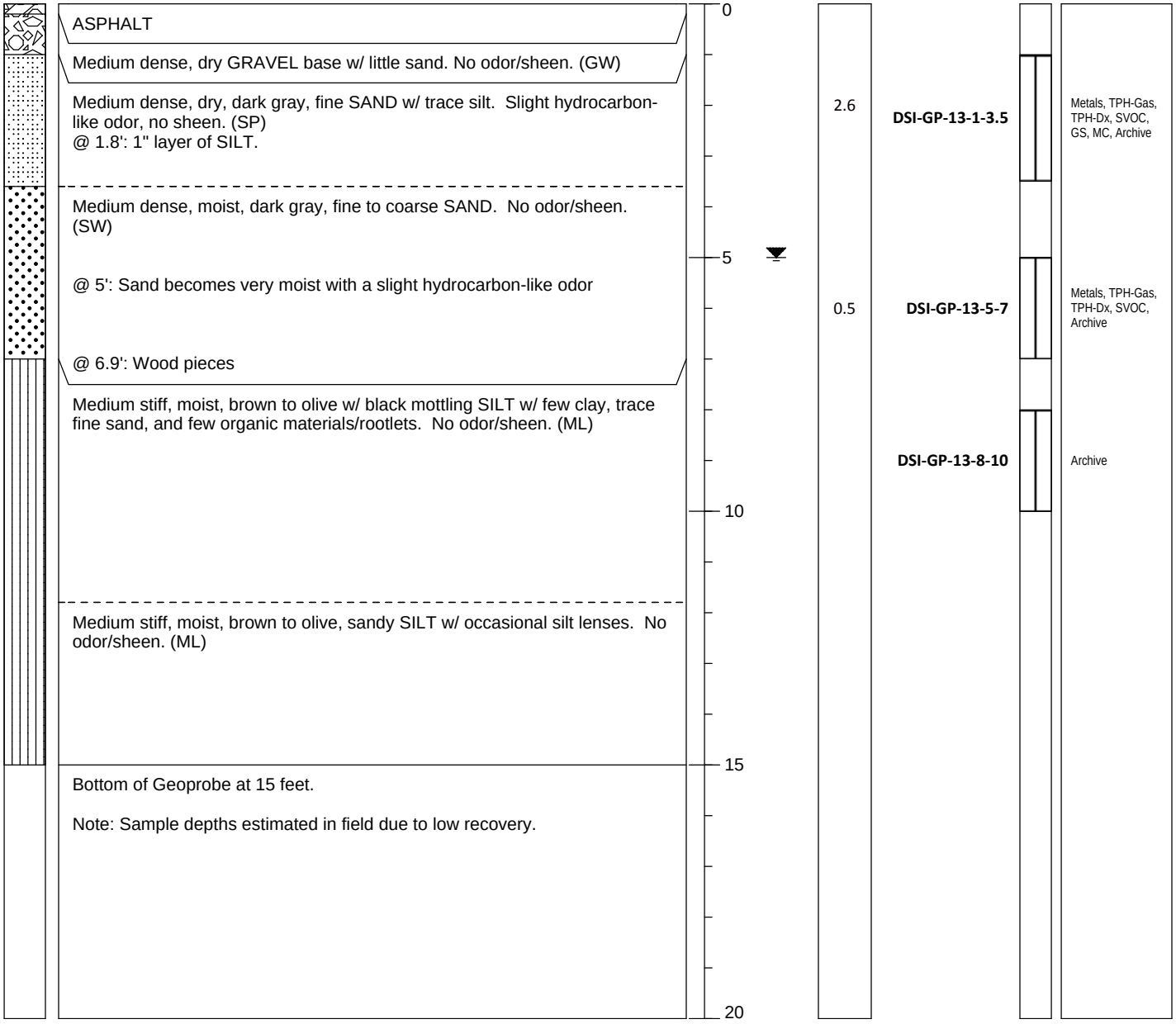
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-13

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **14.55**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **5.0**
Client: **DSI**	Northing: **204516.8** Easting: **1267988.7**
Date: **7/14/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **NA**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

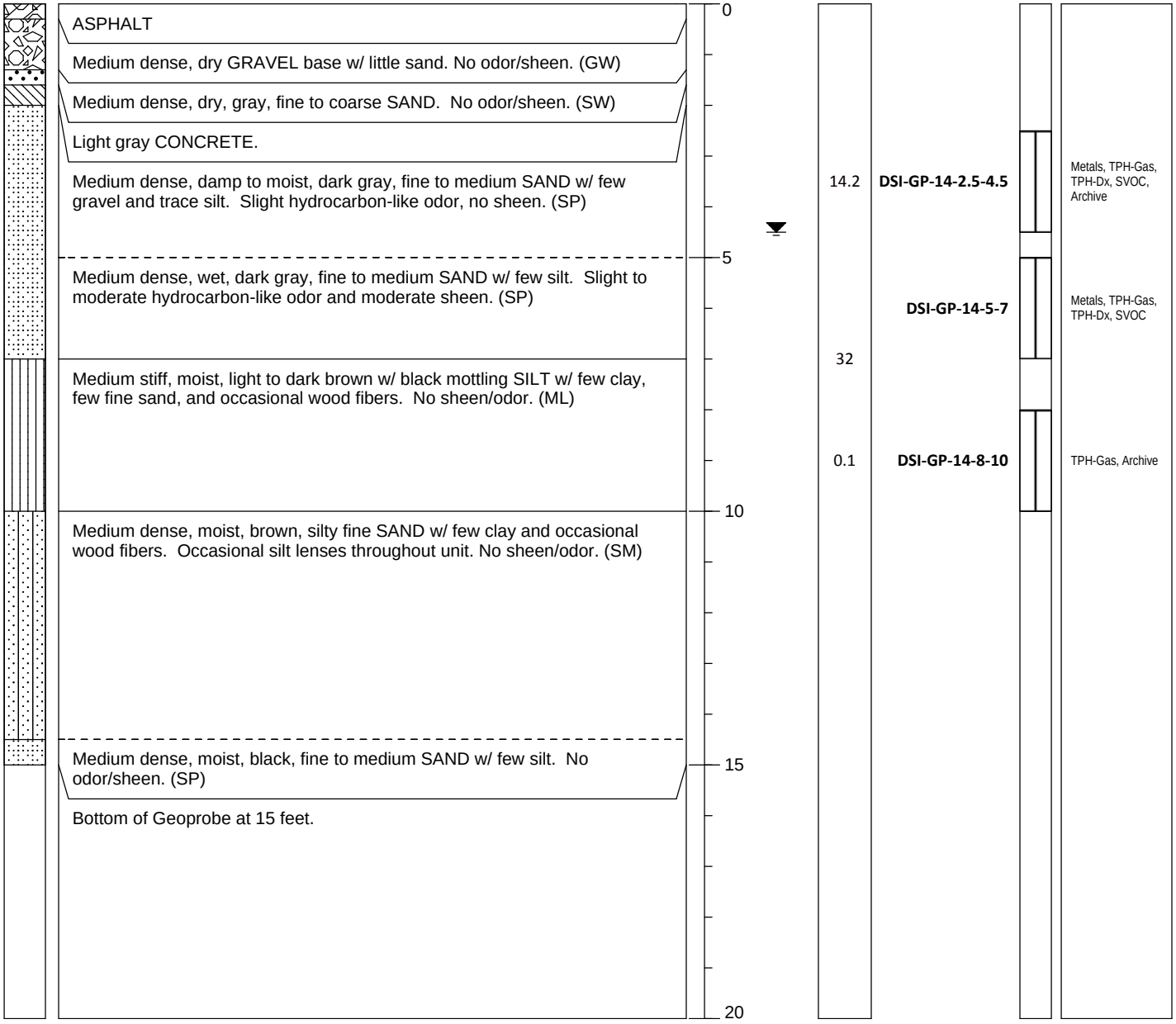
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-14

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **14.22**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **4.5**
Client: **DSI**	Northing: **204444.9** Easting: **1267995.4**
Date: **7/13/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **NA**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

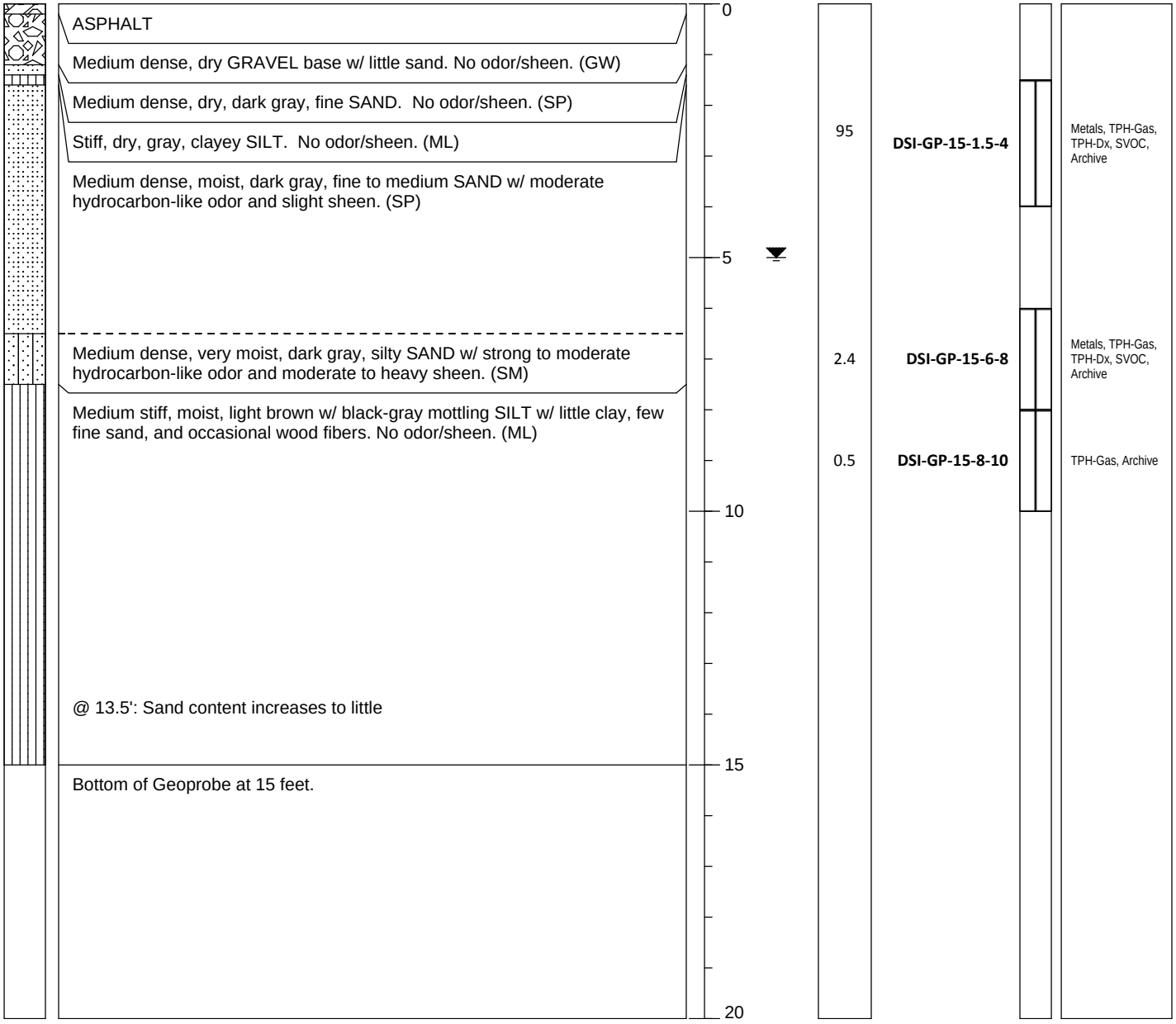
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-15

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **14.23**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **5.0**
Client: **DSI**	Northing: **204385.9** Easting: **1267993.2**
Date: **7/13/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **NA**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

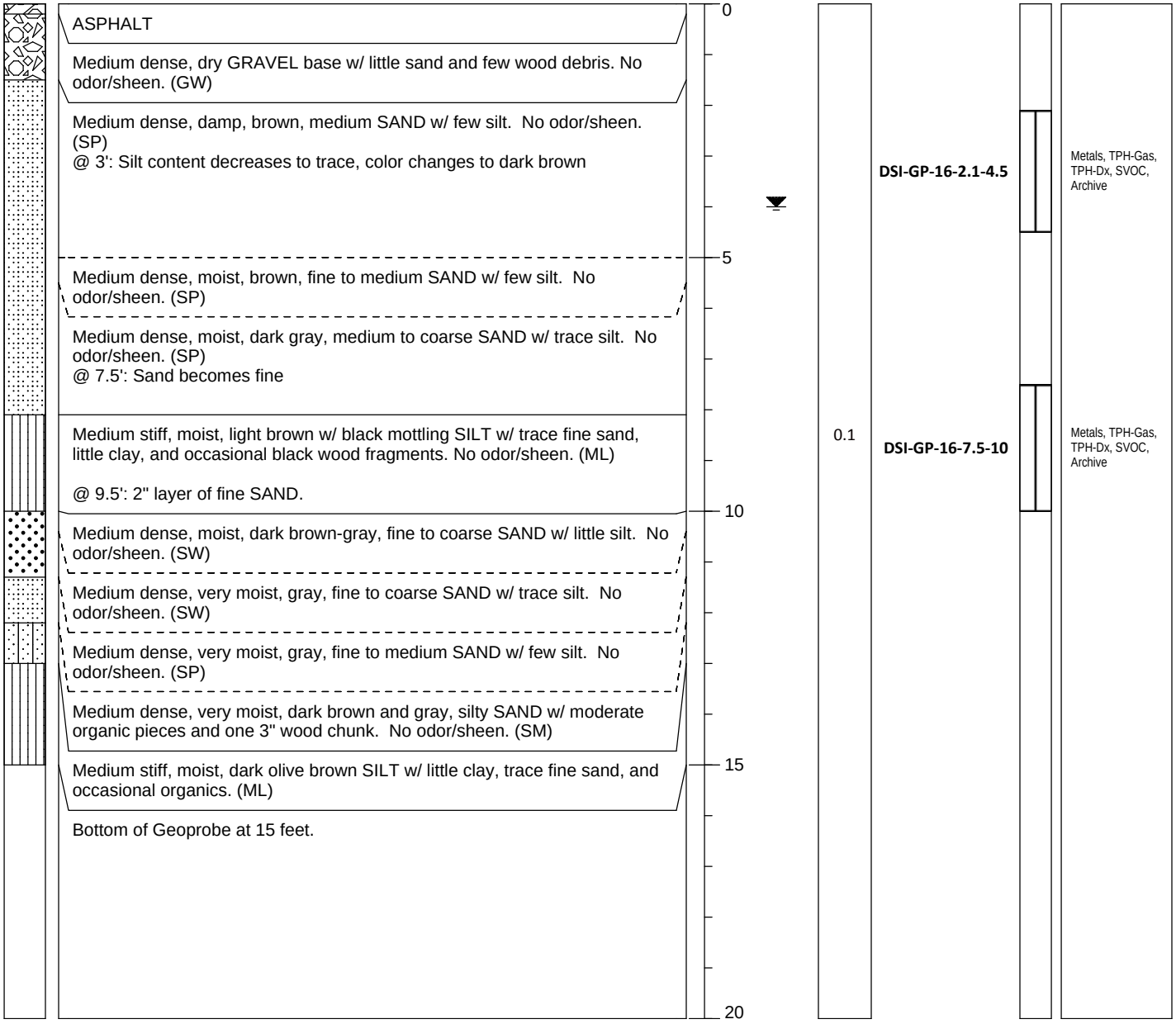
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-16

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **14.81**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **4.0**
Client: **DSI**	Northing: **204368.5** Easting: **1268022.8**
Date: **7/13/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **NA**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

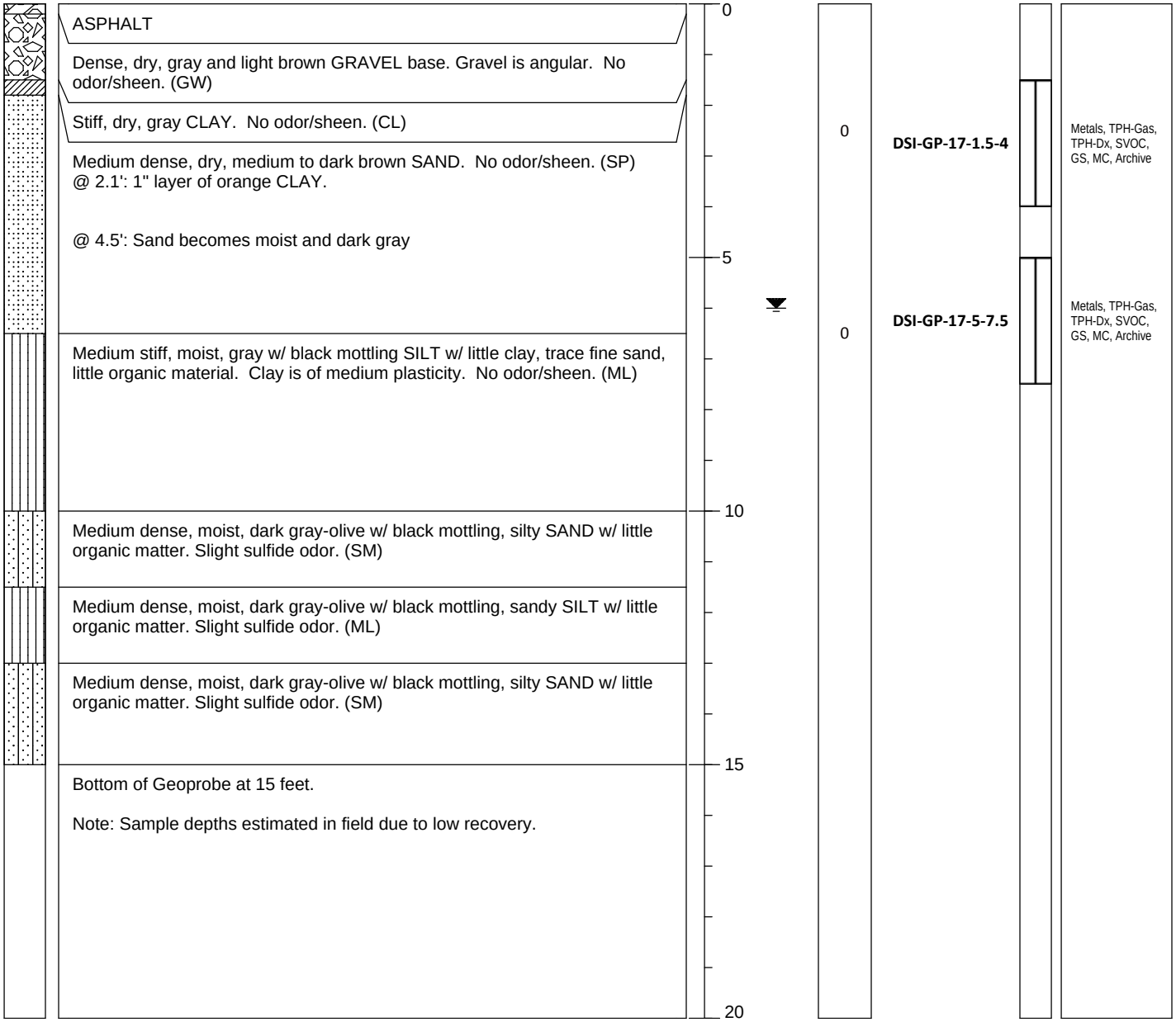
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-17

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **14.40**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **6.0**
Client: **DSI**	Northing: **204304.0** Easting: **1267974.9**
Date: **7/13/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **NA**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

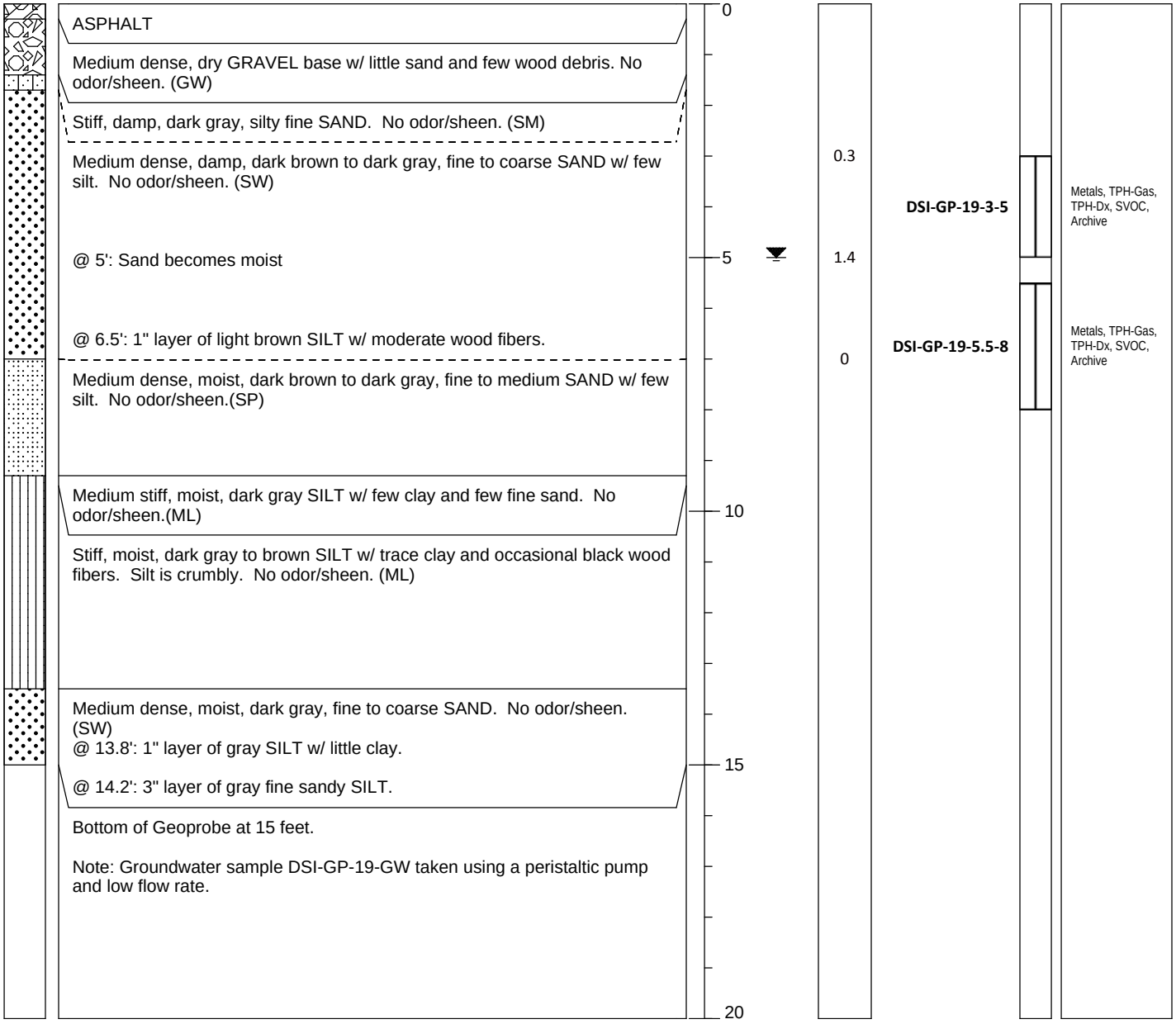
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-19

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.98**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **5.0**
Client: **DSI**	Northing: **204346.9** Easting: **1267668.9**
Date: **7/16/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **5.0 - 10.0'**



ANCHOR QEA

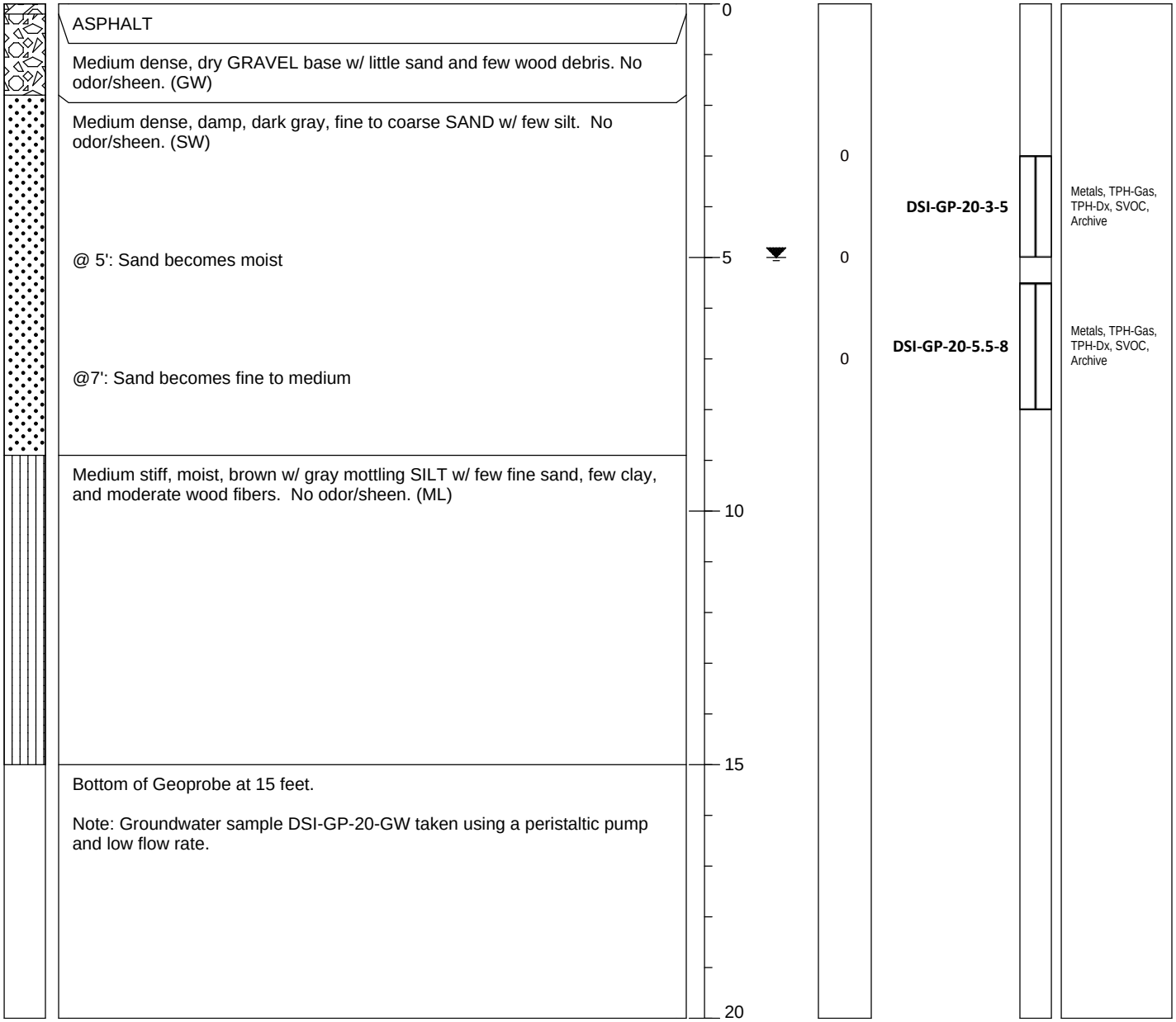
1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

DSI-GP-20

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.50**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **5.0**
Client: **DSI**	Northing: **204370.1** Easting: **1267785.6**
Date: **7/15/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **5.0 - 10.0'**



ANCHOR QEA
1423 3rd Avenue, Suite 300
Seattle, WA, 98101

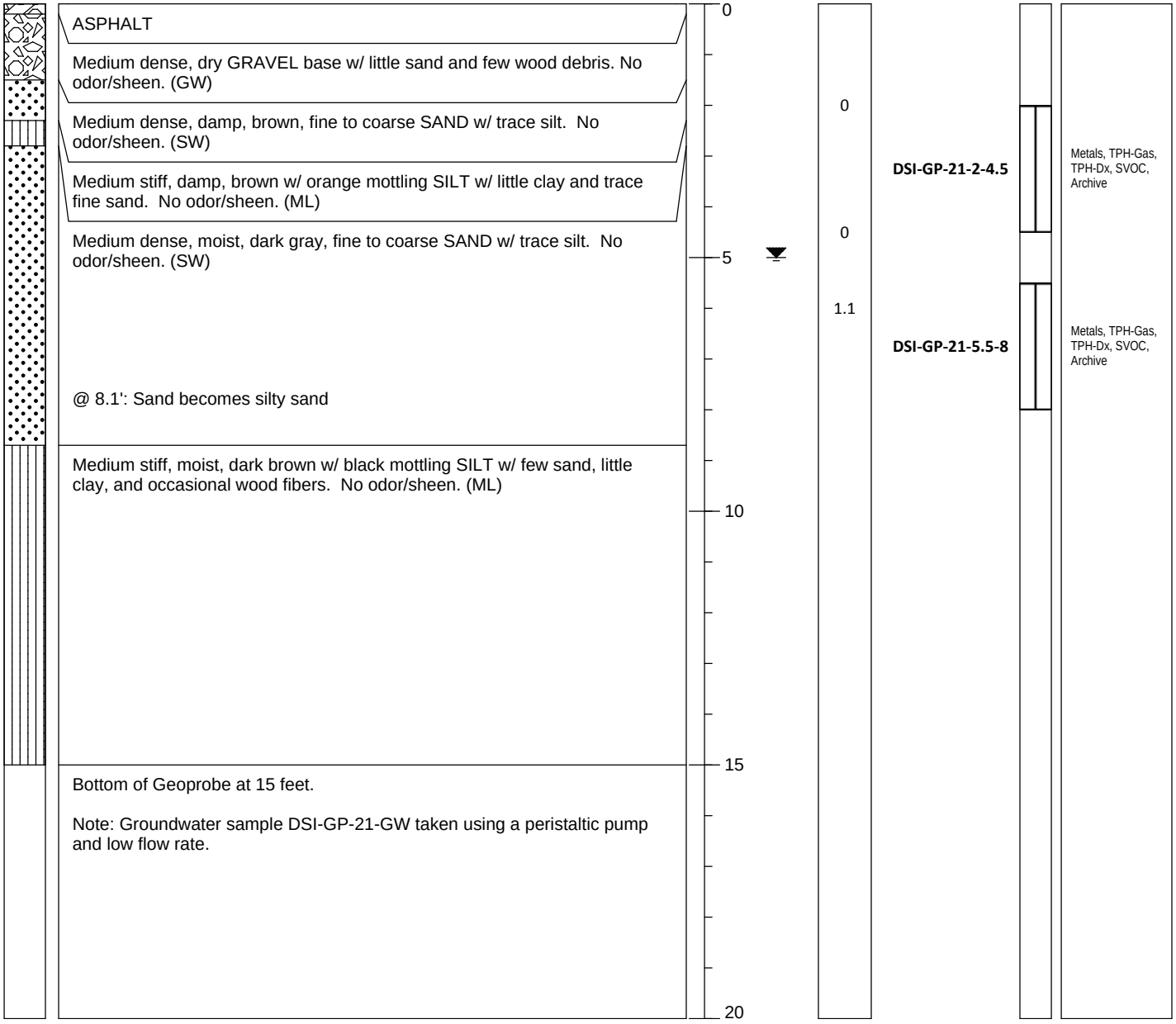
1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

GeoProbe Log

Sheet: 1 of 1

DSI-GP-21

Project: **Duwamish Shipyard, Inc.**	Ground Surface Elevation in Feet: **15.06**
Project #: **080111-01**	Groundwater Depth in Feet (BGS): **5.0**
Client: **DSI**	Northing: **204378.8** Easting: **1267891.8**
Date: **7/16/2009**	Horizontal Datum: **Washington State Plane North NAD 83**
Contractor: **Cascade Drilling**	Vertical Datum: **MLLW**
Operator: **Casey Goble**	Method: **Geoprobe**
Logged By: **Ben Howard/Amy Olson**	Temporary Groundwater Screen Interval: **5.0 - 10.0'**



ANCHOR QEA

1423 3rd Avenue, Suite 300
Seattle, WA, 98101

1. Refer to Classification Key for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive, and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling or at the time and date specified. Ground water level may vary with time.
4. Geoprobe elevations are based on CAD topography interpolated surface.

Sediment Core Log

DSI-SB-17

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **9.8**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 42.5** **DS: --**	Field Recovery Length (ft): **13.1**
Collection Date: **3/14/2011**	Mudline Elevation (ft): **-32.7**	Process Date: **3/16/2011**
Contractor: **MSS**	N/LAT: **5266619** E/LONG: **549593**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
0			0	(ML) Soft, wet, light brown, slightly vf-sandy SILT. @0.1': Grades to medium stiff, moist, black. Trace wood fibers. Slight H2S-like odor.	-32.7
1	DSI-SB-17-1-2		0	.	-33.7
2	DSI-SB-17-2-3		0	@2.1': 3" long piece of thin plastic (black).	-34.7
3	DSI-SB-17-3-4		0	@2.5': Grades to trace vf-SAND. Silt is smooth.	-35.7
4	DSI-SB-17-4-5		0		-36.7
5	DSI-SB-17-5-6	SVOCs, Metals, TBT, PCBs, TS, TOC	0	@5.0': 1" bed of medium dense, wet, dark gray, silty f-SAND. Moderate sand clumps (dense, dry, olive gray).	-37.7
6	DSI-SB-17-6-7		0	@5.6': 1" pocket of aggregates and f-SAND. Moderate wood fragments. Aggregate is 1/2"-diameter, grainy and subangular. @6.0': Grades to light gray.	-38.7
7					-39.7

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 5.5', easy coring to 14'.

Calculated Recovery
Recovery Length/Penetration Depth:
13.1/14.0 ft. = 94%

Sediment Core Log

DSI-SB-17

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **9.8**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 42.5** **DS: --**	Field Recovery Length (ft): **13.1**
Collection Date: **3/14/2011**	Mudline Elevation (ft): **-32.7**	Process Date: **3/16/2011**
Contractor: **MSS**	N/LAT: **5266619** E/LONG: **549593**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
7	DSI-SB-17-7-8		0	(ML) Medium stiff, moist, light gray SILT. Trace vf-sand. @7.1': Grades to black. Trace seams and pockets of f-sand.	-39.7
8	DSI-SB-17-8-9		0	@8.3': 1" bed of dense, dry, olive gray sand clumps (break into f-m sized grains).	-40.7
9				@9.0' - 9.4': VOID	-41.7
10	DSI-SB-17-9.4-10.7	SVOCs, Metals, TBT, PCBs, TS, TOC	0	@10.1': Grades to soft, wet.	-42.7
11	DSI-SB-17-10.7-12.8		0	(SM) Dense, moist, dark gray, slightly silty, f-SAND. Sand grains are black, gray, white, red, beige, orange. Substantial laminated beds of medium stiff, moist, dark gray, very vf-sandy SILT.	-43.7
12					-44.7
13				End of core @ 12.8'	-45.7
14					-46.7

Recent

Upper Alluvium

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 5.5', easy coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

13.1/14.0 ft. = 94%

Sediment Core Log

DSI-SB-16

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **10.0**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 41.7** **DS: 42.0**	Field Recovery Length (ft): **12.5**
Collection Date: **3/14/2011**	Mudline Elevation (ft): **-31.7**	Process Date: **3/15/2011**
Contractor: **MSS**	N/LAT: **5266547** E/LONG: **549620**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
0			0	(ML) Very soft, wet, light brown, slightly vf-sandy SILT. Trace wood fibers and fragments (decomposed, black, up to 1").	-31.7
				@0.8': Grades to medium stiff, moist, black. Trace f-sand.	
1	DSI-SB-16-1-2		0		-32.7
2	DSI-SB-16-2-3.5		0		-33.7
3					-34.7
4	DSI-SB-16-3.5-5		0		-35.7
5					-36.7
6	DSI-SB-16-5-6.5	SVOCs, Metals, TBT, PCBs, TS, TOC	0	@5.7' - 5.9': Bed of substantial aggregates (subrounded, gritty, up to 4"-diameter, break apart). Slight HC-like odor.	-37.7
				@6.8': Grades to light gray.	
7					-38.7

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 6', Easy coring to 14'.

Calculated Recovery
Recovery Length/Penetration Depth:
12.5/14.0 ft. = 89%

Sediment Core Log

DSI-SB-16

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **10.0**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 41.7** **DS: 42.0**	Field Recovery Length (ft): **12.5**
Collection Date: **3/14/2011**	Mudline Elevation (ft): **-31.7**	Process Date: **3/15/2011**
Contractor: **MSS**	N/LAT: **5266547** E/LONG: **549620**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
7	DSI-SB-16-6.5-7.7		0	(ML) Medium stiff, moist, light gray SILT. Trace f-sand.	-38.7
				@7.7': Grades to black. Occasional seams and pockets (1/4" width, diameter) of medium dense, moist, black, silty f-SAND.	
8	DSI-SB-16-7.7-8.8	SVOCs, Metals, TBT, PCBs, TS, TOC	0		-39.7
				@8.8' - 9.2': Core is half full of soft, wet, black, slightly f-sandy SILT. Moderate sand clumps.	
9					-40.7
	DSI-SB-16-9.2-10.7	SVOCs, Metals, TBT, PCBs, TS, TOC	0		
10					-41.7
	DSI-SB-16-10.7-12.1		0	(SM) Dense, moist, dark gray, slightly silty f-SAND. Sand grains are black, gray, white, red, beige, orange. Substantial laminated beds of medium stiff, moist, dark gray, very vf-sandy SILT.	
11					-42.7
12				End of core @ 12.1'	-43.7
13					-44.7
14					-45.7

Recent

Upper Alluvium

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 6', Easy coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

12.5/14.0 ft. = 89%

Sediment Core Log

DSI-SB-15

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **9.5**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 42.7** **DS: 41.5**	Field Recovery Length (ft): **13.3**
Collection Date: **3/14/2011**	Mudline Elevation (ft): **-33.2**	Process Date: **3/15/2011**
Contractor: **MSS**	N/LAT: **5266491** E/LONG: **549638**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
0			0	(ML) Very soft, wet, light brown, slightly vf-sandy SILT. Trace wood fragments (decomposed sticks and fibers up to 3" long).	-33.2
				@0.5': Grades to medium stiff, moist, black.	
1	DSI-SB-15-1-2		0		-34.2
2	DSI-SB-15-2-3		0		-35.2
3	DSI-SB-15-3-4		0		-36.2
4	DSI-SB-15-4-5	SVOCs, Metals, TBT, PCBs, TS, TOC	0	@4.6': Grades to trace vf-SAND. Silt is smooth and rolls easily.	-37.2
5	DSI-SB-15-5-6		0		-38.2
6	DSI-SB-15-6-7		0	@6.8': Grades to light gray. Silt is gummy.	-39.2
7					-40.2

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 6', easy coring to 14'.

Calculated Recovery
Recovery Length/Penetration Depth:
13.3/14.0 ft. = 95%

Sediment Core Log

DSI-SB-15

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **9.5**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 42.7** **DS: 41.5**	Field Recovery Length (ft): **13.3**
Collection Date: **3/14/2011**	Mudline Elevation (ft): **-33.2**	Process Date: **3/15/2011**
Contractor: **MSS**	N/LAT: **5266491** E/LONG: **549638**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
7	DSI-SB-15-7-8		0	(ML) Medium stiff, moist, light gray, SILT. Trace vf-sand.	-40.2
8	DSI-SB-15-8-9.5		0	@8.4': Grades to black.	-41.2
9	DSI-SB-15-9.5-10.5		0	@9.7': 2" bed of substantial pockets of dense, damp, olive gray, f-m sandy SILT.	-42.2
10	DSI-SB-15-10.5-11.5		0		-43.2
11	DSI-SB-15-11.5-12.5	SVOCs, Metals, TBT, PCBs, TS, TOC	0	@11.5': Grades to moderate pockets (1/4"-diameter) and seams (1/4" long) of medium dense, moist, black, silty f-SAND. Slight HC-like odor. Sheen test: moderate rainbow florets on surface.	-44.2
12			0		-45.2
13				End of core @12.5' In core shoe @12.5' - 12.8': (SM) Medium dense, damp, olive gray, silty, vf-f SAND. No odor. (Lower Alluvium)	-46.2
14					-47.2

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 6', easy coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

13.3/14.0 ft. = 95%

Sediment Core Log

DSI-SB-14

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **9.8**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 38.0** **DS: 39.0**	Field Recovery Length (ft): **12.6**
Collection Date: **3/14/2011**	Mudline Elevation (ft): **-28.2**	Process Date: **3/15/2011**
Contractor: **MSS**	N/LAT: **5266688** E/LONG: **549558**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
0			0	(ML) Soft, wet, black, f-sandy SILT. Occasional shell fragments and wood fragments (sticks, decomposed, black, 1" long). @0.1': 4"-diameter conglomerate (gritty, anthropogenic). @0.5': Grades to medium stiff, moist, slightly f-sandy SILT. Trace shell fragments.	-28.2
1	DSI-SB-14-1-2		0		-29.2
2	DSI-SB-14-2-3		0		-30.2
3	DSI-SB-14-3-4		0		-31.2
4	DSI-SB-14-4-5	SVOCs, Metals, TBT, PCBs, TS, TOC	0	@4': Grades to trace f-sand. Trace wood fragments. No shells. Silt is blocky and gummy, rolls easily.	-32.2
5	DSI-SB-14-5-6		0		-33.2
6	DSI-SB-14-6-7		0		-34.2
7					-35.2

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 2 of 2

Drive Notes (2): Free fall to 6.5', hit debris until 7.0, easy coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

12.6/14.0 ft. = 90%

Sediment Core Log

DSI-SB-14

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **9.8**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 38.0** **DS: 39.0**	Field Recovery Length (ft): **12.6**
Collection Date: **3/14/2011**	Mudline Elevation (ft): **-28.2**	Process Date: **3/15/2011**
Contractor: **MSS**	N/LAT: **5266688** E/LONG: **549558**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
7	DSI-SB-14-7-8		0	(ML) Medium stiff, moist, black SILT. Trace f-sand. Trace wood fragments. Silt is blocky and gummy, rolls easily.	-35.2
8	DSI-SB-14-8-9		0		-36.2
9	DSI-SB-14-9-10.5	SVOCs, Metals, TBT, PCBs, TS, TOC	0		-37.2
10				@10.1': Grades to olive gray.	-38.2
11	DSI-SB-14-10.5-12.1		0	@11': Grades to black.	-39.2
12				End of core @ 12.1'	-40.2
13					-41.2
14					-42.2

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 2 of 2

Drive Notes (2): Free fall to 6.5', hit debris until 7.0, easy coring to 14'.

Calculated Recovery
Recovery Length/Penetration Depth:
12.6/14.0 ft. = 90%

Sediment Core Log

DSI-SB-13

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **7.5**	Penetration Depth (ft): **11.4**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 13.6** **DS: 13.5**	Field Recovery Length (ft): **9.2**
Collection Date: **3/10/2011**	Mudline Elevation (ft): **-6.1**	Process Date: **3/14/2011**
Contractor: **MSS**	N/LAT: **5266634** E/LONG: **549524**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
0			0	(ML) Medium stiff, moist, black, f-sandy SILT. Occasional wood fragments and shell fragments.	-6.1
				@0.7': 2" bed of moderate aggregates up to 1"-diameter. Aggregates are rough, subangular and have barnacles on surface. Slight HC-like odor.	
1	DSI-SB-13-1-2	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0		-7.1
2	DSI-SB-13-2-3		0	(ML) Soft, moist, black SILT. Occasional pockets of wet, loose, black, f-SAND and sand clumps.	-8.1
				@2.9': Anthropogenic debris (rubber strings).	
3	DSI-SB-13-3-4.1	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	1.1	(ML) Medium stiff, moist, olive gray SILT.	-9.1
				@3.7': 3" bed of medium stiff, moist, black, slightly v-f sandy SILT. Trace gravel (subrounded, up to 1"-diameter). Abundant wood fragments (decomposed chunks).	
4	DSI-SB-13-4.1-5	SVOCs, Metals, TBT, PCBs, TS, TOC	0	(SP) Medium dense, damp, dark gray, f-SAND. Sand grains are black, white, red, yellow, beige.	-10.1
5				@5': Grades to trace f-c gravel. Gravel is subrounded and up to 2.5"-diameter.	-11.1
	DSI-SB-13-5-6		0	@5.5': Grades to no gravel.	
6	DSI-SB-13-6-7		0		-12.1
7					-13.1

Recent

Lower Alluvium

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): No free fall recorded, moderate debris at 4.6', moderately easy coring to 8.8', hard coring until refusal at 11.4'.

Calculated Recovery

Recovery Length/Penetration Depth:

9.2/11.4 ft. = 81%

Sediment Core Log

DSI-SB-13

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **7.5**	Penetration Depth (ft): **11.4**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 13.6** **DS: 13.5**	Field Recovery Length (ft): **9.2**
Collection Date: **3/10/2011**	Mudline Elevation (ft): **-6.1**	Process Date: **3/14/2011**
Contractor: **MSS**	N/LAT: **5266634** E/LONG: **549524**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
7					-13.1
		DSI-SB-13-7-8.8	0	(SP) Medium dense, damp, dark gray, f-SAND. Sand grains are black, white, red, yellow, beige.	Lower Alluvium
8					-14.1
9				End of core @8.8'	-15.1
10					-16.1
11					-17.1
12					-18.1
13					-19.1
14					-20.1

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): No free fall recorded, moderate debris at 4.6', moderately easy coring to 8.8', hard coring until refusal at 11.4'.

Calculated Recovery

Recovery Length/Penetration Depth:

9.2/11.4 ft. = 81%

Sediment Core Log

DSI-SB-12

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **2.5**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 6.2** **DS: 7.6**	Field Recovery Length (ft): **11.3**
Collection Date: **3/10/2011**	Mudline Elevation (ft): **-3.7**	Process Date: **3/15/2011**
Contractor: **MSS**	N/LAT: **5266612** E/LONG: **549554**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
0			0	(SM) Medium dense, moist, dark gray, vf-f SAND. Trace silt. Sand grains are white, black, red. Sand contains clumps up to 1"-diameter. Occasional laminated beds and pockets of medium stiff, moist, olive gray, vf-sandy SILT.	-3.7
1	DSI-SB-12-1-2	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0	@0.6': Medium dense, moist, black sand blast grit. Grit is iridescent, f-m grained, contains f-gravel and occasional aggregates (subangular, up to 2"-diameter). Occasional stratified and laminated beds of medium stiff, moist, black silt. Moderate wood debris (decomposed sticks up to 4" long). Moderate H2S-like odor. Grit has slight HC-like odor.	-4.7
2	DSI-SB-12-2-3		4.3		-5.7
3	DSI-SB-12-3-4.3	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0		-6.7
4					-7.7
5	DSI-SB-12-4.3-5.8	Metals, PCBs, TS, TOC	2.0	(SM) Medium dense, moist, dark gray to olive gray, silty vf-f SAND. Moderate pockets of medium stiff, moist, olive gray, very vf-sandy SILT. Trace aggregates (subangular, up to 1.5"-diameter). Occasional wood fragments (decomposed sticks and fibers up to 1" long). Moderate H2S-like odor.	-8.7
6	DSI-SB-12-5.8-7.1	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	4.4	@5.8': Grades to medium dense, moist, dark gray, f-c SAND. Trace silt. Sand grains are white, black, red, beige, orange, micaceous. Moderate stratified beds and pockets of very v-f sandy silt.	-9.7
7					-10.7

Recent

Upper Alluvium

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 2 of 2

Drive Notes (2): Free fall to 3', debris to 4', easy coring to 10.5', very hard coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

11.3/14.0 ft. = 81%

Sediment Core Log

DSI-SB-12

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **2.5**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 6.2** **DS: 7.6**	Field Recovery Length (ft): **11.3**
Collection Date: **3/10/2011**	Mudline Elevation (ft): **-3.7**	Process Date: **3/15/2011**
Contractor: **MSS**	N/LAT: **5266612** E/LONG: **549554**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
7	DSI-SB-12-7.1-8		0	(SP) Dense, damp, dark gray, slightly f-gravelly, f-c SAND. Sand grains are black, white, red, beige, yellow, green. Gravel is subrounded and up to 1/2" in diameter. No odor.	-10.7
8	DSI-SB-12-8-9	GS	0	@7.9': Grades to f-SAND. No gravel.	-11.7
9					-12.7
10	DSI-SB-12-9-10.7		0		-13.7
11				End of core @ 10.7'	-14.7
12					-15.7
13					-16.7
14					-17.7

Lower Alluvium

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 2 of 2

Drive Notes (2): Free fall to 3', debris to 4', easy coring to 10.5', very hard coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

11.3/14.0 ft. = 81%

Sediment Core Log

DSI-SB-11

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **3.2**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 30.8** **DS: 30.0**	Field Recovery Length (ft): **12.8**
Collection Date: **3/09/2011**	Mudline Elevation (ft): **-27.6**	Process Date: **3/11/2011**
Contractor: **MSS**	N/LAT: **5266581** E/LONG: **549595**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
0			0	(ML) Soft, moist, light brown to black, slightly vf-sandy SILT. Occasional wood fragments (decomposed, up to 2" long). Slight H2S-like odor.	-27.6
1	DSI-SB-11-1-2	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, TS, TOC	0		-28.6
2	DSI-SB-11-2-3.5		0		-29.6
3			0		-30.6
4	DSI-SB-11-3.5-5	SVOCs, Metals, TBT, PCBs, TS, TOC	0	@4': Grades to medium stiff, black with olive gray mottling.	-31.6
5	DSI-SB-11-5-6		0		-32.6
6	DSI-SB-11-6-6.9		0	@5.8': Anthropogenic material (2" flat roof shingle).	-33.6
7			0	@6.9': Grades to moderate, stratified and laminated beds of sand blast grit and aggregates. Sand blast grit is black, wet, iridescent and contains paint chips. Grains are f-m sand sized. Aggregates contain sand and anthropogenic material (glass shards). Slight H2S-like odor.	-34.6

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 7', easy coring to 14'.

Calculated Recovery
Recovery Length/Penetration Depth:
12.8/14.0 ft. = 91%

Sediment Core Log

DSI-SB-11

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **3.2**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 30.8** **DS: 30.0**	Field Recovery Length (ft): **12.8**
Collection Date: **3/09/2011**	Mudline Elevation (ft): **-27.6**	Process Date: **3/11/2011**
Contractor: **MSS**	N/LAT: **5266581** E/LONG: **549595**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	Estimated Elevation (MLLW) & Graphic Log
7	DSI-SB-11-6.9-8		0	(ML) Soft, moist, light brown to black, slightly vf-sandy SILT. Moderate, stratified and laminated beds of sand blast grit and aggregates. Slight H2S-like odor.	-34.6
8	DSI-SB-11-8-8.9	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0		-35.6
9	DSI-SB-11-8.9-10		0	@8.9': Grades to trace beds of sand blast grit.	-36.6
10	DSI-SB-11-10-11		0		-37.6
11	DSI-SB-11-11-12.3	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0	(SM) Dense, moist, dark gray, silty f-m SAND. Sand is white, black, beige, red. Occasional stratified and laminated beds of medium stiff, moist, olive gray, slightly vf-sandy SILT.	-38.6
12				End of core @12.3'	-39.6
13					-40.6
14					-41.6

Recent

Upper Alluvium

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 7', easy coring to 14'.

Calculated Recovery
Recovery Length/Penetration Depth:
12.8/14.0 ft. = 91%

Sediment Core Log

DSI-SB-10

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **2.5**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 31.5** **DS: 31.0**	Field Recovery Length (ft): **13.4**
Collection Date: **3/09/2011**	Mudline Elevation (ft): **-22.2**	Process Date: **3/14/2011**
Contractor: **MSS**	N/LAT: **5266577** E/LONG: **549582**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
0			0	(ML) Medium stiff, moist, black, slightly vf-sandy SILT. Slight HC-like odor.	-22.2
1	DSI-SB-10-1-2	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0	@1': Grades to moderate wood fragments (decomposed black sticks up to 4" long). Occasional shell fragments.	-23.2
2	DSI-SB-10-2-3.5		0	@1.8': Grades to trace wood fragments and shell fragments. No odor.	-24.2
3			0		-25.2
4	DSI-SB-10-3.5-4.5		0	VOID	-26.2
5	DSI-SB-10-4.5-5.5		0	@5.5': Grades to moderate laminated and stratified beds of medium dense, wet, black sand blast grit. Occasional aggregates up to 5" in diameter (aggregates are subangular and gritty). Slight HC-like odor.	-27.2
6	DSI-SB-10-5.5-7	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0		-28.2
7					-29.2

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 2 of 2

Drive Notes (2): Free fall to 4', easy coring to 6', moderate debris at 6' and 7', easy coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

13.4/14.0 ft. = 97%

Sediment Core Log

DSI-SB-10

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **2.5**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 31.5** **DS: 31.0**	Field Recovery Length (ft): **13.4**
Collection Date: **3/09/2011**	Mudline Elevation (ft): **-22.2**	Process Date: **3/14/2011**
Contractor: **MSS**	N/LAT: **5266577** E/LONG: **549582**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
7	DSI-SB-10-7-8.5		0	@7': Grades to substantial pockets (up to 4") of dense, moist, dark gray, f-c SAND. Sand is clumpy and contains paint chips.	-29.2 Recent
8					-30.2
9	DSI-SB-10-8.5-10	SVOCs, Metals, TBT, PCBs, TS, TOC	1.7	(SM) Medium dense, moist, dark gray, silty vf-f SAND. Occasional pockets of black, f-m sand with paint chips. Moderate laminated beds and pockets of medium stiff, moist, olive gray, vf-sandy silt. Moderate HC-like odor.	-31.2
10	DSI-SB-10-10-11	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0	@10': Grades to no pockets of SAND. No odor.	-32.2 Upper Alluvium
11					-33.2
12	DSI-SB-10-11-12.9		0		-34.2
13				End of core @ 12.9'	-35.2
14					-36.2

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 2 of 2

Drive Notes (2): Free fall to 4', easy coring to 6', moderate debris at 6' and 7', easy coring to 14'.

Calculated Recovery
Recovery Length/Penetration Depth:
13.4/14.0 ft. = 97%

Sediment Core Log

DSI-SB-09

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **4.5**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 31.5** **DS: 31.0**	Field Recovery Length (ft): **13.4**
Collection Date: **3/09/2011**	Mudline Elevation (ft): **-27.0**	Process Date: **3/10/2011**
Contractor: **MSS**	N/LAT: **5266542** E/LONG: **549607**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
0			0	(ML) Soft, wet, olive to dark gray, slightly vf-sandy SILT. Trace wood fibers (sticks up to 1" long). 5% fragments. Trace shell fragments. Slight H2S-like odor.	-27
1	DSI-SB-09-1-2	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC, Dioxins	0	@1.4': 2" long decomposed black stick.	-28
2	DSI-SB-09-2-3		0	@2.4': Grades to trace pockets of f-c sand and aggregates (up to 1", break apart easily).	-29
3	DSI-SB-09-3-4.5		0		-30
4					-31
5	DSI-SB-09-4.5-5.5	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0	@4.5': Grades to substantial laminated and stratified beds of sand blast grit and conglomerates (up to 4" diameter). Sand blast grit is f-m sand-sized, wet, black, iridescent and contains paint chips. Moderate HC-like odor.	-32
6	DSI-SB-09-5.5-7		0		-33
7					-34

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 2 of 2

Drive Notes (2): Free fall to 5.5', Easy coring to 7.5', minor debris at 7.5', easy coring to 11', moderate debris @11', moderate coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

13.4/14.0 ft. = 96%

Sediment Core Log

DSI-SB-09

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **4.5**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 31.5** **DS: 31.0**	Field Recovery Length (ft): **13.4**
Collection Date: **3/09/2011**	Mudline Elevation (ft): **-27.0**	Process Date: **3/10/2011**
Contractor: **MSS**	N/LAT: **5266542** E/LONG: **549607**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
7	DSI-SB-09-7-8.5		0	@7': Grades to moderate sand blast grit beds.	-34
8				@8.1' - 8.9': Bed of soft, moist, light gray, slightly clayey SILT. Trace decomposed wood fragments.	-35
9	DSI-SB-59-8.5-10	SVOCs, Metals, TBT, PCBs, TS, TOC, Dioxins	0		-36
10	DSI-SB-09-10-11		0	@10.3': Grades to substantial sand blast grit and conglomerate beds. Conglomerates up to 4" in diameter.	-37
11	DSI-SB-09-11-12.1	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC, Dioxins	0	@11.4': 4"x2" conglomerate. 3" long orange paint chips.	-38
12				@11.8' - 12': Bed of fine sand blast grit. Strong HC-like odor.	-39
	DSI-SB-09-12.	SVOCs, Metals, TBT, PCBs, TS, TOC	0	(SM) Medium stiff, moist, dark gray, slightly vf-sandy SILT. Substantial stratified and laminated beds (up to 2") of slightly silty, f-SAND. Slight HC-like odor.	
13				End of core @ 12.6'	-40
14					-41

Recent

U.A.

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 2 of 2

Drive Notes (2): Free fall to 5.5', Easy coring to 7.5', minor debris at 7.5', easy coring to 11', moderate debris @11', moderate coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

13.4/14.0 ft. = 96%

Sediment Core Log

DSI-SB-08

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **9.5**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 40.5** **DS: --**	Field Recovery Length (ft): **13.7**
Collection Date: **3/10/2011**	Mudline Elevation (ft): **-31.0**	Process Date: **3/11/2011**
Contractor: **MSS**	N/LAT: **5266484** E/LONG: **549626**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
0–1	DSI-SB-08-1-2	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0	Soft, wet, light brown to black, silty vf-sandy SILT. Occasional wood fragments (decomposed, black, up to 3" long). Slight H2S-like odor.	0 to -31
1–2			0		
2–3	DSI-SB-08-2-3		0		
3–4	DSI-SB-08-3-4		0		
4–5	DSI-SB-08-4-5	SVOCs, Metals, TBT, PCBs, TS, TOC	0	@4': Grades to medium stiff. @4.6': 4" long fish (on sidewall).	
5–6	DSI-SB-08-5-5.9		0		
6–7	DSI-SB-08-5.9-7		0	@5.9': Grades to occasional stratified and laminated beds of sand blast grit clumps (black, f-m sand sized grains, iridescent). Occasional wood fragments.	

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 5.3', easy coring to 11', moderately hard coring to 12', easy coring to 14'.

Calculated Recovery
Recovery Length/Penetration Depth:
13.7/14.0 ft. = 98%

Sediment Core Log

DSI-SB-08

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **9.5**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 40.5** **DS: --**	Field Recovery Length (ft): **13.7**
Collection Date: **3/10/2011**	Mudline Elevation (ft): **-31.0**	Process Date: **3/11/2011**
Contractor: **MSS**	N/LAT: **5266484** E/LONG: **549626**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
7	DSI-SB-08-7-8.7	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0	@7': Grades to substantial beds of sand blast grit and aggregates. Sand blast grit contains trace f-gravel (subrounded). Occasional paint chips up to 1/2" (red and white). Occasional shell fragments. Slight HC-like odor.	-38
8					-39
				@8.7': Grades to occasional sand blast grit beds. Silt is black with light gray mottling.	
9	DSI-SB-08-8.7-10		0		-40
10	DSI-SB-08-10-11		0		-41
11	DSI-SB-08-11-12		0	@11': Grades to moderate sand blast grit beds.	-42
12	DSI-SB-08-12-13.3	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0		-43
13					-44
				End of core @ 13.3'	
14					-45

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 5.3', easy coring to 11', moderately hard coring to 12', easy coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

13.7/14.0 ft. = 98%

Sediment Core Log

DSI-SB-07

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **4.9**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 25.2** **DS: 23.1**	Field Recovery Length (ft): **13.0**
Collection Date: **3/08/2011**	Mudline Elevation (ft): **-20.3**	Process Date: **3/09/2011**
Contractor: **MSS**	N/LAT: **5266677** E/LONG: **549537**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
0			0	(ML) Very soft, wet, black with light gray mottling, f-sandy SILT. Slight H2S-like odor.	-20.3
1	DSI-SB-07-1-2	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC, Dioxins	0	@0.9': Subrounded, 1" diameter, c-gravel (with barnacle).	-21.3
2	DSI-SB-07-2-3.5		0	@1.5': Light pink worm. @1.7': 1/2" pocket of orange silt (rust).	-22.3
3			0		-23.3
4	DSI-SB-07-3.5-4.5	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0	@3.5': 1" stratified bed of f-c SAND. Sand chunks can be brokien down into smaller peices. Slight HC-like odor. @3.8': 2" layer of wet, black wood fragments. Moderate HC-like odor. @4': Moderate, 1/4" laminated beds of sand blast grit (black, glittery f-sand). Moderate HC-like odor.	-24.3
5	DSI-SB-07-4.5-5.5		0		-25.3
6	DSI-SB-07-5.5-6.5		0		-26.3
7			0		-27.3

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 4.5', easy coring to 6.5', debris and hard coring at 6.8', easy coring to 13.8', moderate coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

13.0/14.0 ft. = 93%

Sediment Core Log

DSI-SB-07

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **4.9**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 25.2** **DS: 23.1**	Field Recovery Length (ft): **13.0**
Collection Date: **3/08/2011**	Mudline Elevation (ft): **-20.3**	Process Date: **3/09/2011**
Contractor: **MSS**	N/LAT: **5266677** E/LONG: **549537**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
7	DSI-SB-07-6.5	SVOCs, Metals, TBT, PCBs, TS, TOC, Dioxins	0	(ML) Very soft, wet, black with light gray mottling, f-sandy SILT. Moderate, 1/4" laminated beds of sand blast grit (black, glittery f-sand). Moderate HC-like odor.	-27.3
8	DSI-SB-07-7.5-8.5		0	(ML) Medium stiff, moist, light gray with black mottling, f-c sandy, slightly f-c gravelly SILT. No odor.	-28.3
9	DSI-SB-07-8.5-9.1		0	(MH) Medium stiff, moist, light gray, clayey SILT. Silt is gummy, rolls easily and smears. @9.2': 4"x1" long piece of decomposed wood.	-29.3
10	DSI-SB-07-9.1-10.5		0	@10.5': Occasional 1" layers of slightly f-gravelly, f-c SAND. Occasional conglomerate chunks (slag). Moderate HC-like odor.	-30.3
11	DSI-SB-07-10.5-11.9	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC, Dioxins	0	@11.4': 3" long piece of anthropogenic material.	-31.3
12	DSI-SB-07-11.9-12.3	SVOCs, Metals, TBT, PCBs, TS, TOC	0	(SP) Dense, damp, light gray, f-SAND. Sand grains are white, black, olive, micaceous. Slight H2S-like odor.	-32.3
13				End of core @ 12.3'	-33.3
14					-34.3

Recent

L.A.

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 4.5', easy coring to 6.5', debris and hard coring at 6.8', easy coring to 13.8', moderate coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

13.0/14.0 ft. = 93%

Sediment Core Log

DSI-SB-06

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **5.9**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 25.1** **DS: 25.2**	Field Recovery Length (ft): **13.9**
Collection Date: **03/10/2011**	Mudline Elevation (ft): **-19.2**	Process Date: **3/11/2011**
Contractor: **MSS**	N/LAT: **5266644** E/LONG: **549552**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
0			0	(ML) Soft, wet, light brown to black, slightly f-sandy SILT. Occasional wood fragments (black, decomposed, up to 2" long, sticks).	-19.2
1	DSI-SB-06-1-2	SVOCs, Metals, TBT, PCBs, TS, TOC	0	@1.3.': Grades to medium stiff, moist.	-20.2
2	DSI-SB-06-2-3.3		0	@2.2': Piece of duct tape.	-21.2
3				@3.3': Occasional stratified and laminated beds of medium dense, moist, black, f-c sand blast grit. Slight HC-like odor.	-22.2
4	DSI-SB-06-3.3-5		0.6	@4': Grades to moderate H2S-like odor.	-23.2
5				@4.7': 1/2" seam if white silt.	-24.2
6	DSI-SB-06-5-6.5	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	3.8	@6.5': Grades to trace beds of sand blast grit.	-25.2
7					-26.2

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 2', very hard coring to 3', easy coring to 11', hard coring to 12', moderately easy coring to 14'.

Calculated Recovery
Recovery Length/Penetration Depth:
13.9/14.0 ft. = 89%

Sediment Core Log

DSI-SB-06

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **5.9**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 25.1** **DS: 25.2**	Field Recovery Length (ft): **13.9**
Collection Date: **03/10/2011**	Mudline Elevation (ft): **-19.2**	Process Date: **3/11/2011**
Contractor: **MSS**	N/LAT: **5266644** E/LONG: **549552**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
7	DSI-SB-06-6.5-8		0	(ML) Soft, wet, light brown to black, slightly f-sandy SILT. Trace beds sand blast grit.	-26.2
8	DSI-SB-06-8-9.6	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0		-27.2
9					-28.2
10	DSI-SB-06-9.6-11	SVOCs, Metals, Cr6+, PCBs, TBT, VOC, Pesticides, TS, TOC	0	(SM) Dense, moist, dark gray, vf-f SAND. Sand grains are white, red, black, beige, orange. Occasional pockets and stratified layers of medium stiff, moist, black, slightly vf-sandy SILT (up to 3" thick). Silt rolls easily. Moderate H2S-like odor.	-29.2
11	DSI-SB-06-11-12.2		15.9	@11.5': 2" layer of black, f-c gravel (subangular, light weight, breaks down, coal).	-30.2
12				End of core @ 12.2'.	-31.2
13					-32.2
14					-33.2

Recent

Upper Alluvium

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 2', very hard coring to 3', easy coring to 11', hard coring to 12', moderately easy coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

13.9/14.0 ft. = 89%

Sediment Core Log

DSI-SB-05

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **4.2**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 24.9** **DS: 26.0**	Field Recovery Length (ft): **13.9**
Collection Date: **3/09/2011**	Mudline Elevation (ft): **-20.7**	Process Date: **3/10/2011**
Contractor: **MSS**	N/LAT: **X** E/LONG: **X**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
0				(ML) Soft, wet to moist, light brown to black SILT. Trace f-sand. Occasional wood fragments and shell fragments. Slight H2S-like odor.	-20.7
1	DSI-SB-05-1-2	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesticides, TS, TOC, Dioxins	0		-21.7
2	DSI-SB-05-2-3		0		-22.7
3	DSI-SB-05-3-4	SVOCs, Metals, PCBs, TBT, TS, TOC, GS	0	@3': 2" angular roof shingle.	-23.7
4	DSI-SB-05-4-5		0	@3.7': Grades to moderate laminated beds of sand blast grit (black, wet, fine to medium sand). Moderate HC-like odor.	-24.7
5	DSI-SB-05-5-6		0	@4.5' - 5.1': Silt is olive gray. Moderate shell hash.	-25.7
6	DSI-SB-05-6-7	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesticides, TS, TOC, Dioxins	0	@5.1': Grades to substaantial laminated and stratified beds (up to 4" thick) of sand blast grit and aggregates. (Aggregates are conglomerates of sand blast grit up to 4" diameter).	-26.7
7				@6.1': Decomposed wood fragment (3" long).	-27.7

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 2', moderate coring to 8', moderately easy coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

13.9/14.0 ft. = 99%

Sediment Core Log

DSI-SB-05

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **4.2**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 24.9** **DS: 26.0**	Field Recovery Length (ft): **13.9**
Collection Date: **3/09/2011**	Mudline Elevation (ft): **-20.7**	Process Date: **3/10/2011**
Contractor: **MSS**	N/LAT: **X** E/LONG: **X**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
7	DSI-SB-05-7-8		0	(ML) Soft, wet to moist, light brown to black SILT. Trace f-sand. Substantial laminated and stratified beds of sand blast grit (up to 4" thick).	-27.7
8	DSI-SB-05-8-9.3	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesticides, TS, TOC	0		-28.8
9					-29.9
10	DSI-SB-05-9.3-11	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesticides, TS, TOC, GS, Dioxins	0	(SM) Dense, moist, medium gray, vf-f SAND. Substantial laminated and stratified beds of stiff, damp, olive gray, slightly vf-sandy SILT.	-30.9
11	DSI-SB-05-11-12		0		-31.9
12	DSI-SB-05-12-13.4		0		-32.9
13				End of core @ 13.4'	-33.9
14					-34.9

Recent

Upper Alluvium

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 2', moderate coring to 8', moderately easy coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

13.9/14.0 ft. = 99%

Sediment Core Log

DSI-SB-04

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **7.0**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 29.2** **DS: 29.2**	Field Recovery Length (ft): **11.8**
Collection Date: **3/08/2011**	Mudline Elevation (ft): **-22.2**	Process Date: **3/09/2011**
Contractor: **MSS**	N/LAT: **X** E/LONG: **X**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
0				(ML) Very soft, wet, light brown, slightly vf-sandy SILT.	-22.2
				(ML) Soft, wet, black SILT. Moderate laminated beds and pockets of loose, wet, black, f-vf SAND. Occasional wood fragments (decomposed sticks up to 3" long). Slight H2S-like odor.	
1	DSI-SB-04-1-2	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesicides, TS, TOC	0	@1.0': Grades to occasional sand layers.	-23.2
				@1.3': Several pieces of up to 1" diameter, agglomerate chunks (angular). Grades to occasional agglomerate chunks (up to 4" long).	
2					-24.2
	DSI-SB-04-2-4		0	@2.7': Grades to moderate layers and beds up to 1" long of metal shards and anthropogenic pieces. Fine sand sized up to 1/4".	
3					-25.2
4	DSI-SB-04-4-5	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesicides, TS, TOC	0	@4.2': 0.2"x0.1" wood piece.	-26.2
5	DSI-SB-04-5-6		0	@5.2': 3" long rusted pipe. Grades to slight HC-like odor.	-27.2
6	DSI-SB-04-6-7		0	@6.7': Slight metallic florets up to 1" diameter. Moderate HC-like odor.	-28.2
7					-29.2

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 2', easy coring to 8', very hard coring to 10', easy coring to 14'.

Calculated Recovery
Recovery Length/Penetration Depth:
11.8/14.0 ft. = 84%

Sediment Core Log

DSI-SB-04

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **7.0**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 29.2** **DS: 29.2**	Field Recovery Length (ft): **11.8**
Collection Date: **3/08/2011**	Mudline Elevation (ft): **-22.2**	Process Date: **3/09/2011**
Contractor: **MSS**	N/LAT: **X** E/LONG: **X**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
7	DSI-SB-04-7-8.3	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesicides, TS, TOC	0	(SM) Grades to medium dense, moist, black, silty f-SAND. Occasional wood fragments (decomposed sticks 2" long).	-29.2
8					-30.2
	DSI-SB-04-8.3-9.3	SVOCs, Metals, PCBs, TBT, TS, TOC, GS	0	(SP) Dense, moist, dark gray, f-m SAND. Occasional pockets of olive gray silt. @8.6' - 8.8': Anthropogenic materials (Glass shard, clear plastic). @9': Subrounded cobble (0.3" diameter).	
9					-31.2
	DSI-SB-04-9.3-10.9		0	(SP) Grades to medium dense, moist, olive gray, vf-f SAND. @10.1': Moderate laminated beds of f-c SAND and moderate stratified beds of olive gray, medium stiff, moist, vf-sandy SILT.	
10					-32.2
11				End of core @ 10.9'	-33.2
12					-34.2
13					-35.2
14					-36.2

Recent

Lower Alluvium

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 2', easy coring to 8', very hard coring to 10', easy coring to 14'.

Calculated Recovery

Recovery Length/Penetration Depth:

11.8/14.0 ft. = 84%

Sediment Core Log

DSI-SB-03

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **5.3**	Penetration Depth (ft): **11.2**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 26.6** **DS: 25.5**	Field Recovery Length (ft): **10.9**
Collection Date: **3/09/2011**	Mudline Elevation (ft): **-21.3**	Process Date: **3/14/2011**
Contractor: **MSS**	N/LAT: **X** E/LONG: **X**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
0				(ML) Soft, wet, light brown to black, slightly vf-f sandy SILT. Occasional wood fragments (decomposed, black, up to 2" long). Slight H2S-like odor.	-21.3
				@0.5': Grades to medium stiff.	
1	DSI-SB-03-1-2	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesticides, TS, TOC, GS	0		-22.3
2	DSI-SB-03-2-3.5		0		-23.3
3					-24.3
4	DSI-SB-03-3.5-4.5		0	@4.1' - 4.2': VOID	-25.3
				@4.5': Grades to occasional, stratified and laminated beds of medium dense, moist, black, silty f-SAND. Slight HC-like odor.	
5	DSI-SB-03-4.5-5.8		0		-26.3
6	DSI-SB-03-5.8-7	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesticides, TS, TOC	0	(SM) Medium dense, moist, dark gray, silty vf-f SAND. Trace wood fibers. Slight HC-like odor. Occasional sand clumps. @6.3': 4" long metal shard. @6.5' - 7': Bed of sand clumps, 4"x2" wood chunk (plank), plastic debris. Sand clumps break apart easily. Moderate HC-like odor.	-27.3
7					-28.3

Recent

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 6.0', hit debris at 6.8', hard coring to 8.0', easy coring to 11.0', refusal at 11.0'.

Calculated Recovery
Recovery Length/Penetration Depth:
10.9/11.2 ft. = 97%

Sediment Core Log

DSI-SB-03

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **5.3**	Penetration Depth (ft): **11.2**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 26.6** **DS: 25.5**	Field Recovery Length (ft): **10.9**
Collection Date: **3/09/2011**	Mudline Elevation (ft): **-21.3**	Process Date: **3/14/2011**
Contractor: **MSS**	N/LAT: **X** E/LONG: **X**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
7	DSI-SB-03-7-8.5		0	(SM) Medium dense, moist, dark gray, silty vf-f SAND. Sand grains are white, black, beige. Occasional pockets of medium stiff, moist, olive gray SILT. No HC-like odor.	-29.3
8					-30.3
9	DSI-SB-03-8.5-9.5		0	@8.7': Piece of clear plastic. @9.3': Grades to occasional wood fragments (decomposed sticks up to 2" long).	-31.3
10	DSI-SB-03-9.5-10.4	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesticides, TS, TOC	0		-32.3
11	DSI-SB-03-10.4-11.1	SVOCs, Metals, PCBs, TBT, TS, TOC	0	(ML) Medium stiff, moist, black with olive gray mottling SILT. Occasional pockets and seams (1/4") of black, medium dense, damp, f-SAND. Silt is gummy and rolls easily. Trace wood fragments (decomposed sticks).	-33.3
	DSI-SB-03-11		0	(SP): Medium dense, moist, dark gray, f-SAND. Sand grains are black, white, red, orange, beige. Occasional wood fibers. No odor.	
12				End of core @ 11.6' Note: 11.1' - 11.6' is collected "slough" from vibracore being lifted 1 foot and set back down.	-34.3
13					-35.3
14					-36.3

Recent

Upper Alluvium

L.A.

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 6.0', hit debris at 6.8', hard coring to 8.0', easy coring to 11.0', refusal at 11.0'.

Calculated Recovery

Recovery Length/Penetration Depth:

10.9/11.2 ft. = 97%

Sediment Core Log

DSI-SB-02

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **10.9**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 44.8** **DS: 44.0**	Field Recovery Length (ft): **11.7**
Collection Date: **3/10/2011**	Mudline Elevation (ft): **-33.9**	Process Date: **3/11/2011**
Contractor: **MSS**	N/LAT: **X** E/LONG: **X**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
0–2	DSI-SB-02-1-2.3	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesticides, TS, TOC, GS, Dioxins	0	(ML) Soft, wet, light brown to black, slightly vf-sandy SILT. Occasional wood fibers and fragments. Slight H2S-like odor.	Recent; -33.9 to -35.9
2–3	DSI-SB-02-2.3-3.7		0	(GW) Dense, damp, brown to gray, f-c gravelly, f-c SAND. Trace silt. (CAP). Sand grains are white, orange, olive, green, beige, gray. Gravel is subrounded up to 2" diameter.	CAP (non-native); -35.9 to -36.9
3–5	DSI-SB-02-3.7-5.2	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesticides, TS, TOC, Dioxins	0	(ML) Medium stiff, moist, black SILT. Trace f-sand. Trace HC-like odor.	Recent; -36.9 to -38.9
5–7	DSI-SB-02-5.2-7	SVOCs, Metals, PCBs, TBT, TS, TOC, Dioxins	0	(SM) Grades to dense, damp, dark gray, f-SAND. Trace silt. Sand grains are white, red, beige, black. Substantial laminated beds and pockets of medium stiff, moist, olive gray, very vf-sandy SILT. No odor.	Upper Alluvium; -38.9 to -40.9

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 3.0', hit hard debris at 6.2', throught debris by 7.5', easy coring to 11.8', moderate coring to 14.0'.

Calculated Recovery
Recovery Length/Penetration Depth:
11.7/14.0 ft. = 84%

Sediment Core Log

DSI-SB-02

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **10.9**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 44.8** **DS: 44.0**	Field Recovery Length (ft): **11.7**
Collection Date: **3/10/2011**	Mudline Elevation (ft): **-33.9**	Process Date: **3/11/2011**
Contractor: **MSS**	N/LAT: **X** E/LONG: **X**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	Estimated Elevation (MLLW) & Graphic Log
7	DSI-SB-02-7-8.5		0	(SM) Dense, damp, dark gray, f-SAND. Trace silt. Sand grains are white, red, beige, black. Substantial laminated beds and pockets of medium stiff, moist, olive gray, very vf-sandy SILT. No odor. @7.2': One subrounded c-gravel. 1" diameter.	-41.9
8					-42.9
9	DSI-SB-02-8.5-10	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesticides, TS, TOC, GS, Dioxins	0		-43.9
10					-44.9
11	DSI-SB-02-10-11.2		0	End of core @ 11.2'	-45.9
12					-46.9
13					-47.9
14					-48.9

Upper Alluvium

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 3.0', hit hard debris at 6.2', throught debris by 7.5', easy coring to 11.8', moderate coring to 14.0'.

Calculated Recovery
Recovery Length/Penetration Depth:
11.7/14.0 ft. = 84%

Sediment Core Log

DSI-SB-01

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **7.1**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 20.4** **DS: --**	Field Recovery Length (ft): **12.1**
Collection Date: **3/09/2011**	Mudline Elevation (ft): **-13.3**	Process Date: **3/10/2011**
Contractor: **MSS**	N/LAT: **Northing** E/LONG: **Easting**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description (Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS)	Estimated Elevation (MLLW) & Graphic Log
0			0	(ML) Soft, wet, light brown to dark gray, flightly vf-sandy SILT. Trace organic fibers and biota (worms). Slight H2S-like odor.	-13.3
1	DSI-SB-01-1-2	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesticides, TS, TOC	0	@1.7': Grades to occasional laminated beds (1/2") of sand blast grit (wet, black, fine to medium sand). Trace HC-like odor.	-14.3
2	DSI-SB-01-2-3.1	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesticides, TS, TOC	0		-15.3
3	DSI-SB-01-3.1-4	SVOCs, Metals, TBT, PCBs, TS, TOC	0	(SW) Dense, damp, dark gray, f-c SAND, trace f-c gravel. Sand is black, white, beige, green, yellow, red. Gravel is subrounded and up to 2" diameter. Occasional pockets and stratified beds of stiff, moist, olive gray, v-f sandy SILT. No odor.	-16.3
4	DSI-SB-01-4-5		0	@4.2' - 4.4': VOID (SW) Dense, damp, dark gray, f-c SAND, trace f-c gravel. Sand is black, white, beige, green, yellow, red. Gravel is subrounded and up to 2" diameter. Occasional pockets and stratified beds of stiff, moist, olive gray, v-f sandy SILT. No odor.	-17.3
5	DSI-SB-01-5-6	SVOCs, Metals, VOCs, PCBs, TBT, Cr VI, Pesticides, TS, TOC	0	(SW) Grades to vf-f SAND. No gravel.	-18.3
6	DSI-SB-01-6-7	TBT, TS, TOC	0	(SM) Grades to moderate laminated beds of vf sandy SILT. (Same material @ 3.1').	-19.3
7					-20.3

Recent

Lower Alluvium

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 2.5', hard coring 2.5-4.0', hit debris at 4.0', easy coring to 11.0', hard coring to 14.0'.

Calculated Recovery

Recovery Length/Penetration Depth:

12.1/14.0 ft. = 86%

Sediment Core Log

DSI-SB-01

Project: **DSI Sediment RI**	Location: **Lower Duwamish Waterway**	Tube Length (ft): **15.0**
Project #: **080111-01.01**	Surface Water Elevation (MLLW): **7.1**	Penetration Depth (ft): **14.0**
Client: **Duwamish Shipyards, Inc.**	Water Depth (ft): **LL: 20.4** **DS: --**	Field Recovery Length (ft): **12.1**
Collection Date: **3/09/2011**	Mudline Elevation (ft): **-13.3**	Process Date: **3/10/2011**
Contractor: **MSS**	N/LAT: **Northing** E/LONG: **Easting**	Process Method: **Cut tube**
Vessel: **Nancy Anne**	Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW**	Sample Quality: **Good**
Operator: **Bill Jaworski**	Method/Tube ID: **Vibracore/3.75"**	Logged By: **AC/JL/DG**

Recoverd Depth (ft)	Recovered Interval & Sample	Chemical Analysis	PID Measurement	Sediment Description	Estimated Elevation (MLLW) & Graphic Log
				Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	
7	DSI-SB-01-7-8		0	(SM) Dense, damp, dark gray, f-c SAND. Moderate laminated beds of vf sandy SILT.	-20.3
8	DSI-SB-01-8-9		0		-21.3
9	DSI-SB-01-9-10		0	@ 9.2': Grades to trace laminated beds.	-22.3
10	DSI-SB-01-10-11		0		-23.3
11	DSI-SB-01-11-11.9		0		-24.3
12				End of core @ 11.9'	-25.3
13					-26.3
14					-27.3

Lower Alluvium

ANCHOR QEA
720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

Drive Notes (1): Attempt 1 of 1

Drive Notes (2): Free fall to 2.5', hard coring 2.5-4.0', hit debris at 4.0', easy coring to 11.0', hard coring to 14.0'.

Calculated Recovery

Recovery Length/Penetration Depth:

12.1/14.0 ft. = 86%

APPENDIX C THROUGH APPENDIX D ON ATTACHED DVD