SITE: BCX Tank
BREAK: 2.4
OTHER: V. 3

Weston Solutions, Inc.
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October 4, 2004

Mr. Terry Stilman
On-Scene Coordinator
U.S. Environmental Protection Agency
61 Forsyth Street, SW 11th Floor
Atlanta, Georgia 30303

Subject: **Site-Specific Sampling Plan**
BCX
EPA ID No. FLD 980841472
EPA Contract No. 68-W-00-123
Technical Direction Document (TDD) No. 4W-04-08-B-002
Document Control No. WSI-BCX-0003

Dear Mr. Stilman:

Weston Solutions, Inc., Superfund Technical Assessment and Response Team - 2 (START-2) is submitting two copies of the Site-Specific Sampling Plan (SSSP) for the Removal Assessment at the BCX site located in Jacksonville, Duval County, Florida.

Please contact me at (770) 325-7900 or Greg Harper at (770) 325-7972 if you have any questions or comments regarding this sampling plan.

Sincerely,
Weston Solutions, Inc.

Peter Thorpe
START-2 Project Manager

Enclosure

cc: Dean Ullock, EPA On-Scene Coordinator
Matthew Monsees, EPA Project Officer
Joseph Baer, START-2 Program Manager (w/o enclosure)
Greg Harper, START Removal Coordinator (w/o enclosure)
START-2 File


10452001

SITE-SPECIFIC SAMPLING PLAN
REMOVAL ASSESSMENT

BCX
1903 EAST ADAMS STREET
JACKSONVILLE, DUVAL COUNTY, FLORIDA
EPA ID No. FLD 980841472

Revision 0

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 4
Atlanta, Georgia 30303

Contract No.	:	68-W-00-123
TDD No.	:	4W-04-08-B-002
DCN	:	WSI-BCX-0003
Work Order No.	:	12587.001.002.0268.00
Date Prepared	:	October 4, 2004
EPA Work Assignment Manager	:	Terry Stilman
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START Project Manager	:	Peter Thorpe
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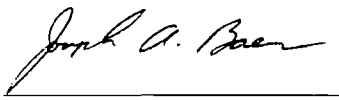
Approved:



Joseph A. Baer
START -2 Program Manager

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1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) has tasked the Weston Solutions, Inc. (Weston) Superfund Technical Assessment and Response Team-2 (START-2) to conduct soil and groundwater sampling at the BCX facility, under Contract No. 68-W-00-123, Technical Direction Document No. 4W-04-08-B-002. The purpose of the sampling is to characterize the nature and extent of contamination in the soils and groundwater at the site. All activities and procedures discussed and described in this sampling plan will be presented and conducted in accordance with the approved Weston Quality Assurance Project Plan (QAPP) and Quality Management Plan (QMP) (Refs. 1; 2).

Following are the objectives of this site-specific sampling plan (SSSP):

1. Discuss the background information.
   - Section 2.0 describes the site.

2. Identify the types of activities required to further assess the extent of contamination.
   - Section 3.0 describes the proposed screening and sampling activities.

3. Ensure all Data Quality Objectives (DQO) will be performed in accordance with the prescribed guidance documents including: the EPA Science and Ecosystem Support Division (SESD) Region 4 Environmental Investigation Standard Operating Procedures and Quality Assurance Manual (EISOPQAM) and the EPA Region 4 Emergency Response and Removal Branch (ERRB) QAPP. These DQOs specifically apply to sampling locations, sample types, sampling procedures, use of data, data types, and field Quality Assurance and Quality Control (QA/QC) samples (Refs. 3; 4).

2.0 SITE BACKGROUND

This section describes previous investigations and source areas at the site.

2.1 SITE DESCRIPTION AND HISTORY

BCX is a former used oil and impacted water storage facility located at 1903 East Adams Street in Jacksonville, Duval County, Florida. The facility is located on the northeast corner of the intersection of East Adams and Bryan Streets. The facility is bordered on all sides by industrial and commercial properties (see Figure 1 located in Appendix A). Currently the property consists of two portions, one portion of the property is a concrete secondary containment berm and the other is a vacant lot. The secondary containment berm contains 18 above ground storage tanks (ASTs). Piping connecting the ASTs is located inside the the secondary containment berm. The vacant lot currently has a fence surrounding it. The general site layout is presented as Figure 2 located in Appendix A.

The property was leased by International Processing Specialists, Inc. (IPS) from Petroleum Fuel and Terminal Co. (PF&T) in July 1987. In 1991, IPS began processing used oil at the facility, and constructed a wastewater treatment facility and oil recycling plant. The first four years of operation at the facility involved the storage of used oil with the subsequent marketing of the fuel.

On December 26, 1992, approximately 44,000 gallons of used oil were released inside the main diked area which consisted of dirt floors and dirt berms. The used oil was pumped from the area within eight hours of the spill; however, the oil had already migrated to a depth of approximately six inches throughout the diked area. Contaminated soil was excavated and 250 tons of contaminated dirt were transported to Kedesh, Inc. in Kingsland, Georgia for thermal treatment.

IPS subsequently purchased the property from PF&T in 1995. On March 5, 1995, approximately 200 gallons

of used oil was spilled in the main dike area and immediately removed with a vacuum truck. No migration of used oil occurred below the surface. The contaminated oil was then disposed of properly offsite at IWS in Jacksonville, Florida.

On August 26, 1995, tank number 2 ignited and caught fire. Subsequently, 200 gallons of used oil and approximately 1000 gallons of non-hazardous sludge was discharged onto the dirt floor of the main diked area that already contained approximately six inches of rainwater. The vertical migration of the oil was limited to approximately one to two inches, due to the physical properties of the sludge and oil. All soils in the diked area were excavated to groundwater, and 2,086 tons of soil was removed. Contaminated soil was transported to Chesser Island Landfill in Folkston, Georgia.

A soil investigation was performed at this facility in October and November, 1995, by Eder Associates. Eder Associates was IPS's consultant for this soil investigation. The investigation and subsequent report revealed excessively contaminated soils in and around the diked area.

On December 20, 1995, IPS submitted a General Permit notification to Florida Department of Environmental Protection (FDEP) operate a Used Oil Processing Facility.

On October 9, 1996, IPS's consultant, Universal Engineering Sciences, Inc., submitted a Preliminary Contamination Assessment Report (PCAR). The PCAR noted only the presence of gasoline and diesel fuel contamination, which qualified the facility for the petroleum cleanup reimbursement program. Between 1997 and 1998, Florida Department of Environmental Protection (FDEP) personnel visited the site several times during upgrades to the facility to verify compliance and ongoing construction. Non-compliance for several issues including failure to repair cracks in the containment wall and failure to remove waste from the ASTs were noted and several letters were issued to IPS by FDEP regarding the issue. On May 17, 2000, FDEP filed a Civil Complaint to compel compliance, prohibit receipt of used oil or wastewater by the facility, revoke the General Permit to operate a Used Oil Processing Facility, collect penalties, based on three

inspections during 1999-2000 and the continuous non-compliance issues. In June 2001, IPS and its landlord, Square Four, were evicted from the property during a foreclosure. An unknown volume (up to 1.2 million gallons) of used oil and wastewater in the storage tanks, containers, frac tanks, and dumpsters was abandoned.

In June 2001, the new operator, BCX (formerly known as SOS Earth Environmental), took control of the property along with the new property owner, Seven Out. BCX wrote a letter to FDEP on July 24, 2001 stating the awareness of the violations by the previous operator at the site and that BCX would immediately move to stop the leaks in the secondary containment, cleanup the spill, and implement the other corrective actions. FDEP stated that BCX needed to submit a detailed closure plan and seal the secondary containment. BCX subsequently included a closure plan and a plan to sample and analyze the waste stored in several tanks at the facility. FDEP issued a Final Order on May 8, 2002 to revoke IPS's Used Oil Processor's permit. During 2002 and 2003, FDEP personnel continued to visit the facility, and requested that BCX submit a detailed closure plan and enter into a Constent Order. On June 3, 2004, the City of Jacksonville's Tank Program inspectors discovered that there was an accumulation of wastewater in the secondary containment area at the facility, and that a crack in the containment wall was allowing waste to leak into the environment. BCX's attorney contacted FDEP and indicated that BCX did not have funds to address the problems at the facility and comply with the requirements. The City of Jacksonville obtained an emergency Temporary Injunction that ordered BCX, IPS, all related companies, and real estate owners to conduct the following activities: remove waste from the secondary containment within seven days, sample all onsite wells with 21 days, remove all waste from the tanks within 3 months, remediate the contamination, and to fund the corrective actions.

2.2 PREVIOUS INVESTIGATIONS

On October 8, 1991, a Contamination Assessment Report was submitted to FDEP by Universal Engineering Services for PF&T. Nine shallow auger borings (AB-1 to AB-9), six hand auger borings (HAB-1 to HAB-6),

four peizometers wells (PZ-1 to PZ-4), and 11 monitoring wells (MW-10 to MW-20) were advanced or installed during the assessment. In July 1991, free product was found in several of the monitoring wells at the facility: 0.63 ft in MW-3; 1.62 ft in MW-9; and 2.61 ft in MW-11. Benzene was also detected in several monitoring wells, and the highest benzene concentration was 269 micrograms per liter (ug/L) in MW-5.

On October 24, 1996, a Preliminary Contamination Assessment Plan (PCAP) was submitted to FDEP by Universal Engineering Sciences for IPS. The PCAP outlined the tasks and time frame that was necessary to evaluate the soil and groundwater conditions at the facility. On October 16, 1996, free product was again detected in several monitoring wells at the facility: MW-3 (sheen); MW-9 (1.52 ft); MW-11 (0.13 ft); and MW-14 (0.10 ft). In 1997, the soil containment berm was replaced with a concrete containment wall.

At the direction of the EPA, on July 1, 2004, WRS collected samples from all of the aboveground storage tanks (AST)at the facility. The samples were analyzed for volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), British Thermal Unit (BTU) value, chlorinated pesticides, polychlorinated biphenyls (PCBs), Organophosphorus Pesticides, Resource Conservation and Recovery Act (RCRA) metals, Florida Petroleum Range Organics (FL PRO), Total Suspended Solids (TSS), and percent water. The water was generally impacted with benzene, toluene, ethylbenzene, xylene, methyl-tert-butyl ether, methyl ethyl ketone, naphthalene, 1 and 2-methylnaphthalene, barium, cadmium, chromium, and lead. Tank # 10, tank # 100, and tank #104 had reported BTU values.

EPA is currently performing a Removal Site Evaluation at the facility.

2.3 POTENTIAL CONTAMINATION SOURCES

The following sources of potential contamination have been identified:

- Area surrounding the containment berm
- Groundwater underlying the facility
- Drainage ditch south of the facility

3.0 PROPOSED SAMPLING PLAN

The purpose of the sampling is to assess the extent of soil and groundwater contamination at the facility. A total of 21 soil, sediment, and groundwater samples (including two duplicate samples) will be collected from the areas as described in the following sections. If elevated air monitoring readings are detected with the Flame Ionization Detector (FID), from the subsurface soil samples, an additional 10 subsurface soil samples will be collected. The proposed sample locations and rationale are presented in Tables 1 through 3 located in Appendix B. The proposed sample locations are presented as Figure 3 located in Appendix A. Sampling, field activities, and laboratory quality assurrance/quality control (QA/QC) procedures will be conducted in accordance with the EPA *Environmental Investigations Standard Operating Procedures and Quality Assurance Manual* (EISOPQAM) and the Region 4 Emergency Response and Removal Branch (ERRB) QAPP (Refs. 3; 4). All samples will be collected using stainless steel hand augers, spoons, and bowls. The samples will be processed using Forms II Lite® software and analyzed by an EPA Contract Laboratory Program (CLP) laboratory. All samples will be analyzed for Target Compound List (TCL) VOC, TCL SVOC, and Target Analyte List (TAL) Inorganic Compounds (metals). A 14-day turn-around time will be requested.

3.1 AREA SURROUNDING THE CONTAINMENT BERM

Several locations in the containment berm appear to have leaked in the past. Nine sampling locations south, north and east of the containment berm plus one duplicate sample will be collected. A subsurface soil sample will be collected from each of the ten sampling locations surrounding the concrete berm. Each subsurface sample will be screened with the FID, and the sample will only be sent to the laboratory if the FID readings are detected over 100 parts per million (ppm). The highest FID reading from all of the soil borings will be collected and sent for analysis. The proposed sample locations and rationale are presented in Table 1 located in Appendix B. A figure detailing the locations of the proposed sample locations is presented in Figure 3 located in Appendix A.

3.2 MONITORING WELLFIELD SOUTH OF THE CONTAINMENT BERM

A total of four monitoring wells are located south of the containment berm, MW-3, MW-5, MW-9, and MW-14. All of the monitoring wells will be sampled and one duplicate sample from one of the wells will be collected. Table 2 located in Appendix B presents the monitoring well locations and rationale.

3.3 DRAINAGE DITCH SOUTH OF THE SITE

A drainage ditch is located south of the site on the east side of Bryan Street and may serve as a possible pathway for offsite contamination migration. Therefore, four sediment samples will be collected from the ditch. The proposed sample locations and rationale are presented in Table 3 located in Appendix B.

4.0 FIELD WORK SUMMARY

START-2 anticipates mobilizing to the facility in October or November 2004 to begin sampling activities. All samples will be collected in accordance with procedures documented in the EPA Region 4 EISOPQAM and the EPA Region 4 ERRB QAPP. The proposed START-2 health and safety protocol to be followed during the sampling event is described in the site health and safety plan which is being submitted under separate cover.

5.0 DISPOSAL OF INVESTIGATION-DERIVED WASTE

Investigation-derived wastes (IDW) will generally consist of disposable latex gloves and latex booties. These items are used mainly to prevent cross contamination, provide personnel protection, and provide sanitary

conditions during sampling activities. IDW will be disposed of in a manner suitable to site conditions based on the discretion of the project manager and the EPA OSC.

REFERENCES

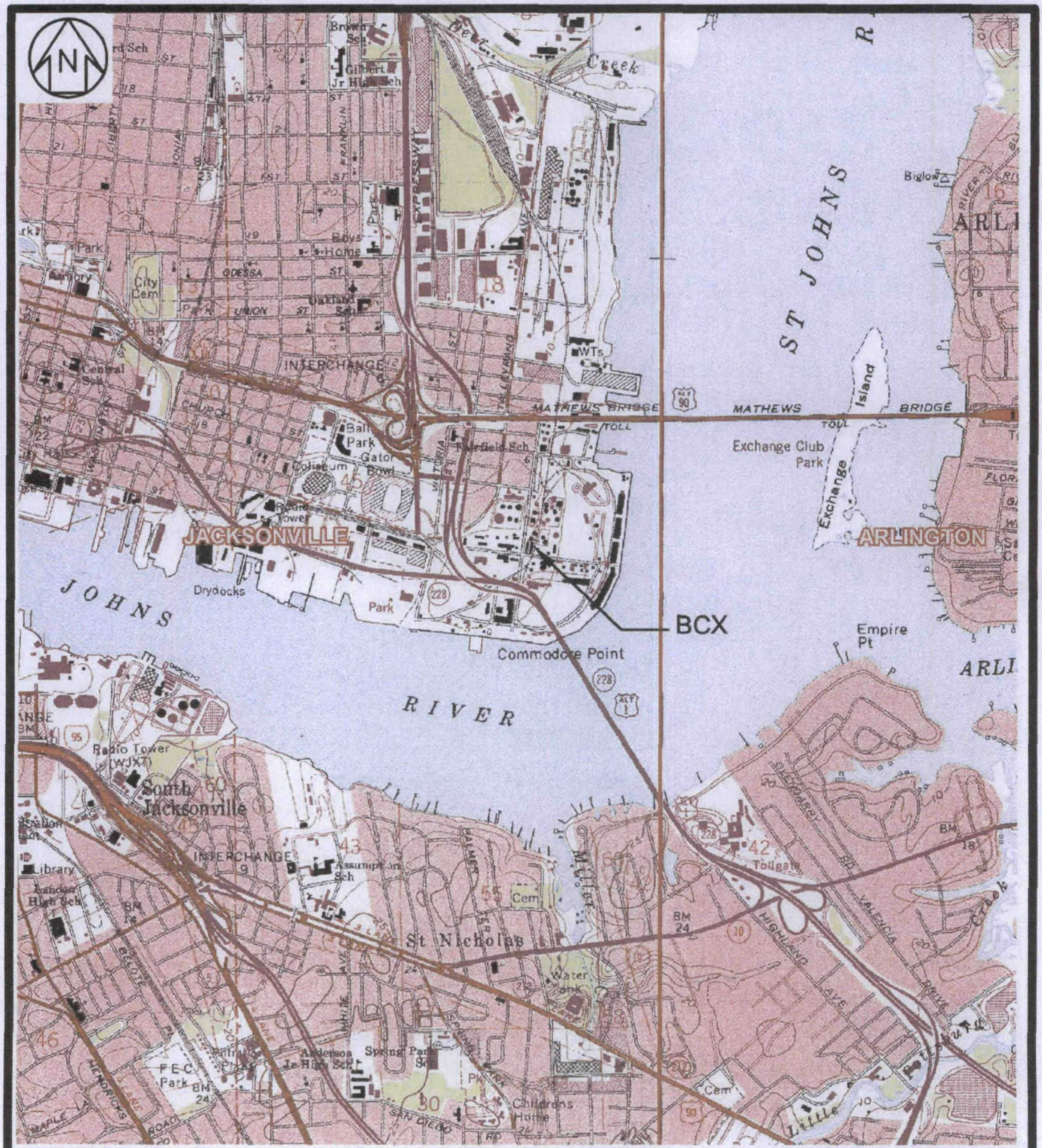
1. Roy F. Weston, Inc. (Weston Solutions Inc.). Quality Assurance Project Plan (QAPP). May 2000.

2. Roy F. Weston, Inc. (Weston Solutions Inc.). Quality Management Plan(QMP). May 2000.

3. U.S. Environmental Protection Agency (EPA), Science and Ecosystem Support Division (SESD). Region 4 *Environmental Investigation Standard Operating Procedures and Quality Assurance Manual* (EISOPQAM). May, 1996.

4. EPA, Region 4, Emergency Response and Removal Branch. QAPP. January 2002.

APPENDIX A
Figures



MODIFIED U.S.G.S. QUAD JACKSONVILLE MAP (7.5 SERIES), DATED 1992, SCALE: 1:2000

BCX
1903 EAST ADAMS STREET
JACKSONVILLE, DUVAL COUNTY, FLORIDA

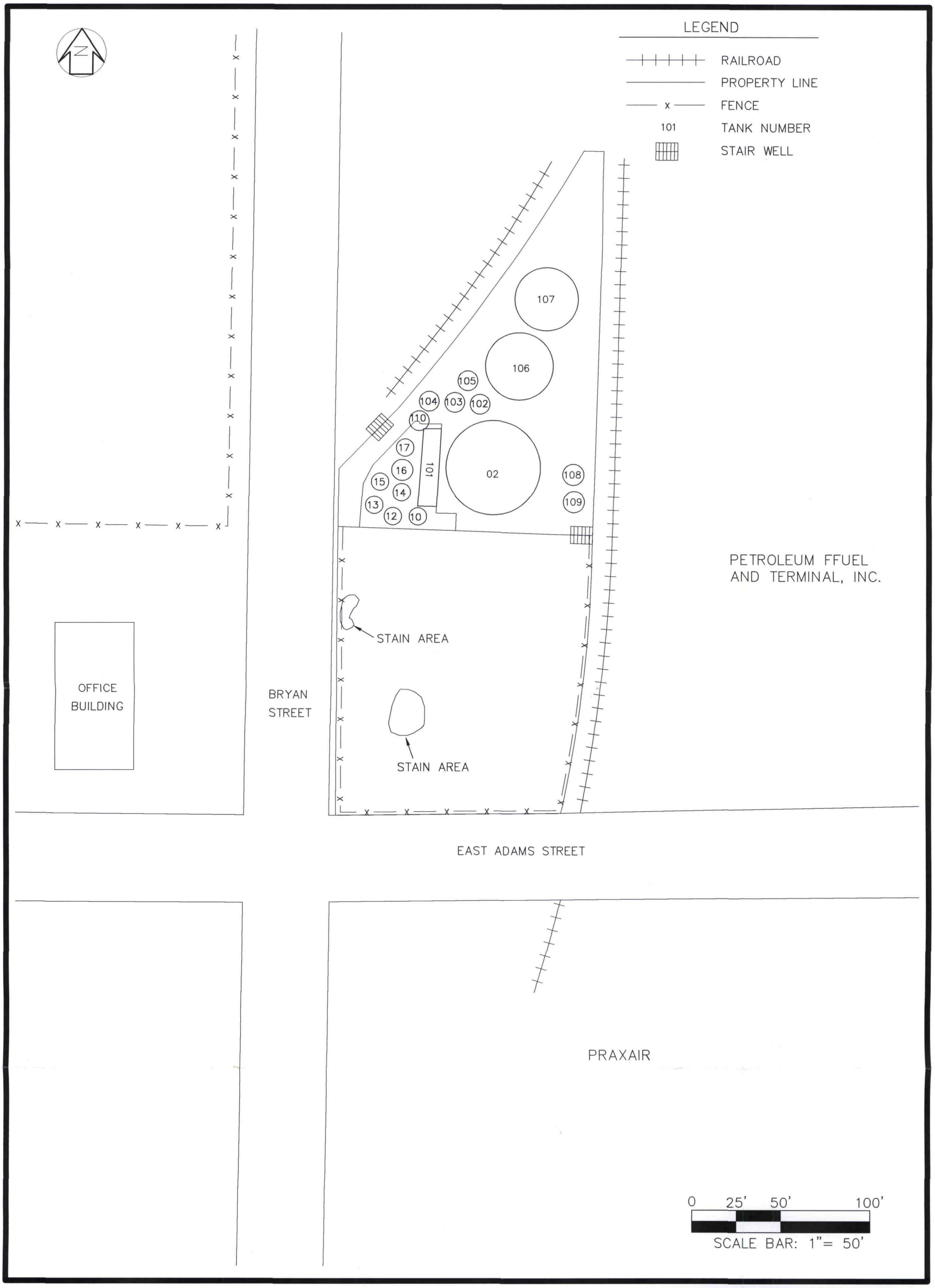
SITE LOCATION MAP
FIGURE 1

WESTON SOLUTIONS INC. Superfund Technical Assessment and Response Team

WESTON SOLUTIONS

DRAWN:	DATE:	W.O. NO.: bcx.dwg
J. MILLER	9/15/04	12587-001-002-0268
EPA ID NO.:		TDD NO.::
FLD980841472		4W-04-08-B-002

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

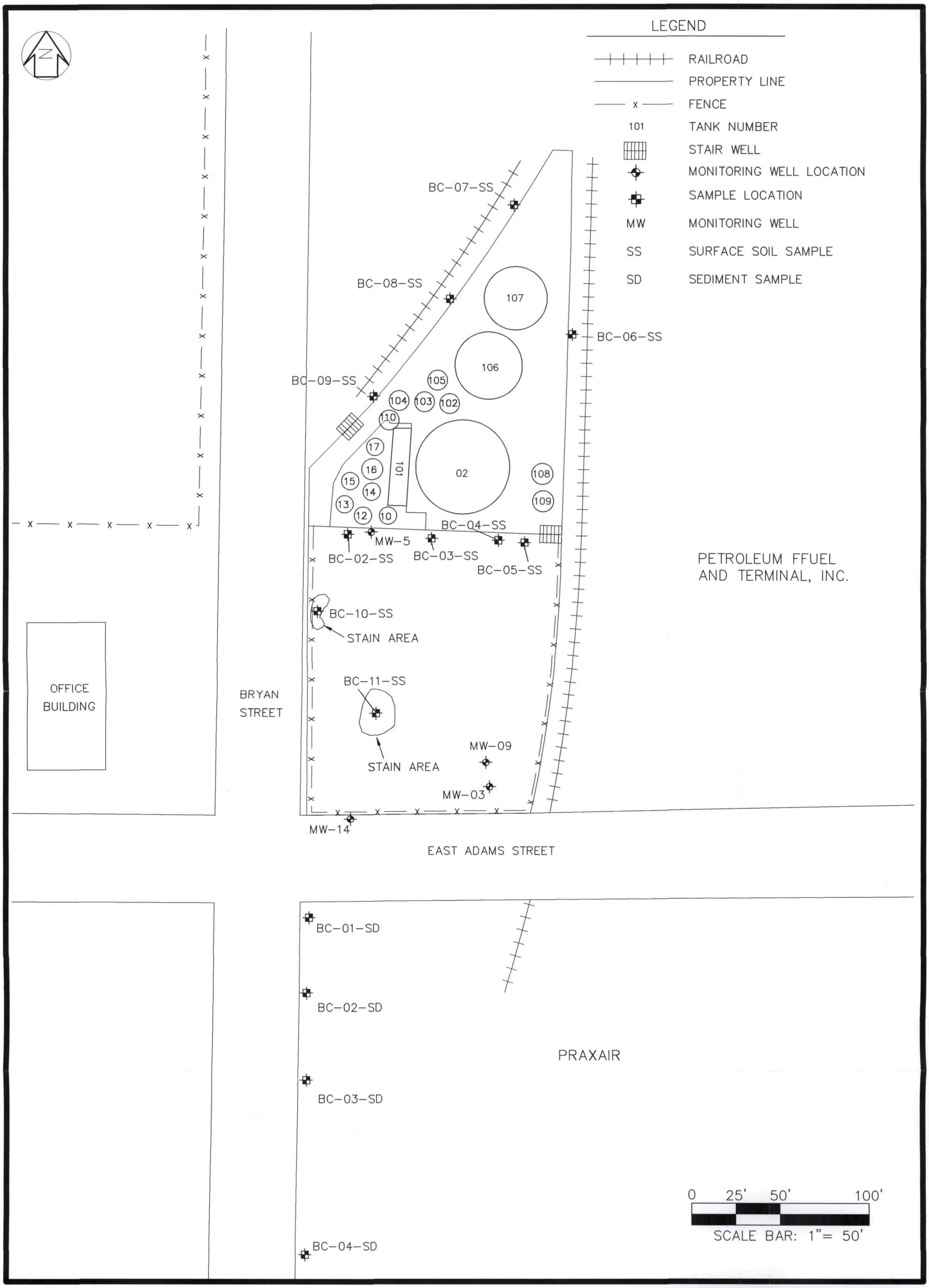


BCX
1903 EAST ADAMS STREET
JACKSONVILLE, DUVAL COUNTY, FLORIDA

PROPERTY LAYOUT MAP

FIGURE 2

DRAWN:	DATE:	W.O. NO.:
J. MILLER	9/15/04	12587-001-002-0268
EPA ID NO: FLD980841472		TDD NO: 4W-04-08-B-002



BCX
1903 EAST ADAMS STREET
JACKSONVILLE, DUVAL COUNTY, FLORIDA

SAMPLE LOCATION MAP

FIGURE 3

DRAWN:	DATE:	W.O. NO.:
J. MILLER	9/15/04	12587-001-002-0268
EPA ID NO: FLD980841472		TDD NO: 4W-04-08-B-002

APPENDIX B
Tables

TABLE 1
CONTAINMENT BERM
SAMPLE LOCATIONS

Sample Number	Location	Rationale
BC-01-SS	Background; located off-site and upgradient (exact location to be determined)	Determine presence of absence of hazardous constituents
BC-02-SS	Soil sample south of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents
BC-03-SS	Soil sample south of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents
BC-04-SS	Soil sample south of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents
BC-05-SS	Soil sample south of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents
BC-06-SS	Soil sample east of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents
BC-07-SS	Soil sample north of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents
BC-08-SS	Soil sample north of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents
BC-09-SS	Soil sample north of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents

TABLE 1
CONTAINMENT BERM
SAMPLE LOCATIONS

Sample Number	Location	Rationale
BC-10-SS	Soil sample south of the containment berm, in stained area	Determine presence of absence of hazardous constituents
BC-11-SS	Soil sample south of the containment berm, in stained area	Determine presence of absence of hazardous constituents
BC-11DSS	Soil sample south of the containment berm, in stained area	Determine presence of absence of hazardous constituents
BC-01-SB	Soil sample south of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents
BC-02SB	Soil sample south of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents
BC-03-SB	Soil sample south of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents
BC-04-SB	Soil sample south of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents
BC-05-SB	Soil sample east of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents
BC-06-SB	Soil sample north of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents

TABLE 1
CONTAINMENT BERM
SAMPLE LOCATIONS

Sample Number	Location	Rationale
BC-07-SB	Soil sample north of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents
BC-08-SB	Soil sample north of the containment berm, near former leak in berm	Determine presence of absence of hazardous constituents
BC-09-SB	Soil sample south of the containment berm, in stained area	Determine presence of absence of hazardous constituents
BC-10-SB	Soil sample north of the containment berm, in stained area	Determine presence of absence of hazardous constituents

Notes: BC- BCX
SS- Surface soil sample
SB- Subsurface soil sample
D- Duplicate

TABLE 2
STAGING AREA SOUTH OF CONTAINMENT BERM
SAMPLE LOCATIONS

Sample Number	Location	Rationale
BC-01-GW	MW-3; Staging area south of containment berm	Determine presence or absence of hazardous constituents
BC-02-GW	MW-5; Staging area south of containment berm	Determine presence or absence of hazardous constituents
BC-03-GW	MW-9; Staging area south of containment berm	Determine presence or absence of hazardous constituents
BC-04-GW	MW-14; Staging area south of containment berm	Determine presence or absence of hazardous constituents
BC-04D-GW	MW-14; Staging area south of containment berm	Determine presence or absence of hazardous constituents

Notes: BC- BCX
GW – Groundwater sample
MW - Monitoring well
D - Duplicate

TABLE 3
DRAINAGE DITCH ALONG BRYAN STREET
SAMPLE LOCATIONS

Sample Number	Location	Rationale
BC-01-SD	Drainage ditch, east of Bryan Street and directly south of E. Adams Street	Determine presence or absence of hazardous constituents
BC-02-SD	Drainage ditch, east of Bryan Street and 50 ft south of E. Adams Street	Determine presence or absence of hazardous constituents
BC-03-SD	Drainage ditch, east of Bryan Street and 100 ft south of E. Adams Street	Determine presence or absence of hazardous constituents
BC-04-SD	Drainage ditch, east of Bryan Street and 200 ft south of E. Adams Street	Determine presence or absence of hazardous constituents

Notes: BC- BCX
SD – Sediment sample

TABLE 4

QUALITY ASSURANCE/QUALITY CONTROL SAMPLING PLAN

Sample Number	Sample Type	Rationale
BC-01-BS	Soil trip blank (volatile organic analysis only)	Determine if unknown site conditions or sample handling procedures are influencing sample results
BC-01-TB	Water trip blank (volatile organic analysis only)	Determine if unknown site conditions or sample handling procedures are influencing sample results
BC-01-RB	Equipment rinsate blank (full scan routine analysis)	Determine if decontamination procedures adequately clean equipment
BC-01-PB	Preservative blank (metals analysis)	Determine if preservatives or sample handling procedures are influencing sample results
BC-01-MB	Water metals blank (provided by SESD; metals analysis only)	Determine if unknown site conditions or sample handling procedures are influencing sample results

Notes:
BC BCX
BS Soil blank
TB Trip blank
RB Rinsate blank
MB Metals blank

TABLE 5

ANALYTICAL METHODOLOGY, REQUIRED SAMPLE CONTAINERS, AND PRESERVATIVES

Matrix	Analysis	EPA Method	Sample Container	Preservative
Groundwater	VOA	CLP	Three 40-mL glass vials	HCl, pH < 2, and cool to 4 °C
	Semi-VOA	CLP	One 1-liter glass amber	Cool to 4 °C
	Metals	CLP	One 1-liter poly bottle	HNO_3, pH < 2, and cool to 4 °C
Soil	VOA	CLP	Two 2-oz glass jars with septum lid	Cool to 4 °C
	Semi-VOA	CLP	One 8-oz glass jar	Cool to 4 °C
	Metals	CLP	One 8-oz glass jar	Cool to 4 °C

Notes:

VOA	Volatile organic analysis	oz	Ounce
°C	Degree Celsius	HCL	Hydrochloric acid
HNO_3	Nitric acid	ml	Milliliter
poly	Polyethylene	<	Less than