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November 13, 2006

Mr. Jesse Perez
Program Manager, Alternatives Funds Division
U. S. Air Force Center for Environmental Excellence
HQ AFCEE/IWA-COR
3300 Sidney Brooks, Building 532
Brooks City-Base, TX 78235-5112

SUBJECT: Final Construction Completion Report for SEAD-25 and SEAD-26; Seneca Army Depot Activity, Contract FA8903-04-D-8675, Delivery Order 0012, CDRL A001C

Dear Mr. Perez:

Parsons Infrastructure & Technology Group Inc. (Parsons) is pleased to submit the Final Construction Completion Report for the Fire Training and Demonstration Pad (SEAD-25) and the Fire Training Pit and Area (SEAD-26) at Seneca Army Depot Activity (SEDA) in Romulus, New York. This work was performed in accordance with the Scope of Work (SOW) for Contract No. FA8903-04-D-8675, Task Order No. 0012.

The Draft Final Construction Completion Report was submitted on July 21, 2006. No further comments were received on the subject document.

Parsons appreciates the opportunity to provide you with the Final Construction Completion Report for this work. Should you have any questions, please do not hesitate to call me at (617) 449-1405 to discuss them.

Sincerely,

Todd Heino, P.E.
Program Manager

Enclosures

cc: S. Absolom, SEDA (3 paper copies, 1 electronic copy)
K. Hoddinott, USACHPPM (4 paper copies, 1 electronic copy)
C. Boes, USAEC (1 copy, electronic and paper)
J. Fallo, USACE, NY District (1 copy, electronic and paper)
T. Battaglia, USACE, NY District (1 copy, electronic and paper)
Air Force email (letter only)

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November 13, 2006

Mr. Julio Vazquez
USEPA Region II
Superfund Federal Facilities Section
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New York, NY 10007-1866

Mr. Kuldeep K. Gupta, P.E.
New York State Department of Environmental Conservation (NYSDEC)
Division of Environmental Remediation
Remedial Bureau A, Section C
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Albany, NY 12233-7015

Mr. Mark Sergott
Bureau of Environmental Exposure Investigation
Flanigan Square, Room 300
547 River Street
Troy, NY 12180

SUBJECT: Final Construction Completion Report for SEAD-25 and SEAD-26; Seneca Army Depot Activity, Contract FA8903-04-D-8675, Delivery Order 0012, CDRL A001C

Dear Mr. Vazquez/Mr. Gupta/Mr. Sergott:

Parsons Infrastructure & Technology Group Inc. (Parsons) is pleased to submit the Final Construction Completion Report for the Fire Training and Demonstration Pad (SEAD-25) and the Fire Training Pit and Area (SEAD-26) at Seneca Army Depot Activity (SEDA) in Romulus, New York (EPA Site ID# NY0213820830 and NY Site ID# 8-50-006).

The Draft Final Construction Completion Report was submitted on July 21, 2006. No further comments were received on the subject document.

Parsons appreciates the opportunity to provide you with the Final Construction Completion Report for this work. Should you have any questions, please do not hesitate to call me at (617) 449-1405 to discuss them.

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J. Fallo, USACE, NY District

US Army Corps of Engineers

Air Force Center for Environmental Excellence

00664

Seneca Army Depot Activity
Romulus, New York

FINAL
CONSTRUCTION COMPLETION REPORT

FOR THE FIRE TRAINING AND DEMONSTRATION PAD (SEAD-25)
AND THE FIRE TRAINING PIT AND AREA (SEAD-26)
SENECA ARMY DEPOT ACTIVITY

AFCEE CONTRACT NO. FA8903-04-D-8675
TASK ORDER NO. 0012
CDRL A001C
EPA SITE ID# NY0213820830
NY SITE ID# 8-50-006

PARSONS
NOVEMBER 2006

FINAL CONSTRUCTION COMPLETION REPORT

FOR THE FIRE TRAINING AND DEMONSTRATION PAD (SEAD-25) AND THE FIRE TRAINING PIT AND AREA (SEAD-26) SENECA ARMY DEPOT ACTIVITY, ROMULUS, NY

November 2006

Prepared for:

AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE,
BROOKS CITY-BASE, TEXAS

and

SENECA ARMY DEPOT ACTIVITY
ROMULUS, NY

Contract Number FA8903-04-D-8675 TO 0012

EPA Site ID# NY0213820830

NY Site ID# 8-50-006

Prepared by:

PARSONS
150 Federal Street
Boston, MA 02110

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ACRONYMS AND ABBREVIATIONS

µg/Kg	Microgram per kilogram
AFCEE	Air Force Center for Environmental Excellence
ARAR	Applicable or Relevant and Appropriate Requirement
AWQS	Ambient Water Quality Criteria
bgs	below ground surface
BRAC	Base Realignment and Closure
BTE	Benzo(a)pyrene Toxicity Equivalence
BTEX	Benzene, toluene, ethylbenzene, xylene
CAMP	Community Air Monitoring Plan
CCR	Construction Completion Report
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
COC	Contaminant of Concern
COR	Contracting Officer's Representative
cPAH	Carcinogenic Polycyclic Aromatic Hydrocarbon
CQP	Construction Quality Plan
cy	cubic yard
ESI	Expanded Site Inspection
FFA	Federal Facility Agreement
FSP	Field Sampling Plan
GPS	Global positioning system
HSP	Health and Safety Plan
IAG	Interagency Agreement
IRIS	Integrated Risk Information System
LF	linear feet
LTM	long-term monitoring
mg/Kg	Milligram per kilogram
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NAD	North American Datum
NPL	National Priorities List
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSEG	New York State Electric and Gas
PAH	Polycyclic Aromatic Hydrocarbon
PCB	polycyclic biphenyl
PCMMP	Post-Closure Monitoring and Maintenance Plan
PM	Project Manager
POC	Point of contact
PPE	Personal Protective Equipment
QAPP	Quality Assurance Program Plan

ACRONYMS AND ABBREVIATIONS (continued)

QA/QC	Quality Assurance/Quality Control
RA	Remedial Action
RC	Remedy Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RDWP	Remedial Design Work Plan
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
RTK	Real-time kinematic
SAP	Sampling and Analysis Plan
SEDA	Seneca Army Depot Activity
sf	square feet
SHSO	Site Health and Safety Officer
SM	Site Manager
SOP	Standard Operating Procedure
SVOC	Semivolatile Organic Compound
SWMU	Solid Waste Management Unit
TAGM	Technical and Administrative Guidance Memorandum
TCLP	Toxicity Characteristic Leaching Procedure
UGFPO	Underground Facilities Protective Organization
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

This Construction Completion Report for SEAD-25 and SEAD-26 is intended to provide record documentation of remedial action (RA) construction activities for SEAD-25 and SEAD-26, which were conducted in accordance with the *Record of Decision for Fire Training Area and Demonstration Pad (SEAD-25) and the Fire Training Pit and Area (SEAD-26), Final* (Parsons, 2004) and the *Remedial Design Work Plan and Design Report for the Fire Training and Demonstration Pad (SEAD-25) and the Fire Training Pit and Area (SEAD-26), Final* (Parsons, 2005a).

Seneca Army Depot Activity (SEDA or the Depot) is a 10,587-acre former military facility located in Seneca County near Romulus, New York, which has been owned by the United States Government and operated by the Department of the Army since 1941. SEDA's primary mission was the receipt, storage, maintenance, and supply of military items. In October 1995, SEDA was designated as a facility to be closed under the provisions of the Base Realignment and Closure (BRAC) process. The Fire Training and Demonstration Pad (SEAD-25) is located in the east-central portion of SEDA and was used for fire control training. The Fire Training Pit and Area (SEAD-26) is located in the southeastern portion of SEDA and was used one to four times a year for fire fighting training during which time various flammable materials were floated on water, ignited, and extinguished. The primary contaminants of concern (COCs) at SEAD-25 were volatile organic compounds (VOCs), specifically benzene, toluene, ethylbenzene, and xylene (BTEX) compounds in both soil and groundwater at the pad and semivolatile organic compounds (SVOCs) in the swale. At SEAD-26, the primary contaminants detected were SVOCs, namely carcinogenic polycyclic aromatic hydrocarbons (cPAHs), in the soil.

The objectives of the remedial action for SEAD-25 and SEAD-26, as detailed in the ROD for SEAD-25 and SEAD-26 (Parsons, 2004), were as follows:

- Remove and dispose off-site 1,350 cubic yards (cy) of contaminated soil at the SEAD-25 pad;
- Remove and dispose off-site 175 cy of contaminated soil at the SEAD-25 swale;
- Remove and dispose off-site the most highly contaminated groundwater at SEAD-25; and
- Remove and dispose off-site 1,050 cy of contaminated soil at SEAD-26.

Remedial Action

Parsons and the selected earthwork contractor, Sessler Wrecking (Sessler), mobilized to the site on November 7, 2005. The project began with a health and safety kick-off meeting, followed by pre-construction site preparation activities, including but not limited to identification of a borrow source and approval of potential fill material for use as backfill, disposal characterization sampling and approval for off-site disposal, staking and surveying the excavation areas, clearing the work areas, and well abandonment and well protection as needed.

SEAD-25

The initial excavation of the BTEX impacted soil at the pad at SEAD-25 began on November 15, 2005 and was completed on November 16, 2005, with soil removal totaling 848 cy of soil. The depth of excavation extended to shale bedrock, approximately 4 feet below ground surface (bgs). Eight confirmatory soil samples (plus one duplicate sample) were collected from the sidewalls of the excavation area and analyzed for VOCs and SVOCs. All but one confirmatory sample met the site-specific cleanup goals. An additional 113 cy of soil surrounding the failed confirmatory sample was excavated from the pad on November 30, 2005 and December 1, 2005. Two new confirmatory soil samples were collected from the additional excavated area, and the analytical results met the site-specific cleanup goals. All confirmatory soil samples representative of soil remaining on-site at the pad achieved the site-specific cleanup goals, and the soils at SEAD-25 do not require further action.

The ROD required the removal of groundwater from the SEAD-25 pad excavation area. The pad excavation remained open for 15 days to allow water from the surrounding soils to enter the area and equilibrate with the surrounding groundwater levels to the extent practical. After this period, the water in the pad excavation area was sampled and discharged to Waste Water Treatment Plant No. 4 with the approval of the Seneca County Sewer District.

Excavation of the swale at SEAD-25 began on November 7, 2005 and was completed on November 8, 2005. The excavation extended from the toe of slope on one bank to the toe of slope on the other bank, resulting in the removal and off-site disposal of the swale soil (761 cy) at SEAD-25. Since the swale bottom consisted of exposed competent bedrock following excavation, no native material remained in the swale and confirmatory samples were not collected.

A total of 1,722 cy (approximately 2,600 tons) of soil were excavated from the pad and the swale at SEAD-25 and disposed off-site at Ontario County Landfill. The pad excavation was backfilled and restored to the existing grade.

SEAD-26

The initial excavation at SEAD-26 began on November 9, 2005 and was completed on November 15, 2005. Five distinct areas at SEAD-26 were excavated to a depth of 1 foot bgs, in accordance with the design specifications. Thirty-eight (plus two duplicate) confirmatory soil samples were collected from the perimeter and the base of each excavation area (Areas A, B, C, D, and E) and were analyzed for cPAHs. One perimeter confirmatory soil sample in Area A failed to meet the site-specific cleanup goal. Subsequently, an additional 43 cy of soil surrounding the failed confirmatory sample was excavated to a depth of 1 foot and disposed off-site. Four confirmatory samples (plus one duplicate) were collected from the additional excavation area, and the analytical results met the cleanup goals. The edges of the five excavation areas were smoothed.

A total of 828 cy (1,248 tons) of soil were excavated from SEAD-26 and disposed off-site at a non-hazardous landfill. All confirmatory samples representative of soil remaining on-site met the soil cleanup goals. Additional remediation of soils at SEAD-26 is not required.

Conclusion

A total of 3,841 tons of soil were excavated and hauled from SEAD-25 and SEAD-26 and disposed at Ontario County Landfill for use as daily cover material. The completion of construction at SEAD-25 and SEAD-26 results in the achievement of Remedy-in-Place (RIP) at both SEAD-25 and SEAD-26. No further action is required for soils at SEAD-25 and SEAD-26. Long-term monitoring (LTM) of the groundwater at SEAD-25 and SEAD-26 will be performed in 2006, as required in the ROD.

1.0 INTRODUCTION

This Construction Completion Report for the Fire Training and Demonstration Pad (SEAD-25) and the Fire Training Pit and Area (SEAD-26), located at the Seneca Army Depot Activity (SEDA or the Depot) in Romulus, New York is intended to provide record documentation of remedial action (RA) construction activities for SEAD-25 and SEAD-26.

This Construction Completion Report (CCR) describes RA activities at SEAD-25 and SEAD-26 and presents sample collection and laboratory test results, record survey data, record (as-built) drawings, and photo documentation to demonstrate compliance with the requirements set forth by the following documents that received regulatory (Agency) concurrence:

- *Record of Decision for Fire Training Area and Demonstration Pad (SEAD-25) and the Fire Training Pit and Area (SEAD-26), Final.* (Parsons, 2004).

- *Remedial Design Work Plan and Design Report for the Fire Training and Demonstration Pad (SEAD-25) and the Fire Training Pit and Area (SEAD-26), Final*. (Parsons, 2005a). This document will be referred to as the Final Work Plan/Design Report.

1.1 Compliance and Reference Documents

The activities described by this CCR comply with the applicable or relevant and appropriate requirements (ARARs), as referenced in the Final Work Plan/Design Report. This CCR is consistent with, and is intended to be used in conjunction with, the following documents that received regulatory concurrence:

- *Proposed Plan at the Fire Training and Demonstration Pad (SEAD-25) and the Fire Training Pit and Area (SEAD-26), Final.* (Parsons ES, 2002).

- *Record of Decision at the Fire Training and Demonstration Pad (SEAD-25) and the Fire Training Pit and Area (SEAD-26), Final.* (Parsons, 2004).

- *Remedial Design Work Plan and Design Report for the Fire Training and Demonstration Pad (SEAD-25) and the Fire Training Pit and Area (SEAD-26), Final*. (Parsons, 2005a). This document includes a Field Sampling Plan (FSP) as Section 4 and a Construction Quality Plan (CQP) as Section 5.

- *Sampling and Analysis Plan for Seneca Army Depot Activity (SAP), Final. (Parsons, 2005b).* This document includes a Quality Assurance Program Plan (QAPP).

1.2 Purpose of the Construction Completion Report

The purpose of this CCR is to document that all construction activities associated with RA implementation at SEAD-25 and SEAD-26 were completed in accordance with the Final Work Plan/Design Report unless otherwise noted. The RA involved remediation of soil and swale soil at SEAD-25 and surface soil at SEAD-26. Construction activities documented within this report were performed in accordance with the Final Work Plan/Design Report, which included a Field Sampling Plan (FSP) and a Construction Quality Plan (CQP) and all associated documents listed in Section 1.1. This CCR will document that all required construction activities were completed. This document has been prepared for the Air Force Center for Environmental Excellence (AFCEE) under Contract No. FA8903-04-D-8675, Task Order No. 0012.

1.3 Site Location and History

Since its inception in 1941, SEDA's primary mission was the receipt, storage, maintenance, and supply of military items. SEDA was proposed for the National Priorities List (NPL) in July 1989. In August 1990, SEDA was finalized and listed under Group 14 on the Federal Section of the NPL. To facilitate resolution of contamination issues at SEDA, the United States Environmental Protection Agency (USEPA), the New York State Department of Environmental Conservation (NYSDEC), and the Army entered into a FFA, also known as the Interagency Agreement (IAG). This agreement stated that future investigations would be based on Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) guidelines, and that the Resource Conservation and Recovery Act (RCRA) was considered an ARAR pursuant to Section 121 of CERCLA. In October 1995, SEDA was designated as a facility to be closed under the provisions of the Base Realignment and Closure (BRAC) process.

SEDA is a 10,587-acre former military facility located in Seneca County near Romulus, New York, which has been owned by the United States Government and operated by the Department of the Army since 1941. A location map for SEDA is shown in **Drawing C-1**. As shown in **Drawing C-1**, SEDA is located between Seneca Lake and Cayuga Lake in Seneca County.

The Fire Training and Demonstration Pad (SEAD-25) is located in the east-central portion of SEDA. The site is bounded to the east by Administration Avenue beyond which is undeveloped land covered by deciduous trees; to the south by Ordnance Drive beyond which is an open grassy field and a stand of coniferous trees; to the west by grassland, brush and conifers; and to the north by grassland and a baseball field. A site map of the area is included as **Drawing C-2**.

The Fire Training Pit and Area (SEAD-26) is located in the southeastern portion of SEDA. The site is bounded to the east and west by SEDA railroad tracks; on the south by grassland and low brush; and on the north by 7th Street. Vehicular access is currently provided to the site via a locking gate on 7th Street. A site map of the area is included as **Drawing C-3**.

SEAD-25 was in use from the late 1960s to the late 1980s. The pad was used for fire control training. During the 1980s, the pad was used twice for fire fighting demonstrations, once in 1982 or 1983 and in 1987. SEAD-26 was in use from 1977 to 1994. SEAD-26 was used one to four times a year for fire fighting training during which time various flammable materials were floated on water, ignited, and extinguished. Prior to 1977, the fire training area may have also been used for fire demonstrations.

1.4 Contaminants of Concern

The primary contaminants of concern (COCs) at SEAD-25 were volatile organic compounds (VOCs), specifically benzene, toluene, ethylbenzene, and xylene (BTEX) compounds in both soil and groundwater, as well as lesser amounts of chlorinated ethene compounds in groundwater. The impact from BTEX compounds occurred at three soil sample locations (SB25-3, SB25-4, and SB25-5) clustered together in the western half of the pad. The vertical impacts extended from the land surface to a depth of 4 to 6 feet below the surface, which approximately corresponds to the top of competent shale bedrock (which ranges from 4 to 7.6 feet below ground surface).

The primary impact to the groundwater is from two overlapping VOC plumes that both originate at the southwestern portion of the Fire Training and Demonstration Pad. Neither BTEX nor chlorinated ethenes were detected in the bedrock wells at SEAD-25. The primary plume is composed of hydrocarbon compounds that are typically associated with gasoline (BTEX), and it is approximately 200 feet long.

Impacts to soil in the drainage swales at SEAD-25 were mainly from semivolatile organic compounds (SVOCs), pesticides, and heavy metals. The most significant impacts from SVOCs and metals were in the drainage swale northwest of the pad, whereas in the other ditch the most significant impact from SVOCs was found in an upgradient location. No COCs were identified in surface water that required remediation.

At SEAD-26, the primary contaminants detected were SVOCs, namely polycyclic aromatic hydrocarbons (PAHs), in the soil. Groundwater impacts at SEAD-26 were primarily from VOCs. Concentrations that exceeded the NYSDEC Ambient Water Quality Criteria (AWQS) for Class GA waters for benzene and ethyl benzene were found in one well that was located on the southern side of the burning pit. The contaminants that exceeded NYSDEC GA Standards in the groundwater are no longer found in the soil of SEAD-26 due to attenuation of the contaminants in the soil. Based on the groundwater data, no plume of VOCs and SVOCs exists on the site. No COCs were identified in ditch soil or surface water that required remediation.

The stratigraphy at SEAD-25 consists of 1 to 2 feet of crushed shale fill at the ground surface, 5 to 6 feet of till, both of which lie above Devonian shale (i.e., bedrock); the upper 2 to 4 feet of the shale is weathered. Geologic cross-sections from the Remedial Investigation (RI) indicate that the fire training pad at SEAD-25 occurs on a local natural high in the shale topography. Boring logs for SB25-3, SB25-4 and SB25-5, provided in **Appendix K**, show that there is a 0.1 to 0.4 foot layer of

weathered and fractured shale overlying the competent bedrock that was easily excavated. Split spoon refusal at the top of competent bedrock was found at 4.6 to 5.4 feet below ground surface. Parsons' daily reports in **Appendix C** used 4.5 feet below ground surface for the excavation to calculate excavation volumes. This depth is generally consistent with the boring log information. On November 16, 2005, members of the Base Cleanup Team (BCT) including representatives of NYSDEC and NYSDOH observed the excavator scraping the competent bedrock surface of the completed excavation. The excavator easily excavated the fractured shale. While the BCT representatives were present, Parsons requested that the contractor scrape the surface so the BCT representatives could see that all fractured bedrock had been removed and competent bedrock was reached.

At SEAD-26 the Fire Training Pit and surrounding areas are comprised mostly of fill that varies in thickness from 6 feet to 14 feet. The fill is mainly construction debris. Below the fill is Devonian shale with a thin weathered zone at 2 feet to 6 feet deep.

1.5 Report Organization

The first section of this report serves as an introduction to the CCR and provides site history. **Section 2** details the pre-construction activities completed at SEAD-25 and SEAD-26. **Section 3** summarizes the construction activities, including the earthwork and confirmatory sample collection and analysis. **Section 4** presents a summary of deviations from the design presented in the Final Work Plan/Design Report. **Section 5** presents the construction reporting requirements. **Section 6** summarizes post-construction activities. **Section 7** presents the conclusions and recommendations. References are provided in **Section 8**.

Appendix A presents borrow source documentation and data; **Appendix B** presents the disposal characterization data; **Appendix C** includes the daily reports; **Appendix D** provides photo documentation of the field work; **Appendix E** presents the complete analytical results of the confirmatory samples; **Appendix F** includes the chain of custodies; data validation reports and the SDG case narratives from the laboratory are included as **Appendices G** and **H**, respectively; **Appendix I** presents the analytical results of the excavation water sample; **Appendix J** includes a summary of the non-hazardous solid waste manifests and a sample of the manifests and weight tickets; and **Appendix K** includes the Army's responses to regulator comments.

2.0 PRE-CONSTRUCTION ACTIVITIES

This section discusses the activities performed in preparation for RA implementation at SEAD-25 and SEAD-26. These activities included the identification of suitable borrow sources; disposal characterization and approval; a pre-construction meeting; a health and safety kick-off meeting; establishment of site access and security, such as access roads, fencing, and signage; surveying and staking the excavation areas; clearing requirements; well abandonment and well protection; utility clearance; and equipment examinations.

2.1 Borrow Source

Two borrow sources (one on-site source and one off-site source) were identified to potentially provide material for backfilling the excavation of the pad at SEAD-25. On-site fill material was provided by SEDA. This source was soil excavated as part of underground utilities work completed by New York State Electric and Gas (NYSEG) at uncontaminated locations in the Administration Area at the Depot. The soil was excavated along East Patrol Road, between 2nd Street and South Street, along Quarters Drive, a segment of 1st Avenue and 3rd Avenue. One Solid Waste Management Unit (SWMU), SEAD-39, was adjacent to but not part of the borrow source areas. Prior to the NSYEG gas line work, a removal action was completed at SEAD-39 in 2003.

The off-site borrow source is a sand and gravel dealer, Dendis Sand and Gravel, located on State Route 96 in Junius, New York in Seneca County. The Dendis site is a gravel pit located in a heavily wooded area. **Appendix A** includes additional information on the borrow sources.

In accordance with the Final Work Plan/Design Report for SEAD-25 and SEAD-26, one representative soil sample was collected from each borrow source and analyzed for VOCs, SVOCs, and metals. The on-site borrow source was soil stockpiled from various uncontaminated locations within SEDA (see Page A-1 of the subject report for a more detailed description). Since the soil originated from a range of locations and since the soil did not appear homogeneous, the on-site borrow sample was a composite from four corners of the borrow area in order to produce a representative sample. One grab sample was collected and representative of the off-site borrow soil source.

The analytical results of the fill material samples were compared to the SEAD-25 cleanup goals for VOCs and SVOCs. As metals are not COCs at SEAD-25, there are no established site-specific cleanup goals for metals to use as a comparison. The historical soil data from the portions of SEAD-25 not included in the excavation area were reviewed and the maximum concentrations of metals to be left on-site at SEAD-25 after the excavation is complete were identified. The analytical results for metals detected in the two fill samples were compared to these maximum metals concentrations, shown in **Table 2-1.** The analytical results for both the on-site and the off-site fill material samples met the backfill criteria for VOCs, SVOCs, and metals. The complete analytical data for the fill samples are presented in **Appendix A**.

Prior to using the borrow source material as fill, the analytical data for the on-site and off-site sources were distributed to the USEPA and NYSDEC for their review on November 22, 2005 and November 30, 2005, respectively, in accordance with the Final Work Plan/Design Report.

2.2 Disposal Characterization and Approval

For disposal characterization the disposal facility required analytical results from one composite sample collected at each site. This sampling requirement was based on the disposal facility's review of the historic sampling results at SEAD-25 and SEAD-26. The disposal facility had already pre-approved acceptance of the soil based on these data. Parsons agreed with this requirement and prior to the commencement of the RA, composite disposal characterization samples were collected from the swale and pad at SEAD-25 and from each of the five excavation areas at SEAD-26. The disposal characterization samples were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) VOC, SVOC, pesticides, polycyclic biphenyls (PCBs), herbicides, metals, reactivity, flashpoint, and pH. All detected analytes were below the disposal facility acceptance limits. A summary of analytes detected is presented in **Table 2-2**. The complete analytical data are included in **Appendix B**. The analytical results for the composite samples confirmed that the excavated soil at SEAD-25 and SEAD-26 was suitable to be directly loaded into trucks for off-site disposal to a Subtitle D non-hazardous facility. Additional disposal characterization samples will not be collected during the excavations.

Earthwatch Waste Systems, Inc. arranged for the materials excavated from SEAD-25 and SEAD-26 to be disposed at Ontario County Landfill in Flint, New York as daily cover material. Parsons provided Earthwatch with the analytical disposal characterization data, documenting that the soils to be excavated as part of the RA were suitable for non-hazardous disposal at Ontario County Landfill.

2.3 Pre-Construction Meeting

A project kick-off meeting was held at SEDA on May 10, 2005. Attendees included Parsons' Site Manger (SM), Project Manager (PM), SEDA personnel, and the AFCEE Contracting Officer's Representative (COR). The meeting included a review of health and safety issues, construction quality management requirements, and a site walk at SEAD-25 and SEAD-26. SEDA, AFCEE, and Parsons coordinated administrative issues related to the project to ensure that the RA would be executed smoothly.

2.4 Health and Safety Meeting

Prior to the commencement of construction, a health and safety indoctrination meeting was held at SEDA on November 7, 2005. Parsons employees, SEDA personnel, and the earthwork subcontractor, Sessler Wrecking (Sessler), attended the health and safety meeting. A review of the project health and safety requirements and procedures outlined in the "Project Safety Plan and Site-Specific Health

and Safety Plan for Remediation of the Seneca Army Depot Activity" (Parsons, 2005c) was performed. Project coordination and communication and the scope of work were discussed.

2.5 Site Access and Security

SEAD-25 and SEAD-26 are located within the Depot, which is surrounded by a fence with locked gates. Additionally, SEAD-26 is surrounded by an additional fence with a locked gate. The Army provided site access to the field team prior to and during construction activities. Site security was necessary to prevent exposure of unauthorized, unprotected individuals to the work area. The area immediately surrounding the work area was clearly marked through the use of signs, barrier rope, tape, or fencing.

Construction activities were coordinated with the appropriate point of contact at SEDA in advance of construction. Notification was provided for all work planned at the site. All visitors to the work site reported to the Site Manager (SM) and/or the SHSO as soon as they arrived on-site. The presence of visitors on-site, including the visitor's name, company, date, time, and activities performed while on site, was recorded in the site visitors log and in the daily reports provided in **Appendix C**.

2.6 Staking and Surveying

Based on the design drawings included in the Final Work Plan/Design Report, the corners of the excavation areas at SEAD-25 and SEAD-26 were staked out. The coordinates, including elevations, of the corners of each excavation area were surveyed using a Trimble 5700 Real-Time Kinematic (RTK) global positioning system (GPS) unit. The Trimble GPS unit has an accuracy of ±10 mm for horizontal measurements and ±20 mm for vertical measurements. The horizontal datum was based on NAD83 per SEDA SEAD-25A monuments survey control coordinates dated 1994. The vertical datum was based on NAD88.

2.7 Clearing

Sessler cleared the work areas at SEAD-25 and SEAD-26 to allow for equipment access. Brush along the southeastern bank of the swale was cleared from the work area and relocated to another portion of SEAD-25. One tree was cleared from Area E at SEAD-26 and broken into smaller pieces and moved to the northern end of SEAD-26 near Area A.

2.8 Well Abandonment / Well Protection

At SEAD-25, one well (MW25-5D), was abandoned and grouted with a mix of Portland cement and bentonite prior to the excavation of the pad in accordance with the "Monitoring Well Abandonment Work Plan" for the Seneca Army Depot (Parsons, 2005d). Though the work plan indicated that MW25-4D would be abandoned since it was close to the boundary of the proposed work area, the determination was made in the field that the monitoring well could be protected while simultaneously

excavating the impacted soil. All other wells at SEAD-25 are located outside of the portion of the Pad that was excavated, as shown on **Drawing C-4**.

One well at SEAD-26 (MW26-9), which was located within Area E, was abandoned by removing the well and sand pack from the ground prior to excavation of that area in accordance with the "Monitoring Well Abandonment Work Plan" for the Seneca Army Depot (Parsons, 2005b), as indicated on **Drawing C-6**. The determination that MW26-9 could be abandoned was made by the field engineer in consultation with the project manager. Abandonment of MW26-9 was performed since abandonment of this shallow well simplified the excavation of the area, and the well was not required for long-term monitoring.

Monitoring wells MW25-2 and MW25-3, which are needed for long-term groundwater monitoring, were protected during construction.

2.9 Utility Abandonment

Sessler contacted UGFPO (Underground Facilities Protective Organization) for utility clearance prior to beginning work. UGFPO stated that there were no underground utilities within the limits of work at SEAD-25 and SEAD-26. Utility abandonment was not required.

2.10 Equipment Examinations

Prior to the commencement of earthwork, Parsons inspected Sessler's construction equipment. All equipment was determined to be in working order. The bucket on the excavator was changed to a 6 foot slope bucket (without teeth), which was selected by Parsons to allow for more complete removal of all soil located at the bottom of the swale at SEAD-25.

3.0 CONSTRUCTION ACTIVITIES

This section documents construction-phase activities associated with the RA implementation at SEAD-25 and SEAD-26. Construction activities described here began with mobilization of Parsons' field crew and selected earthwork subcontractor, Sessler Wrecking of Waterloo, New York, on November 7, 2005. All construction activities were completed by December 16, 2005, at which time Parsons and Sessler demobilized from the site. All pre-construction, construction, and post-construction activities that took place at SEDA were documented in daily construction logbooks and daily reports (**Appendix C**).

3.1 Site Preparation

The field crew and equipment was mobilized to the site on November 7, 2005. Site preparation included the following activities:

- Mobilization; and
- Removing vehicles and other debris from SEAD-26.

3.1.1 Mobilization

The field crew and the equipment were mobilized to the site on November 7, 2005. No trailers or temporary utility hookups were required.

3.1.2 Debris Removal

There was no debris at SEAD-25 that impeded work.

Sessler removed debris, including scrap metal, old vehicles, and storage containers, from SEAD-26 and disposed of it off-site at Seneca Steel on Route 414 in Seneca Falls, New York. This included the removal of two aboveground tanks at the request of SEDA. Prior to disposal at Seneca Steel, EPS Vermont cleaned the tanks and managed the removal of petroleum-like liquid in the tanks in coordination with SEDA. Samples of the liquid in the tank were collected and sent for analysis for disposal characterization; EPS Vermont used the analytical results to determine suitable non-hazardous disposal of the tank liquid.

3.2 Health and Safety During Construction

At the start of each work day, all on-site workers attended a daily health and safety briefing conducted by the Site Health and Safety Officer (SHSO), Mr. Ben McAllister. Site visitors were required to review the project Health and Safety Plan (Parsons, 2005c) and attend a site-specific health and safety briefing. These "tailgate" meetings were mandatory for all subcontractors and Parsons personnel working at the site. At each meeting, the SHSO discussed personal protective

equipment (PPE) needs for that day and any potential hazards associated with the day's scheduled activities. The topics covered and all attendees at each daily briefing were documented, and the records were stored by the SHSO in the project files.

3.3 Air Monitoring

Air monitoring of the work area for dust and organic vapor were conducted during the excavation of the SEAD-25 pad and during the excavations at SEAD-26 when weather conditions permitted. During rain events on November 9, 10 and 15, 2005, the equipment was shut down since readings are unreliable in wet conditions. The dust monitor, Thermo 4000, provided real time perimeter measurements. The dust monitor setup at the SEAD-25 pad is visible in Photo No. 1 in **Appendix D**. The air monitoring equipment (the dust monitor and the OVM) was positioned downwind of the work areas. Dust monitoring was not conducted during the excavation of the SEAD-25 swale since the swale was wet and work conditions were not conducive to causing dust; air monitoring was not conducted during the excavation of the SEAD-25 swale since VOCs were not a COC. VOCs were not detected by the OVM in the air surrounding the work area.

3.4 SEAD-25 Pad Construction Activities

3.4.1 Initial Excavation

Excavation of the staked area began at the northern end of the pad on November 15, 2005 and was completed on November 16, 2005. Initially, approximately 848 cubic yards (cy) of soil were excavated from the pad at SEAD-25, as shown in **Table 3-1**. The dimensions of the excavated portion of the pad were approximately 90 feet by 56 feet. Dimensions and quantities proposed in the Final Work Plan/Design Report and recorded in the daily reports (**Appendix C**) were estimations; dimensions and quantities presented in this document reflect accurate figures based on the as-built drawings.

The actual southern boundary of the excavation area was 4 feet shorter in length than originally proposed in order to protect monitoring well MW25-2, which is needed for long-term groundwater monitoring. It was determined in the field to be more practical, and economical to modify the limit of work by four feet in order to prevent damage to MW25-2 and allow for a better historical comparison of groundwater quality from a well where testing had been performed during prior sampling events. Additionally, if the well had been removed, the replacement well would have been installed in clean backfill and would not allow us to perform a direct comparison to historic groundwater quality after removal of the source material. Impacted soils were not left at the site as confirmed by the fact that the confirmatory sample collected in this section of the excavation, 25EXPAD05, met the cleanup goals.

The excavation was proposed to extend to a depth of 6 feet; however, bedrock was encountered prior to reaching this depth. The bedrock (shale) was encountered at approximately 4 feet below ground

surface (bgs) throughout the entire excavation. The sides of the excavation were sloped at 1:1. The earthwork activities were shown in Photo No. 1 in **Appendix D**.

Excavated soil was directly loaded into dump trucks, which were taken to Ontario County Landfill. No stockpile or staging areas were necessary.

Once the initial excavation of the pad was completed, the limits of the excavation and the elevation of the base of excavation were surveyed using a 5700 RTK GPS unit. The limits of the initial excavation at the pad are shown on **Drawing C-4**.

3.4.2 Erosion Control Maintenance

Temporary erosion controls in the form of silt fencing were erected on the south and east boundary of the pad on November 8, 2005 and were removed after the initial work was completed on December 16, 2005. The silt fencing prevented the migration of swale soils temporarily staged at the southern portion of the pad. The earthwork was completed in a manner such that soil erosion or migration to the north and west of the work area were not a concern.

3.4.3 Confirmatory Sampling

The confirmatory sampling plan presented in the Final Work Plan/Design Report specified that confirmatory samples would be collected at the base of excavation at a frequency of one sample every 2,500 square feet (sf) and from the sidewall of the excavation at a depth halfway between the ground surface and the base of excavation at a frequency of every 50 linear feet (LF). In accordance with the Final Work Plan/Design Report, eight confirmatory soil samples [plus one duplicate and MS/MSD (matrix spike/matrix spike duplicate) samples] were collected from the side slopes of the initial excavation at a depth halfway between the ground surface and the base of excavation (approximately 2 ft. bgs) every 50 LF, as shown on **Drawing C-4**. The total perimeter of the excavation was 292 feet and eight sidewall samples were collected, meeting the one sample every 50 LF requirement specified in the Final Work Plan/Design Report. Confirmatory soil samples were not collected from the base of excavation since all native soil was removed and the shale was exposed on the base of the excavation (appears as the white bottom of the excavation in Photo 2 in **Appendix D**). The samples were sent to the selected laboratory, Chemtech located in Mountainside, New Jersey, and analyzed for VOCs and SVOCs by CLP OLM04.3/ASP2000 Method. The VOC samples were collected using Encore samplers. All samples were collected following procedures outlined in the SAP. Analytical data for confirmatory samples are provided in **Appendix E**. The data was validated in a manner that is consistent with procedures defined in the USEPA's "National Functional Guidelines for Organic Data Review" and consistent with USEPA Region 2's Standard Operating Procedures (SOP). Data validation reports and case narratives are included as **Appendices G** and **H**, respectively.

In accordance with the Final Work Plan/Design Report, the analytical results of the confirmatory soil sampling were compared to the site-specific cleanup goals, listed in **Table 3-2A**, for eight VOCs and

three SVOCs. A summary of the analytical results is presented in **Table 3-3**. Chlorinated ethenes and their daughter products were not detected in any of the confirmatory samples.

At one sample location, 25EXPAD08, which is located in the northwestern portion of the pad, total xylenes were detected at a concentration of 2,800 micrograms per kilogram (µg/Kg), which exceeds the total xylenes cleanup goal of 1200 µg/Kg. Benzene, ethylbenzene, and toluene were detected in that sample at concentrations below their respective cleanup goals. BTEX compounds were detected at four sample locations (25EXPAD02, 25EXPAD04, 25EXPAD06, and 25EXPAD07) at levels below their respective cleanup goals.

Three SVOCs were listed as COCs for SEAD-25: 2-Methylnaphthalene, naphthalene, and phenol. Two of the three SVOCs, 2-Methylnaphthalene and naphthalene, were detected twice; however, they were detected at concentrations below the cleanup goals, as shown in **Table 3-3**. All of the confirmatory samples met the site-specific cleanup goals for SVOCs.

3.4.4 Additional Excavation and Confirmatory Sampling

Based on the total xylenes data, sample location 25EXPAD08 failed to meet the cleanup goals for VOCs. As a result, a 760 sf area of soil surrounding 25EXPAD08 was removed down to bedrock, resulting in the excavation of an additional 113 cy from the pad, as shown on **Drawing C-4**. The additional excavation was conducted in the same manner as the initial excavation. The additional excavation extended until bedrock was encountered at 4 feet bgs and the sides were sloped at 1:1. The excavation was conducted to protect monitoring well MW25-3, which is needed for long-term groundwater monitoring.

Two new confirmatory soil samples (25EXPAD13 and 25EXPAD14) were collected from the side slopes of the excavation at a depth halfway between the ground surface and the base of excavation (approximately 2 feet bgs), as shown on **Drawing C-4**. The two new samples were spaced less than 50 feet apart from each other and less than 50 feet from the nearest samples (25EXPAD07 and 25EXPAD01). Samples 25EXPAD13 and 25EXPAD14 were sent to Chemtech for analysis. No VOCs and SVOCs were detected in either sample, indicating that all final confirmatory samples met the cleanup goals and the excavation was complete.

The total volume of soil excavated from the pad (including the additional excavation) was approximately 961 cy. The limits of the additional excavation and the elevation of the base of excavation were surveyed using a 5700 RTK GPS unit for the final record drawings.

All analytical results are included in **Table E-1** in **Appendix E**. The chain of custodies for the confirmatory samples associated with SEAD-25 are included in **Appendix F**.

3.4.5 Water Collection

The ROD and the Final Work Plan/Design Report proposed addressing impacted groundwater at SEAD-25 by removing the soil and associated groundwater at the source of the VOC plume located at the pad. After the soil was excavated, the excavation at the SEAD-25 pad remained open for 15 days to allow water from the surrounding soils to enter the area and equilibrate with the surrounding groundwater levels to the extent practical. As a result, the groundwater at the source, which is the most highly impacted groundwater, would be recovered by dewatering the area. Following excavation, the excavation was completely dry, indicating that all water entrained within the contaminated soils had been removed during the excavation and landfilled off-site. The surrounding soils have low permeability and very little groundwater was observed infiltrating into the excavation area. There were multiple rain events over the 15 day period, and the excavation did fill with rain water.

One excavation water sample, WWT11128, was collected from the water in the excavated area, and analyzed for VOCs, SVOCs, and metals (including cyanide and mercury). The complete analytical results for the water sample are included as **Appendix I**. The analytical data was submitted to the Town of Romulus and the Seneca County Sewer District for their approval. The Town of Romulus and the Seneca County Sewer District approved the data and gave Parsons permission to discharge the excavation water to the local sewer system as presented in **Appendix I**.

Once the sample was collected, the water was pumped into a 5,000 gallon frac tank and into a tanker truck provided by Sessler. Temperatures were at or below freezing and the water in the tank and in the excavation froze. Parsons used a glycol heater to melt the ice that had accumulated in the 5,000 gallon tank and in the excavation. After the ice thawed, Sessler transported a total of 13,000 gallons of water to Waste Water Treatment Plant No. 4 and released the water to the main influent building of the plant, which was the discharge location identified by the plant operator.

3.4.6 Soil Disposal

Excavated soil was directly loaded into dump trucks driven by Mangiardi Trucking and Intrastate Trucking and arranged by Earthwatch. Approximately 1,447 tons of soil from the excavation of the SEAD-25 pad was hauled off-site to the Ontario County Landfill. A non-hazardous waste solid waste manifest was signed by the SEDA Point of Contact (POC), Mr. Stephen Absolom, for every truck departing SEDA with excavated material for the landfill. Information in the manifests and weight tickets are summarized in **Table J-1** and one manifest and one weight ticket are included in **Appendix J** as examples.

3.4.7 Site Restoration

The final limits of the excavation are shown in **Drawing C-4**. The excavation area at the pad was restored by placing clean fill in 1 to 2-foot lifts up to the existing ground surface. The fill material

consisted of approximately 793 cy of on-site fill material, and 168 cy of fill material from the off-site borrow source. Information on the borrow sources are discussed in **Section 2.1**. The fill material was compacted by three passes of a dozer. We anticipate that the fill material will naturally vegetate since it is in the middle of a vegetated field. If vegetation does not become established in the spring, Parsons will seed the pad to establish vegetation.

After the site was backfilled, the final grade of the pad was surveyed and recorded using a 5700 RTK GPS unit.

3.5 SEAD-25 Swale Construction Activities

3.5.1 Excavation

Prior to excavating the swale, Sessler removed clean material from the upper bank of the swale and placed this material across the swale at the eastern culvert to block the flow of water coming through the northern culvert. Sessler began excavation of the swale soil on November 7, 2005 and completed it on November 8, 2005. The excavation extended from the toe of slope on one bank to the toe of slope on the other bank. The length of the swale is visible in Photo No. 2 in **Appendix D**. The swale bottom was excavated to shale bedrock from the eastern culvert to the western culvert. Photo No. 4 in **Appendix D** shows the exposed shale at the bottom of the swale after the excavation was completed and the water was allowed to follow its natural flow path through the swale. A total of 761 cy of swale soil was excavated from the bottom of the swale. Based on the record drawing (**Drawing C-5**), the excavation averaged approximately 3 feet deep, 10 feet wide, and 760 LF in length. Dimensions and quantities proposed in the Final Work Plan/Design Report and recorded in the daily repots were estimations; dimensions and quantities presented in this document reflect accurate figures based on the as-built drawings. The Final Work Plan/Design Report proposed a more limited excavation of a 3-foot wide section of the swale extending to a depth of 2 feet. Since the entire swale was excavated, approximately four times more soil was removed from the swale than estimated in the Final Work Plan/Design Report.

The excavated material was stockpiled on 6-mil polyethylene liner located within the proposed limits of excavation of the pad at SEAD-25. The soil staged on the pad was surrounded by silt fencing. Sessler delivered twenty tons of lime, which was mixed with the wet excavated soil from the swale to remove entrained liquid and solidify the material prior to disposal in order to meet the landfill requirements. The excavator was used to spread and mix the lime with the stockpiled swale soil before the soil mixture was loaded in the dump trucks. The edges of the liner were bermed to prevent runoff from escaping the lined area.

Once the excavation of the swale was completed, the limits of the excavation were surveyed using a 5700 RTK GPS unit.

3.5.2 Erosion Control Maintenance

Silt fencing was erected on the south and east boundary of the pad on November 8, 2005 and were removed after the work was completed on December 16, 2005 to prevent the migration of the swale soils temporarily staged at the southern portion of the pad.

3.5.3 Confirmatory Sampling

The Final Work Plan/Design Report indicated that confirmatory soil samples would be collected along the swale bottom at a frequency of every 50 LF. Since the swale bottom was exposed competent bedrock following excavation, no native material remained in the swale and confirmatory samples were not collected. The Final Work Plan/Design Report did not require perimeter samples; as such, none were collected.

3.5.4 Soil Disposal

Before the excavation of the pad commenced, the solidified swale soil material (1,146 tons) was hauled off-site by Earthwatch to Ontario County Landfill for disposal.

3.5.5 Site Restoration

Disturbed areas surrounding the swale were regraded with a dozer. The earthen berm was removed from the culvert and water was allowed to flow through the swale. The limits of excavation of the swale are shown on **Drawing C-5**.

3.6 SEAD-26 Construction Activities

3.6.1 Initial Excavation

The initial excavation at SEAD-26 began on November 9, 2005 and was completed on November 15, 2005. The five areas (labeled A, B, C, D, and E), shown in **Drawing C-6**, were excavated to a depth of 1 foot bgs, as required. Excavated soils were temporarily stockpiled within the limits of excavation for each area, and then were directly loaded into dump trucks. All soils were disposed by Earthwatch at Ontario County Landfill. The temporary soil stockpiles were covered overnight with 6-mil polyethylene liner to protect the piles during rain events. No stockpile areas or staging areas outside of the limits of excavation were necessary. A total of 785 cy of soil were excavated from SEAD-26.

The limits of the excavation of each area were surveyed using a 5700 RTK GPS unit and are shown on **Drawing C-6**.

3.6.2 Erosion Control Maintenance

Erosion controls, such as silt fencing, were not installed due to the shallowness of the excavations at SEAD-26.

3.6.3 Confirmatory Sampling

At SEAD-26, confirmatory samples were collected in accordance with the FSP included as Section 4 of the Final Work Plan/Design Report. Confirmatory samples were collected from the base of each excavation at a rate of at least one sample per every 2,500 sf, or fraction thereof, of surface area at a depth interval of 0 to 2 inches below the base of excavation. Sidewall samples were not collected since the excavation was only 1 foot deep. Samples were collected from the perimeter of each excavation at a rate of no less than one sample per every 50 LF on each edge of the excavation. Perimeter samples were collected from a depth interval of 0 to 2 inches bgs. A minimum of one sample was collected along each edge of the excavation, and a minimum of one sample was collected from the base. **Table 3-4** summarizes the types of confirmatory samples collected at SEAD-26, and shows that the number of samples collected were sufficient and were collected in accordance with the frequencies specified in the Final Work Plan/Design Report. Initially, confirmatory soil samples were collected from 38 sample locations. All samples were collected in accordance with the sampling procedures specified in the SAP. The locations of the confirmatory sampling are shown on **Drawing C-6**, and on Photos 5 through 10 in **Appendix D**.

As shown in **Table 3-4**, the total number of perimeter and base samples collected was sufficient given the total surface area and total perimeter of the excavated areas at SEAD-26For a total perimeter of 1,396 ft, 31 samples were collected while only 28 samples were required. For a total surface area of 22,366 sf, 11 samples were collected while 9 samples were required.

Specifically, the one base sample collected from Area E was sufficient. Based on the as-built, the area excavated from Area E, 2707 sf, divided by 2,500 sf is 1.08. This demonstrates that the area exceeding 2,500 sf is so minimal that the one sample collected is representative of the excavated area.

All samples were sent to the selected laboratory, Chemtech, and analyzed for the seven carcinogenic PAHs (cPAHs) [e.g., benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene] by CLP OLM04.3/ASP2000 Method. The data was validated in a manner that is consistent with procedures defined in the USEPA's "National Functional Guidelines for Organic Data Review" and consistent with USEPA Region 2's SOP. Data validation reports and case narratives are included as **Appendices G** and **H**, respectively.

In accordance with the Final Work Plan/Design Report, the analytical results of the confirmatory soil sampling were compared to the site-specific cleanup goal, listed in **Table 3-2B**. Benzo(a)pyrene Toxicity Equivalence (BTE) equates the concentrations of the seven cPAHs to an equivalent benzo(a)pyrene concentration based on the relative toxicity of the individual cPAHs as cited by

USEPA's Integrated Risk Information System (IRIS) Database. BTE values were calculated for each sample collected, and the results were compared to the cleanup goal of 10 milligrams per kilogram (mg/Kg) BTE (**Table 3-5**).

At Area A, the BTEs at seven of the eight sample locations were below the cleanup goal of 10 mg/Kg BTE. The BTE value of one sample, 26EXA01, exceeded the cleanup goal of 10 mg/Kg BTE with a BTE concentration of 18 mg/Kg. Sample 26EXA01 was a perimeter sample located at the northwestern edge of Area A. Additional excavation was required at Area A.

The BTE concentrations for all of the confirmatory samples collected from Areas B, C, D, and E were below the 10 mg/Kg BTE cleanup goal. No additional excavation was necessary at Areas B, C, D, and E.

3.6.4 Additional Excavation and Confirmatory Sampling

Since sample location 26EXA01 failed to meet the 10 mg/Kg BTE cleanup goal, an additional 1,174 sf area of soil outside of the contaminated sample was removed to a depth of 1 foot. As shown on **Drawing C-6**, an additional 43 cy of soil was excavated in the area due west of 26EXA01. The drawing and **Table 3-4** shows that four additional confirmatory samples (plus one duplicate) were collected and submitted to Chemtech for analysis for cPAHs. One sample was collected from the base of the new excavation, and a total of three (plus one duplicate) perimeter samples were collected along the northern, western, and southern boundaries of the additional excavation area at Area A. Each new perimeter sample was collected within 50 LF of the neighboring perimeter sample. The analytical results of the additional sampling are included in **Table 3-5**. The BTE concentrations for all of the new samples were less than the cleanup goal, with a maximum BTE concentration of 1.7 mg/Kg.

The total volume of soil excavated from SEAD-26 (including the additional excavation) was approximately 828 cy. The limits of the additional excavation were surveyed using a 5700 RTK GPS unit.

The chains of custodies for the confirmatory samples associated with SEAD-26 are included in **Appendix F**.

3.6.5 Soil Disposal

The excavated soil was loaded directly from the excavation areas to the dump trucks. Approximately 1,248 tons of soil was hauled off-site by Earthwatch to Ontario County Landfill for disposal, as indicated by the manifests provided in **Appendix J**.

3.6.6 Site Restoration

The Final Work Plan/Design Report did not require backfilling of the excavations at SEAD-26 due to their shallow nature. The edges of the excavation areas were smoothed to remove potential trip hazards. The areas will not be seeded, but will be allowed to return to the same sparsely vegetated state as the rest of the fenced area.

3.7 Construction Costs

The total construction cost for SEAD-25 and SEAD-26 was approximately $450,000. This cost does not include any costs associated with long-term maintenance, monitoring, or operations.

4.0 SUMMARY OF DEVIATIONS FROM DESIGN

Based on site conditions in the field, some inconsequential aspects of the RA deviated from the proposed design presented in the Final Work Plan/Design Report. These deviations are summarized below.

4.1 SEAD-25

The proposed limits of excavation for the pad at SEAD-25 were an area measuring 60 feet by 100 feet to a depth of 6 feet. Bedrock was encountered at a depth of 4 feet and excavation to 6 feet was not possible. The actual width and length of the excavation was slightly smaller than the proposed limits in order to protect wells needed for long-term monitoring.

The Final Work Plan/Design Report required the collection of samples from the floor of excavation at the SEAD-25 pad. These samples were not collected since the base of excavation terminated in the shale bedrock.

The Final Work Plan/Design Report proposed the excavation of the swale, 3 feet wide and 2 feet deep. The proposed limits of excavation included in the drawings in the Final Work Plan/Design Report and shown on **Drawing C-5** indicated the limit of the work area and not the proposed limit of the area to be excavated. Parsons decided in the field to excavate the entire swale width down to bedrock to remove any potential ditch soil contamination, resulting in an excavation area averaging 10 feet wide and 3 feet deep. As a result, four times as much swale soil was excavated from the drainage swale than the quantity estimated in the Final Work Plan/Design Report. Confirmatory samples were not collected since no swale soil remained.

4.2 SEAD-26

The Final Work Plan/Design Report required the excavation of 1,050 cy of soil at SEAD-26. The actual quantity of soil excavated and hauled off-site at SEAD-26 (785 cy plus 43 cy from the extra excavation at Area A) was less than the volume estimated in the original design. The RA at SEAD-26 was carried out in accordance with the Final Work Plan/Design Report. The discrepancy in the volumes is a result of an inaccurate volume number presented in the Final Work Plan/Design Report.

5.0 REPORTING

5.1 Daily Construction Reports

Each day's construction activities were documented in daily reports, which are included as **Appendix C**. The daily reports included a summary of the daily health and safety briefing, a summary of construction activities, the amount of material excavated, the quantity of any materials hauled on-site or off-site, sampling activities, field testing, and a list of on-site visitors and personnel.

5.2 Monthly Reports

Monthly reports will be provided to the AFCEE COR under separate cover to document activities completed that month. The construction project was completed in November and December 2005. Each monthly report is a compilation of the daily reports and will summarize the amount of soil excavated, the number of soil samples collected, and the amount of material hauled on-site or off-site.

6.0 POST-CONSTRUCTION ACTIVITIES

The following post-construction activities will be performed at SEAD-25 and SEAD-26:

- In the spring of 2006, Parsons will confirm that vegetation is re-established at SEAD-25. If necessary, Parsons will seed the area; and

- Long-term groundwater monitoring (LTM) at SEAD-25 and SEAD-26 will be completed in 2006. The monitoring will be performed in accordance with the Post-Closure Monitoring and Maintenance Plan (PCMMP), presented as Section 6 of the Final Work Plan/Design Report. At SEAD-25, the LTM will confirm that the VOC plumes are attenuating. LTM at SEAD-26 will confirm that no groundwater plume exists.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the RA work at SEAD-25 and SEAD-26, the Army has made the following conclusions:

- All of the ditch soil (761 cy) along the base of the swale at SEAD-25 was excavated and disposed off-site, removing any potential contamination in the soil in the swale. Therefore, the remedial action at the SEAD-25 swale is complete.

- The soil at the SEAD-25 pad (961 cy) was excavated until confirmatory sampling results showed that all soil cleanup goals had been achieved. Based on the analytical results from the confirmatory soil samples representative of soil remaining on-site at the pad at SEAD-25, the surface soil and subsurface soil at SEAD-25 does not require further action.

- A total of 828 cy of soil was excavated from the five areas at SEAD-26 and disposed off-site. All confirmatory samples representing soil remaining on-site met the soil cleanup goals. No additional remediation is required at SEAD-26.

- A total of 3,841 tons of soil were hauled from SEAD-25 and SEAD-26 and disposed at Ontario County Landfill. The completion of the construction at SEAD-25 and SEAD-26 results in the achievement of Remedy-in-Place (RIP) at both SEAD-25 and SEAD-26. No further action is required for soils at SEAD-25 and SEAD-26.

- LTM of groundwater at SEAD-25 and SEAD-26 will be performed in 2006 and the results will be evaluated to determine the path forward for additional monitoring at SEAD-25 and SEAD-26.

8.0 REFERENCES

Parsons, 2004. Record of Decision for Fire Training Area and Demonstration Pad (SEAD 25) and the Fire Training Pit and Area (SEAD 26). Final. September 2004.

Parsons, 2005a. Remedial Design Work Plan and Design Report for the Fire Training Area and Demonstration Pad (SEAD 25) and the Fire Training Pit and Area (SEAD 26). Final. November 2005.

Parsons, 2005d. Monitoring Well Abandonment Work Plan for the Seneca Army Depot. May 2005.

Parsons, 2005c. Project Safety Plan and Site-Specific Health and Safety Plan for Remediation of the Seneca Army Depot Activity. Final. May 2005.

Parsons, 2005b. Sampling and Analysis Plan for the Seneca Army Depot Activity. Final. December 2005.

Parsons Engineering Science, Inc., 2002. Proposed Plan at the Fire Training and Demonstration Pad (SEAD-25) and the Fire Training Pit and Area (SEAD-26). Final. September 2002.

LIST OF TABLES

Table 2-1
Summary of Metals Detected in Fill Samples
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Borrow Source location			On-Site		Off-Site	
Matrix			SOIL		SOIL	
Sample ID			25FM0S01		25FMSP101	
Sample Date			10/28/2005		11/9/2005	
Parameter	**Units**	**Acceptable Level [1]**	**Value**	**(Q)**	**Value**	**(Q)**
Aluminum	MG/KG	21900	11200	J	2540	
Arsenic	MG/KG	9.3	3.9	J	1.7	
Barium	MG/KG	101	81	J	15.6	J
Beryllium	MG/KG	0.92	0.58	J	0.12	J
Cadmium	MG/KG	0.73	0.25	J	0.04	U
Calcium	MG/KG	192000	9580	J	65200	D
Chromium	MG/KG	25.8	16.2	J	4.8	
Cobalt	MG/KG	18.1	8.1	J	3	J
Copper	MG/KG	35.6	17.3	J	18.7	
Iron	MG/KG	33200	19900	J	6950	
Lead	MG/KG	94.8	23.8	J	5.8	
Magnesium	MG/KG	22800	5820	J	14300	
Manganese	MG/KG	1700	517	J	292	
Mercury	MG/KG	0.13	0.065		0.007	
Nickel	MG/KG	53.3	20.3	J	5.6	
Potassium	MG/KG	2740	1400	J	1040	
Selenium	MG/KG	1.3	0.72	J	0.4	U
Silver [2]	MG/KG	ND	0.12		0.09	U
Sodium	MG/KG	631	55.4		209	J
Thallium	MG/KG	1.8	0.52		0.61	U
Vanadium	MG/KG	37.2	18.3	J	4.3	J
Zinc	MG/KG	103	70.7	J	26.9	

Note:
(1) For metals, the acceptable level was defined as the maximum concentration detected in all soils (surface soil, subsurface soil, and ditch soil) during the RI and ESI that would remain on-site after the excavation is completed.
(2) The TAGM value (SEDA site background) for silver is 0.75 mg/kg.

U = compound was not detected
J = the reported value is an estimated concentration
D = identifies all compounds identified in an analysis at the secondary dilution factor (laboratory qualifier).
ND = Not detected

Table 2-2
Summary of Disposal Characterization Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Parameter [1]	Units	Maximum Detect	Frequency of Detection	Regulatory Limit [2]	Number of Exceedances	Number of Detects	Number of Analyses
TCLP VOCs							
TCLP Tetrachloroethene	MG/L	0.0041	9%	0.7	0	1	11
TCLP Inorganics							
TCLP Barium	MG/L	0.81	100%	100	0	11	11
TCLP Cadmium	MG/L	0.0068	55%	1	0	6	11
TCLP Lead	MG/L	0.32	55%	5	0	6	11
Wet Chemistry							
Corrosivity (pH) [3]	S.U.	8.5	100%		0	11	11
Flashpoint	øF	>200	100%	<140	0	11	11
Reactive Cyanide	MG/KG	10.5	9%		0	1	11

Notes:
(1) Only analytes that were detected are included in this table. All other analytes were non detected in all samples. This includes analytes from the following analyses: TCLP SVOCs, TCLP pesticides, PCBs, TCLP herbicides, and reactive sulfide.
(2) TCLP regulatory limits are based on 40 CFR 261.23 and 40 CFR 261.24.
(3) Wastes may be considered corrosive with a pH $\leq$ 2 or $\geq$ 12.5.

Table 3-1
Excavation Quantities for SEAD-25 and SEAD-26
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

	Volume of Soil Excavated (cy)
SEAD-25	
Pad (orig)	848
Pad (additional)	113
Pad (total)	961
Swale	761
TOTAL	**1,722**
SEAD-26	
Area A	140
Area A (additional)	43
Area A (total)	184
Area B	300
Area C	71
Area D	173
Area E	100
TOTAL	**828**
RA TOTAL	**2,550**

Note
1. Quantities are estimates based on the as-built drawings.

Table 3-2A
SEAD-25 Site-Specific Cleanup Goals for Soil
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

	Soil NYSDEC TAGM[1] ug/kg
Volatile Organic Compounds	
1,1,1-Trichloroethane	800
1,1-Dichloroethane	200
Benzene	60
Chloroform	300
Ethyl benzene	5,500
Toluene	1,500
Trichloroethene	700
Xylene (total)	1200
Semivolatile Organic Compounds	
2-Methylnaphthalene	36,400
Naphthalene	13,000
Phenol	30

Note:
(1) NYSDEC TAGM values from Technical and Administrative Guidance Memorandum HWR-92-4046, January 24, 1994 (Tables 1, 2, and 3).

Table 3-2B
SEAD-26 Site-Specific Cleanup Goals for Soil
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

	Soils
Total Carcinogenic PAHs[1]	10 ppm Benzo(a)pyrene Toxicity Equivalence

Note:

(1) The cleanup goal (CUG) is based on a NYSDEC recommended screening level of 10 mg/Kg benzo(a)pyrene toxicity equivalence (BTE). The BTE value calculation is based on the relative toxicity of the individual cPAHs, as cited by USEPA Integrated Risk Information System (IRIS) Database. The BTE value is calculated by multiplying the concentration of the individual cPAHs in each sample by the following factors (based on IRIS) and summing the results:

cPAH Toxicity Factors	
Benzo(a)pyrene	1
Dibenz(a,h)anthracene	1
Benzo(a)anthracene	0.1
Benzo(b)fluoranthene	0.1
Indeno(1,2,3-cd)pyrene	0.1
Benzo(k)fluoranthene	0.01
Chrysene	0.01

Table 3-3
Summary of SEAD-25 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility								SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID								25EXPAD01	25EXPAD02	25EXPAD02	25EXPAD03	25EXPAD04	25EXPAD05
Matrix								SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID								25EXPAD01	25EXPAD12	25EXPAD02	25EXPAD03	25EXPAD04	25EXPAD05
Sample Depth to Top of Sample								2	2	2	2	1	1
Sample Depth to Bottom of Sample								3	3	3	3	2	2
Sample Date								11/16/2005	11/16/2005	11/16/2005	11/16/2005	11/16/2005	11/16/2005
Sample Type								SA	DU	SA	SA	SA	SA
Study ID								RA	RA	RA	RA	RA	RA
Parameter [1]	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal** [2]	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed** [3]	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds													
Benzene	UG/KG	41	30%	60	0	3	10	13 U	13 U	12 U	12 U	41	13 U
Ethyl benzene	UG/KG	190	40%	5500	0	4	10	13 U	13 U	12 U	12 U	180	13 U
Toluene	UG/KG	57	40%	1500	0	4	10	13 U	0.92 J	12 U	12 U	31	13 U
Total Xylenes	UG/KG	2800	40%	1200	1	4	10	26 U	26 U	24 U	24 U	420	26 U
Semivolatile Organic Compounds													
2-Methylnaphthalene	UG/KG	2000	20%	36400	0	2	10	430 U	420 U	400 U	410 U	2000	430 U
Naphthalene	UG/KG	650	20%	13000	0	2	10	430 U	420 U	400 U	410 U	650	430 U

Notes:
(1) Only detected parameters are listed.
(2) Site-specific cleanup goals (CUGs), as listed in Table 2-1 of the "Remedial Design Work Plan and Design Report for SEAD-25 and SEAD-26, Final" (Parsons, 2005), were based on NYSDEC Technical and Administrative Guidance Memorandum (TAGM) HWR-94-4046, Revised January 24, 1994 (Tables 1, 2, and 3).
(3) Sample-duplicate pair (25EXPAD02 and 25EXPAD12 collected from 25EXPAD02) was averaged and the average results were used in the summary statistic presented in this table.
(4) A shaded sample indicates that the soil represented by the sample has been removed from the site. Therefore, the analytical results for the shaded sample are not characteristic of current site conditions.

U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate

Table 3-3
Summary of SEAD-25 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility								SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID								25EXPAD06	25EXPAD07	25EXPAD08	25EXPAD13	25EXPAD14
Matrix								SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID								25EXPAD06	25EXPAD07	25EXPAD08	25EXPAD13	25EXPAD14
Sample Depth to Top of Sample								1	1.5	1	1	1
Sample Depth to Bottom of Sample								2	2.5	2	2	2
Sample Date								11/16/2005	11/16/2005	11/16/2005	11/30/2005	11/30/2005
Sample Type								SA	SA	SA	SA	SA
Study ID								RA	RA	RA	RA	RA
Parameter [1]	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [2]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed [3]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds												
Benzene	UG/KG	41	30%	60	0	3	10	7.4 J	13 UJ	9.4 J	13 U	12 U
Ethyl benzene	UG/KG	190	40%	5500	0	4	10	32 J	1.3 J	190	13 U	12 U
Toluene	UG/KG	57	40%	1500	0	4	10	5.6 J	13 UJ	57 J	13 U	12 U
Total Xylenes	UG/KG	2800	40%	1200	1	4	10	670	11 J	**2800**	26 U	24 U
Semivolatile Organic Compounds												
2-Methylnaphthalene	UG/KG	2000	20%	36400	0	2	10	420 U	260 J	400 U	420 U	400 U
Naphthalene	UG/KG	650	20%	13000	0	2	10	420 U	200 J	400 U	420 U	400 U

Notes:
(1) Only detected parameters are listed.
(2) Site-specific cleanup goals (CUGs), as listed in Table 2-1 of the "Remedial Design Work Plan and Design Report for SEAD-25 and SEAD-26, Final" (Parsons, 2005), were based on NYSDEC Technical and Administrative Guidance Memorandum (TAGM) HWR-94-4046, Revised January 24, 1994 (Tables 1, 2, and 3).
(3) Sample-duplicate pair (25EXPAD02 and 25EXPAD12 collected from 25EXPAD02) was averaged and the average results were used in the summary statistic presented in this table.
(4) A shaded sample indicates that the soil represented by the sample has been removed from the site. Therefore, the analytical results for the shaded sample are not characteristic of current site conditions.

U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate

Table 3-4
Summary of Confirmatory Sampling at SEAD-26
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

	Dimensions					Base		Perimeter	
SEAD-26 Areas	L (ft.)	W (ft.)	H (ft.)	Area (SF)	Perimeter (ft.)	Required	Collected	Required	Collected
Area A (initial)	77	46	1	3,787	246	1.5	2	4.9	6
Area A (additional)	35	33	1	1,174	136	0.5	1	2.7	3
Total Area A			1	4,961	312	2.0	3	6.2	9
Area B	136	54	1	8,101	380	3.2	4	7.6	8
Area C	101	18	1	1,918	238	0.8	1	4.8	6
Area D	70	63	1	4,679	266	1.9	2	5.3	4
Area E	52	48	1	2,707	200	1.1	1	4.0	4
Totals				22,366	1,396	8.9	11	27.9	31

Note:
1. Dimensions and areas are based on the as-built drawings.
2. On the average:
   1 sample was collected per 2,033 sf of area (requirement is 1 per 2,500 sf).
   1 sample was collected per 45 ft. of perimeter (requirement is 1 per 50 lf).

Table 3-5
Summary of SEAD-26 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility								SEAD-26	SEAD-26	SEAD-26	SEAD-26	SEAD-26
Location ID								26EXA01	26EXA02	26EXA03	26EXA04	26EXA05
Matrix								SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID								26EXA01	26EXA02	26EXA03	26EXA04	26EXA05
Sample Depth to Top of Sample								0	0	0	0	0
Sample Depth to Bottom of Sample								0.2	0.2	0.2	0.2	0.2
Sample Date								11/16/2005	11/16/2005	11/16/2005	11/16/2005	11/16/2005
Sample Type								SA	SA	SA	SA	SA
Study ID								RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed [2]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Carcinogenic PAHs												
Benzo(a)anthracene	UG/KG	14000	83%		0	35	42	14000	240 J	370 U	190 J	52 J
Benzo(a)pyrene	UG/KG	13000	81%		0	34	42	13000 J	220 J	370 U	130 J	41 J
Benzo(b)fluoranthene	UG/KG	18000	86%		0	36	42	18000	330 J	370 U	280 J	61 J
Benzo(k)fluoranthene	UG/KG	9700	76%		0	32	42	9700 J	100 J	370 U	91 J	400 U
Chrysene	UG/KG	17000	86%		0	36	42	17000	250 J	370 U	250 J	61 J
Dibenz(a,h)anthracene	UG/KG	940	38%		0	16	42	940 J	380 U	370 U	440 U	400 U
Indeno(1,2,3-cd)pyrene	UG/KG	4900	74%		0	31	42	4900 J	150 J	370 U	150 J	400 UJ
Benzo(a)pyrene Toxicity Equivalence [3]	MG/KG	18	NA	10	1	NA	45	**18**	0.49	ND	0.42	0.27

Notes:
(1) The site-specific cleanup goal (CUG) is listed in Table 2-1 of the "Remedial Design Work Plan and Design Report for SEAD-25 and SEAD-26, Final" (Parsons, 2005).
(2) Sample-duplicate pairs (26EXA06 and 26EXA09 collected from 26EXA06; 26EXA10 and 26EXA14 collected from 26EXA10; and 26EXE03 and 26EXE06 were collected from 26EXE03) were averaged and the average results were used in the summary statistic presented in this table.
(3) In samples where at least one cPAH was detected, the Benzo(a)pyrene Toxicity Equivalence (BTE) value was calculated with non-detected values taken at half of their reporting limit. If no cPAHs were detected in a sample, the BTE value was not calculated and "ND" (not detected) was entered.
(4) A bolded and outlined cell indicates a concentration that exceeds the site-specific CUG.
(5) A shaded sample indicates that the soil represented by the sample has been removed from the site. Therefore, the analytical results for the shaded sample are not characteristic of current site conditions.

U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate
NA = Not applicable

Table 3-5
Summary of SEAD-26 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility								SEAD-26	SEAD-26	SEAD-26	SEAD-26	SEAD-26
Location ID								26EXA06	26EXA06	26EXA07	26EXA08	26EXA10
Matrix								SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID								26EXA09	26EXA06	26EXA07	26EXA08	26EXA14
Sample Depth to Top of Sample								0	0	0.5	0.5	0
Sample Depth to Bottom of Sample								0.2	0.2	1	1	0.2
Sample Date								11/16/2005	11/16/2005	11/16/2005	11/16/2005	11/30/2005
Sample Type								DU	SA	SA	SA	DU
Study ID								RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed [2]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Carcinogenic PAHs												
Benzo(a)anthracene	UG/KG	14000	83%		0	35	42	430 U	430 U	270 J	1600	450 J
Benzo(a)pyrene	UG/KG	13000	81%		0	34	42	430 U	430 U	240 J	1500	350 J
Benzo(b)fluoranthene	UG/KG	18000	86%		0	36	42	430 U	430 U	340 J	2100	470
Benzo(k)fluoranthene	UG/KG	9700	76%		0	32	42	430 U	430 U	140 J	780	160 J
Chrysene	UG/KG	17000	86%		0	36	42	430 U	430 U	290 J	1700	450 J
Dibenz(a,h)anthracene	UG/KG	940	38%		0	16	42	430 U	430 U	390 U	88 J	470 U
Indeno(1,2,3-cd)pyrene	UG/KG	4900	74%		0	31	42	430 U	430 U	170 J	950	300 J
Benzo(a)pyrene Toxicity Equivalence [3]	MG/KG	18	NA	10	1	NA	45	ND	ND	0.52	2.1	0.71

Notes:
(1) The site-specific cleanup goal (CUG) is listed in Table 2-1 of the "Remedial Design Work Plan and Design Report for SEAD-25 and SEAD-26, Final" (Parsons, 2005).
(2) Sample-duplicate pairs (26EXA06 and 26EXA09 collected from 26EXA06; 26EXA10 and 26EXA14 collected from 26EXA10; and 26EXE03 and 26EXE06 were collected from 26EXE03) were averaged and the average results were used in the summary statistic presented in this table.
(3) In samples where at least one cPAH was detected, the Benzo(a)pyrene Toxicity Equivalence (BTE) value was calculated with non-detected values taken at half of their reporting limit. If no cPAHs were detected in a sample, the BTE value was not calculated and "ND" (not detected) was entered.
(4) A bolded and outlined cell indicates a concentration that exceeds the site-specific CUG.
(5) A shaded sample indicates that the soil represented by the sample has been removed from the site. Therefore, the analytical results for the shaded sample are not characteristic of current site conditions.

U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate
NA = Not applicable

Table 3-5
Summary of SEAD-26 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility								SEAD-26	SEAD-26	SEAD-26	SEAD-26	SEAD-26
Location ID								26EXA10	26EXA11	26EXA12	26EXA13	26EXB01
Matrix								SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID								26EXA10	26EXA11	26EXA12	26EXA13	26EXB01
Sample Depth to Top of Sample								0	0	0	0.5	0
Sample Depth to Bottom of Sample								0.2	0.2	0.2	1	0.2
Sample Date								11/30/2005	11/30/2005	11/30/2005	11/30/2005	11/13/2005
Sample Type								SA	SA	SA	SA	SA
Study ID								RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed [2]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Carcinogenic PAHs												
Benzo(a)anthracene	UG/KG	14000	83%		0	35	42	440	1300 J	120 J	390 U	370 U
Benzo(a)pyrene	UG/KG	13000	81%		0	34	42	360 J	1100 J	100 J	390 U	370 U
Benzo(b)fluoranthene	UG/KG	18000	86%		0	36	42	440 J	1500 J	140 J	42 J	370 U
Benzo(k)fluoranthene	UG/KG	9700	76%		0	32	42	190 J	700 J	55 J	390 U	370 U
Chrysene	UG/KG	17000	86%		0	36	42	440	1600 J	130 J	42 J	370 U
Dibenz(a,h)anthracene	UG/KG	940	38%		0	16	42	73 J	170 J	380 U	390 U	370 U
Indeno(1,2,3-cd)pyrene	UG/KG	4900	74%		0	31	42	300 J	1000 J	88 J	390 U	370 U
Benzo(a)pyrene Toxicity Equivalence [3]	MG/KG	18	NA	10	1	NA	45	0.56	1.7	0.33	0.44	ND

Notes:
(1) The site-specific cleanup goal (CUG) is listed in Table 2-1 of the "Remedial Design Work Plan and Design Report for SEAD-25 and SEAD-26, Final" (Parsons, 2005).
(2) Sample-duplicate pairs (26EXA06 and 26EXA09 collected from 26EXA06; 26EXA10 and 26EXA14 collected from 26EXA10; and 26EXE03 and 26EXE06 were collected from 26EXE03) were averaged and the average results were used in the summary statistic presented in this table.
(3) In samples where at least one cPAH was detected, the Benzo(a)pyrene Toxicity Equivalence (BTE) value was calculated with non-detected values taken at half of their reporting limit. If no cPAHs were detected in a sample, the BTE value was not calculated and "ND" (not detected) was entered.
(4) A bolded and outlined cell indicates a concentration that exceeds the site-specific CUG.
(5) A shaded sample indicates that the soil represented by the sample has been removed from the site. Therefore, the analytical results for the shaded sample are not characteristic of current site conditions.

U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate
NA = Not applicable

Table 3-5
Summary of SEAD-26 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility								SEAD-26	SEAD-26	SEAD-26	SEAD-26	SEAD-26
Location ID								26EXB02	26EXB03	26EXB04	26EXB05	26EXB06
Matrix								SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID								26EXB02	26EXB03	26EXB04	26EXB05	26EXB06
Sample Depth to Top of Sample								0	0	0	0	0
Sample Depth to Bottom of Sample								0.2	0.2	0.2	0.2	0.2
Sample Date								11/13/2005	11/13/2005	11/10/2005	11/10/2005	11/10/2005
Sample Type								SA	SA	SA	SA	SA
Study ID								RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed [2]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Carcinogenic PAHs												
Benzo(a)anthracene	UG/KG	14000	83%		0	35	42	720	190 J	98 J	300 J	380 U
Benzo(a)pyrene	UG/KG	13000	81%		0	34	42	710	180 J	110 J	250 J	380 UJ
Benzo(b)fluoranthene	UG/KG	18000	86%		0	36	42	890	280 J	180 J	360 J	380 UJ
Benzo(k)fluoranthene	UG/KG	9700	76%		0	32	42	400	91 J	90 J	180 J	380 UJ
Chrysene	UG/KG	17000	86%		0	36	42	820	230 J	160 J	380 J	380 U
Dibenz(a,h)anthracene	UG/KG	940	38%		0	16	42	120 J	360 U	400 UJ	400 U	380 UJ
Indeno(1,2,3-cd)pyrene	UG/KG	4900	74%		0	31	42	510	150 J	52 J	120 J	380 UJ
Benzo(a)pyrene Toxicity Equivalence [3]	MG/KG	18	NA	10	1	NA	45	1.1	0.43	0.35	0.53	ND

Notes:
(1) The site-specific cleanup goal (CUG) is listed in Table 2-1 of the "Remedial Design Work Plan and Design Report for SEAD-25 and SEAD-26, Final" (Parsons, 2005).
(2) Sample-duplicate pairs (26EXA06 and 26EXA09 collected from 26EXA06; 26EXA10 and 26EXA14 collected from 26EXA10; and 26EXE03 and 26EXE06 were collected from 26EXE03) were averaged and the average results were used in the summary statistic presented in this table.
(3) In samples where at least one cPAH was detected, the Benzo(a)pyrene Toxicity Equivalence (BTE) value was calculated with non-detected values taken at half of their reporting limit. If no cPAHs were detected in a sample, the BTE value was not calculated and "ND" (not detected) was entered.
(4) A bolded and outlined cell indicates a concentration that exceeds the site-specific CUG.
(5) A shaded sample indicates that the soil represented by the sample has been removed from the site. Therefore, the analytical results for the shaded sample are not characteristic of current site conditions.

U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate
NA = Not applicable

Table 3-5
Summary of SEAD-26 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility								SEAD-26	SEAD-26	SEAD-26	SEAD-26	SEAD-26
Location ID								26EXB07	26EXB08	26EXB09	26EXB10	26EXB11
Matrix								SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID								26EXB07	26EXB08	26EXB09	26EXB10	26EXB11
Sample Depth to Top of Sample								0	0	0.5	0.5	0.5
Sample Depth to Bottom of Sample								0.2	0.2	1	1	1
Sample Date								11/10/2005	11/10/2005	11/13/2005	11/13/2005	11/13/2005
Sample Type								SA	SA	SA	SA	SA
Study ID								RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed [2]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Carcinogenic PAHs												
Benzo(a)anthracene	UG/KG	14000	83%		0	35	42	420 U	370 U	2100	1400	320 J
Benzo(a)pyrene	UG/KG	13000	81%		0	34	42	420 UJ	370 U	1900	1400	290 J
Benzo(b)fluoranthene	UG/KG	18000	86%		0	36	42	420 UJ	370 U	3100	2000	400
Benzo(k)fluoranthene	UG/KG	9700	76%		0	32	42	420 UJ	370 U	930	690	180 J
Chrysene	UG/KG	17000	86%		0	36	42	420 U	370 U	2300	1500	370
Dibenz(a,h)anthracene	UG/KG	940	38%		0	16	42	420 UJ	370 U	250 J	250 J	39 J
Indeno(1,2,3-cd)pyrene	UG/KG	4900	74%		0	31	42	420 UJ	370 U	1400	980	210 J
Benzo(a)pyrene Toxicity Equivalence [3]	MG/KG	18	NA	10	1	NA	45	ND	ND	2.8	2.1	0.43

Notes:
(1) The site-specific cleanup goal (CUG) is listed in Table 2-1 of the "Remedial Design Work Plan and Design Report for SEAD-25 and SEAD-26, Final" (Parsons, 2005).
(2) Sample-duplicate pairs (26EXA06 and 26EXA09 collected from 26EXA06; 26EXA10 and 26EXA14 collected from 26EXA10; and 26EXE03 and 26EXE06 were collected from 26EXE03) were averaged and the average results were used in the summary statistic presented in this table.
(3) In samples where at least one cPAH was detected, the Benzo(a)pyrene Toxicity Equivalence (BTE) value was calculated with non-detected values taken at half of their reporting limit. If no cPAHs were detected in a sample, the BTE value was not calculated and "ND" (not detected) was entered.
(4) A bolded and outlined cell indicates a concentration that exceeds the site-specific CUG.
(5) A shaded sample indicates that the soil represented by the sample has been removed from the site. Therefore, the analytical results for the shaded sample are not characteristic of current site conditions.

U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate
NA = Not applicable

Table 3-5
Summary of SEAD-26 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility								SEAD-26	SEAD-26	SEAD-26	SEAD-26	SEAD-26
Location ID								26EXB12	26EXC01	26EXC02	26EXC03	26EXC04
Matrix								SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID								26EXB12	26EXC01	26EXC02	26EXC03	26EXC04
Sample Depth to Top of Sample								0.5	0	0	0	0
Sample Depth to Bottom of Sample								1	0.2	0.2	0.2	0.2
Sample Date								11/13/2005	11/16/2005	11/16/2005	11/16/2005	11/16/2005
Sample Type								SA	SA	SA	SA	SA
Study ID								RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed [2]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Carcinogenic PAHs												
Benzo(a)anthracene	UG/KG	14000	83%		0	35	42	2400	210 J	120 J	630	96 J
Benzo(a)pyrene	UG/KG	13000	81%		0	34	42	2400	220 J	100 J	500	92 J
Benzo(b)fluoranthene	UG/KG	18000	86%		0	36	42	3800	330 J	170 J	720	140 J
Benzo(k)fluoranthene	UG/KG	9700	76%		0	32	42	1300	130 J	56 J	350 J	64 J
Chrysene	UG/KG	17000	86%		0	36	42	3100	250 J	140 J	650	120 J
Dibenz(a,h)anthracene	UG/KG	940	38%		0	16	42	360	400 U	420 U	75 J	400 U
Indeno(1,2,3-cd)pyrene	UG/KG	4900	74%		0	31	42	1900	110 J	82 J	380 J	43 J
Benzo(a)pyrene Toxicity Equivalence [3]	MG/KG	18	NA	10	1	NA	45	3.6	0.49	0.35	0.76	0.32

Notes:
(1) The site-specific cleanup goal (CUG) is listed in Table 2-1 of the "Remedial Design Work Plan and Design Report for SEAD-25 and SEAD-26, Final" (Parsons, 2005).
(2) Sample-duplicate pairs (26EXA06 and 26EXA09 collected from 26EXA06; 26EXA10 and 26EXA14 collected from 26EXA10; and 26EXE03 and 26EXE06 were collected from 26EXE03) were averaged and the average results were used in the summary statistic presented in this table.
(3) In samples where at least one cPAH was detected, the Benzo(a)pyrene Toxicity Equivalence (BTE) value was calculated with non-detected values taken at half of their reporting limit. If no cPAHs were detected in a sample, the BTE value was not calculated and "ND" (not detected) was entered.
(4) A bolded and outlined cell indicates a concentration that exceeds the site-specific CUG.
(5) A shaded sample indicates that the soil represented by the sample has been removed from the site. Therefore, the analytical results for the shaded sample are not characteristic of current site conditions.

U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate
NA = Not applicable

Table 3-5
Summary of SEAD-26 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility								SEAD-26	SEAD-26	SEAD-26	SEAD-26	SEAD-26
Location ID								26EXC05	26EXC06	26EXC07	26EXD01	26EXD02
Matrix								SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID								26EXC05	26EXC06	26EXC07	26EXD01	26EXD02
Sample Depth to Top of Sample								0	0	0.5	0	0
Sample Depth to Bottom of Sample								0.2	0.2	1	0.2	0.2
Sample Date								11/16/2005	11/16/2005	11/10/2005	11/16/2005	11/13/2005
Sample Type								SA	SA	SA	SA	SA
Study ID								RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed [2]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Carcinogenic PAHs												
Benzo(a)anthracene	UG/KG	14000	83%		0	35	42	410 J	43 J	260 J	77 J	200 J
Benzo(a)pyrene	UG/KG	13000	81%		0	34	42	260 J	430 U	160 J	72 J	180 J
Benzo(b)fluoranthene	UG/KG	18000	86%		0	36	42	550	54 J	250 J	95 J	250 J
Benzo(k)fluoranthene	UG/KG	9700	76%		0	32	42	270 J	430 U	140 J	420 U	99 J
Chrysene	UG/KG	17000	86%		0	36	42	500	45 J	380	84 J	220 J
Dibenz(a,h)anthracene	UG/KG	940	38%		0	16	42	410 U	430 U	370 U	420 U	360 U
Indeno(1,2,3-cd)pyrene	UG/KG	4900	74%		0	31	42	210 J	430 U	370 U	420 U	100 J
Benzo(a)pyrene Toxicity Equivalence [3]	MG/KG	18	NA	10	1	NA	45	0.59	0.46	0.42	0.32	0.42

Notes:
(1) The site-specific cleanup goal (CUG) is listed in Table 2-1 of the "Remedial Design Work Plan and Design Report for SEAD-25 and SEAD-26, Final" (Parsons, 2005).
(2) Sample-duplicate pairs (26EXA06 and 26EXA09 collected from 26EXA06; 26EXA10 and 26EXA14 collected from 26EXA10; and 26EXE03 and 26EXE06 were collected from 26EXE03) were averaged and the average results were used in the summary statistic presented in this table.
(3) In samples where at least one cPAH was detected, the Benzo(a)pyrene Toxicity Equivalence (BTE) value was calculated with non-detected values taken at half of their reporting limit. If no cPAHs were detected in a sample, the BTE value was not calculated and "ND" (not detected) was entered.
(4) A bolded and outlined cell indicates a concentration that exceeds the site-specific CUG.
(5) A shaded sample indicates that the soil represented by the sample has been removed from the site. Therefore, the analytical results for the shaded sample are not characteristic of current site conditions.

U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate
NA = Not applicable

Table 3-5
Summary of SEAD-26 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility								SEAD-26	SEAD-26	SEAD-26	SEAD-26	SEAD-26
Location ID								26EXD03	26EXD04	26EXD05	26EXD06	26EXE01
Matrix								SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID								26EXD03	26EXD04	26EXD05	26EXD06	26EXE01
Sample Depth to Top of Sample								0	0	0.5	0.5	0
Sample Depth to Bottom of Sample								0.2	0.2	1	1	0.2
Sample Date								11/13/2005	11/13/2005	11/16/2005	11/13/2005	11/13/2005
Sample Type								SA	SA	SA	SA	SA
Study ID								RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed [2]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Carcinogenic PAHs												
Benzo(a)anthracene	UG/KG	14000	83%		0	35	42	510	570	2600	2700	170 J
Benzo(a)pyrene	UG/KG	13000	81%		0	34	42	480	560	2400 J	2300	170 J
Benzo(b)fluoranthene	UG/KG	18000	86%		0	36	42	690	850	3500	4400	270 J
Benzo(k)fluoranthene	UG/KG	9700	76%		0	32	42	230 J	330 J	1500 J	1300	73 J
Chrysene	UG/KG	17000	86%		0	36	42	570	610	2900	3500	200 J
Dibenz(a,h)anthracene	UG/KG	940	38%		0	16	42	62 J	83 J	180 J	250 J	350 U
Indeno(1,2,3-cd)pyrene	UG/KG	4900	74%		0	31	42	350	290 J	830 J	1400	100 J
Benzo(a)pyrene Toxicity Equivalence [3]	MG/KG	18	NA	10	1	NA	45	0.71	0.82	3.3	3.4	0.40

Notes:
(1) The site-specific cleanup goal (CUG) is listed in Table 2-1 of the "Remedial Design Work Plan and Design Report for SEAD-25 and SEAD-26, Final" (Parsons, 2005).
(2) Sample-duplicate pairs (26EXA06 and 26EXA09 collected from 26EXA06; 26EXA10 and 26EXA14 collected from 26EXA10; and 26EXE03 and 26EXE06 were collected from 26EXE03) were averaged and the average results were used in the summary statistic presented in this table.
(3) In samples where at least one cPAH was detected, the Benzo(a)pyrene Toxicity Equivalence (BTE) value was calculated with non-detected values taken at half of their reporting limit. If no cPAHs were detected in a sample, the BTE value was not calculated and "ND" (not detected) was entered.
(4) A bolded and outlined cell indicates a concentration that exceeds the site-specific CUG.
(5) A shaded sample indicates that the soil represented by the sample has been removed from the site. Therefore, the analytical results for the shaded sample are not characteristic of current site conditions.

U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate
NA = Not applicable

Table 3-5
Summary of SEAD-26 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility								SEAD-26	SEAD-26	SEAD-26	SEAD-26	SEAD-26
Location ID								26EXE02	26EXE03	26EXE03	26EXE04	26EXE05
Matrix								SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID								26EXE02	26EXE06	26EXE03	26EXE04	26EXE05
Sample Depth to Top of Sample								0	0	0	0	0.5
Sample Depth to Bottom of Sample								0.2	0.2	0.2	0.2	1
Sample Date								11/13/2005	11/13/2005	11/13/2005	11/16/2005	11/16/2005
Sample Type								SA	DU	SA	SA	SA
Study ID								RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed [2]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Carcinogenic PAHs												
Benzo(a)anthracene	UG/KG	14000	83%		0	35	42	420	190 J	94 J	82 J	680
Benzo(a)pyrene	UG/KG	13000	81%		0	34	42	480 J	190 J	87 J	62 J	490
Benzo(b)fluoranthene	UG/KG	18000	86%		0	36	42	820 J	280 J	140 J	120 J	660
Benzo(k)fluoranthene	UG/KG	9700	76%		0	32	42	350 J	120 J	61 J	47 J	330 J
Chrysene	UG/KG	17000	86%		0	36	42	510	190 J	100 J	90 J	730
Dibenz(a,h)anthracene	UG/KG	940	38%		0	16	42	64 J	360 U	360 U	440 U	76 J
Indeno(1,2,3-cd)pyrene	UG/KG	4900	74%		0	31	42	240 J	99 J	54 J	53 J	290 J
Benzo(a)pyrene Toxicity Equivalence [3]	MG/KG	18	NA	10	1	NA	45	0.70	0.43	0.30	0.31	0.74

Notes:
(1) The site-specific cleanup goal (CUG) is listed in Table 2-1 of the "Remedial Design Work Plan and Design Report for SEAD-25 and SEAD-26, Final" (Parsons, 2005).
(2) Sample-duplicate pairs (26EXA06 and 26EXA09 collected from 26EXA06; 26EXA10 and 26EXA14 collected from 26EXA10; and 26EXE03 and 26EXE06 were collected from 26EXE03) were averaged and the average results were used in the summary statistic presented in this table.
(3) In samples where at least one cPAH was detected, the Benzo(a)pyrene Toxicity Equivalence (BTE) value was calculated with non-detected values taken at half of their reporting limit. If no cPAHs were detected in a sample, the BTE value was not calculated and "ND" (not detected) was entered.
(4) A bolded and outlined cell indicates a concentration that exceeds the site-specific CUG.
(5) A shaded sample indicates that the soil represented by the sample has been removed from the site. Therefore, the analytical results for the shaded sample are not characteristic of current site conditions.

U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate
NA = Not applicable

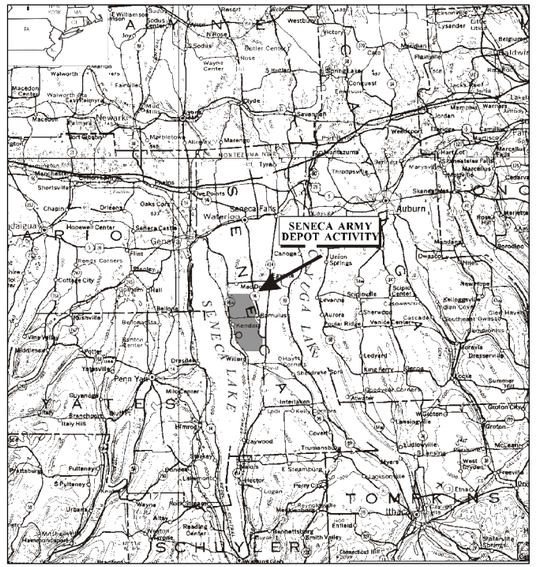
LIST OF DRAWINGS

PREPARED FOR:

AIR FORCE CENTER OF ENVIRONMENTAL EXCELLENCE

REMEDIATION OF FIRE TRAINING AND DEMONSTRATION PAD (SEAD-25) AND FIRE TRAINING PIT AND AREA (SEAD-26) SENECA ARMY DEPOT ACTIVITY ROMULUS, NEW YORK

FINAL CONSTRUCTION COMPLETION DRAWINGS
(NOVEMBER 2006)



LOCATION MAP

DRAWING LIST

SHEET NO.	REVISION NO.	DESCRIPTION
C-1		TITLE SHEET
C-2		PRE-CONSTRUCTION PLAN - SEAD-25
C-3		PRE-CONSTRUCTION PLAN - SEAD-26
C-4		EXCAVATION PLAN - SEAD-25 FIRE TRAINING & DEMONSTRATION PAD
C-5		EXCAVATION PLAN - SEAD-25 SWALE
C-6		EXCAVATION PLAN - SEAD-26

SITE PLAN
NTS

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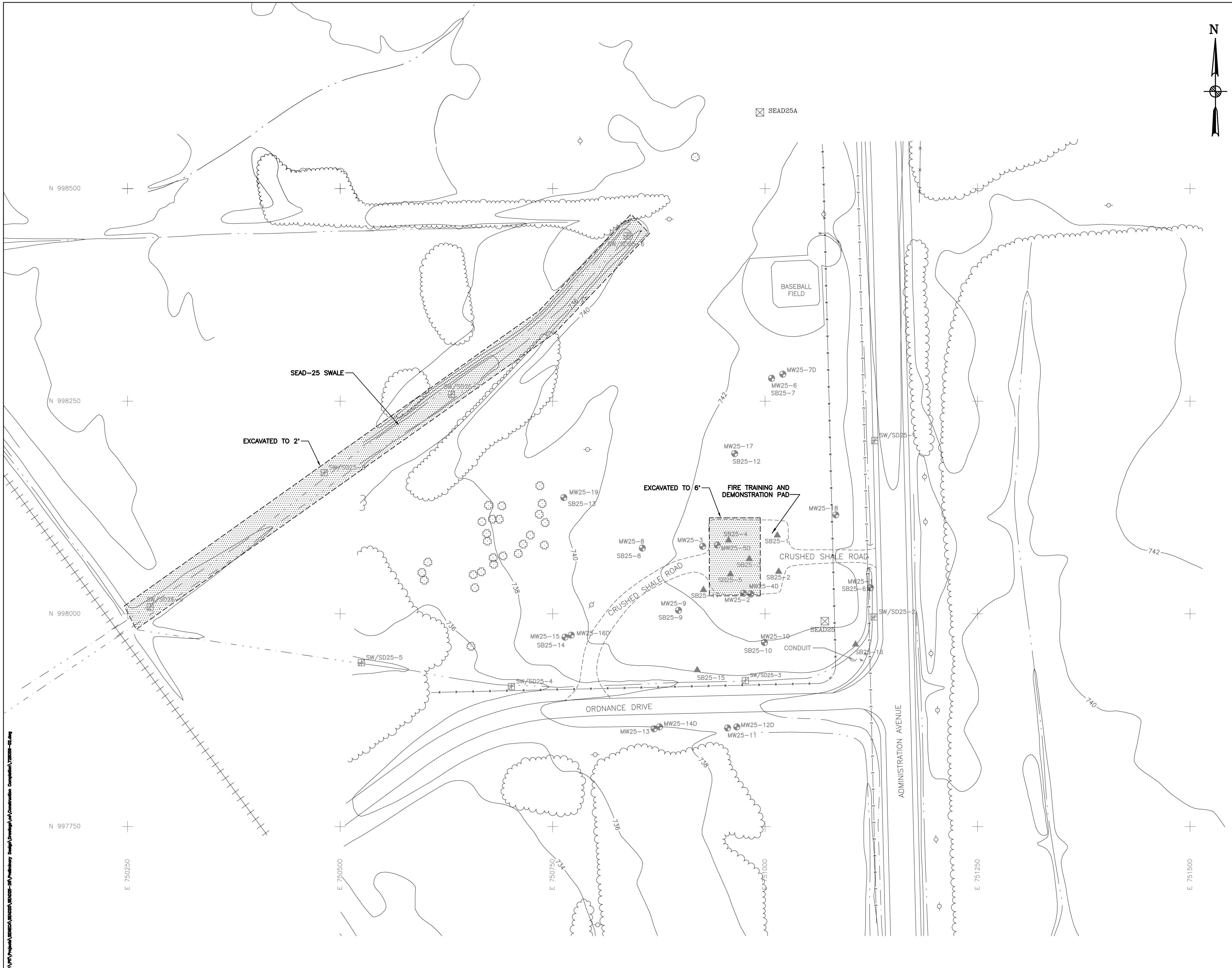
PARSONS

CLIENT/PROJECT TITLE
SENECA ARMY DEPOT
ROMULUS, NEW YORK
SEAD 25/26 CONSTRUCTION COMPLETION REPORT

DEPT.	Dwg. No.
ENVIRONMENTAL ENGINEERING	744538-03000

C-1
TITLE SHEET

SCALE	DATE	REV
NONE	NOVEMBER 2006	



LEGEND

Symbol	Description
	DRAINAGE DITCH
	FENCE
	UNPAVED ROAD
	BRUSH LINE
	RAILROAD
760	GROUND SURFACE ELEVATION CONTOUR
E	UNDERGROUND ELECTRIC UTILITY LINE
W	UNDERGROUND WATER UTILITY LINE
	ROAD SIGN
	OVERHEAD UTILITY POLE
	HYDRANT
	MANHOLE
	UTILITY BOX
	DECIDOUS TREE
	COORD. GRID (250' GRID)
	POLE
SEAD-25	SURVEY MONUMENT
MW25-3	RI/ES1 MONITORING WELL
SW/SD-1	RI/ES1 SED. SAMPLE
SB25-15	RI/ESI SOIL BORING
	PLANNED LIMIT OF EXCAVATION

NOTES:

1. TOPOGRAPHY BASED ON AERIAL SURVEY BY:

   LOCKWOOD SURVEY
   36 KARLAN DRIVE
   ROCHESTER NEW YORK
2. HORIZONTAL DATUM IS BASED ON NAD83 PER SENECA ARMY DEPOT SEAD 25A MONUMENTS SURVEY CONTROL COORDINATES DATED 1994.
3. VERTICAL DATUM IS BASED ON NAD88.
4. PLANNED LIMIT OF EXCAVATION FOR SWALE WAS BASED ON ASSUMED WIDTH OF SWALE BOTTOM.

50 0 50 100
(feet)

PARSONS

CLIENT/PROJECT TITLE

SENECA ARMY DEPOT

ROMULUS, NEW YORK

SEAD 25/26 CONSTRUCTION COMPLETION REPORT

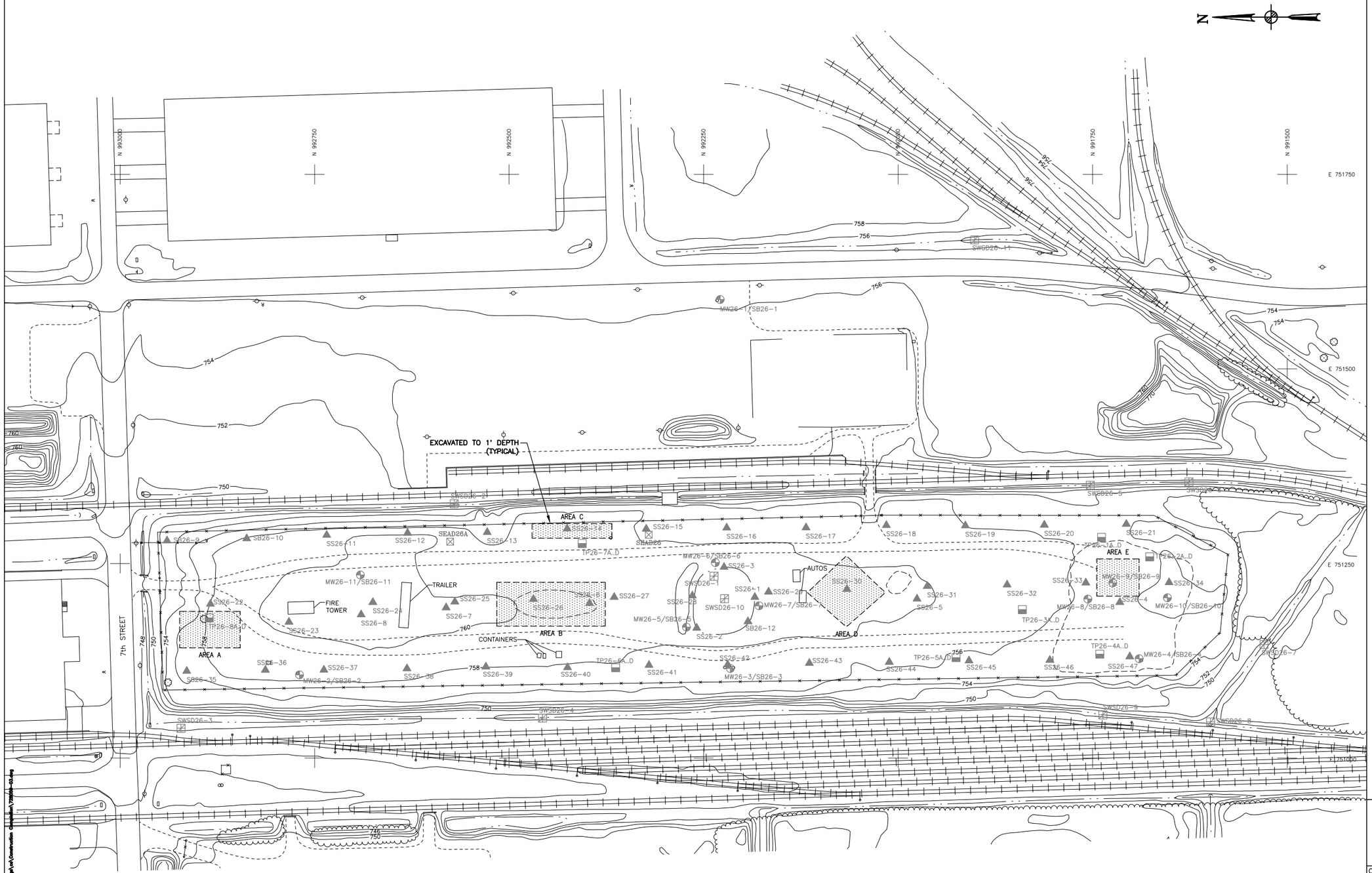
DEPT.	Dwg. No.
ENVIRONMENTAL ENGINEERING	744538-03000

C-2

PRE-CONSTRUCTION PLAN

SEAD-25

SCALE	DATE	REV
AS SHOWN	NOVEMBER 2006	



LEGEND

- DRAINAGE DITCH
- FENCE
- UNPAVED ROAD
- BRUSH LINE
- RAILROAD
- 760 — GROUND SURFACE ELEVATION CONTOUR
- E — E — E — E — UNDERGROUND ELECTRIC UTILITY LINE
- W — W — W — W — UNDERGROUND WATER UTILITY LINE
- ROAD SIGN
- OVERHEAD UTILITY POLE
- HYDRANT
- MANHOLE
- UTILITY BOX
- DECIDUOUS TREE
- COORD. GRID (250' GRID)
- POLE
- SEAD–25 — SURVEY MONUMENT
- MW26–5 — RI/ES1 MONITORING WELL
- SW/SD26–9 — RI/ES1 SED. SAMPLE
- SB26–44 — RI/ESI SOIL BORING
- TP26–6A..D — RI/ESI TEST PIT
- PLANNED LIMIT OF EXCAVATION

NOTES:

1. TOPOGRAPHY BASED ON AERIAL SURVEY BY:

   LOCKWOOD SURVEY
   36 KARLAN DRIVE
   ROCHESTER NEW YORK

2. HORIZONTAL DATUM IS BASED ON NAD83 PER SENECA ARMY DEPOT SEAD 25A MONUMENTS SURVEY CONTROL COORDINATES DATED 1994.
3. VERTICAL DATUM IS BASED ON NAD88.

60 0 60 120
(feet)

PARSONS

CLIENT/PROJECT TITLE

SENECA ARMY DEPOT
ROMULUS, NEW YORK
SEAD 25/26 CONSTRUCTION COMPLETION REPORT

DEPT.	Dwg. No.
ENVIRONMENTAL ENGINEERING	744538–03000

C–3
PRE–CONSTRUCTION PLAN
SEAD–26

SCALE	DATE	REV
AS SHOWN	NOVEMBER 2006	

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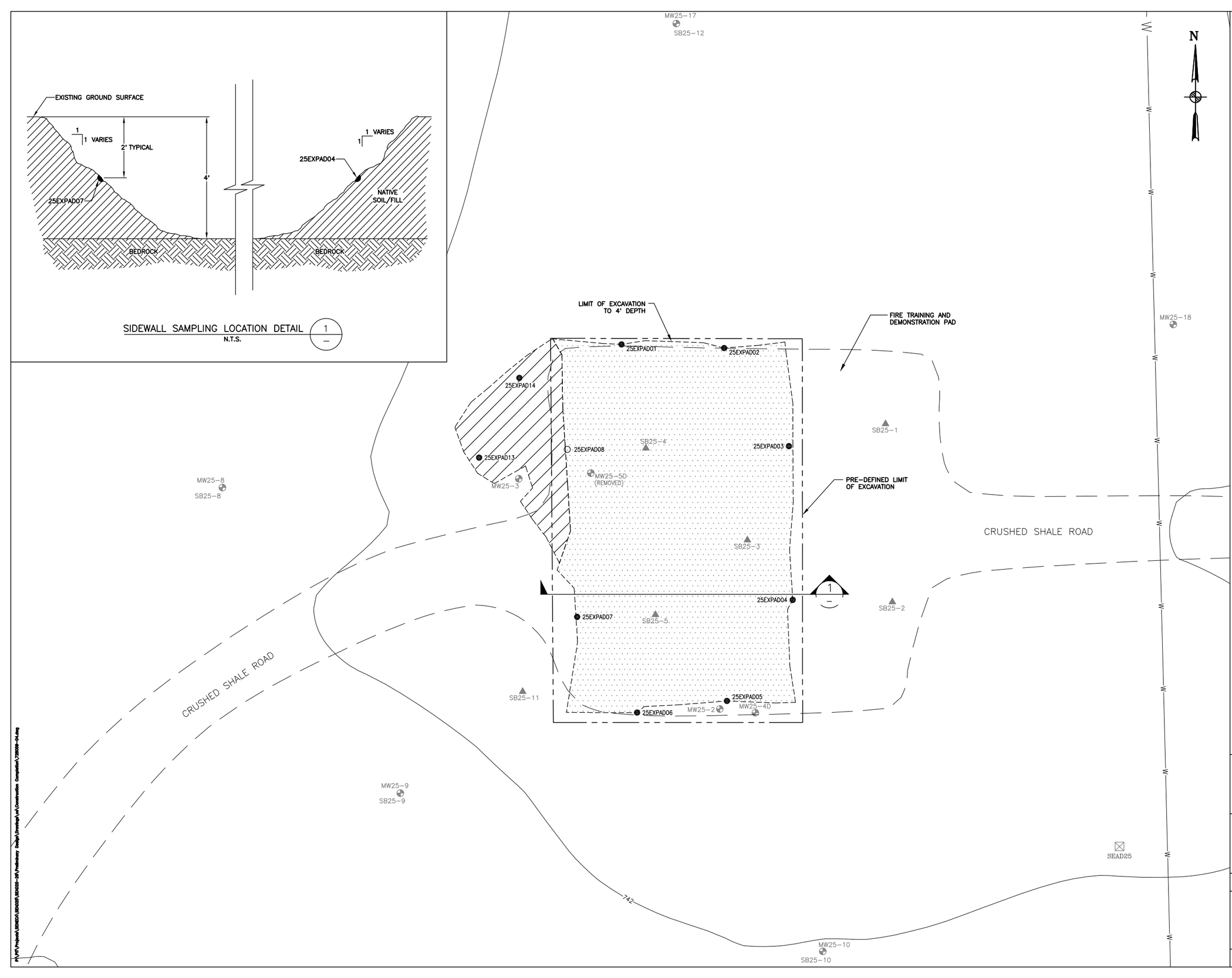
SIDEWALL SAMPLING LOCATION DETAIL 1/– N.T.S.



LEGEND

- DRAINAGE DITCH
- UNPAVED ROAD
- 760 — GROUND SURFACE ELEVATION CONTOUR
- UNDERGROUND WATER UTILITY LINE
- SEAD–25 — SURVEY MONUMENT
- MW25–3 — RI/ES1 MONITORING WELL
- SB25–1 — RI/ES1 SOIL BORING
- CONFIRMATORY SOIL SAMPLE LOCATION
- INTERIM CONFIRMATORY SOIL SAMPLE LOCATION (REMOVED)
- LIMIT OF INITIAL EXCAVATION
- LIMIT OF ADDITIONAL EXCAVATION
- PROPOSED LIMIT OF EXCAVATION

NOTES:

1. TOPOGRAPHY BASED ON AERIAL SURVEY BY:

   LOCKWOOD SURVEY
   36 KARLAN DRIVE
   ROCHESTER NEW YORK

2. HORIZONTAL DATUM IS BASED ON NAD83 PER SENECA ARMY DEPOT SEAD 25A MONUMENTS SURVEY CONTROL COORDINATES DATED 1994.
3. VERTICAL DATUM IS BASED ON NAD88.
4. DEPTH OF EXCAVATION EXTENDED UNTIL COMPETENT BEDROCK WAS ENCOUNTERED, WHICH OCCURED AT APPROXIMATELY 4 FT. BGS. THE ELEVATION ALONG THE BOTTOM OF THE EXCAVATION RANGED FROM 738.49 TO 739.95.
5. CONFIRMATORY SAMPLES WERE COLLECTED BY THE ENGINEER AT A DEPTH HALFWAY BETWEEN THE GROUND SURFACE AND THE BASE OF EXCAVATION, APPROXIMATELY 2 FT. BGS.
6. EXCAVATED MATERIALS WERE DIRECTLY LOADED INTO DUMP TRUCKS AND TRANSPORTED TO ONTARIO COUNTY LANDFILL BY EARTHWATCH.
7. THE INTERIM SAMPLE 25EXPAD08 FAILED TO MEET THE CLEANUP GOALS, AND THE SOIL AROUND THE INTERIM SAMPLE WAS EXCAVATED UNTIL BEDROCK WAS ENCOUNTERED, APPROXIMATELY 4 FT. BGS. THE SOIL REPRESENTED BY THE INTERIM SAMPLE HAS BEEN REMOVED FROM THE SITE AND IS NOT CHARACTERISTIC OF CURRENT SITE CONDITIONS.
8. SITE WAS RESTORED BY PLACING CLEAN BACKFILL TO BLEND INTO EXISTING GROUND SURFACE.

10 0 10 20
(feet)

PARSONS

CLIENT/PROJECT TITLE

SENECA ARMY DEPOT
ROMULUS, NEW YORK
SEAD 25/26 CONSTRUCTION COMPLETION REPORT

DEPT.	Dwg. No.
ENVIRONMENTAL ENGINEERING	744538–03000

C–4
EXCAVATION PLAN SEAD–25
FIRE TRAINING & DEMONSTRATION PAD

SCALE	DATE	REV
AS SHOWN	NOVEMBER 2006	

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N 998250

SEAD-25 SWALE

EXCAVATED TO BEDROCK

CULVERT

CULVERT

736

740

738

740

742

736

LEGEND

- DRAINAGE DITCH
- BRUSH LINE
- RAILROAD
- 760 — GROUND SURFACE ELEVATION CONTOUR
- ROAD SIGN
- OVERHEAD UTILITY POLE
- DECIDOUS TREE
- COORD. GRID (250' GRID)
- POLE
- SEAD-25 — SURVEY MONUMENT
- MONITORING WELL LOCATION
- LIMIT OF EXCAVATION
- PROPOSED LIMIT OF EXCAVATION

NOTES:

1. SWALE BOTTOM WIDTH WAS LESS WIDE THAN REPRESENTED IN THE DESIGN REPORT.
2. SWALE WAS EXCAVATED VERTICALLY TO BEDROCK AND HORIZONTALLY TO THE LIMITS OF THE SEDIMENT DEPOSTION, NO DITCH SOIL REMAINED AT THE SWALE BOTTOM. NO CONFIRMATORY SAMPLES WERE COLLECTED.
3. EXCAVATED MATERIAL FROM THE SWALE WAS STAGED ON A POLYETHYLENE LINER LOCATED ON THE FIRE TRAINING AND DEMONSTRATION PAD, SCHEDULED FOR EXCAVATION. SOIL WITH ENTRAINED LIQUID WAS SOLIDIFIED USING LIME TO MEET LANDFILL CRITERIA.

30 0 30 60
(feet)

PARSONS

CLIENT/PROJECT TITLE

SENECA ARMY DEPOT
ROMULUS, NEW YORK
SEAD 25/26 CONSTRUCTION COMPLETION REPORT

DEPT.	Dwg. No.
ENVIRONMENTAL ENGINEERING	744538-03000

C-5
EXCAVATION PLAN
SEAD-25 SWALE

SCALE	DATE	REV
AS SHOWN	NOVEMBER 2006	

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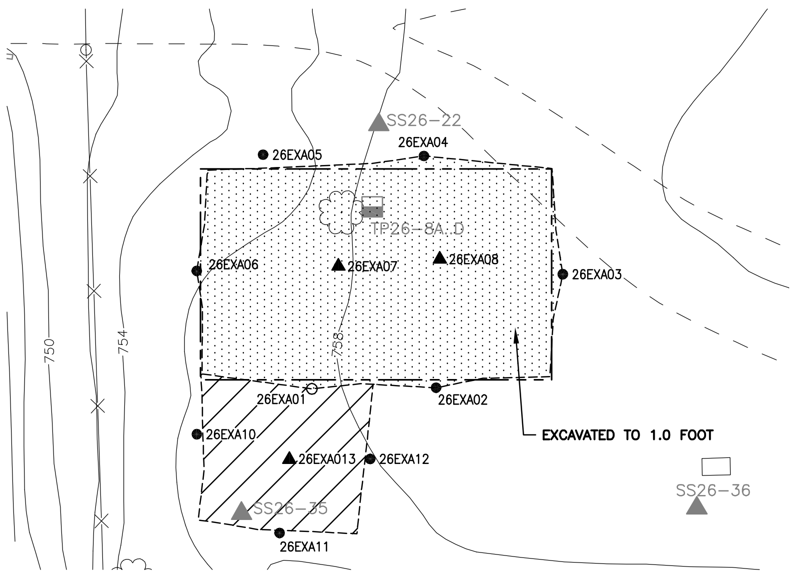

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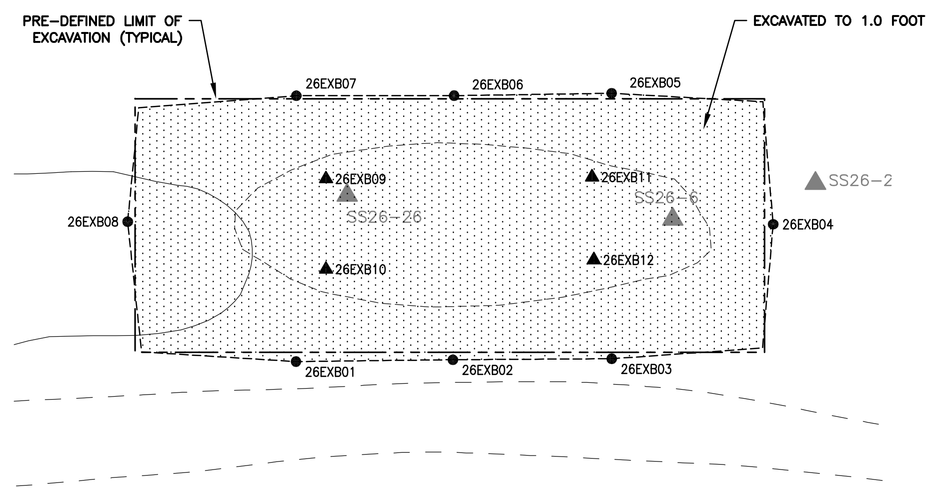

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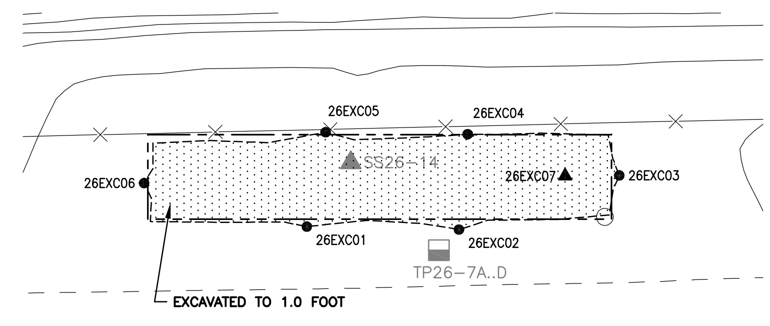

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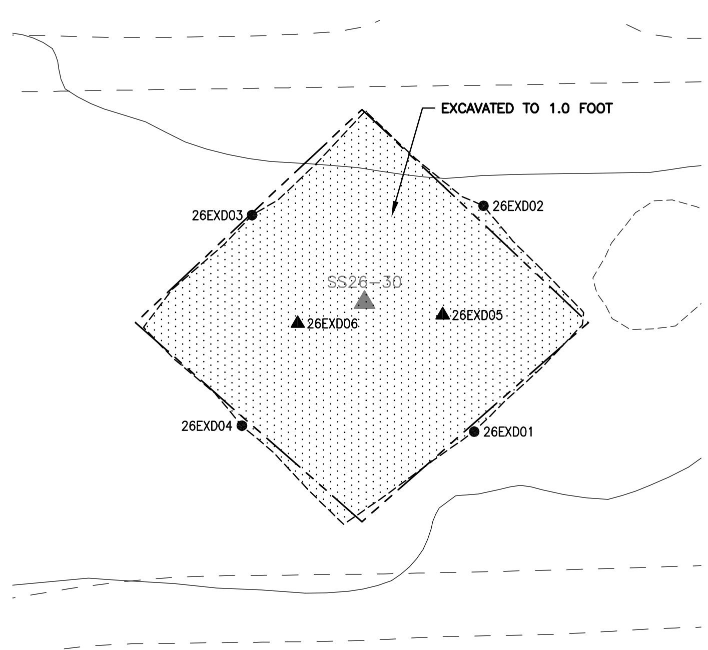

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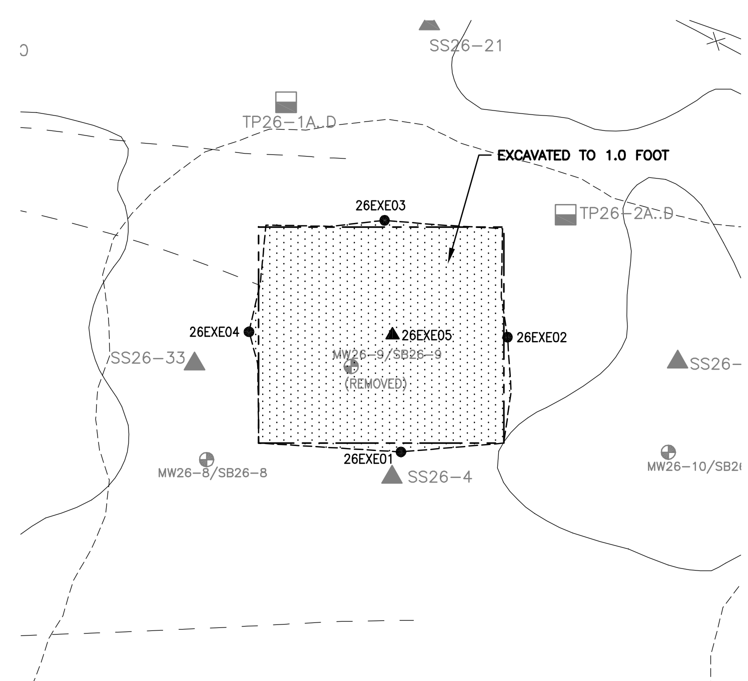

AREA E

LEGEND

- FENCE
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (760)
- UTILITY BOX
- DECIDOUS TREE
- COORD. GRID (250' GRID)
- POLE
- RI/ES1 MONITORING WELL (MW26-9)
- RI/ESI SOIL BORING (SS26-14)
- RI/ESI TEST PIT (TP26-2A..D)
- CONFIRMATORY PERIMETER SOIL SAMPLE LOCATION
- INTERIM PERIMETER SOIL SAMPLE LOCATION
- CONFIRMATORY FLOOR SOIL SAMPLE LOCATION (REMOVED)
- LIMIT OF INITIAL EXCAVATION
- LIMIT OF ADDITIONAL EXCAVATION
- PROPOSED LIMIT OF EXCAVATION

NOTES:

1. TOPOGRAPHY BASED ON AERIAL SURVEY BY:

   LOCKWOOD SURVEY
   36 KARLAN DRIVE
   ROCHESTER NEW YORK
2. HORIZONTAL DATUM IS BASED ON NAD83 PER SENECA ARMY DEPOT SEAD 26A MONUMENTS SURVEY CONTROL COORDINATES DATED 1994.
3. VERTICAL DATUM IS BASED ON NAD88.
4. EACH AREA WAS EXCAVATED TO A DEPTH OF 1 FOOT.
5. EXCAVATED MATERIALS WERE DIRECTLY LOADED INTO DUMP TRUCKS AND TRANSPORTED TO ONTARIO COUNTY LANDFILL BY EARTHWATCH.
6. EDGES OF THE EXCAVATED AREA WERE SMOOTHED TO PREVENT TRIP HAZARDS. NO EXCESS MATERIAL WAS MOVED OR HANDLED AT THE SITE.
7. THE INTERIM SAMPLE 26EXA01 FAILED TO MEET THE CLEANUP GOALS, AND THE SOIL AROUND THE INTERIM SAMPLE WAS EXCAVATED TO A DEPTH OF 1 FOOT. THE SOIL FROM WHICH THE INTERIM SAMPLE WAS COLLECTED HAS BEEN REMOVED FROM THE SITE AND IS NOT CHARACTERISTIC OF CURRENT SITE CONDITIONS.
8. DEBRIS, SUCH AS CONTAINERS, VEHICLES, AND SCRAP METAL, WERE REMOVED FROM THE SITE BY THE CONTRACTOR.

20 0 20 40
(feet)

PARSONS

CLIENT/PROJECT TITLE

SENECA ARMY DEPOT
ROMULUS, NEW YORK
SEAD 25/26 CONSTRUCTION COMPLETION REPORT

DEPT.	Dwg. No.
ENVIRONMENTAL ENGINEERING	744538-03000

C-6
EXCAVATION PLAN
SEAD-26

SCALE	DATE	REV
AS SHOWN	NOVEMBER 2006	

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APPENDICES

Appendix A

Borrow Source Documentation

- Background Information of Borrow Source and Documentation
- Table A-1: Analytical Results of Borrow Source Samples

ON-SITE BORROW SOURCE:

Borrow Source Owner:	Seneca Army Depot Activity (SEDA) in Romulus, New York (Seneca County)
Location:	Soil was excavated as part of underground utilities work completed by New York State Electric and Gas (NYSEG) at uncontaminated locations in the Administration Area at SEDA. The soil was excavated along East Patrol Road, between 2nd Street and South Street, along Quarters Drive, a segment of 1st Avenue and 3rd Avenue.
Site History:	SEDA is a 10,587-acre former military facility, which has been owned by the United States Government and operated by the Department of the Army since 1941. Since its inception in 1941, SEDA's primary mission was the receipt, storage, maintenance, and supply of military items. One Solid Waste Management Unit (SWMU), SEAD-39, was adjacent to the borrow source areas. Prior to the NYSDEG gas line work, a removal action was completed at SEAD-39 in 2003, and SEAD-39 is currently still under investigation.
Representative Sample ID:	25FM0S01

OFF-SITE BORROW SOURCE:

Borrow Source Owner:	Dendis Sand and Gravel, Inc.
Location:	State Route 96 in Junius, New York in Seneca County
Site History:	The Dendis site is a gravel pit located in a heavily wooded area.
Representative Sample ID:	25FMSP101

DENDIS SAND & GRAVEL, INC.

52 RTE. 318
PHELPS, NY 14532

TRUCKING TICKET

№ 33310

Date 12/15/05

CHARGE TO: Jessler

JOB SITE: Depot

MATERIAL: Dirt

DESCRIPTION OF HOURLY WORK:

	IN	OUT	HOURS
AM			
PM			

LOADS: 12 TOTAL: 12

HAULED FROM	Office	TICKET NUMBER	TICKET WEIGHT
County Rd 4		||||||||||||	
HAULED TO			
Depot			
OFFICE USE ONLY			

RECEIVED BY: [signature]

DRIVER'S SIGNATURE: [signature]

HAULER: Dendis Sand & Gravel

COMMENTS:

Table A-1
Borrow Source Data
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Borrow Source location							On-Site	Off-Site	Off-Site
Matrix							SOIL	SOIL	SOIL
Sample ID							25FM0S01	25FMSP101	25FMSP101RE
Sample Date							10/28/2005	11/9/2005	11/9/2005
Parameter	**Units**	**Maximum Value**	**Acceptable Level [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed**	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds									
1,1,1-Trichloroethane	UG/KG	0	800	0	0	2	6 U	12 U	
1,1,2,2-Tetrachloroethane	UG/KG	0		0	0	2	6 U	12 U	
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/KG	0		0	0	2	6 U	12 U	
1,1,2-Trichloroethane	UG/KG	0		0	0	2	6 U	12 U	
1,1-Dichloroethane	UG/KG	0	200	0	0	2	6 U	12 U	
1,1-Dichloroethene	UG/KG	0		0	0	2	6 U	12 U	
1,2,4-Trichlorobenzene	UG/KG	0		0	0	2	6 U	12 U	
1,2-Dibromo-3-chloropropane	UG/KG	0		0	0	2	6 U	12 U	
1,2-Dibromoethane	UG/KG	0		0	0	2	6 U	12 U	
1,2-Dichlorobenzene	UG/KG	0		0	0	2	6 U	12 U	
1,2-Dichloroethane	UG/KG	0		0	0	2	6 U	12 U	
1,2-Dichloropropane	UG/KG	0		0	0	2	6 U	12 U	
1,3-Dichlorobenzene	UG/KG	0		0	0	2	6 U	12 U	
1,4-Dichlorobenzene	UG/KG	0		0	0	2	6 U	12 U	
Acetone	UG/KG	40		0	1	2	30 U	40 J	
Benzene	UG/KG	7	60	0	1	2	6 U	7 J	
Bromodichloromethane	UG/KG	0		0	0	2	6 U	12 U	
Bromoform	UG/KG	0		0	0	2	6 U	12 U	
Carbon disulfide	UG/KG	0		0	0	2	6 U	12 U	
Carbon tetrachloride	UG/KG	0		0	0	2	6 U	12 U	
Chlorobenzene	UG/KG	0		0	0	2	6 U	12 U	
Chlorodibromomethane	UG/KG	0		0	0	2	6 U	12 U	
Chloroethane	UG/KG	0		0	0	2	6 U	12 U	
Chloroform	UG/KG	0	300	0	0	2	6 U	12 U	
Cis-1,2-Dichloroethene	UG/KG	0		0	0	2	6 U	12 U	
Cis-1,3-Dichloropropene	UG/KG	0		0	0	2	6 U	12 U	
Cyclohexane	UG/KG	18		0	1	2	6 U	18	
Dichlorodifluoromethane	UG/KG	0		0	0	2	6 U	12 U	
Ethyl benzene	UG/KG	1.3	5500	0	1	2	6 U	1.3 J	
Isopropylbenzene	UG/KG	0		0	0	2	6 U	12 U	
Meta/Para Xylene	UG/KG	19		0	1	1		19	
Methyl Acetate	UG/KG	0		0	0	2	6 U	12 U	
Methyl Tertbutyl Ether	UG/KG	0		0	0	2	6 U	12 U	
Methyl bromide	UG/KG	0		0	0	2	6 U	12 U	
Methyl butyl ketone	UG/KG	0		0	0	2	30 U	61 U	
Methyl chloride	UG/KG	5.4		0	1	2	6 U	5.4 J	
Methyl cyclohexane	UG/KG	27		0	1	2	6 U	27	
Methyl ethyl ketone	UG/KG	0		0	0	2	30 U	61 U	
Methyl isobutyl ketone	UG/KG	0		0	0	2	30 U	61 U	
Methylene chloride	UG/KG	0		0	0	2	6 U	12 U	
Ortho Xylene	UG/KG	4.1		0	1	1		4.1 J	
Styrene	UG/KG	0		0	0	2	6 U	12 U	
Tetrachloroethene	UG/KG	0		0	0	2	6 U	12 U	
Toluene	UG/KG	19	1500	0	1	2	6 U	19	
Total Xylenes	UG/KG	0	1200	0	0	2	18 U	23.1 U	
Trans-1,2-Dichloroethene	UG/KG	0		0	0	2	6 U	12 U	
Trans-1,3-Dichloropropene	UG/KG	0		0	0	2	6 U	12 U	
Trichloroethene	UG/KG	0	700	0	0	2	6 U	12 U	
Trichlorofluoromethane	UG/KG	0		0	0	2	6 U	12 U	
Vinyl acetate	UG/KG	0		0	0	1	30 U		
Vinyl chloride	UG/KG	0		0	0	2	12 U	12 U	
Semivolatile Organic Compounds									
1,1'-Biphenyl	UG/KG	0		0	0	3	400 U	380 U	380 U
2,2'-oxybis(1-Chloropropane)	UG/KG	0		0	0	3	400 U	380 U	380 U
2,4,5-Trichlorophenol	UG/KG	0		0	0	3	970 U	960 U	960 U
2,4,6-Trichlorophenol	UG/KG	0		0	0	3	400 U	380 U	380 U
2,4-Dichlorophenol	UG/KG	0		0	0	3	400 U	380 U	380 U
2,4-Dimethylphenol	UG/KG	0		0	0	3	400 U	380 U	380 U

Table A-1
Borrow Source Data
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Borrow Source location						On-Site	Off-Site	Off-Site
Matrix						SOIL	SOIL	SOIL
Sample ID						25FM0S01	25FMSP101	25FMSP101RE
Sample Date						10/28/2005	11/9/2005	11/9/2005
Parameter	**Units**	**Maximum Value**	**Acceptable Level [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed**	Value (Q)	Value (Q)	Value (Q)
2,4-Dinitrophenol	UG/KG	0		0	0	3	1900 U	960 U	960 U
2,4-Dinitrotoluene	UG/KG	0		0	0	3	400 U	380 U	380 U
2,6-Dinitrotoluene	UG/KG	0		0	0	3	400 U	380 U	380 U
2-Chloronaphthalene	UG/KG	0		0	0	3	400 U	380 U	380 U
2-Chlorophenol	UG/KG	0		0	0	3	400 U	380 U	380 U
2-Methylnaphthalene	UG/KG	0	36400	0	0	3	400 U	380 U	380 U
2-Methylphenol	UG/KG	0		0	0	3	400 U	380 U	380 U
2-Nitroaniline	UG/KG	0		0	0	3	1900 U	960 U	960 U
2-Nitrophenol	UG/KG	0		0	0	3	400 U	380 U	380 U
3,3'-Dichlorobenzidine	UG/KG	0		0	0	3	400 U	380 U	380 U
3-Nitroaniline	UG/KG	0		0	0	3	1900 U	960 U	960 U
4,6-Dinitro-2-methylphenol	UG/KG	0		0	0	3	1900 U	960 U	960 U
4-Bromophenyl phenyl ether	UG/KG	0		0	0	3	400 U	380 U	380 U
4-Chloro-3-methylphenol	UG/KG	0		0	0	3	400 U	380 U	380 U
4-Chloroaniline	UG/KG	0		0	0	3	400 U	380 U	380 U
4-Chlorophenyl phenyl ether	UG/KG	0		0	0	3	400 U	380 U	380 U
4-Methylphenol	UG/KG	0		0	0	1	400 U		
4-Nitroaniline	UG/KG	0		0	0	3	1900 U	960 U	960 U
4-Nitrophenol	UG/KG	0		0	0	3	1900 U	960 U	960 U
Acenaphthene	UG/KG	0		0	0	3	400 U	380 U	380 U
Acenaphthylene	UG/KG	0		0	0	3	400 U	380 U	380 U
Acetophenone	UG/KG	0		0	0	3	400 U	380 U	380 U
Anthracene	UG/KG	23		0	1	3	23 J	380 U	380 U
Atrazine	UG/KG	0		0	0	3	400 U	380 U	380 U
Benzaldehyde	UG/KG	0		0	0	3	400 U	380 U	380 U
Benzo(a)anthracene	UG/KG	140		0	1	3	140 J	380 U	380 U
Benzo(a)pyrene	UG/KG	140		0	1	3	140 J	380 U	380 U
Benzo(b)fluoranthene	UG/KG	170		0	1	3	170 J	380 U	380 U
Benzo(ghi)perylene	UG/KG	100		0	1	3	100 J	380 U	380 U
Benzo(k)fluoranthene	UG/KG	66		0	1	3	66 J	380 U	380 U
Bis(2-Chloroethoxy)methane	UG/KG	0		0	0	3	400 U	380 U	380 U
Bis(2-Chloroethyl)ether	UG/KG	0		0	0	3	400 U	380 U	380 U
Bis(2-Ethylhexyl)phthalate	UG/KG	220		0	1	3	220 J	380 U	380 U
Butylbenzylphthalate	UG/KG	0		0	0	3	400 U	380 U	380 U
Caprolactam	UG/KG	0		0	0	3	400 U	380 U	380 U
Carbazole	UG/KG	0		0	0	3	400 U	380 U	380 U
Chrysene	UG/KG	150		0	1	3	150 J	380 U	380 U
Di-n-butylphthalate	UG/KG	0		0	0	3	400 U	380 U	380 U
Di-n-octylphthalate	UG/KG	0		0	0	3	400 U	380 U	380 U
Dibenz(a,h)anthracene	UG/KG	29		0	1	3	29 J	380 U	380 U
Dibenzofuran	UG/KG	0		0	0	3	400 U	380 U	380 U
Diethyl phthalate	UG/KG	0		0	0	3	400 U	380 U	380 U
Dimethylphthalate	UG/KG	0		0	0	3	400 U	380 U	380 U
Fluoranthene	UG/KG	290		0	1	3	290 J	380 U	380 U
Fluorene	UG/KG	0		0	0	3	400 U	380 U	380 U
Hexachlorobenzene	UG/KG	0		0	0	3	400 U	380 U	380 U
Hexachlorobutadiene	UG/KG	0		0	0	3	400 U	380 U	380 U
Hexachlorocyclopentadiene	UG/KG	0		0	0	3	400 U	380 U	380 U
Hexachloroethane	UG/KG	0		0	0	3	400 U	380 U	380 U
Indeno(1,2,3-cd)pyrene	UG/KG	89		0	1	3	89 J	380 U	380 U
Isophorone	UG/KG	0		0	0	3	400 U	380 U	380 U
N-Nitrosodiphenylamine	UG/KG	0		0	0	3	400 U	380 U	380 U
N-Nitrosodipropylamine	UG/KG	0		0	0	3	400 U	380 U	380 U
Naphthalene	UG/KG	0	13000	0	0	3	400 U	380 U	380 U
Nitrobenzene	UG/KG	0		0	0	3	400 U	380 U	380 U
Pentachlorophenol	UG/KG	0		0	0	3	1900 U	960 U	960 U
Phenanthrene	UG/KG	130		0	1	3	130 J	380 U	380 U
Phenol	UG/KG	0	30	0	0	3	400 U	380 U	380 U
Pyrene	UG/KG	250		0	1	3	250 J	380 U	380 U

Table A-1
Borrow Source Data
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Borrow Source location							On-Site	Off-Site	Off-Site
Matrix							SOIL	SOIL	SOIL
Sample ID							25FM0S01	25FMSP101	25FMSP101RE
Sample Date							10/28/2005	11/9/2005	11/9/2005
Parameter	**Units**	**Maximum Value**	**Acceptable Level [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed**	Value (Q)	Value (Q)	Value (Q)
Inorganics									
Aluminum	MG/KG	11200	21900	0	2	2	11200 J	2540	
Antimony	MG/KG	0	1.2	0	0	2	0.42 U	0.38 UN	
Arsenic	MG/KG	3.9	9.3	0	2	2	3.9 J	1.7	
Barium	MG/KG	81	101	0	2	2	81 J	15.6 J	
Beryllium	MG/KG	0.58	0.92	0	2	2	0.58 J	0.12 J	
Cadmium	MG/KG	0.25	0.73	0	1	2	0.25 J	0.04 U	
Calcium	MG/KG	65200	192000	0	2	1	9580 J	65200 D	
Chromium	MG/KG	16.2	25.8	0	2	2	16.2 J	4.8	
Cobalt	MG/KG	8.1	18.1	0	2	2	8.1 J	3 J	
Copper	MG/KG	18.7	35.6	0	2	2	17.3 J	18.7	
Cyanide	MG/KG	0	ND	0	0	2	1.2 U	0.58 U	
Iron	MG/KG	19900	33200	0	2	2	19900 J	6950	
Lead	MG/KG	23.8	94.8	0	2	2	23.8 J	5.8	
Magnesium	MG/KG	14300	22800	0	2	2	5820 J	14300	
Manganese	MG/KG	517	1700	0	2	2	517 J	292	
Mercury	MG/KG	0.065	0.13	0	2	2	0.065	0.007	
Nickel	MG/KG	20.3	53.3	0	2	2	20.3 J	5.6	
Potassium	MG/KG	1400	2740	0	2	2	1400 J	1040	
Selenium	MG/KG	0.72	1.3	0	1	2	0.72 J	0.4 U	
Silver	MG/KG	0.12	ND	0	1	2	0.12	0.09 U	
Sodium	MG/KG	209	631	0	2	2	55.4	209 J	
Thallium	MG/KG	0.52	1.8	0	1	2	0.52	0.61 U	
Vanadium	MG/KG	18.3	37.2	0	2	2	18.3 J	4.3 J	
Zinc	MG/KG	70.7	103	0	2	2	70.7 J	26.9	

Notes:
(1) For VOCs and SVOCs, the acceptable levels were site-specific cleanup goals (CUGs), as listed in Table 2-1 of the "Remedial Design Work Plan and Design Report for SEAD-25 and SEAD-26, Final" (Parsons, 2005), which were based on NYSDEC Technical and Administrative Guidance Memorandum (TAGM) HWR-94-4046, Revised January 24, 1994 (Tables 1, 2, and 3). For metals, the acceptable level was defined as the maximum concentration detected in all soils (surface soil, subsurface soil, and ditch soil) during the RI and ESI that would remain on-site after the excavation is completed.
(2) The data qualifiers presented for 25FM0S01 inorganics were assigned by a data validator. All other data qualifiers were assigned by the laboratory.
(3) Sample 25FM0S01 was collected from an on-site borrow source. Sample 25FMSP101 was collected from an off-site borrow source identified by the construction subcontractor.

ND = not detected
U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate
N = presumptive evidence of a compound (laboratory qualifier). Review of laboratory report indicated the matrix spike was not from a Parsons sample and the matrix spike duplicate was outside of acceptance criteria.
D = identifies all compounds identified in an analysis at the secondary dilution factor (laboratory qualifier).

Appendix B

Disposal Characterization Data

Table B-1
Disposal Characterization Data
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility							SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID							SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Matrix							SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID							25D0001	25D0002	25D0003	25D0004	25D0005	25D0006
Sample Depth to Top of Sample							0	0	0	0	0	1
Sample Depth to Bottom of Sample							1	1	1	1	1	3
Sample Date							9/12/2005	9/12/2005	9/12/2005	9/12/2005	9/12/2005	11/7/2005
Sample Type							SA	SA	SA	SA	SA	SA
Study ID							RA	RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Regulatory Limit [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
PCBs [2]													
Aroclor-1016	UG/KG	0	0%		0	0	11	24 U	20 U	27 U	42 U	410 U	18 U
Aroclor-1221	UG/KG	0	0%		0	0	11	24 U	20 U	27 U	42 U	410 U	18 U
Aroclor-1232	UG/KG	0	0%		0	0	11	24 U	20 U	27 U	42 U	410 U	18 U
Aroclor-1242	UG/KG	0	0%		0	0	11	24 U	20 U	27 U	42 U	410 U	18 U
Aroclor-1248	UG/KG	0	0%		0	0	11	24 U	20 U	27 U	42 U	410 U	18 U
Aroclor-1254	UG/KG	0	0%		0	0	11	24 U	20 U	27 U	42 U	410 U	18 U
Aroclor-1260	UG/KG	0	0%		0	0	11	24 U	20 U	27 U	42 U	410 U	18 U
TCLP VOCs													
TCLP 1,1-Dichloroethene	MG/L	0	0%	0.7	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP 1,2-Dichloroethane	MG/L	0	0%	0.5	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP Benzene	MG/L	0	0%	0.5	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP Carbon tetrachloride	MG/L	0	0%	0.5	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP Chlorobenzene	MG/L	0	0%	100	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP Chloroform	MG/L	0	0%	6	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP Methyl ethyl ketone	MG/L	0	0%	200	0	0	11	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TCLP Tetrachloroethene	MG/L	0.0041	9%	0.7	0	1	11	0.05 U	0.0041 J	0.05 U	0.05 U	0.05 U	0.05 U
TCLP Trichloroethene	MG/L	0	0%	0.5	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP Vinyl chloride	MG/L	0	0%	0.2	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP SVOCs													
TCLP 1,4-Dichlorobenzene	MG/L	0	0%	7.5	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP 2,4,5-Trichlorophenol	MG/L	0	0%	400	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP 2,4,6-Trichlorophenol	MG/L	0	0%	2	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP 2,4-Dinitrotoluene	MG/L	0	0%	0.13	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP 2-Methylphenol	MG/L	0	0%	200	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP 3-Methylphenol	MG/L	0	0%	200	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP 4-Methylphenol	MG/L	0	0%	200	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP Hexachlorobenzene	MG/L	0	0%	0.13	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP Hexachlorobutadiene	MG/L	0	0%	0.5	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP Hexachloroethane	MG/L	0	0%	3	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP Nitrobenzene	MG/L	0	0%	2	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP Pentachlorophenol	MG/L	0	0%	100	0	0	11	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
TCLP Pyridine	MG/L	0	0%	5	0	0	11	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
TCLP Pesticides													
TCLP Endrin	MG/L	0	0%	0.02	0	0	11	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
TCLP Gamma-BHC/Lindane	MG/L	0	0%	0.4	0	0	11	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
TCLP Heptachlor	MG/L	0	0%	0.008	0	0	11	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
TCLP Heptachlor epoxide	MG/L	0	0%	0.008	0	0	11	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U

Table B-1
Disposal Characterization Data
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility							SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID							SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Matrix							SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID							25D0001	25D0002	25D0003	25D0004	25D0005	25D0006
Sample Depth to Top of Sample							0	0	0	0	0	1
Sample Depth to Bottom of Sample							1	1	1	1	1	3
Sample Date							9/12/2005	9/12/2005	9/12/2005	9/12/2005	9/12/2005	11/7/2005
Sample Type							SA	SA	SA	SA	SA	SA
Study ID							RA	RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Regulatory Limit [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
TCLP Methoxychlor	MG/L	0	0%	10	0	0	11	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
TCLP Technical chlordane	MG/L	0	0%	0.03	0	0	11	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
TCLP Toxaphene	MG/L	0	0%	0.5	0	0	11	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U
TCLP Herbicides													
TCLP 2,4,5-TP/Silvex	MG/L	0	0%	1	0	0	11	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
TCLP 2,4-D	MG/L	0	0%	10	0	0	11	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
TCLP Inorganics													
TCLP Arsenic	MG/L	0	0%	5	0	0	11	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
TCLP Barium	MG/L	0.81	100%	100	0	11	11	0.36	0.35	0.58	0.36	0.81	0.66
TCLP Cadmium	MG/L	0.0068	55%	1	0	6	11	0.0027	0.0021	0.0036	0.001 U	0.0068	0.001 U
TCLP Chromium	MG/L	0	0%	5	0	0	11	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
TCLP Lead	MG/L	0.32	55%	5	0	6	11	0.045	0.14	0.2	0.034	0.32	0.05
TCLP Mercury	MG/L	0	0%	0.2	0	0	11	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
TCLP Selenium	MG/L	0	0%	1	0	0	11	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U
TCLP Silver	MG/L	0	0%	5	0	0	11	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Wet Chemistry													
Corrosivity (pH) [3]	S.U.	8.5	100%		0	11	11	7.04	7.49	7.34	7.71	7.01	8.41
Flashpoint	øF	>200	100%	<140	0	11	11	>200	>200	>200	>200	>200	>200
Reactive Cyanide	MG/KG	10.5	9%		0	1	11	10 U	10 U	10 U	10 U	10 U	10 U
Reactive Sulfide	MG/KG	0	0%		0	0	11	10 U	10 U	10 U	10 U	10 U	10 U

Notes:
(1) TCLP regulatory limits are based on 40 CFR 261.23 and 40 CFR 261.24.
(2) Total PCBs exceeding 1 ppm may not be acceptable to the landfill.
(3) Wastes may be considered corrosive with a pH $\leq$ 2 or $\geq$ 12.5.

U = compound was not detected
J = the reported value is an estimated concentration

Table B-1
Disposal Characterization Data
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility							SEAD-26	SEAD-26	SEAD-26	SEAD-26	SEAD-26
Location ID							SEAD-26	SEAD-26	SEAD-26	SEAD-26	SEAD-26
Matrix							SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID							26A0001	26B0001	26C0001	26D0001	26E0001
Sample Depth to Top of Sample							0	0	0	0	0
Sample Depth to Bottom of Sample							1	1	1	1	1
Sample Date							9/12/2005	9/12/2005	9/12/2005	9/12/2005	9/12/2005
Sample Type							SA	SA	SA	SA	SA
Study ID							RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Regulatory Limit [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
PCBs [2]												
Aroclor-1016	UG/KG	0	0%		0	0	11	18 U	17 U	18 U	18 U	17 U
Aroclor-1221	UG/KG	0	0%		0	0	11	18 U	17 U	18 U	18 U	17 U
Aroclor-1232	UG/KG	0	0%		0	0	11	18 U	17 U	18 U	18 U	17 U
Aroclor-1242	UG/KG	0	0%		0	0	11	18 U	17 U	18 U	18 U	17 U
Aroclor-1248	UG/KG	0	0%		0	0	11	18 U	17 U	18 U	18 U	17 U
Aroclor-1254	UG/KG	0	0%		0	0	11	18 U	17 U	18 U	18 U	17 U
Aroclor-1260	UG/KG	0	0%		0	0	11	18 U	17 U	18 U	18 U	17 U
TCLP VOCs												
TCLP 1,1-Dichloroethene	MG/L	0	0%	0.7	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP 1,2-Dichloroethane	MG/L	0	0%	0.5	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP Benzene	MG/L	0	0%	0.5	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP Carbon tetrachloride	MG/L	0	0%	0.5	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP Chlorobenzene	MG/L	0	0%	100	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP Chloroform	MG/L	0	0%	6	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP Methyl ethyl ketone	MG/L	0	0%	200	0	0	11	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TCLP Tetrachloroethene	MG/L	0.0041	9%	0.7	0	1	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP Trichloroethene	MG/L	0	0%	0.5	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP Vinyl chloride	MG/L	0	0%	0.2	0	0	11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TCLP SVOCs												
TCLP 1,4-Dichlorobenzene	MG/L	0	0%	7.5	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP 2,4,5-Trichlorophenol	MG/L	0	0%	400	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP 2,4,6-Trichlorophenol	MG/L	0	0%	2	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP 2,4-Dinitrotoluene	MG/L	0	0%	0.13	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP 2-Methylphenol	MG/L	0	0%	200	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP 3-Methylphenol	MG/L	0	0%	200	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP 4-Methylphenol	MG/L	0	0%	200	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP Hexachlorobenzene	MG/L	0	0%	0.13	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP Hexachlorobutadiene	MG/L	0	0%	0.5	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP Hexachloroethane	MG/L	0	0%	3	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP Nitrobenzene	MG/L	0	0%	2	0	0	11	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
TCLP Pentachlorophenol	MG/L	0	0%	100	0	0	11	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
TCLP Pyridine	MG/L	0	0%	5	0	0	11	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
TCLP Pesticides												
TCLP Endrin	MG/L	0	0%	0.02	0	0	11	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
TCLP Gamma-BHC/Lindane	MG/L	0	0%	0.4	0	0	11	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
TCLP Heptachlor	MG/L	0	0%	0.008	0	0	11	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
TCLP Heptachlor epoxide	MG/L	0	0%	0.008	0	0	11	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U

Table B-1
Disposal Characterization Data
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility							SEAD-26	SEAD-26	SEAD-26	SEAD-26	SEAD-26
Location ID							SEAD-26	SEAD-26	SEAD-26	SEAD-26	SEAD-26
Matrix							SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID							26A0001	26B0001	26C0001	26D0001	26E0001
Sample Depth to Top of Sample							0	0	0	0	0
Sample Depth to Bottom of Sample							1	1	1	1	1
Sample Date							9/12/2005	9/12/2005	9/12/2005	9/12/2005	9/12/2005
Sample Type							SA	SA	SA	SA	SA
Study ID							RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Regulatory Limit [1]**	**Number of Exceedances**	**Number of Times Detected**	**Number of Samples Analyzed**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
TCLP Methoxychlor	MG/L	0	0%	10	0	0	11	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
TCLP Technical chlordane	MG/L	0	0%	0.03	0	0	11	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
TCLP Toxaphene	MG/L	0	0%	0.5	0	0	11	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U
TCLP Herbicides												
TCLP 2,4,5-TP/Silvex	MG/L	0	0%	1	0	0	11	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
TCLP 2,4-D	MG/L	0	0%	10	0	0	11	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
TCLP Inorganics												
TCLP Arsenic	MG/L	0	0%	5	0	0	11	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
TCLP Barium	MG/L	0.81	100%	100	0	11	11	0.22	0.38	0.36	0.44	0.43
TCLP Cadmium	MG/L	0.0068	55%	1	0	6	11	0.001 U	0.0014	0.0018	0.001 U	0.001 U
TCLP Chromium	MG/L	0	0%	5	0	0	11	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
TCLP Lead	MG/L	0.32	55%	5	0	6	11	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
TCLP Mercury	MG/L	0	0%	0.2	0	0	11	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
TCLP Selenium	MG/L	0	0%	1	0	0	11	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U
TCLP Silver	MG/L	0	0%	5	0	0	11	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Wet Chemistry												
Corrosivity (pH) [3]	S.U.	8.5	100%		0	11	11	8.5	7.86	7.64	8.1	8.29
Flashpoint	øF	>200	100%	<140	0	11	11	>200	>200	>200	>200	>200
Reactive Cyanide	MG/KG	10.5	9%		0	1	11	10.5	10 U	10 U	10 U	10 U
Reactive Sulfide	MG/KG	0	0%		0	0	11	10 U	10 U	10 U	10 U	10 U

Notes:
(1) TCLP regulatory limits are based on 40 CFR 261.23 and 40 CFR 261.24.
(2) Total PCBs exceeding 1 ppm may not be acceptable to the landfill.
(3) Wastes may be considered corrosive with a pH ≤ 2 or ≥ 12.5.

U = compound was not detected
J = the reported value is an estimated concentration

Appendix C

Daily Reports

Daily Field Report
Seneca Army Depot – SEAD 25 and 26 Removal Action

JOB NAME	SEAD 25 & 26 Remediation	DATE	November 7, 2005
CONTRACT	PBC-1	REPORT NO.	001
PROJECT		WEATHER	Sunny
JOB #	744538-03200	TEMPERATURE	42° to 54°
CLIENT	AFCEE	TIME/HRS	07:00 –16:30

Equipment	Model/Type	Quantity	Work Force/Trade	Quantity
Tom Andrews Truck	Pickup	1	Tom Andrews	10
Rental Car	Hertz	1	Ben McAllister, Sup't	12
Komatsu PC330 (Sessler)	Track Hoe	1	Craig Sessler	9
Volvo 850BM (Sessler)	Off-road dump	1	Brian Sessler	9
			Jeff Ingaszak	9
			Ray Slatton	7

MATERIALS: MOVED, DELIVERED TO, OR REMOVED FROM THE JOBSITE

Material Removed/Delivered	Quantity	Source	Manifest
Estimated 300 yards of material brought to stockpile	20 truckloads	SEAD 25 Ditch	None

Work in progress or complete (including subcontractors):

- Safety Indoctrination meeting with Sessler and Seneca Army Depot personnel attendance list attached as PDF.
- Clear the southwestern side of the SEAD 25 ditch for the truck and excavator.
- Perform test pit in the SEAD 25 pad excavation area to collect waste characterization sample 25D0006. No visible sheen or product. The depth to bedrock is 4.5 feet in the center of the excavation.
- For Steve Absolom, measure and check remaining tanks in SEAD 26. The two upright tanks have 24 inches of product in the tanks, and will need to be cleaned and removed.
- At 11:00, Sessler blocks northern culvert with clean material excavated from the bank and begins the excavation of the ditch sediments. Tom Andrews has made the decision to remove the entire contents of the ditch to the shale to recover the greatest amount of contaminated material. This has increased the amount of material to be removed from the designed 2' X 3' removal at the bottom of the ditch.
- The resulting excavation in the SEAD 25 ditch is approximately 12 feet wide and on average 3 feet deep.
- Sessler has brought a mechanic out to modify the dump bed of the truck to contain the wetter material in the truck during transport.
- Sessler has removed a total of 205 feet of the trench the first day, resulting in 20 truckloads to the SEAD-25 Pad stockpile

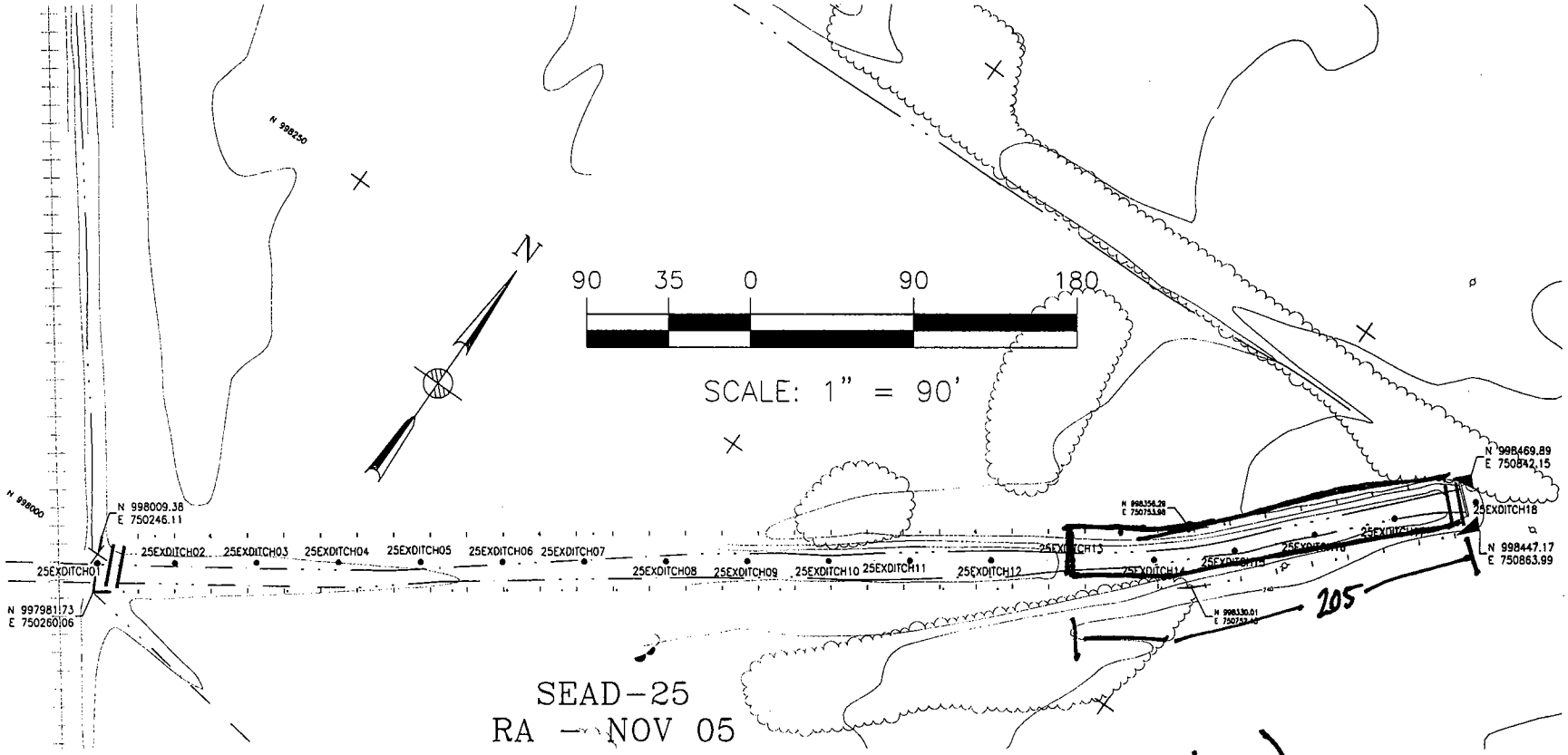
Verbal discussions/Instructions:

- Steve Absolom would like the material in the tanks at SEAD 26 tested for TPH and PCBs.

Visitors and Subcontractors:

- None

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.



(11/07/05 205 feet excavated 12 feet wide 3 feet deep)

Tailgate Safety Meeting Attendance Log

Date: November 7th	**Time:** 0800	**Project: SEAD-25 26 Remedial Action**
Delivery Order Number:	**Location: Seneca Army Depot Activity, Romulus, NY**	
Weather Conditions: (Low/High Temp, Wind/Speed/Dir) (Severe Weather)	Overcast 45 to 54°	
Safety Meeting Topic (Briefly describe)		

Attendees:

Name	Signature	Company
STEPHEN ABSOLOM		SEDA
CRAIG SESSLER		SESSLER Wrecking
RANDY BATTAGLIA		USACE
JEFFREY IGNASZAK		SESSLER
RAY CURTIN		SESSLER
Brian Sessler		Sessler
Tom Battaglia		USACE
T Hathaway		Parsons
Janet Fallo		USACE

Ben McAllister
Site Health and Safety Officer

Maintain in project files in Parsons Field Office.

PARSONS

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	November 8, 2005
CONTRACT	PBC 1	REPORT NO.	002
JOB #	744538-3200	TIME	06:30 – 18:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Sun 43° to 62° Wind 0 to 15mph SSW

II. Personnel On-site

Name	Company/Organization	Role
Tom Andrews	Parsons	Construction Manager
Ben McAllister	Parsons	HASO
Brian Sessler	Sessler	Operator
Jeff Ingaszak	Sessler	Foreman
Ray Slatton	Sessler	Operator

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
Steve Absolom	Army	13:00/.5hr

IV. Equipment On-site

Equipment	Model/Type	Qty
Excavator	Hitachi/Lc330	1
Dump Truck	Volvo 850BM	1
Dozer	John Deer	1
Dust Monitor	Thermo 4000	2
OVM	Rae	1

V. Narrative of Work Performed (including <u>problems encountered</u> and <u>corrective actions</u> taken)

Sessler excavated 560 yards of material from the SEAD 25 ditch between stations 2+05 and 7+65. The excavated material was moved to the SEAD 25 excavation area where it was placed on 6mil poly and surrounded by silt fencing. Security fencing was installed around the SEAD 25 exclusion zone and soil stockpile area. The SEAD 25 ditch excavation length, width and depth were measured every 25 feet the entire length of the excavation. The excavation measurement data was used in the attached table to calculate the volume of the material removed from the ditch calculated to be 560 cubic yards. The excavation depth of the SEAD 25 ditch was taken to the competent shale so no confirmation samples were collected. The access road for the SEAD 25 ditch was re-graded with the dozer and any remaining vegetative debris was removed from the work site. The debris removal at SEAD 26 was started with the removal of the small intermodal container and one of the 10 X 18 foot steel tanks.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Source	Hauler
None			

Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

Heavy Equipment Inspection performed on all equipment records in field file.

VIII. Sample Collection

Total number of samples collected today: None
(Bottles delivered at 17:30)
See attached Sample Collection Table for details.

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

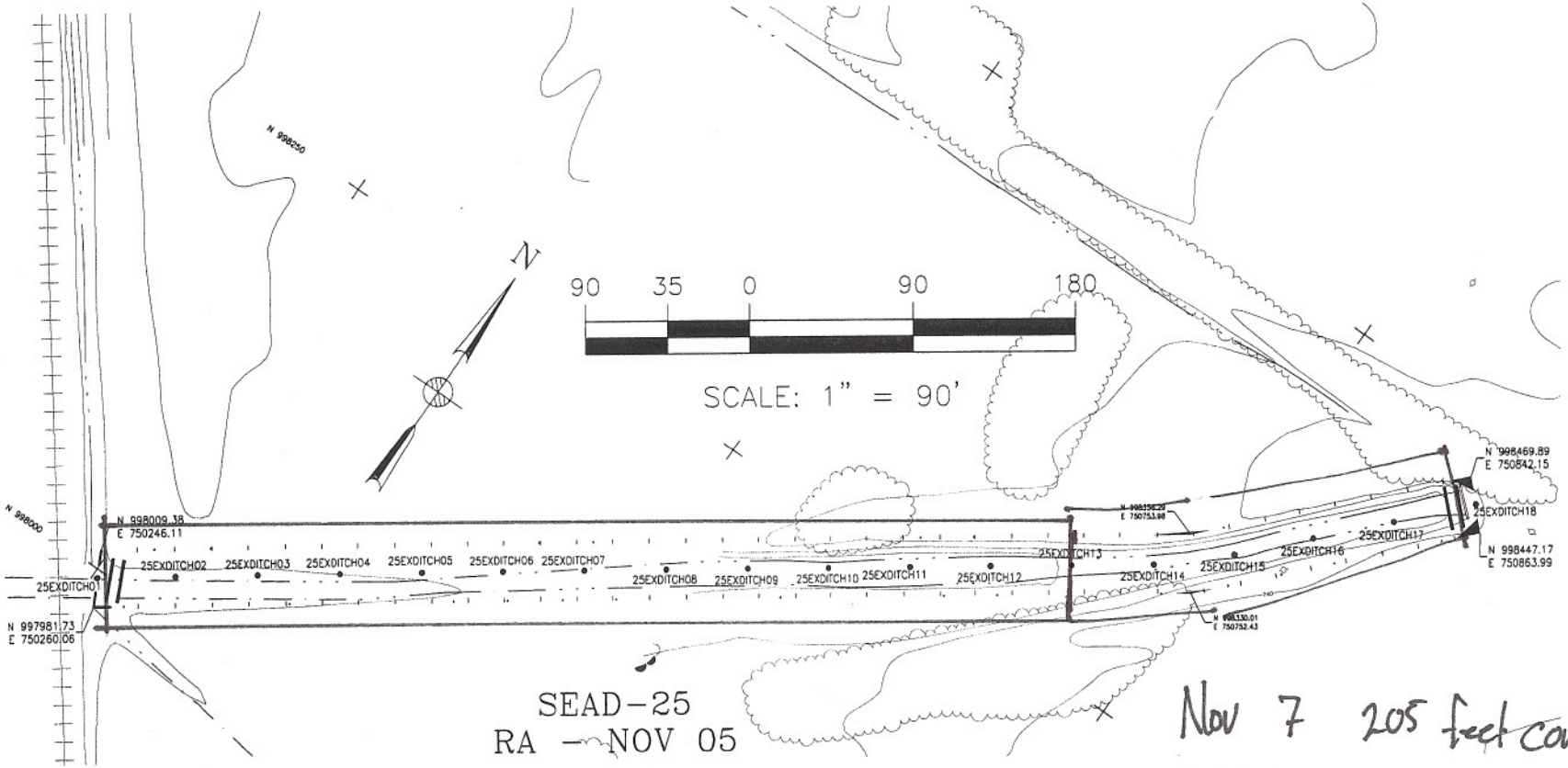
Dust Monitor	Arrived 17:30	GPS	None	Petro Kit	None
OVM	None	Water Level	None	Other	None

X. Excavation Progress

Amount Excavated today: 560 Cy
See attached diagram for Progress Sketch.

Accidents reported today:	0	Accidents to date:	0	Days On-Site	0

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.



Nov 8 Remaining 560 feet completed

Nov 7 205 feet completed
244 cy

Tailgate Safety Meeting Attendance Log

Date: November 8 2005	**Time:** 0700	**Project: SEAD-25 26 Remedial Action**
Delivery Order Number:	**Location: Seneca Army Depot Activity, Romulus, NY**	
Weather Conditions: 45-60 **(Low/High Temp, Wind/Speed/Dir)** **(Severe Weather)** overcast		
Safety Meeting Topic **(Briefly describe)**	① slip trip fall 2. fueling vehicles 3. Bank slope & working around equipment 4. Fire extinguishers 5. Backup Alarm	

Attendees:

Name	Signature	Company
Ben McAllister	Ben McAllister	PARSONS
JEFF IGNASZAK.		SESSLER WRECKING.
Brian Sessler	Brian Sessler	Sessler Wrecking
RAY SLAYTON	Ray Slayton	SESSLER

Ben McAllister
Site Health and Safety Officer

Maintain in project files in Parsons Field Office.

PARSONS

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	November 9, 2005
CONTRACT	PBC 1	REPORT NO.	003
JOB #	744538-3200	TIME	06:30 – 18:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Overcast with torrential rain and lightning, 43° to 52° Wind South west at 15 to 35mph

II. Personnel On-site

Name	Company/Organization	Role
Ben McAllister	Parsons	HASO
Brian Sessler	Sessler	Operator
Jeff Ingaszak	Sessler	Foreman
Ray Slatton	Sessler	Operator

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
None		

IV. Equipment On-site

Equipment	Model/Type	Qty
Excavator	Hitachi/Lc330	1
Dump Truck	Volvo 850BM	1
Dozer	John Deer	1
Dust Monitor	Thermo 4000	1
OVM	Rae	1

V. Narrative of Work Performed (including problems encountered and corrective actions taken)

- Tailgate Safety Meeting with Sessler and Parsons
  - Fire Extinguisher use and placement
  - Backup alarm on the Hitachi LC330
  - Stop work procedure for severe weather and policy of working during lightning.
- The excavator removed 1 foot of soil in SEAD 26 Area B to be hauled out tomorrow. This material was covered with plastic to reduce the impact of the rain on the material.
- Removed willow tree in SEAD 26 Area A and removed 70% of the soil in this area.
- Crushed and removed the four vehicles and the remaining scrap metal in SEAD 26.
- Attached the grapple to the excavator and demolished the trailer for disposal.
- Collected the offsite fill material sample from the borrow pit in Waterloo. Sample was submitted to Chemtech for VOCs, SVOCs, Metals, Mercury, and Cyanide for a three day turnaround.
- At SEDA's request, a sample was collected of the material remaining in the two tanks in SEAD 26. These samples will be submitted for TPH and PCBs.
- Received non-hazardous waste manifests from Earthwatch™ at 16:30 to be signed by Seneca Army Depot Environmental Coordinator.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Source	Hauler
vehicles	4	SEAD 26 fire training area	Sessler
Miscellaneous Debris	NA	SEAD 26 fire training area	Sessler

Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

- Samples of the tank material and offsite backfill material sent to Chemtech™ for analysis.
- The dust monitor was set up downwind of the SEAD 26 Area B excavation until it started raining at 9:04 when the instrument was removed due to heavy rain.
- OVM readings of the SEAD 26 Area A and SEAD 26 Area B excavation were 0.0ppm.
- Heavy equipment inspection performed on all equipment records in field file.
- Trench inspection was not performed due to shallow nature of the excavation at less than 1 foot.

VIII. Sample Collection

Total number of samples collected today: 3

See attached Sample Chain of Custody for details.

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

Dust Monitor	1	GPS	1	Petro Kit	None
OVM	None	Water Level	None	Other	None

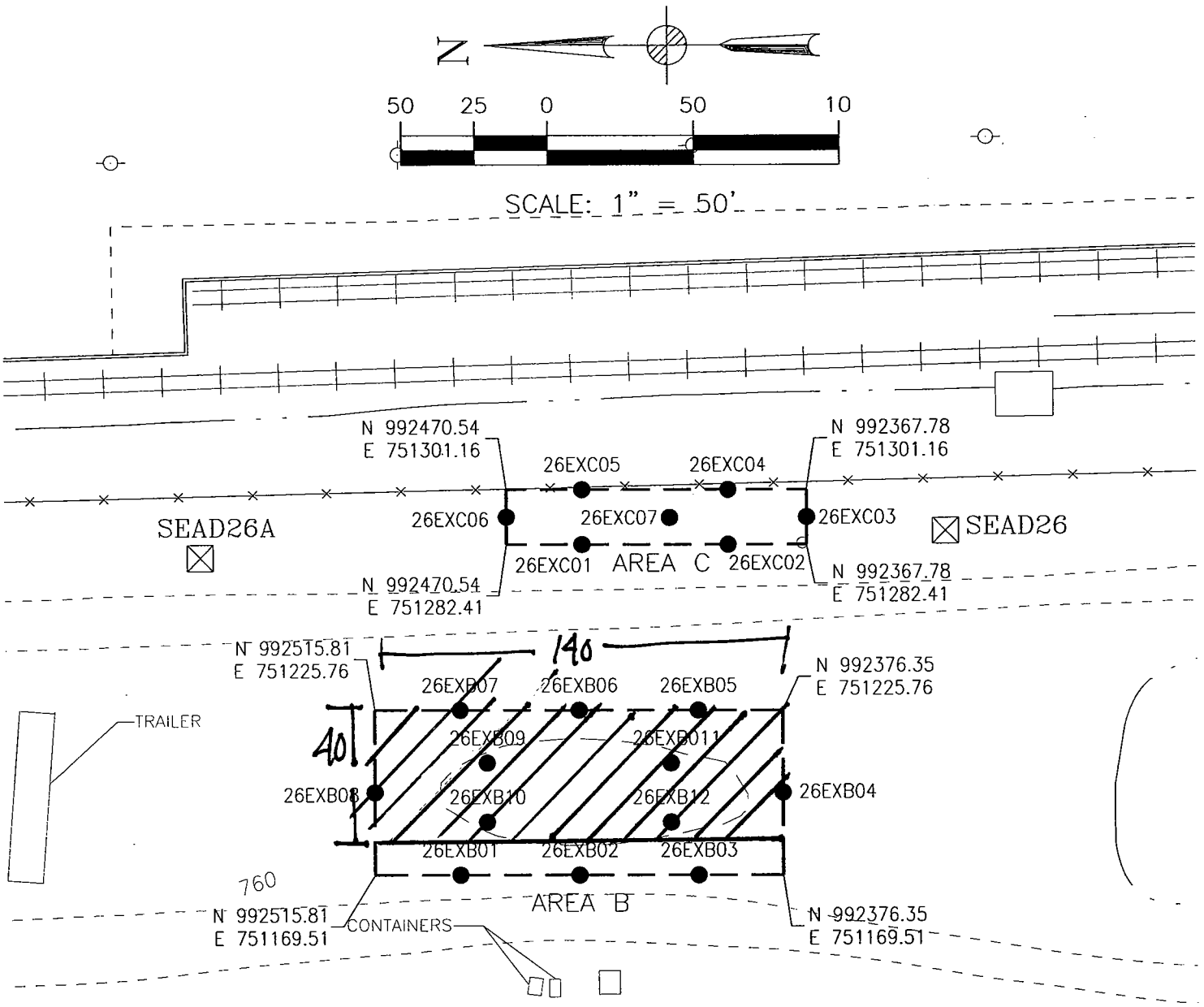
X. Excavation Progress

Amount Excavated today: 317 Cy

See attached diagram for Progress Sketch.

Accidents reported today:	0	Accidents to date:	0	Days On-Site	0

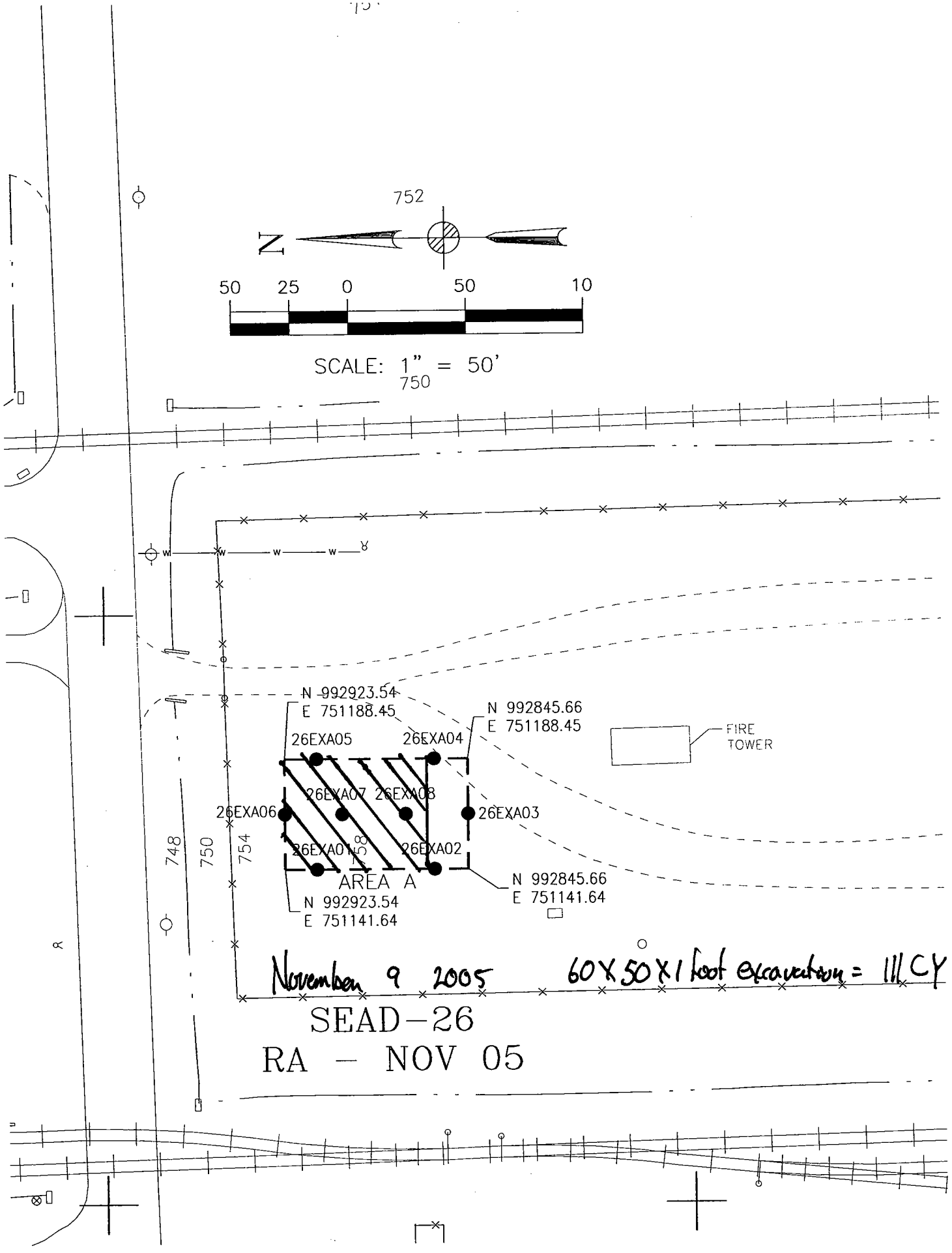
Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.



November 9 140 X 40 X 1 foot excavation = 207 CY

SEAD-26

RA - NOV 05


752
N
50 25 0 50 10
SCALE: 1" = 50'
750
N 992923.54
E 751188.45
N 992845.66
E 751188.45
26EXA05
26EXA04
FIRE TOWER
26EXA07
26EXA08
26EXA06
26EXA03
26EXA01
26EXA02
AREA A
N 992845.66
E 751141.64
N 992923.54
E 751141.64
748
750
754
November 9 2005
60 X 50 X 1 foot excavation = 111 CY
SEAD-26
RA - NOV 05

PARSONS

Daily Safety Meeting Attendance Log

Seneca Army Depot Romulus, NY

Date: November 9 2005	Time: 0700	Job #:744538-00000
Contract Number: AFCEE - WERC FA8903-04-D-8675 - DO#12		Location: Seneca Army Depot Activity – Biowall Installation – and Monitoring

Weather Conditions:
Temp: 45°
Wind/ Dir: 180

Anticipated Work Hours: 7- 5:00
Actual Work Hours: 7 to 3:30

Safety Meeting Topic:
1. fire extinguisher when fueling.
2. Backup alarm. on equip
3. lightning policy
4.
5.

Everyday Safety Meeting Topic:
1. Vehicle Safety Inspection
2. Biological Hazards (Deer)
3. Sun Safety
4. Slip Trip Fall Hazards
5. Vehicle Safety

Attendees:

Name:	Signature:	Company:	Time In:	Time Out:
Brian Sessler		sessler wrecking	0700	3:30
JEFF IGNASZAK.		SESSLER WRECKING.	0700.	3:30
RAY SCHAMTON		SESSLER WRECK	0700	3:30
Ben McAllister		PARSONS	0700	18:00

Aerosol Monitoring Form

PARSONS 150 FEDERAL STREET BOSTON MA 02110

Date: Nov 9 2005

Project: Seneca Army Depot Activity - SEAD 25 / 26 Remedial Action

Project No.: 744538- 09206

Location: SEAD 26

North - Serial #: None

Inspector: MA

Weather: Overcast 48°

East - Serial #: None

Crew:

Instrument Model: Thermo Tom D 934

South - Serial #: None

Location: SEAD 26

Calibration Date: 9-26-05

West - Serial #: None

Zero Date: Nov 8 2005

Time	Instrument	Particulate Count	Wind Dir.	Comments:
0736	Thermo 4	0.0	180	SEAD 26 C
0745	Thermo 4	0.0	180	" "
	Changed out	instrument		
0830	T4 D434	8.1 TWA	180	New Instrument
0845	T4 D434	8.6 TWA	180	
0904	Rain	stop	instrument	

PARSONS 150 FEDERAL STREET BOSTON MA 02110

Air Monitoring Instument
Calibration Log

Client: Seneca Army Depot Activity	Calibration Method: Ø A.V	Start Date: 11/9/05
Project: SEAD 25 / 26 Remedial Action	Calibration Gas Standard 100ppm	Project #:744538- 3200
Instrument Type:	Zero Air Source: background	Instument S/N:
Lamp Number: 11.8	Moisture Filer: (Y) N	Instrument Model:

Date	Calibration Gas Concentration	Pre-adjusted Reading	Adjustment Required? Yes/No	Span Gas Concentration Setting	Post-Cal Span Gas Reading	Maintenance Notes	Initials
11/9	100 ppm	101 ppm	No	Ø	Ø	None	Rea
11/10	100ppm	101ppm	No	Ø	Ø	None	

Project: SEAD 25126	Date: 11/9	Weather: Overcast	Soil Type: A
Trench Depth: 12in	Length: 140ft	Width: 60ft	Type of Protective System: None

Yes	No	N/A	Excavation
		✓	Excavations and Protective Systems inspected by Competent Person daily, before start of work.
✓			Competent Person has authority to remove workers from excavation immediately.
		✓	Surface encumbrances supported or removed.
✓			Employees protected from loose rock or soil.
✓			Hard hats worn by all employees.
		✓	Spoils, materials, and equipment set back a minimum of 2' from edge of excavation.
✓			Barriers provided at all remote excavations, wells, pits, shafts, etc.
		✓	Walkways and bridges over excavations 6' or more in depth equipped with guardrails.
✓			Warning vests, or other highly visible PPE provided and worn by all employees exposed to vehicular traffic.
✓			Employees prohibited from working or walking under suspended loads.
✓			Employees prohibited from working on faces of sloped or benched excavations above other employees.
	✓		Warning system established and used when mobile equipment is operating near edge of excavation.

Yes	No	N/A	Utilities
✓			Utility companies contacted and/or utilities located.
✓			Exact location of utilities marked when near excavation.
		✓	Underground installations protected, supported, or removed when excavation is open.

Yes	No	N/A	Wet Conditions
✓			Precautions taken to protect employees from accumulation of water.
		✓	Water removal equipment monitored by Competent Person.
✓			Surface water controlled or diverted.
✓			Inspection made after each rainstorm.

Yes	No	N/A	Hazardous Atmosphere
		✓	Atmosphere tested when there is a possibility of oxygen deficiency or build-up of hazardous gases.
		✓	Oxygen content is between 19.5% and 21%.
		✓	Ventilation provided to prevent flammable gas build-up to 20% of lower explosive limit of the gas.
✓			Testing conducted to ensure that atmosphere remains safe.
		✓	Emergency Response Equipment readily available where a hazardous atmosphere could or does exist.
✓			Employees trained in the use of Personal Protective and Emergency Response Equipment.
		✓	Safety harness and life line individually attended when employees enter deep confined excavation.

Signature of Competent Person, Date	Ben McAllister

SEAD 26 C excavation is 12 inches deep

PARSONS

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	November 10, 2005
CONTRACT	PBC 1	REPORT NO.	004
JOB #	744538-3200	TIME	06:30 – 18:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Overcast with torrential rain and lightning, 43° to 52° Wind South west at 15 to 35mph

II. Personnel On-site

Name	Company/Organization	Role
Brendan Baranak-Olmstead	Parsons	Tech
Ben McAllister	Parsons	HASO
Brian Sessler	Sessler	Operator
Jeff Ingaszak	Sessler	Foreman
Ray Slatton	Sessler	Operator

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
Chris McCune	Earthwatch	.5hr

IV. Equipment On-site

Equipment	Model/Type	Qty
Excavator	Hitachi/Lc330	1
Dump Truck	Volvo 850BM	1
Dozer	John Deer	1
Dust Monitor	Thermo 4000	1
OVM	Rae	1

V. Narrative of Work Performed (including <u>problems encountered</u> and <u>corrective actions</u> taken)

- Tailgate Safety Meeting with Sessler and Parsons
  - Fire Extinguisher use and placement
  - Safety Vest and Hard hat required
  - Safety Glasses required
- The excavator removed 1 foot of soil in SEAD 26 Areas B, A, C, D and E to be hauled out tomorrow.
- SEAD 26 C soil removal encountered concrete and scrap metal debris during soil removal. A confirmation sample was collected from the floor of the removed area to determine disposition of debris.
- Earthwatch could only provide 3 trucks for the day resulting in 9 loads sent to the landfill, far below the estimated production.
- Excavation contractor has completed 90% of soil removal in SEAD 26. The lack of trucks from Earthwatch is slowing disposal production.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number
SEAD 26 Area B Soil	34 ton*	Mangardi Trucking	#353170
SEAD 26 Area B Soil	34 ton*	Mangardi Trucking	#353171
SEAD 26 Area B Soil	34 ton*	Mangardi Trucking	#353172
SEAD 26 Area B Soil	34 ton*	Mangardi Trucking	#353173
SEAD 26 Area B Soil	34 ton*	Mangardi Trucking	#353174
SEAD 26 Area B Soil	34 ton*	Mangardi Trucking	#353175
SEAD 26 Area B Soil	34 ton*	Mangardi Trucking	#353176
SEAD 26 Area B Soil	34 ton*	Mangardi Trucking	#353177
SEAD 26 Area B Soil	34 ton*	Mangardi Trucking	#353178
* estimated weight	306 total		

Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

- Samples of the tank one and two material sent to Chemtech™ for additional VOC analysis.
- The dust monitor was set up downwind of the SEAD 26 Area E excavation readings taken every .5 hour
- OVM readings of the SEAD 26 Area B and SEAD 26 Area E excavation were 0.0ppm.
- Heavy equipment inspection performed on all equipment records in field file.
- Trench inspection was not performed due to shallow nature of the excavation at less than 1 foot.
- Confirmation samples were collected at SEAD 26 Area B and Area C

VIII. Sample Collection

Total number of samples collected today: 8

See attached Sample Chain Of Custody for details.

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

Dust Monitor	1	GPS	1	Petro Kit	None
OVM	None	Water Level	None	Other	None

X. Excavation Progress

Amount Excavated today: 339 Cy

See attached diagram for Progress Sketch.

Accidents reported today:	0	Accidents to date:	0	Days On-Site	0

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

SAMPLING RECORD - SURFACE SOIL/SEDIMENT

PARSONS **CLIENT:** USACOE **INSPECTOR :** **DATE:** 11/10/05

PROJECT: ~~SEAD 45/46/57~~ RI SEAD-25/26 Remediation

Plume Area:

SOIL TYPE

(SURFACE SOIL) SEDIMENT

COMMENTS:

MONITORING

INSTRUMENT	DETECTOR	READING

SAMPLE INFORMATION					SOIL INFORMATION					
LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (in) TOP	SAMPLE DEPTH (in) BOTTOM	TIME (military)	GRAB or COMPOSITE SAMPLE	SAMPLE DESCRIPTION (Burmister method)	USCS Classification	VOC Screen (PPM)	QC Split (yes or no)	Other Notes
26EXB04	26EXB04	0"	2"	1504	Grab					
26EXB05	26EXB05	0"	2"	1514	G					
26EXB06	26EXB06	0"	2"	1530	G					
26EXB07	26EXB07	0"	2"	1536	G					
26EXB08	26EXB08	0"	2"	1540	G					
26EXC07	26EXC07	0"	2"	1602	G					

Aerosol Monitoring Form

PARSONS 150 FEDERAL STREET BOSTON MA 02110

Project:	Seneca Army Depot Activity - SEAD 25 / 26 Remedial Action			Date	
Location:	SEAD 26	North - Serial #	D434	Project No.:	744538-
Weather:	overcast W 15-25 NNW	East - Serial #	—	Inspector:	MCA
Instrument Model:	Thermo 4600	South - Serial #	—	Crew:	
Calibration Date:	9-26-05	West - Serial #	—	Location:	
				Zero Date:	

Time	Instrument	Particulate Count	Wind Dir.	Comments:
08:00		0.0	NNW	15 to 20 mph winds
08:30		0.1	"	
08:50		0.1	"	
09:18		0.0	"	the ground is wet
09:43		0.0	"	
10:10		0.0	"	
10:28		0.1	"	
10:49		0.3	"	
11:33		0.1	"	
12:01		0.0	"	
12:36		0.1	"	
	Move Monitor	to	SEAD 26 E	
12:57		0.1		
13:31		0.1	"	
13:57		0.2	"	
14:29		0.2	"	
14:58		0.2	"	Time Weighted Avg.
15:42		0.2	"	
16:00		0.3	"	
16:30		0.3		End Data collection

PARSONS

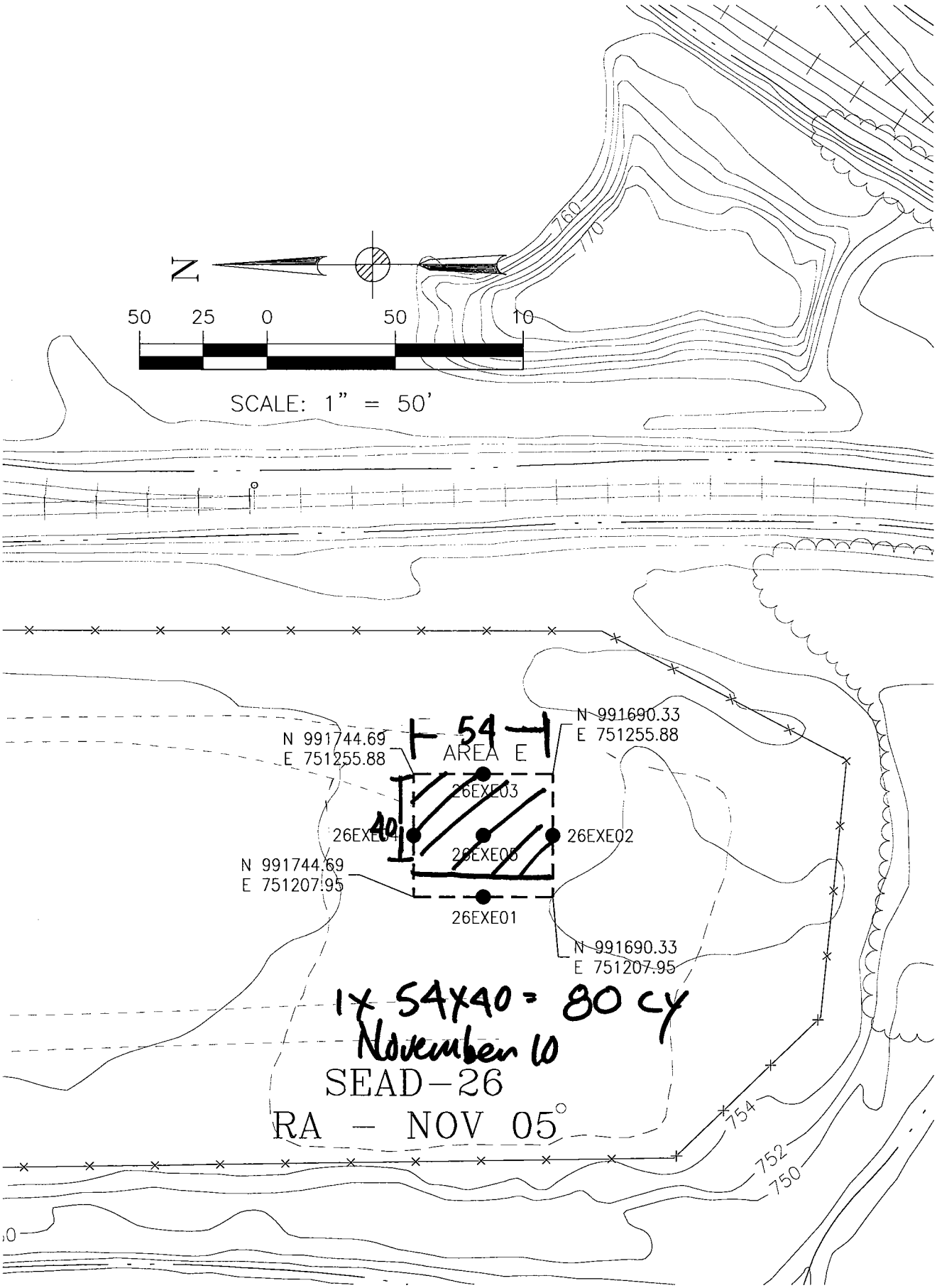
Daily Safety Meeting Attendance Log

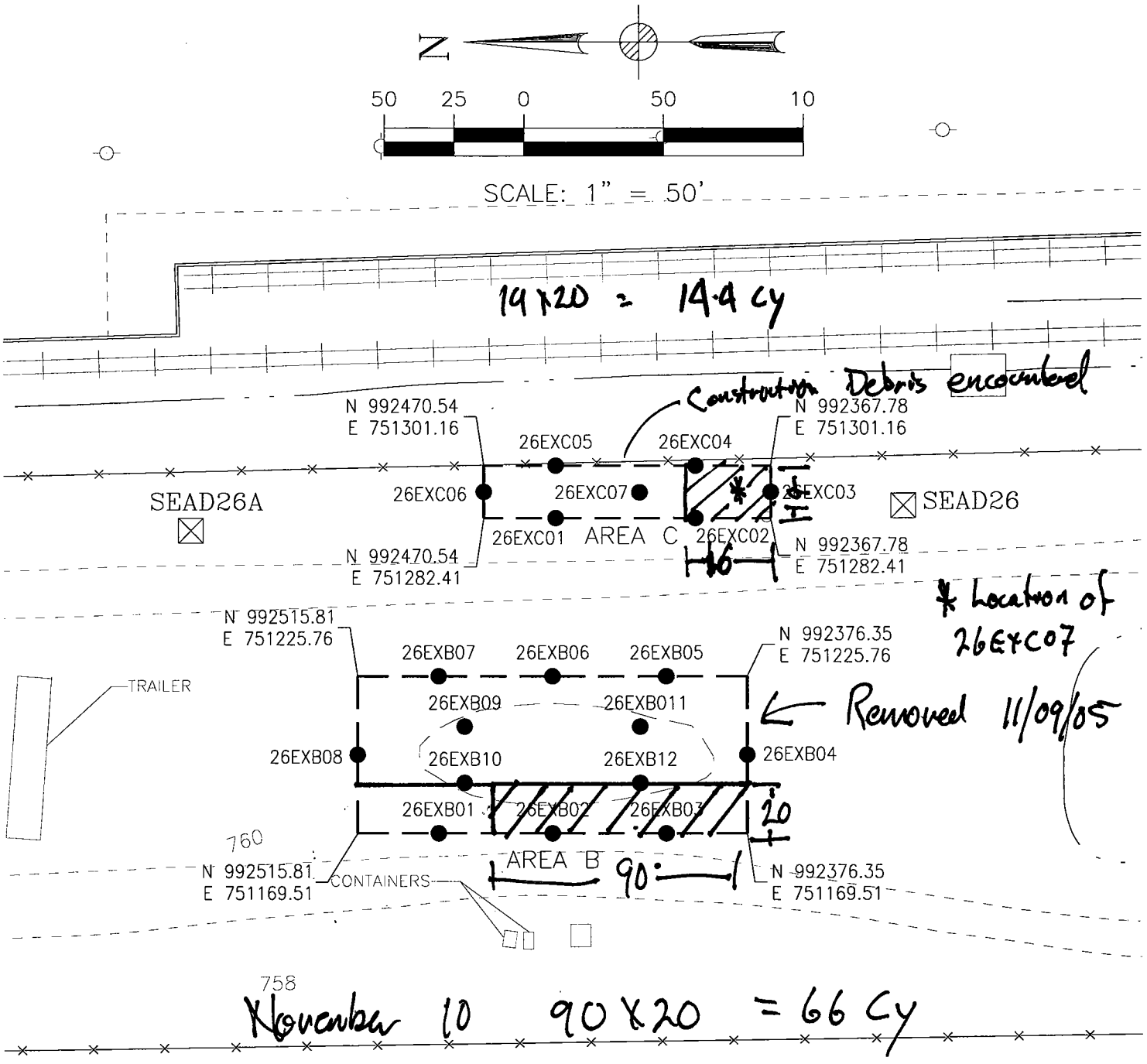
Seneca Army Depot Romulus, NY

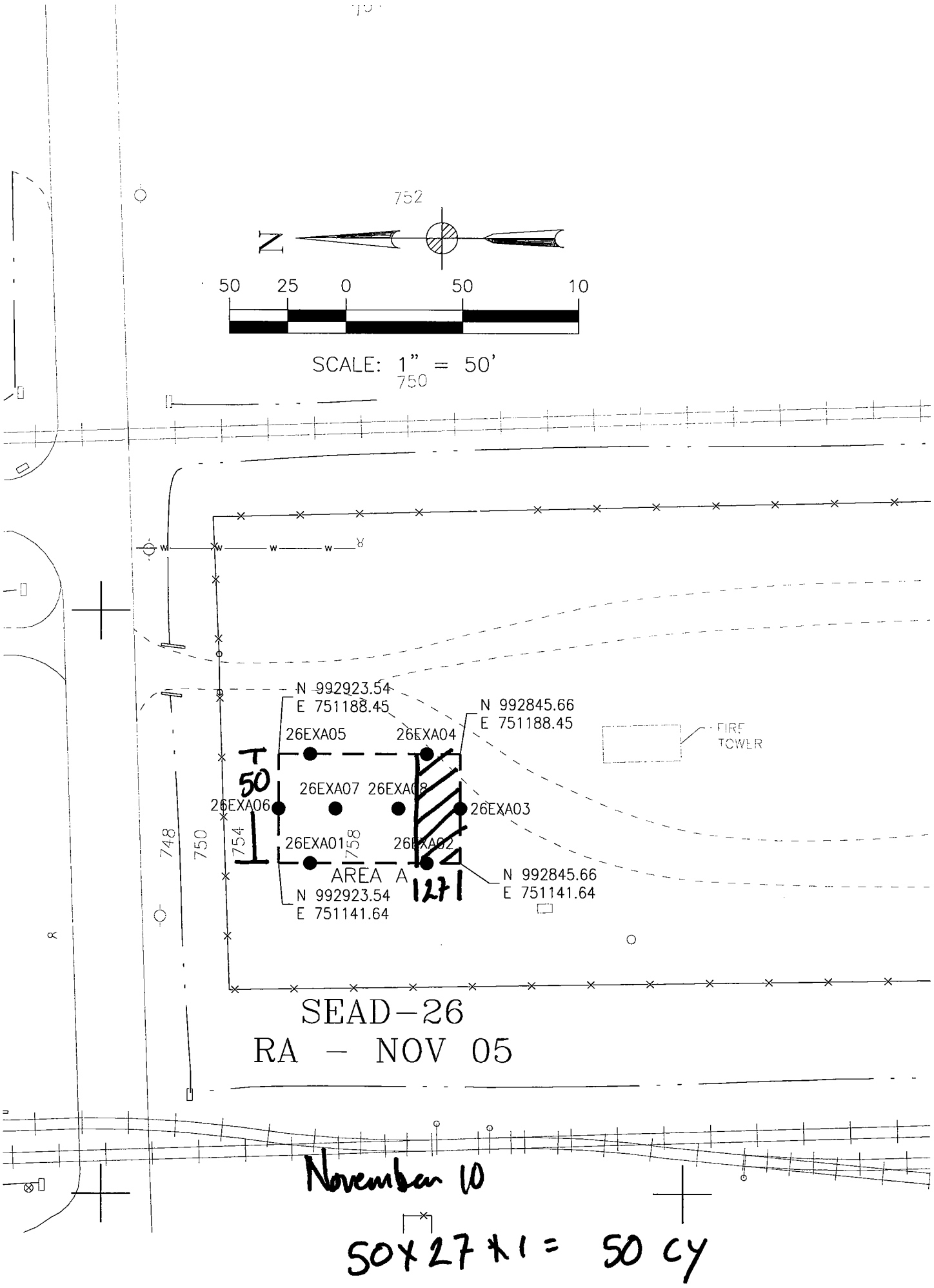
Date: November 10 2005	Time: 0700	Job #:744538-00000
Contract Number: AFCEE - WERC FA8903-04-D-8675 - DO#12		Location: Seneca Army Depot Activity – ~~Biowall Installation~~ – and Monitoring SEAD 26
Weather Conditions: Temp: 42.6 Wind/ Dir: NNE 10-20 mph		Anticipated Work Hours: 0700: 5:30 Actual Work Hours:
Safety Meeting Topic: 1. Safety Vests & Hard hats 2. Safety glasses in high wind 3. 4. 5.		**Everyday Safety Meeting Topic:** 1. Vehicle Safety Inspection 2. Biological Hazards (Deer) 3. Sun Safety 4. Slip Trip Fall Hazards 5. Vehicle Safety

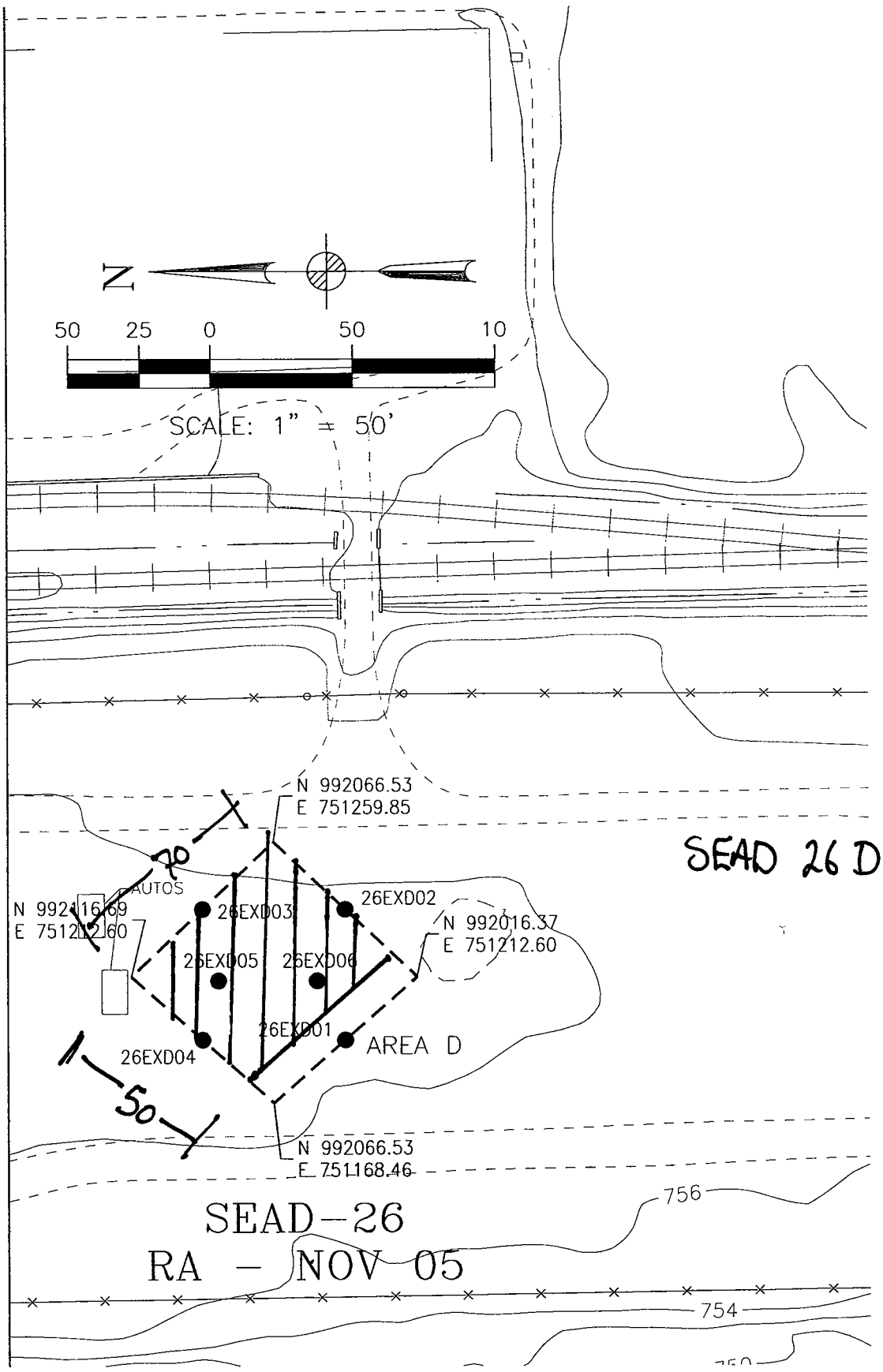
Attendees:

Name:	Signature:	Company:	Time In:	Time Out:
RAY SLAYTON	Ray Slayton	SESSLER WRECKING	7:00	
Brendan Barnard-Olmsted	Brendan Barnard-Olmsted	PARSONS	7:00	
JEFFREY IGNASIAK		SESSLER WRECKING	0700	
Brian Sessler		Sessler Wrecking	0700	
Ben McAllister	Ben McAllister	PARSONS	0700	


N
50 25 0 50 10
SCALE: 1" = 50'
760
770
N 991744.69
E 751255.88
54
AREA E
N 991690.33
E 751255.88
26EXE03
40
26EXE04
26EXE02
26EXE05
N 991744.69
E 751207.95
26EXE01
N 991690.33
E 751207.95
1 x 54 x 40 = 80 cy
November 10
SEAD-26
RA - NOV 05
754
752
750


N
50 25 0 50 10
SCALE: 1" = 50'
19 x 20 = 14.9 cy
Construction Debris encountered
N 992470.54
E 751301.16
N 992367.78
E 751301.16
26EXC05
26EXC04
SEAD26A
26EXC06
26EXC07
26EXC03
SEAD26
26EXC01
AREA C
26EXC02
N 992470.54
E 751282.41
N 992367.78
E 751282.41
16
* Location of 26EXC07
N 992515.81
E 751225.76
26EXB07
26EXB06
26EXB05
N 992376.35
E 751225.76
TRAILER
26EXB09
26EXB011
Removed 11/09/05
26EXB08
26EXB10
26EXB12
26EXB04
26EXB01
26EXB02
26EXB03
20
760
AREA B
90
N 992515.81
E 751169.51
CONTAINERS
N 992376.35
E 751169.51
758
November 10 90 x 20 = 66 cy
SEAD-26
750
RA - NOV 05


752
N
50 25 0 50 10
SCALE: 1" = 50'
750
N 992923.54
E 751188.45
N 992845.66
E 751188.45
26EXA05
26EXA04
FIRE TOWER
T
50
26EXA07
26EXA08
26EXA06
26EXA03
748
750
754
758
26EXA01
26EXA02
AREA A
127 1
N 992845.66
E 751141.64
N 992923.54
E 751141.64
SEAD-26
RA - NOV 05
November 10
50 x 27 x 1 = 50 cy



SEAD 26 D

November 10 2005 excavated 70x50 = 129 Cy

PARSONS

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	November 11, 2005
CONTRACT	PBC 1	REPORT NO.	005
JOB #	744538-3200	TIME	06:30 – 18:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Overcast, 54° to 62° Wind South west at 5 to 10mph

II. Personnel On-site

Name	Company/Organization	Role
Brendan Baranak-Olmstead	Parsons	Tech
Ben McAllister	Parsons	HASO
Ray Slatton	Sessler	Operator

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit

IV. Equipment On-site

Equipment	Model/Type	Qty
Excavator	Hitachi/Lc330	1
Dust Monitor	Thermo 4000	2
OVM	Rae	1

V. Narrative of Work Performed (including problems encountered and corrective actions taken)

- Tailgate Safety Meeting with Sessler and Parsons
  - Working around trucks and overhead loading
  - Safety Vest for visibility
  - Safety Glasses required
- The excavation contractor removed the final 1 foot of soil in SEAD 26 Area B. The area measures 50ft. X 20ft. = 37 Cy.
- Received a telephone call from Earthwatch at 11:30. The trucking company they had contracted with reassigned four of the trucks to another job.
- At 12:00 Sessler was released from the site for the day due to the lack of trucks to haul material to the landfill.
- Earthwatch could only provide 5 trucks for 1/2 day resulting in 8 loads sent to the landfill, far below the estimated production.
- Excavation contractor has completed 90% of the soil removal in SEAD 26. The lack of trucks from Earthwatch is slowing production.
- Surveyed the entire length of the SEAD 25 ditch and location of the soil samples collected in SEAD 26.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number
SEAD 26 Area B Soil	34 ton*	Mangardi Trucking	#353179
SEAD 26 Area B Soil	34 ton*	Mangardi Trucking	#353180
SEAD 26 Area B Soil	34 ton*	Mangardi Trucking	#353181
SEAD 26 Area B Soil	34 ton*	Mangardi Trucking	#353182
SEAD 26 Area B Soil	34 ton*	Intrastate Trucking	#353183
SEAD 26 Area B Soil	34 ton*	Intrastate Trucking	#353184
SEAD 26 Area B Soil	34 ton*	Intrastate Trucking	#353185
SEAD 26 Area B Soil	34 ton*	Intrastate Trucking	#353186
* estimated weight	272 tons total		

Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

- No samples sent to the lab.
- The dust monitor was set up downwind of the SEAD 26 Area B excavation readings taken every .5 hour TWA is 0.3ug/M^3

VIII. Sample Collection

Total number of samples collected today: 0

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

Dust Monitor	2	GPS	1	Petro Kit	None
OVM	None	Water Level	None	Other	None

X. Excavation Progress

Amount Excavated today: 37 Cy

See attached diagram for Progress Sketch.

Accidents reported today:	0	Accidents to date:	0	Days On-Site	0

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

PARSONS

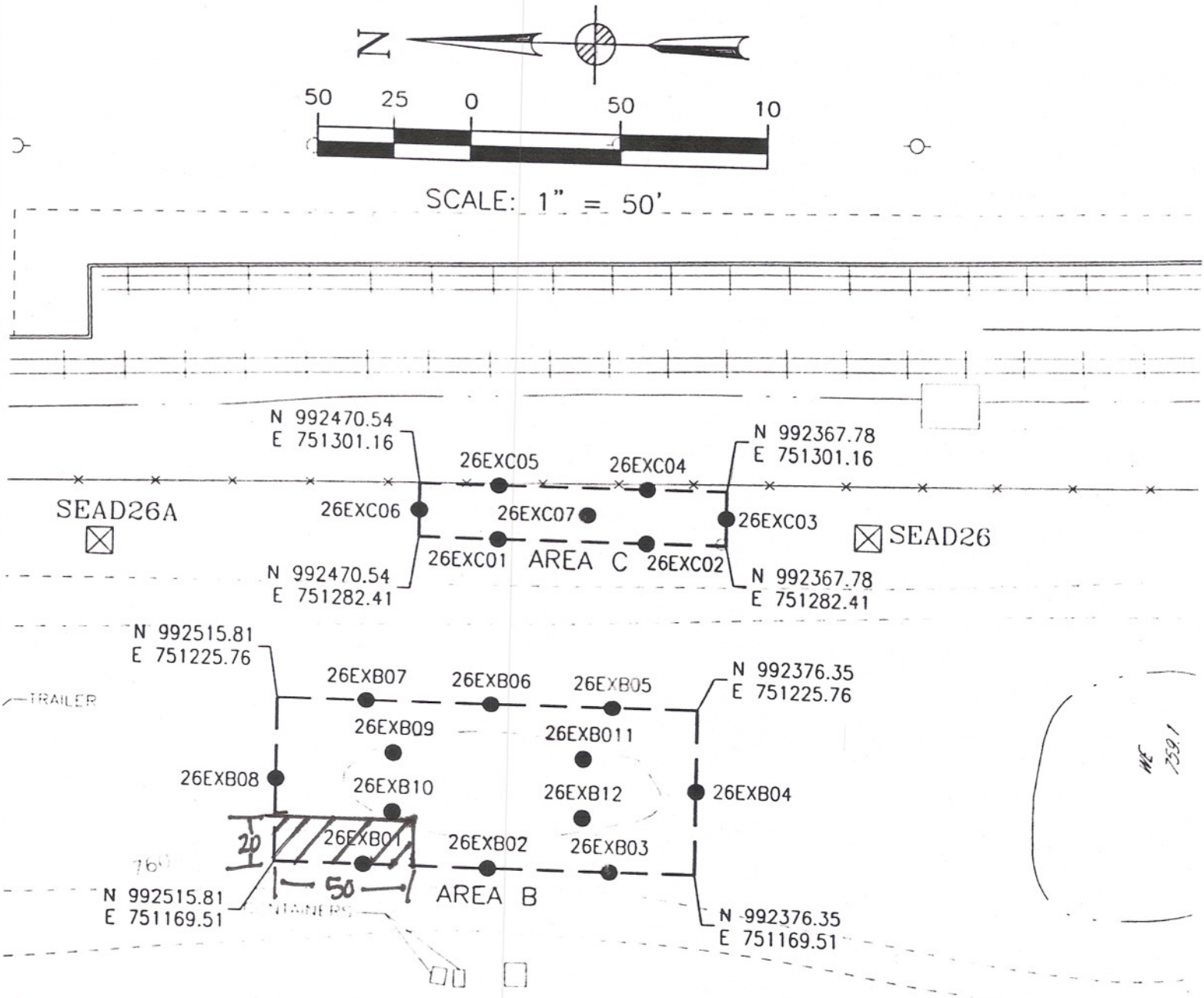
Daily Safety Meeting Attendance Log

Seneca Army Depot Romulus, NY

Date: November 11 2005	Time: 0700	Job #:744538-00000
Contract Number: AFCEE - WERC FA8903-04-D-8675 - DO#12		Location: Seneca Army Depot Activity – Biowall Installation – and Monitoring
Weather Conditions: Temp: 34-40 Wind/ Dir: NNW 0-5mph		Anticipated Work Hours: 7:00-5:00 Actual Work Hours: 7: 12:00
Safety Meeting Topic: 1. Weather Work Policy 2. 3. Wet Slippery conditions 4. 5. Trees & Tree Work under load		**Everyday Safety Meeting Topic:** (1) Vehicle Safety Inspection 2. Biological Hazards (Deer) 3. Sun Safety (4) Slip Trip Fall Hazards (5) Vehicle Safety

Attendees:

Name:	Signature:	Company:	Time In:	Time Out:
Brendan Baranek-Olmstead		Parsons	7:00	
Ben McAllister		PARSONS	8:00	
RAY SLAYTON		SESSLER WRECKING	7:00	



November 11th 1000ft excavated = 50 X 20 = 37.03 cy

SEAD-26

RA - NOV 05

SEAD 25 B 100% excavated to 1 foot

PARSONS

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	November 14, 2005
CONTRACT	PBC 1	REPORT NO.	006
JOB #	744538-3200	TIME	06:30 – 15:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Sunny, 53° to 62° Wind North West at 5 to 15mph

II. Personnel On-site

Name	Company/Organization	Role
Brendan Baranak-Olmstead	Parsons	Tech
Ben McAllister	Parsons	HASO
Brian Sessler	Sessler	Operator
Jeff Ingaszak	Sessler	Foreman
Ray Slatton	Sessler	Operator

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
None		

IV. Equipment On-site

Equipment	Model/Type	Qty
Excavator	Hitachi/Lc330	1
Dump Truck	Volvo 850BM	0
Dozer	John Deer	0
Dust Monitor	Thermo 4000	2
OVM	Rae	1

V. Narrative of Work Performed (including <u>problems encountered</u> and <u>corrective actions</u> taken)

- Tailgate Safety Meeting with Sessler and Parsons
  - Overhead load on trucks
  - Safety vest and hard hat required
  - Safety glasses required
- The excavation contractor completed the soil removal at SEAD 26 and moved to SEAD 25 for load out of the ditch material.
- Earthwatch provided 10 trucks to haul material to the landfill resulting in 33 truckloads removed from the site.
- 20 tons of lime was delivered by Sessler to solidify the wet material from the SEAD 25 ditch.
- Only 15 confirmation samples remain to be collected at SEAD 26.
- The truck drivers were provided with disposable overboots for the contaminated material at SEAD 25D.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number
21 trucks from SEAD 26	693 ton*	Mangardi Trucking	
12 trucks from SEAD 25 Ditch	396 ton*	Mangardi Trucking	
* estimated weight	Total 1089*		

Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

- The dust monitor was set up downwind of the SEAD 25 excavation. Readings taken every .5 hour
- OVM readings of the SEAD 26 Area B and SEAD 26 Area E excavation were 0.0 ppm.
- Heavy equipment inspection performed on all equipment records in field file.
- Trench inspection was not performed due to shallow nature of the excavation at less than 1 foot.

VIII. Sample Collection

Total number of samples collected today: 0

See attached Sample Chain Of Custody for details.

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

Dust Monitor	2	GPS	1	Petro Kit	None
OVM	None	Water Level	None	Other	None

X. Excavation Progress

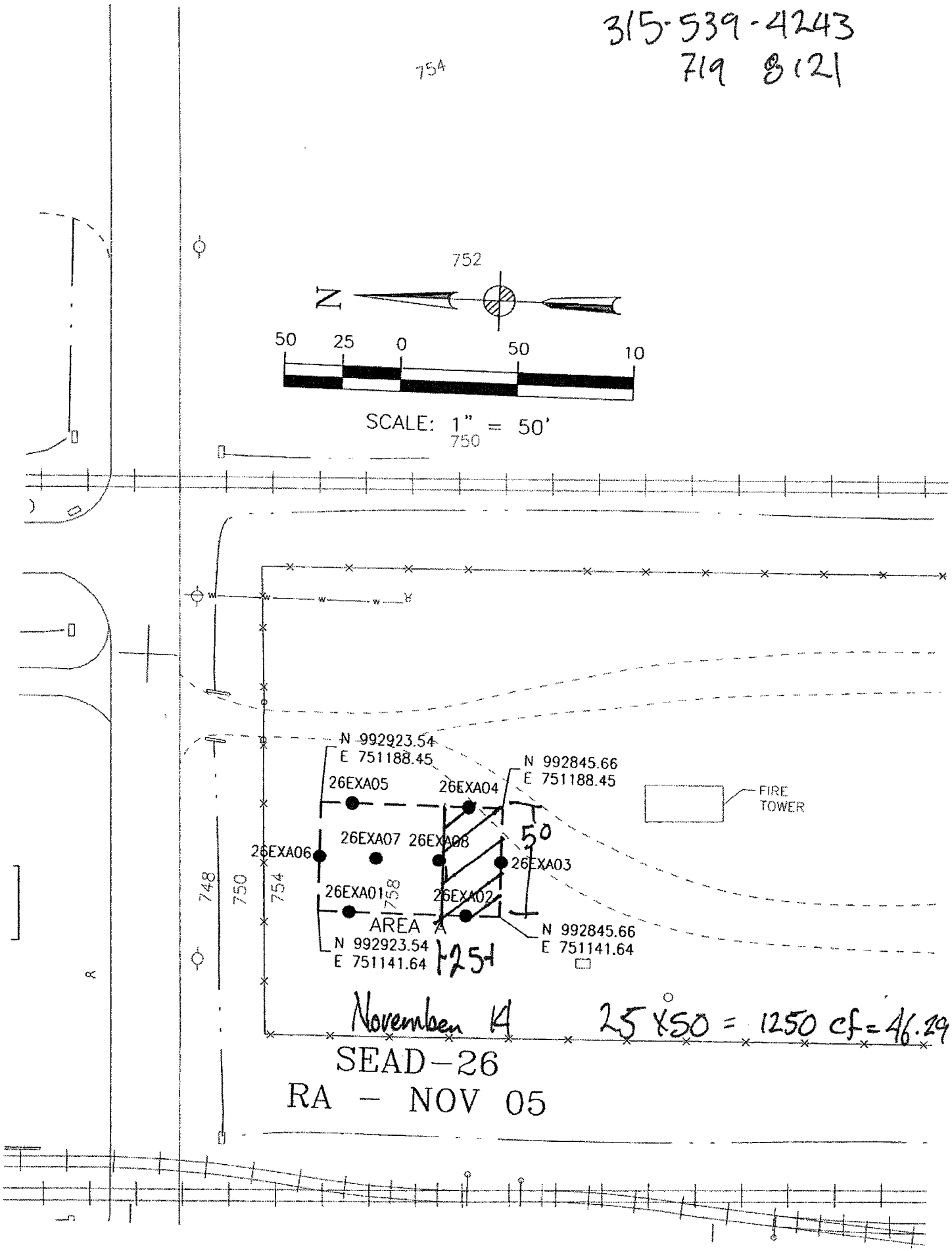
Amount Excavated today: 159.8 Cy

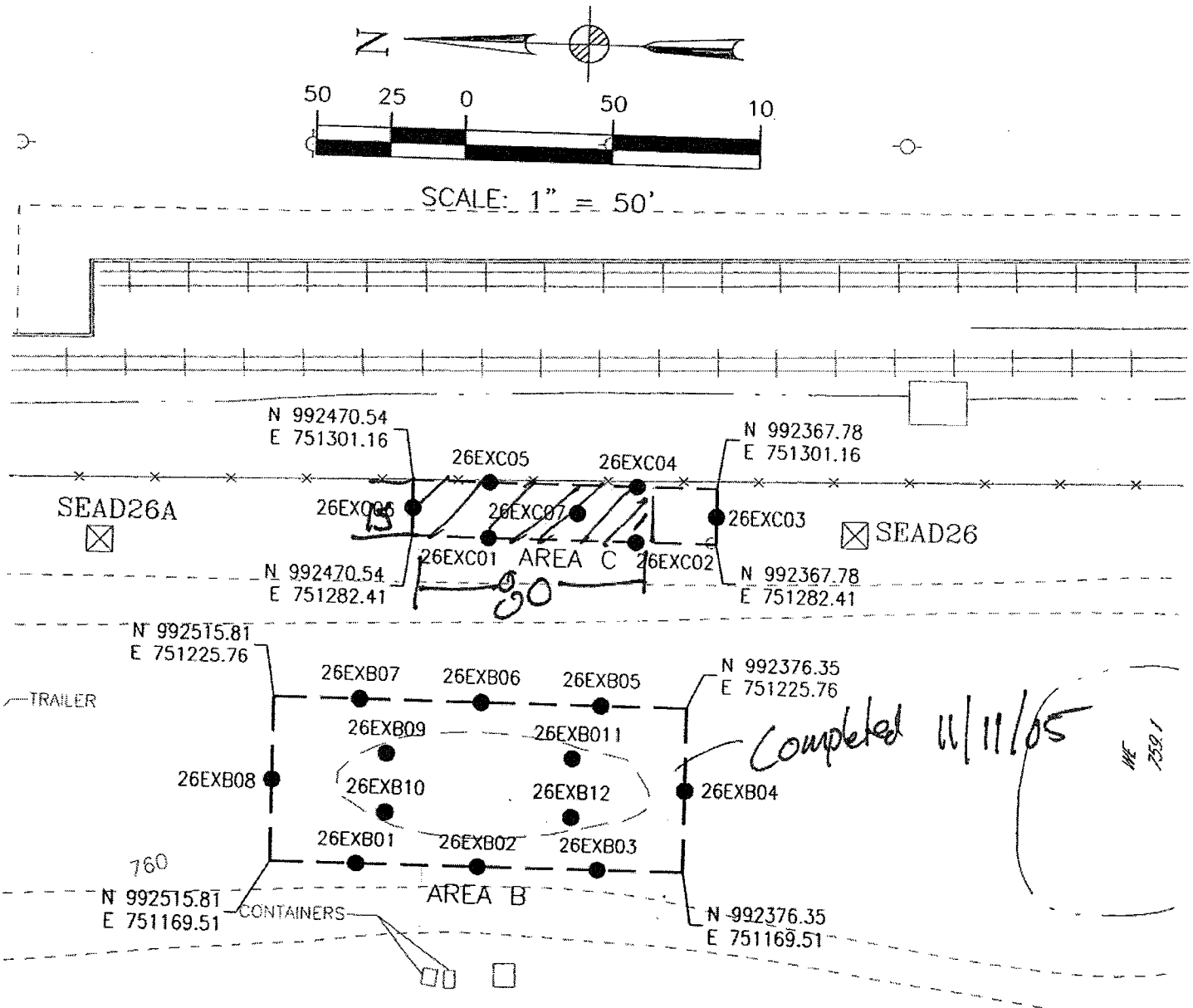
See attached diagram for Progress Sketch.

Accidents reported today:	0	Accidents to date:	0	Days On-Site	0

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

315-539-4243
719 8121

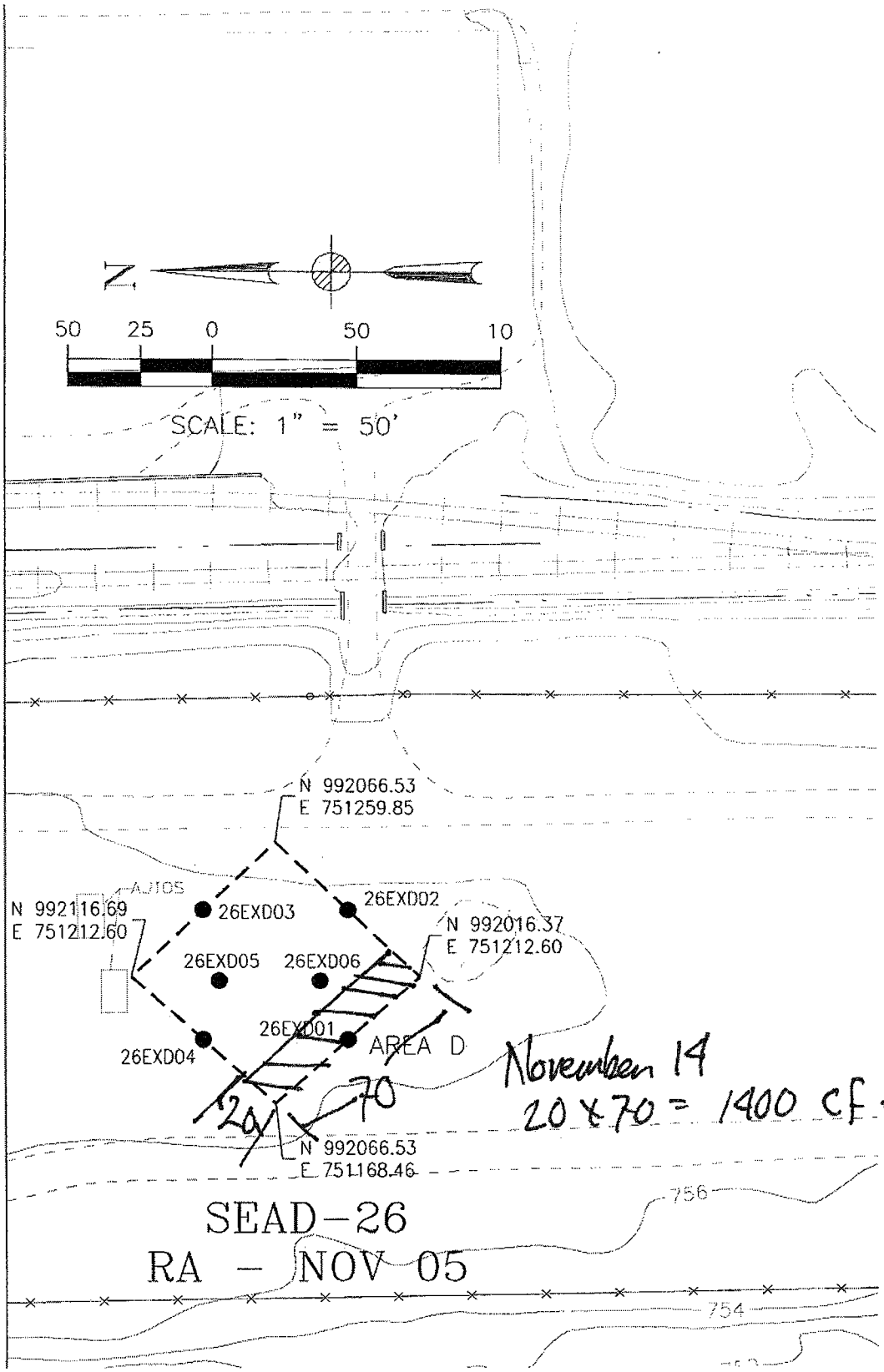




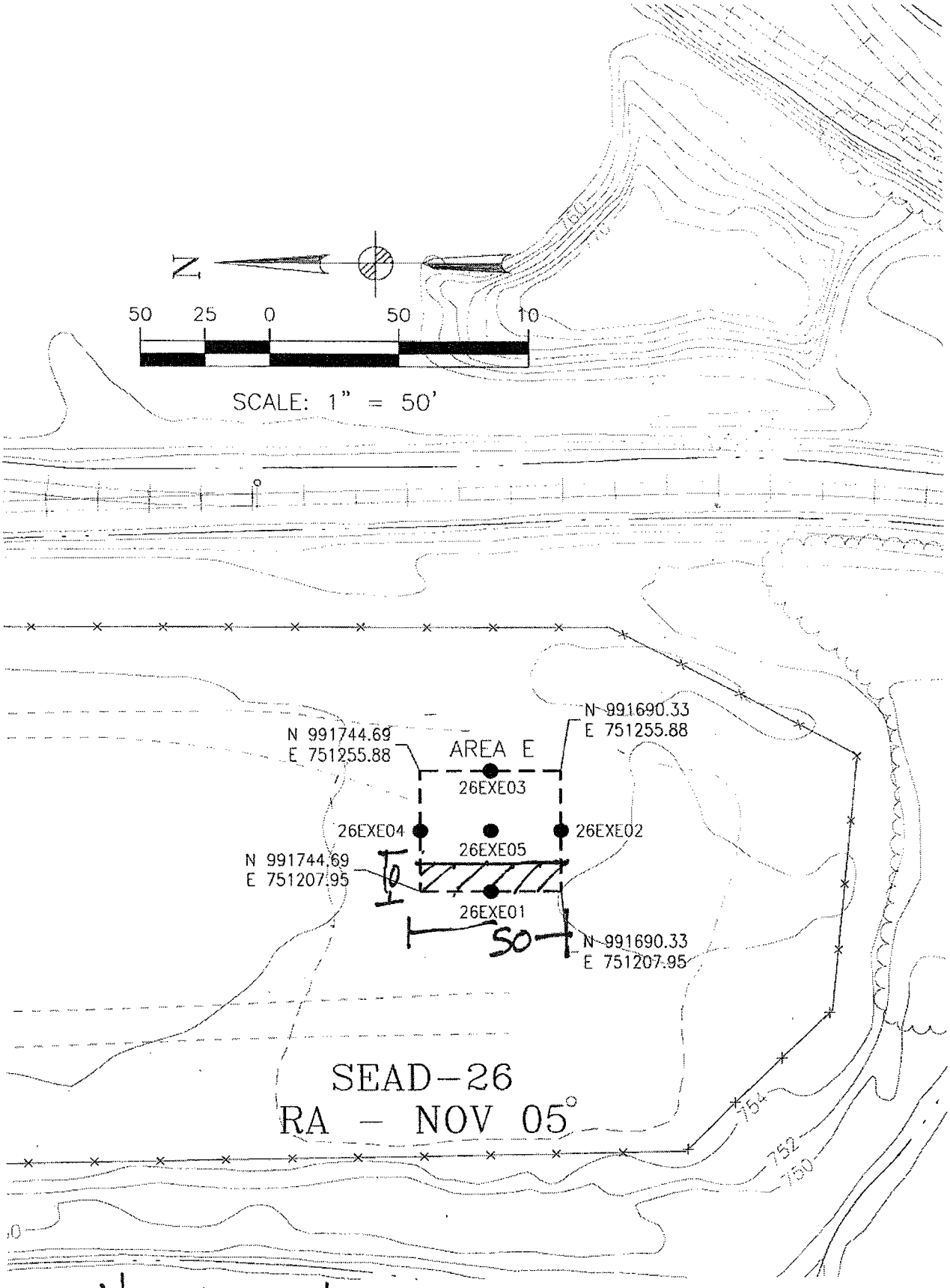
Completed 11/11/05

November 14 15x80 = 1200cf = 44 cy

SEAD-26
RA - NOV 05



November 14
20 x 70 = 1400 cf = 51 cy



November 14 10 x 50 = 500cf = 18.5 cy

PARSONS

Daily Safety Meeting Attendance Log

Seneca Army Depot Romulus, NY

Date: November 19	**Time:** 0700	**Job #:744538-00000**
Contract Number: AFCEE - WERC FA8903-04-D-8675 - DO#12	Location: Seneca Army Depot Activity – Biowall Installation – and Monitoring	
Weather Conditions: Temp: 54° Wind/ Dir: 270°	Anticipated Work Hours: 0700 - 5:00 Actual Work Hours:	
Safety Meeting Topic: 1. Loading trucks 2. Slip trip 3. 4. 5.	**Everyday Safety Meeting Topic:** (1.) Vehicle Safety Inspection (2.) Biological Hazards (Deer) 3. Sun Safety (4.) Slip Trip Fall Hazards 5. Vehicle Safety	

Attendees:

Name:	Signature:	Company:	Time In:	Time Out:
Brendan Baranik-Clastead	[signature]	PARSONS	6:41	16:30
JEFF IGNASZAK	[signature]	SESSLER WRECKING	0730	15:30
Ben McAllister	[signature]	PARSONS	0645	17:30

Aerosol Monitoring Form

PARSONS 150 FEDERAL STREET BOSTON MA 02110

Project:	Seneca Army Depot Activity - SEAD 25 / 26 Remedial Action		Date
Location:	SEAD-26	North - Serial #	Project No.: 744538-
Weather:	Sunny, clear skys	East - Serial #	Inspector:
Instrument Model:		South - Serial #	Crew:
Calibration Date:		West - Serial #	Location:
			Zero Date:

Time	Instrument	Particulate Count	Wind Dir.	Comments:
7:09	Data RAM 4	1.0 mg/m³	W→E	
7:44	"	0.2 mg/m³	W→E	
8:11	"	0.1 mg/m³	W→E	
8:36	"	0.2	W→E	
9:00	"	0.1	W→E	
9:41	"	0.1	W→E	
10:14	"	0.7	W→E	
1044	"	0.6	W→E	
11:15	"	0.6	NW→SE	
12:53	"	0.6	NW→SE	
Moved	Dusted Monitor to SEAD-25, Located SE of Pad,			
1307	"	24.4	NW→SE	
1336	"	3.9	W→E	
1412	"	2.3	N→S	
14:47	"	2.6	N→S	
15:15	"	3.6	N→S	Located at the corner of ordnance and Administration ave.
16:00	"	3.70	N→S	

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	November 15, 2005
CONTRACT	PBC 1	REPORT NO.	007
JOB #	744538-3200	TIME	06:30 – 15:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Sunny, 53° to 62° Wind North West at 5 to 15mph

II. Personnel On-site

Name	Company/Organization	Role
Brendan Baranak-Olmstead	Parsons	Tech
Ben McAllister	Parsons	HASO
Jeff Ingaszak	Sessler	Foreman
Ray Slatton	Sessler	Operator

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
Tim Mustard	Parsons Safety Officer	6 hours
Todd Heino	Parsons	0.5 hours
Jackie Travers	Parsons	0.5 hours
Beth Wasserman	Parsons	0.5 hours

IV. Equipment On-site

Equipment	Model/Type	Qty
Excavator	Hitachi/Lc330	1
Dump Truck	Volvo 850BM	0
Dozer	John Deer	0
Dust Monitor	Thermo 4000	2
OVM	Rae	1

V. Narrative of Work Performed (including <u>problems encountered</u> and <u>corrective actions</u> taken)

- Tailgate Safety Meeting with Sessler and Parsons
  - Overhead load on trucks
  - Safety vest and hard hat required
  - Safety glasses required
- The excavation contractor continued the soil removal at the SEAD 25 pad, nearing 90% completion of the SEAD 25 pad excavation.
- Earthwatch provided 10 trucks to haul material to the landfill resulting in 42 truckloads removed from the site.
- Tim Mustard was onsite to conduct a site safety audit on the Seneca field program
- No confirmation samples were collected today from either site.
- The truck drivers were provided with disposable over boots for the contaminated material at SEAD 25D.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number
42 trucks from SEAD 25	1428 ton*	Mangardi Trucking	
* estimated weight	Total 1428*		

Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

- The dust monitor was set up downwind of the SEAD 25 excavation. Readings taken every .5 hour
- OVM readings of the SEAD 25 excavation were collected throughout the day downwind of the excavation; all readings were below the threshold for the organic vapor monitoring.
- Heavy equipment inspection performed on all equipment records in field file.
- Trench inspection was performed on the SEAD 25 excavation at the end of the day.

VIII. Sample Collection

Total number of samples collected today: 0

See attached Sample Chain Of Custody for details.

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

Dust Monitor	2	GPS	1	Petro Kit	None
OVM	None	Water Level	None	Other	None

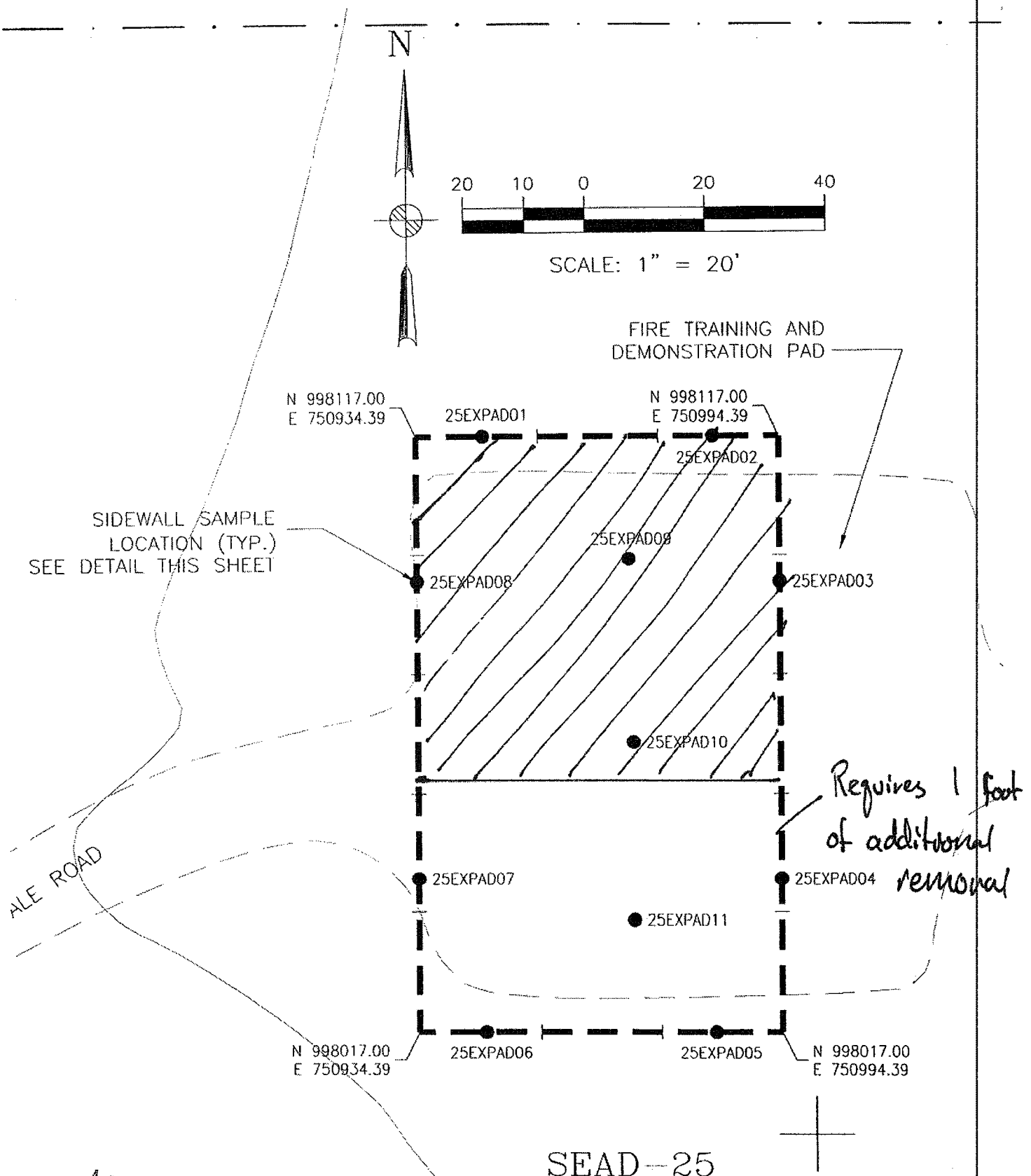
X. Excavation Progress

Amount Excavated today: 766 Cy

See attached diagram for Progress Sketch.

Accidents reported today:	0	Accidents to date:	0	Days On-Site	0

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.



40 X 60 X 3 = 7200 = 266 CY

50 X 60 X 4.5 = 13500 CF = 500 CY

266
500
766 Cy total

PARSONS

Daily Safety Meeting Attendance Log

Seneca Army Depot Romulus, NY

Date: November 18	Time: 0700	Job #:744538-00000
Contract Number: AFCEE - WERC FA8903-04-D-8675 - DO#12		Location: Seneca Army Depot Activity – Biowall Installation – and Monitoring
Weather Conditions: Temp: 39 Wind/ Dir: SouW		Anticipated Work Hours: 0700 - 1700 Actual Work Hours:
Safety Meeting Topic: 1. Truck Usability 2. Overhead loading 3. 4. 5.		**Everyday Safety Meeting Topic:** 4 Vehicle Safety Inspection 2 Biological Hazards (Deer) 3 Sun Safety 4 Slip Trip Fall Hazards 5 Vehicle Safety

Attendees:

Name:	Signature:	Company:	Time In:	Time Out:
Brandon Baranoh-Olmsted		PARSONS	6:33	
RAY SLAYTON		SESSLER	0700	
Ben McAllister		PARSONS	0700	
JEFF IGNASZAK		SESSLER	0700	

PARSONS 150 FEDERAL STREET BOSTON MA 02110

Air Monitoring ~~Instument~~

~~Calibration Log~~

Client: Seneca Army Depot Activity	Calibration Method:	~~Start~~ Date: 11/15/05
Project: SEAD 25 / 26 Remedial Action	Calibration Gas Standard	Project #:744538-
Instrument Type:	Zero Air Source:	Instument S/N:
Lamp Number:	Moisture Filer: Y / N	Instrument Model:

Date	Calibration Gas Concentration	Pre-adjusted Reading	Adjustment Required? Yes/No	Span Gas Concentration Setting	Post-Cal Span Gas Reading	Maintenance Notes	Initials
Time	Instrument	Wind Dir.	Reading	Comments			
7:59	Data Rae 14	S→N	5.6 ug/m³	Located at SEAD-25, corner of Adams			
				and Ordnance Road.			
Start down at 9:27 due to rain							
Re-Started at 10:02							
1005	"	~~front brace~~ S→N	13.7				
1045	"	S→N	8.9				
1105	"	S→N	7.1				
1139	"	S→N	11.8				
				Heavy Rain shut down			

PARSONS

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	November 16, 2005
CONTRACT	PBC 1	REPORT NO.	008
JOB #	744538-3200	TIME	06:30 – 18:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Sunny, 43° to 36° Wind North West at 5 to 15mph, intermittent showers turning to snow

II. Personnel On-site

Name	Company/Organization	Role
Brendan Baranak-Olmstead	Parsons	Tech
Ben McAllister	Parsons	HASO
Ray Slatton	Sessler	Operator

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit

IV. Equipment On-site

Equipment	Model/Type	Qty
Excavator	Hitachi/Lc330	1
Dump Truck	Volvo 850BM	0
Dozer	John Deer	0
Dust Monitor	Thermo 4000	2
OVM	Rae	1

V. Narrative of Work Performed (including problems encountered and corrective actions taken)

- Tailgate Safety Meeting with Sessler and Parsons
  - Safety vests, hardhat and safety glasses
  - Cold weather work procedure
  - Slip trip falls
- The excavation contractor completed the soil removal at the SEAD 25 excavation, removing the final 88 yards of material.
- Earthwatch provided 2 trucks to haul material to the landfill resulting in 8 truckloads removed from the site.
- The remaining confirmation samples were collected from the SEAD 25 pad and SEAD 26 Areas A, C, D, and E.
- The truck drivers were provided with disposable over boots for the contaminated material at SEAD 25D.
- The excavation contractor completed the soil removal and demobilized the equipment at 15:00.
- All sample locations and excavation limits were surveyed using RTK GPS setup at SEAD 64A.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number
8 trucks from SEAD 25	272 ton*	Mangardi Trucking	
* estimated weight	Total 272*		

Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

- The dust monitor was not set up due to intermittent showers throughout the day.
- OVM readings of the SEAD 25 excavation were collected throughout the day downwind of the excavation; all readings were below the threshold for the organic vapor monitoring.
- Heavy equipment inspection was performed on all equipment records in field file.
- Trench inspection was performed on the SEAD 25 excavation at the end of the day.

VIII. Sample Collection

Total number of samples collected today: 43

See attached Sample Chain Of Custody for details.

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

Dust Monitor	2	GPS	1	Petro Kit	None
OVM	None	Water Level	None	Other	None

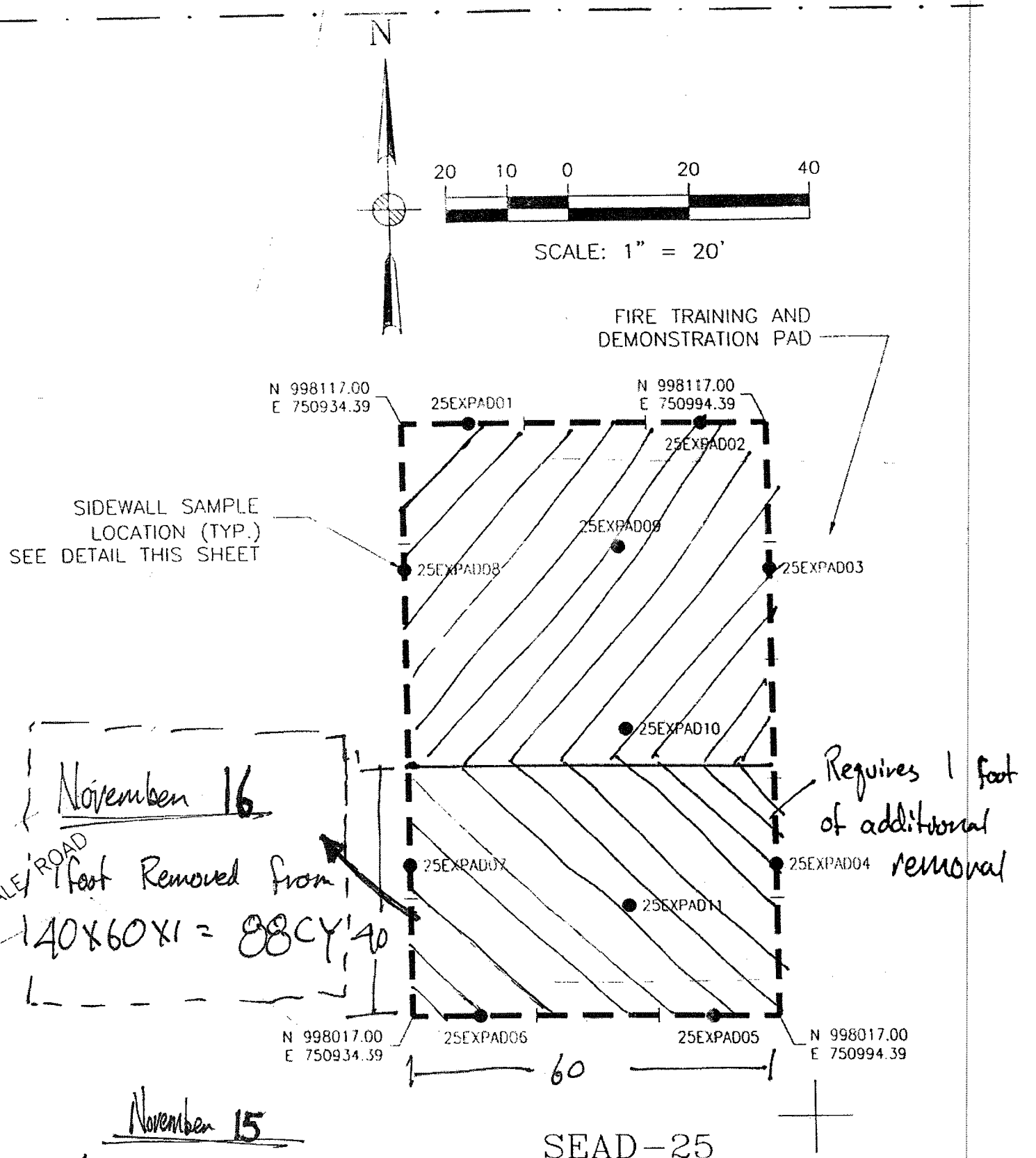
X. Excavation Progress

Amount Excavated today: 88 Cy

See attached diagram for Progress Sketch.

Accidents reported today:	0	Accidents to date:	0	Days On-Site	0

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.



November 15

40 X 60 X 3 = 7200 = 266 CY RA - NOV 05

50 X 60 X 4.5 = 13500 CF = 500 CY

266
500
766 Cy total

SAMPLING RECORD - SURFACE SOIL/SEDIMENT

PARSONS CLIENT: USACOE INSPECTOR : BBO DATE: 11/16/05

PROJECT: ~~SEAD 45/46/57-RI~~ SEAD-26/25 Remediation
Plume Area:

SOIL TYPE: (SURFACE SOIL) SEDIMENT

COMMENTS:

MONITORING

INSTRUMENT	DETECTOR	READING

SAMPLE INFORMATION					SOIL INFORMATION					
LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (in) TOP	SAMPLE DEPTH (in) BOTTOM	TIME (military)	GRAB or COMPOSITE SAMPLE	SAMPLE DESCRIPTION (Burmister method)	USCS Classification	VOC Screen (PPM)	QC Split (yes or no)	Other Notes
26EXE05	26EXE05	0"	2"	930	G	very rocky w/ clay		0.0		
26EXE04	26EXE04	0"	2"	943	G	clay w/ organic material		0.0		
26EXD05	26EXD05	0"	2"	953	G	rocky w/ clay		0.0		
26EXD01	26EXD01	0"	2"	1003	G	clay w/ organic matter		0.0		
26EXC06	26EXC06	0"	2"	1027	G	clay		0.0		
26EXC05	26EXC05	0"	2"	1030	G			0.0		
26EXC01	26EXC01	0"	2"	1035	G	organic matter		0.0		
26EXC04	26EXC04	0"	2"	1039	G	organic matter		0.0		
26EXC02	26EXC02	0"	2"	1043	G	organic matter, roots, some fewgrass blades		0.0		
26EXC03	26EXC03	0"	2"	1047	G	traces of organic matter		0.0		
26EXA06	26EXA06	0"	2"	1116	~~G~~ C	trace of organic matter roots		0.0	Y	

Grab Sample, not composite BBO 12/21/05

SAMPLING RECORD - SURFACE SOIL/SEDIMENT

PARSONS | CLIENT: | INSPECTOR : BBO | DATE: 11/16/05

PROJECT: SEAD-05/26 Remediation

SOIL TYPE: (SURFACE SOIL) SEDIMENT

COMMENTS:

MONITORING

INSTRUMENT		

SAMPLE INFORMATION					SOIL INFORMATION					
LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (in) TOP	SAMPLE DEPTH (in) BOTTOM	TIME (military)	GRAB or COMPOSITE SAMPLE	SAMPLE DESCRIPTION (Burmister method)	USCS Classification	VOC Screen (PPM)	QC Split (yes or no)	Other Notes
26EX A06	26EXA06 MS	0"	2"	1116	G	These were grab samples, not composite. BBO 12/21/05		0.0	Y	
26EX A06	26EXA06 MSD	0"	2"	1116	G			0.0	Y	
26EX A06	26EXA09	0"	2"	1119	G			0.0	Y	
26EXA01	26EXA01	0"	2"	1137	G	Several broken bricks and substantial amount of smaller brick pieces in area, also root matter		0.0		
26EXA07	26EXA07	0	2	1132	G	Many broken brick pieces in area		0.0		
26EXA05	26EXA05	0	2	1127	G	broken pieces of brick in the immediate area, small amount of root matter		0.0		
26EXA04	26EXA04	0	2	1147	G	trace of organic matter, little clay content		0.0		
26EXA08	26EXA08	0	2	1152	G	high clay content, shale fragments		0.0		
26EXA02	26EXA02	0	2	1157	G	organic matter		0.0		
26EXA03	26EXA03	0	2	1202	G	shale fragments		0.0		
26EXPAD03	25EX PAD03	0"	2'	1434	G	Clay, moist, light brown to grey, some silt, med → med plasticity				

SAMPLING RECORD - SURFACE SOIL/SEDIMENT

PARSONS | CLIENT: | INSPECTOR : BBO | DATE: 11/16/05

PROJECT: SEAD-25/26 Remediation

SOIL TYPE: (SURFACE SOIL) SEDIMENT

COMMENTS:

MONITORING

INSTRUMENT	CALIBRATION	

SAMPLE INFORMATION					SOIL INFORMATION					
LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (in) TOP	SAMPLE DEPTH (in) BOTTOM	TIME (military)	GRAB or COMPOSITE SAMPLE	SAMPLE DESCRIPTION (Burmister method)	USCS Classification	VOC Screen (PPM)	QC Split (yes or no)	Other Notes
25EXPAD Ø4	25EXPAD Ø4	0"	2"	1439	G	Clay light Brown, little silt and fine sand, med plasticity				
25EXPADØ5	25EXPAD Ø5	0'	2"	1445	G	Softer clay, light Brown Clay, some fine Sand, little fine gravel, moist				
25EXPADØ6	25EXPAD Ø6	0"	2"	1451	G	grey(lite) moist/wet clay little fine sand, high plasticity				
25EXPADØ7	25EXPAD Ø7	0"	2"	1507	G	lite Brown Clay, wet, some fine gravel angular, little sand, high plasticity				
25EXPADØ8	25EXPAD Ø8	0"	2"	1512	G	lite Brown Clay, some fine angular gravel, little sand fine, high plasticity				
25EXPADØ1	25EXPAD Ø1	0"	2"	1518	G	lite Brown Clay, wet, some gravel fine/Coarse, little Sand fine, Soft high plasticity				
25EXPAD Ø2	25EXPAD Ø2	0"	2"	1526	&G	lite Brown-Tan Clay, Some fine gravel fine angular, little sand fine to coarse, high plasticity			Y	
25EXPAD Ø2	25EXPAD Ø2 MS	0"	2"	1526	&G	These were grab samples, not composite.			Y	
25EXPAD Ø2	25EXPAD Ø2 MSD	0"	2"	1526	&G	BBO 12/21/05			Y	
25EXPAD Ø2	25EXPAD 12	0"	2"	1529	&G	"			Y	
25EXPADØ9	25EXPAD Ø9	0"	2"	1540	G	lite Brown Clay & gravel, very fine-coarse angular loose				

Sample 25EXPADØ9 was collected in error and sample was not analyzed by the Lab. BBO 12/21/05

PARSONS

Daily Safety Meeting Attendance Log

Seneca Army Depot Romulus, NY

Date: November 16	Time: 0700	Job #:744538-00000
Contract Number: AFCEE - WERC FA8903-04-D-8675 - DO#12	Location: Seneca Army Depot Activity – Biowall Installation – and Monitoring	
Weather Conditions: Temp: 39° Wind/ Dir: W 42-38°	Anticipated Work Hours: 0700-1500 Actual Work Hours:	
Safety Meeting Topic: 1. Cold Related work hours 2. 3. Raver 4. 5. STF	Everyday Safety Meeting Topic: 1. Vehicle Safety Inspection 2. Biological Hazards (Deer) 3. Sun Safety 4. Slip Trip Fall Hazards 5. Vehicle Safety	

Attendees:

Name:	Signature:	Company:	Time In:	Time Out:
Ben McAllister	[signature]	PARSONS	630	1800
Brendan Baranek-Olmstead	[signature]	PARSONS	6:35	1800

PARSONS 150 FEDERAL STREET BOSTON MA 02110

Visitor Sign-In

Project: Seneca Army Depot Activity

Location: Sead 25 / 26 Remedial Action

Date	Name	Company	Time in	Time Out	Purpose
11-7-05	Steve Wood	Sessler	1:00	15:30	weldgate on haul truck
11-7-05	GARY BENNETT	SESSLER	11:00	13:30	DROP OFF MAT
11/15	Tim Mustard	Parsons	0830		Safety inspection
11/15	CHRIS McCUNE	EARTHWATCH	10:30	11:00	PAPERWORK
11/16	Charlotte Bethoney	NYSDOH	9:00		sitevisit/oversight
11/16	STEVE ADSOCOM	SEDA	0900		site visit
11/16	THOMAS GNAUTH	COE	0900		site visit
11/16	Beth Wasserman	Parsons	0900		site visit
11/16	RANDY BOTTRELL	USACE	0908		VISIT
11/16	John F Nehstadt	USACE H.	01:00		visit
11/16	CHRIS BOES	USAEC	09:15		VISIT
11/16	Jackie Travers	Parsons	@9:15		visit

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	November 17, 2005
CONTRACT	PBC 1	REPORT NO.	009
JOB #	744538-3200	TIME	06:30 – 13:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Sunny, 43° to 36° Wind North West at 5 to 15mph, intermittent showers turning to snow

II. Personnel On-site

Name	Company/Organization	Role
Brendan Baranak-Olmstead	Parsons	Tech
Ben McAllister	Parsons	HASO

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
none		

IV. Equipment On-site

Equipment	Model/Type	Qty
Excavator	Hitachi/Lc330	0
Dump Truck	Volvo 850BM	0
Dozer	John Deer	0
Dust Monitor	Thermo 4000	0
OVM	Rae	0

V. Narrative of Work Performed (including <u>problems encountered</u> and <u>corrective actions</u> taken)

- Tailgate Safety Meeting Parsons
  - Safety vests, hard hat and safety glasses
  - Cold weather work procedure
  - Slip trip falls
- Demobilize site and return all equipment

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number

Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

- Trench inspection was performed on the SEAD 25 Excavation at the end of the day.

VIII. Sample Collection

Total number of samples collected today: 0

See attached Sample Chain Of Custody for details.

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

Dust Monitor	0	GPS	0	Petro Kit	None
OVM	None	Water Level	None	Other	None

X. Excavation Progress

Amount Excavated today: 0

None

Accidents reported today:	0	Accidents to date:	0	Days On-Site	0

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

PARSONS

Daily Safety Meeting Attendance Log

Seneca Army Depot Romulus, NY

Date: November 17	Time: 0800	Job #:744538-00000
Contract Number: AFCEE - WERC FA8903-04-D-8675 - DO#12		Location: Seneca Army Depot Activity – Biowall Installation – and Monitoring
Weather Conditions: Temp: 33° Wind/ Dir: West 5-10mph		Anticipated Work Hours: 0800 - 1400 Actual Work Hours:
Safety Meeting Topic: 1. Working around trees 2. 3. Tool Safety 4. 5.		**Everyday Safety Meeting Topic:** 1. Vehicle Safety Inspection 2. Biological Hazards (Deer) 3. Sun Safety 4. Slip Trip Fall Hazards 5. Vehicle Safety

Attendees:

Name:	Signature:	Company:	Time In:	Time Out:
Ben McAllister	Ben McAllister	PARSONS	0800	1300
Brendan Baranek-Olsted	Brendan Baranek-Olsted	PARSONS	0800	1200

PARSONS

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	November 28, 2005
CONTRACT	PBC 1	REPORT NO.	010
JOB #	744538-3200	TIME	07:30 – 17:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Sunny, 43° to 36° Wind North West at 5 to 15mph, intermittent showers turning to snow

II. Personnel On-site

Name	Company/Organization	Role
Brendan Baranak-Olmstead	Parsons	Tech
Ben McAllister	Parsons	HASO

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
none		

IV. Equipment On-site

Equipment	Model/Type	Qty
Rental	Hertz Lift Gate truck	1
		0
		0
		0
		0

V. Narrative of Work Performed (including <u>problems encountered</u> and <u>corrective actions</u> taken)

- Tailgate Safety Meeting Parsons
  - Safety Vests, Hard Hat and Safety glasses
  - Cold weather work procedure
  - Slip Trip Falls
- Collected sample of the water from the SEAD 25 pad excavation. The excavation has an estimated 2500 gallons of water in it.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number
None			

Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

- Excavation water sample collected and submitted to Chemtech for 3 day turnaround

VIII. Sample Collection

Total number of samples collected today: 1

See attached Sample Chain Of Custody for details.

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

Dust Monitor	0	GPS	0	Petro Kit	None
OVM	None	Water Level	None	Other	None

X. Excavation Progress

Amount Excavated today: 0

None

Accidents reported today:	0	Accidents to date:	0	Days On-Site	0

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

PARSONS

Daily Safety Meeting Attendance Log

Seneca Army Depot Romulus, NY

Date: November 27 2005	Time: 0800	Job #:744538-00000
Contract Number: AFCEE - WERC FA8903-04-D-8675 - DO#12		Location: Seneca Army Depot Activity – Biowall Installation – and Monitoring
Weather Conditions: Temp: 030 Wind/ Dir: 10-20 SE Wet overcast		Anticipated Work Hours: 0800 - 1600 Actual Work Hours:
Safety Meeting Topic: 1. Vehicle Safety 2. 3. Sample procedure 4. 5.		**Everyday Safety Meeting Topic:** 1. Vehicle Safety Inspection 2. Biological Hazards (Deer) 3. Sun Safety 4. Slip Trip Fall Hazards 5. Vehicle Safety

Attendees:

Name:	Signature:	Company:	Time In:	Time Out:
Ben McAllister	Ben McAllister	PARSONS	0800	16:30
Brendan Barauch-Olmstead	Brendan Barauch-Olmstead	PARSONS	800	16:30

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	November 29, 2005
CONTRACT	PBC 1	REPORT NO.	011
JOB #	744538-3200	TIME	07:30 – 17:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Sunny, 43° to 36° Wind North West at 5 to 15mph, intermittent showers turning to snow

II. Personnel On-site

Name	Company/Organization	Role
Brendan Baranak-Olmstead	Parsons	Tech
Ben McAllister	Parsons	HASO

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
Bill Prunner	EPS Vermont	3 hours
Kerland Ritchee	EPS Vermont	

IV. Equipment On-site

Equipment	Model/Type	Qty
	Hertz Lift Gate truck	1
	4800 Gallon poly tank for groundwater	1

V. Narrative of Work Performed (including problems encountered and corrective actions taken)

- Tailgate Safety Meeting Parsons
  - Safety Vests, Hard Hat and Safety glasses
  - Cold weather work procedure
  - Drum handling procedure
  - Pinch point injuries.
- EPS Vermont arrived to clean and remove 550 gallon tanks in SEAD 26. All of the liquid in each tank was transferred to the vacuum truck, and the tanks were vented and steam cleaned.
- Rain for Rent delivered a 4800 gallon storage tank for the water in the SEAD 25 excavation.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number
None			

Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

- None

VIII. Sample Collection

Total number of samples collected today: 0

None

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

Dust Monitor	0	GPS	0	Petro Kit	None
OVM	None	Water Level	None	Other	None

X. Excavation Progress

Amount Excavated today: 0

None

Accidents reported today:	0	Accidents to date:	0	Days On-Site	0

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

PARSONS

Daily Safety Meeting Attendance Log

Seneca Army Depot Romulus, NY

Date: November 29	**Time:** 0730	**Job #:744538-00000**
Contract Number: AFCEE - WERC FA8903-04-D-8675 - DO#12	Location: Seneca Army Depot Activity – Biowall Installation – and Monitoring	
Weather Conditions: Temp: 65 Wind/ Dir: West 10-25 mph	Anticipated Work Hours: 07:30 - 17:30 Actual Work Hours:	
Safety Meeting Topic: 1. Flying Debris 2. 3. Safe Drum Handling 4. 5. Crush pinch injuries	**Everyday Safety Meeting Topic:** (1) Vehicle Safety Inspection 2. Biological Hazards (Deer) 3. Sun Safety (4) Slip Trip Fall Hazards (5) Vehicle Safety	

Attendees:

Name:	Signature:	Company:	Time In:	Time Out:
Ben McAllister	Ben McAllister	PARSONS	0730	
Brendan Baranek-Olmstead	Brendan Baranek-Olmstead	PARSONS	0800	
Bill Prowen	William Prowen	EAS of VT	910	
Kealand L. Ritchie	Kealand L. Ritchie	" " "	0910	

PARSONS

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	November 30, 2005
CONTRACT	PBC 1	REPORT NO.	012
JOB #	744538-3200	TIME	07:30 – 17:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Overcast, 33° to 36° Wind North West at 5 to 15mph, intermittent showers turning to snow

II. Personnel On-site

Name	Company/Organization	Role
Brendan Baranak-Olmstead	Parsons	Tech
Ben McAllister	Parsons	HASO
Ray Slatton	Sessler	Operator

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
none		

IV. Equipment On-site

Equipment	Model/Type	Qty
Off-road dump	Hertz Lift Gate truck	1
	4800 Gallon poly tank for groundwater	1
	Volvo Off-road dump	1
	Komatsu LC330	1

V. Narrative of Work Performed (including problems encountered and corrective actions taken)

- Tailgate Safety Meeting Parsons
  - Safety Vests, Hard Hat and Safety glasses
  - Cold weather work procedure
  - Pinch point injuries.

- Additional material was excavated from the northwest corner of the SEAD 26 Area A excavation. The area removed measures 39-ft by 32-ft by 1-ft deep.
- Additional material was excavated from the northwest corner of the SEAD 25 pad excavation. The area has two sides, and measures 32 ft on the southwestern side and 27 ft on the northwest side. The entire area of removed material is 3 feet deep.
- Confirmation samples were collected from the excavated area and sent to the lab for cPAH analysis.
- The remaining excavated areas at SEAD 26 were smoothed.
- 1 foot of additional soil was removed from below the fuel storage tanks.
- 4600 gallons of water was pumped from the SEAD 25 excavation to the storage tank onsite.
- 5 truckloads of material was brought to the landfill from SEAD 26 Area A and SEAD 25 pad.
- The SEAD 25 excavation was backfilled with 8 loads of onsite fill material.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number
Soil from SEAD 26 Area A	34 Tons*	Mangiardi Trucking	
Soil from SEAD 26 Area A	34 Tons*	Mangiardi Trucking	
Soil from SEAD 25	34 Tons*	Mangiardi Trucking	
Soil from SEAD 25	34 Tons*	Mangiardi Trucking	
Soil from SEAD 25	34 Tons*	Mangiardi Trucking	
	170 tons*		

** estimated weight*
Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

- 5 Confirmation Samples collected from SEAD 26 Area A

VIII. Sample Collection

Total number of samples collected today: 5
None

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

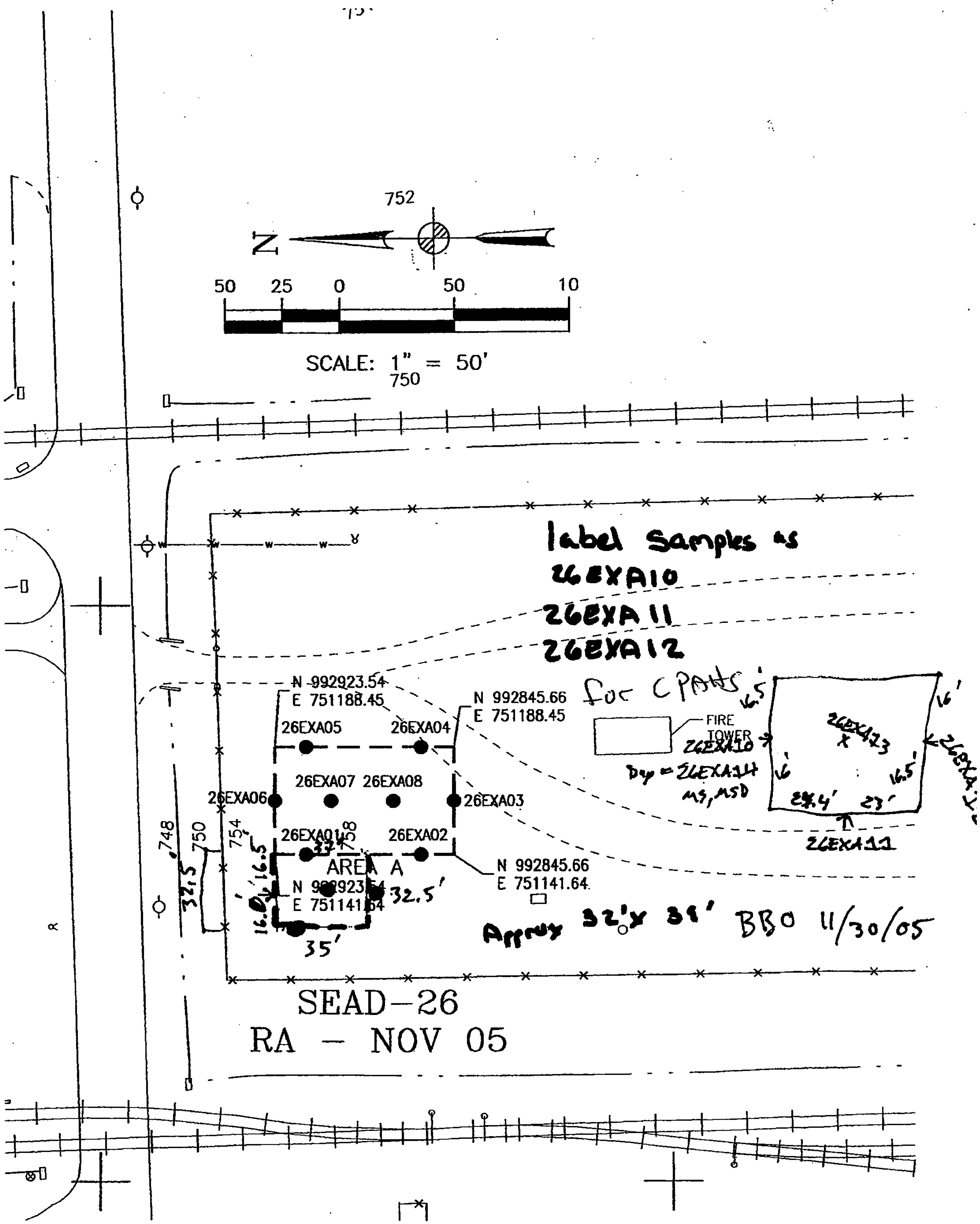
Dust Monitor	0	GPS	0	Petro Kit	None
OVM	None	Water Level	None	Other	None

X. Excavation Progress

Amount Excavated today: 115 cy
None

Accidents reported today:	0	Accidents to date:	0	Days On-Site	0

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.


752
N
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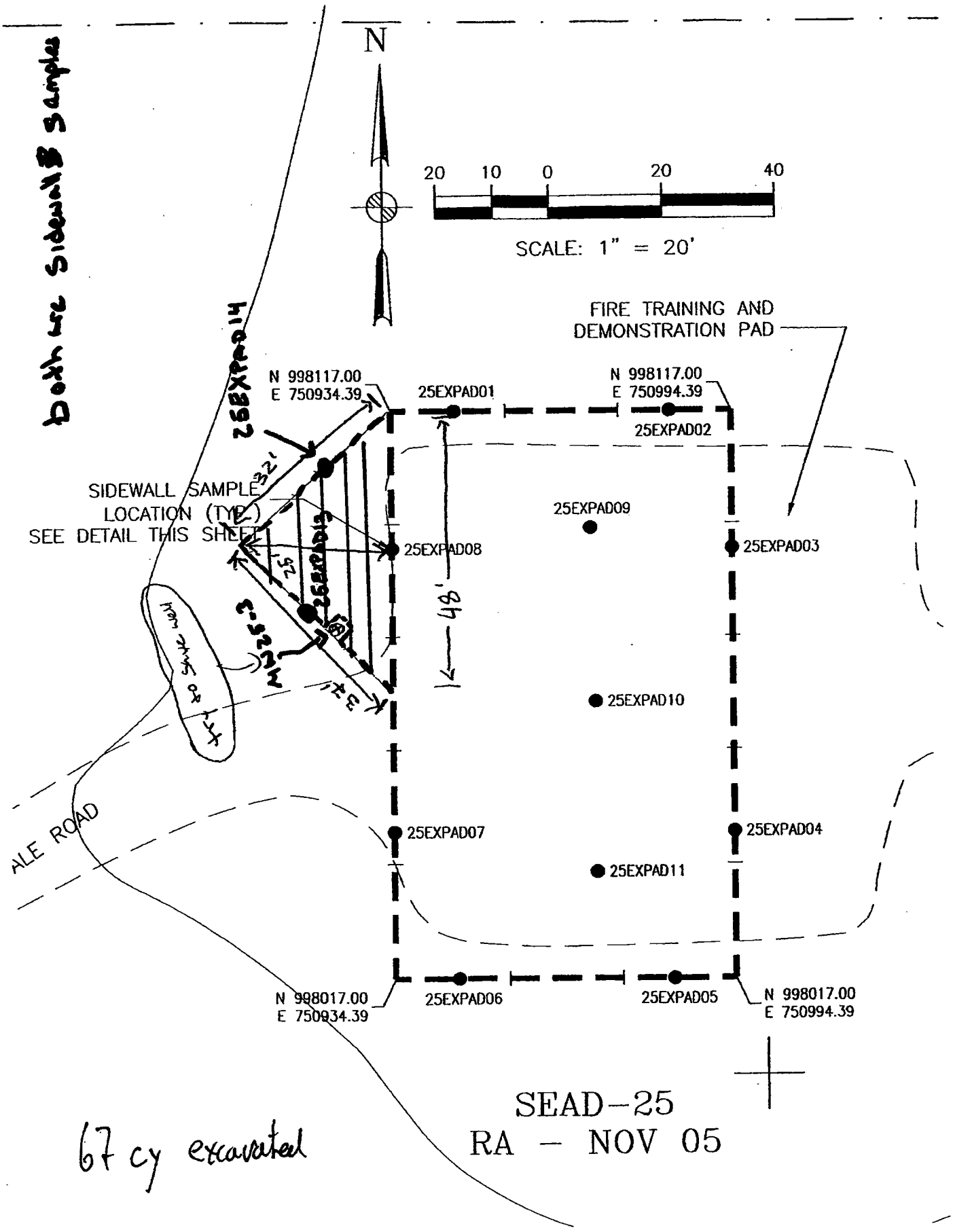
750
label samples as
26EXA10
26EXA11
26EXA12
for CPAHs
N 992923.54
E 751188.45
N 992845.66
E 751188.45
26EXA05
26EXA04
26EXA07
26EXA08
26EXA06
26EXA03
26EXA01
26EXA02
FIRE TOWER
26EXA10
26EXA13
26EXA11
Dup = 26EXA14
MS, MSD
AREA A
N 992923.54
E 751141.64
N 992845.66
E 751141.64
748
750
754
758
32.5
16.5
16.0
35'
32.5'
16.5
16'
23.4'
23'
Approx 32'x 39' BBO 11/30/05
SEAD-26
RA - NOV 05


both sidewall samples
N
20 10 0 20 40
SCALE: 1" = 20'
FIRE TRAINING AND
DEMONSTRATION PAD
N 998117.00
E 750934.39
25EXPAD01
N 998117.00
E 750994.39
25EXPAD02
SIDEWALL SAMPLE
LOCATION (TYP)
SEE DETAIL THIS SHEET
25EXPAD09
25EXPAD08
25EXPAD03
48'
25EXPAD10
ALE ROAD
25EXPAD07
25EXPAD04
25EXPAD11
N 998017.00
E 750934.39
25EXPAD06
25EXPAD05
N 998017.00
E 750994.39
SEAD-25
RA - NOV 05
67 cy excavated

SAMPLING RECORD - SURFACE SOIL/SEDIMENT

PARSONS | **CLIENT:** | **INSPECTOR :** | **DATE:** 11/30/05

PROJECT: SEAD-25/26 Remediations

SOIL TYPE — (SURFACE SOIL) SEDIMENT

COMMENTS:

MONITORING

INSTRUMENT	DETECTOR	READING

SAMPLE INFORMATION					SOIL INFORMATION					
LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (in) TOP	SAMPLE DEPTH (in) BOTTOM	TIME (military)	GRAB or COMPOSITE SAMPLE	SAMPLE DESCRIPTION (Burmister method)	USCS Classification	VOC Screen (PPM)	QC Split (yes or no)	Other Notes
26EXA10	26EXA10	0"	2	1020	G	dark soil, clay content, root material present moist, high plasticity			Y	
	26EXA24	0	2	1023	G	"			Y	
	26EXA10 MS	0	2	1020	G	"			Y	
	26EXA10 MSD	0	2	1020	G	"			Y	
26EXA11	26EXA11	0	2	1032	G	dark soil, high plasticity, clay moist, small amount of root material present				
26EXA12	26EXA12	0	2	1036	G	moist/dry soil, high grad. plasticity, coarse angular gravel 1/4" to 0.5" size tan color soil				
26EXA13	26EXA13	0	2	1046	G	Tan color soil, angular shale fragments moist/dry clay, med high plasticity				

PARSONS

Daily Safety Meeting Attendance Log

Seneca Army Depot Romulus, NY

Date: November 30	**Time:** 0700	**Job #:744538-00000**
Contract Number: AFCEE - WERC FA8903-04-D-8675 - DO#12		Location: Seneca Army Depot Activity – Biowall Installation – and Monitoring
Weather Conditions: Temp: 39° Wind/ Dir:		Anticipated Work Hours: 7:00 - 17:00 Actual Work Hours:
Safety Meeting Topic: 1. Vehicles 2. 3. overhead 4. 5.		**Everyday Safety Meeting Topic:** 10 Vehicle Safety Inspection 8 Biological Hazards (Deer) 9 Sun Safety 4. Slip Trip Fall Hazards 6 Vehicle Safety

Attendees:

Name:	Signature:	Company:	Time In:	Time Out:
Ben McMaster	Ben McMaster	PARSONS	0700	
Brendan Baranek - Observed	Brendan Baranek - Observed	PARSONS	0700	

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	December 01, 2005
CONTRACT	PBC 1	REPORT NO.	013
JOB #	744538-3200	TIME	06:30 – 18:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Overcast, 32° to 36° Wind North West at 5 to 15mph, snow

II. Personnel On-site

Name	Company/Organization	Role
Brendan Baranak-Olmstead	Parsons	Tech
Ben McAllister	Parsons	HASO
Ray Slatton	Sessler	Operator
Mike Mccann	Sessler	Labor
Kirsten Schuster	Parsons	Tech

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
None		

IV. Equipment On-site

Equipment	Model/Type	Qty
	Hertz Lift Gate truck	1
	4800 Gallon poly tank for groundwater	1
	Volvo Off-road dump	1
	Komatsu LC330	1
		0

V. Narrative of Work Performed (including <u>problems encountered</u> and <u>corrective actions</u> taken)

- Tailgate Safety Meeting Parsons
  - Safety vests, hard hat and safety glasses
  - Vehicle safety
  - Biological vectors

- The remaining 20 cy material was removed from the SEAD 25 pad excavation. Confirmation samples were collected from the sidewalls and sent to Chemtech for three day analysis.
- The SEAD 25 pad excavation was backfilled with 500 cy of onsite material. The filled area is 90 feet by 35 feet.
- All onsite backfill material has been brought to the SEAD 25 excavation by the contractor.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number
SEAD 25 pad additional material	28 Tons*	Mangiardi Trucking	353311
	28*		

** estimated weight*
Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

- 2 Confirmation Samples collected from SEAD 25 pad additional material.

VIII. Sample Collection
Total number of samples collected today: 2
2 soil samples from SEAD 25

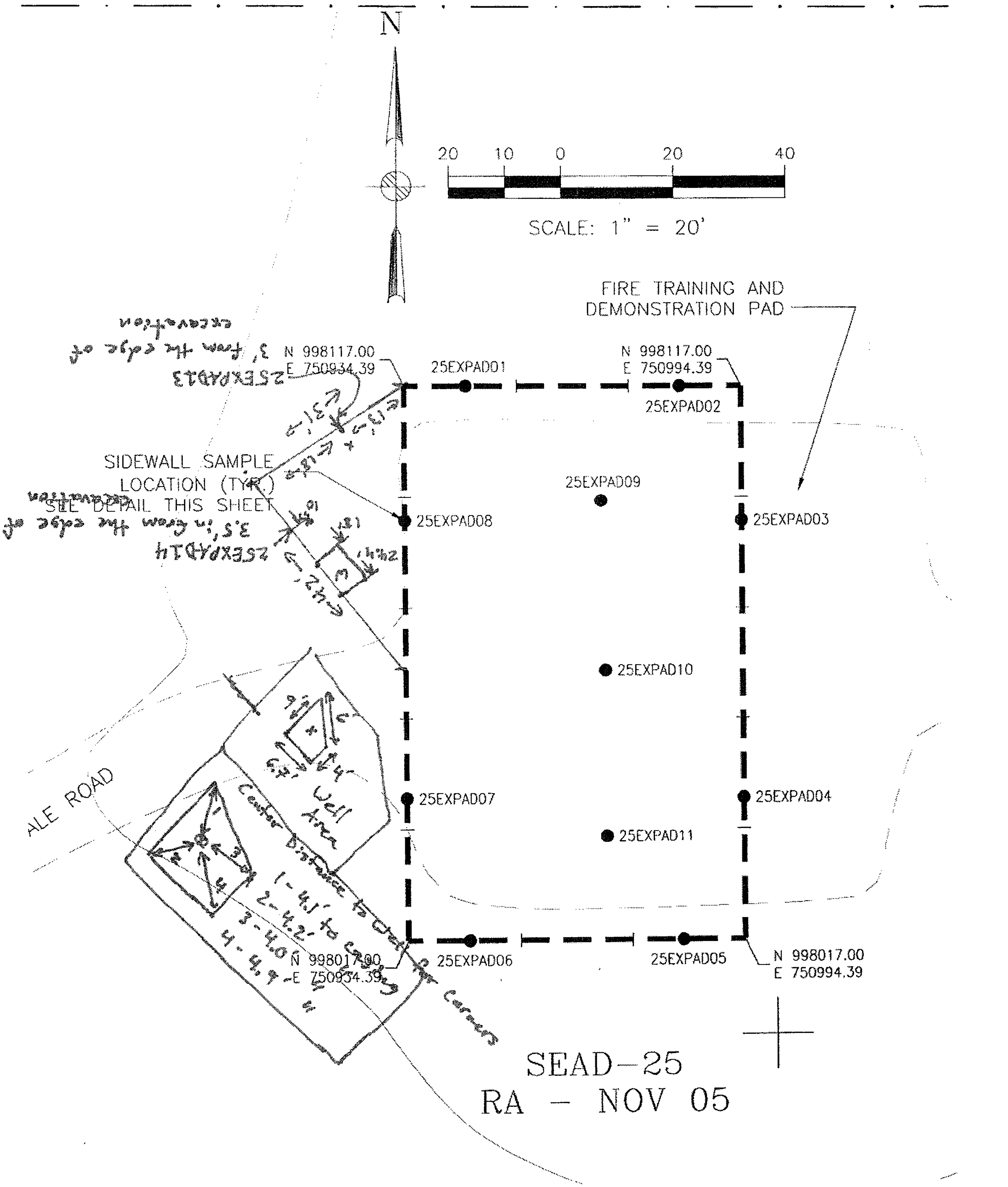
IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

H55 DO	1 @ 20$ per day	GPS	0	Petro Kit	None
OVM	None	Water Level	None	Other	None

X. Excavation Progress
Amount Excavated today: 20 cy
None

Accidents reported today:	0	Accidents to date:	0	Days On-Site	13
None		None			

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.


N
20 10 0 20 40
SCALE: 1" = 20'
FIRE TRAINING AND DEMONSTRATION PAD
N 998117.00
E 750934.39
N 998117.00
E 750994.39
25EXPAD01
25EXPAD02
SIDEWALL SAMPLE LOCATION (TYP.)
SEE DETAIL THIS SHEET
25EXPAD08
25EXPAD09
25EXPAD03
25EXPAD10
25EXPAD07
25EXPAD04
25EXPAD11
25EXPAD06
25EXPAD05
N 998017.00
E 750934.39
N 998017.00
E 750994.39
ALE ROAD
SEAD-25
RA - NOV 05

SAMPLING RECORD - SURFACE SOIL/SEDIMENT

PARSONS CLIENT: USACOE INSPECTOR : DATE: 12/1 05

PROJECT: ~~SEAD-45/46/57-RL~~ SEAD-25/26 Remediation

Plume Area:

SOIL TYPE: (SURFACE SOIL) SEDIMENT

COMMENTS:

MONITORING

INSTRUMENT	DETECTOR	READING

SAMPLE INFORMATION					SOIL INFORMATION					
LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (in) TOP	SAMPLE DEPTH (in) BOTTOM	TIME (military)	GRAB or COMPOSITE SAMPLE	SAMPLE DESCRIPTION (Burmister method) Moderate	USCS Classification	VOC Screen (PPM)	QC Split (yes or no)	Other Notes
26EXP-25EXPAD14	25EXPAD 14	0	2	759	G	Tan color, clay, low plasticity, dry, fine sand low				
25EXPAD 13	25EXPAD 13	0	2	815	G	Tan/dark color, dry clay mod/high plasticity, fine sand fragments of crushed shale				

PARSONS

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	December 02, 2005
CONTRACT	PBC 1	REPORT NO.	014
JOB #	744538-3200	TIME	05:30 – 12:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Overcast, 32° to 36° Wind North West at 0 to 5mph, snow

II. Personnel On-site

Name	Company/Organization	Role
Ben McAllister	Parsons	HASO
Ray Slatton	Sessler	Operator

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
None		

IV. Equipment On-site

Equipment	Model/Type	Qty
	Hertz Lift Gate truck	1
	4800 Gallon poly tank for groundwater	1
	Volvo Off-road dump	0
	Komatsu LC330	1
		0

V. Narrative of Work Performed (including <u>problems encountered</u> and <u>corrective actions</u> taken)

- Tailgate Safety Meeting Parsons
  - Safety Vests, Hard Hat and Safety glasses
  - Vehicle Safety
  - Biological Vectors

- The remaining onsite backfill material was placed in the SEAD 25 pad excavation by the contractor, completing the backfill of the original SEAD 25 excavation
- The haul roads in and out of the site were repaired and the off-road dump truck was cleaned and demobilized from the site.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number
None			

** estimated weight*
Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

- None

VIII. Sample Collection

Total number of samples collected today: 0
none

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

H55 DO	0	GPS	0	Petro Kit	None
OVM	None	Water Level	None	Other	None

X. Excavation Progress

Amount Excavated today: 0
None

Accidents reported today:	0	Accidents to date:	0	Days On-Site	14
None		**None**			

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

PARSONS

Daily Safety Meeting Attendance Log

Seneca Army Depot Romulus, NY

Date: December 02	**Time:** 0700	**Job #:744538-00000**
Contract Number: AFCEE - WERC FA8903-04-D-8675 - DO#12		Location: Seneca Army Depot Activity – Biowall Installation - and Monitoring
Weather Conditions: Temp: 320 Wind Dir: West 5to10 overcast		Anticipated Work Hours: 0700 – 12:00 Actual Work Hours: —
Safety Meeting Topic: 1. 2. 3. 4. 5.		**Everyday Safety Meeting Topic:** 1. Vehicle Safety Inspection 2. Biological Hazards (Deer) 3. Sun Safety 4. Slip Trip Fall Hazards 5. Vehicle Safety

Attendees:

Name:	Signature:	Company:	Time In:	Time Out:
Ben McAllister	Ben McAllister	PARSONS	0700	
RAY SLAYTON		JESCO	0700	

PARSONS

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	December 12, 2005
CONTRACT	PBC 1	REPORT NO.	015
JOB #	744538-3200	TIME	07:30 – 18:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Overcast, 19° to 27° Wind North West at 0 to 5mph

II. Personnel On-site

Name	Company/Organization	Role
Ben McAllister	Parsons	HASO
Brendan Baranak-Olmstead	Parsons	Technician

III. Visitors On-site

Name	Company/Organization	Time/duration of Visit
None		

IV. Equipment On-site

Equipment	Model/Type	Qty
	Thyawzall Glycol Heater	0
	4900 Gallon poly tank for groundwater	1
	John Deer Dozer	0
	Komatsu LC330	0
	20 Kw. light plant	0

V. Narrative of Work Performed (including <u>problems encountered</u> and <u>corrective actions</u> taken)

- Tailgate Safety Meeting Parsons
  - Safety vests, hard hat and safety glasses
  - Vehicle safety
  - Cold weather work procedure

- Received authorization from the project manager to procure a glycol heater and generator to remove the accumulated ice from the storage tank and excavation at SEAD 25.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number

** estimated weight*
Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed
None

VIII. Sample Collection
Total number of samples collected today: 0

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

H55 DO	0	QED Sample System	0	Petro Kit	None
Horiba U-22	0	Water Level	None	Other	None

X. Excavation Progress
Amount Excavated today: 0
None

Accidents reported today:	0	Accidents to date:	0	Days On-Site	15
None		None			

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

PARSONS

Daily Safety Meeting Attendance Log

Seneca Army Depot Romulus, NY

Date: December 12	Time:	Job #:744538-00000
Contract Number: AFCEE - WERC FA8903-04-D-8675 - DO#12		Location: Seneca Army Depot Activity – Biowall Installation – and Monitoring
Weather Conditions: Temp: 22° Wind Dir: 0-5		Anticipated Work Hours: 0730-1830 Actual Work Hours:
Safety Meeting Topic: 1. 2. 3. 4. 5.		Everyday Safety Meeting Topic: 1. Vehicle Safety Inspection 2. Biological Hazards (Deer) 3. Sun Safety 4. Slip Trip Fall Hazards 5. Vehicle Safety

Attendees:

Name:	Signature:	Company:	Time In:	Time Out:
Ben McAllister	Ben McAllister	PARSONS	0700	
Brendan Baranck-Olmstead	[signature]	PARSONS	0701	

PARSONS

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	December 13, 2005
CONTRACT	PBC 1	REPORT NO.	016
JOB #	744538-3200	TIME	07:00 – 20:00
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Overcast, 19° to 27° Wind North West at 0 to 5mph

II. Personnel On-site

Name	Company/Organization	Role
Ben McAllister	Parsons	HASO
Brendan Baranak-Olmstead	Parsons	Technician

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
None		

IV. Equipment On-site

Equipment	Model/Type	Qty
	Thyawzall Glycol Heater	1
	4900 Gallon poly tank for groundwater	1
	John Deer Dozer	0
	Komatsu LC330	0
	20 Kw. light plant	1

V. Narrative of Work Performed (including <u>problems encountered</u> and <u>corrective actions</u> taken)

- Tailgate Safety Meeting Parsons
  - Propane Safety
  - Decontamination chemical handling
  - Cold weather work procedure
- Hertz Equipment Rental dropped off the Thawzall™ glycol heater and 20 kw light plant to start to melt the ice in the 4900 gallon storage tank at SEAD 25.
- Setup the glycol heater at SEAD 25 to remove ice from the 4900 gallon storage tank.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number
None			

** estimated weight*
Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

VIII. Sample Collection
Total number of samples collected today: 0
none.

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

H55 DO	0	QED Sample System	0	Petro Kit	None
Horiba U-22	0	Water Level	None	Other	None

X. Excavation Progress
Amount Excavated today: 0
None

Accidents reported today:	0	Accidents to date:	0	Days On-Site	16
None		**None**			

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

PARSONS

Daily Safety Meeting Attendance Log

Seneca Army Depot Romulus, NY

Date: December 13 Time: 0700	Job #:744538-00000
Contract Number: AFCEE - WERC FA8903-04-D-8675 - DO#12	Location: Seneca Army Depot Activity – Biowall Installation – and Monitoring
Weather Conditions: Temp: 11° Wind/ Dir: 0-5	Anticipated Work Hours: ______ Actual Work Hours: ______
Safety Meeting Topic: 1. 2. 3. 4. 5.	**Everyday Safety Meeting Topic:** 1. Vehicle Safety Inspection 2. Biological Hazards (Deer) 3. Sun Safety 4. Slip Trip Fall Hazards 5. Vehicle Safety

Attendees:

Name:	Signature:	Company:	Time In:	Time Out:
Ben McAllister	Ben McAllister	PARSONS		
Brendan Baranek-Olmstead	[signature]	PARSONS		

PARSONS

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	December 14, 2005
CONTRACT	PBC 1	REPORT NO.	017
JOB #	744538-3200	TIME	06:30 – 19:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Overcast, 11° to 20° Wind North West at 0 to 5mph

II. Personnel On-site

Name	Company/Organization	Role
Ben McAllister	Parsons	HASO
Brendan Baranak-Olmstead	Parsons	Technician

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
None		

IV. Equipment On-site

Equipment	Model/Type	Qty
	Thyawzall Glycol Heater	1
	4900 Gallon poly tank for groundwater	1
	John Deer Dozer	0
	Komatsu LC330	0
	20 Kw. light plant	1

V. Narrative of Work Performed (including <u>problems encountered</u> and <u>corrective actions</u> taken)

- Tailgate Safety Meeting Parsons
  - Propane safety
  - Decontamination chemical handling
  - Cold weather work procedure

- Glycol heater continues to run at SEAD 25 to remove ice from the 4900 gallon storage tank.
- Global positioning survey performed at SEAD 25 surveyed area includes additional soil removal area, EXPAD13, 25EXPAD14, and backfill area of the main excavation at SEAD 25.
- All backfilling at SEAD 25 has been completed.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number
none			

** estimated weight*
Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed
none

VIII. Sample Collection
Total number of samples collected today: 0
None

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

H55 DO	0	QED Sample System	0	Petro Kit	None
Horiba U-22	0	Water Level	None	Other	None

X. Excavation Progress
Amount Excavated today: 0
None

Accidents reported today:	0	Accidents to date:	0	Days On-Site	17
None		**None**			

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

PARSONS

Daily Safety Meeting Attendance Log

Seneca Army Depot Romulus, NY

Date: December 14	Time: 0700	Job #:744538-00000
Contract Number: AFCEE - WERC FA8903-04-D-8675 - DO#12		Location: Seneca Army Depot Activity – Biowall Installation – and Monitoring
Weather Conditions: Temp: 80 Wind/ Dir: W		Anticipated Work Hours: ______ Actual Work Hours: ______
Safety Meeting Topic: 1. PPE 2. 3. Decon 4. 5. Vehicle		Everyday Safety Meeting Topic: 1. Vehicle Safety Inspection 2. Biological Hazards (Deer) 3. Sun Safety 4. Slip Trip Fall Hazards 5. Vehicle Safety

Attendees:

Name:	Signature:	Company:	Time In:	Time Out:
Ben McAllister	Ben McAllister	PARSONS	0700	
Brendan Baranek	[signature]	PARSONS	703	

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	December 15, 2005
CONTRACT	PBC 1	REPORT NO.	018
JOB #	744538-3200	TIME	06:30 – 20:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Overcast, 21° to 32° Wind North West at 0 to 5mph light snow.

II. Personnel On-site

Name	Company/Organization	Role
Ben McAllister	Parsons	HASO
Brendan Baranak-Olmstead	Parsons	Technician
Ray Slatton	Sessler	Operator
Craig Sessler	Sessler	Foreman

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
None		

IV. Equipment On-site

Equipment	Model/Type	Qty
	Thyawzall Glycol Heater	1
	4900 Gallon poly tank for groundwater	1
	John Deer Dozer	1
	8000 gallon tanker truck	1
	20 Kw light plant	1

V. Narrative of Work Performed (including problems encountered and corrective actions taken)

- Tailgate Safety Meeting Parsons
  - Heavy equipment
  - Visibility for equipment operators
  - Cold weather work procedure
  - Slip Trip fall
- Sessler Excavating and Wrecking is onsite to transport stored ground water to the Town of Romulus Waste Water Treatment Plant #2. The source of the water transported to the plant is the 4900 gallons of water from the storage tank and 8100 gallons of water from the SEAD 25 pad excavation.
- Material from the approved offsite borrow source was brought in to fill the additional excavation area.
- This material was unloaded directly into the excavation and compacted with the John Deer dozer as it was unloaded.
- The entire SEAD 25 pad excavation and access roads were re-graded after the excavation was backfilled.
- Global Positioning Satellite surveying coordinates were collected at SEAD 26 Area A.
- The remaining silt fence and high visibility construction fence were removed from the SEAD 25 area, and all construction equipment was demobilized.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number
Clean backfill material	168 Cy	Denidis Sand and Gravel	

** estimated weight*
Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

VIII. Sample Collection
Total number of samples collected today: 0

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

H55 DO	0	QED Sample System	0	Petro Kit	None
Horiba U-22	0	Water Level	None	Other	None

X. Excavation Progress
Amount Excavated today: 0
None

Accidents reported today:	0	Accidents to date:	0	Days On-Site	17
None		**None**			

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

Tailgate Safety Meeting Attendance Log

Date: December 15	**Time:** 0700	**Project: SEAD-25 26 Remedial Action**
Delivery Order Number:	**Location: Seneca Army Depot Activity, Romulus, NY**	
Weather Conditions: (Low/High Temp, Wind/Speed/Dir) (Severe Weather)	Clear Cold SW 22°	
Safety Meeting Topic (Briefly describe)	1. Slip trip fall 2. Heavy Equipment Inspections 3.	

Attendees:

Name	Signature	Company
Ben McAllister	Ben McAllister	PARSONS

Ben McAllister
Site Health and Safety Officer

Maintain in project files in Parsons Field Office.

Daily Field Report
Seneca Army Depot – SEAD 25 & 26

JOB NAME	SEAD 25 & 26 Remediation	DATE	December 16, 2005
CONTRACT	PBC 1	REPORT NO.	019
JOB #	744538-3200	TIME	06:30 – 17:30
CLIENT	AFCEE/ Seneca Army Depot Activity	RECORDED BY:	McAllister, Ben

I. Weather/Temperature description (include changes throughout day)

Overcast, 32° to 42° Wind North West at 0 to 5mph light snow.

II. Personnel On-site

Name	Company/Organization	Role
Ben McAllister	Parsons	HASO
Brendan Baranak-Olmstead	Parsons	Technician

III. Visitors On-site

Name	Company/Organization	Time/Duration of Visit
Matt Wall	EPS Vermont	09:00 – 11:00
Mark Demmy	EPS Vermont	09:00 – 11:00

IV. Equipment On-site

Equipment	Model/Type	Qty
	Thyawzall Glycol Heater	0
	4900 Gallon poly tank for groundwater	0
	John Deer Dozer	0
	8000 gallon tanker truck	0
	20 Kw. light plant	0

V. Narrative of Work Performed (including <u>problems encountered</u> and <u>corrective actions</u> taken)

- Tailgate Safety Meeting Parsons
  - Visibility for equipment operators
  - Cold weather work procedure
  - Slip trip fall
- Environmental Products and Services of Vermont cleaned the 4900 gallon storage tank. Non-hazardous waste generated during cleaning process was taken offsite by EPS of VT.
- Rain for Rent arrived to pick up the 4900 gallon storage tank.

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

VI. Materials Removed and/or Removed from the Job Site

Material Removed/Delivered	Quantity	Hauler	Manifest Number
none			

** estimated weight*
Visual description of materials and/or equipment on-site and details of on-site storage of materials and/or equipment:

VII. Narrative of tests, inspections, and sampling completed

VIII. Sample Collection
Total number of samples collected today: 0
None

IX. Record of Data or Measurements Collected (note the types of measurements and any significant results)

H55 DO	0	QED Sample System	0	Petro Kit	None
Horiba U-22	0	Water Level	None	Other	None

X. Excavation Progress
Amount Excavated today: 0
None

Accidents reported today:	0	Accidents to date:	0	Days On-Site	17
None		None			

Note: Any quantities (e.g. volume estimates or estimated weight) listed in the daily report package are only approximations made in the field based on the Engineers best judgment.

Tailgate Safety Meeting Attendance Log

Date: December 16	**Time:** 0900	**Project:** SEAD-25 26 Remedial Action
Delivery Order Number:	**Location:** Seneca Army Depot Activity, Romulus, NY	
Weather Conditions: (Low/High Temp, Wind/Speed/Dir) (Severe Weather)	32° Sun 8 inches of snow	
Safety Meeting Topic (Briefly describe)	1. Snow & Ice Hazard 2. Slip Trip Fall 3. Vacuum Hazard	

Attendees:

Name	Signature	Company
Ben McAllister	Ben McAllister	PARSONS
Brandon Bergquist-Olmsted	Brandon Bergquist-Olmsted	PARSONS
Matt Wall	Matt Wall	EP+S of VT
Mark Denny	Mark Denny	EP+S of VT

Ben McAllister
Site Health and Safety Officer

Maintain in project files in Parsons Field Office.

Appendix D

Photo Documentation

- Table D-1: Photograph Index
- Photo Log

Table D-1
Photograph Index
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Photo No.	Location	Date	Description	Comments
1	SEAD-25 Pad	11/14/2005	Looking N at excavator loading truck with excavated soil; dust monitor in foreground at corner of Admin Ave & Ordnance Rd	N/A
2	SEAD-25 Pad	11/15/2005	SEAD-25 Pad looking N, excavation 90% complete, bedrock visible (as white) in the excavated area, monitoring wells MW25-2 & MW25-4D (left to right) in the foreground, and monitoring well MW25-3 along the NW corner of area	4 images were merged to create this image
3	SEAD-25 Ditch	11/10/2005	Looking SW along swale at SEAD-25; downgradient culvert visible in the distance	N/A
4	SEAD-25 Ditch	11/10/2005	Close up of swale bottom; exposed bedrock visible	N/A
5	SEAD-26 Area A	11/30/2005	SEAD-26 Area A looking W at additional excavation area and sample locations are identified by sample number	3 images were merged to create this image
6	SEAD-26 Area B	11/11/2005	Area B looking NW, excavation completed, sample locations marked with pin flags	2 images were merged to create this image
7	SEAD-26 Area C	11/30/2005	SEAD-26 Area C looking S at completed excavated area and sample locations marked by pin flags	N/A
8	SEAD-26 Area D	11/14/2005	Area D looking N, excavation completed, and sample locations marked with pin flags	2 images were merged to create this image
9	SEAD-26 Area D	11/30/2005	SEAD-26 Area D looking E; edges of excavation were smoothed to remove potential trip hazards.	3 images were merged to create this image
10	SEAD-26 Area E	11/14/2005	Area E looking W, excavation completed, and sample locations marked with pin flags	2 images were merged to create this image

PARSONS

Photo Documentation
Construction Completion Report for SEAD-25 and SEAD-26

Photo No.	1
Date	11/14/2005
Photo by	BBO

Photo Documentation
Construction Completion Report for SEAD-25 and SEAD-26

Photo No.	2
Date	11/15/2005
Photo by	BBO

Loc: SEAD-25 Pad
Desc: SEAD-25 Pad looking N, excavation 90% complete, bedrock visible (as white) in the excavated area, monitoring wells MW25-2 & MW25-4D (left to right) in foreground, and monitoring well MW25-3 along NW corner of area in the distance.

Photo Documentation
Construction Completion Report for SEAD-25 and SEAD-26

Photo No.	3
Date	11/10/2005
Photo by	BBO

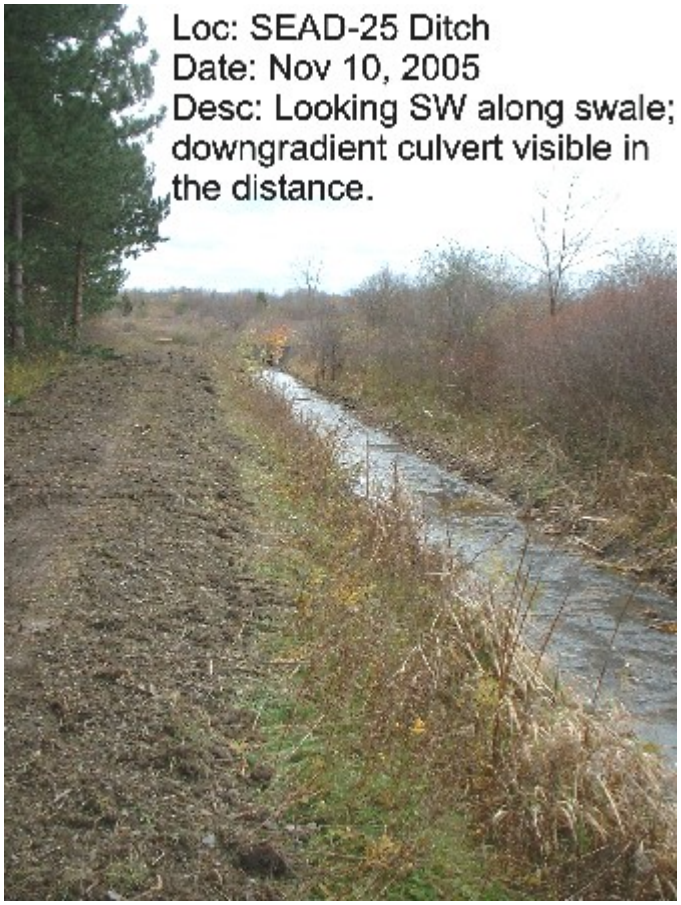


Photo No.	4
Date	11/10/2005
Photo by	BBO

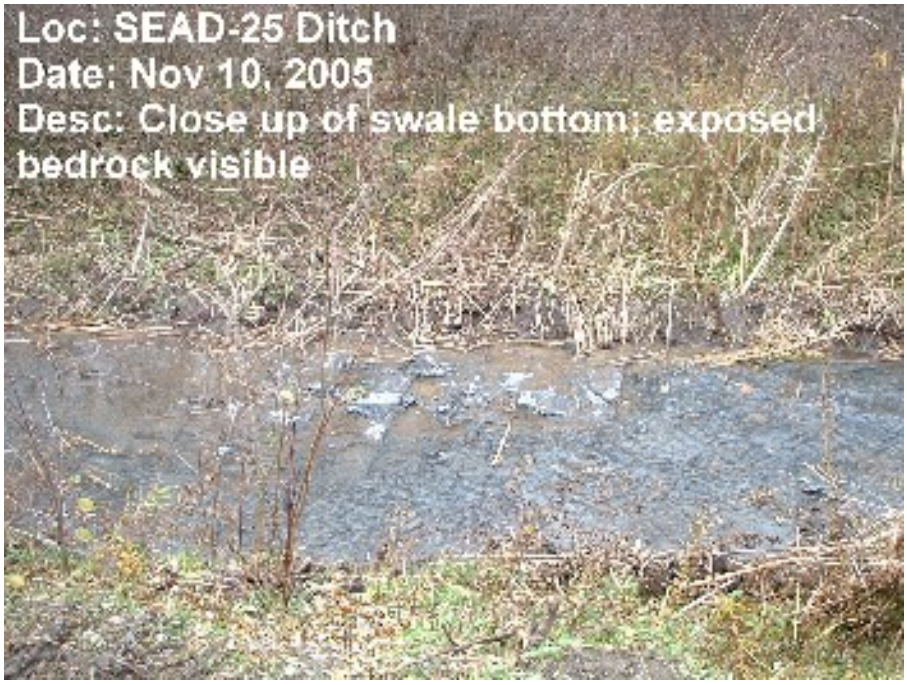


Photo Documentation
Construction Completion Report for SEAD-25 and SEAD-26

Photo No.	5
Date	11/30/2005
Photo by	BBO

Loc: SEAD-26 Area A
Desc: SEAD-26 Area A looking W at additional excavation area and sample locations are identified by sample number.

Photo Documentation
Construction Completion Report for SEAD-25 and SEAD-26

Photo No.	6
Date	11/11/2005
Photo by	BBO

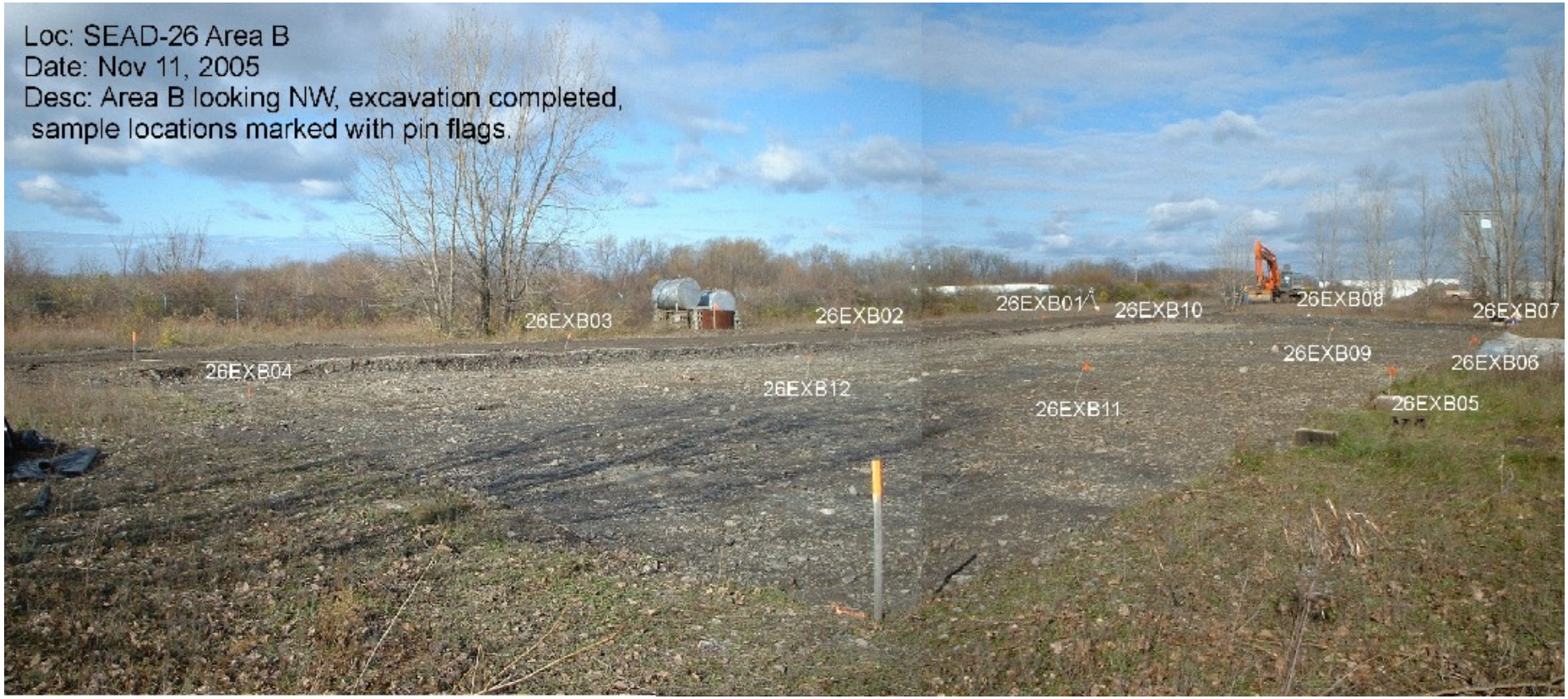


Photo Documentation
Construction Completion Report for SEAD-25 and SEAD-26

Photo No.	7
Date	11/30/2005
Photo by	BBO

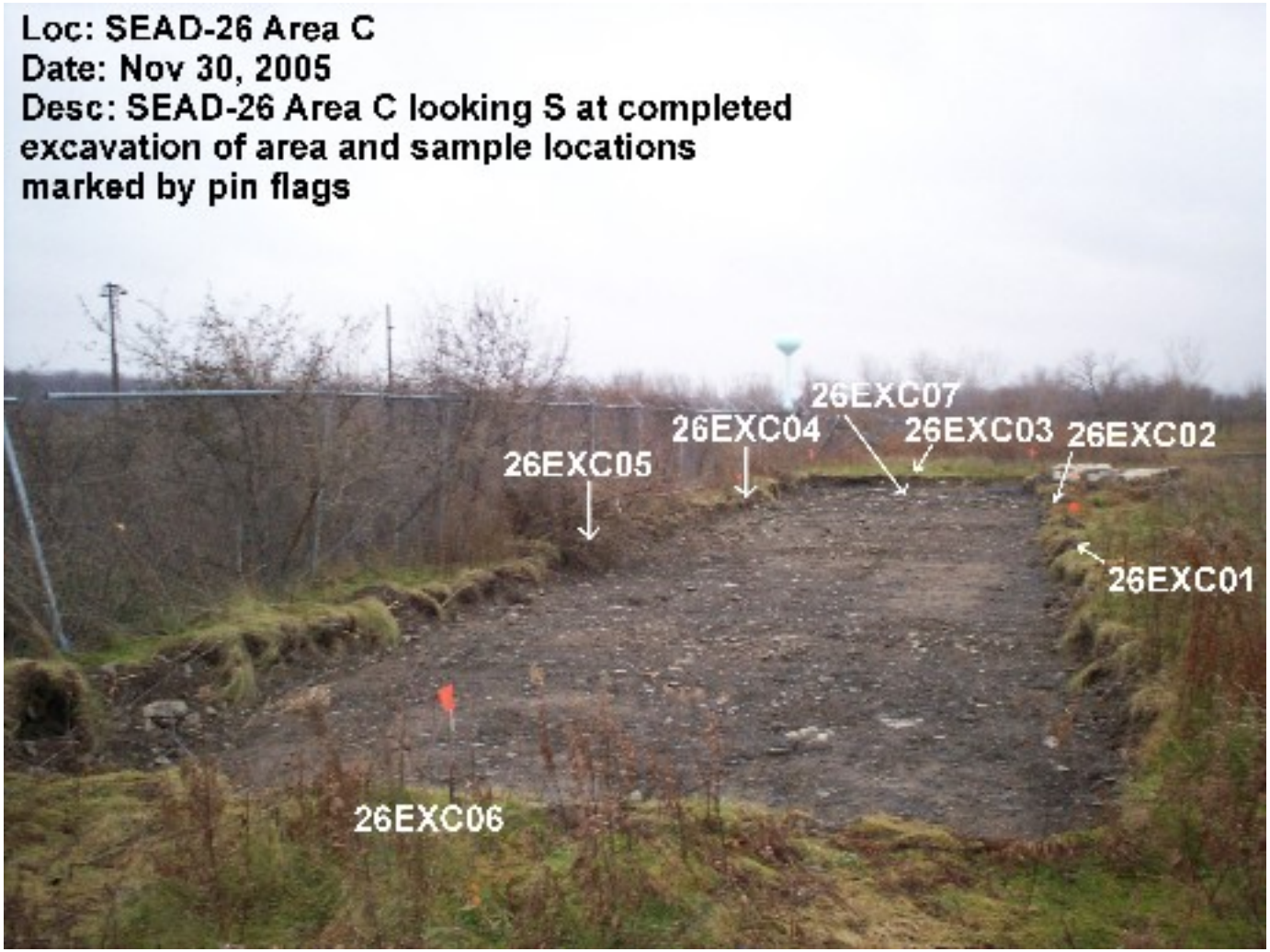


Photo Documentation
Construction Completion Report for SEAD-25 and SEAD-26

Photo No.	8
Date	11/14/2005
Photo by	BBO

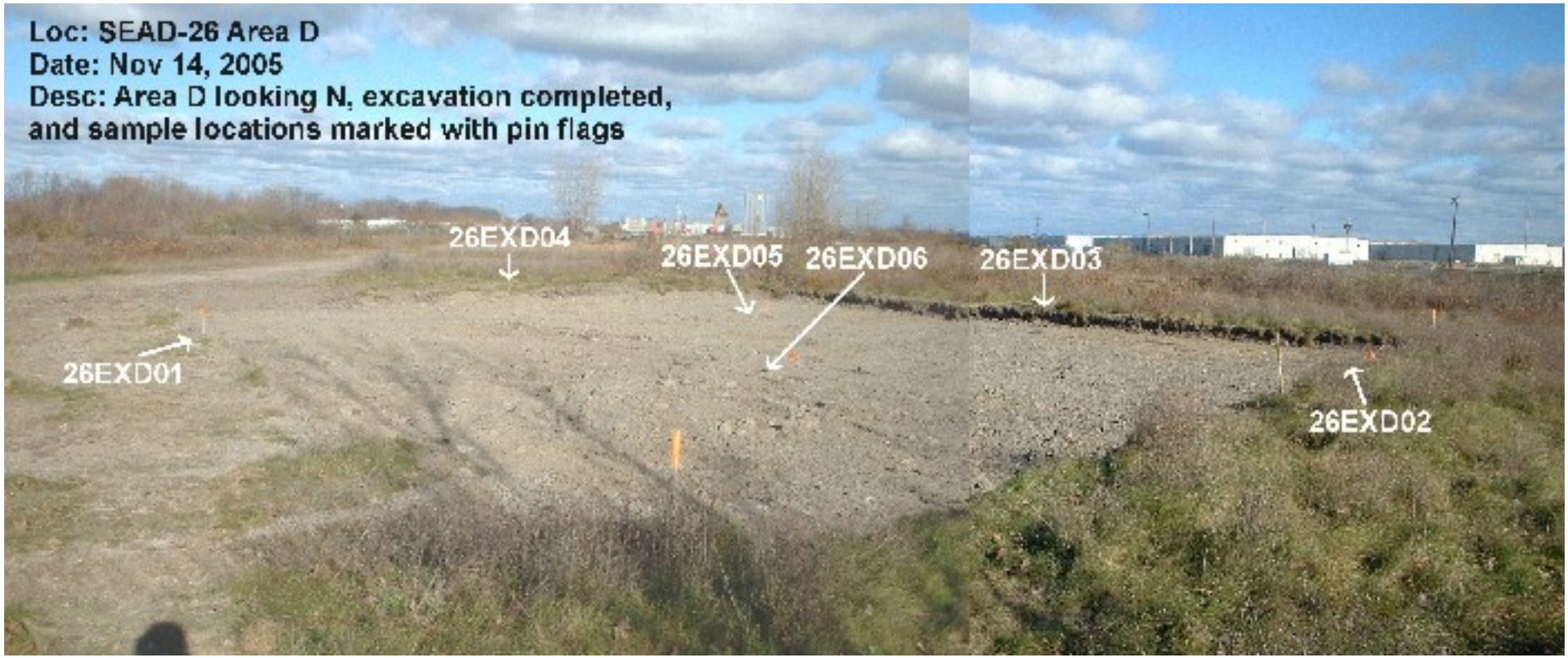


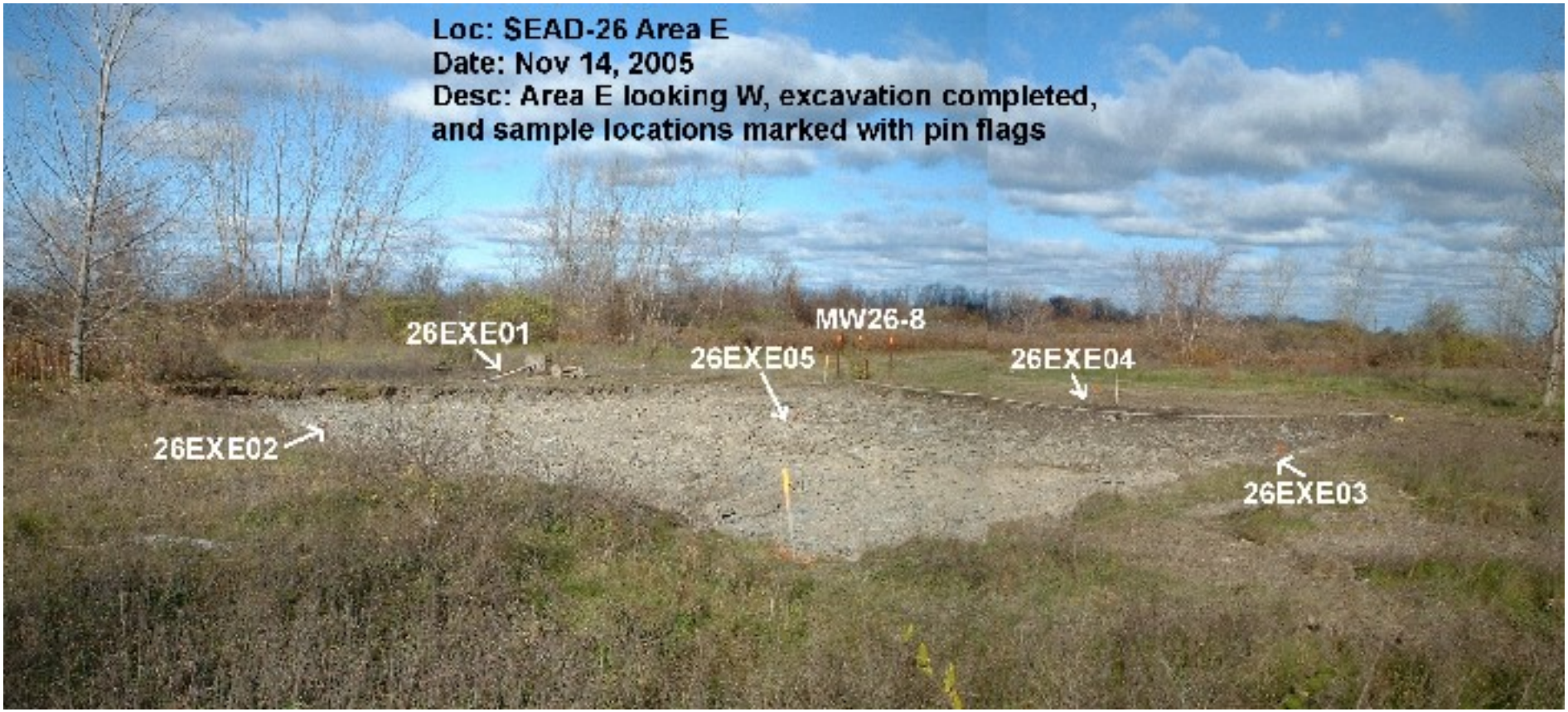
Photo Documentation
Construction Completion Report for SEAD-25 and SEAD-26

Photo No.	9
Date	11/30/2005
Photo by	BBO

Loc: SEAD-26 Area D
Desc: SEAD-26 Area D looking E, edges of excavation were smoothed to remove potential trip hazards.

Photo Documentation
Construction Completion Report for SEAD-25 and SEAD-26

Photo No.	10
Date	11/14/2005
Photo by	BBO



Appendix E

Analytical Results of Confirmatory Sampling

- Table E-1: SEAD-25 Confirmatory Soil Sample Results

Table E-1
SEAD-25 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility							SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID							25EXPAD01	25EXPAD02	25EXPAD02	25EXPAD03	25EXPAD04	25EXPAD05
Matrix							SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID							25EXPAD01	25EXPAD12	25EXPAD02	25EXPAD03	25EXPAD04	25EXPAD05
Sample Depth to Top of Sample							2	2	2	2	1	1
Sample Depth to Bottom of Sample							3	3	3	3	2	2
Sample Date							11/16/2005	11/16/2005	11/16/2005	11/16/2005	11/16/2005	11/16/2005
Sample Type							SA	DU	SA	SA	SA	SA
Study ID							RA	RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances [2]**	**Number of Times Detected**	**Number of Samples Analyzed [3]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds													
1,1,1-Trichloroethane	UG/KG	0	0%	800	0	0	10	13 U	13 U	12 U	12 U	12 U	13 U
1,1,2,2-Tetrachloroethane	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/KG	0	0%		NA	0	10	13 U	13 U	12 UJ	12 UJ	12 U	13 U
1,1,2-Trichloroethane	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
1,1-Dichloroethane	UG/KG	0	0%	200	0	0	10	13 U	13 U	12 UJ	12 UJ	12 U	13 U
1,1-Dichloroethene	UG/KG	0	0%		NA	0	10	13 U	13 U	12 UJ	12 UJ	12 U	13 U
1,2,4-Trichlorobenzene	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
1,2-Dibromo-3-chloropropane	UG/KG	0	0%		NA	0	10	13 UJ	13 UJ	12 UJ	12 UJ	12 UJ	13 UJ
1,2-Dibromoethane	UG/KG	0	0%		NA	0	10	13 UJ	13 U	12 UJ	12 UJ	12 U	13 U
1,2-Dichlorobenzene	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
1,2-Dichloroethane	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
1,2-Dichloropropane	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
1,3-Dichlorobenzene	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
1,4-Dichlorobenzene	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
Acetone	UG/KG	300	30%		NA	3	10	65 U	64 U	60 UJ	62 UJ	59 UJ	66 U
Benzene	UG/KG	41	30%	60	0	3	10	13 U	13 U	12 U	12 U	41	13 U
Bromodichloromethane	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
Bromoform	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
Carbon disulfide	UG/KG	0	0%		NA	0	10	13 U	13 U	12 UJ	12 U	12 U	13 U
Carbon tetrachloride	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 UJ	12 U	13 U
Chlorobenzene	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
Chlorodibromomethane	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
Chloroethane	UG/KG	0	0%		NA	0	10	13 U	13 U	12 UJ	12 UJ	12 U	13 U
Chloroform	UG/KG	0	0%	300	0	0	10	13 U	13 U	12 UJ	12 UJ	12 U	13 U
Cis-1,2-Dichloroethene	UG/KG	5.9	10%		NA	1	10	13 U	13 U	12 UJ	12 UJ	12 U	13 U
Cis-1,3-Dichloropropene	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
Cyclohexane	UG/KG	0	0%		NA	0	10	13 U	13 U	12 UJ	12 UJ	12 U	13 U
Dichlorodifluoromethane	UG/KG	0	0%		NA	0	10	13 U	13 U	12 UJ	12 UJ	12 U	13 U
Ethyl benzene	UG/KG	190	40%	5500	0	4	10	13 U	13 U	12 U	12 U	180	13 U
Isopropylbenzene	UG/KG	230	30%		NA	3	10	13 U	13 U	12 U	12 U	35	13 U
Meta/Para Xylene	UG/KG	1800	40%		NA	4	10	13 U	13 U	12 U	12 U	260	13 U
Methyl Acetate	UG/KG	0	0%		NA	0	10	13 UJ	13 U	12 UJ	12 UJ	12 U	13 U
Methyl Tertbutyl Ether	UG/KG	0	0%		NA	0	10	13 U	13 U	12 UJ	12 UJ	12 U	13 U
Methyl bromide	UG/KG	0	0%		NA	0	10	13 U	13 U	12 UJ	12 UJ	12 U	13 U
Methyl butyl ketone	UG/KG	0	0%		NA	0	10	65 U	64 U	60 U	62 U	59 U	66 U
Methyl chloride	UG/KG	0	0%		NA	0	10	13 U	13 U	12 UJ	12 UJ	12 U	13 U
Methyl cyclohexane	UG/KG	250	40%		NA	4	10	13 U	13 U	12 U	12 U	90	13 U
Methyl ethyl ketone	UG/KG	8.1	20%		NA	2	10	65 U	64 U	60 U	62 U	59 U	66 U
Methyl isobutyl ketone	UG/KG	0	0%		NA	0	10	65 U	64 U	60 U	62 U	59 U	66 U
Methylene chloride	UG/KG	1.6	20%		NA	2	10	1.6 J	13 U	12 UJ	1.6 J	12 U	13 U
Ortho Xylene	UG/KG	960	40%		NA	4	10	13 U	13 U	12 U	12 U	160	13 U
Styrene	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
Tetrachloroethene	UG/KG	0	0%		NA	0	10	13 U	13 U	12 U	12 U	12 U	13 U
Toluene	UG/KG	57	40%	1500	0	4	10	13 U	0.92 J	12 U	12 U	31	13 U
Total Xylenes	UG/KG	2800	40%	1200	1	4	10	26 U	26 U	24 U	24 U	420	26 U

Table E-1
SEAD-25 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility							SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID							25EXPAD01	25EXPAD02	25EXPAD02	25EXPAD03	25EXPAD04	25EXPAD05
Matrix							SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID							25EXPAD01	25EXPAD12	25EXPAD02	25EXPAD03	25EXPAD04	25EXPAD05
Sample Depth to Top of Sample							2	2	2	2	1	1
Sample Depth to Bottom of Sample							3	3	3	3	2	2
Sample Date							11/16/2005	11/16/2005	11/16/2005	11/16/2005	11/16/2005	11/16/2005
Sample Type							SA	DU	SA	SA	SA	SA
Study ID							RA	RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances [2]**	**Number of Times Detected**	**Number of Samples Analyzed [3]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Trans-1,2-Dichloroethene	UG/KG	0	0%		NA	0	10	13 U	13 U	12 UJ	12 UJ	12 U	13 U
Trans-1,3-Dichloropropene	UG/KG	0	0%		NA	0	10	13 UJ	13 UJ	12 UJ	12 UJ	12 UJ	13 UJ
Trichloroethene	UG/KG	0	0%	700	0	0	10	13 U	13 U	12 U	12 U	12 U	13 U
Trichlorofluoromethane	UG/KG	0	0%		NA	0	10	13 U	13 U	12 UJ	12 UJ	12 U	13 U
Vinyl chloride	UG/KG	0	0%		NA	0	10	13 U	13 U	12 UJ	12 UJ	12 U	13 U
Semivolatile Organic Compounds													
1,2,4-Trichlorobenzene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
1,2-Dichlorobenzene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
1,3-Dichlorobenzene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
1,4-Dichlorobenzene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
2,2'-oxybis(1-Chloropropane)	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
2,4,5-Trichlorophenol	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1000 U	990 U	1100 U
2,4,6-Trichlorophenol	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
2,4-Dichlorophenol	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
2,4-Dimethylphenol	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
2,4-Dinitrophenol	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1000 U	990 U	1100 U
2,4-Dinitrotoluene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
2,6-Dinitrotoluene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
2-Chloronaphthalene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
2-Chlorophenol	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
2-Methylnaphthalene	UG/KG	2000	20%	36400	0	2	10	430 U	420 U	400 U	410 U	2000	430 U
2-Methylphenol	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
2-Nitroaniline	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1000 U	990 U	1100 U
2-Nitrophenol	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
3,3'-Dichlorobenzidine	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
3-Nitroaniline	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1000 U	990 U	1100 U
4,6-Dinitro-2-methylphenol	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1000 U	990 U	1100 U
4-Bromophenyl phenyl ether	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
4-Chloro-3-methylphenol	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
4-Chloroaniline	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
4-Chlorophenyl phenyl ether	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
4-Nitroaniline	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1000 U	990 U	1100 U
4-Nitrophenol	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1000 U	990 U	1100 U
Acenaphthene	UG/KG	160	10%		NA	1	10	430 U	420 U	400 U	410 U	160 J	430 U
Acenaphthylene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Anthracene	UG/KG	200	10%		NA	1	10	430 U	420 U	400 U	410 U	200 J	430 U
Atrazine	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Benzo(a)anthracene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Benzo(a)pyrene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Benzo(b)fluoranthene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Benzo(ghi)perylene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Benzo(k)fluoranthene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Bis(2-Chloroethoxy)methane	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Bis(2-Chloroethyl)ether	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Bis(2-Ethylhexyl)phthalate	UG/KG	125	30%		NA	3	10	430 U	420 U	40 J	43 J	390 U	430 U
Butylbenzylphthalate	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U

Table E-1
SEAD-25 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility							SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID							25EXPAD01	25EXPAD02	25EXPAD02	25EXPAD03	25EXPAD04	25EXPAD05
Matrix							SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID							25EXPAD01	25EXPAD12	25EXPAD02	25EXPAD03	25EXPAD04	25EXPAD05
Sample Depth to Top of Sample							2	2	2	2	1	1
Sample Depth to Bottom of Sample							3	3	3	3	2	2
Sample Date							11/16/2005	11/16/2005	11/16/2005	11/16/2005	11/16/2005	11/16/2005
Sample Type							SA	DU	SA	SA	SA	SA
Study ID							RA	RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances [2]**	**Number of Times Detected**	**Number of Samples Analyzed [3]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Carbazole	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Chrysene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Di-n-butylphthalate	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Di-n-octylphthalate	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Dibenz(a,h)anthracene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Dibenzofuran	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Diethyl phthalate	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Dimethylphthalate	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Fluoranthene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Fluorene	UG/KG	340	10%		NA	1	10	430 U	420 U	400 U	410 U	340 J	430 U
Hexachlorobenzene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Hexachlorobutadiene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Hexachlorocyclopentadiene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Hexachloroethane	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Indeno(1,2,3-cd)pyrene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Isophorone	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
N-Nitrosodiphenylamine	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
N-Nitrosodipropylamine	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Naphthalene	UG/KG	650	20%	13000	0	2	10	430 U	420 U	400 U	410 U	650	430 U
Nitrobenzene	UG/KG	0	0%		NA	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Pentachlorophenol	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1000 U	990 U	1100 U
Phenanthrene	UG/KG	950	10%		NA	1	10	430 U	420 U	400 U	410 U	950	430 U
Phenol [4]	UG/KG	0	0%	30	0	0	10	430 U	420 U	400 U	410 U	390 U	430 U
Pyrene	UG/KG	120	10%		NA	1	10	430 U	420 U	400 U	410 U	120 J	430 U

Notes:
(1) Site-specific cleanup goals (CUGs), as listed in Table 2-1 of the "Remedial Design Work Plan and Design Report for SEAD-25 and SEAD-26, Final" (Parsons, 2005), were based on NYSDEC Technical and Administrative Guidance Memorandum (TAGM) HWR-94-4046, Revised January 24, 1994 (Tables 1, 2, and 3). A blank cell indicates that the parameter is not a COC and there is no site-specific CUG.
(2) The number of exceedances is not applicable (NA) for parameters without site-specific CUGs.
(3) Sample-duplicate pair (25EXPAD02 and 25EXPAD12 collected from 25EXPAD02) was averaged and the average results were used in the summary statistics presented in this table.
(4) The site-specific CUG for phenol is based on the TAGM value, which is 30 ug/Kg or the method detection limit (MDL). The MDLs for phenol range from 37 ug/Kg to 41 ug/Kg for these confirmatory samples. Phenol was not detected above these MDLs in any of the confirmatory samples.
(5) A bolded and outlined cell indicates a concentration that exceeds the site-specific CUGs.
(6) A shaded sample indicates that the soil represented by the sample has been removed from the site. Therefore, the analytical results for the shaded sample are not characteristic of current site conditions.

U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate

Table E-1
SEAD-25 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility								SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID								25EXPAD06	25EXPAD07	25EXPAD08	25EXPAD13	25EXPAD14
Matrix								SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID								25EXPAD06	25EXPAD07	25EXPAD08	25EXPAD13	25EXPAD14
Sample Depth to Top of Sample								1	1.5	1	1	1
Sample Depth to Bottom of Sample								2	2.5	2	2	2
Sample Date								11/16/2005	11/16/2005	11/16/2005	11/30/2005	11/30/2005
Sample Type								SA	SA	SA	SA	SA
Study ID								RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances [2]**	**Number of Times Detected**	**Number of Samples Analyzed [3]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds												
1,1,1-Trichloroethane	UG/KG	0	0%	800	0	0	10	64 U	13 UJ	12 U	13 U	12 U
1,1,2,2-Tetrachloroethane	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 UJ	13 U	12 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
1,1,2-Trichloroethane	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
1,1-Dichloroethane	UG/KG	0	0%	200	0	0	10	64 U	13 UJ	12 U	13 U	12 U
1,1-Dichloroethene	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
1,2,4-Trichlorobenzene	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 UJ	13 UJ	12 UJ
1,2-Dibromo-3-chloropropane	UG/KG	0	0%		NA	0	10	64 UJ	13 UJ	12 UJ	13 U	12 U
1,2-Dibromoethane	UG/KG	0	0%		NA	0	10	64 UJ	13 UJ	12 U	13 U	12 U
1,2-Dichlorobenzene	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 UJ	13 U	12 U
1,2-Dichloroethane	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
1,2-Dichloropropane	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
1,3-Dichlorobenzene	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 UJ	13 U	12 U
1,4-Dichlorobenzene	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 UJ	13 U	12 U
Acetone	UG/KG	300	30%		NA	3	10	300 J	65 UJ	62 U	85	150
Benzene	UG/KG	41	30%	60	0	3	10	7.4 J	13 UJ	9.4 J	13 U	12 U
Bromodichloromethane	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
Bromoform	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
Carbon disulfide	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
Carbon tetrachloride	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
Chlorobenzene	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 UJ	13 U	12 U
Chlorodibromomethane	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
Chloroethane	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
Chloroform	UG/KG	0	0%	300	0	0	10	64 U	13 UJ	12 U	13 U	12 U
Cis-1,2-Dichloroethene	UG/KG	5.9	10%		NA	1	10	5.9 J	13 UJ	12 U	13 U	12 U
Cis-1,3-Dichloropropene	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
Cyclohexane	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
Dichlorodifluoromethane	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
Ethyl benzene	UG/KG	190	40%	5500	0	4	10	32 J	1.3 J	190	13 U	12 U
Isopropylbenzene	UG/KG	230	30%		NA	3	10	12 J	13 UJ	230 J	13 U	12 U
Meta/Para Xylene	UG/KG	1800	40%		NA	4	10	460	4.4 J	1800	13 U	12 U
Methyl Acetate	UG/KG	0	0%		NA	0	10	64 UJ	13 UJ	12 U	13 U	12 U
Methyl Tertbutyl Ether	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
Methyl bromide	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
Methyl butyl ketone	UG/KG	0	0%		NA	0	10	320 U	65 UJ	62 UJ	64 U	61 U
Methyl chloride	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
Methyl cyclohexane	UG/KG	250	40%		NA	4	10	40 J	1.4 J	250	13 U	12 U
Methyl ethyl ketone	UG/KG	8.1	20%		NA	2	10	320 U	65 UJ	62 U	7.4 J	8.1 J
Methyl isobutyl ketone	UG/KG	0	0%		NA	0	10	320 U	65 UJ	62 UJ	64 U	61 U
Methylene chloride	UG/KG	1.6	20%		NA	2	10	64 U	13 UJ	12 U	13 U	12 U
Ortho Xylene	UG/KG	960	40%		NA	4	10	210	6.1 J	960	13 U	12 U
Styrene	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 UJ	13 U	12 U
Tetrachloroethene	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 UJ	13 U	12 U
Toluene	UG/KG	57	40%	1500	0	4	10	5.6 J	13 UJ	57 J	13 U	12 U
Total Xylenes	UG/KG	2800	40%	1200	1	4	10	670	11 J	**2800**	26 U	24 U

Table E-1
SEAD-25 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility							SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID							25EXPAD06	25EXPAD07	25EXPAD08	25EXPAD13	25EXPAD14
Matrix							SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID							25EXPAD06	25EXPAD07	25EXPAD08	25EXPAD13	25EXPAD14
Sample Depth to Top of Sample							1	1.5	1	1	1
Sample Depth to Bottom of Sample							2	2.5	2	2	2
Sample Date							11/16/2005	11/16/2005	11/16/2005	11/30/2005	11/30/2005
Sample Type							SA	SA	SA	SA	SA
Study ID							RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances [2]**	**Number of Times Detected**	**Number of Samples Analyzed [3]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Trans-1,2-Dichloroethene	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
Trans-1,3-Dichloropropene	UG/KG	0	0%		NA	0	10	64 UJ	13 UJ	12 UJ	13 U	12 U
Trichloroethene	UG/KG	0	0%	700	0	0	10	64 U	13 UJ	12 U	13 U	12 U
Trichlorofluoromethane	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 UJ	12 UJ
Vinyl chloride	UG/KG	0	0%		NA	0	10	64 U	13 UJ	12 U	13 U	12 U
Semivolatile Organic Compounds												
1,2,4-Trichlorobenzene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
1,2-Dichlorobenzene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
1,3-Dichlorobenzene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
1,4-Dichlorobenzene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
2,2'-oxybis(1-Chloropropane)	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
2,4,5-Trichlorophenol	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1100 U	1000 U
2,4,6-Trichlorophenol	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
2,4-Dichlorophenol	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
2,4-Dimethylphenol	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
2,4-Dinitrophenol	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1100 U	1000 U
2,4-Dinitrotoluene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
2,6-Dinitrotoluene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
2-Chloronaphthalene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
2-Chlorophenol	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
2-Methylnaphthalene	UG/KG	2000	20%	36400	0	2	10	420 U	260 J	400 U	420 U	400 U
2-Methylphenol	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
2-Nitroaniline	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1100 U	1000 U
2-Nitrophenol	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
3,3'-Dichlorobenzidine	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
3-Nitroaniline	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1100 U	1000 U
4,6-Dinitro-2-methylphenol	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1100 U	1000 U
4-Bromophenyl phenyl ether	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
4-Chloro-3-methylphenol	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
4-Chloroaniline	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
4-Chlorophenyl phenyl ether	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
4-Nitroaniline	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1100 U	1000 U
4-Nitrophenol	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1100 U	1000 U
Acenaphthene	UG/KG	160	10%		NA	1	10	420 U	420 U	400 U	420 U	400 U
Acenaphthylene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Anthracene	UG/KG	200	10%		NA	1	10	420 U	420 U	400 U	420 U	400 U
Atrazine	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Benzo(a)anthracene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Benzo(a)pyrene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Benzo(b)fluoranthene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Benzo(ghi)perylene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Benzo(k)fluoranthene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Bis(2-Chloroethoxy)methane	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Bis(2-Chloroethyl)ether	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Bis(2-Ethylhexyl)phthalate	UG/KG	125	30%		NA	3	10	420 U	43 J	400 U	420 U	400 U
Butylbenzylphthalate	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U

Table E-1
SEAD-25 Confirmatory Soil Sampling Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility							SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID							25EXPAD06	25EXPAD07	25EXPAD08	25EXPAD13	25EXPAD14
Matrix							SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID							25EXPAD06	25EXPAD07	25EXPAD08	25EXPAD13	25EXPAD14
Sample Depth to Top of Sample							1	1.5	1	1	1
Sample Depth to Bottom of Sample							2	2.5	2	2	2
Sample Date							11/16/2005	11/16/2005	11/16/2005	11/30/2005	11/30/2005
Sample Type							SA	SA	SA	SA	SA
Study ID							RA	RA	RA	RA	RA
Parameter	**Units**	**Maximum Value**	**Frequency of Detection**	**Cleanup Goal [1]**	**Number of Exceedances [2]**	**Number of Times Detected**	**Number of Samples Analyzed [3]**	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Carbazole	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Chrysene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Di-n-butylphthalate	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Di-n-octylphthalate	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Dibenz(a,h)anthracene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Dibenzofuran	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Diethyl phthalate	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Dimethylphthalate	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Fluoranthene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Fluorene	UG/KG	340	10%		NA	1	10	420 U	420 U	400 U	420 U	400 U
Hexachlorobenzene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Hexachlorobutadiene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Hexachlorocyclopentadiene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Hexachloroethane	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Indeno(1,2,3-cd)pyrene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Isophorone	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
N-Nitrosodiphenylamine	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
N-Nitrosodipropylamine	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Naphthalene	UG/KG	650	20%	13000	0	2	10	420 U	200 J	400 U	420 U	400 U
Nitrobenzene	UG/KG	0	0%		NA	0	10	420 U	420 U	400 U	420 U	400 U
Pentachlorophenol	UG/KG	0	0%		NA	0	10	1100 U	1100 U	1000 U	1100 U	1000 U
Phenanthrene	UG/KG	950	10%		NA	1	10	420 U	420 U	400 U	420 U	400 U
Phenol [4]	UG/KG	0	0%	30	0	0	10	420 U	420 U	400 U	420 U	400 U
Pyrene	UG/KG	120	10%		NA	1	10	420 U	420 U	400 U	420 U	400 U

Notes:
(1) Site-specific cleanup goals (CUGs), as listed in Table 2-1 of the "Remedial Design Work Plan and Design Report for SEAD-25 and SEAD-26, Final" (Parsons, 2005), were based on NYSDEC Technical and Administrative Guidance Memorandum (TAGM) HWR-94-4046, Revised January 24, 1994 (Tables 1, 2, and 3). A blank cell indicates that the parameter is not a COC and there is no site-specific CUG.
(2) The number of exceedances is not applicable (NA) for parameters without site-specific CUGs.
(3) Sample-duplicate pair (25EXPAD02 and 25EXPAD12 collected from 25EXPAD02) was averaged and the average results were used in the summary statistics presented in this table.
(4) The site-specific CUG for phenol is based on the TAGM value, which is 30 ug/Kg or the method detection limit (MDL). The MDLs for phenol range from 37 ug/Kg to 41 ug/Kg for these confirmatory samples. Phenol was not detected above these MDLs in any of the confirmatory samples.
(5) A bolded and outlined cell indicates a concentration that exceeds the site-specific CUGs.
(6) A shaded sample indicates that the soil represented by the sample has been removed from the site. Therefore, the analytical results for the shaded sample are not characteristic of current site conditions.

U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate

Appendix F

Chain of Custodies

- SDG A05-9987
- SDG A05-C294
- SDG A05-C683
- SDG T5262
- SDG T5691
- SDG T5704
- SDG T5760
- SDG T5803
- SDG T5911

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client: PARSONS	Project Manager: Jackie Travers	Date: 9/12	Chain of Custody Number: 241776
Address: 150 Federal St	Telephone Number (Area Code)/Fax Number: 617-4491580	Lab Number:	Page 1 of 1
City: Boston	State: MA	Zip Code: 02110	Site Contact: Ben	Lab Contact: Boydon
Project Name and Location (State): Seneca NY	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 744538			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	4°C	Analysis (Attach list if more space is needed): TCLP Volatiles	TCLP	Metals	Semivolatiles	Pesticides	Herbicides	PCBs	Flash point	pH	Reactive Cn	Sulfide	Special Instructions/ Conditions of Receipt
~~25A0001~~ = 26A0001 *	9/12	1420				X							X	1	1						1				
~~25B0001~~ = 26B0001 *		1430				X							X	1	1						1				
~~25C0001~~ = 26C0001 *		1440				X							X	1	1						1				
~~25D0001~~ = 26D0001 *		1505				X							X	1	1						1				
~~25E0001~~ = 26E0001 *		1510				X							X	1	1						1				
~~26D0001~~ = 25D0001 *		1545				X							X	1	1						1				
~~26D0002~~ = 25D0002 *		1600				X							X	1	1						1				
~~26D0003~~ = 25D0003 *		1610				X							X	1	1						1				
~~26D0004~~ = 25D0004 *		1615				X							X	1	1						1				
~~26D0005~~ = 25D0005 *		1630				X							X	1	1						1				30 Bottles Total

* Sample #s changed 9/15/05 Ben McAllister

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown	Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)		
Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____	QC Requirements (Specify)		
1. Relinquished By: Ben McAllister	Date: 9/12	Time: 1700	1. Received By: [signature]	Date: 09/13/05	Time: 0840
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments: 1 4 oz Bottle TCLP Volatiles / 1 bottle TCLP (metals, Semivolatiles, Pesticides, Herbicides, PCBs) 4.0°C
1 bottle Flash Point, pH, Reactive Cyanide, Sulfide.

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

63/63

NYSA4521 \ ~~E303~~

VERN RENT STL

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

STL Buffalo

STL Buffalo
10 Hazelwood Drive, Suite 106
Amherst, NY 14228
Ph: 716-691-2600
Fax: 716-691-7991
Website: www.stl-inc.com

STL JOB/LOG #: [redacted]

Possible Hazards: Unknown

Sample Disposal: Lab Disposal

JECT & CLIENT INFORMATION | Project State: NY

T REFERENCE/NAME: -25/26 Remedial Design	PROJECT NO.: 744538-03100	NY
B) PROJECT MANAGER: 3ogolin	P.O. NUMBER: 744538-30001-00	CONTRACT/Quote NO.: 744538-30001-00
(SITE) PM: aline Travers/Chunhua Liu	CLIENT PHONE: 617-449-1567(C. Liu)	CLIENT FAX: 617-946-9777
NAME: 1s	CLIENT EMAIL: chunhua.liu@parsons.com	
ADDRESS: ederal Street, Boston, MA 02110		
ers Signature & Initials:		

Sample Information | REQUIRED ANALYSES | PAGE 1 OF 1

Final Report Type (Circle at least one): ASP2000 Category B; EDD Project-Specified
TAT/ DATE DUE 7 calendar days
EXPEDITED REPORT (circle one) FAX EMAIL POST Other
TAT/ DATE DUE 7 calendar days
NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

SAMPLED ON DATE	TIME	SAMPLE IDENTIFICATION	LABORATORY SAMPLE ID	SAMPLE TYPE	FIELD FILTERED	MATRIX	VOC - 8260B OLM 4.3 LOW (8)	SVOC - OLM 4.3 LOW (8)	METALS - 6010 + 7000 SERIES (8)						REMARKS
10/28/05	1315	25FMOS01		Soil	N	S	1	1	2						
10/28/05	1800	SEAD2500001		TRIP BLANK		W									

NUMBER OF CONTAINERS SUBMITTED

Preservative
8 Ice

IQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
...ster M Schuster	10/28/05	1800						
IVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

IVED FOR LABORATORY BY: (…TURE)	DATE	TIME	CUSTODY INTACT YES NO	CUSTODY SEAL NO.	LABORATORY REMARKS:
[signature]	10/29/05	1010	8		2.0°

57/610

Original - Return to Laboratory with Sample(s)

SEVERN TRENT STL

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

STL Buffalo

STL Buffalo
10 Hazelwood Drive, Suite 106
Amherst, NY 14228
Ph: 716-691-2600
Fax: 716-691-7991
Website: www.stl-inc.com

STL JOB/LOG #:

Possible Hazards: Unknown

Sample Disposal: Lab Disposal

PAGE 1 OF 1

PROJECT & CLIENT INFORMATION		Project State
PROJECT REFERENCE/NAME: SEAD-25/26 Remedial Design	PROJECT NO.: 744536-03100	NY
STL (LAB) PROJECT MANAGER: Tony Bogolin	P.O. NUMBER: 744536-30001-00	CONTRACT/Quote NO.: 744536-30001-00
CLIENT (SITE) PM: Jacqueline Travers/Chunhua Liu	CLIENT PHONE: 617-449-1567(C. Liu)	CLIENT FAX: 617-946-9777
CLIENT NAME: Parsons	CLIENT EMAIL: chunhua.liu@parsons.com	
CLIENT ADDRESS: 150 Federal Street, Boston, MA 02110		
Samplers Signature & Initials:		

SAMPLED ON DATE	SAMPLED ON TIME	SAMPLE IDENTIFICATION	LABORATORY SAMPLE ID	SAMPLE TYPE	FIELD FILTERED	MATRIX	TCLP - VOC(EPA Method 1311)	TCLP - SVOC (EPA Method 1311)	TCLP - METALS (EPA Method 1311)	TCLP - PESTICIDES (SW846 - Method 8010)	TCLP - HERBICIDES (SW846 Method 8151)	PCB's (SW846 Method 8082)	Ignitability, pH, Reactivity			REMARKS
							8	8	8	8	8	8	8			
							NUMBER OF CONTAINERS SUBMITTED									
11/7/05	1000	~~25EXPAD01~~ 25D0006 CL 11/9/05		Soil	N	S	1	1	1	1	1	1	1			One Sample Only
																Preservative: 8 Ice

Final Report Type (Circle at least one):
ASP2000 Category B
EDD Project-Specified
TAT/ DATE DUE 3 calendar days

EXPEDITED REPORT (circle one)
FAX EMAIL POST Other
TAT/ DATE DUE 7 calendar days

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Ben McAllister	11/7/05	1800						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT YES ○ NO ○	CUSTODY SEAL NO.	LABORATORY REMARKS:

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number 11/04 ~~T5676~~ T5262

CLIENT INFORMATION	PROJECT INFORMATION	BILLING INFORMATION
Report to be sent to	PROJECT NAME: SEAD-25/26 Remediation	BILL TO: Parsons PO# 744538.30005
COMPANY: Parsons	PROJECT #: 744538-03100 LOCATION: NY	ADDRESS: 290 Elwood Davis Road, Suite 312
ADDRESS: 150 Federal Street, 4th Floor	PROJECT MANAGER: Jacqueline Travers/Chunhua Liu	CITY: Liverpool STATE: NY ZIP: 13088
CITY: Boston STATE: MA ZIP: 02110	E-MAIL: chunhua.liu@parsons.com	ATTENTION: Martin Switzer
ATTENTION: Chunhua Liu	PHONE: 617-449-1567 FAX: 617-946-9777	PHONE: 315-451-5960
PHONE: 617-449-1567 FAX: 617-946-9777		

DATA TURNAROUND INFORMATION

FAX: 3 DAYS*
HARD COPY: 3 DAYS*
EDD 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS + QC
- ☐ New Jersey REDUCED
- → New Jersey CLP
- ☐ USEPA CLP
- X New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☐ EDD FORMAT Project-Specified

ANALYSIS

1 VOCs; 2 SVOCs; 3 Metals (6010B); 4 Mercury (7471A); 5 Cyanide (9012A); 6; 7; 8; 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES 1	2	3	4	5	6	7	8	9
								E	E	E	E	E				
1. 25FMSP101		Soil		X	11/9/2005	14:30		3	1	1	1	1				
~~2. 25FM00001~~		~~Water~~			~~11/9/2005~~	~~8:00~~		2	e							
Cancel analysis for 25FM0001			C. Liu		11/10/05											

COMMENTS

<-- Specify Preservatives
A-HCl B-HNO3 C-H2SO13 D-NaOH E-ICE F-OTHER

1. Each VOC sample include 2 encore samples and 1 jar sample;
2. Use CLP OLM04.3/ASP2000 Method for VOCs and SVOCs.

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	11/09/05@18:00	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME 1:30	RECEIVED FOR LAB BY
3. FedEx	11/10/05	3.

Conditions of bottles or coilers at receipt: → COMPLIANT → NON COMPLIANT → COOLER TEMP 4°C
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:
THREE DAY TURN AROUND THIS IS REVISED C.O.C.

Page 1 of 1

CLIENT: → Hand Delivered → Overnight
CHEMTECH: → Picked Up →

Shipment Complete ☒ YES → NO

10/18/2004

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY #

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number T5691

QSC Number 105-105-1

CLIENT INFORMATION

Report to be sent to
COMPANY: Parsons
ADDRESS: 150 Federal Street, 4th Floor
CITY: Boston STATE: MA ZIP: 02110
ATTENTION: Chunhua Liu
PHONE: 617-449-1567 FAX: 617-946-9777

PROJECT INFORMATION

PROJECT NAME: SEAD-25/26 Remediation
PROJECT #: 744538-03100 LOCATION: NY
PROJECT MANAGER: Jacqueline Travers/Chunhua Liu
E-MAIL: chunhua.liu@parsons.com
PHONE: 617-449-1567 FAX: 617-946-9777

BILLING INFORMATION

BILL TO: Parsons PO# 744538.30005
ADDRESS: 290 Elwood Davis Road, Suite 312
CITY: Liverpool STATE: NY ZIP: 13088
ATTENTION: Martin Switzer
PHONE: 315-451-5960

DATA TURNAROUND INFORMATION

FAX: 3 DAYS*
HARD COPY: 3 DAYS*
EDD 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS + QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ USEPA CLP
- X New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☐ EDD FORMAT Project-Specified

ANALYSIS

Carcinogenic PAHs / VOCs

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES 1	2	3	4	5	6	7	8	9
								E	A							
1. 26EXB04		Soil		X	11/10/2005	1504	1	1								
2. 26EXB05		Soil		X	11/10/2005	1514	1	1								
3. 26EXB06		Soil		X	11/10/2005	1530	1	1								
4. 26EXB07		Soil		X	11/10/2005	1536	1	1								
5. 26EXB08		Soil		X	11/10/2005	1540	1	1								
6. 26EXC07		Soil		X	11/10/2005	1602	1	1								
7. 26EX00001		Water		X	11/10/2005	1633	1	X	1							
8. 26TNK101		Water		X	11/10/2005	1600	3		3							
9. 26TNK201		Water		X	11/10/2005	1600	3		3							

CL 11/11/05

COMMENTS

← Specify Preservatives
A-HCl B-HNO4
C-H2SO13 D-NaOH
E-ICE F-OTHER

Use CLP OLM04.3/ASP2000 Method

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1. Brandon Barnett Chelsea	11/10/05	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3. FedEx	11-11-05 9:40	

Conditions of bottles or coilers at receipt: → COMPLIANT → NON COMPLIANT → COOLER TEMP 4°C
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:
THREE DAY TURN AROUND

Page 1 of 1

CLIENT: → Hand Delivered → Overnight
CHEMTECH: → Picked Up →

Shipment Complete
X YES → NO

11/10/2005

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

#

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number: T5704

COC Number: 16-11-05-1

CLIENT INFORMATION

Report to be sent to

COMPANY: Parsons
ADDRESS: 150 Federal Street, 4th Floor
CITY: Boston STATE: MA ZIP: 02110
ATTENTION: Chunhua Liu
PHONE: 617-449-1567 FAX: 617-946-9777

PROJECT INFORMATION

PROJECT NAME: SEAD-25/26 Remediation
PROJECT #: 744538-03100 LOCATION: NY
PROJECT MANAGER: Jacqueline Travers/Chunhua Liu
E-MAIL: chunhua.liu@parsons.com
PHONE: 617-449-1567 FAX: 617-946-9777

BILLING INFORMATION

BILL TO: Parsons PO# 744538.30005
ADDRESS: 290 Elwood Davis Road, Suite 312
CITY: Liverpool STATE: NY ZIP: 13088
ATTENTION: Martin Switzer
PHONE: 315-451-5960

DATA TURNAROUND INFORMATION

FAX: 3 DAYS*
HARD COPY: 3 DAYS*
EDD 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS * QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ USEPA CLP
- X New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☐ EDD FORMAT Project-Specified

ANALYSIS

Carcinogenic PAHs

PRESERVATIVES: 1 2 3 4 5 6 7 8 9

COMMENTS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	E 1	2	3	4	5	6	7	8	9
1. 26EXE05		Soil		X	11/16/2005	930	1	1								
2. 26EXE04		Soil		X	11/16/2005	943	1	1								
3. 26EXD05		Soil		X	11/16/2005	953	1	1								
4. 26EXD01		Soil		X	11/16/2005	1003	1	1								
5. 26EXC06		Soil		X	11/16/2005	1027	1	1								
6. 26EXC05		Soil		X	11/16/2005	1030	1	1								
7.26EXC01		Soil		X	11/16/2005	1035	1	1								
8. 26EXC04		Soil		X	11/16/2005	1039	1	1								
9. 26EXC02		Soil		X	11/16/2005	1043	1	1								
10. 26EXC03		Soil		X	11/16/2005	1047	1	1								

Use CLP OLM04.3/ASP2000 Method

← Specify Preservatives
A-HCl B-HNO4 C-H2SO13 D-NaOH E-ICE F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	11/16/05	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME 9:35	RECEIVED FOR LAB BY
3. FedEx	11/17-05	3.

Conditions of bottles or coilers at receipt: → COMPLIANT → NON COMPLIANT → COOLER TEMP 4°C
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:
THREE DAY TURN AROUND

Page 1 of 3

CLIENT: → Hand Delivered → Overnight
CHEMTECH: → Picked Up →

Shipment Complete: X YES → NO

11/16/2005

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT **YELLOW** - CHEMTECH COPY **PINK** - SAMPLER COPY

#

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number: T5704

COC Number: 16-11-05-1

CLIENT INFORMATION

Report to be sent to

COMPANY: Parsons
ADDRESS: 150 Federal Street, 4th Floor
CITY: Boston STATE: MA ZIP: 02110
ATTENTION: Chunhua Liu
PHONE: 617-449-1567 FAX: 617-946-9777

PROJECT INFORMATION

PROJECT NAME: SEAD-25/26 Remediation
PROJECT #: 744538-03100 LOCATION: NY
PROJECT MANAGER: Jacqueline Travers/Chunhua Liu
E-MAIL: chunhua.liu@parsons.com
PHONE: 617-449-1567 FAX: 617-946-9777

BILLING INFORMATION

BILL TO: Parsons PO# 744538.30005
ADDRESS: 290 Elwood Davis Road, Suite 312
CITY: Liverpool STATE: NY ZIP: 13088
ATTENTION: Martin Switzer
PHONE: 315-451-5960

DATA TURNAROUND INFORMATION

FAX: 3 DAYS*
HARD COPY: 3 DAYS*
EDD 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESEULTS ONLY
- ☐ RESULTS * QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ USEPA CLP
- X New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☐ EDD FORMAT Project-Specified

ANALYSIS

Carcinogenic PAHs

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES E	1	2	3	4	5	6	7	8	9	COMMENTS
1. 26EXA06		Soil CL 11/18/05	~~X~~	X	11/16/2005	1116	1		1									
2. 26EXA06MS		Soil CL 11/18/05	~~X~~	X	11/16/2005	1116	1		1									
3. 26EXA06MSD		Soil CL 11/18/05	~~X~~	X	11/16/2005	1116	1		1									
4. 26EXA09		Soil CL 11/18/05	~~X~~	X	11/16/2005	1119	1		1									
5. 26EXA01		Soil		X	11/16/2005	1137	1		1									
6. 26EXA07		Soil		X	11/16/2005	1132	1		1									
7.26EXA05		Soil		X	11/16/2005	1127	1		1									
8. 26EXA04		Soil		X	11/16/2005	1147	1		1									
9. 26EXA08		Soil		X	11/16/2005	1152	1		1									
10. 26EXA02		Soil		X	11/16/2005	1157	1		1									

<- Specify Preservatives
A-HCl B-HNO4
C-H2SO13 D-NaOH
E-ICE F-OTHER

Use CLP OLM04.3/ASP2000 Method

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	11/16/05	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME 9:35	RECEIVED FOR LAB BY
3. Fedex	11-17-05	3.

Conditions of bottles or coliers at receipt: → COMPLIANT → NON COMPLIANT → COOLER TEMP 4°C
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:
THREE DAY TURN AROUND

Page 2 of 3

CLIENT: → Hand Delivered →
Overnight
CHEMTECH: → Picked Up →

Shipment Complete
X YES → NO
#

11/16/2005

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT **YELLOW** - CHEMTECH COPY **PINK** - SAMPLER COPY

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number: T5704

COC Number: 16-11-05-1

CLIENT INFORMATION

Report to be sent to
COMPANY: Parsons
ADDRESS: 150 Federal Street, 4th Floor
CITY: Boston STATE: MA ZIP: 02110
ATTENTION: Chunhua Liu
PHONE: 617-449-1567 FAX: 617-946-9777

PROJECT INFORMATION

PROJECT NAME: SEAD-25/26 Remediation
PROJECT #: 744538-03100 LOCATION: NY
PROJECT MANAGER: Jacqueline Travers/Chunhua Liu
E-MAIL: chunhua.liu@parsons.com
PHONE: 617-449-1567 FAX: 617-946-9777

BILLING INFORMATION

BILL TO: Parsons PO# 744538.30005
ADDRESS: 290 Elwood Davis Road, Suite 312
CITY: Liverpool STATE: NY ZIP: 13088
ATTENTION: Martin Switzer
PHONE: 315-451-5960

DATA TURNAROUND INFORMATION

FAX: 3 DAYS*
HARD COPY: 3 DAYS*
EDD 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS * QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ USEPA CLP
- X New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☐ EDD FORMAT Project-Specified

ANALYSIS

Carcinogenic PAHs

PRESERVATIVES: E

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	1	2	3	4	5	6	7	8	9
1. 26EXA03		Soil		X	11/16/2005	1202	1	1								
2. 26EX00102		Water		X	11/16/2005	.1233	1	1								
3.																
4.																
5.																
6.																
7.																
8.																
9.																
10.																

COMMENTS

<- Specify Preservatives
A-HCl B-HNO4
C-H2SO13 D-NaOH
E-ICE F-OTHER

Use CLP OLM04.3/ASP2000 Method

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1. [signature]	11/16/05	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3. FED-EX	11-17-05 9:35	3. [signature]

Conditions of bottles or coilers at receipt: → COMPLIANT → NON COMPLIANT → COOLER TEMP 4°C
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:
THREE DAY TURN AROUND

Page 3 of 3

CLIENT: → Hand Delivered → (Overnight)
CHEMTECH: → Picked Up →

Shipment Complete
X YES → NO
#

11/16/2005

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number: T5760

COC Number: 14-11-05-1

CLIENT INFORMATION

Report to be sent to

COMPANY: Parsons
ADDRESS: 150 Federal Street, 4th Floor
CITY: Boston STATE: MA ZIP: 02110
ATTENTION: Chunhua Liu
PHONE: 617-449-1567 FAX: 617-946-9777

PROJECT INFORMATION

PROJECT NAME: SEAD-25/26 Remediation
PROJECT #: 744538-03100 LOCATION: NY
PROJECT MANAGER: Jacqueline Travers/Chunhua Liu
E-MAIL: chunhua.liu@parsons.com
PHONE: 617-449-1567 FAX: 617-946-9777

BILLING INFORMATION

BILL TO: Parsons PO# 744538.30005
ADDRESS: 290 Elwood Davis Road, Suite 312
CITY: Liverpool STATE: NY ZIP: 13088
ATTENTION: Martin Switzer
PHONE: 315-451-5960

DATA TURNAROUND INFORMATION

FAX: 3 DAYS*
HARD COPY: 3 DAYS*
EDD 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS + QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ USEPA CLP
- X New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☐ EDD FORMAT Project-Specified

ANALYSIS

Carcinogenic PAHs

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES E	1	2	3	4	5	6	7	8	9	COMMENTS
1. 26EXB11		Soil		X	11/13/2005	1333	1		1									
2. 26EXB12		Soil		X	11/13/2005	1335	1		1									
3. 26EXB03		Soil		X	11/13/2005	1337	1		1									
4. 26EXB02		Soil		X	11/13/2005	1338	1		1									
5. 26EXB01		Soil		X	11/13/2005	1340	1		1									
6. 26EXB10		Soil		X	11/13/2005	1341	1		1									
7.26EXB09		Soil		X	11/13/2005	1343	1		1									
8. 26EXD02		Soil		X	11/13/2005	1350	1		1									
9. 26EXD06		Soil		X	11/13/2005	1353	1		1									
10. 26EXD04		Soil		X	11/13/2005	1355	1		1									

PRESERVATIVES: ← Specify Preservatives
A-HCl B-HNO4 C-H2SO13 D-NaOH E-ICE F-OTHER

COMMENTS: Use CLP OLM04.3/ASP2000 Method

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	11/14/05 1710	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME 11-15-05 9:20	RECEIVED FOR LAB BY
3. Fedex		3.

Conditions of bottles or coolers at receipt: (✈ COMPLIANT) ✈ NON COMPLIANT ✈ COOLER TEMP 4°C
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:
THREE DAY TURN AROUND

Page 1 of 2

CLIENT: ✈ Hand Delivered ✈ (Overnight)
CHEMTECH: ✈ Picked Up ✈

Shipment Complete ☑ YES ✈ NO

11/14/2005

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

#

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number: T5760

COC Number: 14-11-05-1

CLIENT INFORMATION

Report to be sent to
COMPANY: Parsons
ADDRESS: 150 Federal Street, 4th Floor
CITY: Boston STATE: MA ZIP: 02110
ATTENTION: Chunhua Liu
PHONE: 617-449-1567 FAX: 617-946-9777

PROJECT INFORMATION

PROJECT NAME: SEAD-25/26 Remediation
PROJECT #: 744538-03100 LOCATION: NY
PROJECT MANAGER: Jacqueline Travers/Chunhua Liu
E-MAIL: chunhua.liu@parsons.com
PHONE: 617-449-1567 FAX: 617-946-9777

BILLING INFORMATION

BILL TO: Parsons PO# 744538.30005
ADDRESS: 290 Elwood Davis Road, Suite 312
CITY: Liverpool STATE: NY ZIP: 13088
ATTENTION: Martin Switzer
PHONE: 315-451-5960

DATA TURNAROUND INFORMATION

FAX: 3 DAYS*
HARD COPY: 3 DAYS*
EDD 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS + QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ USEPA CLP
- X New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☐ EDD FORMAT Project-Specified

ANALYSIS

Carcinogenic PAHs

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE: COMP	SAMPLE TYPE: GRAB	SAMPLE COLLECTION: DATE	SAMPLE COLLECTION: TIME	# of Bottles	PRESERVATIVES: E	1	2	3	4	5	6	7	8	9	COMMENTS
1. 26EXD03		Soil 11/21/05		X	11/13/2005	1358	1		1									Use CLP OLM04.3/ASP2000 Method
2. 26EXE03		Soil CL 11/21/05	X	X	11/13/2005	1415	1		1									
3. 26EXE06		Soil CL 11/21/05	X	X	11/13/2005	1413	1		1									
4. 26EXE03MS		Soil CL 11/21/05	X	X	11/13/2005	1415	1		1									
5. 26EXE03MSD		Soil CL 11/21/05	X	X	11/13/2005	1415	1		1									
6. 26EXE02		Soil		X	11/13/2005	1430	1		1									
7.26EXE01		Soil		X	11/13/2005	1435	1		1									
8. 26EX00101		Water		X	11/14/2005	1700	1		1									
9.																		
10.																		

PRESERVATIVES: A-HCl B-HNO4 C-H2SO13 D-NaOH E-ICE F-OTHER

COMMENTS: ← Specify Preservatives

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	11/14/05 1710	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3. Fed-Ex	11/15/05 9:20	3.

Conditions of bottles or coolers at receipt: ✈ COMPLIANT ✈ NON COMPLIANT ✈ COOLER TEMP 4°C
MeOH extraction requires an additional ~~4oz. Jar~~ for percent solid
Comments:
THREE DAY TURN AROUND

Page 2 of 2

CLIENT: ✈ Hand Delivered ✈ Overnight
CHEMTECH: ✈ Picked Up ✈

Shipment Complete ☒ YES ✈ NO

#

11/14/2005

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number T5803

COC Number: 16-11-05-2

CLIENT INFORMATION

Report to be sent to
COMPANY: Parsons
ADDRESS: 150 Federal Street, 4th Floor
CITY: Boston STATE: MA ZIP: 02110
ATTENTION: Chunhua Liu
PHONE: 617-449-1567 FAX: 617-946-9777

PROJECT INFORMATION

PROJECT NAME: SEAD-25/26 Remediation
PROJECT #: 744538-03100 LOCATION: NY
PROJECT MANAGER: Jacqueline Travers/Chunhua Liu
E-MAIL: chunhua.liu@parsons.com
PHONE: 617-449-1567 FAX: 617-946-9777

BILLING INFORMATION

BILL TO: Parsons PO# 744538.30005
ADDRESS: 290 Elwood Davis Road, Suite 312
CITY: Liverpool STATE: NY ZIP: 13088
ATTENTION: Martin Switzer
PHONE: 315-451-5960

DATA TURNAROUND INFORMATION

FAX: 3 DAYS*
HARD COPY: 3 DAYS*
EDD 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS * QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ USEPA CLP
- X New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☐ EDD FORMAT Project-Specified

ANALYSIS

1 VOCs 2 SVOCs 3 VOCs 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES 1	2	3	4	5	6	7	8	9
1. 25EXPAD03		Soil		X	11/16/2005	1434	4	E 3	E 1	A						
2. 25EXPAD04		Soil		X	11/16/2005	1439	4	3	1							
3. 25EXPAD05		Soil		X	11/16/2005	1445	4	3	1							
4. 25EXPAD06		Soil		X	11/16/2005	1451	4	3	1							
5. 25EXPAD07		Soil		X	11/16/2005	1507	4	3	1							
6. 25EXPAD08		Soil		X	11/16/2005	1512	4	3	1							
7. 25EXPAD01		Soil		X	11/16/2005	1518	4	3	1							
8. 25EXPAD02MS		Soil CL 11/18/05	xe	X	11/16/2005	1526	4	3	1							
9. 25EXPAD02MSD		Soil CL 11/18/05	xe	X	11/16/2005	1526	4	3	1							
10. 25EXPAD02		Soil CL 11/18/05	xe	X	11/16/2005	1526	4	3	1							

PRESERVATIVES: ← Specify Preservatives
A-HCl B-HNO4 C-H2SO13 D-NaOH E-ICE F-OTHER

COMMENTS
1. Each VOC sample include 2 encore samples and 1 jar sample;
2. Use CLP OLM04.3/ASP2000 Method.

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	11/16/05	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME 9:35	RECEIVED FOR LAB BY
3. FED-EX	11/17/05	3.

Conditions of bottles or coilers at receipt: → COMPLIANT → NON COMPLIANT → COOLER TEMP 4°C
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:
THREE DAY TURN AROUND

Page 1 of 2

CLIENT: → Hand Delivered → Overnight
CHEMTECH: → Picked Up →

Shipment Complete → YES → NO

#

11/16/2005

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT **YELLOW** - CHEMTECH COPY **PINK** - SAMPLER COPY

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number T5803

COC Number: 16-11-05-2

CLIENT INFORMATION

Report to be sent to
COMPANY: Parsons
ADDRESS: 150 Federal Street, 4th Floor
CITY: Boston STATE: MA ZIP: 02110
ATTENTION: Chunhua Liu
PHONE: 617-449-1567 FAX: 617-946-9777

PROJECT INFORMATION

PROJECT NAME: SEAD-25/26 Remediation
PROJECT #: 744536-03100 LOCATION: NY
PROJECT MANAGER: Jacqueline Travers/Chunhua Liu
E-MAIL: chunhua.liu@parsons.com
PHONE: 617-449-1567 FAX: 617-946-9777

BILLING INFORMATION

BILL TO: Parsons PO# 744538.30005
ADDRESS: 290 Elwood Davis Road, Suite 312
CITY: Liverpool STATE: NY ZIP: 13088
ATTENTION: Martin Switzer
PHONE: 315-451-5960

DATA TURNAROUND INFORMATION

FAX: 3 DAYS*
HARD COPY: 3 DAYS*
EDD 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESEULTS ONLY
- ☐ RESULTS * QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ USEPA CLP
- X New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☐ EDD FORMAT Project-Specified

ANALYSIS

1 VOCs 2 SVOCs 3 VOCs 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES 1	2	3	4	5	6	7	8	9
								E	E	A						
1.	25EXPAD12	Soil CL 11/18/05	X	X	11/16/2005	1529	4	3	1							
2.	~~25EXPAD09~~	~~Soil~~		~~X~~	~~11/16/2005~~	~~1540~~	~~4~~	~~3~~	~~1~~	~~e~~		~~CL~~		~~11/18/05~~		
3.	~~25EXPAD10~~	~~Soil~~		~~X~~	~~11/16/2005~~	~~1544~~	~~4~~	~~3~~	~~1~~	~~e~~		~~CL~~		~~11/18/05~~		
4.	~~25EXPAD11~~	~~Soil~~		~~X~~	~~11/16/2005~~	~~1551~~	~~4~~	~~3~~	~~1~~	~~e~~		~~CL~~		~~11/18/05~~		
5.	25EX00100	Water		X	11/16/2005	1638	5		2	3						
6.	~~25EX00001~~	~~Water~~		~~X~~	~~11/16/2005~~		~~1~~	~~1~~		~~e~~		~~CL~~		~~11/18/05~~		
7.																
8.																
9.																
10.																

COMMENTS

<- Specify Preservatives
A-HCl B-HNO4
C-H2SO13 D-NaOH
E-ICE F-OTHER

1. Each VOC sample include 2 encore samples and 1 jar sample;
2. Use CLP OLM04.3/ASP2000 Method.

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	11/16/05	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3. Fed-Ex	11-17-05 9:35	3.

Conditions of bottles or coilers at receipt: ✈ COMPLIANT ✈ NON COMPLIANT ✈ COOLER TEMP 4°C
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:
THREE DAY TURN AROUND

Page 2 of 2

CLIENT: ✈ Hand Delivered ✈ Overnight
CHEMTECH: ✈ Picked Up ✈

Shipment Complete
YES ✈ NO

#

11/16/2005

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT **YELLOW** - CHEMTECH COPY **PINK** - SAMPLER COPY

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number T5911

COC Number: 28-11-05-2

CLIENT INFORMATION

Report to be sent to
COMPANY: Parsons
ADDRESS: 150 Federal Street, 4th Floor
CITY: Boston STATE: MA ZIP: 02110
ATTENTION: Chunhua Liu
PHONE: 617-449-1567 FAX: 617-946-9777

PROJECT INFORMATION

PROJECT NAME: SEAD-25/26 Remediation
PROJECT #: 744538-03100 LOCATION: NY
PROJECT MANAGER: Jacqueline Travers/Chunhua Liu
E-MAIL: chunhua.liu@parsons.com
PHONE: 617-449-1567 FAX: 617-946-9777

BILLING INFORMATION

BILL TO: Parsons PO# 744538.30005
ADDRESS: 290 Elwood Davis Road, Suite 312
CITY: Liverpool STATE: NY ZIP: 13088
ATTENTION: Martin Switzer
PHONE: 315-451-5960

DATA TURNAROUND INFORMATION

FAX: 3 DAYS*
HARD COPY: 3 DAYS*
EDD 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS + QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ USEPA CLP
- X New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☐ EDD FORMAT Project-Specified

ANALYSIS

1 VOCs; 2 SVOCs; 3 Metals (6010B); 4 Mercury (7471A); 5 Cyanide (9012A); VI VOCs; 7; 8; 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES A 1	E 2	B 3	B 4	D 5	E 6	7	8	9	COMMENTS
1. 25WWT11128		Water		X	11/28/2005	13:21	8	3	2	1	1	1					1. Use CLP OLM04.3/ASP2000 Method for VOC and SVOC samples.
2. 25EX00002		Water		X	11/28/2005	12:44	1						1				
	CL 11/29/05																

← Specify Preservatives
A-HCl B-HNO3
C-H2SO13 D-NaOH
E-ICE F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PRUSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	11/28/05 1452	1.
RELINQUISHED BY 2.	DATE/TIME	RECEIVED BY 2.
RELINQUISHED BY 3. Fed-Ex	DATE/TIME 9:00 11-29-05	RECEIVED FOR LAB BY 3.

Conditions of bottles or coilers at receipt: ✓ COMPLIANT ✓ NON COMPLIANT ✓ COOLER TEMP 4°C
MeOH extraction requires an additional 4oz. jar for percent solid
Comments:
THREE DAY TURN AROUND

Page 1 of 1

CLIENT: ✓ Hand Delivered ✓ Overnight
CHEMTECH: ✓ Picked Up ✓

Shipment Complete
X YES ✓ NO
#

11/28/2005

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number T5911

COC Number: 30-11-05-1

CLIENT INFORMATION

Report to be sent to
COMPANY: Parsons
ADDRESS: 150 Federal Street, 4th Floor
CITY: Boston STATE: MA ZIP: 02110
ATTENTION: Chunhua Liu
PHONE: 617-449-1567 FAX: 617-946-9777

PROJECT INFORMATION

PROJECT NAME: SEAD-25/26 Remediation
PROJECT #: 744538-03100 LOCATION: NY
PROJECT MANAGER: Jacqueline Travers/Chunhua Liu
E-MAIL: chunhua.liu@parsons.com
PHONE: 617-449-1567 FAX: 617-946-9777

BILLING INFORMATION

BILL TO: Parsons PO# 744538.30005
ADDRESS: 290 Elwood Davis Road, Suite 312
CITY: Liverpool STATE: NY ZIP: 13088
ATTENTION: Martin Switzer
PHONE: 315-451-5960

DATA TURNAROUND INFORMATION

FAX: 3 DAYS*
HARD COPY: 10 DAYS*
EDD 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS * QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ USEPA CLP
- X New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☐ EDD FORMAT Project-Specified

ANALYSIS

1 = cPAHs; 2; 3; 4; 5; 6; 7; 8; 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES E	1	2	3	4	5	6	7	8	9	COMMENTS
1. 26EXA10		Soil		X	11/30/2005	1020	1		1									1. Use CLP OLM04.3/ASP2000 Method. 2. Group with T5911 as one SDG.
2. 26EXA11		Soil		X	11/30/2005	1032	1		1									
3. 26EXA12		Soil		X	11/30/2005	1036	1		1									
4. 26EXA13		Soil		X	11/30/2005	1046	1		1									
5. 26EXA14		Soil		X	11/30/2005	1023	1		1									
6. 26EXA10MS		Soil		X	11/30/2005	1020	1		1									
7. 26EXA10MSD		Soil		X	11/30/2005	1020	1		1									
8. 26EX00103		Water		X	11/30/2005	1203	1		1									
9.																		
10.																		

<- Specify Preservatives
A-HCl B-HNO4
C-H2SO13 D-NaOH
E-ICE F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	11/30/05 1633	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3. 33 Fed-Ex	12/1/05 9:15	3.

Conditions of bottles or coilers at receipt: → COMPLIANT → NON COMPLIANT → COOLER TEMP 4°C
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:
THREE DAY TURN AROUND

Page 1 of 1

CLIENT: → Hand Delivered → Overnight
CHEMTECH: → Picked Up →

Shipment Complete
☐ YES → NO
#

11/30/2005

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number T5911

COC Number: 01-12-05-1

CLIENT INFORMATION

Report to be sent to
COMPANY: Parsons
ADDRESS: 150 Federal Street, 4th Floor
CITY: Boston STATE: MA ZIP: 02110
ATTENTION: Chunhua Liu
PHONE: 617-449-1567 FAX: 617-946-9777

PROJECT INFORMATION

PROJECT NAME: SEAD-25/26 Remediation
PROJECT #: 744538-03100 LOCATION: NY
PROJECT MANAGER: Jacqueline Travers/Chunhua Liu
E-MAIL: chunhua.liu@parsons.com
PHONE: 617-449-1567 FAX: 617-946-9777

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DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS * QC
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- ☐ New Jersey CLP
- ☐ USEPA CLP
- X New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☐ EDD FORMAT Project-Specified

ANALYSIS

1 VOCs, 2 SVOCs, 3, 4, 5, 6, 7, 8, 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES 1	2	3	4	5	6	7	8	9
								E	E							
1. 25EXPAD13		Soil		X	12/1/2005	815	4	3	1							
2. 25EXPAD14		Soil		X	12/1/2005	759	4	3	1							
3.																
4.																
5.																
6.																
7.																
8.																
9.																
10.																

PRESERVATIVES: A-HCl B-HNO4 C-H2SO13 D-NaOH E-ICE F-OTHER

COMMENTS

<-- Specify Preservatives

1. Each VOC sample include 2 encore samples and 1 jar sample;
2. Use CLP OLM04.3/ASP2000 Method.
3. Group with T5911 as one SDG.

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	12/1/05 1758	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3. Fedex	12/2/05 955	3. Jin Munoz

Conditions of bottles or coilers at receipt: → COMPLIANT → NON COMPLIANT → COOLER TEMP 4 °C
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:
THREE DAY TURN AROUND

Page 1 of 1

CLIENT: → Hand Delivered → Overnight
CHEMTECH: → Picked Up →

Shipment Complete ☐ YES → NO

#

12/01/2005

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

Appendix G

Data Validation Report

APPENDIX G: DATA VALIDATION

This Appendix presents an overall summary of data usability associated with the SEAD-25/26 Remedial Action conducted during November and December 2005. The data reviewed are from one sample delivery group (SDG) submitted by Severn Trent Laboratories, Inc. (STL Buffalo) in Amherst, NY (A05-C294) and five SDGs submitted by Chemtech in Mountainside, New Jersey (T5691, T5704, T5760, T5803, and T5911). **Table G-1** provides a summary of the data that have been validated. In summary, the following samples were submitted for analysis:

- 45 confirmatory samples from SEAD-26 for carcinogenic Polycyclic Aromatic Hydrocarbons (PAH) analysis;
- 11 confirmatory samples from SEAD-25 for volatile organic carbon (VOC) and semivolatile organic carbon (SVOC) analyses;
- one excavation water sample from SEAD-25 for VOC, SVOC, and metal analyses; and
- one fill material sample for VOC, SVOC, and metal analyses (with only metal data validated).

VOC and SVOC analyses for all samples collected for the remedial action were conducted in accordance with the USEPA (2003) CLP OLM04.3 Statement of Work (SOW). Each soil VOC sample (including fill material samples and confirmatory soil samples) was collected in two encore samplers and one jar sampler. With the exception of one fill material sample 25FMSP101, all VOC encore samples were processed in the laboratory in accordance with the CLP OLM04.3 (i.e., samples were set to freeze upon receipt and allow to warm to room temperature before analysis). Due to communication issue with the laboratory, 25FMSP101 encore sample was preserved in accordance with the CLP OLM04.2 (i.e., sample was preserved with sodium bisulfate prior to analysis). PCB analysis and metal analyses were conducted in accordance with the USEPA SW-846 Methods 8082A, 6010B, 7471A/7470A, and 9012A. Waste characterization analysis was performed using the USEPA SW-846 methods.

It should be noted that there are some other samples collected under the remedial action program (e.g., disposal material waste characterization samples, and another fill material sample). Validation for these sample results was not required for the project and therefore these sample results are not discussed in this appendix.

Data validation was performed by Parsons' chemist and completed under the guidelines set forth in the Region 2 RCRA and CERCLA Data Validation Standard Operating Procedures (SOPs) with consideration for the site-specific quality assurance requirements presented in the Final Remedial Design Work Plan and Design Report (Parsons, 2005) and the general quality assurance requirements presented in the Generic Site-Wide Sampling and Analysis Plan (SAP) for the Seneca Army Depot

Activity (Parsons, 2005). The Region 2 SOPs used for data validation include Evaluation of Metals Data for the Contract Laboratory Program (CLP), CLP Organics Data Review and Preliminary Review, and Training Course For CLP Organic Data Validation 2001. In addition, requirements set forth in the USEPA CLP, the New York State Department of Environmental Conservation (NYSDEC) Contract Laboratory Program Analytical Services Protocol (ASP), USEPA (2004) Contract Laboratory Program National Functional Guidelines for Inorganic Data Review; and USEPA (1999) Contract Laboratory Program National Functional Guidelines for Organic Data Review were considered during data validation. The data evaluation included performance of a completeness audit and a review of the following parameters, where applicable: holding times, sample preservations, percentage of solids, quality control (QC) results of calibration, equipment/rinsate blanks, trip blanks, method blanks, matrix spike/matrix spike duplicate (MS/MSD) analyses, laboratory control sample (LCS) performances, laboratory and field duplicates, surrogate recoveries, instrument performance, chromatograms and mass spectrums, internal standard recovery, reporting limits, Inductively Coupled Plasma (ICP) serial dilution, interference check sample results, and ICP linear range. In performing the data validation, the raw data were spot-checked in accordance with the Region 2 SOP to evaluate whether there was any transcription error.

Data qualifiers were added to the data based on the data validation and Attachment G-1 presents definition of data qualifiers.

1. OVERALL SUMMARY OF DATA USABILITY

The data reviewed were determined to be usable except for the data presented in **Table G-2.** These data were rejected because the internal standard area for a specified internal standard was below 25% of the 12-hr standard area. Re-analyses were conducted at least once for all samples referenced in **Table G-2**. Based on internal standard recovery results from either the original analysis or a re-analysis, all target compounds were found to have acceptable results. Therefore, all samples have useable results for all target compounds.

2. ACCURACY

Accuracy was evaluated by reviewing the percent recovery (%R) of the Matrix Spike and Matrix Spike Duplicate, Laboratory Control Spike (LCS), surrogate spikes, and internal standards. In addition, blank sample (method blank, trip blank, and equipment rinsate blank) results were reviewed to evaluate any potential contamination.

2.1 MS/MSD Results

MS/MSD sample analyses were conducted on the following:

- one (1) out of 11 confirmatory samples at SEAD-25 for VOC and SVOC analyses (25EXPAD02);

- four (4) out of 45 confirmatory samples at SEAD-26 for SVOC analysis (26EXA06, 26EXB08, 26EXE03, and 26EXA10); and

- one wastewater sample for VOC analysis (25WWT11128).

The frequency of MS/MSD sample analyses conducted is consistent with the generic requirement for Seneca project presented in the Generic Site-Wide Sampling and Analysis Plan (Parsons, 2005). The samples were spiked with analytes specified by the USEPA CLP.

All MS/MSD recoveries were within the QC limits as presented in the USEPA CLP with the following exceptions:

- Chlorobenzene recoveries were below the lower limit of 60% for 25EXPAD02MS/MSD (17% and 14%, respectively). The chlorobenzene concentration in the original sample was close to the spiked concentration.

- Recoveries of several analytes in 26EXB08MS/MSD were above the CLP limits (n-nitroso-di-n-propylamine, 2,4-dinitrotoluene, and acenaphthene in MS and n-nitroso-di-n-propylamine, acenaphthene, phenol, and 2-chlorophenol in MSD).

- 2,4-dinitrotoluene recovery in 26EXA10MS and pentachloropenol recoveries in 26EXA10MS and 26EXA10MSD were above the CLP limits.

Spike analysis for metals was conducted for cyanide in 25WWT1128 and the result was within the limits of 75-125%. Spike analysis was not conducted for any other metals in this sample; therefore, results for all metals but cyanide, calcium, magnesium, potassium, and sodium in 25WWT11128 were qualified in accordance with the Region 2 SOPs. Post-digestion spike analysis was conducted for all metals but iron and manganese in 25FMOS01 and the results were within 75-125%. As the iron and manganese results were greater than 4 times the specified spike concentrations, no action was taken for 25FMOS01 metal results based on the spike results.

In general, MS/MSD results for VOC and SVOC analyses indicated minimal matrix impact and no action was taken based solely on the MS/MSD results for organic analysis.

2.2 LCS Results

LCS results for VOC analysis were all within the laboratory established limits. LCS results for SVOC analysis were all within the laboratory established limits with the exception of following:

- Solid LCS results of phenol and 2-chlorophenol for SDG T5691 were slightly above the laboratory in-house acceptable limits.

- Aqueous LCS results of 4-chloro-3-methylphenol, 4-nitrophenol, and pentachlorophenol for SDG T5704 were above the laboratory in-house acceptable limits. The results would not affect the soil sample results and no action was taken based on the LCS results.

- 4-chloro-3-methylphenol recovery in one solid LCS in SDG T5911 was slightly above the laboratory in-house acceptable limit.

Laboratory control sample results for inorganics were all within the limits of 80-120% except that cyanide recovery for solid LCS samples in SDG A05-C294 was above the limit. As cyanide was not detected in the associated sample, no action was taken based on the LCS result. LCS analysis was not conducted for mercury for SDG T5911 and the associated mercury result (nondetect) was qualified UJ.

2.3 Surrogate Recovery Results

Surrogate spike analyses were conducted for VOC and SVOC samples. **Table G-3** presents a summary of surrogate recovery noncompliance. All the other surrogate spike recoveries were within the CLP OLM04.3 limits.

2.4 Internal Standard Results

Internal standards were added to VOC and SVOC samples to determine instrument stability. **Table G-4** presents a summary of internal standard recovery noncompliance. All the other internal standard recoveries were within the CLP OLM04.3 limits. Sample results were qualified based on the internal standard noncompliance in accordance with the Region 2 SOPs. Only analytes associated with the noncompliance internal standard (i.e., analytes whose concentrations were calculated based on the affected internal standards) were qualified in accordance with the Region 2 SOPs. A list of internal standards and associated target compounds for VOC and SVOC analyses is provided by Chemtech and is attached to this section (Attachment G-2).

2.5 Blank Sample Results

Method blank analysis was conducted for each SDG per analytical method. A trip blank sample was available for VOCs for SDG T5691. Equipment rinsate blank samples were available for SVOC samples in all SDGs except T5691. An equipment rinsate blank sample was collected for VOC samples in SDG T5803. No sampling equipment/instrument was reused in collecting VOC samples in the other SDGs (i.e., T5691 and T5911).

Table G-5 presents a summary of blank noncompliance results. In summary, acetone and methylene chloride were detected in several aqueous and soil method blanks for SDGs T5691, T5803, and T5911. Methylene chloride was detected in one rinsate blank in SDG T5803. The only SVOC

contamination in blank was bis(2-ethylhexyl)phthalate, which was detected in the aqueous method blank in SDG T5803.

All inorganic blank results were in compliance with the Region 2 requirement. That is, all blank results were below Contract Required Quantitation Limits (CRQLs) for initial calibration blank, continuing calibration blank, and preparation blank.

The sample results associated with the noncompliance blank results were qualified in accordance with the EPA Region 2 SOPs.

3. PRECISION

Precision is determined by evaluating the Relative Percent Difference (RPD) or difference of the parent/field duplicate (FD), MS/MSD (organics), and parent/laboratory duplicate (inorganics). The generic precision limits for the Seneca project are presented in the Generic Site-Wide Sampling and Analysis Plan for the Seneca Army Depot Activity (Parsons, 2005). Professional judgment will be used when sample results are close to reporting limits. As an example, for sample results within five times of reporting limits, the difference was compared with two times of the reporting limits.

A total of three field duplicate pairs were available for the confirmatory soil samples collected from SEAD-26 (i.e., 26EXA06 and 26EXA09; 26EXE03 and 26EXE06; and 26EXA10 and 26EXA14). One field duplicate pair was collected for the SEAD-25 confirmatory soil samples (i.e., 25EXPAD02 and 25EXPAD12). The field duplicate collection frequency is compliant with the requirement specified in the Generic Site-Wide SAP. All field duplicate results comply with the performance presented in the Generic Site-Wide SAP or the criteria discussed above.

Laboratory duplicate analysis was conducted for cyanide for 25WWT11128 in SDG T5911. Laboratory duplicate analysis was not conducted for any other metals and all metal results were qualified in accordance with the Region 2 SOP. That is, all metals results above CRQLs were qualified J for those with no laboratory duplicate analysis performed.

All RPD results for MS/MSD samples were within the CLP OLM03.2 limits with the exception of the following. RPDs for 1,1-dichloroethene and chlorobenzene in 25EXPAD02MS/MSD were slightly above the limits (19% vs. the limits of 13% and 14%). RPDs for phenol and 2-chlorophenol in 26EXB08MS/MSD were above the CLP limits. RPD for acenaphthene in 26EXA06MS/MSD was slightly above the limit (21% vs. 19%). It should be noted that no action was taken solely based on the MS/MSD. The MS/MSD results were used in conjunction with the other QA/QC results during the data validation process.

4. REPRESENTATIVENESS AND OTHER TECHNICAL ISSUES

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

Sample Package Completeness and Deliverables

Sample Preservation and Technical Holding Time

Laboratory Transcription Error

Other Quality Assurance/Quality Control (QA/QC) Results

4.1 Sample Package Completeness and Deliverables

In general, the data packages submitted by Chemtech and STL Buffalo are sufficient for the data validation conducted for this project.

4.2 Sample Preservation and Technical Holding Time

All samples were preserved according to the preservation requirement presented in the Generic Site-Wide SAP and analyzed within the holding time with the following exceptions:

Solids percentage was greater than 50% for all samples evaluated with the exception of 26EXA11. Solids percentage for 26EXA11 was slightly below the 50% limit (i.e., 48%). All carcinogenic PAH detects for 26EXA11 were qualified J.

4.3 Laboratory Transcription Error

The raw data were spot-checked in accordance with the Region 2 SOP and no transcription error was observed.

4.4 Other QA/QC Results

4.4.1 Instrument Performance

GC/MS instrument performance check was performed for VOC and SVOC analyses. GC/MS performance met the analytical method requirements for all SDGs.

Chromatography baselines were generally stable for organic analyses; however were elevated for some samples (e.g., 26EXE02), indicating potential matrix effects.

4.4.2 TCL/TAL/TIC Results

For VOC and SVOC target compound lists (TCLs) detected in the samples, a comparison of the sample relative ion intensities with the standard relative ion intensities for the respective reference TCL was conducted. All relative retention times (RRTs) for the identified analytes were within 0.06RRT units of the standard RRT from continuing calibration verification. The relative ion intensities generally agree within 20% of the standard relative ion intensities with several exceptions.

No action was taken based on the review of the mass spectrums.

Tentatively identified compounds (TICs) were not reported for cPAH analyses for SEAD-26 confirmatory samples. TICs were reported for VOC and SVOC analyses for SEAD-25 confirmatory samples and SEAD-25 excavation water sample and VOC analysis for the two tank liquid samples.

4.4.3 Reporting Limits

For VOC and SVOC analyses, the lowest calibration standard was used as the reporting limit and the reporting limits are the same as the CRQL specified by the CLP OLM04.3. For inorganic analyses, instrument detection limit was used as the basis for reporting limit and all reporting limits were below the CRQLs.

4.4.4 Calibration

Initial calibration and continuing calibration/calibration verification/CRQL standard check were conducted for VOC, SVOC, and inorganics analyses. Calibration noncompliances were observed for some samples and the detailed information is presented in **Table G-6**. It should be noted that the data were validated based on the calibration results in accordance with the EPA Region 2 criteria.

4.4.5 ICP Serial Dilution

ICP serial dilution was not conducted for any metal samples in SDG T5911. In accordance with the Region 2 SOPs, all metal detects in this SDG greater than ten times instrument detection limits (IDLs) (or greater than CRQL when CRQL is greater than ten times instrument detection limit) were qualified J. ICP serial dilution was conducted for 25FMOS01 in SDG A05-C294. All ICP serial dilution results were within the limits specified in the USEPA Region 2 SOPs with the exception of aluminum, barium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, vanadium, and zinc. The results for the above noncompliance metals in this SDG were all above ten times IDL (or greater than CRQL when CRQL is greater than ten times instrument detection limit); therefore, the results were qualified J.

4.4.6 ICP Linear Range

All inorganic concentrations used as sample results were within the ICP linear ranges.

4.4.7 ICP Interference Check

All ICP interference check sample results were with the QC limits (i.e., 80-120%).

Table G-1
Summary of Validated Data
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

SDG	Samp ID	Matrix	Analyses [1]	Associated Field Duplicate
A05-C294	25FMOS01	Soil	VOC, SVOC, and metal (+7471A and 9012A) [2]	
	SEAD2500001	Water - trip blank	VOC	
T5691	26EXB04	Soil	cPAHs	
	26EXB05	Soil	cPAHs	
	26EXB06	Soil	cPAHs	
	26EXB07	Soil	cPAHs	
	26EXB08	Soil	cPAHs	
	26EXC07	Soil	cPAHs	
	26EX00001	Water - trip blank	VOC	
T5704	26EXE05	Soil	cPAHs	
	26EXE04	Soil	cPAHs	
	26EXD05	Soil	cPAHs	
	26EXD01	Soil	cPAHs	
	26EXC06	Soil	cPAHs	
	26EXC05	Soil	cPAHs	
	26EXC01	Soil	cPAHs	
	26EXC04	Soil	cPAHs	
	26EXC02	Soil	cPAHs	
	26EXC03	Soil	cPAHs	
	26EXA06	Soil	cPAHs	26EXA09
	26EXA06MS	Soil - MS	cPAHs	
	26EXA06MSD	Soil - MSD	cPAHs	
	26EXA09	Soil	cPAHs	26EXA06
	26EXA01	Soil	cPAHs	
	26EXA07	Soil	cPAHs	
	26EXA05	Soil	cPAHs	
	26EXA04	Soil	cPAHs	
	26EXA08	Soil	cPAHs	
	26EXA02	Soil	cPAHs	
	26EXA03	Soil	cPAHs	
	26EX00102	Water - rinsate blank	cPAHs	
T5760	26EXB11	Soil	cPAHs	
	26EXB12	Soil	cPAHs	
	26EXB03	Soil	cPAHs	
	26EXB02	Soil	cPAHs	
	26EXB01	Soil	cPAHs	
	26EXB10	Soil	cPAHs	
	26EXB09	Soil	cPAHs	
	26EXD02	Soil	cPAHs	
	26EXD06	Soil	cPAHs	
	26EXD04	Soil	cPAHs	
	26EXD03	Soil	cPAHs	
	26EXE03	Soil	cPAHs	26EXE06
	26EXE06	Soil	cPAHs	26EXE03

Table G-1
Summary of Validated Data
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

SDG	Samp ID	Matrix	Analyses [1]	Associated Field Duplicate
	26EXE03MS	Soil - MS	cPAHs	
	26EXE03MSD	Soil - MSD	cPAHs	
	26EXE02	Soil	cPAHs	
	26EXE01	Soil	cPAHs	
	26EX00101	Water - rinsate blank	cPAHs	
T5803	25EXPAD03	Soil	VOC, SVOC	
	25EXPAD04	Soil	VOC, SVOC	
	25EXPAD05	Soil	VOC, SVOC	
	25EXPAD06	Soil	VOC, SVOC	
	25EXPAD07	Soil	VOC, SVOC	
	25EXPAD08	Soil	VOC, SVOC	
	25EXPAD01	Soil	VOC, SVOC	
	25EXPAD02MS	Soil - MS	VOC, SVOC	
	25EXPAD02MSD	Soil - MSD	VOC, SVOC	
	25EXPAD02	Soil	VOC, SVOC	25EXPAD12
	25EXPAD12	Soil	VOC, SVOC	25EXPAD02
	25EX00100	Water - rinsate blank	VOC, SVOC	
T5911	25WWT11128	Water	VOC, SVOC, metals (including Hg, CN)	
	26EXA10	Soil	cPAHs	26EXA14
	26EXA11	Soil	cPAHs	
	26EXA12	Soil	cPAHs	
	26EXA13	Soil	cPAHs	
	26EXA14	Soil	cPAHs	26EXA10
	26EXA10MS	Soil - MS	cPAHs	
	26EXA10MSD	Soil - MSD	cPAHs	
	26EX00103	Water - rinsate blank	cPAHs	
	25EXPAD13	Soil	VOC, SVOC	
	25EXPAD14	Soil	VOC, SVOC	

Notes:
1. All analyses conducted using NYSDEC CLP ASP 2000.
2. Only metal data in SDG A05-C294 were validated.

Table G-2
Summary of Rejected Analytical Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Sample	SDG	Rejected Fraction	Reason
VOC			
25EXPAD03 and 25EXPAD07	T5803	All non-detects	All three internal standard areas less than 25% of 12-hr standard area
SVOC			
26EXB04, 26EXB04RE, 26EXB05, 26EXB05RE, 26EXB06, and 26EXB07	T5691	Carcinogenic PAH non-detects associated with perylene-d12	Perylene-d12 internal standard area less than 25% of the 12-hr standard area

Note:
Reanalysis was conducted once for all the referenced samples, except for 26EXB04 and 26EXB05. Reanalysis was conducted twice for these two samples. Based on the internal standard recovery results, results from either the original analysis or a re-analysis was found acceptable and used to represent the conditions at the sample location. Therefore, all the referenced samples have acceptable results for all TCLs.

Table G-3
Summary of Surrogate Noncompliance Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

SDG	Samples	Description	Qualification
VOC			
T5803	25EXPAD08	1,2-dichloroethane-d4 and 4-bromofluorobenzene recoveries above the upper limits.	J all detects.
T5911	25WWT11128DL	4-bromofluorobenzene recovery above the upper limit.	J all detects.
SVOC			
T5691	26EXB08MSD	1,2-dichlorobenzene-d4 and nitrobenzene-d5 recoveries below the lower limits.	No qualification.
T5704	26EXA05 and replicate analysis	All but one surrogate recoveries above the upper limits.	J all detects.

Table G-4
Summary of Internal Standard Noncompliance Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

SDG	Noncompliance Internal Standard & Sample	Description	Action [1]
VOC			
T5691	Bromochloromethane in 26EX00001	Standard recovery area below 50% but above 25%	The sample is a trip blank and no action was taken.
T5803	All three internal standards in 25EXPAD03 and 25EXPAD07	Standard recovery areas below 25%	All results in associated samples were qualified (non-detects were rejected and detects were qualified J).
	All three internal standards in 25EXPAD02, 25EXPAD07RE, and 25EXPAD12RE	Standard recovery areas below 50% but above 25%	All results in associated samples were qualified (non-detects were qualified UJ and detects were qualified J).
	Chlorobenzene-d5 in 25EXPAD08, bromochloromethane in 25EXPAD02MS, 25EXPAD03RE, and 25EXPAD02RE	Standard recovery areas below 50% but above 25%	Associated analytes in associated samples were qualified (non-detects were qualified UJ and detects were qualified J).
SVOC			
T5691	Perylene-d12 in 26EXB04, 26EXB04RE, 26EXB05, 26EXB05RE, 26EXB06, and 26EXB07	Standard recovery areas below 25%	Associated analytes in associated samples were qualified (non-detects were rejected and detects were qualified J).
	Perylene-d12 in 26EXB08, 26EXC07, 26EXB06RE, 26EXB04RE2, and 26EXB07RE	Standard recovery areas below 50% but above 25%	Associated analytes in associated samples were qualified (non-detects were qualified UJ and detects were qualified J).
T5704	Perylene-d12 in 26EXA01, 26EXD05, 26EXE04, 26EXC05, and 26EXE05	Standard recovery areas below 50% but above 25%	Associated analytes in associated samples were qualified (non-detects were qualified UJ and detects were qualified J).
T5760	Perylene-d12 in 26EXE02 and 26EXE02RE	Standard recovery areas below 50% but above 25%	Associated analytes in associated samples were qualified (non-detects were qualified UJ and detects were qualified J).

Notes:
1. Only analytes associated with the noncompliance internal standard (i.e., analytes with concentrations calculated based on the affected internal standards) were qualified in accordance with the Region 2 SOPs.
2. Internal standard noncompliance for MS/MSD samples not listed in the table.

Table G-5
Summary of Blank Noncompliance Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

SDG	Fraction	Analytes Detected	Blank	Sample Affected	Blank Concentration
T5803	VOC	Methylene Chloride and/or Acetone	Soil Method Blanks	All samples in this SDG.	<RL
		Acetone	Aqueous Method Blanks	25EX00100 (rinsate blank)	<RL
		Methylene Chloride	Rinsate Blank	All samples in this SDG.	<RL
T5911	VOC	Acetone	Aqueous Method Blank	25WWT11128	<RL
		Methylene Chloride	Soil Method Blank	25EXPAD13 and 25EXPAD14	>RL
T5803	SVOC	Bis(2-ethylhexyl)phthalate	Aqueous Method Blank	25EX00100 (rinsate blank)	<RL

Notes:
1. TICs are not included in the table.
2. For inorganics, only concentrations detected above their CRDL were considered as noncompliance.

Table G-6
Summary of Calibration Noncompliance Results
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

SDG	Noncompliance	Calibration	Sample Affected	Action
VOC				
T5803	%RSDs of acetone and methyl acetate above 30% limit (36% and 58%, respectively)	IC 10/26/05 14:23-16:00	All soil samples in the SDG	Detects were qualified J and no action was taken for non-detects.
T5803	%Ds of trans-1,3-dichloropropene and 1,2-dibromo-3-chloropropane above 25% limit at 26% and 32%, respectively	CCV 11/22/05 00:10	25EXPAD02, 25EXPAD03, 25EXPAD04, 25EXPAD05, 25EXPAD07, 25EXPAD08, and 25EXPAD12	Non-detects were qualified UJ and detects were qualified J.
	%Ds of methyl acetate, trans-1,3-dichloropropene and 1,2-dibromoethane, and 1,2-dibromo-3-chloropropane above 25% limit but below 90%	CCV 11/22/05 20:59	25EXPAD01, 25EXPAD02RE, 25EXPAD03RE, 25EXPAD06, 25EXPAD07RE, 25EXPAD08DL, and 25EXPAD12RE	Non-detects were qualified UJ and detects were qualified J.
	%Ds of chloroethane, trichlorofluoromethane, bromoform, and 1,2,4-trichlorobenzene above 25% limit but below 90%	CCV 11/25/05 15:33	25EX00100	Non-detects were qualified UJ and detects were qualified J.
T5911	%RSDs of trichlorofluoromethane and methylene chloride above 30% limit (33% and 33%, respectively)	IC 11/1/05 05:15-06:54	25EXPAD13 and 25EXPAD14	No action as trichlorofluoromethane or methylene chloride was not detected in any associated samples.
	%Ds of trichlorofluoromethane and 1,2,4-trichlorobenzene above 25% limit at 29% and 33%, respectively	CCV 12/4/05 14:35	25EXPAD13 and 25EXPAD14	Non-detects were qualified UJ.
SVOC				
T5691	%Ds for Benzo(b)fluoranthene and benzo(k)fluoranthene above 25% but below 90%	CCV 11/17/05 at 02:01	26EXB04, 26EXB05, 26EXB06, 26EXB07, 26EXB08, and 26EXC07	Non-detects were qualified UJ and detects were qualified J.
T5704	%D for indeno(1,2,3-cd)pyrene slightly above 25% at 27%.	CCV 11/24/05 at 12:55	26EXA05RE	Non-detect was qualified UJ.
T5803, T5911	%RSD of 2,4-dinitrophenol above limit of 30% at 49%.	IC 11/21/05 19:07-20:52	All samples in SDG T5803 and 25WWT11128, 25EXPAD13, and 25EXPAD14 in SDG T5911	No action as 2,4-dinitrophenol was not detected in any associated samples.
T5911	%D of carbazole above limit of 25% at 27%.	CCV 12/1/05 23:55	25WWT11128	Non-detect was qualified UJ.
Metals				
A05-C294	Selenium and mercury CRQL standard recoveries outside limits of 80-120% (69% and 125%, respectively)	CRQL standard check	25FMOS01	Results qualified in accordance with Region 2 SOPs.
T5911	Lead and mercury CRQL standard recoveries outside limits of 80-120% (76% and 75%, respectively)	CRQL standard check	25WWT11128	Results qualified in accordance with Region 2 SOPs.

Notes:
1. Surrogate or internal standard noncompliance not included in the table.

CCV = Continuing Calibration Verification
%D = Percent Deviation
IC = Initial Calibration
%RSD = Percent Relative Standard Deviation

Attachment 1

Definition of Data Qualifiers

DEFINITIONS OF DATA QUALIFIERS – ORGANICS

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

DEFINITIONS OF DATA QUALIFIERS – INORGANICS

J	The associated value is an estimated quantity.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data was unusable. (Note: Analyte may or may not be present.).

Attachment 2

Internal Standards and Corresponding Target Compounds

Response Factor Report 5971 - In

Method Path : I:\MSVOA_I\METHOD\
Method File : LPI102705W.M
Title : OLMO4.2+TBA+AC&AC+VINCLO
Last Update : Thu Oct 27 18:06:29 2005
Response Via : Initial Calibration

Calibration Files
10 =VI102714.D 20 =VI102715.D 50 =VI102716.D
100 =VI102717.D 200 =VI102719.D

		Compound	10	20	50	100	200	Avg	%RSD
1)	I	Bromochloromethane	ISTD						
2)		Dichlorodifluoromet	1.881	1.973	2.114	2.498	2.527	2.199	13.58
3)	P	Chloromethane	1.615	1.528	1.571	1.812	2.027	1.711	12.14
4)	C	Vinyl Chloride	1.519	1.504	1.579	1.787	2.023	1.682	13.16#
5)		Bromomethane	0.782	0.753	0.758	0.833	0.911	0.807	8.16
6)		Chloroethane	0.648	0.583	0.608	0.618	0.657	0.623	4.85
7)		Trichlorofluorometh	1.217	1.359	1.494	1.661	1.178	1.382	14.45
8)		1,1,2-Trichlorotrif	1.147	1.088	1.102	1.215	0.911	1.092	10.33
9)	C	1,1-Dichloroethene	0.986	0.889	0.885	0.960	0.781	0.900	8.86#
10)		Acetone	0.541	0.459	0.427	0.436	0.310	0.435	19.10
11)		Tert butyl alcohol	0.204	0.192	0.182	0.196	0.175	0.190	6.02
12)		Carbon Disulfide	3.015	2.785	2.784	2.945	2.576	2.821	6.03
13)		Methyl Acetate	1.641	1.489	1.317	1.521	1.609	1.515	8.37
14)		Methylene Chloride	1.131	1.030	1.018	1.038	0.855	1.014	9.86
15)		trans-1,2-Dichloroe	1.157	1.125	1.081	1.180	0.972	1.103	7.46
16)	P	1,1-Dichloroethane	2.460	2.324	2.266	2.446	2.141	2.327	5.69
17)		cis-1,2-Dichloroeth	1.565	1.490	1.298	1.403	1.253	1.402	9.25
18)		Methyl tert-butyl E	4.099	4.011	3.827	4.092	3.547	3.915	5.96
19)	C	Chloroform	2.965	2.948	2.952	3.254	3.114	3.046	4.43#
20)		Cyclohexane	2.049	2.003	1.916	1.926	1.468	1.872	12.44
21)	s	1,2-Dichloroethane-	2.259	2.221	2.285	2.515	2.567	2.369	6.73
22)	I	1,4-Difluorobenzene	ISTD						
23)		2-Butanone	0.197	0.191	0.184	0.184	0.157	0.182	8.18
24)		1,1,1-Trichloroetha	0.460	0.469	0.450	0.449	0.390	0.444	7.00
25)		Carbon Tetrachlorid	0.463	0.466	0.450	0.461	0.421	0.452	4.11
26)	M	Benzene	1.123	1.074	1.017	1.041	0.944	1.040	6.44
27)		1,2-Dichloroethane	0.521	0.510	0.509	0.520	0.477	0.507	3.54
28)	M	Trichloroethene	0.328	0.325	0.316	0.324	0.316	0.322	1.73
29)		Methylcyclohexane	0.410	0.405	0.371	0.384	0.315	0.377	10.10
30)	C	1,2-Dichloropropane	0.307	0.316	0.303	0.320	0.283	0.306	4.73#
31)		Bromodichloromethan	0.424	0.443	0.435	0.452	0.456	0.442	2.88
32)		t-1,3-Dichloroprope	0.484	0.507	0.521	0.525	0.520	0.511	3.26
33)		cis-1,3-Dichloropro	0.534	0.531	0.524	0.543	0.547	0.536	1.68
34)		1,1,2-Trichloroetha	0.273	0.279	0.271	0.280	0.271	0.275	1.73
35)		Dibromochloromethan	0.362	0.365	0.373	0.390	0.369	0.372	2.92
36)		1,2-Dibromoethane	0.359	0.371	0.365	0.376	0.353	0.365	2.49
37)	P	Bromoform	0.189	0.181	0.195	0.207	0.206	0.196	5.72
38)	I	Chlorobenzene-d5	ISTD						
39)		4-Methyl-2-Pentanon	0.432	0.422	0.394	0.381	0.330	0.392	10.27
40)		2-Hexanone	0.327	0.316	0.307	0.290	0.269	0.302	7.54
41)	S	4-Bromofluorobenzen	0.526	0.495	0.509	0.494	0.452	0.495	5.55
42)		Tetrachloroethene	0.306	0.294	0.327	0.332	0.343	0.321	6.28
43)	C	Toluene	1.376	1.347	1.315	1.269	1.178	1.297	5.96#
44)	S	Toluene-d8	1.192	1.129	1.167	1.126	1.041	1.131	5.07
45)	P	Chlorobenzene	0.980	0.964	0.958	0.946	0.894	0.948	3.47
46)	C	Ethyl Benzene	1.550	1.500	1.529	1.470	1.345	1.479	5.45#
47)		m/p-Xylenes	1.214	1.196	1.210	1.112	1.028	1.152	7.00
48)		o-Xylene	1.326	1.351	1.275	1.282	1.178	1.282	5.15
49)		Styrene	1.116	1.078	1.020	1.001	0.877	1.018	8.99
50)		Isopropylbenzene	1.480	1.485	1.476	1.394	1.267	1.420	6.59
51)	P	1,1,2,2-Tetrachloro	0.497	0.476	0.467	0.464	0.439	0.469	4.44

Method Path : I:\MSVOA_I\METHOD\
Method File : LPI102705W.M
Title : OLMO4.2+TBA+AC&AC+VINCLO
Last Update : Thu Oct 27 18:06:29 2005
Response Via : Initial Calibration

Calibration Files
10 =VI102714.D 20 =VI102715.D 50 =VI102716.D
100 =VI102717.D 200 =VI102719.D

	Compound	10	20	50	100	200	Avg	%RSD
52)	1,3-Dichlorobenzene	0.719	0.693	0.658	0.666	0.604	0.668	6.44
53)	1,4-Dichlorobenzene	0.698	0.736	0.715	0.689	0.655	0.699	4.31
54)	1,2-Dichlorobenzene	0.675	0.717	0.674	0.650	0.606	0.665	6.10
55)	1,2-Dibromo-3-Chlor	0.091	0.098	0.104	0.103	0.106	0.100	6.03
56)	1,2,4-Trichlorobenz	0.309	0.310	0.315	0.306	0.301	0.308	1.68
57)	Naphthalene	1.321	1.324	1.334	1.332	1.352	1.333	0.90

(#) = Out of Range

Method Path : Z:\BNA_A\METHOD\2005\
Method File : BA1115LP.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Nov 15 17:27:25 2005
Response Via : Initial Calibration

Calibration Files
50 =BA022357.D 160 =BA022358.D 20 =BA022359.D
120 =BA022360.D 80 =BA022361.D

		Compound	50	160	20	120	80	Avg	%RSD
52)	P	2,4-Dinitrophenol	0.181	0.236	0.126	0.235	0.230	0.202	23.81
53)		Dibenzofuran	1.623	1.864	1.671	1.760	1.697	1.723	5.39
54)	P	4-Nitrophenol	0.323	0.347	0.296	0.318	0.317	0.320	5.66
55)		2,4-Dinitrotoluene	0.486	0.569	0.515	0.539	0.531	0.528	5.83
56)		Fluorene	1.366	1.506	1.411	1.425	1.375	1.417	3.92
57)		Diethylphthalate	1.647	1.584	1.630	1.500	1.494	1.571	4.55
58)		4-Chlorophenyl-phen	0.637	0.714	0.678	0.671	0.675	0.675	4.07
59)		4-Nitroaniline	0.318	0.360	0.296	0.299	0.322	0.319	8.02
60)		Azobenzene	1.706	1.344	1.725	1.360	1.418	1.511	12.50
61)	I	Phenanthrene-d10	----------ISTD----------						
62)	s	2,4,6-Tribromopheno	0.144	0.169	0.169	0.150	0.164	0.159	7.22
63)		4,6-Dinitro-2-methy	0.167	0.169	0.154	0.168	0.176	0.167	4.88
64)		n-Nitrosodiphenylam	0.542	0.551	0.620	0.528	0.533	0.554	6.77
65)		4-Bromophenyl-pheny	0.229	0.239	0.242	0.228	0.239	0.235	2.69
66)		Hexachlorobenzene	0.301	0.325	0.314	0.311	0.316	0.313	2.79
67)		Atrazine	0.209	0.197	0.216	0.196	0.205	0.205	4.23
68)	C	Pentachlorophenol	0.192	0.217	0.195	0.204	0.211	0.204	5.10
69)		Phenanthrene	1.144	1.122	1.181	1.046	1.072	1.113	4.90
70)		Anthracene	1.049	1.037	1.162	0.965	1.022	1.047	6.84
71)		Carbazole	0.932	0.733	1.034	0.735	0.880	0.863	15.05
72)		Di-n-butylphthalate	1.608	1.297	1.802	1.304	1.439	1.490	14.48
73)	C	Fluoranthene	1.227	1.253	1.334	1.221	1.278	1.263	3.64
74)	I	Chrysene-d12	----------ISTD----------						
75)		Benzidine	1.092	1.415	0.737	1.284	1.167	1.139	22.46
76)		Pyrene	2.828	3.128	2.248	2.702	2.501	2.681	12.40
77)	S	Terphenyl-d14	1.753	2.176	1.449	1.962	1.762	1.820	14.85
78)		Butylbenzylphthalat	1.573	1.661	1.293	1.516	1.425	1.494	9.45
79)		Benzo(a)anthracene	1.542	1.960	1.388	1.765	1.649	1.661	13.10
80)		3,3'-Dichlorobenzid	0.422	0.649	0.323	0.570	0.493	0.491	25.76
81)		Chrysene	1.119	1.676	0.960	1.121	1.031	1.181	24.09
82)		Bis(2-ethylhexyl)ph	0.929	1.690	0.671	1.162	0.863	1.063	36.88
83)	I	Perylene-d12	----------ISTD----------						
84)		Di-n-octyl phthalat	3.019	4.466	2.091	3.935	3.017	3.305	27.83
85)		Benzo(b)fluoranthen	2.146	2.513	1.569	2.938	2.570	2.347	22.07
86)		Benzo(k)fluoranthen	1.626	1.979	1.467	1.743	1.619	1.687	11.30
87)	C	Benzo(a)pyrene	2.139	2.438	1.626	2.774	2.608	2.317	19.51
88)		Indeno(1,2,3-cd)pyr	1.789	1.935	1.366	2.216	2.275	1.916	19.13
89)		Dibenzo(a,h)anthrac	0.859	1.212	0.812	1.149	0.883	0.983	18.67
90)		Benzo(g,h,i)perylen	1.617	1.476	1.272	1.622	1.629	1.523	10.13

(#) = Out of Range

Response Factor Report GC/MS Ins

Method Path : Z:\BNA_A\METHOD\2005\
Method File : BA1115LP.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Nov 15 17:27:25 2005
Response Via : Initial Calibration

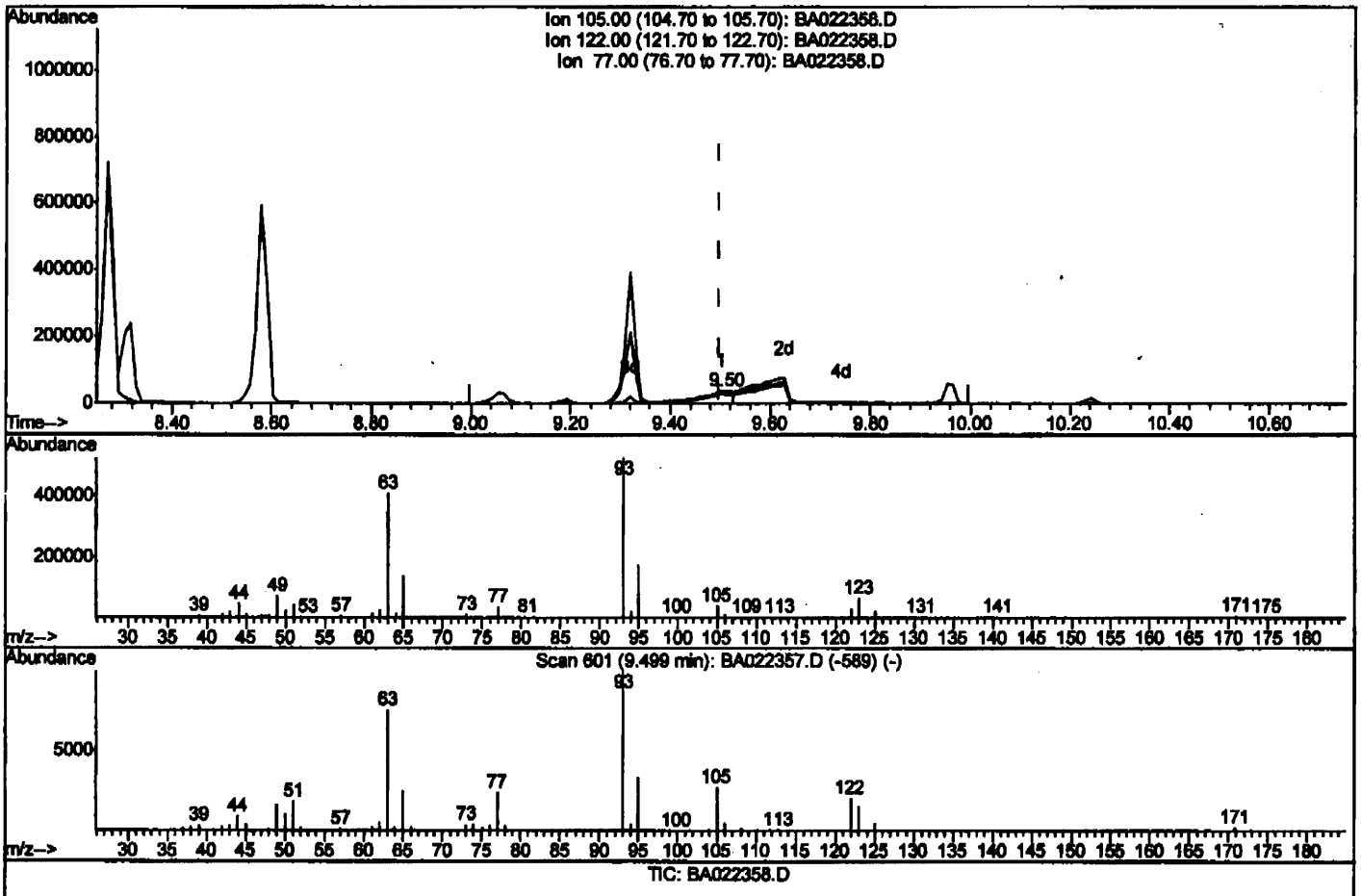
Calibration Files
50 =BA022357.D 160 =BA022358.D 20 =BA022359.D
120 =BA022360.D 80 =BA022361.D

		Compound	50	160	20	120	80	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
2)		Pyridine	1.052	1.162	0.860	1.039	1.082	1.039	10.68
3)		n-Nitrosodimethylam	0.616	0.734	0.596	0.638	0.667	0.650	8.29
4)	S	2-Fluorophenol	1.210	1.456	1.146	1.288	1.214	1.263	9.46
5)		Aniline	1.710	2.300	1.572	2.027	1.761	1.874	15.48
6)	S	Phenol-d5	1.390	1.658	1.290	1.492	1.386	1.443	9.69
7)		2-Chlorophenol	1.226	1.438	1.188	1.358	1.220	1.286	8.33
8)		Benzaldehyde	0.739	0.705	0.672	0.617	0.684	0.683	6.60
9)	C	Phenol	1.631	2.213	1.544	1.897	1.650	1.787	15.21
10)		bis(2-Chloroethyl)e	1.040	1.251	1.001	1.149	1.092	1.107	8.84
11)	S	2-Chlorophenol-d4	1.271	1.488	1.242	1.424	1.285	1.342	8.02
12)		1,3-Dichlorobenzene	1.425	1.628	1.304	1.496	1.418	1.454	8.19
13)	C	1,4-Dichlorobenzene	1.496	1.671	1.378	1.531	1.486	1.512	6.98
14)	s	1,2-Dichlorobenzene	0.933	1.073	0.900	1.015	0.921	0.968	7.52
15)		1,2-Dichlorobenzene	1.322	1.522	1.310	1.391	1.314	1.372	6.58
16)		Benzyl Alcohol	1.357	1.524	1.124	1.402	1.295	1.340	10.97
17)		2,2'-oxybis(1-Chlor	0.900	1.126	0.988	1.076	1.042	1.027	8.45
18)		2-Methylphenol	1.001	1.156	0.933	1.085	1.009	1.037	8.27
19)		Hexachloroethane	0.728	0.839	0.708	0.787	0.737	0.760	6.94
20)	P	n-Nitroso-di-n-prop	0.967	1.168	0.901	1.127	1.020	1.037	10.65
21)		Acetophenone	1.694	1.962	1.714	1.801	1.702	1.775	6.36
22)		3+4-Methylphenols	1.003	1.380	1.035	1.262	1.087	1.154	13.98
23)	I	Naphthalene-d8	----------ISTD----------						
24)	S	Nitrobenzene-d5	0.474	0.558	0.469	0.510	0.492	0.501	7.18
25)		Nitrobenzene	0.473	0.543	0.404	0.499	0.464	0.477	10.66
26)		Isophorone	0.761	0.859	0.722	0.806	0.794	0.789	6.49
27)	C	2-Nitrophenol	0.227	0.268	0.239	0.251	0.247	0.246	6.13
28)		2,4-Dimethylphenol	0.436	0.510	0.421	0.467	0.460	0.459	7.42
29)		bis(2-Chloroethoxy)	0.387	0.470	0.369	0.443	0.437	0.421	9.94
30)	C	2,4-Dichlorophenol	0.332	0.392	0.353	0.374	0.369	0.364	6.23
31)		1,2,4-Trichlorobenz	0.400	0.460	0.378	0.421	0.408	0.414	7.33
32)		Naphthalene	1.006	1.253	0.929	1.130	1.055	1.075	11.51
33)		Benzoic acid	0.268	0.341	0.252	0.311	0.316	0.298	12.21
34)		4-Chloroaniline	0.451	0.518	0.435	0.479	0.473	0.471	6.68
35)	C	Hexachlorobutadiene	0.278	0.293	0.259	0.273	0.262	0.273	4.90
36)		Caprolactam	0.124	0.126	0.123	0.122	0.114	0.122	3.90
37)	C	4-Chloro-3-methylph	0.404	0.428	0.368	0.402	0.385	0.398	5.63
38)		2-Methylnaphthalene	0.702	0.826	0.654	0.750	0.719	0.730	8.78
39)	I	Acenaphthene-d10	----------ISTD----------						
40)	P	Hexachlorocyclopent	0.509	0.497	0.458	0.482	0.490	0.487	3.89
41)	C	2,4,6-Trichlorophen	0.404	0.478	0.427	0.452	0.449	0.442	6.31
42)		2,4,5-Trichlorophen	0.421	0.453	0.434	0.460	0.444	0.443	3.47
43)	S	2-Fluorobiphenyl	1.234	1.397	1.285	1.331	1.303	1.310	4.57
44)		1,1'-Biphenyl	1.283	1.627	1.358	1.486	1.408	1.433	9.19
45)		2-Chloronaphthalene	1.064	1.269	1.099	1.204	1.150	1.157	7.06
46)		2-Nitroaniline	0.422	0.447	0.418	0.421	0.421	0.426	2.78
47)		Acenaphthylene	1.839	2.073	1.914	2.014	1.910	1.950	4.75
48)		Dimethylphthalate	1.366	1.459	1.401	1.369	1.371	1.393	2.82
49)		2,6-Dinitrotoluene	0.384	0.378	0.386	0.376	0.374	0.379	1.38
50)	C	Acenaphthene	1.042	1.169	1.077	1.103	1.053	1.089	4.64
51)		3-Nitroaniline	0.399	0.367	0.397	0.367	0.378	0.382	4.11

Quantitation Report (Qedit)

Data Path : Z:\BNA_A\DATA\BA111505\
Data File : BA022358.D
Acq On : 15 Nov 2005 12:12 pm
Operator : QM
Sample : 160 ng BNA ICC
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 15 12:59:52 2005
Quant Method : Z:\BNA_A\METHOD\2005\BA1115LP.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Nov 15 12:31:15 2005
Response via : Initial Calibration



TIC: BA022358.D

(33) Benzoic acid

9.502min (+0.003) 66.49ng

response 185125

Ion	Exp%	Act%
105.00	100	100
122.00	77.50	78.01
77.00	91.40	86.07
0.00	0.00	0.00

Appendix H

SDG Case Narratives

- SDG A05-9987
- SDG A05-C294
- SDG A05-C683
- SDG T5262
- SDG T5691
- SDG T5704
- SDG T5760
- SDG T5803
- SDG T5911

NON-CONFORMANCE SUMMARY

Job#: A05-9987

STL Project#: NY5A9521
Site Name: Parsons Seneca Army Depot (Parsons project 744538)

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A05-9987
Sample Cooler(s) were received at the following temperature(s); 4.0 °C
Sample IDs were corrected per Chunhua Liu on September 15, 2005.

GC/MS Semivolatile Data

The spike recovery for Pentachlorophenol was above the method defined quality control limits in the Matrix Spike Blank A5B1420101. Since the results were biased high and the analytes were not detected in the samples, no corrective action was performed.

The spike recoveries for Acenaphthene and Pyrene were above the method defined quality control limits in the Matrix Spike 25D0002 due to high detections in the samples. Since the Matrix Spike Blank A5B1420101 recoveries were compliant, no corrective action was required.

The relative percent difference between the Matrix Spike 25D0002 and the Matrix Spike Duplicate 25D0002 exceed quality control limits for Acenaphthene and Pyrene.

GC Extractable Data

For method 8151, the recovery of surrogate Dichlorophenyl Acetic Acid in the TCLP extract for many samples is outside of established quality control limits. This can be attributed to the effect of the low leaching pH on the extraction efficiency of the methyl esters. The recovery of all Laboratory Quality Control spikes and surrogates in this batch are within expected limits; no corrective action is required.

For method 8082, the recovery of surrogate Decachlorobiphenyl in samples 25D0001 and 25D0005 is outside of established quality control limits due to the sample matrix. The recovery of surrogate Tetrachloro-m-xylene is within quality control limits; no corrective action is required.

Metals Data

The Laboratory Information Management System subtracts the TCLP Extractor Blank concentration from the LCS when calculating percent recovery. The LCS (A5B1426302) was compliant with a recovery of 81 percent. No corrective action was necessary.

The analyte Barium was detected in the TCLP Extractor Blank (A5B1426301) at a level above the project established reporting limit. However, all samples had levels of Barium greater than ten times that of the Extractor Blank value, therefore, no corrective action was necessary.

Wet Chemistry Data

The U.S. EPA has determined the applicability of the Reactive Cyanide and Sulfide tests to be limited in part due to the poor recoveries obtainable with their procedures. The April 1998 memorandum entitled 'Withdrawal of Cyanide and Sulfide Reactivity Guidance' details the justification for this determination. Therefore, in conjunction with these test results, the U.S. EPA recommends the data user apply process or waste knowledge to determine if their waste exhibits the characteristic of reactivity.

****

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

NON-CONFORMANCE SUMMARY

Job#: A05-C294

STL Project#: NY5A9493
Site Name: SENECA AD

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A05-C294
Sample Cooler(s) were received at the following temperature(s); 2.0 °C
All samples were received in good condition.

GC/MS Volatile Data

Initial calibration standard curve A5I0002286-1 exhibited the %RSD of the compounds 1,1-Dichloroethane, Vinyl Acetate, and Methylcyclohexane as greater than 15%. However, the mean RSD of all compounds is 7.31%.

Initial calibration standard curve A5I0002287-1 exhibited the %RSD of the compounds 1,1-Dichloroethane, Vinyl Acetate, and Bromoform as greater than 15%. However, the mean RSD of all compounds is 7.44%.

GC/MS Semivolatile Data

No deviations from protocol were encountered during the analytical procedures.

Metals Data

The analytes Zinc, Potassium, Manganese, Iron, Copper, Calcium, and Barium were detected in the Method Blank at levels above the project established reporting limits. The analyte Calcium was detected in the ICB at a level above the project established reporting limit. The requested reporting limits for Zinc, Potassium, Manganese, Iron, Copper, Calcium, and Barium are below STL's standard reporting limits and, therefore, no corrective action has been taken for any anomalous detections. It must be noted that results reported below STL's standard reporting limit may result in false positive/false negative results, less accurate quantitation and potential misidentification at the lower concentrations.

The analytes Aluminum, Barium, Beryllium, Calcium, Copper, Iron, Magnesium, Manganese, Mercury, Potassium, Silver, and Thallium were detected in several CCB's at levels above the project established reporting limits. The requested reporting limits for Aluminum, Barium, Beryllium, Calcium, Copper, Iron, Magnesium, Manganese, Mercury, Potassium, Silver, and Thallium are below STL's standard reporting limits and, therefore, no corrective action has been taken.

The recovery of sample 25FM0S01A Post Spike exhibited results below the quality control limits for Iron and Manganese. However, the LCS was acceptable.

The Serial Dilution for sample 25FM0S01 exceeded quality control limits for Aluminum, Barium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Vanadium, and Zinc. However, the LCS was acceptable. No corrective action was required.

Wet Chemistry Data

The LCS, ERA Lot D037541, recovery for Cyanide fell outside of the quality control limits, however, the value was within the manufacturer's recommended acceptance limits. No corrective action was taken.

****

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

NON-CONFORMANCE SUMMARY

Job#: A05-C683

STL Project#: NY5A9521
Site Name: Parsons Seneca Army Depot (Parsons project 744538)

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A05-C683
Sample Cooler(s) were received at the following temperature(s); 2.0 °C
All samples were received in good condition.

GC/MS Volatile Data

No deviations from protocol were encountered during the analytical procedures.

GC/MS Semivolatile Data

No deviations from protocol were encountered during the analytical procedures.

GC Extractable Data

For method 8151, the recovery of surrogate Dichlorophenyl Acetic Acid in the TCLP extract the EBlank is outside of established quality control limits. This can be attributed to the effect of the low leaching pH on the extraction efficiency of the methyl esters. The recovery of all Laboratory Quality Control spikes and surrogates in this batch are within expected limits; no corrective action is required.

Metals Data

The analyte Barium was detected in the TCLP Extractor Blank (A5B1743701) at a level above the project established reporting limit. However, all samples had levels of Barium greater than ten times that of the TCLP Extractor Blank value, therefore, no corrective action was necessary.

Wet Chemistry Data

The U.S. EPA has determined the applicability of the Reactive Cyanide and Sulfide tests to be limited in part due to the poor recoveries obtainable with their procedures. The April 1998 memorandum entitled 'Withdrawal of Cyanide and Sulfide Reactivity Guidance' details the justification for this determination. Therefore, in conjunction with these test results, the U.S. EPA recommends the data user apply process or waste knowledge to determine if their waste exhibits the characteristic of reactivity.

****

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

CHEMTECH

CASE NARRATIVE

Parsons Engineering
Project Name: Seneca C25-C26
Project # N/A
Chemtech Project # T5262

A. Number of Samples and Date of Receipt:
1 Solid sample was received on 11/10/05.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Cyanide, Encore Kit, Mercury, SVOC-TCL BNA, TAL ICP Metals, TAL Metals, TAL Metals & Cyanide, and TCL Volatiles+10. This data package contains results for SVOC-TCL BNA.

C. Analytical Techniques:

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements except for 25FMSP101.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds.
The MSD recoveries met the acceptable requirements except for Phenol.
The RPD recoveries met criteria.
The Blank Spike met requirements for all samples except for Phenol and 2-Chlorophenol.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements except for 3,3-Dichlorobenzidine and Bis(2-ethylhexyl)phthalate in the initial calibration. And in the continuing calibration the percent differnce for Pyrene and Dibenz(a,h)anthracene dated 11/15/05 and Pyrene and Benzo(b)fluoranthene dated 11/16/05 was greater than 25 percent and less than 40 percent
The Tuning criteria met requirements.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____ Name: Krupa Dubey

Date: 12/1/05 Title: QA/QC

CHEMTECH

CASE NARRATIVE

Parsons Engineering
Project Name: Seneca C25-C26
Project # N/A
Chemtech Project # T5262

A. Number of Samples and Date of Receipt:
1 Solid sample was received on 11/10/05.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Cyanide, Encore Kit, Mercury, SVOC-TCL BNA, TAL ICP Metals, TAL Metals, TAL Metals & Cyanide, and TCL Volatiles+10. This data package contains results for TCL Volatiles+10.

C. Analytical Techniques:
The analysis performed on instrument MSVOA I were done using GC column RTXVMS, which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The Blank Spike met requirements for all samples.
The initial Calibration met the requirements except for Acetone and Methyl Acetate.. The % RSD was greater than 25% and less than 40%.
Blank Contamination - If yes, list compounds and concentrations in each blank:
Acetone = 20.09ppb

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____ Name: Krupa Dubey

Date: 12/1/05 Title: QA/QC

CHEMTECH

CASE NARRATIVE

Parsons Engineering
Project Name: Seneca C25-C26
Project # N/A
Chemtech Project # T5262

A. Number of Samples and Date of Receipt:
1 Solid sample was received on 11/10/05.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Cyanide, Encore Kit, Mercury, SVOC-TCL BNA, TAL ICP Metals, TAL Metals, TAL Metals & Cyanide, and TCL Volatiles+10. This data package contains results for Mercury and TAL ICP Metals.

C. Analytical Techniques:
The analysis of Mercury was based on method 7471 and TAL ICP Metals was based on method ERROR

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Lab Control Sample met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike analysis met criteria for all samples.
The Matrix Spike Duplicate analysis met criteria for all samples except for Antimony.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met the acceptable requirements except for Aluminum, Calcium, Chromium, Cobalt, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Vanadium and Zinc.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____ Name: Krupa Dubey

Date: 12/11/05 Title: QA/QC

CHEMTECH

CASE NARRATIVE

Parsons Engineering
Project Name: Seneca C25-C26
Project # N/A
Chemtech Project # T5691

A. Number of Samples and Date of Receipt:
6 Solid samples were received on 11/11/05.
3 Water samples were received on 11/11/05.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SVOCMS Group1, and TCL Volatiles + 10. This data package contains results for SVOCMS Group1.

C. Analytical Techniques:
The samples were analyzed on instrument BNA A/B using GC Column RTX-5 SILMS which is 30 meters, 0.32 mm ID, 0.5 um df, Catalog # 12739-125.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria except for 26EXB08MSD.
The Internal Standards Areas met the acceptable requirements except for 26EXB06, 26EXB07, 26EXB08, 26EXB08MS, 26EXB08MSD, 26EXC07, 26EXB04, 26EXB04RE, 26EXB05RE, 26EXB07RE and 26EXB06RE and 26EXB04RE2.
The Retention Times were acceptable for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Tuning criteria met requirements.

E. Additional Comments: In the continuing calibration dated 11/17/05 the percent difference for benzo(b)fluoranthene and benzo(k)fluoranthene were greater than 25 but less than 40 percent.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____ Name: Krupa Dubey

Date: 11/16/06 Title: QA/QC

CHEMTECH

CASE NARRATIVE

Parsons Engineering
Project Name: Seneca C25-C26
Project # N/A
Chemtech Project # T5704

A. Number of Samples and Date of Receipt:
21 Solid samples were received on 11/17/05.
1 Water sample was received on 11/17/05.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: and SVOCMS Group1. This data package contains results for SVOCMS Group1.

C. Analytical Techniques:
The samples were analyzed on instrument BNA B using GC Column RTX-5 SILMS which is 30 meters, 0.32 mm ID, 0.5 um df, Catalog # 12739-125.The samples were analyzed on instrument BNA E using GC Column RTX-5 SILMS which is 30 meters, 0.32 mm ID, 0.5 um df, Catalog # 12739-125.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria except for 26EXA05 and 26EXA05RE.
The Internal Standards Areas met the acceptable requirements except for 26EXA01, 26EXD05, 26EXE04, 26EXC05 and 26EXE05.
The Retention Times were acceptable for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements except in the continuing Calibration the percent difference for Indeno(1,2,3-cd)pyrene, Dibnezo(a,h)anthracene were >25% and less than 40%.
The Tuning criteria met requirements.

E. Additional Comments: Samples 26EXD05 and 26EXA0 were diluted due to high concentrations.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____ Name: Krupa Dubey

Date: 12/6/05 Title: QA/QC

CHEMTECH

CASE NARRATIVE

Parsons Engineering
Project Name: Seneca C25-C26
Project # N/A
Chemtech Project # T5760

A. Number of Samples and Date of Receipt:
17 Solid samples were received on 11/15/05.
1 Water sample was received on 11/15/05.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: and SVOCMS Group1. This data package contains results for SVOCMS Group1.

C. Analytical Techniques:
The samples were analyzed on instruments MSBNA B using GC Column RTX-5 SILMS which is 30 meters, 0.32mm ID, 0.5 um df, Catalog # 12739.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements except for 26EXE02RE and 26EXE02.
The Retention Times were acceptable for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Tuning criteria met requirements.

E. Additional Comments:
Samples 26EXB12, 26EXB10, 26EXB09 and 26EXD0 were diluted due to high concentrations.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____ Name: Krupa Dubey

Date: 12/5/05 Title: QA/QC

CHEMTECH

CASE NARRATIVE

Parsons Engineering
Project Name: Seneca C25-C26
Project # N/A
Chemtech Project # T5803

A. Number of Samples and Date of Receipt:
14 Solid samples were received on 11/17/05.
2 Water samples were received on 11/17/05.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Encore Kit, SVOCMS Group1, SVOCMS Group2, and VOCMS Group1. This data package contains results for VOCMS Group1.

C. Analytical Techniques:
The analysis performed on instrument MSVOA I were done using GC column RTXVMS, which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria except for 25EXPAD08.
The Internal Standards Areas met the acceptable requirements except for 25EXPAD03, 25EXPAD03RE, 25EXPAD07, 25EXPAD07RE, 25EXPAD02, 25EXPAD02RE, 25EXPAD12, 25EXPAD12RE and 25EXPAD02MS.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds except for Chlorobenzene.
The MSD recoveries met the acceptable requirements except for Chlorobenzene.
The RPD recoveries met criteria.
The Blank Spike met requirements for all samples.
The Blank met requirements for all samples except Acetone =6.2ppb and Methylene Chloride =0.83ppb.
The Calibration met the requirements except the percent difference for Bromoform, and 1,2,4-Trichlorobenzene in the continuing calibration dated 11/25/08 was greater than 25%.
The Tuning criteria met requirements.

E. Additional Comments: Samples 25EXPAD0 were diluted due to bad matrices. Samples 25EXPAD0 were diluted due to high concentrations.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____ Name: Krupa Dubey

Date: 12/9/05 Title: QA/QC

CHEMTECH

CASE NARRATIVE

Parsons Engineering
Project Name: Seneca C25-C26
Project # N/A
Chemtech Project # T5803

A. Number of Samples and Date of Receipt:
14 Solid samples were received on 11/17/05.
2 Water samples were received on 11/17/05.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Encore Kit, SVOCMS Group1, SVOCMS Group2, and VOCMS Group1. This data package contains results for SVOCMS Group2 and SVOCMS Group1.

C. Analytical Techniques:
The samples were analyzed on instrument BNA E using GC Column RTX-5 SILMS which is 30 meters, 0.32 mm ID, 0.5 um df, Catalog # 12739-125.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds.
The MSD recoveries met the acceptable requirements.
The RPD recoveries met criteria.
The Blank Spike met requirements for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Tuning criteria met requirements.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____ Name: Krupa Dubey

Date: 12/9/05 Title: QA/QC

CHEMTECH

CASE NARRATIVE

Parsons Engineering
Project Name: Seneca C25-C26
Project # N/A
Chemtech Project # T5911

A. Number of Samples and Date of Receipt:
7 Solid samples were received on 12/1/05.
2 Solid samples were received on 12/2/05.
2 Water samples were received on 11/29/05.
1 Water sample was received on 12/1/05.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Cyanide, Encore Kit, Mercury, SVOCMS Group1, SVOCMS Group2, TAL ICP Metals, TAL Metals & Cyanide, and VOCMS Group1. This data package contains results for VOCMS Group1.

C. Analytical Techniques:
The analysis performed on instrument MSVOA F were done using GC column RTX624, which is 75 meters, 0.53 ID, 3.0 df, Restek Cat. #10974. The Trap was supplied by Supelco, VOCARB 3000, Tekmar 2000 Concentrator.The analysis performed on instrument MSVOA I were done using GC column RTXVMS, which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria except for 25WWT11128DL.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds.
The MSD recoveries met the acceptable requirements.
The RPD recoveries met criteria.
The Blank Spike met requirements for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Tuning criteria met requirements.

Additional comments: Sample T5911-01 was diluted due to high concentration.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____ Name: Krupa Dubey

Date: 2/19/05 Title: QA/QC

CHEMTECH

CASE NARRATIVE

Parsons Engineering
Project Name: Seneca C25-C26
Project # N/A
Chemtech Project # T5911

A. Number of Samples and Date of Receipt:
7 Solid samples were received on 12/1/05.
2 Solid samples were received on 12/2/05.
2 Water samples were received on 11/29/05.
1 Water sample was received on 12/1/05.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Cyanide, Encore Kit, Mercury, SVOCMS Group1, SVOCMS Group2, TAL ICP Metals, TAL Metals & Cyanide, and VOCMS Group1. This data package contains results for SVOCMS Group1.

C. Analytical Techniques:
The samples were analyzed on instrument BNA B using GC Column RTX-5 SILMS which is 30 meters, 0.32 mm ID, 0.5 um df, Catalog # 12739-125.The samples were analyzed on instrument BNA E using GC Column RTX-5 SILMS which is 30 meters, 0.32 mm ID, 0.5 um df, Catalog # 12739-125.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The Blank Spike met requirements for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Tuning criteria met requirements.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Additional comments: The spiking compounds that are to be reported on the blank spike and MS/MSD summary form are not on the requested analysis list

Signature _____ Name: Krupa Dubey
Date: 12/19/05 Title: QA/QC

CHEMTECH

CASE NARRATIVE

Parsons Engineering
Project Name: Seneca C25-C26
Project # N/A
Chemtech Project # T5911

A. Number of Samples and Date of Receipt:
7 Solid samples were received on 12/1/05.
2 Solid samples were received on 12/2/05.
2 Water samples were received on 11/29/05.
1 Water sample was received on 12/1/05.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Cyanide, Encore Kit, Mercury, SVOCMS Group1, SVOCMS Group2, TAL ICP Metals, TAL Metals & Cyanide, and VOCMS Group1. This data package contains results for TAL Metals.

C. Analytical Techniques:
The analysis of TAL Metals was based on method 7470/6010.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Lab Control Sample met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike analysis met criteria for all samples except for Silver.
The Matrix Spike Duplicate analysis met criteria for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met the acceptable requirements.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____ Name: Krupa Dubey

Date: 12/19/05 Title: QA/QC

CHEMTECH

CASE NARRATIVE

Parsons Engineering
Project Name: Seneca C25-C26
Project # N/A
Chemtech Project # T5911

A. Number of Samples and Date of Receipt:
7 Solid samples were received on 12/1/05.
2 Solid samples were received on 12/2/05.
2 Water samples were received on 11/29/05.
1 Water sample was received on 12/1/05.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Cyanide, Encore Kit, Mercury, SVOCMS Group1, SVOCMS Group2, TAL ICP Metals, TAL Metals & Cyanide, and VOCMS Group1. This data package contains results for Cyanide.

C. Analytical Techniques:
The analysis of Cyanide was based on method 9012

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Lab Control Sample met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike analysis met criteria for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____ Name: Krupa Dubey

Date: 12/19/05 Title: QA/QC

Appendix I

Excavation Water Analytical Results

- Seneca County Water/Sewer District Approval
- Table I-1: Excavation Water Analytical Results

Baranek-Olmstead, Brendan

From: Town of Romulus [romulus@rochester.rr.com]
Sent: Tuesday, December 06, 2005 11:01 AM
To: Wasserman, Beth
Subject: RE: data for water disposal at Seneca Army Depot

Hi Beth,

I would be happy to respond to your email. I personally submitted the results to the plant operator and he gave me his approval for Parson to dispose of the water to the sewer system. He has advised me that he will contact you directly to schedule a delivery time for this. Should you require any further information, please feel free to contact me.

Angel Lawrence, Board Clerk
Seneca County Water/Sewer Districts

-----Original Message-----
From: Wasserman, Beth [mailto:Beth.Wasserman@parsons.com]
Sent: Tuesday, December 06, 2005 10:37 AM
To: romulus@rochester.rr.com
Cc: Travers, Jacqueline
Subject: RE: data for water disposal at Seneca Army Depot

Angel,

We spoke yesterday, and you gave us verbal approval that the data attached to this email was acceptable so that Parsons could proceed and dispose of the water to the sewer system.

For documentation purposes, can you please reply to this email, indicating that the data attached to the email sent to you yesterday have been reviewed and are acceptable to the Seneca County Sewer District. Documentation of data approval will allow us to move forward and discharge the water to the sewer district at Seneca Army Depot.

Thank You,

Beth Wasserman

Project Engineer

PARSONS

150 Federal St, 4th Fl.

Boston, Massachusetts 02110

www.parsons.com

(617) 449-1565 (did)

-----Original Message-----
From: Wasserman, Beth

Sent: Monday, December 05, 2005 9:55 AM
To: 'romulus@rochester.rr.com'
Cc: Travers, Jacqueline
Subject: data for water disposal at Seneca Army Depot

Angel,

Attached please find two PDF files containing the analytical data for water at the Seneca Army Depot. The water was analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals.

As we've discussed in the past, once we receive the County's approval, we plan on coordinating with the sewer district and disposing of the water to the sewer at the Depot. The anticipated volume of water is approximately 10,000 to 12,000 gallons. Will we receive word on the approval of the data by the end of the week? We would like to schedule the disposal of the water for the beginning of next week.

If you have any questions, feel free to contact me (617-449-1565) or Jackie Travers at 617-449-1566.

Thanks,

Beth Wasserman

Project Engineer

PARSONS

150 Federal St, 4th Fl.

Boston, Massachusetts 02110

www.parsons.com

(617) 449-1565 (did)

<< File: T5911 SVOC_metal.pdf >> << File: T5911 VOC.pdf >>

Table I-1
Excavation Water Data
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility	SEAD-25
Location ID	SEAD-25
Matrix	WATER
Sample ID	25WWT11128
Sample Date	11/29/2005
Sample Type	SA
Study ID	RA

Parameter	Units	Value	(Q)
Volatile Organic Compounds			
1,1,1-Trichloroethane	UG/L	2.9	J
1,1,2,2-Tetrachloroethane	UG/L	10	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	10	U
1,1,2-Trichloroethane	UG/L	10	U
1,1-Dichloroethane	UG/L	10	U
1,1-Dichloroethene	UG/L	10	U
1,2,3-Trichlorobenzene	UG/L	10	U
1,2,4-Trichlorobenzene	UG/L	10	U
1,2-Dibromo-3-chloropropane	UG/L	10	U
1,2-Dibromoethane	UG/L	10	U
1,2-Dichlorobenzene	UG/L	10	U
1,2-Dichloroethane	UG/L	10	U
1,2-Dichloropropane	UG/L	10	U
1,3-Dichlorobenzene	UG/L	10	U
1,4-Dichlorobenzene	UG/L	10	U
Acetone	UG/L	50	U
Benzene	UG/L	78	
Bromodichloromethane	UG/L	10	U
Bromoform	UG/L	10	U
Carbon disulfide	UG/L	10	U
Carbon tetrachloride	UG/L	10	U
Chlorobenzene	UG/L	10	U
Chlorodibromomethane	UG/L	10	U
Chloroethane	UG/L	10	U
Chloroform	UG/L	10	U
Cis-1,2-Dichloroethene	UG/L	52	
Cis-1,3-Dichloropropene	UG/L	10	U
Cyclohexane	UG/L	23	
Dichlorodifluoromethane	UG/L	10	U
Ethyl benzene	UG/L	80	
Isopropylbenzene	UG/L	9.6	J
Meta/Para Xylene	UG/L	410	J
Methyl Acetate	UG/L	10	U
Methyl Tertbutyl Ether	UG/L	10	U
Methyl bromide	UG/L	10	U
Methyl butyl ketone	UG/L	50	U
Methyl chloride	UG/L	10	U
Methyl cyclohexane	UG/L	8.2	J
Methyl ethyl ketone	UG/L	33	J
Methyl isobutyl ketone	UG/L	50	U
Methylene chloride	UG/L	10	U
Ortho Xylene	UG/L	220	J
Styrene	UG/L	10	U
Tetrachloroethene	UG/L	10	U
Toluene	UG/L	78	
Total Xylenes	UG/L	630	J
Trans-1,2-Dichloroethene	UG/L	1.5	J
Trans-1,3-Dichloropropene	UG/L	10	U
Trichloroethene	UG/L	43	
Trichlorofluoromethane	UG/L	10	U
Vinyl chloride	UG/L	10	U
Semivolatile Organic Compounds			
1,2,4-Trichlorobenzene	UG/L	10	U
1,2-Dichlorobenzene	UG/L	10	U
1,3-Dichlorobenzene	UG/L	10	U
1,4-Dichlorobenzene	UG/L	10	U
2,2'-oxybis(1-Chloropropane)	UG/L	10	U
2,4,5-Trichlorophenol	UG/L	10	U
2,4,6-Trichlorophenol	UG/L	10	U

Table I-1
Excavation Water Data
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility	SEAD-25
Location ID	SEAD-25
Matrix	WATER
Sample ID	25WWT11128
Sample Date	11/29/2005
Sample Type	SA
Study ID	RA

Parameter	Units	Value	(Q)
2,4-Dichlorophenol	UG/L	10	U
2,4-Dimethylphenol	UG/L	4	J
2,4-Dinitrophenol	UG/L	20	U
2,4-Dinitrotoluene	UG/L	10	U
2,6-Dinitrotoluene	UG/L	10	U
2-Chloronaphthalene	UG/L	10	U
2-Chlorophenol	UG/L	10	U
2-Methylnaphthalene	UG/L	11	
2-Methylphenol	UG/L	10	U
2-Nitroaniline	UG/L	1.3	J
2-Nitrophenol	UG/L	10	U
3,3'-Dichlorobenzidine	UG/L	20	U
3-Nitroaniline	UG/L	10	U
4,6-Dinitro-2-methylphenol	UG/L	20	U
4-Bromophenyl phenyl ether	UG/L	10	U
4-Chloro-3-methylphenol	UG/L	10	U
4-Chloroaniline	UG/L	10	U
4-Chlorophenyl phenyl ether	UG/L	10	U
4-Nitroaniline	UG/L	10	U
4-Nitrophenol	UG/L	20	U
Acenaphthene	UG/L	10	U
Acenaphthylene	UG/L	10	U
Anthracene	UG/L	10	U
Atrazine	UG/L	10	U
Benzo(a)anthracene	UG/L	10	U
Benzo(a)pyrene	UG/L	10	U
Benzo(b)fluoranthene	UG/L	10	U
Benzo(ghi)perylene	UG/L	10	U
Benzo(k)fluoranthene	UG/L	10	U
Bis(2-Chloroethoxy)methane	UG/L	10	U
Bis(2-Chloroethyl)ether	UG/L	10	U
Bis(2-Ethylhexyl)phthalate	UG/L	10	U
Butylbenzylphthalate	UG/L	10	U
Carbazole	UG/L	10	UJ
Chrysene	UG/L	10	U
Di-n-butylphthalate	UG/L	10	U
Di-n-octylphthalate	UG/L	10	U
Dibenz(a,h)anthracene	UG/L	10	U
Dibenzofuran	UG/L	10	U
Diethyl phthalate	UG/L	10	U
Dimethylphthalate	UG/L	10	U
Fluoranthene	UG/L	10	U
Fluorene	UG/L	10	U
Hexachlorobenzene	UG/L	10	U
Hexachlorobutadiene	UG/L	10	U
Hexachlorocyclopentadiene	UG/L	10	U
Hexachloroethane	UG/L	10	U
Indeno(1,2,3-cd)pyrene	UG/L	10	U
Isophorone	UG/L	10	U
N-Nitrosodiphenylamine	UG/L	10	U
N-Nitrosodipropylamine	UG/L	10	U
Naphthalene	UG/L	15	
Nitrobenzene	UG/L	10	U
Pentachlorophenol	UG/L	20	U
Phenanthrene	UG/L	1.6	J
Phenol	UG/L	10	U
Pyrene	UG/L	10	U

Table I-1
Excavation Water Data
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Facility	SEAD-25
Location ID	SEAD-25
Matrix	WATER
Sample ID	25WWT11128
Sample Date	11/29/2005
Sample Type	SA
Study ID	RA

Parameter	Units	Value	(Q)
Inorganics			
Aluminum	UG/L	238	J
Antimony	UG/L	60	U
Arsenic	UG/L	10	U
Barium	UG/L	44	J
Beryllium	UG/L	0.42	J
Cadmium	UG/L	5	U
Calcium	UG/L	47400	J
Chromium	UG/L	4.36	J
Cobalt	UG/L	0.39	J
Copper	UG/L	45.5	J
Cyanide	MG/L	0.01	U
Iron	UG/L	1020	J
Lead	UG/L	9.52	J
Magnesium	UG/L	14800	J
Manganese	UG/L	458	J
Mercury	UG/L	0.3	UJ
Nickel	UG/L	40	U
Potassium	UG/L	807	J
Selenium	UG/L	10	U
Silver	UG/L	10	U
Sodium	UG/L	10500	J
Thallium	UG/L	10	U
Vanadium	UG/L	50	U
Zinc	UG/L	13.4	J

U = compound was not detected
J = the reported value is an estimated concentration
UJ = the compound was not detected; the associated reporting limit is approximate

Appendix J

Non-Hazardous Solid Waste Disposal Manifest Information

- Table J-1: Summary of Solid Waste Disposal Manifests
- Examples of a non-hazardous waste solid waste manifest and weight ticket

Table J-1
Summary of Solid Waste Disposal Manifests
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Manifest #	Weight (tons)	Date Loaded	Disposal Facility	Trucking Company
353170	33.01	11/10/2005	Ontario County Landfill	Mangiardi Trucking
353171	35.13	11/10/2005	Ontario County Landfill	Mangiardi Trucking
353172	38.28	11/10/2005	Ontario County Landfill	Mangiardi Trucking
353173	35.43	11/10/2005	Ontario County Landfill	Mangiardi Trucking
353174	38.81	11/10/2005	Ontario County Landfill	Mangiardi Trucking
353175	32.64	11/10/2005	Ontario County Landfill	Mangiardi Trucking
353176	31.21	11/11/2005	Ontario County Landfill	Mangiardi Trucking
353177	34.67	11/11/2005	Ontario County Landfill	Mangiardi Trucking
353178	35.90	11/11/2005	Ontario County Landfill	Mangiardi Trucking
353179	31.88	11/11/2005	Ontario County Landfill	Mangiardi Trucking
353180	31.15	11/11/2005	Ontario County Landfill	Intrastate Trucking
353181	28.00	11/11/2005	Ontario County Landfill	Intrastate Trucking
353182	34.16	11/11/2005	Ontario County Landfill	Mangiardi Trucking
353183	35.03	11/11/2005	Ontario County Landfill	Mangiardi Trucking
353184	36.22	11/11/2005	Ontario County Landfill	Mangiardi Trucking
353185	32.27	11/11/2005	Ontario County Landfill	Mangiardi Trucking
353186	31.43	11/11/2005	Ontario County Landfill	Intrastate Trucking
353187	35.69	11/11/2005	Ontario County Landfill	Intrastate Trucking
353188	32.97	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353189	36.00	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353190	31.47	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353191	36.36	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353192	37.18	11/14/2005	Ontario County Landfill	Intrastate Trucking
353193	31.16	11/14/2005	Ontario County Landfill	Intrastate Trucking
353194	33.78	11/14/2005	Ontario County Landfill	Silvarole Trucking
353195	37.36	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353196	34.43	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353197	38.56	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353198	32.31	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353199	32.37	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353200	33.83	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353201	31.16	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353202	36.03	11/14/2005	Ontario County Landfill	Cason Trucking
353203	37.35	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353204	38.27	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353205	34.43	11/14/2005	Ontario County Landfill	Silvarole Trucking
353206	37.73	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353207	32.50	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353208	37.54	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353209	33.09	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353210	36.01	11/14/2005	Ontario County Landfill	Intrastate Trucking
353211	30.62	11/14/2005	Ontario County Landfill	Silvarole Trucking
353212	28.60	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353213	33.59	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353214	40.65	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353215	33.01	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353216	33.53	11/14/2005	Ontario County Landfill	Mangiardi Trucking

Table J-1
Summary of Solid Waste Disposal Manifests
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Manifest #	Weight (tons)	Date Loaded	Disposal Facility	Trucking Company
353217	36.43	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353218	35.72	11/14/2005	Ontario County Landfill	Silvarole Trucking
353219	32.04	11/14/2005	Ontario County Landfill	Intrastate Trucking
353220	30.24	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353221	39.21	11/14/2005	Ontario County Landfill	Mangiardi Trucking
353222	28.00	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353223	36.86	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353224	36.40	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353225	33.02	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353226	31.40	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353227	36.70	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353228	33.06	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353229	35.07	11/15/2005	Ontario County Landfill	Silvarole Trucking
353230	40.10	11/15/2005	Ontario County Landfill	Intrastate Trucking
353231	40.74	11/15/2005	Ontario County Landfill	Intrastate Trucking
353232	40.70	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353233	40.97	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353234	33.98	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353235	36.78	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353236	37.91	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353237	36.80	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353238	34.63	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353239	36.12	11/15/2005	Ontario County Landfill	Silvarole Trucking
353240	38.34	11/15/2005	Ontario County Landfill	Intrastate Trucking
353241	42.62	11/15/2005	Ontario County Landfill	Intrastate Trucking
353242	34.75	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353243	35.51	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353244	35.10	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353245	40.15	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353246	35.57	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353247	35.67	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353248	35.48	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353249	36.42	11/15/2005	Ontario County Landfill	Silvarole Trucking
353250	31.28	11/15/2005	Ontario County Landfill	Intrastate Trucking
353251	36.95	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353252	41.57	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353253	35.45	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353254	39.32	11/15/2005	Ontario County Landfill	Intrastate Trucking
353255	37.00	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353256	37.24	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353257	34.42	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353258	34.98	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353259	38.55	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353260	37.47	11/15/2005	Ontario County Landfill	Silvarole Trucking
353261	38.30	11/15/2005	Ontario County Landfill	Intrastate Trucking
353262	34.15	11/15/2005	Ontario County Landfill	Mangiardi Trucking
353263	34.89	11/15/2005	Ontario County Landfill	Mangiardi Trucking

Table J-1
Summary of Solid Waste Disposal Manifests
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

Manifest #	Weight (tons)	Date Loaded	Disposal Facility	Trucking Company
353264	37.77	11/15/2005	Ontario County Landfill	Intrastate Trucking
353265	35.50	11/16/2005	Ontario County Landfill	Mangiardi Trucking
353266	37.24	11/16/2005	Ontario County Landfill	Mangiardi Trucking
353267	44.68	11/16/2005	Ontario County Landfill	Mangiardi Trucking
353268	34.39	11/16/2005	Ontario County Landfill	Mangiardi Trucking
353269	37.98	11/16/2005	Ontario County Landfill	Mangiardi Trucking
353270	31.31	11/16/2005	Ontario County Landfill	Mangiardi Trucking
353271	34.12	11/16/2005	Ontario County Landfill	Mangiardi Trucking
353305	31.78	11/30/2005	Ontario County Landfill	Mangiardi Trucking
353306	32.43	11/30/2005	Ontario County Landfill	Mangiardi Trucking
353307	31.84	11/30/2005	Ontario County Landfill	Mangiardi Trucking
353308	28.78	11/30/2005	Ontario County Landfill	Mangiardi Trucking
353309	35.12	11/30/2005	Ontario County Landfill	Mangiardi Trucking
353310	35.19	12/1/2005	Ontario County Landfill	Mangiardi Trucking
353311	36.31	12/1/2005	Ontario County Landfill	Mangiardi Trucking

Earthwatch
WASTE SYSTEMS, INC.

4950 Genesee Street
Suite 170
Buffalo, NY 14225
(716) 681-6433
FAX (716) 681-6165

M 39

353188

353188 Load #_____

NON-HAZARDOUS WASTE SOLID WASTE MANIFEST

TRANSPORTER	DATE	TIME IN / OUT	
Mangiardi Trucking	November 13	0700	
	EWS# 7138		
TRUCK# 48269 PA	TRAILER# AC 96809		

CONSIGNEE:	SHIPPER
News of New York, Inc. Postlane Road Rt. 5 & 20 (County Road 49) Stanley, NY 14561 PHONE# (585) 526-5431	Seneca Army Depot 5786 State Rt. 96 Romulus, NY 14541

NO. PIECES	ARTICLES OR DESCRIPTION	WEIGHT
1	Truckload of Non-Hazardous Contaminated Soil - Approval #418	WEIGHT IN
		WEIGHT OUT
		BILLED WEIGHT

SHIPPER SIGNATURE SMAbsolom PRINT NAME STEPHEN ABSOLOM

DRIVER SIGNATURE [signature] PRINT NAME FRANK GALLO

SPECIAL INSTRUCTIONS:

Facility Hours: Monday to Friday - 7:00 am - 3:30 pm
Saturday - 7:00 am - 12 noon
Sunday - closed

Facility Directions: I-90 to Exit 42
Rt. 14 South
Go to Rt. 51 (20 West)

FOR APPROVAL:

CONSIGNEE PRINT NAME _____

CONSIGNEE SIGN HERE (NO INITIALS) _____

RECEIVED ABOVE MATERIAL IN GOOD CONDITION

FIRM: _____ DATE_____

BY _____ TIME _____ ☐AM ☐PM

Solid waste being interpreted to mean only solid waste or waste containing animal and vegetable matter, rubbish, trash, debris, ashes and non-toxic sludge and other waste materials which is not a radioactive volatile, highly flammable explosive toxic or hazardous nature as listed.

The transporter herein named agrees to hold harmless and to indemnify EWS against all losses and claims as a result of shipment of any material.

This shipment is to be delivered to the consignee without recourse on Earthwatch, shipper or consignee. The transporter shall not make delivery of this shipment without payment of freight and all other lawful charges.

1st Copy - Earthwatch 2nd Copy - Driver 3rd Copy - Land Fill 4th Copy Shipper

NEWS NE / ONTARIO COUNTY LANDFILL
A Division of Casella Waste Systems
1879 NYS Route 5&20
Stanley, NY 14561

TICKET: 109604
DATE: 11/14/2005
TIME: 07:52 - 08:07

CUSTOMER: LE00034 / EARTHWATCH WASTE SYSTEMS
HAULCUST: WO: 0 APPROVAL #: P.O.:
ORIGIN: SC / SENECA
TRUCK: MAN39 TRAILER:
GENERATOR: NA / NON APPLICABLE PROFILE #: NA
HAULER: NA / NON APPLICABLE ROUTE: NA / NON APPLICABLE
COMMENT: app418
CELL/TANK: P4

GROSS: 103780 LBS
TARE: 37840 LBS
NET: 65940 LBS

MATERIAL	QUANTITY	UNIT
AC / ALTERNATIVE DAILY COVER	32.9700	ST

By signing below, I declare that I did NOT deposit any UNAPPROVED PROHIBITED WASTES

Weighmaster: J.S. Driver:

IN: NANCY B: PCSCALE_OC OUT: NANCY B : PCSCALE_OC

Appendix K

Response to Comments

Army's Response to Comments from the New York State Department of Environmental Conservation

Subject: Draft Construction Completion Report
for SEAD-25 and SEAD-26
Seneca Army Depot
Romulus, New York

Comments Dated: May 11, 2006

Date of Comment Response: July 21, 2006

Army's Response to Comments

GENERAL COMMENTS

Comment 1: Section 1.4, Page 1-3. The USEPA has commented on SEAD-25 Pad for no confirmatory base samples and the side wall samples were collected after completing the excavation. Department also wants further clarification on this issue. Please explain and revise the report to provide additional discussion detailing the condition of the top of bedrock encountered within the excavation area of the SEAD-25 Pad area.

Response 1: Boring logs for SB25-3, SB25-4 and SB25-5 are provided for your review. As shown on the boring logs, there is a 0.1 to 0.4 foot layer of weathered and fractured shale overlying the competent bedrock that was easily excavated. Split spoon refusal at the top of competent bedrock was found at 4.6 to 5.4 feet below ground surface. Parsons daily reports in Appendix C used 4.5 feet below ground surface for the excavation to calculate excavation volumes. This depth is generally consistent with the boring log information. Most importantly, on November 16, 2005, members of the BCT including representatives of NYSDEC and NYSDOH observed the excavator scraping the competent bedrock surface of the completed excavation. The excavator could have easily excavated the fractured shale. While the BCT representatives were present, Parsons requested that the contractor scrape the surface so the BCT representatives could see that no further excavation was possible.

Comment 2: Table 3-4, Summary of Confirmatory Sampling on SEAD-26. Why were confirmatory perimeter samples not collected in numbers as described in the workplan for Area-D? Department and USEPA concur on the need to address this issue.

Similarly confirmatory base samples for Area-E, Two to be collected instead of One. Please provide the rational behind this reduced level of sampling.

Response 2: The total number of perimeter and base samples collected was sufficient given the total surface area and total perimeter of the excavated areas at SEAD-26, as summarized in the attached table. This table will be included in the report as Table 3-4. For a total perimeter of 1,396 ft, 31 samples were

collected while only 28 samples were required. For a total surface area of 22,366 sf, 11 samples were collected while 9 samples were required.

Specifically, the one base sample collected from Area E was sufficient. Based on the as-built, the area excavated from Area E, 2707 sf, divided by 2500 sf is 1.08. This demonstrates that the area exceeding 2,500 sf is so minimal that the one sample collected is representative of the excavated area.

This was discussed at the BCT meeting on May 17, 2006, and the representatives from EPA, NYSDEC, and NYSDOH accepted this response explaining that the confirmatory sampling conducted was sufficient.

Comment 3: Appendix A, On Site Borrow Source. Site History – "…..Prior to NSYEG gas line work…..SEAD-39 is no longer considered an area of concern." Please revise the report text to clarify the SEAD-39 area under investigation and addressed in the "Time Critical Removal Action Report dated Feb 2006." The excavated soil from SEAD-39 was disposed off-site as non-hazardous waste based on the characterization sampling results. In post-excavation and delineation samples indicated, the individual samples for metals and PAHs may exceed one or more NYTAGM goals, as described in the report.

Response 3: The relevant information has been added to Appendix A. The text in the Site History section has been revised to state "Prior to the NYSDEG gas line work, a removal action was completed at SEAD-39 in 2003, and SEAD-39 is currently still under investigation."

Army's Response to Comments from the US Environmental Protection Agency

Subject: Draft Construction Completion Report
for SEAD-25 and SEAD-26
Seneca Army Depot
Romulus, New York

Comments Dated: April 5, 2006

Date of Comment Response: July 21, 2006

Army's Response to Comments

GENERAL COMMENTS

Comment 1: The proposed excavation at the SEAD-14 Pad measured 60 ft by 100 ft and extended to a depth of 6 ft. This area was delineated based on benzene, toluene, ethylbenzene, and xylene (BTEX) impacts found in borings SB25-3, SB25-4, and SB25-5. Impacts occurred from ground surface to 4 ft to 6 ft below ground surface (bgs). Approximately 1,350 cubic yards of soil was to be excavated. The final remedial excavation removed approximately 961 cubic yards of impacted soil and measured approximately 56 ft by 90 ft. Additional excavation to remove exceedances at confirmatory sample 25EXPAD08 occurred at the northeast portion of the pad. Bedrock was encountered at approximately four ft bgs, prohibiting the excavation to extend to the proposed depth. For this reason, no confirmatory base samples were collected from the excavation as described in the Work Plan.

In Section 1.4, page 1-3, the stratigraphy at SEAD-25 is described at 1 ft to 2 ft of crushed shale fill, underlain by 5 ft to 6 ft of till, above Devonian Shale. The upper 2 to 4 ft of shale is weathered. The text did not state whether the bedrock at the area of the SEAD-25 Pad was weathered or competent. If the bedrock is weathered at this location, the potential for BTEX to impact the top of the weathered bedrock layer is feasible. Because no confirmatory base samples were collected after completing the excavation, and impacts in borings were observed to a depth of 6 ft, it can not be verified that all impacted material was removed from the excavation.

Please revise the Report to provide additional discussion detailing the condition of the top of the bedrock encountered within the excavation area of the SEAD-25 Pad. This should include a thorough discussion of field observations to explain why base samples were unable to be collected and to confirm that all impacted soils were removed. In addition, boring stratigraphy should be provided for SB25-3, SB25-4, and SB25-5 to verify whether borings extended into the weathered bedrock layer from 4 ft to 6 ft bgs and if this zone of weathered bedrock was impacted.

Response 1: Boring logs for SB25-3, SB25-4 and SB25-5 are provided for your review. As shown on the boring logs, there is a 0.1 to 0.4 foot layer of weathered and fractured shale overlying the competent bedrock that was easily excavated. Split spoon refusal at the top of competent bedrock was found at 4.6

to 5.4 feet below ground surface. Parsons daily reports in Appendix C used 4.5 feet below ground surface for the excavation to calculate excavation volumes. This depth is generally consistent with the boring log information. Most importantly, on November 16, 2005, members of the BCT including representatives of NYSDEC and NYSDOH observed the excavator scraping the competent bedrock surface of the completed excavation. The excavator easily excavated the fractured shale. While the BCT representatives were present, Parsons requested that the contractor scrape the surface so the BCT representatives could see that all fractured bedrock had been removed and competent bedrock was reached.

Comment 2: Quality control/quality assurance (QA/QC) samples were collected as part of the confirmatory sampling for SEAD-25 and SEAD-26 excavation areas. QA/QC samples were collected in accordance with the report entitled, *Final Sampling and Analysis Plan for Seneca Army Depot Activity (SAP), dated 2005*. In SEAD-26, only 3 duplicate samples were collected in addition to 42 regular samples. EPA normally collects 1 duplicate per 10 samples (or fraction thereof) so 5 duplicate samples would seem to be more appropriate based upon the number of confirmation samples collected at SEAD-26. This is a preliminary comment, a more detailed QA/QC review is underway.

Response 2: The requirement for field duplicate presented in the "Final Sampling and Analysis Plan for the Seneca Army Depot Activity (SAP)" (Parsons, 2005), which was reviewed by USEPA and NYSDEC, is "one every 20 project samples, or per SDG, per matrix". This requirement is consistent with the USEPA and NYSDEC requirements, as follows. NYSDEC's TAGM SW-96-09 "Development and Review of Site Analytical Plans" (March, 2001) specifies 1 in 20 samples for field duplicates. Section X.A.1 of USEPA Region 2 CERCLA Quality Assurance Manual (Final, 1989) states that "environmental duplicate samples must be taken at a frequency of at least 5% (1 in 20). This is a separate duplicate from the duplicate a laboratory must run, and cannot be replaced by a laboratory generated duplicate. This applies to every matrix sampled." The QA/QC sampling met the requirements of the approved SAP.

Comment 3: A cost summary breakdown for this section should be included as per EPA guidance.

Response 3: The total construction cost for the SEAD 25/26 remedial action is presented in Section 3.7 of the draft Construction Completion Report. As discussed at the BCT meeting on May 17, 2006, the EPA representative agreed that a cost summary breakdown is not needed, and the cost provided in Section 3.7 is sufficient.

SPECIFIC COMMENTS

Comment 1: Section 1.4, Contaminants of Concern, page 1-3. Primary contaminants of concern in groundwater at SEAD-25 are volatile organic compounds (VOCs), specifically BTEX, and lesser amounts of chlorinated ethane compounds in groundwater. Two overlapping groundwater contaminant plumes,

one consisting of BTEX and one consisting of chlorinated ethanes, originate from the southwestern portion of the Fire Training and Demonstration Pad. The text indicates that BTEX was not detected in the bedrock wells at SEAD-25, but does not indicate whether chlorinated ethanes were detected in the bedrock wells. In Appendix C of the Work Plan, Response to USEPA Comments, dated October 20, 2005, Response 2 states that two rounds of sampling at six bedrock wells on SEAD-25 indicated no detections of BTEX or chlorinated VOCs during either sampling event. Please revise the Report text to clarify if contaminants of concern are present in the bedrock aquifer on SEAD-25.

Response 1: BTEX and chlorinated ethenes were not detected in any of the bedrock wells at SEAD-25 during any sampling events. The text has been revised accordingly.

Comment 2: Section 2.8, Well Abandonment/Well Protection, page 2-3. One well at SEAD-25 (MW-25-5D) was abandoned prior to excavation of the Pad. The Work Plan indicated that MW-25-4D was also to be abandoned due to its location within the proposed limits of excavation. Although MW-25-4D was outside the final excavation limits, this limit should have been determined based on field observations during the excavation activities, not during site preparation activities. Please revise the Report to clarify why MW-25-4D was not abandoned as part of site preparation activities as noted in the Work Plan.

Monitoring well MW26-9 was abandoned and removed from Area E at SEAD-26 due to its location within the excavation. Monitoring well MW26-9 was not scheduled to be abandoned as discussed in Section 3.1.7 of the Work Plan, Abandonment of Monitoring Wells. The excavation at Area E extended to a depth of one foot below ground surface; therefore, protecting the well in accordance with Section 3.1.6 of the Work Plan should have been considered. Please revise the Report to clarify why well MW26 was abandoned instead of protecting the well during excavation, as described in the Work Plan.

Response 2: The work plan presented anticipated work that would lead to either well protection or well abandonment. As a precaution, the work plan indicated that MW25-4D would be abandoned since it was close to the boundary of the proposed work area. The determination was made in the field that the monitoring well could be protected while simultaneously excavating the impacted soil.

The determination that MW26-9 could be abandoned was made by the field engineer in consultation with the project manager. Abandonment of MW26-9 was performed since abandonment of this shallow well simplified the excavation of the area, and the well was not required for long-term monitoring.

Comment 3: Section 3.4.1, Initial Excavation, page 3-2. The SEAD-25 Pad excavation area was shortened approximately four feet at the proposed southern boundary to protect monitoring well MW-25-2. The Work Plan stated that MW-25-2 was within the proposed excavation limits and would be protected. Please revise the Report to provide justification for the reduction in the Work Plan proposed

excavation area, and to further explain why the well was not protected by other means, or abandoned in place and replaced for long term groundwater monitoring.

Response 3: It was determined in the field to be more practical, and economical to modify the limit of work by four feet in order to prevent damage to MW25-2 and allow for a better historical comparison of groundwater quality from a well where testing had been performed during prior sampling events. Additionally, if the well had been removed, the replacement well would have been installed in clean backfill and would not allow us to perform a direct comparison to historic groundwater quality after removal of the source material.

The length of the excavation was shortened by no more than 4 feet. Impacted soils were not left at the site as confirmed by the fact that the confirmatory sample collected in this section of the excavation, 25EXPAD05, met the cleanup goals.

Comment 4: Table 3-4, Summary of Confirmatory Sampling at SEAD-26. Four confirmatory perimeter samples were collected at SEAD-26 Area D. The total perimeter at Area D was equal to 266 linear feet, based on the as-built survey conducted during remedial activities. The Work Plan, Section 4.3.1.1, Sample Collection, states that "confirmatory samples will be collected from the perimeter of the excavation at a rate no less than one sample per every 50 linear ft. A minimum of one sample will be collected from each edge of the excavation". Therefore, based on the total perimeter of Area D (266 ft; 70 ft x 63 ft), a minimum of 6 to 8 confirmatory perimeter samples (depending on whether the 50 linear ft. is interpreted to be *per sidewall*) were required at Area D. Please revise the Report to clarify why confirmatory perimeter samples were not collected as described in the Work Plan, and to propose the collection of the required confirmatory perimeter samples in Area D.

One confirmatory base sample was collected at SEAD-25 Area E. The total area at Area E was equal to 2,707 square ft, based on the as-built survey conducted during remedial activities. The Work Plan, Section 4.3.1.1, Sample Collection, states that confirmatory samples will be collected from the base of the excavation at a rate no less than one sample per every 2,500 square ft, or fraction thereof, of surface area. Therefore, based on the total surface area of Area E, a minimum of 2 confirmatory base samples are required at Area E. Please revise the Report to clarify why confirmatory base samples were not collected as described in the Work Plan, and to propose the collection of the required confirmatory base samples in Area E.

Response 4: The total number of perimeter and base samples collected was sufficient given the total surface area and total perimeter of the excavated areas at SEAD-26, as summarized in the attached table. This table will be included in the report as Table 3-4. For a total perimeter of 1,396 ft, 31 samples were collected while only 28 samples were required. For a total surface area of 22,366 sf, 11 samples were collected while 9 samples were required.

Specifically, the one base sample collected from Area E was sufficient. Based on the as-built, the area excavated from Area E, 2707 sf, divided by 2500 sf is 1.08. This demonstrates that the area exceeding 2,500 sf is so minimal that the one sample collected is representative of the excavated area.

This was discussed at the BCT meeting on May 17, 2006, and the representatives from EPA, NYSDEC, and NYSDOH accepted this response explaining that the confirmatory sampling conducted was sufficient.

MINOR COMMENTS

Comment 1: Section 1.2, Purpose of the Construction Completion Report, page 1-2. The AFCEE Contract Number is listed as FA89903-04-D-8674. The cover of the Report lists the AFCEE Contract Number as FA89903-04-D-8675. Please verify which is correct and revise the Report accordingly.

Response 1: The contract number has been corrected to FA8903-04-D-8675.

Comment 2: Drawing C-1, "Title Sheet." This map does not show NY State 96A as stated on page 1-2.

Response 2: The reference to the state route has been deleted.

Comment 3: Drawing C-6, "Excavation Plan", SEAD-26. Sample 26EXA05 is shown to the north of the Area A excavation limits. Please revise drawing C-6 to show the Sample 26EXA05 at the northern sidewall of Area A. Also, MW26-9 cannot be located on this map as indicated in page 2-3.

Response 3: As shown in Drawing C-6, Sample 26EXA05 is located on the northern edge of the eastern sidewall of the excavation. Clarification is needed to understand the question regarding this location. MW26-9 is located in the middle of Area E on Drawing C-6 and is screened to indicate that it has been abandoned. Its location is more clear on the larger size drawings provided in the report.

QA/QC COMMENTS RECEIVED ON JULY 13, 2006

Comment 1: Section 2.1 Borrow Source, page 2-1 It was stated that one representative soil sample was collected from each borrow in accordance with Final Work Plan Design Report for SEAD-25 and SEAD-26. It was not clear if a grab sample or a composite sample was collected without referring to the Final Work Plan Design Report. A more detailed description of the soil sample should be provided.

Response 1: The Work Plan specifies that a representative sample from the borrow pit will be collected and submitted for analysis. The on-site borrow source was soil stockpiled from various uncontaminated

locations within SEDA (see Page A-1 of the subject report for a more detailed description). Since the soil originated from a range of locations and since the soil did not appear homogeneous, the on-site borrow sample was a composite from four corners of the borrow area in order to produce a representative sample. One grab sample was collected and representative of the off-site borrow soil source.

Comment 2: Section 3.5.5 Soil Disposal, page 3-7 A description of the solidification process for the swale soil material should be provided.

Response 2: The solidification process is described on the previous page in Section 3.5.1 Excavation, as follows:

> Sessler delivered twenty tons of lime, which was mixed with the wet excavated soil from the swale to remove entrained liquid and solidify the material prior to disposal in order to meet the landfill requirements. The excavator was used to spread and mix the lime with the stockpiled swale soil before the soil mixture was loaded in the dump trucks. The edges of the liner were bermed to prevent runoff from escaping the lined area.

Comment 3: Section 3.6.3 Confirmatory Sampling, page 3-7 The process used to document the approval of the change in the sampling locations due to the depth of excavation was not provided.

Response 3: The section referenced (Section 3.6.3) discussed the samples collected from SEAD-26. All samples at SEAD-26 were collected from the base of the excavation or the perimeter, as specified in the work plan. No changes in depth of samples were made.

Comment 4: The work plan did not provide information regarding data validation and usability assessment requirements for the project. Typically, project generated data should undergo verification, validation and usability assessments. Additional information describing these data assessments should be provided.

Response 4: A data validation report is included as Appendix G. Data validation was performed by Parsons' chemist and completed under the guidelines set forth in the Region 2 RCRA and CERCLA Data Validation Standard Operating Procedures (SOPs) with consideration for the site-specific quality assurance requirements presented in the Final Remedial Design Work Plan and Design Report (Parsons, 2005) and the general quality assurance requirements presented in the Generic Site-Wide Sampling and Analysis Plan (SAP) for the Seneca Army Depot Activity (Parsons, 2005). The Region 2 SOPs used for data validation include Evaluation of Metals Data for the Contract Laboratory Program (CLP), CLP Organics Data Review and Preliminary Review, and Training Course For CLP Organic Data Validation 2001. In addition, requirements set forth in the USEPA CLP, the New York State Department of Environmental Conservation (NYSDEC) Contract Laboratory Program Analytical Services Protocol (ASP), USEPA (2004) Contract Laboratory Program National Functional Guidelines for Inorganic Data Review; and USEPA (1999) Contract Laboratory Program National Functional Guidelines for Organic

Data Review were considered during data validation. The data evaluation included performance of a completeness audit and a review of the following parameters, where applicable: holding times, sample preservations, percentage of solids, quality control (QC) results of calibration, equipment/rinsate blanks, trip blanks, method blanks, matrix spike/matrix spike duplicate (MS/MSD) analyses, laboratory control sample (LCS) performances, laboratory and field duplicates, surrogate recoveries, instrument performance, chromatograms and mass spectrums, internal standard recovery, reporting limits, Inductively Coupled Plasma (ICP) serial dilution, interference check sample results, and ICP linear range. In performing the data validation, the raw data were spot-checked in accordance with the Region 2 SOP to evaluate whether there was any transcription error.

Refer to Appendix G for more complete information.

Table 3-4
Summary of Confirmatory Sampling at SEAD-26
Construction Completion Report for SEAD-25 and SEAD-26
Seneca Army Depot Activity

	Dimensions					Base		Perimeter	
SEAD-26 Areas	L (ft.)	W (ft.)	H (ft.)	Area (SF)	Perimeter (ft.)	Required	Collected	Required	Collected
Area A (initial)	77	46	1	3,787	246	1.5	2	4.9	6
Area A (additional)	35	33	1	1,174	136	0.5	1	2.7	3
Total Area A			1	4,961	312	2.0	3	6.2	9
Area B	136	54	1	8,101	380	3.2	4	7.6	8
Area C	101	18	1	1,918	238	0.8	1	4.8	6
Area D	70	63	1	4,679	266	1.9	2	5.3	4
Area E	52	48	1	2,707	200	1.1	1	4.0	4
Totals				22,366	1,396	8.9	11	27.9	31

Note:
1. Dimensions and areas are based on the as-built drawings.
2. On the average:
   1 sample was collected per 2,033 sf of area (requirement is 1 per 2,500 sf).
   1 sample was collected per 45 ft. of perimeter (requirement is 1 per 50 lf).

LOG OF BORING NO. SB25-3

PROJECT: **SEAD-25 & SEAD-26 RI/FS**
PROJECT LOCATION: **Seneca Army Depot Activity, Romulus, NY 14541**
ASSOCIATED UNIT/AREA: **SEAD-25**
PROJECT NO: **728059**
DATE STARTED: **12/03/93**
DATE COMPLETED: **12/03/93**
DRILLING CONTRACTOR: **Empire Soils Investigation, Inc.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **3 inch Split Spoons**

DEPTH TO WATER (ft): **NA**
BORING LOCATION (N/E): **998064.8 750981.2**
REFERENCE COORDINATE SYSTEM: **NY STATE PLANAR**
GROUND SURFACE ELEVATION (ft): **743.8**
DATUM: **NGVD 83**
INSPECTOR: **B. Harvey, M. Burns**
CHECKED BY: **P.Feschbach-Meriney**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft.)	USCS CLASS	DESCRIPTION	Depth	Macro	Macro Lithology
								This log is part of a report prepared by Parsons Engineering-Science, Inc. for the named project and should be read together with the report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations.			
SB25-3.1	12 14 16 10	2.00	1.6	22	NA	1 1.3	GM	Dark brown to black fine gravel-sized SHALE fragments, little fine Sand, moist, petroleum odor.	0.00 1.30	FL	
SB25-3.2	12 14 18 20	2.00	2.0	2.0	NA	2 3	ML	Olive gray SILT and CLAY, little fine to medium gravel-sized Shale, trace very fine Sand, moist, petroleum odor.		TL	
SB25-3.3	6 100/.3	0.80	0.6	1.3	NA	4 4.5			4.50		
								Dark gray highly fissile SHALE, some interstitial brown Silt, Clay, and very fine Sand, moist, petroleum odor.	5.00	WS	
						5		SPLIT SPOON REFUSAL AT 4.8 FEET.		CS	
								AUGER REFUSAL AT 5.0 FEET. Dark gray to black SHALE.			

NOTES:

PARSONS
ENGINEERING-SCIENCE, INC.

UNITED STATES ARMY
CORPS OF ENGINEERS
Seneca Army Depot
Romulus, New York

LOG OF BORING SB25-3

LOG OF BORING NO. SB25-4

PROJECT: **SEAD-25 & SEAD-26 RI/FS**
PROJECT LOCATION: **Seneca Army Depot Activity, Romulus, NY 14541**
ASSOCIATED UNIT/AREA: **SEAD-25**
PROJECT NO: **728059**
DATE STARTED: **12/03/93**
DATE COMPLETED: **12/03/93**
DRILLING CONTRACTOR: **Empire Soils Investigation, Inc.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **3 inch Split Spoons**

DEPTH TO WATER (ft): **NA**
BORING LOCATION (N/E): **998086.8 750956.9**
REFERENCE COORDINATE SYSTEM: **NY STATE PLANAR**
GROUND SURFACE ELEVATION (ft): **743.6**
DATUM: **NGVD 83**
INSPECTOR: **B. Harvey, M. Burns**
CHECKED BY: **P.Feschbach-Meriney**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft.)	USCS CLASS	DESCRIPTION	Depth	Macro	Macro Lithology
SB25 -4.1	12 13 8 7	2.00	1.1	15	NA	1	GM	This log is part of a report prepared by Parsons Engineering-Science, Inc. for the named project and should be read together with the report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations. Dark brown to black fine gravel-sized SHALE fragments, little fine Sand, moist, petroleum odor.	0.00	FL	
						1.3			1.30		
SB25 -4.2	6 60 25 25	2.00	1.9	40	NA	2	ML	Olive gray SILT and CLAY, little fine to medium gravel-sized Shale, trace very fine Sand, moist, petroleum odor.		TL	
						3					
SB25 -4.3	45 100/.1	0.60	0.5	1.0	NA	4					
						4.5			4.50		
								Dark gray to black highly fissile SHALE, some interstitial brown Silt, Clay, and very fine Sand, dry, no odor.		WS	
						5		SPLIT SPOON REFUSAL AT 4.6 FEET.	5.00		
								Dark gray to black SHALE.		CS	

NOTES:

PARSONS
ENGINEERING-SCIENCE, INC.

UNITED STATES ARMY
CORPS OF ENGINEERS
Seneca Army Depot
Romulus, New York

LOG OF BORING SB25-4

LOG OF BORING NO. SB25-5

PROJECT: **SEAD-25 & SEAD-26 RI/FS**
PROJECT LOCATION: **Seneca Army Depot Activity, Romulus, NY 14541**
ASSOCIATED UNIT/AREA: **SEAD-25**
PROJECT NO: **728059**
DATE STARTED: **12/03/93**
DATE COMPLETED: **12/03/93**
DRILLING CONTRACTOR: **Empire Soils Investigation, Inc.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **3 inch Split Spoons**

DEPTH TO WATER (ft): **NA**
BORING LOCATION (N/E): **998046.9 750959.2**
REFERENCE COORDINATE SYSTEM: **NY STATE PLANAR**
GROUND SURFACE ELEVATION (ft): **743.6**
DATUM: **NGVD 83**
INSPECTOR: **E. Schacht**
CHECKED BY: **P.Feschbach-Meriney**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft.)	USCS CLASS	DESCRIPTION	Depth	Macro	Macro Lithology
								This log is part of a report prepared by Parsons Engineering-Science, Inc. for the named project and should be read together with the report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations.			
SB25 -5.1	7 18 13 10	2.00	2.0	155	NA	0.5	GM	Dark brown to black fine gravel-sized SHALE fragments, little fine Sand, wet, no odor.	0.00 0.50	FL	
						1	ML	Olive gray SILT and CLAY, little fine to medium gravel-sized Shale, trace very fine Sand, wet, petroleum odor.		TL	
SB25 -5.2	11 12 17 24	2.00	1.6	649	NA	2					
						3					
SB25 -5.3	17 52 100/.4	1.40	1.2	213	NA	4					
						5					
						5.0		Dark gray highly fissile SHALE, some interstitial brown Silt, Clay, and very fine Sand, moist, petroleum odor.	5.00	WS	
								SPLIT SPOON REFUSAL AT 5.4 FEET.	5.50	CS	
								AUGER REFUSAL AT 5.5 FEET. Dark gray to black SHALE.			

NOTES:

PARSONS
ENGINEERING-SCIENCE, INC.

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