REDACTED VERSION

REMOVAL ACTION REPORT

FOR

WILCOX OIL RESIDENCE SITE REMOVAL
[redacted] (b) (6)
BRISTOW, CREEK COUNTY, OKLAHOMA

Prepared for

U.S. Environmental Protection Agency Region 6
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Contract No. EP-S5-17-02
Technical Direction Document No. 0001/17-065
WESTON Work Order No. 20600.012.001.1065
NRC No. N/A
SEMS ID OK0001010917
FPN No. N/A
SSID A6GG
EPA OSC Steve Mason
START PTL Derrick Cobb

Prepared by

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100010107

019145.001

EXECUTIVE SUMMARY

The U.S. Environmental Protection Agency (EPA) Region 6 Superfund Technical Assessment Response Team (START) contractor Weston Solutions, Inc. (WESTON®) was tasked by EPA Region 6 Emergency Management Branch (EMB) under contract EP-S5-17-02, Technical Direction Document (TDD) 0001/17-065 to provide technical assistance with a residential removal action at the Wilcox Oil Superfund Site, located in Bristow, Creek County, Oklahoma. The Superfund Enterprise Management System (SEMS) Identification Number for the site is OK0001010917.

The focus of this removal action was to remove oily sludge and oily contaminated soils from the residential property identified as Property 006 during previous assessment activities conducted under Technical Direction Document (TDD) 5/WESTIB-042-15-004. Emergency and Rapid Response Services (ERRS) contractor Environmental Restoration LLC (ER) was responsible for the excavation/disposal of oily sludge and contaminated soil, and restoration activities at Property 006. The removal activities took place between 27 September and 11 October 2017. Removal activities and analytical results are summarized as follows:

- Removal and disposal of 1,349 tons (approximately 921 cubic yards) of oil impacted soils and sludge.
- Four five-point composite confirmation samples collected from the bottom of the excavation area, did not exceed the site-specific action level of 0.11 milligrams per kilograms (mg/kg) for benzo(a)pyrene.
- Restoration of the property and driveway to pre-removal conditions.

START compiled logbook and photographic documentation of the removal activities utilizing SCRIBE and Response Manager.

This Removal Action Report was prepared to describe the technical scope of work that was completed as part of the TDD No. 0001/17-065. The EPA On-scene Coordinator (OSC) was Steve Mason. The EPA Team Project Team Leader (PTL) was Derrick Cobb.

☐ The EPA Task Monitor did not provide final approval of this report prior to the completion date of the work assignment. Therefore, Weston Solutions, Inc. has submitted this report absent the Task Monitor's approval.

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1 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) Region 6 Superfund Technical Assessment Response Team (START) contractor, Weston Solutions, Inc. (WESTON®) was tasked by Region 6 EPA Emergency Management Branch (EMB) under Contract Number EP-S5-17-02 Technical Direction Document (TDD) No. 0001/17-065 (Appendix H) to provide technical assistance, contractor oversight, and documentation of on-site activities during the removal action at the Wilcox Oil Residence site. A Site Location Map is provided as Figure 1-1. The removal action included the excavation of oily impacted soils and sludge, confirmation sampling, and site restoration.

This removal action report describes the technical scope of work for removal activities at the Wilcox Oil Residence Site Removal conducted by Environmental Restoration LLC (ER), the Emergency and Rapid Response Services (ERRS) contractors. The EPA On-scene Coordinator (OSC) was Steve Mason. The EPA Team Project Team Leader (PTL) was Derrick Cobb. The EPA Superfund Enterprise Management System (SEMS) Identification number for the site is OK0001010917.

1.1 PROJECT OBJECTIVES

The objective of this removal action was to eliminate the imminent threat and substantial endangerment to public health and welfare and the environment posed by on-site hazardous substances, pollutants, and contaminants at the Wilcox Oil Residence site. EPA accomplished the project objective through excavation and off-site disposal of oil impacted soils and sludge.

The objectives were achieved by excavation and off-site disposal of oily impacted soils, coordinating with EPA OSC Mason, and providing written and photographic documentation of site removal activities.

1.2 SCOPE OF WORK

The Removal Action scope of work included the following activities:

- Excavated and disposed oily impacted soils and sludge off-site.

- Conducted ambient air monitoring during removal activities.
- Collected confirmation samples from the bottom of the excavation areas to document that oil impacted soils and sludge were removed.
- Conducted site restoration activities once confirmation soil results determined that removal action objectives were met.
- Provided oversight and documentation of removal activities.
- Coordinated with EPA OSC and ERRS contractors.

1.3 REPORT FORMAT

This report has been organized as follows:

- Section 1 - Introduction
- Section 2 - Site Background
- Section 3 - Actions Taken
- Section 4 – Sample Analyses and Data Evaluation
- Section 5 - Summary

Additional information is provided in the appendices following the text of this report. The appendices are as follows:

- Appendix A Site Logbook
- Appendix B Digital Photographs
- Appendix C Waste Manifests
- Appendix D Pollution Reports
- Appendix E Data Validation Packages
- Appendix F Analytical Results
- Appendix G Quality Assurance Sampling Plan
- Appendix H Technical Direction Document No. 0001/17-065

2 SITE BACKGROUND

This section presents a summary of background information for the Wilcox Oil Superfund Site including site location and description, operational and regulatory history, previous investigations, and sources of contamination.

2.1 SITE LOCATION AND DESCRIPTION

The Wilcox Oil Residence Site (Property 006) is part of the Wilcox Oil Superfund Site, an abandoned oil refinery and associated tank farm located north of Bristow, Creek County, Oklahoma. The geographic coordinates of the site are approximately Latitude 35.842144° North and Longitude -96.381456° West. The former Lorraine Refinery, including an associated tank farm, operated under numerous companies from approximately 1915 to 1937 when the property was sold to Wilcox Oil and Gas Company. Wilcox Oil and Gas Company purchased refinery operations on the remaining acres east of the railroad tracks and operated as a crude oil refinery from the 1920s until the property was sold on 01 November 1963. The site encompasses approximately 140 to 150 acres. A Site Area Map is provided as Figure 2-1, and a Site Property Map is provided as Figure 2-2.

The Wilcox Oil Superfund site is bordered by Route 66 to the west; a residential area and Turner Turnpike to the northwest and north; Sand Creek to the southwest; and residential, agricultural, and wooded areas to the east and south. The topography in the vicinity of the site slopes to the south. Surface water runoff would follow the topography in the vicinity of the site. There are several fresh water ponds on the site, and some local residents indicated that, historically, fishing has occurred. Two intermittent streams drain the eastern and western portions of the site, and these streams flow south into Sand Creek.

The former Wilcox Oil Process Area is fenced while residential and agricultural properties on the site are partially fenced with barbed wire. A chain-link fence was installed around the former Lorraine Process Area during the Phase II Removal Assessment.

The Wilcox Oil Superfund site is divided into five major former operational areas: The Wilcox Refinery, the Lorraine Refinery, the North Tank Farm, the East Tank Farm, and the Loading Dock

Area. These five areas are described as follows:

- The former Wilcox Refinery Area is fenced and covers approximately 26 acres. Most of the equipment and storage tanks that remained on-site in 1963 were auctioned and have been salvaged for scrap iron by private land owners, and what remains are in ruins. Four aboveground storage tanks (ASTs) (12,500 gallons each) remain standing. In addition to a number of buildings, discarded vegetation, barren areas, and black tarry waste of a hydrocarbon nature are visible. A building in the northern part of the former refinery has been converted to a residence. An intermittent creek flows southward across the eastern portion of the refinery area through a small pond in the southeastern corner of the refinery area and into Sand Creek.
- The former Lorraine Refinery Area covers approximately 8 acres and includes the southwestern portion of the site, south of Refinery Road and west of the railroad. No refinery structures remain in the processing area. The First Assembly of God Church, a playground, and one residence are located here. There are multiple areas of stressed vegetation, barren areas, and visible black tarry waste of hydrocarbon nature.
- The East Tank Farm was a large crude tank storage area/tank farm covering approximately 80 acres and contains pits, ponds, and a number of circular berms that surrounded tank locations. All of the tanks have been cut down and removed; however, remnants of the tank locations remain and are visible. Many of the berms surrounding the pits, ponds, and former tanks have been cut or leveled. An intermittent creek is located in the eastern portion of the tank farm and flows south to Sand Creek. A pumping or gas compressor station exists in the north-central portion of the site, and an active pipeline crosses from northwest to southeast across the middle of the site. There are four residences located on top of or directly next to former tank locations. There are multiple areas of stressed vegetation, barren areas, and visible black tarry waste of a hydrocarbon nature. Waste was also observed in several drainage channels that empty into Sand Creek.
- The North Tank Farm was a crude and fuel oil storage area consisting of approximately 20 acres. No refinery structures remain in the product storage area, and all tanks have been cut down and removed. Remnants of the tank locations are not visible, and historic locations are difficult to pinpoint. One residence is located in this area.

- The Loading Dock Area is approximately 7 acres and was used for loading and unloading product by rail. Just a few refinery structures/supports remain and are generally located parallel to the existing rail lines. There are multiple areas of stressed vegetation, barren areas, and visible black tarry waste of a hydrocarbon nature.

2.2 OPERATIONAL AND REGULATORY HISTORY

A modern oil refining plant was constructed in 1929. The upgraded facility had an operating capacity of 4,000 barrels of crude oil per day. The main components of the system consisted of a skimming plant, cracking unit, and re-distillation battery with a vapor recovery system and

continuous treating equipment. The crude oil was brought directly from the field, eliminating storage and handling facilities, but resulting in crude oil with high sediment and water.

The Wilcox Oil and Gas Company and Lorraine Refining Company Sanborn Insurance Maps indicate that the properties contained approximately 80 storage tanks of various sizes, a cooling pond, and approximately 10 buildings housing refinery operations. The maps also indicate that crude oil, fuel oil, gas oil, distillate, kerosene, naptha, and benzene (petroleum ether) were all stored on the property.

After the refinery operations ceased and most of the tanks and buildings were demolished and sold for scrap, the property was sold to private interests. Beginning in 1975 with the construction of the church, private residences were constructed on 6 parcels of land that were part of the former refinery operations. The most recent being constructed in 2003/2004. One former building associated with the refinery was repurposed as a residence. As a result, there is a total of seven residences on the site, all of which are located on former tank or refinery operation locations. Three of the residences located in the eastern portion of the site are known to use water from domestic/private wells. The drainage pattern of the site is primarily toward Sand Creek that serves as the western and southwestern boundaries of the site. Two intermittent streams and several drainage channels cross the portion of the site east of the railroad and flow into Sand Creek.

The refinery waste source areas of concern include a backfilled oil waste pond and pit, a breached settling pond, a former pond apparently backfilled with solid refinery waste, and a number of former tank storage areas. The contaminants of concern are metals and organic compounds (Total Petroleum Hydrocarbons [TPH] and Polycyclic Aromatic Hydrocarbons [PAHs]). These potential contaminants of concern are found in soil, sediment, and waste material.

Specifically, Property 006 (subject to this removal action) is currently occupied by a family. During previous assessment activities, benzo(a)pyrene was found at concentrations that exceeded the residential screening value of 0.11 milligrams per kilogram (mg/kg) at depths ranging from the ground surface to 24-inches below ground surface (bgs). No other PAHs or TPH exceedances were reported for Property 006.

2.3 SUMMARY OF PREVIOUS INVESTIGATIONS

Multiple investigations have been performed on the Wilcox Oil site since 1994. These documents were used to summarize the site background and regulatory history described above.

- Preliminary Assessment (PA) was performed at the former Wilcox Refinery Site by the Oklahoma Department of Environmental Quality (ODEQ) in December 1994.
- Expanded Site Inspection (ESI) was performed at the former Wilcox Refinery Site for the EPA in March 1997.
- Site Assessment (SA) was performed at the former Wilcox Refinery Site by EPA in March 1999.
- PA was performed at the former Lorraine Refinery Site by ODEQ in September 2008.
- Site Inspection (SI) was performed at the former Lorraine Refinery Site by ODEQ in August 2009.
- ESI was performed at the former Lorraine Refinery Site by ODEQ in September 2010.
- ESI was performed at the former Wilcox Refinery Site by ODEQ in September 2011.
- Hazard Ranking System Package was completed in May 2013.

In 2014, the EPA ERRS contractor capped and locked an abandoned drinking water well located near the First Assembly of God Church (no longer operating at this location) to the west of the site. ERRS also installed a fence with signage around an oily sludge pit located on a residential property developed within the historical refinery boundary (Property 001).

In 2014 and 2015, WESTON, the EPA Region 6 START contractor, was tasked by EPA Region 6 to perform a Removal Assessment at the Wilcox Oil Refinery site under TDD No. 5/WESTON-042-15-004. Phase I was conducted from 08 through 11 December 2014, and Phase II was conducted 18 May through 12 June 2015. The field sampling strategy focused on collecting soil samples from residential properties that have been built on or are in close proximity to the Wilcox Oil Refinery Site.

Prior to initiating the sampling activities in Phase I, EPA gained access to one targeted residential property (Property 001) within the former Wilcox Oil Refinery Site boundary. As part of the assessment activities, the EPA Team collected 187 soil samples including duplicate, quality

assurance/quality control (QA/QC) samples from a total of 57 grids. Two samples were also taken at the request of the EPA OSC from soil on the bank of an on-site pond and soil that was affected with a tar-like substance from an unknown source.

Prior to initiating Phase II, EPA gained access to nine residential properties. The EPA Team collected a total of 240 soil samples (including duplicate, QA/QC samples) from a total of 52 grids from 9 properties on and around the Wilcox Oil Refinery Site (5 properties located on the former refinery site and 4 properties located adjacent to the former refinery). At the direction of the EPA OSC, select locations were pushed to deeper depths to visually investigate the presence of potential refinery waste. Based on the historical site operations and historical aerial photographs, selected grids were investigated below 24-inches bgs. These grids were identified on Properties 002, 006, 008, and 011. The center point of each grid was advanced to a maximum depth of 8 feet bgs or refusal (bedrock). Visual observations were noted. No analytical samples were collected from these at-depth soil investigation borings.

Results from previous investigations are presented in the EPA START-3 *Wilcox Oil Company Superfund Site Removal Assessment Report*, (TDD No. 5/WESTON-042-15-004) dated January 2016.

3 ACTIONS TAKEN

During this Wilcox Oil Residence Site Removal action, EPA removed sludge and oil impacted soil identified during the removal assessment and transported the material off-site for disposal. On 27 September 2017, ERRS, START, and EPA mobilized to Bristow, Creek County, Oklahoma, to begin preparing the site for removal activities that commenced on 28 September 2017. Preparations included identifying utility locations following mark-outs by the utility service providers, procuring equipment and materials required for removal activities, and setup of the Mobile Mini command post.

From 28 September through 11 October 2017, the EPA Team conducted the removal action that included the excavation area to depths between 6 inches and 48 inches. While on-site, the EPA Team provided written, photographic, and cost documentation for on-site activities. On-site activities included soil excavation, confirmation sampling, ambient air monitoring, site restoration, and communicating with the property owner. Additionally, START documented the excavation boundaries on Property 006, following excavation activities using a Geographic Information System (GIS) and handheld Geographic Positioning System (GPS) unit. The following components of this removal action were completed and are described in this section:

- Soil Removal
- Confirmation Sampling
- Ambient Air Monitoring
- Site Restoration

Pollution Reports (POLREPs) were written by the EPA Team to provide status updates regarding activities at the site and are presented in Appendix C. Site logbook notes are included in Appendix A. Digital photographs taken by the EPA Team of site-related activities are presented in Appendix B.

3.1 SOIL REMOVAL

Prior to initiating the excavation activities, the Oklahoma One-Call System and local municipalities were called and utility mark-outs were performed by the utility service providers.

The area of excavation was excavated to the extent of no visible sludge remained. Confirmation samples were collected from the floor of the excavation following the completion of excavation. Excavation was considered complete when the confirmation sample results were reported below the site-specific action. All confirmation analytical results were reported at concentration below site-specific action level for benzo (a) pyrene (0.11 mg/kg); therefore further excavation was not required.

The excavation material was loaded directly into the dump trucks and transported by Yocham Trucking for off-site for disposal at the American Environmental Landfill, Inc. in Sand Springs, Oklahoma, as non-hazardous soil waste. A total of approximately 1,349 tons (approximately 921 cubic yards) of oil impacted soils and sludge were removed from the site during the removal action.

Table 3-1
Summary of Waste Disposal
Removal Report for Wilcox Oil Residence Site Removal
Bristow, Creek County, Oklahoma

Date	Designated Facility	Manifest Tracking Number	Waste Description	Containers		Total Quantity (tons)
				No.	Type	
10/27/17	American Environmental Landfill, Inc.	MN520WIL01	Non-Hazardous Soil	6	DT	99.03
10/28/17	American Environmental Landfill, Inc.	MN520WIL01	Non-Hazardous Soil	26	DT	418.02
10/29/17	American Environmental Landfill, Inc.	MN520WIL01	Non-Hazardous Soil	33	DT	487.44
10/30/17	American Environmental Landfill, Inc.	MN520WIL01	Non-Hazardous Soil	15	DT	241.19
11/2/17	American Environmental Landfill, Inc.	MN520WIL01	Non-Hazardous Soil	3	DT	54.61
11/05/17	American Environmental Landfill, Inc.	MN520WIL01	Non-Hazardous Soil	3	DT	48.36

Notes: DT - Dump Truck

3.2 CONFIRMATION SAMPLING

As part of the removal action support activities, confirmation soil samples were collected from each excavation area following the completion of removal activities. The EPA Team collected a total of five soil composite samples (including QA/QC samples) from a total of four excavation areas during the removal action. Excavation locations were established using GPS technology to obtain horizontal control of the sample locations.

Composite samples were collected from five points within the excavated area. The soil was homogenized in dedicated plastic bags then transferred to clean, unused, 8-ounce glass jars. Each sample was label, bagged, and placed in a cooler with ice. Sample coolers were shipped via FedEx to a subcontracted analytical laboratory.

The QA/QC samples were collected as part of the confirmation sample process. The EPA Team collected one blind field duplicate during the removal action. Analysis of the duplicate provides QA of sampling procedures and laboratory analytical data by evaluating reproducibility of results. Matrix spike samples were also collected to assist in the QA of the laboratory analytical procedures. One matrix spike sample was collected during the removal action. Other QA samples included temperature blanks placed in each cooler to evaluate the temperature of samples upon arrival at the laboratory. Analytical results are provided in Appendix F.

3.3 SITE RESTORATION

Post-excavation activities included restoring Property 006 to previous conditions. Prior to excavation, photographs were used to document the existing property conditions. Clean soil (as confirmed with sampling data collected from the fill material) was used to replace the excavated soil. Gravel was utilized to restore the driveway. In addition, six trees selected by Property 006 owner were planted to replace the trees removed to facilitate excavation. Where clean soil was placed, the area was hydro-seeded. A final site walk was completed to document the site conditions prior to returning to the property owner. Additionally, ERRS provided hydro-seed and tree care guidance to the property owner prior to project completion.

3.4 AIR MONITORING RESULTS

The EPA Team utilized a Multi Rae to conduct ambient air monitoring for volatile organic compounds (VOCs) during removal activities. Ambient air monitoring was completed throughout the days during removal activities. No readings above background were detected.

4 SAMPLE ANALYSES AND DATA EVALUATION

Test America Laboratories, Inc. (Test America) in Nashville, Tennessee, conducted analytical analyses of the samples collected from Property 006. Data validation was performed by START as part of the removal action in accordance with the EPA Contract Laboratory Program *National Functional Guidelines for Organic Superfund Data Review – January 2017 (*EPA-S40-R-014-002). These tasks were conducted in accordance with the EPA technical requirements, WESTON's Quality Assurance Program, and the site-specific Quality Assurance Sampling Plan (QASP) (Appendix G).

A standard data management system that includes using bound field logbooks, site photographs, sample management and tracking procedures, document control, and inventory procedures for the laboratory data was utilized. SCRIBE software was utilized to manage and track sample information for samples submitted to the laboratories, and store analytical results data.

Confirmation samples were analyzed only for the constituents that exceeded the site-specific action levels (benzo (a) pyrene) during the previous assessments for the respective area of Property 006. The following method of analysis was conducted:

- SW-846 – Method 8270D SIM – PAHs, benzo(a)pyrene

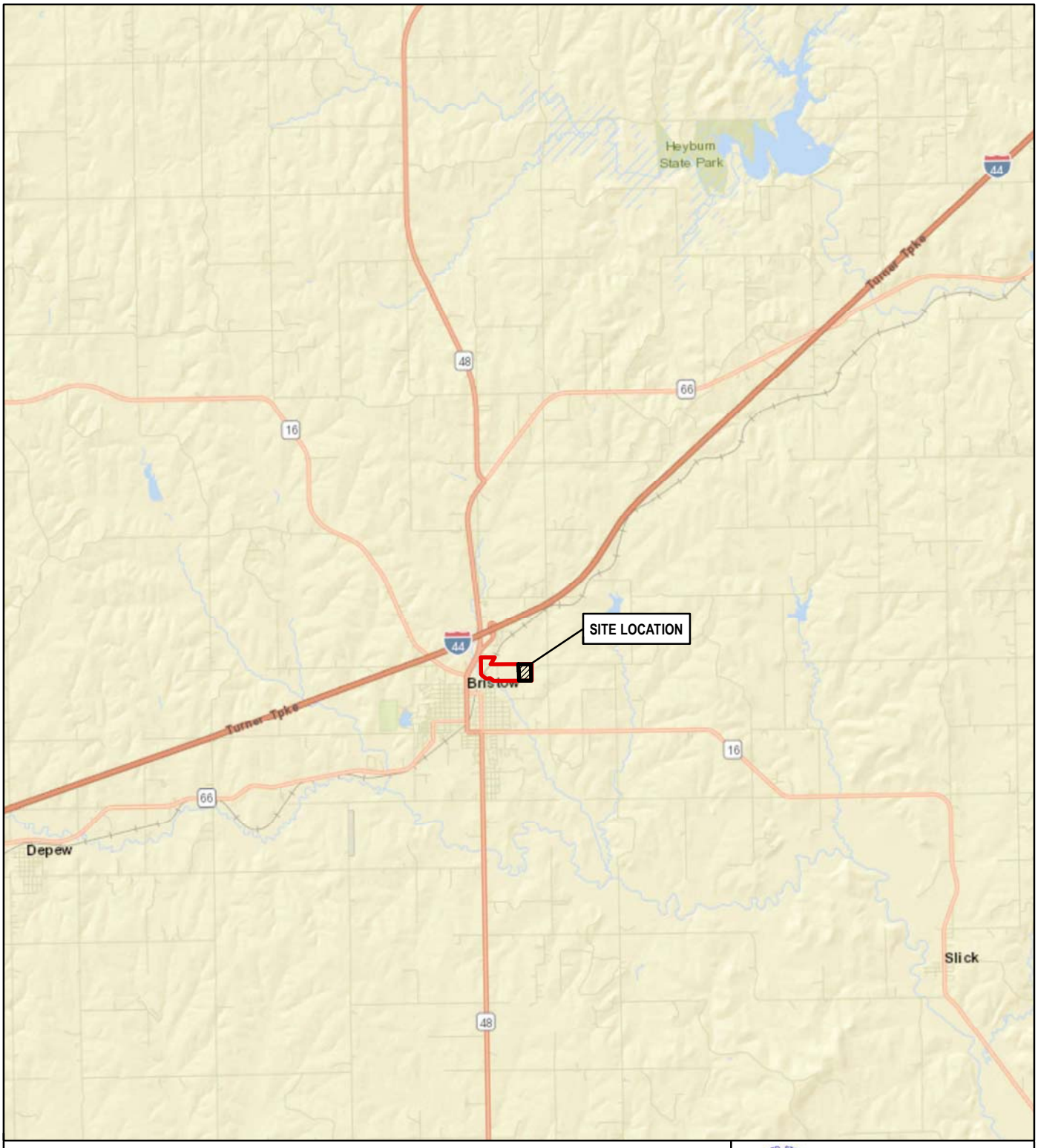
Test America provided data packages for each chain of custody submitted. The laboratory documentation in these data packages includes records of instrument readings, calculations, calibrations, and quality assurance checks. The data packages were reviewed to verify that they met the EPA technical requirements and QA guidelines established for the respective analytical methods. Analytical Results are provided as Appendix F, and the data validation packages are provided as Appendix E.

5 SUMMARY

From 27 September to 11 October 2017, EPA conducted and successfully completed the removal action at the Wilcox Soil Superfund Site, Property 006. Removal Actions consisted of the removal and disposal of 1,349 tons (approximately 921 cubic yards) of oil impacted soils and sludge and restoration of the property and driveway.

A total of five confirmation samples (including QA/QC samples) were collected and submitted for analyses for PAHs during the removal action and were submitted to Test America. The laboratory data results were validated by START, and analytical results were compared to the site-specific screening level established by the EPA in the Action Memo.

Excavated areas were backfilled with clean soil and hydro-seeded and the gravel driveway restored. On 12 October 2017, the EPA Team completed field activities and demobilized from the site.



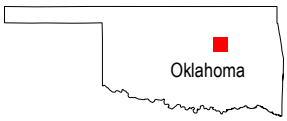
0 2 4

Miles

LEGEND

Property Boundary

Wilcox Oil Refinery Boundary



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TDD NO: 0001/17-065
SEMS NO. OK0001010917
SSID: A6GG

SOURCE: Esri Street Map and its data suppliers, 2017

US EPA REGION 6

FIGURE 1-1
SITE LOCATION MAP
WILCOX OIL RESIDENCE
SITE REMOVAL ACTION
(b) (6) STREET
BRISTOW, CREEK COUNTY, OKLAHOMA

DATE	PROJECT NO	SCALE
DECEMBER, 2017	20600.012.001.1065.01	AS SHOWN

FILE: I:\GIS Project Files\20600_EPA_START4\Wilcox Oil Removal Action\mxd\Removal Action\Figure 1-1 Site Location Map.mxd 4:01:24 PM 12/4/2017 wilderj

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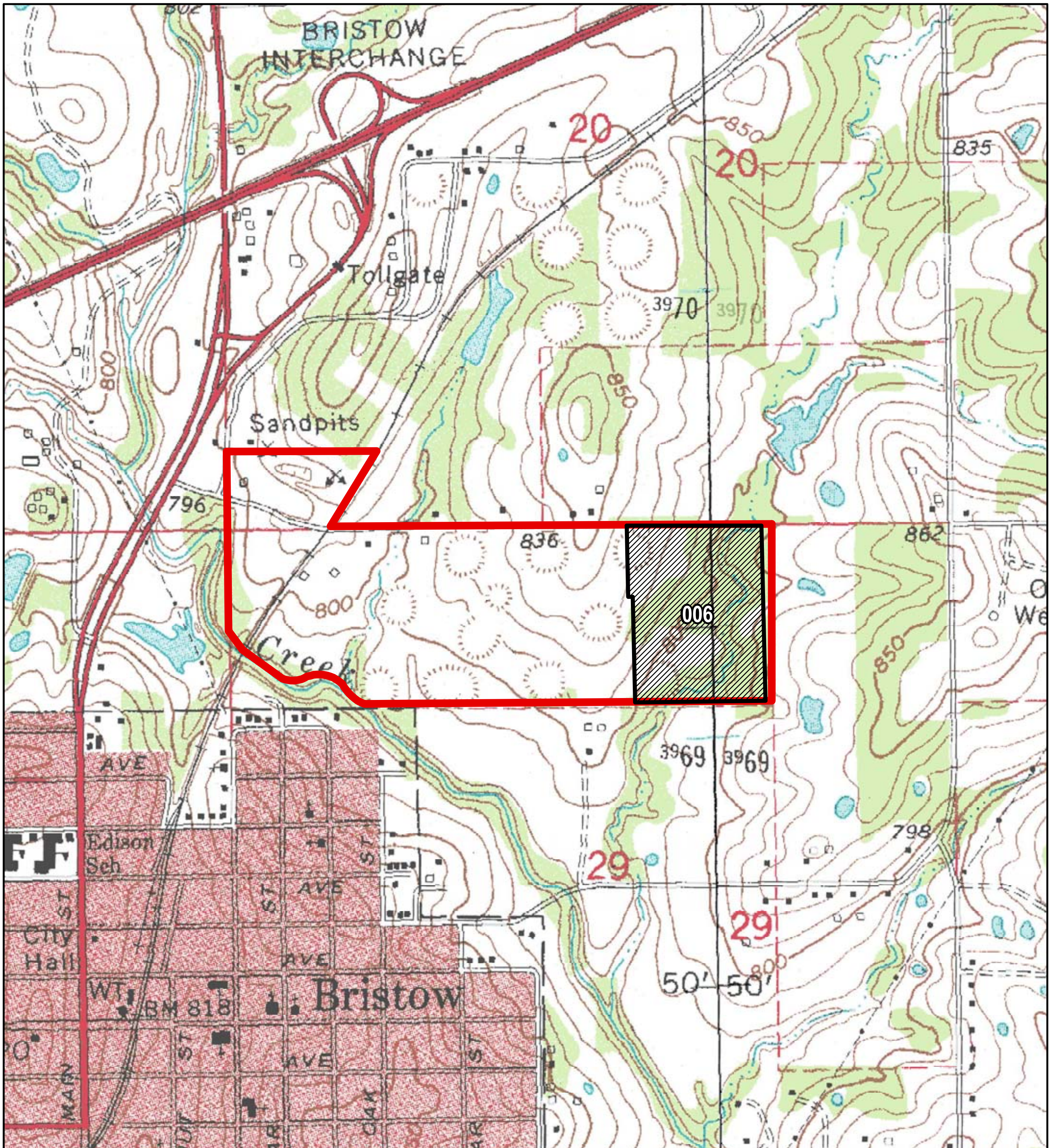


0 1,000 2,000

Feet

N

LEGEND

- Property Boundary
- Wilcox Oil Refinery Boundary

TDD NO: 0001/17-065
SEMS NO. OK0001010917
SSID: A6GG

SOURCE: U.S. Geological Survey, 7.5 Minute Topographic Quadrangle, Bristow and Slick, Oklahoma - 1995

US EPA REGION 6

FIGURE 2-1
SITE AREA MAP
WILCOX OIL RESIDENCE
[redacted]CTION
(b) (6)
[redacted]STREET
BRIS[redacted]Y, OKLAHOMA

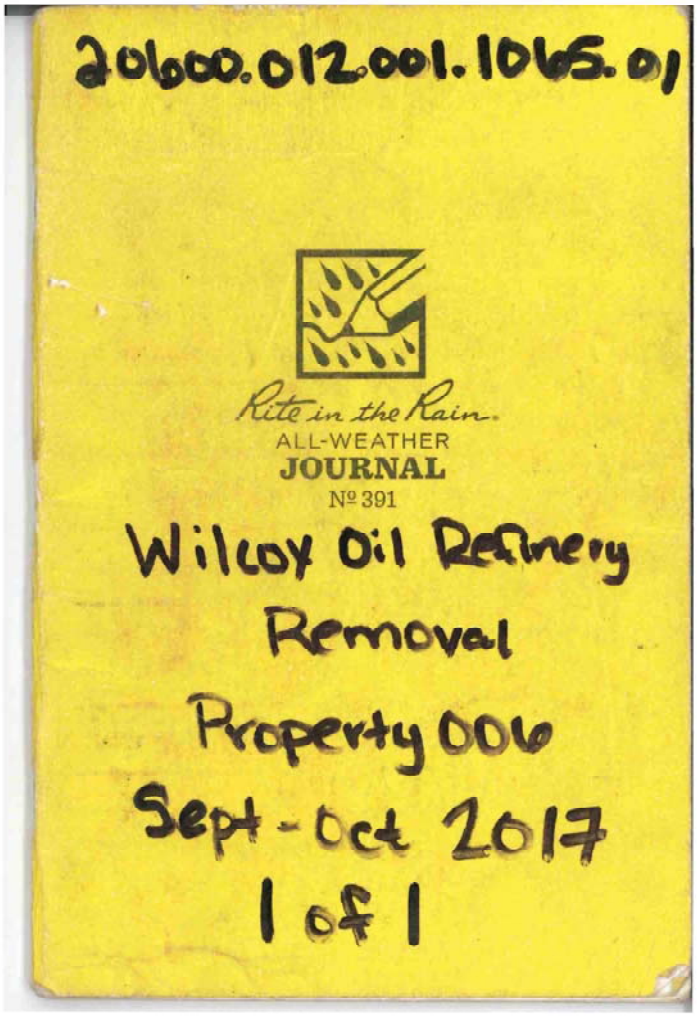
DATE	PROJECT NO	SCALE
DECEMBER, 2017	20600.012.001.1065.01	AS SHOWN

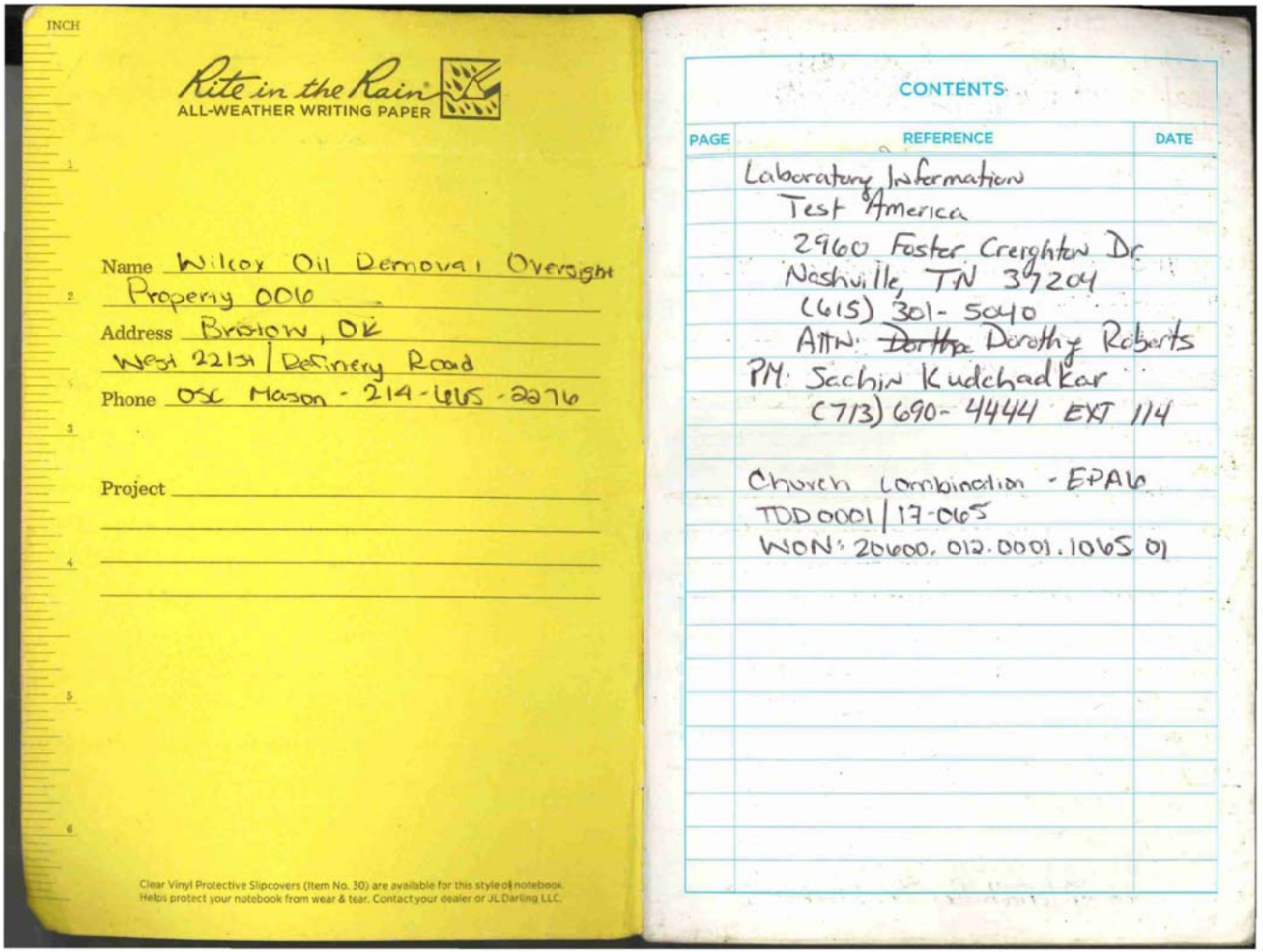
FILE: I:\GIS Project Files\20600_EPA_START4\Wilcox Oil Removal Action\mxd\Removal Action\Figure 2-1 Site Area Map.mxd 4:02:43 PM 12/4/2017 wilderj

FILE: I:\GIS Project Files\20600_EPA_START4\Wilcox Oil Removal Action\mxd\Removal Action\Figure 2-2 Site Property Map.mxd 4:04:18 PM 12/4/2017 wjeter

APPENDIX A

SITE LOGBOOK


20600.012.001.1065.01
Rite in the Rain.
ALL-WEATHER
JOURNAL
№ 391
Wilcox Oil Refinery
Removal
Property 006
Sept - Oct 2017
1 of 1



Rite in the Rain
ALL-WEATHER WRITING PAPER

Name Wilcox Oil Removal Oversight
Property 0016
Address Bristow, OK
West 2213 | Refinery Road
Phone OSC Mason - 214-665-2276

Project

Clear Vinyl Protective Slipcovers (Item No. 30) are available for this style of notebook.
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CONTENTS

PAGE	REFERENCE	DATE
	Laboratory Information	
	Test America	
	2960 Foster Creighton Dr	
	Nashville, TN 37204	
	(615) 301-5040	
	ATTN: ~~Dorthe~~ Dorothy Roberts	
	PM: Sachin Kudchadkar	
	(713) 690-4444 EXT 114	
	Church Combination - EPA6	
	TDD0001 | 17-065	
	WON: 20600.012.0001.1065 01	

9/27/17 Wilcox Oil Removal

0700 START-Cobb departs for the site.
0715 START-Cobb stops to pick-up Supplies
0825 START-Cobb arrives on-site. Drops off office trailer in the church parking lot
0915 START conducts pre-removal photo documentation.
0930 ERRS Contractor begins excavation activities at Property 006.
0950 ERRS Crew loading dump truck for off-site disposal
1015 ERRS Crew loads dump truck for off-site disposal
1030 ERRS continues excavation operations at Property 006
1140 ERRS crew continues excavation operations at Property 006
1215 Break for lunch
1245 Return from lunch Load dump truck for off-site disposal of soil.
1415 START-Cobb & ERRS Response Manager depart the site to collect Backfill material source samples
1450 Arrive at Backfill Source area. Collect material for Backfill and

Wilcox Oil Removal 9/27/17

Top Soil
1510 START-Cobb & ERRS RM depart backfill & site for Job Site.
1545 START-Cobb & ERRS RM arrive on-site. Excavation operations on-going at Property 006
1630 START-Cobb collects soil sample Backfill [Top Soil] TAL Metals, Mercury, PAHs
1635 START-Cobb collects soil sample [Backfill] TAL Metals, Mercury, PAHs.
1650 ERRS Securing the equipment and work area.
1700 Load dump truck for off-site disposal.
1720 Load dump truck for off-site disposal.
1750 START-Cobb departs the site to pickup shipping supplies and ship samples
1915 Ship samples at FedEx End of Log DAY

9/27/17

4

9/28/17 Wilcox O.1 Removal

0700 START-Cobb arrives on-site. Health and Safety/ operations meeting hosted by the ERRS Response Manager. Topics Covered Slips/Trips/Falls, Chemicals of Concern, PPE, Vehicle Traffic, Heavy Equipment. Weather- Cloudy 60°, NNE wind @ 8 mph, Humidity 79% High Near 74°

0715 ERRS crew Inspecting Equipment Preparing the work area.

0720 Loading dump truck for off-site disposal

0730 ERRS Crew loading dump truck for off-site disposal.

0750 ERRS loading dump truck for off site disposal.

0800 ERRS loading dump truck for off site disposal

0820 ERRS loading dump truck for off site disposal.

0840 ERRS loading dump truck for off site disposal.

0925 START conducts perimeter and in excavation air monitoring utilizing MultiRAE RFW23767 No results above background

5

9/28/17 Wilcox O.1 Removal

1000 ERRS loading dump truck for off site disposal

1015 ERRS loading dump truck for off site disposal.

1030 ERRS loading dump truck for off site disposal

1040 ERRS loading dump truck for off-site disposal.

1055 ERRS loading dump truck for off-site disposal.

1105 ERRS loading dump truck for off site disposal

1130 ERRS Crew breaks for lunch

1200 ERRS Crew returns from lunch ERRS continues excavation operations and loading trucks

1330 START conducts perimeter air monitoring utilizing MultiRAE. Highest detection 1 ppm downwind of the excavation.

1405 ERRS loads dump truck for off-site disposal.

1500 ERRS loading dump truck for off-site disposal.

1515 ERRS loading dump truck for off-site

Rita in the Rain

9/28/17 Wilcox Oil Removal

disposal.

1540 ERRS loads dump truck for off-site disposal.

1550 ERRS loads dump truck for off-site disposal.

1605 ERRS loads dump truck for off-site disposal

START conducts perimeter air monitoring Highest reading 2.7 ppm immediately down wind of the excavation.

1630 START collects Confirmation Soil Sample WOR006-009-170928-56 - PAHs by SIM Extra Volume Collected for Laboratory QA/QC

1700 ERRS continues excavation operations and loading trucks.

1730 ERRS secures the equipment and work area.

1800 START departs the site.

1845 START-Cabb drops off samples at FedEx. END OF LOG DAY

D Pell 9/28/17

Wilcox Oil Removal 9/29/17

0700 START-Cabb/Willis arrive on-site. Health & Safety Meeting and Operations meeting hosted by the ERRS Response Manager. Topics - Vehicle Traffic, Heavy Equipment, Chemicals of Concern. Continue Excavation of Oily/Sludge loading trucks for off-site disposal. Weather. Currently 65° Mostly Cloudy North wind @ 5 mph High Near 76°

0805 ERRS loading dump truck for off-site disposal.

0815 ERRS loading dump truck for off-site disposal.

0900 ERRS loading dump truck for off-site disposal.

0930 ERRS loading dump truck for off site disposal.

0945 ERRS loading dump truck for off site disposal.

0955 ERRS loading dump truck for off site disposal.

1020 ERRS loading dump truck for off site disposal.

1110 ERRS loading dump truck for off-site disposal.

Rite in the Rain

9/29/17 Wilcox Oil Removal

1120 ERRS loading dump truck for off-site Removal.

1135 ERRS loading dump truck for off-site disposal.

1140 ERRS loading dump truck for off-site disposal.

1200 Break for lunch

1230 Return from lunch ERRS Crew Continues excavation and loading trucks.

1300 ERRS Crew loading dump truck for off-site disposal.

1325 ERRS loading dump truck for off-site disposal.

1355 ERRS Crew loading dump truck for off site disposal.

1435 ERRS loads dump truck for off-site disposal.

1445 ERRS loads dump truck for off-site disposal

1455 ERRS loads dump truck for off-site disposal.

1505 ERRS loads dump truck for off-site disposal.

1515 ERRS loading dump truck for off site disposal.

1540 ERRS loads dump truck for off-site disposal.

1635 START Collects [WOR-006-010-170929-56] -PAHs by SIM.

1640 START Collects Soil Sample [WOR006-010-170929-57] Duplicate. PAHs by SIM.

1730 ERRS Crew secures equipment and work site.

1745 START departs the site for Fed Ex.

1830 START drops off samples at Fed Ex.

END of LOG DAY

9/29/17

Rite in the Rain

10

9/30/17 Wilcox Oil Removal

0700 START- Cobb / Willis arrive on-site. Attends the morning Health and Safety / Operations Meeting. Topics Covered. Weather PPE, Hydration, Vehicle Traffic, Residential Area. Continue Excavation Operations and loading trucks for off-site disposal.

Weather- 55°, Sunny, Calm, High Near 81°

0735 ERRS loading dump truck for off-site disposal.

0755 ERRS loading dump truck for off-site disposal.

0810 ERRS loading dump truck for off-site disposal.

0905 ERRS loading dump truck for off-site disposal.

0910 START conducts perimeter air monitoring. Nothing detected above background.

0920 ERRS loading dump truck for off-site disposal.

0935 ERRS Crew loading dump truck for off-site disposal.

0945 ERRS loading dump truck for off-site disposal.

1045 ERRS loading dump truck for off-site disposal.

11

Wilcox Oil Removal 9/30/17

1115 ERRS loads dump truck for off-site disposal.

1125 ERRS loads dump truck for off-site disposal.

1140 ERRS begin excavation west of the driveway.

1200 Break for lunch.

1230 Return from lunch. ERRS continues with excavation operations and loading trucks

1310 ERRS loads dump truck for off-site disposal

1325 ERRS loads dump truck for off-site disposal

1345 ERRS loads dump truck for off-site disposal

1350 START conducts perimeter air monitoring. Nothing detected above background.

1430 ERRS continues excavation operations of the driveway and west of the driveway

1500 ERRS securing equipment and excavation

1530 START departs the site. END OF LOG

PAY

D 9/30/17

Rite in the Rain

10/2/17 Wilcox Oil Removal

0700 START-Cobb and Willis arrive on-site Attend Health and Safety / Operations meeting. Complete Excavation Operations. Receive Backfill. Health and Safety, PPE, Vehicle Traffic, Chemicals of Concern, Weather 65° Clear, Humidity 90%, High Near 87° SSE wind @ 7 mph

0715 ERRS loads dump truck for off-site disposal

0725 ERRS loads dump truck for off-site disposal

0755 Backfill dump truck arrives on-site

0800 START collects soil Sample WOR006-012-36-171002 for PAHs

0815 Backfill dump truck arrives on-site

0820 START collects confirmation Soil Sample WOR006-011-48-171002-56 PAHs by SIM.

0835 Backfill dump truck arrives on-site

0910 Backfill dump truck arrives on-site

0920 Backfill dump truck arrives on-site.

0925 ~~Backfill dump truck arrives on-site~~ ERRS loading dump truck for off-site disposal

0945 Backfill dump truck arrives on-site

0955 Backfill dump truck arrives on-site

Wilcox Oil Removal 10/2/17

1005 Backfill dump truck arrives on-site

1025 Backfill dump truck arrives on-site

1110 Backfill dump truck arrives on-site

1115 Backfill dump truck arrive on-site

1138 Backfill dump truck arrive on-site

1200 Break for lunch

1230 Return from lunch. ERRS continues backfill operations

1300 Backfill dump truck arrive on-site

1305 Backfill dump truck arrive on-site

1350 Backfill dump truck arrive on-site

1410 START collects Soil Sample West-01 SVOCs, PAHs by SIM, TAL Metals and Mercury.

1415 Backfill dump truck arrives on-site

1420 START collects Soil Sample West-02 SVOCs, PAHs by SIM, TAL Metals, Mercury

1430 START collects Soil Sample North SVOCs, PAHs by SIM, TAL Metals, Mercury

1445 START collects Soil Sample South SVOCs PAHs by SIM, TAL Metals + Mercury

1450 Backfill dump truck arrives on-site.

1500 Backfill dump truck arrives on-site

1510 Backfill dump truck arrives on-site

1545 Backfill dump truck arrives on-site

Rite in the Rain

10/2/17 Wilcox Oil Removal

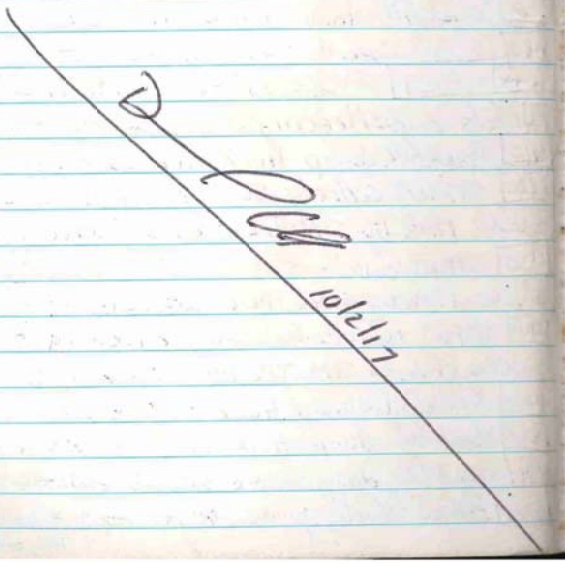
1550 Backfill dump truck arrives on-site.

1620 ERRS crew continues backfilling the southern end of the excavation.

1710 ERRS begins securing site and equipment.

1730 Depart the site.

1845 START drops of soil samples at FedEx.



Wilcox Oil Removal 10/3/17

0700 START-Cobb and Willis arrive on-site. Attend morning Health and Safety / Operations Meeting. Topics Covered: Weather, Vehicle Traffic, Heavy Equipment, PPE. Continue with Backfill Operations. Weather - 72° Cloudy, SSE wind @ 7mph, Humidity 91%, 60% Chance of late afternoon showers.

0730 ERRS working to backfill Grid 009.

0750 Backfill dump truck arrive on-site.

0755 Backfill dump truck arrive on-site.

0800 Backfill dump truck arrive on-site.

0838 Backfill dump truck arrive on-site.

0910 ERRS continue backfilling of Grid 009.

0955 Backfill dump truck arrives on-site.

1012 Backfill dump truck arrives on-site.

1046 ERRS continue to compact below the driveway.

1047 Carl (EPA RLO Director) Edlund contacted Steve Mason (OSC) and indicated that the excavation should be filled in and not to erase the black soil band.

1110 Backfill dump truck arrive on-site.

1130 Backfill dump truck arrive on-site.

1135 Backfill dump truck arrive on-site.

Wilcox Oil Removal 10/3/2017

1145 Break for lunch. ——"

1243 Return to site. ERRS continues backfilling.

1255 Backfill dump truck on-site. ——

1309 Backfill dump truck on-site ——

1320 Compactor arrived on-site and unloaded.

1330 ERRS begin compacting Grid 009. ——

1415 Backfill dump truck on-site. ——

1418 Backfill dump truck on-site ——

1500 Light rain showers passing through area.

1530 ERRS continues compacting Grid 009 ——

1537 Recieve Grid 010 results from Test America. Below ALS of 0.11 mg/kg for benzo(a)pyrene. ——

1611 ERRS begin backfilling. ——

1625 Herc Rental on-site to service dirt moving equipment. ——

1650 Herc Rental rep departs site. ——

1700 Continue compacting Grid 009 and backfilling Grid 010. ——

1730 ERRS begins securing the site and equipment. ——

Depart the site. End of log day. —

Morgan Wills 10/3/17

Wilcox Oil Removal 10/4/2017

0700 START Wills arrive on-site. Attend morning Health and Safety/Operations meeting. Topics covered - weather, traffic, heavy equipment, PPE. Forecast: 90% thunderstorms, high 74°F and low 66°F, wind ESE 6 mph, humidity 99%. Thunderstorms in forecast all day. No trucks scheduled this morning based on rain. Slips/trips/falls be mindful based on rain. ——

0710 View the removal area. Water in pit on north end (~3 feet). ERRS to obtain pump to remove water. Use skid steer to remove muddy area and work in backfill ——

0730 ERRS to obtain pump to drain pit. No work on-site. Thunder and lightening present in area. ——

0946 ERRS begins to pump out the rain water of the excavation. ——

1015 A sheen was observed in the property pond (west and lower) of the excavation, receiving storm dewatering from the excavation. Mitigation measures were taken immediately. The pump relocated to ensure no sheen impacted water was

Rite in the Rain

Wilcox Oil Removal 10/4/17

in vicinity of the pump.

1045 ERRS personnel and START viewing discharge.

1140 Dewatering activities paused and absorbent pads will be deployed to contain sheen.

1155 Site area recieveing heavy rainfall. ERRS securing site until storm passes.

1220 Break for lunch.

1315 Return to site.

1320 ERRS continues to place road base for property owners drive access. Discuss with EPA, ERRS, Start - to deploy boom around sheen in excavation. Resume dewatering to ensure excavation doesn't overfill with rain water.

1350 ERRS continue dewatering. Area still recieving steady rain.

1430 ERRS continues de-watering process

1510 ERRS apply pads to sheen observed along Property 006 pond.

1640 ERRS continue de-watering activities.

1730 START, EPA, ERRS discuss site egress for property owners. Due to the rain the main egress dirt is very soft. ERRS will place plywood to ensure

Wilcox Oil Removal 10/4/17

residents have entry/exit capabilities.

1805 ERRS secure site and finish placing plywood.

1845 Depart site. End of log day.

Monitoring Wells

10.4.2017

Wilcox Oil Removal 10/5/2017

0655 START Willis Onsite. Attend Safety Meeting and Operations Meeting. Topics covered - Saw for today, Slips/Trips/Falls, vehicle traffic, weather, heavy equipment working to create a hard base. Weather: Wind SSE - 3 mph, humidity 95%, low 67° high 83°, chance of rain 80%. Be mindful of muddy ground.

0710 ERRS open up site security fence and remove absorbent pads from NW corner and start stripping off the top muddy portion of backfill.

0730 ERRS begin de-mobilizing activities of excavation to Property 006 pond.

0820 1 truck of road based gravel delivered to site.

0830 1 truck of road based gravel delivered.

0835 ERRS begin skimming the onsite pond with absorbent booms.

0930 1 truck of road based gravel delivered.

0940 1 truck of road based gravel delivered

0945 ERRS loading dump truck of muddy top layer for off-site disposal.

0950 1 truck of backfill material delivered

0954 1 truck of backfill material delivered

Wilcox Oil Removal 10/5/2017

1000 1 truck of backfill material delivered.

1020 1 truck of backfill material delivered.

1048 1 truck of backfill material delivered.

1104 1 truck of backfill material delivered

1110 ERRS loading dump truck of muddy top layer of backfill and absorbent pads & booms for landfill disposal.

1130 Break for lunch.

1230 Return to site.

1230 ERRS continue backfilling

1251 1 truck of backfill material delivered.

1303 1 truck of backfill material delivered.

1335 1 truck of backfill material delivered.

1356 1 truck of backfill material delivered.

1415 1 truck of backfill material delivered.

1420 1 truck of backfill material delivered.

1500 ERRS continue to backfill excavation and work in new fill with dump fill impacted by rain.

1530 1 truck of backfill material delivered.

1540 1 truck of backfill material delivered.

1640 1 truck of backfill material delivered.

1720 Continue backfilling excavation.

1750 Begin securing site.

185 Depart site, End of log day.

Rite in the Rain

0700 START Willo arrive on-site. Attend daily H&S meeting and operations. Continue re-working backfill material. Weather: High 85° / Low 65°, Winds S at 10 to 20 mph, humidity 80%, 0% chance of rain.

0710 View work area. Did not appear to recieve rainfall. ERRS frames backfilling and compaction activities.

0759 1 truck of backfill material delivered.

0903 1 truck of backfill material delivered.

1004 At the request of the resident the wood pieces North of the house were removed and placed in the backfill.

1033 1 truck of backfill material delivered.

1100 ERRS place road base along refinery road pot holes.

1200 Break for lunch.

1245 Return to site. ERRS continues backfilling/ compaction of excavation.

1300 1 truck of backfill material delivered.

1424 1 truck of backfill material delivered.

1500 1 truck of backfill material delivered.

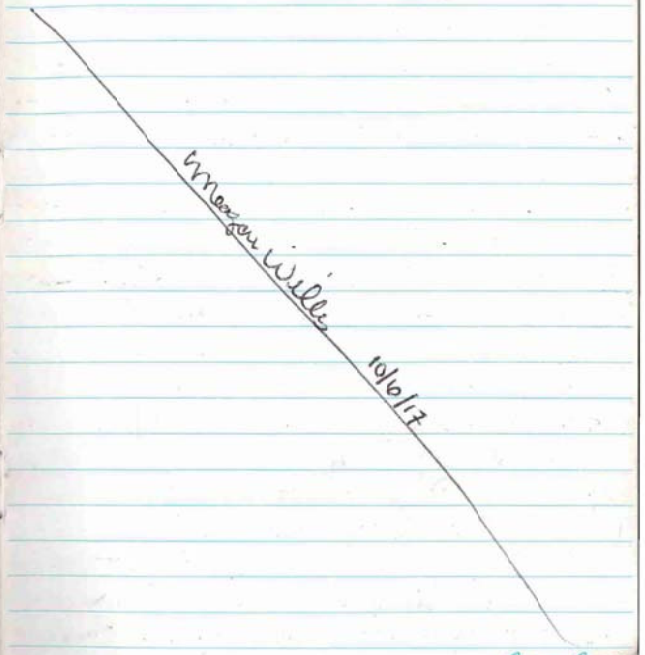
1530 1 truck of backfill material delivered.

1600 ERRS continues backfilling activities.

1630 Continue working the excavation area and the area west of the drive. Packing over the west portion.

1700 ERRS begin securing and firming up resident driveway.

1740 ERRS; START, EPA off-site.



TDD0001/17-005 20600.012.0001.1065.01

Wilcox Oil Removal 10/7/17

0645 START Willis arrives at site.

0700 Attend H&S and Ops Meeting with EPA, ERRS, and START. Weather: High 80°/ Low 58°, Cloudy, WNW at 7 mph, 100% humidity. Site recieved rain in early morning. Slips, Trips & Falls a concern. Maintain 3 points of contact when exiting/entering vehicles and equipment. Be aware of heavy equipment when walking site. Will pump out water from excavation area and clean up road for resident. Will allow dirt & backfill to aerate and dry.

0720 ERRS begins pumping out excavation.

0814 1 dump truck of rock material delivered.

0825 ERRS begins laying out rock along resident driveway.

0848 ERRS begins aerating excavation soil to dry out after rain.

0954 1 dump truck of top soil delivered.

1007 Stop work for day and allow site excavation to dry out.

1015 Depart site. End of log day.

Meagan Willis 10.7.17

TDD0001/17-005 20600.012.0001.1065.01

Wilcox Oil Removal 10/8/17

1145 START Willis arrives on-site.

1200 Attend H&S and Ops Meeting with EPA, ERRS, and START. Weather: High 83°/Low 58°, Sunny, Winds S 8 mph, humidity 45%. Slow aerate and mix up soil to allow soil to dry. Top soil the area west of the driveway. Maintain awareness of heavy equipment. Will transfer trees to site from trailer & mow area. Will water until trees planted later this week.

1208 ERRS begins aerating backfill.

1330 Viewed the on-site property pond and a visible sheen was not observed. START collect photographic documentation of site activities.

1305 ERRS continue aerating excavation.

1345 ERRS applies topsoil to area west of driveway and smooth out area.

1530 ERRS continue working in and smoothing topsoil west of driveway.

1615 Place backfill/topsoil on rutted areas of Property 006 to restore to pre-excavation activities.

1630 Aerate soil and allow to dry out.

1650 ERRS secure site.

1700 Depart site. End of log day.

Meagan Willis 10.8.17

Wilcox Oil Removal 10/9/17

0645 START arrive on-site. Collect gas can. →
0650 Fill gas can for on-site trailer generator.
0700 START, ERRS, and EPA attend daily HSS and operations meeting. Weather: high 88°/Low 47°, severe t-storms possible starting around 1300, Wind 15mph, 87% humidity. SOW continue backfilling to pull back to grade before switching to topsoil. Agenda is to completely fill the excavation before rainfall. →
0715 ERRS continue aerating backfill in prep to mix with backfill being delivered to site. →
0800 1 truck of backfill delivered to the site.
0805 1 truck of backfill delivered to the site. →
0808 1 truck of backfill delivered to the site.
0830 START downloads photographic documentation
0838 ERRS continue working in new backfill with existing backfill. →
0930 1 truck of backfill delivered to the site. →
0950 ERRS continues to work in new backfill material into the excavation. →
1021 ERRS continues to work the excavation. →
1032 1 truck of backfill delivered to the site. →
1037 1 truck of backfill delivered to the site. →

Wilcox Oil Removal 10/9/17

1121 Begin compacting backfill on excavation. →
1131 1 truck of backfill material delivered to site. →
1142 1 truck of backfill material delivered to site. →
1146 1 truck of backfill material delivered to site. →
1210 Break for lunch. →
1240 Return to site. →
1245 ERRS continues to work in backfill material. →
1252 1 truck of backfill material delivered to site. →
1300 1 truck of backfill material delivered to site. →
1305 1 truck of backfill material delivered to site. →
1335 ERRS continues to work in backfill material.
1405 ERRS compacts the backfill with the compactor and excavator. Soil not fully compacting down. ERRS utilizing frac excavator to improve compaction. →
1500 ERRS continue compaction activities. →
1622 ERRS continues compaction activities. →
1730 ERRS places poly over the two topsoil piles in preparation for potential rainfall. →
1745 ERRS secure site. →
1800 Depart site. End of log day. →

Meagan Willy 10.9.17

Rain

0655 START Will is arrive on-site.
0700 START, ERRS, and EPA attend HES and operations meeting. Site did not receive rainfall overnight. SOW is to finish placing topsoil and plant trees. Final grade excavation. Weather: cloudy high of 52° and low of 40°; Wind NW 14 mph, humidity 64%. Hazards - cold/wind weather, sun exposure. Take breaks as needed and use sunblock.
0710 View the excavation area which continues to dry out. Uncover topsoil piles.
0715 Begin grading excavation area.
0800 Clean up the compactor and stage along the main road for pickup.
0820 ERRS adjusts the propane tank stabilizing cinder blocks per direction of OSC.
0828 Discussion between EPA, ERRS, and START indicate on-site pond removed sheen and work associated with de-watering complete.
0905 1 truck of topsoil delivered to the site.
0917 1 truck of topsoil delivered to the site.
1000 ERRS clean up excavator prior to rental return.
1020 1 truck of topsoil delivered to the site.
1051 ERRS repair/rework rutted areas surrounding the excavation.

1115 OSC Mason depart site. Will return on 10/11/17.
1131 1 truck of topsoil delivered to the site.
1145 Break for lunch.
1215 Return to Site.
1220 ERRS continues to restore Property 006 and work in topsoil on the excavation.
1340 ERRS continues spreading/applying topsoil across excavation.
1349 1 truck of topsoil delivered to the site.
1510 1 truck of topsoil delivered to the site.
1544 ERRS continues grading the excavation.
1610 ERRS continues racking in topsoil over the excavation in preparation for hydro seeding scheduled for 10/11/17.
1640 ERRS begin to plant trees replacing the ones removed - 3 Green Giant & 3 Thuya
1720 Begin watering the pl[redacted] re-installing the mailbox. [redacted] viewed the placement and concurred.
1750 ERRS cleaned up the driveway and packed up supplies.
1800 ERRS and START depart site.

Meagan Wells 10.10.17
Rite in the Rain

Wilcox Oil Removal 10/11/17

0655 START Willis arrive on-site.
0700 Attend H&S and operations meeting with ERRS, EPA, START. Weather high 68°/low 49°, Wind S 1 MPH, 97% humidity, 0% rain. SOW includes: hydro seeding, touching up driveways, site walk with property owner, return back to property owner.
0715 ERRS begins working on excavation. Watering plants/trees and raking excavation.
0800 ERRS continues ~~backfill~~ mw restoration activities.
0933 ERRS continues smoothing out ruts and cleaning up the road.
0935 ERRS compacting and cleaning up Refinery Road.
0952 Native Care Lawn Care/Hydroseeding arrive on-site.
1103 1 truck of gravel delived.
1110 Seed, tacifier, and mulch applied - rye and bermuda application initiated
1219 Place application of tacifier and mulch.
1235 START & EPA break for lunch.
1315 Return to site.
1330 ERRS working on restoring driveway circle to pre-excavation condition.

Wilcox Oil Removal 10/11/17

1340 Native Care ~~plants~~ applies the tacifier & mulch to the test pit area west of the driveway.
1440 Native Care complete hydroseeding and depart site.
1449 ERRS continues to restore driveway and Refinery Road to pre-excavation conditions.
1545 Three temporary restrooms removed from site.
1603 ERRS continue to smooth/restore road.
1640 1 load of road based delivered to site.
1646 Test out the sprinklers placed throughout the excavation area by ERRS.
1700 1 load of gravel delivered and worked into driveway.
1712 ERRS go over tree instructions and grass maintenance with [redacted]. Walk the property with [redacted] to ensure concurrence.
1740 Conduct post activity assessment and collect photographic documentation.
1750 Depart site. End of log day and Property 006 Removal.

Marcus Wills 10.11.17
End of logbook

APPENDIX B

DIGITAL PHOTOGRAPHS

(Will be included in final CD deliverable.)

Wilcox Oil - Removal Action (Property 006) Photo Report

Incident Name: Removal Action (Property 006)
Event Name: Wilcox Oil
Photo Type: Overview
Direction: NW
Photo Name: 2017-09-27_IMG_1529.JPG
Date and Time: 9/27/2017 9:47:00 AM
Latitude: 35.842250
Longitude: -96.376883
Photographer: Derrick Cobb
Witness: Steve Mason
Caption: Oily sludge/oily impacted soils.

Wilcox Oil - Removal Action (Property 006) Photo Report

Incident Name: Removal Action (Property 006)
Event Name: Wilcox Oil
Photo Type: Overview
Direction: W
Photo Name: 2017-09-27_IMG_1530.JPG
Date and Time: 9/27/2017 9:50:00 AM
Latitude: 35.842175
Longitude: -96.376700
Photographer: Derrick Cobb
Witness: Steve Mason
Caption: Loading dump truck with oily sludge and oily impacted soils for off-site disposal.

Wilcox Oil - Removal Action (Property 006) Photo Report

Incident Name: Removal Action (Property 006)
Event Name: Wilcox Oil
Photo Type: Overview
Direction: E
Photo Name: 2017-09-28_IMG_1534.JPG
Date and Time: 9/28/2017 11:30:00 AM
Latitude: 35.842311
Longitude: -96.376838
Photographer: Derrick Cobb
Witness: Steve Mason
Caption: Oily sludge/oily impacted soils.

Wilcox Oil - Removal Action (Property 006) Photo Report

Incident Name: Removal Action (Property 006)
Event Name: Wilcox Oil
Photo Type: Overview
Direction: N
Photo Name: 2017-10-02_IMG_1537.JPG
Date and Time: 10/2/2017 8:03:00 AM
Latitude: 35.841988
Longitude: -96.376852
Photographer: Derrick Cobb
Witness: Meagan Willis
Caption: Overview of excavation.

Wilcox Oil - Removal Action (Property 006) Photo Report

Incident Name: Removal Action (Property 006)
Event Name: Wilcox Oil
Photo Type: Overview
Direction: NW
Photo Name: 2017-10-03_IMG_0523.JPG
Date and Time: 10/3/2017 4:26:00 PM
Latitude: 35.842213
Longitude: -96.376769
Photographer: Meagan Willis
Witness: Steve Mason
Caption: Backfilling of excavation

Wilcox Oil - Removal Action (Property 006) Photo Report

Incident Name: Removal Action (Property 006)
Event Name: Wilcox Oil
Photo Type: Overview
Direction: NW
Photo Name: 2017-10-10_IMG_0588.JPG
Date and Time: 10/10/2017 4:09:00 PM
Latitude: 35.841888
Longitude: -96.376861
Photographer: Meagan Willis
Witness: Steve Mason
Caption: Completion of compaction and backfilling operations.

Wilcox Oil - Removal Action (Property 006) Photo Report

(b) (6)

Incident Name: Removal Action (Property 006)
Event Name: Wilcox Oil
Photo Type: Overview
Direction: SW
Photo Name: 2017-10-11_IMG_0596.JPG
Date and Time: 10/11/2017 8:42:00 AM
Latitude: (b) (6)
Longitud
Photographer: Meagan Willis
Witness: Steve Mason
Caption: Replanting of trees removed during the removal operations.

Wilcox Oil - Removal Action (Property 006) Photo Report

Incident Name: Removal Action (Property 006)
Event Name: Wilcox Oil
Photo Type: Overview
Direction: SE
Photo Name: 2017-10-11_IMG_0601.JPG
Date and Time: 10/11/2017 11:12:00 AM
Latitude: 35.842227
Longitude: -96.377044
Photographer: Meagan Willis
Witness: Steve Mason
Caption: Hydro-seeding of the excavated area.

Wilcox Oil - Removal Action (Property 006) Photo Report

Incident Name: Removal Action (Property 006)
Event Name: Wilcox Oil
Photo Type: Overview
Direction: N
Photo Name: 2017-10-11_IMG_0620.JPG
Date and Time: 10/11/2017 5:38:00 PM
Latitude: 35.841913
Longitude: -96.376974
Photographer: Meagan Willis
Witness: Steve Mason
Caption: Overview of final restored area.

APPENDIX C

WASTE MANIFESTS

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

1 of 1

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USC MN520WTL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	14.39	T

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-29-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Ken Hughes — Driver Signature

9-29-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Ken Hughes — Driver Signature

9-29-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.052

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

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Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	13.78	T

Trans

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-29-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Coweta OK 74429

Driver Name (Print): Jesse Arnold

Tag No. 706-446 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 9-29-17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 9-29-17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-29-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	13,166	T
Trans				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steve Mason
EPA Region 6
Generator Authorized Agent Name

Signature

9-29-17
Shipment Date

Transporter

Transporter Name:

Address: ~~Yoeham Trucking~~

City, State Zip: Cowete, OK. 74429

Driver Name (Print): Colt Coulter

Tag No. 704-183 State: OK

USDOT No. 6301005

I hereby certify that the above material was picked up at the generator site listed above.

Colt Coulter
Driver Signature

9-29-17
Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Colt Coulter
Driver Signature

9-29-17
Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ ~~Micki King~~ ~~Raven Blunt~~
Name of Authorized Agent

Signature

9/29/17
Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. ~~MN520WIL01~~ UE

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	~~DT~~	13.18	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Athens for EPA Region 6 — Generator Authorized Agent Name

Signature

9.29.17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): William Parks

Tag No. 700-149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William Parks — Driver Signature

9.29.17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William P. Parks — Driver Signature

9.29.17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.055

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. MN520WH01 use

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	15.91	T

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name | Signature | Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): Dennis Hash

Tag No. 704-182 State:

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature: Dennis Hash Ship Date: 9/29

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature: Dennis Hash Delivery Date: 9/29/17

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Name of Authorized Agent: Laura King Micki King Raven Blunt | Signature | Receipt Date: 9/29/17

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.056

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520~~WIT~~ 01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	~~DT~~	1130	T
trans				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Taylor Myers for Evan Wortman (Generator Authorized Agent Name) — Signature — 9-29-17 (Shipment Date)

Transporter

Transporter Name: Yocham Trucking

Address: P.O Box

City, State Zip: Cowieta, OK 74429

Driver Name (Print): Zee Brown

Tag No. 704-180 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Zee Brown (Driver Signature) — 9-29-17 (Ship Date)

I hereby certify that the above named material was delivered without incident to the destination listed below.

Zee Brown (Driver Signature) — 9-29-17 (Delivery Date)

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt (Name of Authorized Agent) — Signature — 9 29 17 (Receipt Date)

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

1 of 1

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas City | TX State | 75202 Zip

Point of Generation Address: (b) (6)

Bristow City | OK State | 74010 Zip

Contact: Steve Mason Name | (214) 789-1871 Phone

Manifest Job No. USE MN529WH 01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis City | MO State | 63026 Zip

Contact: Evan Wortman Name | (636) 227-7477 Phone

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	15.97T	

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Trevor Miller for EPA Region 6 — Generator Authorized Agent Name | Signature | Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address: P.O. Box 745

City, State Zip: Cowieta, OK 74429

Driver Name (Print): Lee Brown

Tag No. 704 180 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Lee Brown — Driver Signature | 9-29-17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Lee Brown — Driver Signature | 9-29-17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent | Signature | 9/29/17 Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.058

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

1 of 1

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. use MN520~~WIL~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	11.60T	

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-29-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 9-29-17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 9-29-17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	13.17	T

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name — Signature — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): Dennis Hash

Tag No. 704-152 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Dennis Hash — Driver Signature — 9/29 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Dennis Hash — Driver Signature — 9/29 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent — Signature — 9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

1032

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	13.81	T

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Tylina Myers for EPA Region 6 — Generator Authorized Agent Name — Signature — 9.29.17 Shipment Date

Transporter

Transporter Name:

Address: ~~Yocham Trucking~~

City, State Zip:

Driver Name (Print): William Parks

Tag No. 760-149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William Parks — Driver Signature — 9.29.17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William Parks — Driver Signature — 9.29.17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ ~~Micki King~~ ~~Raven Blunt~~ — Name of Authorized Agent — Signature — 9/29/17 Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.061

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

1433

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USC MN520WL-01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	429	T

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-29-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Coweta, OK 74429

Driver Name (Print): Colt Coulter

Tag No. 704-183 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Colt Coulter — Driver Signature

9-29-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Colt Coulter — Driver Signature

9-29-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520~~WIL~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	~~1~~	~~DT~~	15.80	T
TRANS				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Taylor Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-30-17 — Shipment Date

Transporter

Transporter Name:

Address: ~~Yocham Trucking~~

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-143 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — Ship Date: 9-30-17

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date: 9-30-17

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ Micki King ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9-30-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16.96	T
Trans				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason — City EPA Region 6 (Generator Authorized Agent Name) — Signature — 9-30-17 (Shipment Date)

Transporter

Transporter Name:

Address: ~~Yocham Trucking~~ P.O Coweta 745

City, State Zip: Coweta, OK 74429

Driver Name (Print): Zee Brown

Tag No. 704 180 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Zee Brown — Driver Signature — 9-30-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Zee Brown — Driver Signature — 9-30-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ Micki King ~~Raven Blunt~~ — Name of Authorized Agent — Signature — 9-30-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.064

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	15.40	T
TRANS				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steven Mason for Regional — Generator Authorized Agent Name

Signature

9-30-17 — Shipment Date

Transporter

Transporter Name:

Address: ~~Yocham Trucking~~

City, State Zip: Cowete, OK 74429

Driver Name (Print): Colt Coulter

Tag No. 704-193 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Colt Coulter — Driver Signature

9-30-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Colt Coulter — Driver Signature

9-30-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ Micki King ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9-30-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	1160	T
TONS				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 (Generator Authorized Agent Name) [signature] (Signature) 9.30.17 (Shipment Date)

Transporter

Transporter Name:

Address: ~~Yoeham Trucking~~

City, State Zip:

Driver Name (Print): William Oaks

Tag No. 700-149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William Oaks (Driver Signature) 9.30.17 (Ship Date)

I hereby certify that the above named material was delivered without incident to the destination listed below.

William Oaks (Driver Signature) 9.30.17 (Delivery Date)

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ Micki King ~~Raven Blunt~~ (Name of Authorized Agent) [signature] (Signature) 9-30-17 (Receipt Date)

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520~~WIL~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	1	DT		
			17.29T	
TRANS				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Evan Wortman in EPA Region 6 — Generator Authorized Agent Name

Signature

9-30-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Ken Hughes — Driver Signature

9-30-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Ken Hughes — Driver Signature

9-30-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ Micki King ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9-30-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.067

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

634

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520~~WH~~-01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	15.99	T
Trans				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Laura Mason for Region 6 — Generator Authorized Agent Name

Signature

9-30-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address: P.O. Box 745

City, State Zip: Coweta, OK 74429

Driver Name (Print): Lee Brown

Tag No. 704 180 State: OK

USDOT No. 030100

I hereby certify that the above material was picked up at the generator site listed above.

Lee Brown — Driver Signature

9-30-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Lee Brown — Driver Signature

9-30-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King ~~Micki King~~ ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9-30-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.068

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

133

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	1225	T
Trans				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steven Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-30-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Cowete, OK. 74429

Driver Name (Print): Colt Coulter

Tag No. 704-183 State: OK

USDOT No. 6301065

I hereby certify that the above material was picked up at the generator site listed above.

Colt Coulter — Driver Signature

9-30-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Colt Coulter — Driver Signature

9-30-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-30-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	1785	T
TRANS				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9.30.17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): William P. Oaks

Tag No. 700-149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William P. Oaks — Driver Signature

9.30.17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William P. Oaks — Driver Signature

9.30.17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-30-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520~~WIL~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	~~Unit~~
~~Non-Hazardous Soil~~	1	DT	16.97	T
TRANS				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

For EPA Region 6 — Generator Authorized Agent Name

Signature

9-30-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Ken Hughes — Driver Signature

9-30-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Ken Hughes — Driver Signature

9-30-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ Micki King ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9-30-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	19.66	T
TRANS				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Evan Mortman for EPA Region 6 — Generator Authorized Agent Name

Signature

9-30-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address: P.O Box 747

City, State Zip: Coweta, OK 74429

Driver Name (Print): LEE BROWN

Tag No. 704 180 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Lee Brown — Driver Signature

9-30-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Lee Brown — Driver Signature

9-30-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9-30-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.072

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16.24	T
Trans				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steve Mason for Region 6 — Generator Authorized Agent Name

Signature

9-30-17 — Shipment Date

Transporter

Transporter Name:

Address: ~~Yocham Trucking~~

City, State Zip: Coweta, OK 74429

Driver Name (Print): Colt Coulter

Tag No. 704-183 State: OK

USDOT No. 0308005

I hereby certify that the above material was picked up at the generator site listed above.

Colt Coulter — Driver Signature

9-30-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Colt Coulter — Driver Signature

9-30-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ ~~Micki King~~ ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9-30-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. SLIE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	18.14	T
Trans				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason EPA Region 6 — Generator Authorized Agent Name — Signature — 9.30.17 Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): William Parks

Tag No. 700-149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William Parks — Driver Signature — 9.30.17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William Parks — Driver Signature — 9.30.17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ Micki King ~~Raven Blunt~~ — Name of Authorized Agent — Signature — 9-30-17 Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.074

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. MN520WL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	15.42	T

TRANS

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Evan Wortman for EPA Region 6 — Generator Authorized Agent Name

Signature

9-30-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Ken Hughes — Driver Signature

9-30-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Ken Hughes — Driver Signature

9-30-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-30-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Wilcox 634

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16517	T
TRANS				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-30-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address: P.O. Box 745

City, State Zip: Coweta, OK 74429

Driver Name (Print): Lee Brown

Tag No. 704 180 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Lee Brown — Driver Signature

9/30 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Lee Brown — Driver Signature

9/30 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ ~~Micki King~~ Raven Blunt — Name of Authorized Agent

Signature

9-30-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.076

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. AESE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	15.55T	
Trans				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-30-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): Colt Coulter

Tag No. 7011-183 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Colt Coulter — Driver Signature

9-30-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Colt Coulter — Driver Signature

9-30-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-30-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT		
Transport			7.40	T

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Evan Wortman for EPA Region 6 — Generator Authorized Agent Name

Signature

9-29-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip: Coweta OK 74429

Driver Name (Print): Jesse Arnold

Tag No. 706-446 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 9-29-17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 9-29-17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ Micki King ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIT01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	14	Sgt

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-29-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Cowete, OK. 74429

Driver Name (Print): Colt Coulter

Tag No. 704-183 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Colt Coulter — Driver Signature

9-29-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Colt Coulter — Driver Signature

9-29-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	11.05	T

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9/29/17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address: 20401 S. 401st W. Ave

City, State Zip: Bristow Okla. 74010

Driver Name (Print): William Travis Pearson

Tag No. Y36165 State: Okla.

USDOT No. 2642542

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 9/29/17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 9/29/17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.080

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. UE MN520~~WH~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	13.53	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Evan Wortman for Region 6 — Generator Authorized Agent Name

Signature

9-29-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): Sulor Clayton

Tag No. CAF 604 State: OK

USDOT No.

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 9-29-17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 9-29-17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/9/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16.78	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mann for EPA Region 6 — Generator Authorized Agent Name

Signature

Shipment Date

Transporter

Transporter Name:

Address: ~~Yocham Trucking~~

City, State Zip:

Driver Name (Print): Dennis Hash

Tag No. 704-182 State: OK

USDOT No. 030 1005

I hereby certify that the above material was picked up at the generator site listed above.

Dennis Hash — Driver Signature

9/29 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Dennis Hash — Driver Signature

9-29 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WHL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16.12	T
transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

for EPA Region 6 — Generator Authorized Agent Name — Signature — 9.29.17 Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): William P. Oaks

Tag No. 700.149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William Oaks — Driver Signature — 9.29.17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William Oaks — Driver Signature — 9.29.17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ ~~Micki King~~ ~~Raven Blunt~~ — Name of Authorized Agent — Signature — 9/29/17 Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WRL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16.76	T
transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Kristen Nixon for EPA Region 6 — Generator Authorized Agent Name

Signature

9-29-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address: P.O. Box 745

City, State Zip: Coweta, OK 74429

Driver Name (Print): Lee Brown

Tag No. 704180 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Lee Brown — Driver Signature

9-29-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Lee Brown — Driver Signature

9-29-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

9-29-17 691

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520~~WIL~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	~~1~~	~~DT~~	15.00	T
transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

[illegible] for Region 6 — Generator Authorized Agent Name

Signature

9-29-17 — Shipment Date

Transporter

Transporter Name:

Address: ~~Yocham Trucking~~

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Ken Hughes — Driver Signature

9-29-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Ken Hughes — Driver Signature

9-29-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King ~~Micki King~~ ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.085

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

1 of 1

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16189 T	
transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

EPA Region 6 — Generator Authorized Agent Name

Signature

9-29-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Coweta OK 74429

Driver Name (Print): Jesse Arnold

Tag No. 76-446 State: OK

USDOT No. 0301605

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — Ship Date: 9-29-17

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date: 9-29-17

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIT01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	13.19	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9/29/17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address: 20401 S. 401st W. Ave

City, State Zip: Bristow, Okla. 74010

Driver Name (Print): William Travis Pearson

Tag No. Y36165 State: OK

USDOT No. 2642542

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 9/29/17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 9/29/17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King / Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	15154	T
transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-29-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Cowota, OK. 74429

Driver Name (Print): Colt Coulter

Tag No. 704-183 State: OK

USDOT No. 6301005

I hereby certify that the above material was picked up at the generator site listed above.

Colt Coulter — Driver Signature

9-29-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Colt Coulter — Driver Signature

9-29-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	9.84T	
transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mann for EPA Region 6 — Generator Authorized Agent Name

Signature

9-29-17. — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): Sulan CLAYTON

Tag No. CAF-604 State: OK

USDOT No.

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — Ship Date 9-29-17

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date 9-29-17

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520~~WIL~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	1	DT	17.07	T
transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason EPA Region 6 — Generator Authorized Agent Name

Signature

9.29.17 — Shipment Date

Transporter

Transporter Name:

Address: ~~Yocham Trucking~~

City, State Zip:

Driver Name (Print): William P. Oaks

Tag No. 700-149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William Oaks — Driver Signature

9.29.17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William Oaks — Driver Signature

9.29.17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520~~WIL~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16.24	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): Dennis Hash

Tag No. 704-182 State: Okla.

USDOT No. 030 1005

I hereby certify that the above material was picked up at the generator site listed above.

Dennis Hash — Driver Signature

9/29/17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Dennis Hash — Driver Signature

9/29 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name:	USEPA Region 6 / Wilcox Oil Residence Site	Manifest Job No.	MN520WIL01
Mailing Address:	1445 Ross Ave	Bill to Name:	Environmental Restoration, LLC
City / State / Zip	Dallas / TX / 75202	Address:	1666 Fabick Drive
Point of Generation Address:	[redacted]	City / State / Zip	St. Louis / MO / 63026
City / State / Zip	Bristow / OK / 74010	Contact: Name / Phone	Evan Wortman / (636) 227-7477
Contact: Name / Phone	Steve Mason / (214) 789-1871		

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	15.38	T

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name: Stephen Mason for EPA Region 6 Signature: [illegible] Shipment Date: 7-29-17

Transporter

Transporter Name: ~~Yocham Trucking~~

Address: PO Box 745

City, State Zip: Coweta, OK

Driver Name (Print): Lee Brown

Tag No.: 704 180 State: OK

USDOT No: 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature: Lee Brown Ship Date: 7-29-17

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature: Lee Brown Delivery Date: 7-29-17

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Name of Authorized Agent: Laura King Micki King Raven Blunt Signature: [illegible] Receipt Date: 7-29-17

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16156	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name / Signature — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Cavet, OK 7441-9

Driver Name (Print): Jesse Arnold

Tag No. 706-446 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — Ship Date: 9-29-17

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date: 9-29-17

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent / Signature — Receipt Date: 92917

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WH01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16110	T
transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name | Signature | Shipment Date: 9-29-17

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature: Ken Hughes | Ship Date: 9-29-17

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature: Ken Hughes | Delivery Date: 9-29-17

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Name of Authorized Agent: Laura King Micki King Raven Blunt | Signature | Receipt Date: 9/29/17

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WH 01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	15427	
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Taylan Moran for EPA Region 6 — Generator Authorized Agent Name

Signature

9-29-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Coweta, OK. 74429

Driver Name (Print): Colt Coulter

Tag No. 704-183 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Colt Coulter — Driver Signature

9-29-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Colt Coulter — Driver Signature

9-29-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-29-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520~~WIL~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	1449	T
TRANSPORT				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

STEPHEN MASON for EPA Region 6 — Generator Authorized Agent Name

Signature

9/29/17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address: 20401 S. 401st W. Ave

City, State Zip: Bristow, Okla. 74010

Driver Name (Print): William Travis Pearson

Tag No. [redacted] YS2165 State: Okla.

USDOT No. 2642542

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — Ship Date: 9/29/17

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date: 9/29/17

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

1632

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas | TX | 75202
City | State | Zip

Point of Generation Address: (b) (6)

Bristow | OK | 74010
City | State | Zip

Contact: Steve Mason | (214) 789-1871
Name | Phone

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis | MO | 63026
City | State | Zip

Contact: Evan Wortman | (636) 227-7477
Name | Phone

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	15	0 2T
transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name | Signature | 9.29.17 Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): William Oaks

Tag No. 700.149 State: OK

USDOT No. 0301006

I hereby certify that the above material was picked up at the generator site listed above.

William Oaks — Driver Signature | 9.29.17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William Oaks — Driver Signature | 9.29.17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent | Signature | 92917 Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

1634

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: 34 (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. UXE MN520~~WIT~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	18.14	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Evelyn Mann for EPA Region 6 — Generator Authorized Agent Name

Signature

9-29-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address: PO Box 745

City, State Zip: Coweta, OK 74429

Driver Name (Print): Lee Brown

Tag No. 704 180 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Lee Brown — Driver Signature

9-29-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Lee Brown — Driver Signature

9-29-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.098

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520~~WL~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	~~1~~	~~DT~~	~~15~~ 26 T	
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

~~Yocham Mason~~ for EPA Region 6 — Generator Authorized Agent Name

Signature

9/29 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): Dennis Hash

Tag No. 704-182 State: OK

USDOT No. 030005

I hereby certify that the above material was picked up at the generator site listed above.

Dennis Hash — Driver Signature

9/29 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Dennis Hash — Driver Signature

9/29 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ ~~Micki King~~ ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9/29/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.099

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520~~WIL~~-01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	17360	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for USEPA Region 6 — Generator Authorized Agent Name

Signature

9-28-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Cowete, OK. 74429

Driver Name (Print): Colt Coalter

Tag No. 714183 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Colt Coalter — Driver Signature

9-28-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Colt Coalter — Driver Signature

9-28-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-28-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USEPA MN520WILOT

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	17,351	
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steven Mason for EPA Region 6 — Generator Authorized Agent Name — Signature — 9.28.17 Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): William Oaks

Tag No. 700.149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William Oaks — Driver Signature — 9.28.17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William Oaks — Driver Signature — 9.28.17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent — Signature — 9-28-17 Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. MN520WILO1 (USEO1)

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	15,307	
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Evan Wortman For EPA Region 6 — Generator Authorized Agent Name

Signature

9-28-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Cowets OK 74429

Driver Name (Print): Brian Alig

Tag No. State:

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 9-28-17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 9-28-17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-28-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: [redacted] (b)(

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN52~~0WR~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	1	DT	17	31
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steven Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-28-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 9.28.17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 9.28.17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/28/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

634

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	18.09	T

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

[illegible] for EPA Region 6 — Generator Authorized Agent Name

Signature

9-28-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address: P.O Box 745

City, State Zip: Coweta, OK 74429

Driver Name (Print): Zee Brown

Tag No. 704 180 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Zee Brown — Driver Signature

9-28-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Zee Brown — Driver Signature

9-28-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King ~~Micki King~~ ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9-28-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USEO1 MN520~~WIL01~~

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16.19	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9/28 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): Dennis Hash

Tag No. 709-182 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — Ship Date 9/28/17

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date 9/28/17

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-28-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USEC1 MN520WILOT

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	13627	
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steven Mason for EPA Region 6 — Generator Authorized Agent Name — Signature — 9-28-17 Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Coweta, OK 74429

Driver Name (Print): Colt Coulter

Tag No. 714-183 State: OK

USDOT No. 0361005

I hereby certify that the above material was picked up at the generator site listed above.

Colt Coulter — Driver Signature — 9-28-17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Colt Coulter — Driver Signature — 9-29-17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent — Signature — 9-28-17 Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	20	ST

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steven Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9.28.17 — Shipment Date

Transporter

Transporter Name:

Address: ~~Yocham Trucking~~

City, State Zip:

Driver Name (Print): William Oaks

Tag No. 700-149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William Oaks — Driver Signature

9.28.17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William Oaks — Driver Signature

9.28.17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-28-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT		
			1304T	

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steven Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-28-17 — Shipment Date

Transporter

Transporter Name:

Address: ~~Yocham Trucking~~

City, State Zip: Collinsville OK 74014

Driver Name (Print): Brian Alley

Tag No. State:

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — Ship Date 9/28/17

I hereby certify that the above named material was delivered without incident to the destination listed below.

Brian Alley — Driver Signature

9-28-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/28/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16.20T	

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name: ____ Signature: ____ Shipment Date: 9-28-17

Transporter

Transporter Name: ~~Yeoham Trucking~~

Address:

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature: Ken Hughes Ship Date: 9-28-17

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature: Ken Hughes Delivery Date: 9-28-17

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt (Name of Authorized Agent) Signature: ____ Receipt Date: 9-28-17

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USEC1 MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT		
Transport			13.53	T

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steven Mason for EPA Region 6 (Generator Authorized Agent Name) — Signature — 9-28-17 (Shipment Date)

Transporter

Transporter Name: Yocham Trucking

Address: P.O. Box 745

City, State Zip: Cowet2, OK 74429

Driver Name (Print): Lee Brown

Tag No. 704 180 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Lee Brown (Driver Signature) — 9-28-17 (Ship Date)

I hereby certify that the above named material was delivered without incident to the destination listed below.

Lee Brown (Driver Signature) — 9-28-17 (Delivery Date)

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt (Name of Authorized Agent) — Signature — 9-28-17 (Receipt Date)

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USEO1 MN520~~WIL-01~~

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	20.27	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9/28 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): Dennis Hash

Tag No. 704-182 State: Ok

USDOT No. 0301009

I hereby certify that the above material was picked up at the generator site listed above.

Dennis Hash — Driver Signature

9/28 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Dennis Hash — Driver Signature

9/28 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-28-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USEO1 MN520~~WIL01~~

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	~~1~~	~~DT~~	1526	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

STEPHEN Mason For EPA Region 6 — Generator Authorized Agent Name

Signature

9.28.17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): William Oaks

Tag No. 700.149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William Oaks — Driver Signature

9.28.17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William Oaks — Driver Signature

9.28.17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-28-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USEPA MN520~~WILO1~~

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	15957	
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

STEPHEN MASON for EPA Region 6 — Generator Authorized Agent Name

Signature

9-28-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): KEN Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Ken Hughes — Driver Signature

9-28-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Ken Hughes — Driver Signature

9-28-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King ~~Micki King~~ ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9-28-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE01 MN520~~WILO1~~

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	15.89	T

TRANSPORT

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

STEPHEN NASH for EPA Region 6 — Generator Authorized Agent Name

Signature

9-28-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Cowden OK 74014

Driver Name (Print): Brian Ale

Tag No. State:

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Brian Ale — Driver Signature

9-28-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature

9-28-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King ~~Micki King~~ ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9-28-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE01 MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	1568	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steven Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-28-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Cowota, OK 74429

Driver Name (Print): Colt Coulter

Tag No. 704-183 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Colt Coulter — Driver Signature

9-28-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Colt Coulter — Driver Signature

9-28-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-28-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

T 62009 634

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: [redacted] (b [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No.: MN520~~WIL01~~ USE01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16.82 T	
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name: Stephen Mason for EPA Region 6

Signature: [signature]

Shipment Date: 9-28-17

Transporter

Transporter Name: ~~Yocham Trucking~~

Address: P.O. Box 745

City, State Zip: Coweta, OK

Driver Name (Print): Zee Brown

Tag No. 704 180 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature: Zee Brown Ship Date: 9-28-17

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature: Zee Brown Delivery Date: 9-28-17

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Name of Authorized Agent: Laura King Micki King Raven Blunt

Signature: [signature]

Receipt Date: 9-28-17

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE01 MN520~~WIL01~~

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	18.11	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-28-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Cowota, OK 74429

Driver Name (Print): Colt Coulter

Tag No. 704-183 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Colt Coulter — Driver Signature

9-28-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Colt Coulter — Driver Signature

9-28-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-28-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

659

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. (USEC) MN520~~WIL01~~

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16.88T	
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-28-17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip: Coweta OK 74429

Driver Name (Print): Brian Ailey

Tag No. State:

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 9-28-17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 9-28-17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9-28-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USEC1 ~~MN520WIL01~~

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	1	DT	16.20	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

STEPHEN MANN for EPA Region 6 — Generator Authorized Agent Name

Signature

X — Shipment Date

Transporter

Transporter Name:

Address: ~~Yoeham Trucking~~ P.O. Box 745

City, State Zip: Coweta, OK 74429

Driver Name (Print): Zee Brown

Tag No. 704180 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Zee Brown — Driver Signature

9-28-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Zee Brown — Driver Signature

9-28-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ ~~Micki King~~ Raven Blunt — Name of Authorized Agent

Signature

9-28-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. MN520WLE01 (USE01)

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	15.41	T
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name: [illegible] EPA Region 6

Signature

Shipment Date: x 9/28

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): Dennis Hash

Tag No. 304 152 State: OK

USDOT No. 030 1005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature: Dennis Hash Ship Date: 9/28

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature: Dennis Hash Delivery Date: 9/28

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Name of Authorized Agent: Laura King Micki King Raven Blunt

Signature

Receipt Date: 9-28-17

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WI 01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	16.23T	
Transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9.27.17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): William Oaks

Tag No. 703-149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William Oaks — Driver Signature

9.27.17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William Oaks — Driver Signature

9.28.17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/28/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

6209 631

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	~~1~~	~~DT~~	1463T	
transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

~~Steven Mason~~ for EPA Region 6 — Generator Authorized Agent Name

Signature

9-28-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 9-28-17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 9-28-17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ ~~Micki King~~ ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9-28-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520~~WIL~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	10	T
transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steven Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

9-27-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Ken Hughes — Driver Signature

9-27-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Ken Hughes — Driver Signature

9-27-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

92717 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

019145.123

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. use MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	17161	T
transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

STEPHEN MASON for EPA Region 6 — Generator Authorized Agent Name

Signature

9.27.17 — Shipment Date

Transporter

Transporter Name: Yocham Trucking

Address:

City, State Zip:

Driver Name (Print): William P. Oaks

Tag No. 700.149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William P. Oaks — Driver Signature

9.27.17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William P. Oaks — Driver Signature

9.27.17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

9/27/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

52240

603670

GST

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Manifest Job No. USEPA MN520~~WIL01~~

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	1	DT	13.02	T

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

STEPHEN MASON for EPA Region 6 — Generator Authorized Agent Name

Signature

9-27-2017 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): KEN Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 9-27-17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 9-27-17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ Micki King ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9/27/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE01 MN520WILOT

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	1	DT	23.57	T
transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

STEPHEN MASON for EPA Region 6 — Generator Authorized Agent Name

Signature

9.27.17 — Shipment Date

Transporter

Transporter Name:

Address: ~~Yocham Trucking~~

City, State Zip:

Driver Name (Print): William Oaks

Tag No. 700.149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William Oaks — Driver Signature

9.27.17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William Oaks — Driver Signature

9.27.17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ ~~Micki King~~ ~~Raven Blunt~~ — Name of Authorized Agent

Signature

9.27.17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

103669 53160

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas City | TX State | 75202 Zip

Point of Generation Address: (b) (6)

Bristow City | OK State | 74010 Zip

Contact: Steve Mason Name | (214) 789-1871 Phone

Manifest Job No. USE01 MN520~~WIL01~~

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis City | MO State | 63026 Zip

Contact: Evan Wortman Name | (636) 227-7477 Phone

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	1	DT	[illegible]	T
			1353	T

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

STEPHEN MASON for EPA Region 6 — Generator Authorized Agent Name | Signature | 9-27-17 Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): Bill Oaks

Tag No. 700-149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William P. Oaks — Driver Signature | 9.27.17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William Oaks — Driver Signature | 9.27.17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ ~~Micki King~~ ~~Raven Blunt~~ — Name of Authorized Agent | Signature | 9/27/17 Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USEPA MN520WIL-01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	1	DT	14.16	T
transport				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

STEPHEN Mason — Ken Region 6 EPA (Generator Authorized Agent Name) — Signature — 9-27-17 (Shipment Date)

Transporter

Transporter Name:

Address: ~~Yoham Trucking~~

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 9-27-17 (Ship Date)

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 9-27-17 (Delivery Date)

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ ~~Micki King~~ ~~Raven Blunt~~ (Name of Authorized Agent) — Signature — 92717 (Receipt Date)

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

604160

63

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: [redacted](b)

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520~~WR~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	~~1~~	~~DT~~	17.12	T
Trans				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

10-2-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): Kenny Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Kenny Hughes — Driver Signature

10-2-17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Kenny Hughes — Driver Signature

10-2-17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King ~~Micki King~~ ~~Raven Blunt~~ — Name of Authorized Agent

Signature

10-2-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

001172

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. USE MN520~~WIL~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	1	DT	17.66T	

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

10-2-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): William P. Oaks

Tag No. 700.149 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

William P Oaks — Driver Signature

10.2.17 — Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

William P Oaks — Driver Signature

10.2.17 — Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

10-2-17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

604207

631

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas City | TX State | 75202 Zip

Point of Generation Address: (b) (6)

Bristow City | OK State | 74010 Zip

Contact: Steve Mason Name | (214) 789-1871 Phone

Manifest Job No. 45E MN520WL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis City | MO State | 63026 Zip

Contact: Evan Wortman Name | (636) 227-7477 Phone

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
~~Non-Hazardous Soil~~	1	DT	19.835	
Trans				

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

STEPHEN MASON for EPA Region 6 — Generator Authorized Agent Name | Signature | 10-2-17 Shipment Date

Transporter

Transporter Name:

Address: ~~Yocham Trucking~~

City, State Zip:

Driver Name (Print): KEN Hughes

Tag No. 700-148 State: OK

USDOT No. 0201005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature | 10-2-17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature | 10-2-17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

~~Laura King~~ ~~Micki King~~ ~~Raven Blunt~~ Name of Authorized Agent | Signature | 10-2-17 Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

004973

631

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. use MN520~~AEL~~01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT		
transport			16.00	T

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

10-5-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): KEN Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 10-5-17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 10-5-17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

10517 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

6048861

Generator

631

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT	18.28	T

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

10-5-17 — Shipment Date

Transporter

Transporter Name:

Address: Yocham Trucking

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 10-5-17 Ship Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 10-5-17 Delivery Date

Destination

American Environmental Landfill, Inc.
212 N. 177th W Ave.
Sand Springs, OK 74063

Phone: (918) 245-7786
Fax: (918) 245-7774
Permit No: 3557021

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

10/5/17 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

American Environmental Landfill, Inc.

Leading the Industry in Environmental Compliance

Non-Hazardous Waste Manifest

604899

631

Generator

Generator's Name: USEPA Region 6 / Wilcox Oil Residence Site

Mailing Address: 1445 Ross Ave

Dallas (City) TX (State) 75202 (Zip)

Point of Generation Address: (b) (6) [redacted]

Bristow (City) OK (State) 74010 (Zip)

Contact: Steve Mason (Name) (214) 789-1871 (Phone)

Manifest Job No. MN520WIL01

Bill to Name: Environmental Restoration, LLC

Address: 1666 Fabick Drive

St. Louis (City) MO (State) 63026 (Zip)

Contact: Evan Wortman (Name) (636) 227-7477 (Phone)

Common Name of Waste Material	Container No.	Container Type	Total Quantity	Unit
Non-Hazardous Soil	1	DT		
			17.05T	

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Stephen Mason for EPA Region 6 — Generator Authorized Agent Name

Signature

10-5-17 — Shipment Date

Transporter

Transporter Name: ~~Yocham Trucking~~

Address:

City, State Zip:

Driver Name (Print): Ken Hughes

Tag No. 700-148 State: OK

USDOT No. 0301005

I hereby certify that the above material was picked up at the generator site listed above.

Driver Signature — 10-5-17 Ship Date

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I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is accurate.

Laura King Micki King Raven Blunt — Name of Authorized Agent

Signature

10517 — Receipt Date

White – Destination Retention • Yellow – Return to Bill to • Pink – Transporter Retain • Goldenrod – Generator Retain

APPENDIX D

POLLUTION REPORTS

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Wilcox Oil Refinery Site Residential Removal - Removal Polrep
Initial Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: **POLREP #1**
Initial -- Site Visit & Assessment
Wilcox Oil Refinery Site Residential Removal

Bristow, OK

To: Loree Boyanton, ODEQ
Craig Carroll, EPA Region 6
Reggie Cheatham, EPA HQ

From: Steve Mason, OSC
Date: 7/14/2017
Reporting Period: 07/06/2017

1. Introduction

1.1 Background

Site Number:	06GG	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Assessment
NPL Status:	NPL	**Operable Unit:**	
Mobilization Date:	7/6/2017	**Start Date:**	7/6/2017
Demob Date:		**Completion Date:**	
CERCLIS ID:	OK0001011917	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category
Time-Critical

1.1.2 Site Description
Wilcox Oil Company is an inactive and abandoned oil refinery located in Bristow, Creek County, Oklahoma. The site consists of contaminated areas and surface water bodies due to releases from the former Wilcox and Lorraine Refineries. Wilcox Oil Company operated as a crude oil refinery from the 1920s until 1963. The main components of the facility consisted of a skimming plant, cracking unit, storage tanks and treatment equipment. Currently, several residents are located within the former refinery boundaries, half of which utilize ground water from private wells. Homes are located in areas of former waste operations.

1.1.2.1 Location
The Wilcox Refinery Site is located northeast of the City of Bristow, Creek County, Oklahoma, at West 221st Street/Refinery Road, just east of U.S. Highway 66 (35.840804N, 96.380193W)

1.1.2.2 Description of Threat

In 2014, community members expressed concerns about public access to oily sludge areas. The results of an expanded Site Inspection (ESI) by ODEQ in 2011 indicated high concentrations of Polycyclic Aromatic Hydrocarbons (PAHs) in oily sludge waste at numerous locations on site, including the (b) residential property at (b) (6) Street.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results
The site was included on the EPA National Priorities List (NPL) in December, 2013. In addition, oily sludge leaching from the ground was observed during a site assessment conducted by an EPA OSC in March, 2014. From May 22 to June 04, EPA conducted soil sampling (Phase 2) at several residences on the site. A review of sampling analytical results indicated benzo(a)pyrene is present at the residence in the soil above the EPA Removal Management Levels. In addition, during the sampling, visible oily sludge was observed in the samples, as well as small amounts on the ground surface.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative
On July 6, 2017, EPA along with ODEQ met with (b) (6) and conducted a site walk of the area around their residence. Hydrocarbon sludge was observed at or near the surface during the site walk. A general area of contamination was noted, including evidence of areas where oily liquid has surfaced and a small hole in the ground where oily liquid has surfaced recently. A brief discussion was held with (b) (6) regarding the potential of a Removal Action at the Site.

2.1.2 Response Actions to Date

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)
Enforcement has determined there are no viable PRPs at this time.

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

2.2.1 Anticipated Activities
Maps delineating the area of contamination have been developed and can be found in the Documents Section, https://response.epa.gov/sites/12277/files/0713171257%20FIGURE%202.pdf

2.2.1.1 Planned Response Activities
The removal program will develop an action memo to conduct a removal action at the Site. The proposed action will remove and dispose of hydrocarbon sludges from impacted areas. The sludge material will be replaced with clean soil and the areas re-vegetated. Confirmation samples will be taken to confirm the area is below the established Residential Screening Level (RSL) for benzo(a)pyrene.

2.2.1.2 Next Steps
The removal program will continue coordinating removal activities with the EPA remedial program, ODEQ, local officials, and the resident.

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

No information available at this time.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
TAT/START	$30,000.00	$0.00	$30,000.00	100.00%
Intramural Costs				
Total Site Costs	$30,000.00	$0.00	$30,000.00	100.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

No information available at this time.

2.5.2 Liaison Officer

2.5.3 Information Officer

3. Participating Entities

3.1 Unified Command

No information available at this time.

3.2 Cooperating Agencies

4. Personnel On Site

2 EPA OSCs
1 START Personnel
3 ODEQ Personnel

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

No information available at this time.

6.2 Reporting Schedule

7. Situational Reference Materials

No information available at this time.

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Wilcox Oil Refinery Site Residential Removal - Removal Polrep
Final Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: **POLREP #2**
Final
Wilcox Oil Refinery Site Residential Removal

Bristow, OK

To: Loree Boyanton, ODEQ
Craig Carroll, EPA Region 6
Reggie Cheatham, EPA HQ

From: Steve Mason, OSC
Date: 10/25/2017
Reporting Period: 9/27 - 10/11/17

1. Introduction

1.1 Background

Site Number:	06GG	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Assessment
NPL Status:	NPL	**Operable Unit:**	
Mobilization Date:	7/6/2017	**Start Date:**	7/6/2017
Demob Date:	10/11/2017	**Completion Date:**	10/11/2017
CERCLIS ID:	OK0001011917	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category
Time-Critical

1.1.2 Site Description
Wilcox Oil Company is an inactive and abandoned oil refinery located in Bristow, Creek County, Oklahoma. The site consists of contaminated areas and surface water bodies due to releases from the former Wilcox and Lorraine Refineries. Wilcox Oil Company operated as a crude oil refinery from the 1920s until 1963. The main components of the facility consisted of a skimming plant, cracking unit, storage tanks and treatment equipment. Currently, several residents are located within the former refinery boundaries, half of which utilize ground water from private wells. Homes are located in areas of former waste operations.

1.1.2.1 Location
The Wilcox Refinery Site is located northeast of the City of Bristow, Creek County, Oklahoma, at West 221st Street/Refinery Road, just east of U.S. Highway 66 (35.840804N, 96.380193W)

1.1.2.2 Description of Threat

In 2014, community members expressed concerns about public access to oily sludge areas. The results of an expanded Site Inspection (ESI) by ODEQ in 2011 indicated high concentrations of Polycyclic Aromatic Hydrocarbons (PAHs) in oily sludge waste at numerous locations on site, including the (b) residential property at (b) (6) Street.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results
The site was included on the EPA National Priorities List (NPL) in December, 2013. In addition, oily sludge leaching from the ground was observed during a site assessment conducted by an EPA OSC in March, 2014. From May 22 to June 04, EPA conducted soil sampling (Phase 2) at several residences on the site. A review of sampling analytical results indicated benzo(a)pyrene is present at the residence in the soil above the EPA Removal Management Levels. In addition, during the sampling, visible oily sludge was observed in the samples, as well as small amounts on the ground surface.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative
On July 6, 2017, EPA along with ODEQ met with (b) (6) and conducted a site walk of the area around their residence. Hydrocarbon sludge was observed at or near the surface during the site walk. A general area of contamination was noted, including evidence of areas where oily liquid has surfaced and a small hole in the ground where oily liquid has surfaced recently. A brief discussion was held with (b) (6) regarding the potential of a Removal Action at the Site.

2.1.2 Response Actions to Date
On 27 September 2017 EPA, ODEQ, START and ERRS mobilized to the site to conduct a time critical removal action. Removal activities included the excavation of oily sludge and oily impacted soils, confirmation sampling, and site restoration. Approximately 1,350 tons of oily sludge and oily impacted soils were excavated and transported off-site to American Environmental Landfill, Inc. located in Sand Springs, Oklahoma. Upon receipt of confirmation sample analytical data documenting benzo(a)pyrene results were below the EPA Region 6 Residential Screening Levels, the excavation was backfilled and the property was restored to pre-removal conditions.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)
Enforcement has determined there are no viable PRPs at this time.

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

2.2.1 Anticipated Activities
Maps delineating the area of contamination have been developed and can be found in the Documents Section, https://response.epa.gov/sites/12277/files/0713171257%20FIGURE%202.pdf

2.2.1.1 Planned Response Activities
No additional response activities are planned at this time.

2.2.1.2 Next Steps

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

No information available at this time.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
TAT/START	$30,000.00	$0.00	$30,000.00	100.00%
Intramural Costs				
Total Site Costs	$30,000.00	$0.00	$30,000.00	100.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

No information available at this time.

2.5.2 Liaison Officer

2.5.3 Information Officer

3. Participating Entities

3.1 Unified Command

No information available at this time.

3.2 Cooperating Agencies

4. Personnel On Site

1 - EPA OSC
1 START Personnel
1 - ODEQ Personnel
5 - ERRS Personnel

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

No information available at this time.

6.2 Reporting Schedule

7. Situational Reference Materials

No information available at this time.

APPENDIX E

DATA VALIDATION PACKAGES

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Top Soil
Lab Sample ID: 490-137586-1
Lab Name: TestAmerica Nashville
Job No.: 490-137586-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/27/2017 16:30
Reporting Basis: DRY
Date Received: 09/28/2017 09:25
% Solids: 81.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	12100	5.81	2.33	mg/Kg			1	6020A
7440-36-0	Antimony	0.233	0.581	0.233	mg/Kg	U		1	6020A
7440-38-2	Arsenic	2.57	0.581	0.233	mg/Kg			1	6020A
7440-39-3	Barium	79.7	0.581	0.233	mg/Kg			1	6020A
7440-41-7	Beryllium	0.451	0.581	0.233	mg/Kg		JQ	1	6020A
7440-43-9	Cadmium	0.233	0.581	0.233	mg/Kg	U		1	6020A
7440-70-2	Calcium	1890	58.1	29.1	mg/Kg			1	6020A
7440-47-3	Chromium	16.8	0.581	0.233	mg/Kg			1	6020A
7440-48-4	Cobalt	4.45	0.581	0.233	mg/Kg			1	6020A
7440-50-8	Copper	4.35	0.581	0.233	mg/Kg			1	6020A
7439-89-6	Iron	8860	5.81	2.33	mg/Kg			1	6020A
7439-92-1	Lead	7.44	0.581	0.233	mg/Kg			1	6020A
7439-95-4	Magnesium	1330	58.1	29.1	mg/Kg			1	6020A
7439-96-5	Manganese	242	0.581	0.233	mg/Kg			1	6020A
7440-02-0	Nickel	8.87	0.581	0.233	mg/Kg			1	6020A
7440-09-7	Potassium	1930	58.1	29.1	mg/Kg			1	6020A
7782-49-2	Selenium	0.233	0.581	0.233	mg/Kg	U		1	6020A
7440-22-4	Silver	0.116	0.581	0.116	mg/Kg	U		1	6020A
7440-23-5	Sodium	155	58.1	29.1	mg/Kg			1	6020A
7440-28-0	Thallium	0.233	0.581	0.233	mg/Kg	U		1	6020A
7440-62-2	Vanadium	19.8	0.581	0.233	mg/Kg			1	6020A
7440-66-6	Zinc	26.4	5.81	2.33	mg/Kg			1	6020A
7439-97-6	Mercury	0.0380	0.121	0.0363	mg/Kg		JQ	1	7471B

10/5/17

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Backfill
Lab Sample ID: 490-137586-2
Lab Name: TestAmerica Nashville
Job No.: 490-137586-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/27/2017 16:35
Reporting Basis: DRY
Date Received: 09/28/2017 09:25
% Solids: 88.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	11300	5.61	2.25	mg/Kg		B	1	6020A
7440-36-0	Antimony	0.225	0.561	0.225	mg/Kg	U		1	6020A
7440-38-2	Arsenic	3.47	0.561	0.225	mg/Kg			1	6020A
7440-39-3	Barium	66.7	0.561	0.225	mg/Kg			1	6020A
7440-41-7	Beryllium	0.404	0.561	0.225	mg/Kg	J	JQ	1	6020A
7440-43-9	Cadmium	0.225	0.561	0.225	mg/Kg	U		1	6020A
7440-70-2	Calcium	1300	56.1	28.1	mg/Kg			1	6020A
7440-47-3	Chromium	14.0	0.561	0.225	mg/Kg			1	6020A
7440-48-4	Cobalt	3.30	0.561	0.225	mg/Kg			1	6020A
7440-50-8	Copper	3.17	0.561	0.225	mg/Kg			1	6020A
7439-89-6	Iron	7230	5.61	2.25	mg/Kg			1	6020A
7439-92-1	Lead	6.64	0.561	0.225	mg/Kg			1	6020A
7439-95-4	Magnesium	1140	56.1	28.1	mg/Kg			1	6020A
7439-96-5	Manganese	170	0.561	0.225	mg/Kg			1	6020A
7440-02-0	Nickel	6.66	0.561	0.225	mg/Kg			1	6020A
7440-09-7	Potassium	1860	56.1	28.1	mg/Kg			1	6020A
7782-49-2	Selenium	0.225	0.561	0.225	mg/Kg	U		1	6020A
7440-22-4	Silver	0.112	0.561	0.112	mg/Kg	U		1	6020A
7440-23-5	Sodium	99.4	56.1	28.1	mg/Kg			1	6020A
7440-28-0	Thallium	0.225	0.561	0.225	mg/Kg	U		1	6020A
7440-62-2	Vanadium	17.7	0.561	0.225	mg/Kg			1	6020A
7440-66-6	Zinc	25.6	5.61	2.25	mg/Kg			1	6020A
7439-97-6	Mercury	0.149	0.113	0.0339	mg/Kg			1	7471B

pbk

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137586-1
SDG No.:
Client Sample ID: Top Soil | Lab Sample ID: 490-137586-1
Matrix: Solid | Lab File ID: 092817-024.D
Analysis Method: 8270D SIM | Date Collected: 09/27/2017 16:30
Extract. Method: 3550C | Date Extracted: 09/28/2017 11:27
Sample wt/vol: 30.55(g) | Date Analyzed: 09/28/2017 21:04
Con. Extract Vol.: 1.00(mL) | Dilution Factor: 1
Injection Volume: 3(uL) | Level: (low/med) Low
% Moisture: 18.1 | GPC Cleanup:(Y/N) N
Analysis Batch No.: 463781 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.00264	U	0.00396	0.00264
208-96-8	Acenaphthylene	0.00216	U	0.00396	0.00216
120-12-7	Anthracene	0.00156	U	0.00396	0.00156
56-55-3	Benzo[a]anthracene	0.00156	J JQ	0.00396	0.00144
50-32-8	Benzo[a]pyrene	0.00230	J JQ	0.00396	0.00156
205-99-2	Benzo[b]fluoranthene	0.00400		0.00396	0.00264
191-24-2	Benzo[g,h,i]perylene	0.00168	U	0.00396	0.00168
207-08-9	Benzo[k]fluoranthene	0.00216	U	0.00396	0.00216
218-01-9	Chrysene	0.00369	J JQ	0.00396	0.00144
53-70-3	Dibenz(a,h)anthracene	0.00180	U	0.00396	0.00180
206-44-0	Fluoranthene	0.00288	J JQ	0.00396	0.00168
86-73-7	Fluorene	0.00420	U	0.00600	0.00420
193-39-5	Indeno[1,2,3-cd]pyrene	0.00192	U	0.00396	0.00192
91-20-3	Naphthalene	0.00264	U	0.00396	0.00264
85-01-8	Phenanthrene	0.00204	U	0.00396	0.00204
129-00-0	Pyrene	0.00372	J JQ	0.00396	0.00180
91-57-6	2-Methylnaphthalene	0.00252	U	0.00396	0.00252
90-12-0	1-Methylnaphthalene	0.00216	U	0.00396	0.00216

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	64		29-120
4165-60-0	Nitrobenzene-d5	54		27-120
1718-51-0	Terphenyl-d14	60		13-120

DS 10/5/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137586-1

SDG No.:

Client Sample ID: Backfill | Lab Sample ID: 490-137586-2

Matrix: Solid | Lab File ID: 092817-025.D

Analysis Method: 8270D SIM | Date Collected: 09/27/2017 16:35

Extract. Method: 3550C | Date Extracted: 09/28/2017 11:27

Sample wt/vol: 30.83(g) | Date Analyzed: 09/28/2017 21:25

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 1

Injection Volume: 3(uL) | Level: (low/med) Low

% Moisture: 12.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 463781 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.00243	U	0.00365	0.00243
208-96-8	Acenaphthylene	0.00199	U	0.00365	0.00199
120-12-7	Anthracene	0.00144	U	0.00365	0.00144
56-55-3	Benzo[a]anthracene	0.00327	J Q	0.00365	0.00133
50-32-8	Benzo[a]pyrene	0.00397		0.00365	0.00144
205-99-2	Benzo[b]fluoranthene	0.00689		0.00365	0.00243
191-24-2	Benzo[g,h,i]perylene	0.00218	J Q	0.00365	0.00155
207-08-9	Benzo[k]fluoranthene	0.00267	J Q	0.00365	0.00199
218-01-9	Chrysene	0.00555		0.00365	0.00133
53-70-3	Dibenz(a,h)anthracene	0.00166	U	0.00365	0.00166
206-44-0	Fluoranthene	0.00692		0.00365	0.00155
86-73-7	Fluorene	0.00387	U	0.00553	0.00387
193-39-5	Indeno[1,2,3-cd]pyrene	0.00177	U	0.00365	0.00177
91-20-3	Naphthalene	0.00243	U	0.00365	0.00243
85-01-8	Phenanthrene	0.00273	J Q	0.00365	0.00188
129-00-0	Pyrene	0.00833		0.00365	0.00166
91-57-6	2-Methylnaphthalene	0.00232	U	0.00365	0.00232
90-12-0	1-Methylnaphthalene	0.00199	U	0.00365	0.00199

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	71		29-120
4165-60-0	Nitrobenzene-d5	94		27-120
1718-51-0	Terphenyl-d14	61		13-120

BS 10/5/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137671-1

SDG No.:

Client Sample ID: WOR006-48-170928-56 | Lab Sample ID: 490-137671-1

Matrix: Solid | Lab File ID: 092917-020.D

Analysis Method: 8270D SIM | Date Collected: 09/28/2017 16:30

Extract. Method: 3550C | Date Extracted: 09/29/2017 17:32

Sample wt/vol: 30.03(g) | Date Analyzed: 09/29/2017 23:34

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 5

Injection Volume: 3(uL) | Level: (low/med) Low

% Moisture: 15.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 464267 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.0271	JH	0.0196	0.0131
208-96-8	Acenaphthylene	0.0129	JDH	0.0196	0.0107
120-12-7	Anthracene	0.00772	U	0.0196	0.00772
56-55-3	Benzo[a]anthracene	0.00713	U	0.0196	0.00713
50-32-8	Benzo[a]pyrene	0.00772	U	0.0196	0.00772
205-99-2	Benzo[b]fluoranthene	0.0131	U	0.0196	0.0131
191-24-2	Benzo[g,h,i]perylene	0.00831	U	0.0196	0.00831
207-08-9	Benzo[k]fluoranthene	0.0107	U	0.0196	0.0107
218-01-9	Chrysene	0.00713	U	0.0196	0.00713
53-70-3	Dibenz(a,h)anthracene	0.00891	U	0.0196	0.00891
206-44-0	Fluoranthene	0.00986	JDH	0.0196	0.00831
86-73-7	Fluorene	0.0208	U	0.0297	0.0208
193-39-5	Indeno[1,2,3-cd]pyrene	0.00950	U	0.0196	0.00950
91-20-3	Naphthalene	0.0205	JH	0.0196	0.0131
85-01-8	Phenanthrene	0.0569	JH	0.0196	0.0101
129-00-0	Pyrene	0.0178	JDH	0.0196	0.00891
91-57-6	2-Methylnaphthalene	0.126	JK	0.0196	0.0125
90-12-0	1-Methylnaphthalene	0.119	JK	0.0196	0.0107

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	121	X	29-120
4165-60-0	Nitrobenzene-d5	129	X	27-120
1718-51-0	Terphenyl-d14	92		13-120

10/10/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137762-1

SDG No.:

Client Sample ID: WOR006-010-48-170929-56 | Lab Sample ID: 490-137762-1

Matrix: Solid | Lab File ID: 100317-004.D

Analysis Method: 8270D SIM | Date Collected: 09/29/2017 16:35

Extract. Method: 3550C | Date Extracted: 09/30/2017 16:38

Sample wt/vol: 30.31(g) | Date Analyzed: 10/03/2017 09:39

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 5

Injection Volume: 3(uL) | Level: (low/med) Low

% Moisture: 13.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 464885 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.0453	~~F1~~ JH	0.0189	0.0126
208-96-8	Acenaphthylene	0.0272		0.0189	0.0103
120-12-7	Anthracene	0.00746	U	0.0189	0.00746
56-55-3	Benzo[a]anthracene	0.00689	U	0.0189	0.00689
50-32-8	Benzo[a]pyrene	0.00877	~~J~~ JP	0.0189	0.00746
205-99-2	Benzo[b]fluoranthene	0.0129	~~J~~ JP	0.0189	0.0126
191-24-2	Benzo[g,h,i]perylene	0.00803	U	0.0189	0.00803
207-08-9	Benzo[k]fluoranthene	0.0103	U	0.0189	0.0103
218-01-9	Chrysene	0.0444		0.0189	0.00689
53-70-3	Dibenz(a,h)anthracene	0.00861	U	0.0189	0.00861
206-44-0	Fluoranthene	0.0141	~~J~~ JP	0.0189	0.00803
86-73-7	Fluorene	0.0201	U ~~F1~~	0.0287	0.0201
193-39-5	Indeno[1,2,3-cd]pyrene	0.00918	U ~~F1~~	0.0189	0.00918
91-20-3	Naphthalene	0.0126	U ~~F1~~ ~~F2~~	0.0189	0.0126
85-01-8	Phenanthrene	0.178	~~F1~~ JH	0.0189	0.00976
129-00-0	Pyrene	0.0422		0.0189	0.00861
91-57-6	2-Methylnaphthalene	0.621	JK	0.0189	0.0121
90-12-0	1-Methylnaphthalene	0.431	JK	0.0189	0.0103

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	65		29-120
4165-60-0	Nitrobenzene-d5	260	X	27-120
1718-51-0	Terphenyl-d14	70		13-120

10/11/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137762-1

SDG No.:

Client Sample ID: WOR006-010-48-170929-57 | Lab Sample ID: 490-137762-2

Matrix: Solid | Lab File ID: 100317-007.D

Analysis Method: 8270D SIM | Date Collected: 09/29/2017 16:40

Extract. Method: 3550C | Date Extracted: 09/30/2017 16:38

Sample wt/vol: 30.47(g) | Date Analyzed: 10/03/2017 10:39

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 5

Injection Volume: 3(uL) | Level: (low/med) Low

% Moisture: 14.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 464885 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.159		0.0189	0.0126
208-96-8	Acenaphthylene	0.0571		0.0189	0.0103
120-12-7	Anthracene	0.00746	U	0.0189	0.00746
56-55-3	Benzo[a]anthracene	0.00688	U	0.0189	0.00688
50-32-8	Benzo[a]pyrene	0.0117	~~J~~ JQH	0.0189	0.00746
205-99-2	Benzo[b]fluoranthene	0.0189	~~J~~ JH	0.0189	0.0126
191-24-2	Benzo[g,h,i]perylene	0.0114	~~J~~ JQH	0.0189	0.00803
207-08-9	Benzo[k]fluoranthene	0.0103	~~U~~ UJ	0.0189	0.0103
218-01-9	Chrysene	0.00688	U	0.0189	0.00688
53-70-3	Dibenz(a,h)anthracene	0.00860	~~U~~ UJ	0.0189	0.00860
206-44-0	Fluoranthene	0.0309		0.0189	0.00803
86-73-7	Fluorene	0.0201	U	0.0287	0.0201
193-39-5	Indeno[1,2,3-cd]pyrene	0.00980	~~J~~ JQH	0.0189	0.00918
91-20-3	Naphthalene	0.0126	U	0.0189	0.0126
85-01-8	Phenanthrene	0.449		0.0189	0.00975
129-00-0	Pyrene	0.0650		0.0189	0.00860
91-57-6	2-Methylnaphthalene	1.63		0.0189	0.0120
90-12-0	1-Methylnaphthalene	1.27		0.0189	0.0103

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	104		29-120
4165-60-0	Nitrobenzene-d5	607	X	27-120
1718-51-0	Terphenyl-d14	103		13-120

10/9/17

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: West-01 | Lab Sample ID: 490-137889-3

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG ID.:

Matrix: Solid | Date Sampled: 10/02/2017 14:10

Reporting Basis: DRY | Date Received: 10/03/2017 10:05

% Solids: 98.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	1810	4.76	1.91	mg/Kg			1	6020A
7440-36-0	Antimony	0.241	0.476	0.191	mg/Kg	J	JQ UB	1	6020A
7440-38-2	Arsenic	1.63	0.476	0.191	mg/Kg			1	6020A
7440-39-3	Barium	20.7	0.476	0.191	mg/Kg			1	6020A
7440-41-7	Beryllium	0.191	0.476	0.191	mg/Kg	U		1	6020A
7440-43-9	Cadmium	0.191	0.476	0.191	mg/Kg	U		1	6020A
7440-70-2	Calcium	228	47.6	23.8	mg/Kg			1	6020A
7440-47-3	Chromium	4.46	0.476	0.191	mg/Kg			1	6020A
7440-48-4	Cobalt	6.56	0.476	0.191	mg/Kg			1	6020A
7440-50-8	Copper	3.96	0.476	0.191	mg/Kg			1	6020A
7439-89-6	Iron	10500	4.76	1.91	mg/Kg		B	1	6020A
7439-92-1	Lead	11.5	0.476	0.191	mg/Kg			1	6020A
7439-95-4	Magnesium	130	47.6	23.8	mg/Kg			1	6020A
7439-96-5	Manganese	1020	2.38	0.953	mg/Kg			5	6020A
7440-02-0	Nickel	5.69	0.476	0.191	mg/Kg			1	6020A
7440-09-7	Potassium	181	47.6	23.8	mg/Kg			1	6020A
7782-49-2	Selenium	0.953	2.38	0.953	mg/Kg	U		5	6020A
7440-22-4	Silver	0.0953	0.476	0.0953	mg/Kg	U		1	6020A
7440-23-5	Sodium	68.8	47.6	23.8	mg/Kg			1	6020A
7440-28-0	Thallium	0.191	0.476	0.191	mg/Kg	U		1	6020A
7440-62-2	Vanadium	10.2	0.476	0.191	mg/Kg			1	6020A
7440-66-6	Zinc	43.6	23.8	9.53	mg/Kg			5	6020A
7439-97-6	Mercury	0.0355	0.0975	0.0292	mg/Kg	J	JQ	1	7471B

10/12/17

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: West-02 | Lab Sample ID: 490-137889-4

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG ID.:

Matrix: Solid | Date Sampled: 10/02/2017 14:20

Reporting Basis: DRY | Date Received: 10/03/2017 10:05

% Solids: 98.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	3480	5.07	2.03	mg/Kg			1	6020A
7440-36-0	Antimony	0.300	0.507	0.203	mg/Kg	✓	JQ	08 1	6020A
7440-38-2	Arsenic	2.19	0.507	0.203	mg/Kg			1	6020A
7440-39-3	Barium	35.3	0.507	0.203	mg/Kg			1	6020A
7440-41-7	Beryllium	0.214	0.507	0.203	mg/Kg	✓	JQ	1	6020A
7440-43-9	Cadmium	0.253	0.507	0.203	mg/Kg	✓	JQ	1	6020A
7440-70-2	Calcium	1010	50.7	25.4	mg/Kg			1	6020A
7440-47-3	Chromium	5.74	0.507	0.203	mg/Kg			1	6020A
7440-48-4	Cobalt	2.36	0.507	0.203	mg/Kg			1	6020A
7440-50-8	Copper	4.53	0.507	0.203	mg/Kg			1	6020A
7439-89-6	Iron	7690	5.07	2.03	mg/Kg		✓	1	6020A
7439-92-1	Lead	36.9	0.507	0.203	mg/Kg			1	6020A
7439-95-4	Magnesium	431	50.7	25.4	mg/Kg			1	6020A
7439-96-5	Manganese	90.5	0.507	0.203	mg/Kg			1	6020A
7440-02-0	Nickel	3.80	0.507	0.203	mg/Kg			1	6020A
7440-09-7	Potassium	337	50.7	25.4	mg/Kg			1	6020A
7782-49-2	Selenium	0.337	0.507	0.203	mg/Kg	✓	JQ	1	6020A
7440-22-4	Silver	0.101	0.507	0.101	mg/Kg	U		1	6020A
7440-23-5	Sodium	736	50.7	25.4	mg/Kg			1	6020A
7440-28-0	Thallium	0.203	0.507	0.203	mg/Kg	U		1	6020A
7440-62-2	Vanadium	14.7	0.507	0.203	mg/Kg			1	6020A
7440-66-6	Zinc	31.9	5.07	2.03	mg/Kg			1	6020A
7439-97-6	Mercury	0.0385	0.100	0.0301	mg/Kg	✓	JQ	1	7471B

10/12/17

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: North
Lab Sample ID: 490-137889-5
Lab Name: TestAmerica Nashville
Job No.: 490-137889-1
SDG ID.:
Matrix: Solid
Date Sampled: 10/02/2017 14:30
Reporting Basis: DRY
Date Received: 10/03/2017 10:05
% Solids: 98.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	2000	4.98	1.99	mg/Kg			1	6020A
7440-36-0	Antimony	0.314	0.498	0.199	mg/Kg	J	JQ UB	1	6020A
7440-38-2	Arsenic	1.41	0.498	0.199	mg/Kg			1	6020A
7440-39-3	Barium	28.1	0.498	0.199	mg/Kg			1	6020A
7440-41-7	Beryllium	0.199	0.498	0.199	mg/Kg	U		1	6020A
7440-43-9	Cadmium	0.199	0.498	0.199	mg/Kg	U		1	6020A
7440-70-2	Calcium	281	49.8	24.9	mg/Kg			1	6020A
7440-47-3	Chromium	4.13	0.498	0.199	mg/Kg			1	6020A
7440-48-4	Cobalt	1.14	0.498	0.199	mg/Kg			1	6020A
7440-50-8	Copper	2.71	0.498	0.199	mg/Kg			1	6020A
7439-89-6	Iron	5260	4.98	1.99	mg/Kg		J	1	6020A
7439-92-1	Lead	24.9	0.498	0.199	mg/Kg			1	6020A
7439-95-4	Magnesium	203	49.8	24.9	mg/Kg			1	6020A
7439-96-5	Manganese	42.2	0.498	0.199	mg/Kg			1	6020A
7440-02-0	Nickel	2.13	0.498	0.199	mg/Kg			1	6020A
7440-09-7	Potassium	198	49.8	24.9	mg/Kg			1	6020A
7782-49-2	Selenium	0.218	0.498	0.199	mg/Kg	J	JQ	1	6020A
7440-22-4	Silver	0.0996	0.498	0.0996	mg/Kg	U		1	6020A
7440-23-5	Sodium	24.9	49.8	24.9	mg/Kg	U		1	6020A
7440-28-0	Thallium	0.199	0.498	0.199	mg/Kg	U		1	6020A
7440-62-2	Vanadium	10.0	0.498	0.199	mg/Kg			1	6020A
7440-66-6	Zinc	16.2	4.98	1.99	mg/Kg			1	6020A
7439-97-6	Mercury	0.0482	0.100	0.0301	mg/Kg	J	JQ	1	7471B

10/12/17

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: South
Lab Sample ID: 490-137889-6
Lab Name: TestAmerica Nashville
Job No.: 490-137889-1
SDG ID.:
Matrix: Solid
Date Sampled: 10/02/2017 14:45
Reporting Basis: DRY
Date Received: 10/03/2017 10:05
% Solids: 97.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	3610	5.09	2.04	mg/Kg			1	6020A
7440-36-0	Antimony	0.351	0.509	0.204	mg/Kg	J	JQ UB	1	6020A
7440-38-2	Arsenic	2.53	0.509	0.204	mg/Kg			1	6020A
7440-39-3	Barium	71.1	0.509	0.204	mg/Kg			1	6020A
7440-41-7	Beryllium	0.252	0.509	0.204	mg/Kg	J	JQ	1	6020A
7440-43-9	Cadmium	0.212	0.509	0.204	mg/Kg	J	JQ	1	6020A
7440-70-2	Calcium	425	50.9	25.4	mg/Kg			1	6020A
7440-47-3	Chromium	6.05	0.509	0.204	mg/Kg			1	6020A
7440-48-4	Cobalt	2.18	0.509	0.204	mg/Kg			1	6020A
7440-50-8	Copper	4.97	0.509	0.204	mg/Kg			1	6020A
7439-89-6	Iron	10500	5.09	2.04	mg/Kg		B	1	6020A
7439-92-1	Lead	36.4	0.509	0.204	mg/Kg			1	6020A
7439-95-4	Magnesium	302	50.9	25.4	mg/Kg			1	6020A
7439-96-5	Manganese	53.7	0.509	0.204	mg/Kg			1	6020A
7440-02-0	Nickel	3.07	0.509	0.204	mg/Kg			1	6020A
7440-09-7	Potassium	358	50.9	25.4	mg/Kg			1	6020A
7782-49-2	Selenium	0.373	0.509	0.204	mg/Kg	J	JQ	1	6020A
7440-22-4	Silver	0.102	0.509	0.102	mg/Kg	U		1	6020A
7440-23-5	Sodium	25.4	50.9	25.4	mg/Kg	U		1	6020A
7440-28-0	Thallium	0.204	0.509	0.204	mg/Kg	U		1	6020A
7440-62-2	Vanadium	13.2	0.509	0.204	mg/Kg			1	6020A
7440-66-6	Zinc	20.6	5.09	2.04	mg/Kg			1	6020A
7439-97-6	Mercury	0.0539	0.100	0.0301	mg/Kg	J	JQ	1	7471B

10/12/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: WOR006-012-36-171002-56 | Lab Sample ID: 490-137889-1

Matrix: Solid | Lab File ID: 100317-025.D

Analysis Method: 8270D SIM | Date Collected: 10/02/2017 08:00

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:54

Sample wt/vol: 30.35(g) | Date Analyzed: 10/03/2017 17:26

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 10

Injection Volume: 3(uL) | Level: (low/med) Low

% Moisture: 9.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 464885 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
86-73-7	Fluorene	0.308		0.0549	0.0384
208-96-8	Acenaphthylene	0.0198	U	0.0362	0.0198
85-01-8	Phenanthrene	0.644		0.0362	0.0187
120-12-7	Anthracene	0.0143	U	0.0362	0.0143
91-57-6	2-Methylnaphthalene	1.60		0.0362	0.0230
129-00-0	Pyrene	0.364		0.0362	0.0165
91-20-3	Naphthalene	0.269		0.0362	0.0241
206-44-0	Fluoranthene	0.0889		0.0362	0.0154
90-12-0	1-Methylnaphthalene	0.983		0.0362	0.0198
56-55-3	Benzo[a]anthracene	0.148		0.0362	0.0132
218-01-9	Chrysene	0.335		0.0362	0.0132
83-32-9	Acenaphthene	0.228		0.0362	0.0241

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	109		29-120
4165-60-0	Nitrobenzene-d5	247	X	27-120
1718-51-0	Terphenyl-d14	85		13-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: WOR006-012-36-171002-56 | Lab Sample ID: 490-137889-1

Matrix: Solid | Lab File ID: 100417-004.D

Analysis Method: 8270D SIM | Date Collected: 10/02/2017 08:00

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:54

Sample wt/vol: 30.35(g) | Date Analyzed: 10/04/2017 10:26

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 25

Injection Volume: 3(uL) | Level: (low/med) Low

% Moisture: 9.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 465270 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
50-32-8	Benzo[a]pyrene	0.0934		0.0905	0.0357
191-24-2	Benzo[g,h,i]perylene	0.0541	J JQ	0.0905	0.0384
207-08-9	Benzo[k]fluoranthene	0.0494	U	0.0905	0.0494
53-70-3	Dibenz(a,h)anthracene	0.0412	U	0.0905	0.0412
193-39-5	Indeno[1,2,3-cd]pyrene	0.0439	U	0.0905	0.0439
205-99-2	Benzo[b]fluoranthene	0.146		0.0905	0.0604

10/21/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-137889-1

SDG No.:

Client Sample ID: WOR006-011-36-171002-56 Lab Sample ID: 490-137889-2

Matrix: Solid Lab File ID: 100317-026.D

Analysis Method: 8270D SIM Date Collected: 10/02/2017 08:20

Extract. Method: 3550C Date Extracted: 10/03/2017 12:54

Sample wt/vol: 30.05(g) Date Analyzed: 10/03/2017 17:46

Con. Extract Vol.: 1.00(mL) Dilution Factor: 10

Injection Volume: 3(uL) Level: (low/med) Low

% Moisture: 12.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 464885 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
86-73-7	Fluorene	0.141		0.0569	0.0398
208-96-8	Acenaphthylene	0.0205	U	0.0376	0.0205
85-01-8	Phenanthrene	0.316		0.0376	0.0193
120-12-7	Anthracene	0.0148	U	0.0376	0.0148
91-57-6	2-Methylnaphthalene	0.158		0.0376	0.0239
129-00-0	Pyrene	0.179		0.0376	0.0171
91-20-3	Naphthalene	0.0250	U	0.0376	0.0250
206-44-0	Fluoranthene	0.0658		0.0376	0.0159
90-12-0	1-Methylnaphthalene	0.145		0.0376	0.0205
56-55-3	Benzo[a]anthracene	0.0638		0.0376	0.0137
218-01-9	Chrysene	0.226		0.0376	0.0137
83-32-9	Acenaphthene	0.0250	U	0.0376	0.0250

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	97		29-120
4165-60-0	Nitrobenzene-d5	255	X	27-120
1718-51-0	Terphenyl-d14	95		13-120

10/13/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: WOR006-011-36-171002-56 | Lab Sample ID: 490-137889-2

Matrix: Solid | Lab File ID: 100417-005.D

Analysis Method: 8270D SIM | Date Collected: 10/02/2017 08:20

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:54

Sample wt/vol: 30.05(g) | Date Analyzed: 10/04/2017 10:46

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 25

Injection Volume: 3(uL) | Level: (low/med) Low

% Moisture: 12.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 465270 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
50-32-8	Benzo[a]pyrene	0.0370	U	0.0939	0.0370
191-24-2	Benzo[g,h,i]perylene	0.0398	U	0.0939	0.0398
207-08-9	Benzo[k]fluoranthene	0.0512	U	0.0939	0.0512
53-70-3	Dibenz(a,h)anthracene	0.0427	U	0.0939	0.0427
193-39-5	Indeno[1,2,3-cd]pyrene	0.0455	U	0.0939	0.0455
205-99-2	Benzo[b]fluoranthene	0.0739	J JP	0.0939	0.0626

10/12/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: West-01 | Lab Sample ID: 490-137889-3

Matrix: Solid | Lab File ID: 100317-027.D

Analysis Method: 8270D SIM | Date Collected: 10/02/2017 14:10

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:54

Sample wt/vol: 30.11(g) | Date Analyzed: 10/03/2017 18:06

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 10

Injection Volume: 3(uL) | Level: (low/med) Low

% Moisture: 1.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 464885 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
50-32-8	Benzo[a]pyrene	0.118	JH	0.0334	0.0132
86-73-7	Fluorene	0.0474	JQ	0.0506	0.0354
208-96-8	Acenaphthylene	0.0182	U	0.0334	0.0182
191-24-2	Benzo[g,h,i]perylene	0.132	JH	0.0334	0.0142
85-01-8	Phenanthrene	0.386		0.0334	0.0172
207-08-9	Benzo[k]fluoranthene	0.0335	JH	0.0334	0.0182
120-12-7	Anthracene	0.0132	U	0.0334	0.0132
91-57-6	2-Methylnaphthalene	0.0655		0.0334	0.0212
129-00-0	Pyrene	0.315		0.0334	0.0152
53-70-3	Dibenz(a,h)anthracene	0.0466	JH	0.0334	0.0152
91-20-3	Naphthalene	0.0223	U	0.0334	0.0223
206-44-0	Fluoranthene	0.0547		0.0334	0.0142
90-12-0	1-Methylnaphthalene	0.0182	U	0.0334	0.0182
56-55-3	Benzo[a]anthracene	0.124		0.0334	0.0121
193-39-5	Indeno[1,2,3-cd]pyrene	0.106	JH	0.0334	0.0162
218-01-9	Chrysene	0.396		0.0334	0.0121
83-32-9	Acenaphthene	0.0223	U	0.0334	0.0223
205-99-2	Benzo[b]fluoranthene	0.144	JH	0.0334	0.0223

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	19	X	29-120
4165-60-0	Nitrobenzene-d5	32		27-120
1718-51-0	Terphenyl-d14	15		13-120

10/12/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: West-02 | Lab Sample ID: 490-137889-4

Matrix: Solid | Lab File ID: 100317-028.D

Analysis Method: 8270D SIM | Date Collected: 10/02/2017 14:20

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:54

Sample wt/vol: 30.15(g) | Date Analyzed: 10/03/2017 18:26

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 10

Injection Volume: 3(uL) | Level: (low/med) Low

% Moisture: 1.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 464885 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
50-32-8	Benzo[a]pyrene	0.0731	J JN	0.0333	0.0131
86-73-7	Fluorene	0.0353	U	0.0505	0.0353
208-96-8	Acenaphthylene	0.0247	J JQP	0.0333	0.0182
191-24-2	Benzo[g,h,i]perylene	0.136	J JN	0.0333	0.0141
85-01-8	Phenanthrene	0.0318	J JQP	0.0333	0.0172
207-08-9	Benzo[k]fluoranthene	0.0395	J JN	0.0333	0.0182
120-12-7	Anthracene	0.0131	U	0.0333	0.0131
91-57-6	2-Methylnaphthalene	0.0212	U	0.0333	0.0212
129-00-0	Pyrene	0.0959		0.0333	0.0151
53-70-3	Dibenz(a,h)anthracene	0.0151	U B	0.0333	0.0151
91-20-3	Naphthalene	0.0222	U	0.0333	0.0222
206-44-0	Fluoranthene	0.0624		0.0333	0.0141
90-12-0	1-Methylnaphthalene	0.0182	U	0.0333	0.0182
56-55-3	Benzo[a]anthracene	0.0570		0.0333	0.0121
193-39-5	Indeno[1,2,3-cd]pyrene	0.0954	J JH	0.0333	0.0162
218-01-9	Chrysene	0.195		0.0333	0.0121
83-32-9	Acenaphthene	0.0222	U	0.0333	0.0222
205-99-2	Benzo[b]fluoranthene	0.139	J JN	0.0333	0.0222

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	19	X	29-120
4165-60-0	Nitrobenzene-d5	17	X	27-120
1718-51-0	Terphenyl-d14	20		13-120

10/12/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: North | Lab Sample ID: 490-137889-5

Matrix: Solid | Lab File ID: 100317-029.D

Analysis Method: 8270D SIM | Date Collected: 10/02/2017 14:30

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:54

Sample wt/vol: 30.27(g) | Date Analyzed: 10/03/2017 18:46

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 25

Injection Volume: 3(uL) | Level: (low/med) Low

% Moisture: 1.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 464885 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
50-32-8	Benzo[a]pyrene	0.0363	JQ	0.0831	0.0327
86-73-7	Fluorene	0.0881	U	0.126	0.0881
208-96-8	Acenaphthylene	0.0453	U	0.0831	0.0453
191-24-2	Benzo[g,h,i]perylene	0.0613	JQ	0.0831	0.0352
85-01-8	Phenanthrene	0.0428	U	0.0831	0.0428
207-08-9	Benzo[k]fluoranthene	0.0453	U	0.0831	0.0453
120-12-7	Anthracene	0.0327	U	0.0831	0.0327
91-57-6	2-Methylnaphthalene	0.0529	U	0.0831	0.0529
129-00-0	Pyrene	0.0474	JQ	0.0831	0.0378
53-70-3	Dibenz(a,h)anthracene	0.0378	U	0.0831	0.0378
91-20-3	Naphthalene	0.0554	U	0.0831	0.0554
206-44-0	Fluoranthene	0.0352	U	0.0831	0.0352
90-12-0	1-Methylnaphthalene	0.0453	U	0.0831	0.0453
56-55-3	Benzo[a]anthracene	0.0302	U	0.0831	0.0302
193-39-5	Indeno[1,2,3-cd]pyrene	0.0458	JQ	0.0831	0.0403
218-01-9	Chrysene	0.105		0.0831	0.0302
83-32-9	Acenaphthene	0.0554	U	0.0831	0.0554
205-99-2	Benzo[b]fluoranthene	0.0739	JQ	0.0831	0.0554

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	6	X	29-120
4165-60-0	Nitrobenzene-d5	5	X	27-120
1718-51-0	Terphenyl-d14	8	X	13-120

10/12/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: South | Lab Sample ID: 490-137889-6

Matrix: Solid | Lab File ID: 100317-030.D

Analysis Method: 8270D SIM | Date Collected: 10/02/2017 14:45

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:54

Sample wt/vol: 30.18(g) | Date Analyzed: 10/03/2017 19:06

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 25

Injection Volume: 3(uL) | Level: (low/med) Low

% Moisture: 2.2 | GPC Cleanup:(Y/N) N

Analysis Batch.No.: 464885 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
50-32-8	Benzo[a]pyrene	0.223		0.0838	0.0330
86-73-7	Fluorene	0.0889	U	0.127	0.0889
208-96-8	Acenaphthylene	0.104		0.0838	0.0457
191-24-2	Benzo[g,h,i]perylene	0.281		0.0838	0.0356
85-01-8	Phenanthrene	0.0458	JQ	0.0838	0.0432
207-08-9	Benzo[k]fluoranthene	0.131		0.0838	0.0457
120-12-7	Anthracene	0.0613	JQ	0.0838	0.0330
91-57-6	2-Methylnaphthalene	0.0533	U	0.0838	0.0533
129-00-0	Pyrene	0.218		0.0838	0.0381
53-70-3	Dibenz(a,h)anthracene	0.0620	JQ	0.0838	0.0381
91-20-3	Naphthalene	0.0559	U	0.0838	0.0559
206-44-0	Fluoranthene	0.169		0.0838	0.0356
90-12-0	1-Methylnaphthalene	0.0457	U	0.0838	0.0457
56-55-3	Benzo[a]anthracene	0.0305	U	0.0838	0.0305
193-39-5	Indeno[1,2,3-cd]pyrene	0.249		0.0838	0.0406
218-01-9	Chrysene	0.0305	U	0.0838	0.0305
83-32-9	Acenaphthene	0.0559	U	0.0838	0.0559
205-99-2	Benzo[b]fluoranthene	0.389		0.0838	0.0559

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	14	X	29-120
4165-60-0	Nitrobenzene-d5	13	X	27-120
1718-51-0	Terphenyl-d14	17		13-120

DS 10/7/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: West-01 | Lab Sample ID: 490-137889-3

Matrix: Solid | Lab File ID: 100317-031.D

Analysis Method: 8270D | Date Collected: 10/02/2017 14:10

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:58

Sample wt/vol: 30.02(g) | Date Analyzed: 10/03/2017 23:50

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 25

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 465063 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
95-94-3	1,2,4,5-Tetrachlorobenzene	4.29	U	8.45	4.29
58-90-2	2,3,4,6-Tetrachlorophenol	4.59	U	8.45	4.59
95-95-4	2,4,5-Trichlorophenol	5.53	U	8.45	5.53
88-06-2	2,4,6-Trichlorophenol	4.87	U	8.45	4.87
120-83-2	2,4-Dichlorophenol	4.44	U	8.45	4.44
105-67-9	2,4-Dimethylphenol	8.50	U	17.0	8.50
51-28-5	2,4-Dinitrophenol	6.37	U	8.45	6.37
121-14-2	2,4-Dinitrotoluene	5.28	U	8.45	5.28
606-20-2	2,6-Dinitrotoluene	5.66	U	8.45	5.66
91-58-7	2-Chloronaphthalene	5.30	U	8.45	5.30
95-57-8	2-Chlorophenol	4.85	U	8.45	4.85
91-57-6	2-Methylnaphthalene	0.660	U	1.70	0.660
88-74-4	2-Nitroaniline	5.25	U	8.45	5.25
95-48-7	2-Methylphenol	5.48	U	8.45	5.48
88-75-5	2-Nitrophenol	6.16	U	8.45	6.16
15831-10-4	3 & 4 Methylphenol	5.15	U	8.45	5.15
91-94-1	3,3'-Dichlorobenzidine	5.18	U	17.0	5.18
99-09-2	3-Nitroaniline	5.84	U	17.0	5.84
534-52-1	4,6-Dinitro-2-methylphenol	5.81	U	8.45	5.81
101-55-3	4-Bromophenyl phenyl ether	5.20	U	8.45	5.20
59-50-7	4-Chloro-3-methylphenol	4.26	U	8.45	4.26
106-47-8	4-Chloroaniline	5.76	U	8.45	5.76
7005-72-3	4-Chlorophenyl phenyl ether	5.10	U	8.45	5.10
100-01-6	4-Nitroaniline	6.04	U	17.0	6.04
100-02-7	4-Nitrophenol	9.69	U	17.0	9.69
83-32-9	Acenaphthene	0.812	U	1.70	0.812
208-96-8	Acenaphthylene	0.736	U	1.70	0.736
98-86-2	Acetophenone	4.72	U	8.45	4.72
120-12-7	Anthracene	0.736	U	1.70	0.736
1912-24-9	Atrazine	4.26	U	8.45	4.26
56-55-3	Benzo[a]anthracene	0.761	U	1.70	0.761
50-32-8	Benzo[a]pyrene	0.685	U	1.70	0.685
205-99-2	Benzo[b]fluoranthene	0.710	U	1.70	0.710
191-24-2	Benzo[g,h,i]perylene	0.837	U	1.70	0.837

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: West-01 | Lab Sample ID: 490-137889-3

Matrix: Solid | Lab File ID: 100317-031.D

Analysis Method: 8270D | Date Collected: 10/02/2017 14:10

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:58

Sample wt/vol: 30.02(g) | Date Analyzed: 10/03/2017 23:50

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 25

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 465063 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
207-08-9	Benzo[k]fluoranthene	0.685	U	1.70	0.685
100-52-7	Benzaldehyde	6.44	~~J~~ UJV	17.0	6.44
111-91-1	Bis(2-chloroethoxy)methane	5.07	U	8.45	5.07
92-52-4	Biphenyl	4.79	U	8.45	4.79
111-44-4	Bis(2-chloroethyl)ether	5.40	U	8.45	5.40
108-60-1	bis (2-chloroisopropyl) ether	5.02	U	8.45	5.02
85-68-7	Butyl benzyl phthalate	5.45	U	8.45	5.45
117-81-7	Bis(2-ethylhexyl) phthalate	5.25	U	8.45	5.25
86-74-8	Carbazole	5.25	U	8.45	5.25
105-60-2	Caprolactam	3.93	U	8.45	3.93
218-01-9	Chrysene	0.939	U	1.70	0.939
53-70-3	Dibenz(a,h)anthracene	0.812	U	1.70	0.812
132-64-9	Dibenzofuran	5.33	U	8.45	5.33
84-66-2	Diethyl phthalate	5.38	U	8.45	5.38
131-11-3	Dimethyl phthalate	5.25	U	8.45	5.25
84-74-2	Di-n-butyl phthalate	5.35	U	8.45	5.35
86-73-7	Fluorene	0.736	U	1.70	0.736
117-84-0	Di-n-octyl phthalate	4.52	U	8.45	4.52
118-74-1	Hexachlorobenzene	6.34	U	8.45	6.34
87-68-3	Hexachlorobutadiene	4.24	U	8.45	4.24
77-47-4	Hexachlorocyclopentadiene	3.81	~~U~~ UJV	8.45	3.81
67-72-1	Hexachloroethane	4.59	U	8.45	4.59
193-39-5	Indeno[1,2,3-cd]pyrene	0.736	U	1.70	0.736
78-59-1	Isophorone	4.77	U	8.45	4.77
91-20-3	Naphthalene	0.736	U	1.70	0.736
98-95-3	Nitrobenzene	5.10	U	8.45	5.10
621-64-7	N-Nitrosodi-n-propylamine	4.92	U	8.45	4.92
86-30-6	n-Nitrosodiphenylamine(as diphenylamine)	1.34	U	8.45	1.34
87-86-5	Pentachlorophenol	6.75	U	17.0	6.75
85-01-8	Phenanthrene	0.863	U	1.70	0.863
108-95-2	Phenol	5.15	U	8.45	5.15
129-00-0	Pyrene	0.863	U	1.70	0.863
206-44-0	Fluoranthene	0.863	U	1.70	0.863
120-82-1	1,2,4-Trichlorobenzene	4.59	U	8.45	4.59

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: West-01 | Lab Sample ID: 490-137889-3

Matrix: Solid | Lab File ID: 100317-031.D

Analysis Method: 8270D | Date Collected: 10/02/2017 14:10

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:58

Sample wt/vol: 30.02(g) | Date Analyzed: 10/03/2017 23:50

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 25

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 465063 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
95-50-1	1,2-Dichlorobenzene	4.82	U	8.45	4.82
541-73-1	1,3-Dichlorobenzene	4.82	U	8.45	4.82
106-46-7	1,4-Dichlorobenzene	4.97	U	8.45	4.97
92-87-5	Benzidine	5.18	~~U~~ UJ	8.45	5.18
100-51-6	Benzyl alcohol	4.92	U	8.45	4.92
62-75-9	N-Nitrosodimethylamine	0.507	U	8.45	0.507

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	84		10-120
321-60-8	2-Fluorobiphenyl (Surr)	40		29-120
367-12-4	2-Fluorophenol (Surr)	45		10-120
4165-60-0	Nitrobenzene-d5 (Surr)	41		27-120
4165-62-2	Phenol-d5 (Surr)	33		10-120
1718-51-0	Terphenyl-d14 (Surr)	43		13-120

FORM I 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: West-02 | Lab Sample ID: 490-137889-4

Matrix: Solid | Lab File ID: 100317-032.D

Analysis Method: 8270D | Date Collected: 10/02/2017 14:20

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:58

Sample wt/vol: 30.19(g) | Date Analyzed: 10/04/2017 00:09

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 25

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 465063 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
95-94-3	1,2,4,5-Tetrachlorobenzene	4.26	U	8.39	4.26
58-90-2	2,3,4,6-Tetrachlorophenol	4.56	U	8.39	4.56
95-95-4	2,4,5-Trichlorophenol	5.49	U	8.39	5.49
88-06-2	2,4,6-Trichlorophenol	4.84	U	8.39	4.84
120-83-2	2,4-Dichlorophenol	4.41	U	8.39	4.41
105-67-9	2,4-Dimethylphenol	8.44	U	16.9	8.44
51-28-5	2,4-Dinitrophenol	6.33	U	8.39	6.33
121-14-2	2,4-Dinitrotoluene	5.24	U	8.39	5.24
606-20-2	2,6-Dinitrotoluene	5.62	U	8.39	5.62
91-58-7	2-Chloronaphthalene	5.27	U	8.39	5.27
95-57-8	2-Chlorophenol	4.81	U	8.39	4.81
91-57-6	2-Methylnaphthalene	0.655	U	1.69	0.655
88-74-4	2-Nitroaniline	5.22	U	8.39	5.22
95-48-7	2-Methylphenol	5.44	U	8.39	5.44
88-75-5	2-Nitrophenol	6.12	U	8.39	6.12
15831-10-4	3 & 4 Methylphenol	5.12	U	8.39	5.12
91-94-1	3,3'-Dichlorobenzidine	5.14	U	16.9	5.14
99-09-2	3-Nitroaniline	5.80	U	16.9	5.80
534-52-1	4,6-Dinitro-2-methylphenol	5.77	U	8.39	5.77
101-55-3	4-Bromophenyl phenyl ether	5.17	U	8.39	5.17
59-50-7	4-Chloro-3-methylphenol	4.23	U	8.39	4.23
106-47-8	4-Chloroaniline	5.72	U	8.39	5.72
7005-72-3	4-Chlorophenyl phenyl ether	5.07	U	8.39	5.07
100-01-6	4-Nitroaniline	6.00	U	16.9	6.00
100-02-7	4-Nitrophenol	9.63	U	16.9	9.63
83-32-9	Acenaphthene	0.806	U	1.69	0.806
208-96-8	Acenaphthylene	0.731	U	1.69	0.731
98-86-2	Acetophenone	4.69	U	8.39	4.69
120-12-7	Anthracene	0.731	U	1.69	0.731
1912-24-9	Atrazine	4.23	U	8.39	4.23
56-55-3	Benzo[a]anthracene	0.756	U	1.69	0.756
50-32-8	Benzo[a]pyrene	0.680	U	1.69	0.680
205-99-2	Benzo[b]fluoranthene	0.706	U	1.69	0.706
191-24-2	Benzo[g,h,i]perylene	0.832	U	1.69	0.832

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: West-02 | Lab Sample ID: 490-137889-4

Matrix: Solid | Lab File ID: 100317-032.D

Analysis Method: 8270D | Date Collected: 10/02/2017 14:20

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:58

Sample wt/vol: 30.19(g) | Date Analyzed: 10/04/2017 00:09

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 25

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 465063 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
207-08-9	Benzo[k]fluoranthene	0.680	U	1.69	0.680
100-52-7	Benzaldehyde	6.40	~~U~~ UJK	16.9	6.40
111-91-1	Bis(2-chloroethoxy)methane	5.04	U	8.39	5.04
92-52-4	Biphenyl	4.76	U	8.39	4.76
111-44-4	Bis(2-chloroethyl)ether	5.37	U	8.39	5.37
108-60-1	bis (2-chloroisopropyl) ether	4.99	U	8.39	4.99
85-68-7	Butyl benzyl phthalate	5.42	U	8.39	5.42
117-81-7	Bis(2-ethylhexyl) phthalate	5.22	U	8.39	5.22
86-74-8	Carbazole	5.22	U	8.39	5.22
105-60-2	Caprolactam	3.91	U	8.39	3.91
218-01-9	Chrysene	0.932	U	1.69	0.932
53-70-3	Dibenz(a,h)anthracene	0.806	U	1.69	0.806
132-64-9	Dibenzofuran	5.29	U	8.39	5.29
84-66-2	Diethyl phthalate	5.34	U	8.39	5.34
131-11-3	Dimethyl phthalate	5.22	U	8.39	5.22
84-74-2	Di-n-butyl phthalate	5.32	U	8.39	5.32
86-73-7	Fluorene	0.731	U	1.69	0.731
117-84-0	Di-n-octyl phthalate	4.49	U	8.39	4.49
118-74-1	Hexachlorobenzene	6.30	U	8.39	6.30
87-68-3	Hexachlorobutadiene	4.21	U	8.39	4.21
77-47-4	Hexachlorocyclopentadiene	3.78	~~U~~ UJK	8.39	3.78
67-72-1	Hexachloroethane	4.56	U	8.39	4.56
193-39-5	Indeno[1,2,3-cd]pyrene	0.731	U	1.69	0.731
78-59-1	Isophorone	4.74	U	8.39	4.74
91-20-3	Naphthalene	0.731	U	1.69	0.731
98-95-3	Nitrobenzene	5.07	U	8.39	5.07
621-64-7	N-Nitrosodi-n-propylamine	4.89	U	8.39	4.89
86-30-6	n-Nitrosodiphenylamine(as diphenylamine)	1.34	U	8.39	1.34
87-86-5	Pentachlorophenol	6.70	U	16.9	6.70
85-01-8	Phenanthrene	0.857	U	1.69	0.857
108-95-2	Phenol	5.12	U	8.39	5.12
129-00-0	Pyrene	0.857	U	1.69	0.857
206-44-0	Fluoranthene	0.857	U	1.69	0.857
120-82-1	1,2,4-Trichlorobenzene	4.56	U	8.39	4.56

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: West-02 | Lab Sample ID: 490-137889-4

Matrix: Solid | Lab File ID: 100317-032.D

Analysis Method: 8270D | Date Collected: 10/02/2017 14:20

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:58

Sample wt/vol: 30.19(g) | Date Analyzed: 10/04/2017 00:09

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 25

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 465063 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
95-50-1	1,2-Dichlorobenzene	4.79	U	8.39	4.79
541-73-1	1,3-Dichlorobenzene	4.79	U	8.39	4.79
106-46-7	1,4-Dichlorobenzene	4.94	U	8.39	4.94
92-87-5	Benzidine	5.14	~~U~~ UJK	8.39	5.14
100-51-6	Benzyl alcohol	4.89	U	8.39	4.89
62-75-9	N-Nitrosodimethylamine	0.504	U	8.39	0.504

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	67		10-120
321-60-8	2-Fluorobiphenyl (Surr)	10	X	29-120
367-12-4	2-Fluorophenol (Surr)	16		10-120
4165-60-0	Nitrobenzene-d5 (Surr)	12	X	27-120
4165-62-2	Phenol-d5 (Surr)	9	X	10-120
1718-51-0	Terphenyl-d14 (Surr)	13		13-120

10/12/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: North | Lab Sample ID: 490-137889-5

Matrix: Solid | Lab File ID: 100317-033.D

Analysis Method: 8270D | Date Collected: 10/02/2017 14:30

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:58

Sample wt/vol: 30.14(g) | Date Analyzed: 10/04/2017 00:29

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 25

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 465063 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
95-94-3	1,2,4,5-Tetrachlorobenzene	4.27	U	8.42	4.27
58-90-2	2,3,4,6-Tetrachlorophenol	4.58	U	8.42	4.58
95-95-4	2,4,5-Trichlorophenol	5.51	U	8.42	5.51
88-06-2	2,4,6-Trichlorophenol	4.85	U	8.42	4.85
120-83-2	2,4-Dichlorophenol	4.42	U	8.42	4.42
105-67-9	2,4-Dimethylphenol	8.47	U	16.9	8.47
51-28-5	2,4-Dinitrophenol	6.34	U	8.42	6.34
121-14-2	2,4-Dinitrotoluene	5.26	U	8.42	5.26
606-20-2	2,6-Dinitrotoluene	5.64	U	8.42	5.64
91-58-7	2-Chloronaphthalene	5.28	U	8.42	5.28
95-57-8	2-Chlorophenol	4.83	U	8.42	4.83
91-57-6	2-Methylnaphthalene	0.657	U	1.69	0.657
88-74-4	2-Nitroaniline	5.23	U	8.42	5.23
95-48-7	2-Methylphenol	5.46	U	8.42	5.46
88-75-5	2-Nitrophenol	6.14	U	8.42	6.14
15831-10-4	3 & 4 Methylphenol	5.13	U	8.42	5.13
91-94-1	3,3'-Dichlorobenzidine	5.16	U	16.9	5.16
99-09-2	3-Nitroaniline	5.81	U	16.9	5.81
534-52-1	4,6-Dinitro-2-methylphenol	5.79	U	8.42	5.79
101-55-3	4-Bromophenyl phenyl ether	5.18	U	8.42	5.18
59-50-7	4-Chloro-3-methylphenol	4.25	U	8.42	4.25
106-47-8	4-Chloroaniline	5.74	U	8.42	5.74
7005-72-3	4-Chlorophenyl phenyl ether	5.08	U	8.42	5.08
100-01-6	4-Nitroaniline	6.02	U	16.9	6.02
100-02-7	4-Nitrophenol	9.66	U	16.9	9.66
83-32-9	Acenaphthene	0.809	U	1.69	0.809
208-96-8	Acenaphthylene	0.733	U	1.69	0.733
98-86-2	Acetophenone	4.70	U	8.42	4.70
120-12-7	Anthracene	0.733	U	1.69	0.733
1912-24-9	Atrazine	4.25	U	8.42	4.25
56-55-3	Benzo[a]anthracene	0.758	U	1.69	0.758
50-32-8	Benzo[a]pyrene	0.683	U	1.69	0.683
205-99-2	Benzo[b]fluoranthene	0.708	U	1.69	0.708
191-24-2	Benzo[g,h,i]perylene	0.834	U	1.69	0.834

10/12/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: North | Lab Sample ID: 490-137889-5

Matrix: Solid | Lab File ID: 100317-033.D

Analysis Method: 8270D | Date Collected: 10/02/2017 14:30

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:58

Sample wt/vol: 30.14(g) | Date Analyzed: 10/04/2017 00:29

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 25

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 465063 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
207-08-9	Benzo[k]fluoranthene	0.683	U	1.69	0.683
100-52-7	Benzaldehyde	6.42	U UJL	16.9	6.42
111-91-1	Bis(2-chloroethoxy)methane	5.06	U	8.42	5.06
92-52-4	Biphenyl	4.78	U	8.42	4.78
111-44-4	Bis(2-chloroethyl)ether	5.38	U	8.42	5.38
108-60-1	bis (2-chloroisopropyl) ether	5.01	U	8.42	5.01
85-68-7	Butyl benzyl phthalate	5.43	U	8.42	5.43
117-81-7	Bis(2-ethylhexyl) phthalate	5.23	U	8.42	5.23
86-74-8	Carbazole	5.23	U	8.42	5.23
105-60-2	Caprolactam	3.92	U	8.42	3.92
218-01-9	Chrysene	0.935	U	1.69	0.935
53-70-3	Dibenz(a,h)anthracene	0.809	U	1.69	0.809
132-64-9	Dibenzofuran	5.31	U	8.42	5.31
84-66-2	Diethyl phthalate	5.36	U	8.42	5.36
131-11-3	Dimethyl phthalate	5.23	U	8.42	5.23
84-74-2	Di-n-butyl phthalate	5.33	U	8.42	5.33
86-73-7	Fluorene	0.733	U	1.69	0.733
117-84-0	Di-n-octyl phthalate	4.50	U	8.42	4.50
118-74-1	Hexachlorobenzene	6.32	U	8.42	6.32
87-68-3	Hexachlorobutadiene	4.22	U	8.42	4.22
77-47-4	Hexachlorocyclopentadiene	3.79	U UJL	8.42	3.79
67-72-1	Hexachloroethane	4.58	U	8.42	4.58
193-39-5	Indeno[1,2,3-cd]pyrene	0.733	U	1.69	0.733
78-59-1	Isophorone	4.75	U	8.42	4.75
91-20-3	Naphthalene	0.733	U	1.69	0.733
98-95-3	Nitrobenzene	5.08	U	8.42	5.08
621-64-7	N-Nitrosodi-n-propylamine	4.90	U	8.42	4.90
86-30-6	n-Nitrosodiphenylamine(as diphenylamine)	1.34	U	8.42	1.34
87-86-5	Pentachlorophenol	6.72	U	16.9	6.72
85-01-8	Phenanthrene	0.859	U	1.69	0.859
108-95-2	Phenol	5.13	U	8.42	5.13
129-00-0	Pyrene	0.859	U	1.69	0.859
206-44-0	Fluoranthene	0.859	U	1.69	0.859
120-82-1	1,2,4-Trichlorobenzene	4.58	U	8.42	4.58

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: North | Lab Sample ID: 490-137889-5

Matrix: Solid | Lab File ID: 100317-033.D

Analysis Method: 8270D | Date Collected: 10/02/2017 14:30

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:58

Sample wt/vol: 30.14(g) | Date Analyzed: 10/04/2017 00:29

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 25

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 465063 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
95-50-1	1,2-Dichlorobenzene	4.80	U	8.42	4.80
541-73-1	1,3-Dichlorobenzene	4.80	U	8.42	4.80
106-46-7	1,4-Dichlorobenzene	4.95	U	8.42	4.95
92-87-5	Benzidine	5.16	~~U~~ UJV	8.42	5.16
100-51-6	Benzyl alcohol	4.90	U	8.42	4.90
62-75-9	N-Nitrosodimethylamine	0.506	U	8.42	0.506

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	58		10-120
321-60-8	2-Fluorobiphenyl (Surr)	3	X	29-120
367-12-4	2-Fluorophenol (Surr)	9	X	10-120
4165-60-0	Nitrobenzene-d5 (Surr)	3	X	27-120
4165-62-2	Phenol-d5 (Surr)	4	X	10-120
1718-51-0	Terphenyl-d14 (Surr)	5	X	13-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: South | Lab Sample ID: 490-137889-6

Matrix: Solid | Lab File ID: 100317-034.D

Analysis Method: 8270D | Date Collected: 10/02/2017 14:45

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:58

Sample wt/vol: 30.42(g) | Date Analyzed: 10/04/2017 00:48

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 200

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 465063 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
95-94-3	1,2,4,5-Tetrachlorobenzene	34.1	U	67.1	34.1
58-90-2	2,3,4,6-Tetrachlorophenol	36.5	U	67.1	36.5
95-95-4	2,4,5-Trichlorophenol	43.9	U	67.1	43.9
88-06-2	2,4,6-Trichlorophenol	38.7	U	67.1	38.7
120-83-2	2,4-Dichlorophenol	35.3	U	67.1	35.3
105-67-9	2,4-Dimethylphenol	67.5	U	135	67.5
51-28-5	2,4-Dinitrophenol	50.6	U	67.1	50.6
121-14-2	2,4-Dinitrotoluene	41.9	U	67.1	41.9
606-20-2	2,6-Dinitrotoluene	45.0	U	67.1	45.0
91-58-7	2-Chloronaphthalene	42.1	U	67.1	42.1
95-57-8	2-Chlorophenol	38.5	U	67.1	38.5
91-57-6	2-Methylnaphthalene	5.24	U	13.5	5.24
88-74-4	2-Nitroaniline	41.7	U	67.1	41.7
95-48-7	2-Methylphenol	43.5	U	67.1	43.5
88-75-5	2-Nitrophenol	49.0	U	67.1	49.0
15831-10-4	3 & 4 Methylphenol	40.9	U	67.1	40.9
91-94-1	3,3'-Dichlorobenzidine	41.1	U	135	41.1
99-09-2	3-Nitroaniline	46.4	U	135	46.4
534-52-1	4,6-Dinitro-2-methylphenol	46.2	U	67.1	46.2
101-55-3	4-Bromophenyl phenyl ether	41.3	U	67.1	41.3
59-50-7	4-Chloro-3-methylphenol	33.9	U	67.1	33.9
106-47-8	4-Chloroaniline	45.8	U	67.1	45.8
7005-72-3	4-Chlorophenyl phenyl ether	40.5	U	67.1	40.5
100-01-6	4-Nitroaniline	48.0	U	135	48.0
100-02-7	4-Nitrophenol	77.0	U	135	77.0
83-32-9	Acenaphthene	6.45	U	13.5	6.45
208-96-8	Acenaphthylene	5.85	U	13.5	5.85
98-86-2	Acetophenone	37.5	U	67.1	37.5
120-12-7	Anthracene	5.85	U	13.5	5.85
1912-24-9	Atrazine	33.9	U	67.1	33.9
56-55-3	Benzo[a]anthracene	6.05	U	13.5	6.05
50-32-8	Benzo[a]pyrene	5.44	U	13.5	5.44
205-99-2	Benzo[b]fluoranthene	5.64	U	13.5	5.64
191-24-2	Benzo[g,h,i]perylene	6.65	U	13.5	6.65

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1
SDG No.:
Client Sample ID: South | Lab Sample ID: 490-137889-6
Matrix: Solid | Lab File ID: 100317-034.D
Analysis Method: 8270D | Date Collected: 10/02/2017 14:45
Extract. Method: 3550C | Date Extracted: 10/03/2017 12:58
Sample wt/vol: 30.42(g) | Date Analyzed: 10/04/2017 00:48
Con. Extract Vol.: 1.00(mL) | Dilution Factor: 200
Injection Volume: 1(uL) | Level: (low/med) Low
% Moisture: 2.2 | GPC Cleanup:(Y/N) N
Analysis Batch No.: 465063 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
207-08-9	Benzo[k]fluoranthene	5.44	U	13.5	5.44
100-52-7	Benzaldehyde	51.2	~~U~~ LOL	135	51.2
111-91-1	Bis(2-chloroethoxy)methane	40.3	U	67.1	40.3
92-52-4	Biphenyl	38.1	U	67.1	38.1
111-44-4	Bis(2-chloroethyl)ether	42.9	U	67.1	42.9
108-60-1	bis (2-chloroisopropyl) ether	39.9	U	67.1	39.9
85-68-7	Butyl benzyl phthalate	43.3	U	67.1	43.3
117-81-7	Bis(2-ethylhexyl) phthalate	41.7	U	67.1	41.7
86-74-8	Carbazole	41.7	U	67.1	41.7
105-60-2	Caprolactam	31.2	U	67.1	31.2
218-01-9	Chrysene	7.46	U	13.5	7.46
53-70-3	Dibenz(a,h)anthracene	6.45	U	13.5	6.45
132-64-9	Dibenzofuran	42.3	U	67.1	42.3
84-66-2	Diethyl phthalate	42.7	U	67.1	42.7
131-11-3	Dimethyl phthalate	41.7	U	67.1	41.7
84-74-2	Di-n-butyl phthalate	42.5	U	67.1	42.5
86-73-7	Fluorene	5.85	U	13.5	5.85
117-84-0	Di-n-octyl phthalate	35.9	U	67.1	35.9
118-74-1	Hexachlorobenzene	50.4	U	67.1	50.4
87-68-3	Hexachlorobutadiene	33.7	U	67.1	33.7
77-47-4	Hexachlorocyclopentadiene	30.2	~~U~~ LOL	67.1	30.2
67-72-1	Hexachloroethane	36.5	U	67.1	36.5
193-39-5	Indeno[1,2,3-cd]pyrene	5.85	U	13.5	5.85
78-59-1	Isophorone	37.9	U	67.1	37.9
91-20-3	Naphthalene	5.85	U	13.5	5.85
98-95-3	Nitrobenzene	40.5	U	67.1	40.5
621-64-7	N-Nitrosodi-n-propylamine	39.1	U	67.1	39.1
86-30-6	n-Nitrosodiphenylamine(as diphenylamine)	10.7	U	67.1	10.7
87-86-5	Pentachlorophenol	53.6	U	135	53.6
85-01-8	Phenanthrene	6.85	U	13.5	6.85
108-95-2	Phenol	40.9	U	67.1	40.9
129-00-0	Pyrene	6.85	U	13.5	6.85
206-44-0	Fluoranthene	6.85	U	13.5	6.85
120-82-1	1,2,4-Trichlorobenzene	36.5	U	67.1	36.5

10/7/17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville | Job No.: 490-137889-1

SDG No.:

Client Sample ID: South | Lab Sample ID: 490-137889-6

Matrix: Solid | Lab File ID: 100317-034.D

Analysis Method: 8270D | Date Collected: 10/02/2017 14:45

Extract. Method: 3550C | Date Extracted: 10/03/2017 12:58

Sample wt/vol: 30.42(g) | Date Analyzed: 10/04/2017 00:48

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 200

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 465063 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
95-50-1	1,2-Dichlorobenzene	38.3	U	67.1	38.3
541-73-1	1,3-Dichlorobenzene	38.3	U	67.1	38.3
106-46-7	1,4-Dichlorobenzene	39.5	U	67.1	39.5
92-87-5	Benzidine	41.1	~~U~~ UJX	67.1	41.1
100-51-6	Benzyl alcohol	39.1	U	67.1	39.1
62-75-9	N-Nitrosodimethylamine	4.03	U	67.1	4.03

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	478	X	10-120
321-60-8	2-Fluorobiphenyl (Surr)	49		29-120
367-12-4	2-Fluorophenol (Surr)	106		10-120
4165-60-0	Nitrobenzene-d5 (Surr)	65		27-120
4165-62-2	Phenol-d5 (Surr)	42		10-120
1718-51-0	Terphenyl-d14 (Surr)	71		13-120

DATA QUALITY ASSURANCE REVIEW

SITE NAME Wilcox Oil

WORK ORDER NUMBER 20406.012.001.1065.01 TDD NUMBER 0001/17-065

PROJECT NUMBER _____ SDG NUMBER 490-137586-1

Weston Solutions, Inc. (WESTON®) has completed a QA review for Work Order Number 20406.012.001.1065.01; SDG No. 490-137586-1; Wilcox Oil. Two samples were analyzed for Target Analyte List (TAL) Metals and mercury by TestAmerica Laboratories, Inc. Sample numbers are listed below.

SAMPLE NUMBERS

Top Soil	Backfill	

This data package was validated to determine if Quality Control (QC) specifications were achieved, following *USEPA National Functional Guidelines for Organic Superfund Methods Data Review* (January, 2017), *USEPA National Functional Guidelines for Inorganic Superfund Data Review* (January, 2017), *USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review* (April, 2016), *Quality Assurance/Quality Control Guidance for Removal Activities* (September, 2011), and/or the Regional Protocol for Holding Times, Blanks, and VOA Preservation (April 13, 1989). Specific data qualifications are listed in the following discussion.

REVIEWER Gloria J. Switalski DATE October 6, 2017

Data Qualifiers

Data Qualifier Definitions were supplied by the Office of Solid Waste and Emergency Response (September 1989) and are included in the Functional Guidelines. Data qualifiers may be combined (UJ, QJ) with the corresponding combination of meanings. Additional qualifiers may be added to provide additional, more specific information (JL, UB, QJK), modifying the meaning of the primary qualifier. Addition qualifiers utilized by WESTON are H, L, K, B, and Q.

U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation or detection limit, which has been adjusted for sample weight/sample volume, extraction volume, percent solids, sample dilution or other analysis specific parameters.

An additional qualifier, "B", may be appended to indicate that while the analyte was detected in the sample, the presence of the analyte may be attributable to blank contamination and the analyte is therefore considered undetected with the sample detection or quantitation limit for the analyte being elevated.

J - The analyte was analyzed for, but the associated numerical value may not be consistent with the amount actually present in the environmental sample or may not be consistent with the sample detection or quantitation limit. The value is an estimated quantity. The data should be seriously considered for decision-making and are usable for many purposes.

An additional qualifier will be appended to the "J" qualifier that indicates the bias in the reported results:

L Low bias

H High bias

K Unknown bias

Q The reported concentration is less than the sample quantitation limit for the specific analyte in the sample.

The L and H qualifier will only be employed when a single qualification is required. When more than one quality control parameter affects the analytical result and a conflict results in assigning a bias, the result will be flagged JK.

R - Quality Control indicates that data are unusable for all purposes. The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary for verification to confirm or deny the presence of an analyte.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

METALS DATA EVALUATION

1. Analytical Method:

Samples were prepared and analyzed for ICP metals using the procedures specified in **SW-846 Method 6020A.** Samples were prepared and analyzed for mercury using the procedures specified in **SW-846 Methods 7471B.**

2. Holding Times:

The samples were received above the recommended ≤6°C NFG limit. Professional judgment was used to not qualify the sample results. All samples met established holding time criteria of 180 days for ICP metals and 28 days for mercury. No qualifications are placed on the data.

3. Initial Calibration:

ICP initial calibration included a blank and three standards and initial calibration verification results fell within the control limits of 90% to 110% of the true values and mercury initial calibration included a blank and six standards and initial calibration verification results fell within the control limits of 85% to 115% values. No qualifications are placed on the data.

4. Continuing Calibration:

All ICP results fell within the control limits of 90% to 110% of the true values and all mercury results fell within the control limits of 85% to 115% of the true values. No qualifications are placed on the data.

5. CRDL Standard:

All results for the CRDL standard were within the control limits of 70% to 130% of the true values or the sample results were greater than the CRDL action level. No qualifications are placed on the data.

6. Blanks:

A. Laboratory Blanks:

A method blank was prepared at the required frequency of every time samples were prepared/digested for each matrix or every 20 samples whichever is greater. A target analyte was detected in the method blank. Details are noted below:

INSTRUMENT ID DATE/TIME	ANALYTE/BLANK ID	CONCENTRATION	AFFECTED SAMPLES
ICPMS3 9/29/17 @16:41	Aluminum/MB 490-463964/1-A	7.286 mg/kg	All Solids, remove laboratory “B” flag

MB=Method Blank

B. Field Blanks:

No field or rinsate blank samples were submitted with this analytical package. No qualifications are placed on the data.

7. ICP Interference Check:

All results for the interference check sample were within the control limits of 80% to 120% of the true values. No qualifications are placed on the data.

8. Laboratory Control Sample (LCS):

The recoveries for the LCS were within the control limits provided. No qualifications are placed on the data.

9. Duplicate Sample Analysis:

A. Laboratory Duplicate Analysis:

No sample from this analytical package underwent matrix spike/matrix spike duplicate (MS/MSD) analysis. No qualifications are placed on the data.

B. Field Duplicate Analysis:

No field duplicate samples were submitted with this analytical package. No qualifications are placed on the data.

10. Spiked Sample Analysis:

No sample from this analytical package underwent MS/MSD analysis. No qualifications are placed on the data.

11. ICP Serial Dilution:

No sample from this analytical package underwent serial dilution. No qualifications are placed on the data.

12. Sample Quantitation and Reporting Limits:

Concentrations of all reported analytes were correctly calculated.

Reported concentrations less than the reporting limit (RL) qualified "J" by the laboratory are qualified "JQ" to indicate that the result is less than the RL but greater than the method detection limit (MDL).

13. Laboratory Contact

No laboratory contact was required.

14. Overall Assessment:

Reported concentrations less than the RL qualified "J" by the laboratory are qualified "JQ" to indicate that the result is less than the RL but greater than the MDL.

The analytical data is acceptable for use with the qualifications listed above.

DATA QUALITY ASSURANCE REVIEW

SITE NAME Wilcox Oil

WORK ORDER NUMBER 20406.012.001.1065.01 TDD NUMBER 0001/17-065

PROJECT NUMBER _____ SDG NUMBER 490-137586-1

Weston Solutions, Inc. (WESTON®) has completed a QA review for Work Order Number 20406.012.001.1065.01; SDG No. 490-137586-1; Wilcox Oil. Two samples were analyzed for Polynuclear Aromatic Hydrocarbons (PAHs) by TestAmerica Laboratories, Inc. Sample numbers are listed below.

SAMPLE NUMBERS

Top Soil	Backfill	

This data package was validated to determine if Quality Control (QC) specifications were achieved, following *USEPA National Functional Guidelines for Organic Superfund Methods Data Review* (January, 2017), *USEPA National Functional Guidelines for Inorganic Superfund Data Review* (January, 2017), *USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review* (April, 2016), *Quality Assurance/Quality Control Guidance for Removal Activities* (September, 2011), and/or the Regional Protocol for Holding Times, Blanks, and VOA Preservation (April 13, 1989). Specific data qualifications are listed in the following discussion.

REVIEWER Gloria J. Switalski DATE October 6, 2017

Data Qualifiers

Data Qualifier Definitions were supplied by the Office of Solid Waste and Emergency Response (September 1989) and are included in the Functional Guidelines. Data qualifiers may be combined (UJ, QJ) with the corresponding combination of meanings. Additional qualifiers may be added to provide additional, more specific information (JL, UB, QJK), modifying the meaning of the primary qualifier. Addition qualifiers utilized by WESTON are H, L, K, B, and Q.

U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation or detection limit, which has been adjusted for sample weight/sample volume, extraction volume, percent solids, sample dilution or other analysis specific parameters.

An additional qualifier, "B", may be appended to indicate that while the analyte was detected in the sample, the presence of the analyte may be attributable to blank contamination and the analyte is therefore considered undetected with the sample detection or quantitation limit for the analyte being elevated.

J - The analyte was analyzed for, but the associated numerical value may not be consistent with the amount actually present in the environmental sample or may not be consistent with the sample detection or quantitation limit. The value is an estimated quantity. The data should be seriously considered for decision-making and are usable for many purposes.

An additional qualifier will be appended to the "J" qualifier that indicates the bias in the reported results:

L Low bias

H High bias

K Unknown bias

Q The reported concentration is less than the sample quantitation limit for the specific analyte in the sample.

The L and H qualifier will only be employed when a single qualification is required. When more than one quality control parameter affects the analytical result and a conflict results in assigning a bias, the result will be flagged JK.

R - Quality Control indicates that data are unusable for all purposes. The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary for verification to confirm or deny the presence of an analyte.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

PAH FRACTION EVALUATION

1. Analytical Method:

Samples were prepared and analyzed using the procedures specified in **SW-846 Method 8270D Selective Ion Monitoring (SIM).**

2. Holding Time:

The samples were received within the recommended ≤6°C NFG limit. All samples were extracted within the required holding time of less than 7 days for waters and less than 14 days for solids/wastes after collection. Analysis of the samples was conducted within 40 days of extraction. No qualifications are placed on the data.

3. Tuning/Performance:

DFTPP tuning of the mass spectrometer(s) is not required when performing SIM. No qualifications are placed on the data.

4. Initial Calibration:

All individual relative response factors (RRFs) and average RRFs for the initial calibration were greater than the compound dependent (see Table 34 of National Functional Guidelines) control limits. All percent relative standard deviations (%RSDs) were less than the compound dependent (see Table 34 of National Functional Guidelines) control limits or the correlation coefficient was > 0.990. No qualifications are placed on the data.

5. Continuing Calibration:

All individual RRFs for the initial calibration verification (ICV) and continuing calibration (CC) standards were greater than the compound dependent (see Table 34 of National Functional Guidelines) control limits. All percent differences (%Ds) were less than the compound dependent (see Table 34 of National Functional Guidelines) control limits. No qualifications are placed on the data.

6. Blanks:

A. Laboratory Blanks:

A method blank was prepared at the required frequency of every time samples were extracted for each matrix and concentration or every 20 samples whichever is greater. No target analytes were detected in the method blank at concentrations that warrant blank action. No qualifications are placed on the data.

B. Field Blanks:

No field or rinsate blank samples were submitted with this analytical package. No qualifications are placed on the data.

7. System Monitoring Compounds (SMC):

All recoveries of the system monitoring compounds (surrogates) were within the control limits provided. No qualifications are placed on the data.

8. Duplicates:

A. Laboratory Duplicate Analysis:

Sample Backfill underwent MS/MSD analysis for the solid matrix. The relative percent difference (RPD) values for the duplicate sample analysis are less than 20% for aqueous samples and less than 35% for solid samples for concentrations greater than five times the reporting limit (RL). For sample concentrations less than five times the RL, the QC criteria are within ± the RL for the aqueous matrix or ± two times the RL for the solid matrix. All QC criteria were met. No qualifications are applied to the data.

B. Field Duplicate Analysis:

No field duplicate samples were submitted with this analytical package. No qualifications are placed on the data.

9. Matrix Spike/Matrix Spike Duplicate (MS/MSD):

Sample Backfill underwent MS/MSD analysis for the solid matrix. Recoveries of all spiked analytes were within the control limits provided in both the matrix spike and matrix spike duplicate. No qualifications are applied to the data.

10. Internal Standards:

Areas of the six internal standards were within the control limits of a factor of 2 (-50% to +100%) and retention times were within 30 seconds from the associated 12 hour calibration standard. No qualifications are placed on the data.

11. Laboratory Control Sample (LCS):

The laboratory analyzed an LCS and recoveries were within the control limits provided. No qualifications are placed on the data.

12. Target Compound Identification:

All target compounds reported by the laboratory met identification criteria of relative retention times (RRT) within 0.06 RRT units of the 12 hour standard and that all ions present in the standard mass spectrum were present in the sample mass spectrum and the abundance of these ions agreed within $\pm$ 20% of the standard. No qualifications are placed on the data.

13. Target Compound Quantitation and Reporting Limits:

Concentrations of all reported compounds were correctly calculated.

Reported concentrations less than the reporting limit (RL) qualified “J” by the laboratory are qualified “JQ” to indicate that the result is less than the RL but greater than the method detection limit (MDL).

14. Laboratory Contact:

No laboratory contact was required.

15. Overall Assessment

Reported concentrations less than the RL qualified “J” by the laboratory are qualified “JQ” to indicate that the result is less than the RL but greater than the MDL.

The analytical data is acceptable for use with the qualifications listed above.

DATA QUALITY ASSURANCE REVIEW

SITE NAME Wilcox Oil

WORK ORDER NUMBER 20406.012.001.1065.01 TDD NUMBER 0001/17-065

PROJECT NUMBER _____ SDG NUMBER 490-137671-1

Weston Solutions, Inc. (WESTON®) has completed a QA review for Work Order Number 20406.012.001.1065.01; SDG No. 490-137671-1; Wilcox Oil. One sample was analyzed for Polynuclear Aromatic Hydrocarbons (PAHs) by TestAmerica Laboratories, Inc. Sample numbers are listed below.

SAMPLE NUMBERS

WOR006-48-170928-56		

This data package was validated to determine if Quality Control (QC) specifications were achieved, following *USEPA National Functional Guidelines for Organic Superfund Methods Data Review* (January, 2017), *USEPA National Functional Guidelines for Inorganic Superfund Data Review* (January, 2017), *USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review* (April, 2016), *Quality Assurance/Quality Control Guidance for Removal Activities* (September, 2011), and/or the Regional Protocol for Holding Times, Blanks, and VOA Preservation (April 13, 1989). Specific data qualifications are listed in the following discussion.

REVIEWER Gloria J. Switalski DATE October 6, 2017

Data Qualifiers

Data Qualifier Definitions were supplied by the Office of Solid Waste and Emergency Response (September 1989) and are included in the Functional Guidelines. Data qualifiers may be combined (UJ, QJ) with the corresponding combination of meanings. Additional qualifiers may be added to provide additional, more specific information (JL, UB, QJK), modifying the meaning of the primary qualifier. Addition qualifiers utilized by WESTON are H, L, K, B, and Q.

U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation or detection limit, which has been adjusted for sample weight/sample volume, extraction volume, percent solids, sample dilution or other analysis specific parameters.

An additional qualifier, "B", may be appended to indicate that while the analyte was detected in the sample, the presence of the analyte may be attributable to blank contamination and the analyte is therefore considered undetected with the sample detection or quantitation limit for the analyte being elevated.

J - The analyte was analyzed for, but the associated numerical value may not be consistent with the amount actually present in the environmental sample or may not be consistent with the sample detection or quantitation limit. The value is an estimated quantity. The data should be seriously considered for decision-making and are usable for many purposes.

An additional qualifier will be appended to the "J" qualifier that indicates the bias in the reported results:

L Low bias

H High bias

K Unknown bias

Q The reported concentration is less than the sample quantitation limit for the specific analyte in the sample.

The L and H qualifier will only be employed when a single qualification is required. When more than one quality control parameter affects the analytical result and a conflict results in assigning a bias, the result will be flagged JK.

R - Quality Control indicates that data are unusable for all purposes. The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary for verification to confirm or deny the presence of an analyte.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

PAH FRACTION EVALUATION

1. Analytical Method:

Samples were prepared and analyzed using the procedures specified in **SW-846 Method 8270D Selective Ion Monitoring (SIM).**

2. Holding Time:

The samples were received within the recommended ≤6°C NFG limit. All samples were extracted within the required holding time of less than 7 days for waters and less than 14 days for solids/wastes after collection. Analysis of the samples was conducted within 40 days of extraction. No qualifications are placed on the data.

3. Tuning/Performance:

DFTPP tuning of the mass spectrometer(s) is not required when performing SIM. No qualifications are placed on the data.

4. Initial Calibration:

All individual relative response factors (RRFs) and average RRFs for the initial calibration were greater than the compound dependent (see Table 34 of National Functional Guidelines) control limits. All percent relative standard deviations (%RSDs) were less than the compound dependent (see Table 34 of National Functional Guidelines) control limits or the correlation coefficient was > 0.990. No qualifications are placed on the data.

5. Continuing Calibration:

All individual RRFs for the initial calibration verification (ICV) and continuing calibration (CC) standards were greater than the compound dependent (see Table 34 of National Functional Guidelines) control limits. All percent differences (%Ds) were less than the compound dependent (see Table 34 of National Functional Guidelines) control limits. No qualifications are placed on the data.

6. Blanks:

A. Laboratory Blanks:

A method blank was prepared at the required frequency of every time samples were extracted for each matrix and concentration or every 20 samples whichever is greater. No target analytes were detected in the method blank at concentrations that warrant blank action. No qualifications are placed on the data.

B. Field Blanks:

No field or rinsate blank samples were submitted with this analytical package. No qualifications are placed on the data.

7. System Monitoring Compounds (SMC):

All recoveries of the system monitoring compounds (surrogates) were within the control limits with the following exceptions:

SAMPLE ID	SURROGATE	%R	QC LIMITS	QUALIFIER FLAG
WOR006-48-170928-56	2-Fluorobiphenyl Nitrobenzene-d5	121 129	29-120% 27-120%	JH*, detected compounds
WOR006-48-170928-56MS	2-Fluorobiphenyl Terphenyl-d14	145 122	29-120% 27-120%	None, QC sample

*2-Methylnaphthalene and 1-methylnaphthalene were ultimately qualified JK due to extremely low (<10%) or no (0%) MS/MSD recoveries as noted below.

8. Duplicates:

A. Laboratory Duplicate Analysis:

Sample WOR006-48-170928-56 underwent MS/MSD analysis for the solid matrix. The relative percent difference (RPD) values for the duplicate sample analysis are less than 20% for aqueous samples and less than 35% for solid samples for concentrations greater than five times the reporting limit (RL). For sample concentrations less than five times the RL, the QC criteria are within ± the RL for the aqueous matrix or ± two times the RL for the solid matrix. All QC criteria were met. No qualifications are applied to the data.

B. Field Duplicate Analysis:

No field duplicate samples were submitted with this analytical package. No qualifications are placed on the data.

9. Matrix Spike/Matrix Spike Duplicate (MS/MSD):

Sample WOR006-48-170928-56 underwent MS/MSD analysis for the solid matrix. Recoveries of the following spiked analytes were outside of the control limits provided:

SAMPLE ID	ANALYTE	%R/%R	CONTROL LIMITS	QUALIFIER FLAG
WOR006-48-170928-56	2-Methylnaphthalene 1-Methylnaphthalene	-26/-46 0.5/8	13-120% 10-120%	JL* JL*

*Ultimately qualified JK due to high surrogate recoveries as noted above.

10. Internal Standards:

Areas of the six internal standards were within the control limits of a factor of 2 (-50% to +100%) and retention times were within 30 seconds from the associated 12 hour calibration standard. No qualifications are placed on the data.

11. Laboratory Control Sample (LCS):

The laboratory analyzed an LCS and recoveries were within the control limits provided. No qualifications are placed on the data.

12. Target Compound Identification:

All target compounds reported by the laboratory met identification criteria of relative retention times (RRT) within 0.06 RRT units of the 12 hour standard and that all ions present in the standard mass spectrum were

present in the sample mass spectrum and the abundance of these ions agreed within ± 20% of the standard. No qualifications are placed on the data.

13. Target Compound Quantitation and Reporting Limits:

Concentrations of all reported compounds were correctly calculated.

Reported concentrations less than the reporting limit (RL) qualified "J" by the laboratory are qualified "JQ" to indicate that the result is less than the RL but greater than the method detection limit (MDL).

The only sample was analyzed at a 5-fold dilution due to the high concentration of target analytes and/or due to the sample matrix. RL in this sample are elevated as a result of the dilution performed.

14. Laboratory Contact:

The laboratory was contacted on October 5, 2017 regarding an incorrect field ID. An acceptable response was received on October 5, 2017.

15. Overall Assessment

Detected compound results in the only sample were estimated due to high surrogate recoveries.

Detected 2-methylnaphthalene and 1-methylnaphthalene results in the only sample were estimated due to no or extremely low (<10%) MS/MSD recoveries.

Reported concentrations less than the RL qualified "J" by the laboratory are qualified "JQ" to indicate that the result is less than the RL but greater than the MDL.

The analytical data is acceptable for use with the qualifications listed above.

DATA QUALITY ASSURANCE REVIEW

SITE NAME Wilcox Oil

WORK ORDER NUMBER 20406.012.001.1065.01 TDD NUMBER 0001/17-065

PROJECT NUMBER _____ SDG NUMBER 490-137762-1

Weston Solutions, Inc. (WESTON®) has completed a QA review for Work Order Number 20406.012.001.1065.01; SDG No. 490-137762-1; Wilcox Oil. Two samples were analyzed for Polynuclear Aromatic Hydrocarbons (PAHs) by TestAmerica Laboratories, Inc. Sample numbers are listed below.

SAMPLE NUMBERS

WOR006-010-48-170929-56	WOR006-010-48-170929-57	

This data package was validated to determine if Quality Control (QC) specifications were achieved, following *USEPA National Functional Guidelines for Organic Superfund Methods Data Review* (January, 2017), *USEPA National Functional Guidelines for Inorganic Superfund Data Review* (January, 2017), *USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review* (April, 2016), *Quality Assurance/Quality Control Guidance for Removal Activities* (September, 2011), and/or the Regional Protocol for Holding Times, Blanks, and VOA Preservation (April 13, 1989). Specific data qualifications are listed in the following discussion.

REVIEWER Gloria J. Switalski DATE October 10, 2017

Data Qualifiers

Data Qualifier Definitions were supplied by the Office of Solid Waste and Emergency Response (September 1989) and are included in the Functional Guidelines. Data qualifiers may be combined (UJ, QJ) with the corresponding combination of meanings. Additional qualifiers may be added to provide additional, more specific information (JL, UB, QJK), modifying the meaning of the primary qualifier. Addition qualifiers utilized by WESTON are H, L, K, B, and Q.

U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation or detection limit, which has been adjusted for sample weight/sample volume, extraction volume, percent solids, sample dilution or other analysis specific parameters.

An additional qualifier, "B", may be appended to indicate that while the analyte was detected in the sample, the presence of the analyte may be attributable to blank contamination and the analyte is therefore considered undetected with the sample detection or quantitation limit for the analyte being elevated.

J - The analyte was analyzed for, but the associated numerical value may not be consistent with the amount actually present in the environmental sample or may not be consistent with the sample detection or quantitation limit. The value is an estimated quantity. The data should be seriously considered for decision-making and are usable for many purposes.

An additional qualifier will be appended to the "J" qualifier that indicates the bias in the reported results:

L Low bias

H High bias

K Unknown bias

Q The reported concentration is less than the sample quantitation limit for the specific analyte in the sample.

The L and H qualifier will only be employed when a single qualification is required. When more than one quality control parameter affects the analytical result and a conflict results in assigning a bias, the result will be flagged JK.

R - Quality Control indicates that data are unusable for all purposes. The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary for verification to confirm or deny the presence of an analyte.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

PAH FRACTION EVALUATION

1. Analytical Method:

Samples were prepared and analyzed using the procedures specified in **SW-846 Method 8270D Selective Ion Monitoring (SIM).**

2. Holding Time:

The samples were received within the recommended ≤6°C NFG limit. All samples were extracted within the required holding time of less than 7 days for waters and less than 14 days for solids/wastes after collection. Analysis of the samples was conducted within 40 days of extraction. No qualifications are placed on the data.

3. Tuning/Performance:

DFTPP tuning of the mass spectrometer(s) is not required when performing SIM. No qualifications are placed on the data.

4. Initial Calibration:

All individual relative response factors (RRFs) and average RRFs for the initial calibration were greater than the compound dependent (see Table 34 of National Functional Guidelines) control limits. All percent relative standard deviations (%RSDs) were less than the compound dependent (see Table 34 of National Functional Guidelines) control limits or the correlation coefficient was > 0.990. No qualifications are placed on the data.

5. Continuing Calibration:

All individual RRFs for the initial calibration verification (ICV) and continuing calibration (CC) standards were greater than the compound dependent (see Table 34 of National Functional Guidelines) control limits. All percent differences (%Ds) were less than the compound dependent (see Table 34 of National Functional Guidelines) control limits. No qualifications are placed on the data.

6. Blanks:

A. Laboratory Blanks:

A method blank was prepared at the required frequency of every time samples were extracted for each matrix and concentration or every 20 samples whichever is greater. No target analytes were detected in the method blank at concentrations that warrant blank action. No qualifications are placed on the data.

B. Field Blanks:

No field or rinsate blank samples were submitted with this analytical package. No qualifications are placed on the data.

7. System Monitoring Compounds (SMC):

All recoveries of the system monitoring compounds (surrogates) were within the control limits with the following exceptions:

SAMPLE ID	SURROGATE	%R	QC LIMITS	QUALIFIER FLAG
WOR006-010-48-170929-56	Nitrobenzene-d5	260	27-120%	None, only 1 out
WOR006-010-48-170929-56MS	Nitrobenzene-d5	215	27-120%	None, only 1 out & QC sample
WOR006-010-48-170929-56MSD	Nitrobenzene-d5	357	27-120%	None, only 1 out & QC sample
WOR006-010-48-170929-57	Nitrobenzene-d5	607	27-120%	None, only 1 out

8. Duplicates:

A. Laboratory Duplicate Analysis:

Sample WOR006-010-48-170929-56 underwent MS/MSD analysis for the solid matrix. The relative percent difference (RPD) values for the duplicate sample analysis are less than 20% for aqueous samples and less than 35% for solid samples for concentrations greater than five times the reporting limit (RL). For sample concentrations less than five times the RL, the QC criteria are within ± the RL for the aqueous matrix or ± two times the RL for the solid matrix. QC criteria were met for the following compound:

SAMPLE ID/MATRIX	ANALYTE	RPD	AFFECTED SAMPLE	QUALIFIER FLAG
WOR006-010-48-170929-56/Solid	Naphthalene	50	WOR006-010-48-170929-56	None, sample ND
	2-Methylnaphthalene	49		JK
	1-Methylnaphthalene	45		JK

B. Field Duplicate Analysis:

No field duplicate samples were submitted with this analytical package. No qualifications are placed on the data.

9. Matrix Spike/Matrix Spike Duplicate (MS/MSD):

Sample WOR006-010-48-170929-56 underwent MS/MSD analysis for the solid matrix. Recoveries of the following spiked analytes were outside of the control limits provided:

SAMPLE ID	ANALYTE	%R/%R	CONTROL LIMITS	QUALIFIER FLAG
WOR006-010-48-170929-56	Acenaphthene	OK/149	19-120%	JH
	Fluorene	180/221	20-120%	None, sample ND
	Indeno(1,2,3-cd)pyrene	124/145	22-121%	None, sample ND
	Naphthalene	OK/203	10-120%	None, sample ND
	Phenanthrene	OK/133	21-122%	JH

10. Internal Standards:

Areas of the six internal standards were within the control limits of a factor of 2 (-50% to +100%) and retention times were within 30 seconds from the associated 12 hour calibration standard with the following exceptions:

SAMPLE ID	INTERNAL STANDARD	% AREA OF 12 HR STD	QUALIFIER FLAG *
WOR006-010-48-170929-56MSD	Dichlorobenzene-d4	48.6%	None, QC sample
	Perylene-d12	48.5%	

SAMPLE ID	INTERNAL STANDARD	% AREA OF 12 HR STD	QUALIFIER FLAG *
WOR006-010-48-170929-57	Perylene-d12	46.5%	JH/UJ

*Impacted compounds include benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; dibenz(a,h)anthracene; and indeno(1,2,3-cd)pyrene.

11. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD):

The laboratory analyzed an LCS/LCSD and recoveries and RPD were within the control limits provided. No qualifications are placed on the data.

12. Target Compound Identification:

All target compounds reported by the laboratory met identification criteria of relative retention times (RRT) within 0.06 RRT units of the 12 hour standard and that all ions present in the standard mass spectrum were present in the sample mass spectrum and the abundance of these ions agreed within $\pm$ 20% of the standard. No qualifications are placed on the data.

13. Target Compound Quantitation and Reporting Limits:

Concentrations of all reported compounds were correctly calculated.

Reported concentrations less than the reporting limit (RL) qualified "J" by the laboratory are qualified "JQ" to indicate that the result is less than the RL but greater than the method detection limit (MDL).

Both samples were analyzed at a 5-fold dilution due to the high concentration of target analytes and/or due to the sample matrix. RL in these samples are elevated as a result of the dilutions performed.

14. Laboratory Contact:

No laboratory contact was required.

15. Overall Assessment

2-Methylnaphthalene and 1-methylnaphthalene results in one sample were estimated due to high MSD RPDs.

Acenaphthene and phenanthrene results in one sample were estimated due to high MS/MSD recoveries.

Benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; dibenz(a,h)anthracene; and indeno(1,2,3-cd)pyrene results in one sample were estimated due to low internal standard area recovery.

Reported concentrations less than the RL qualified "J" by the laboratory are qualified "JQ" to indicate that the result is less than the RL but greater than the MDL.

The analytical data is acceptable for use with the qualifications listed above.

DATA QUALITY ASSURANCE REVIEW

SITE NAME Wilcox Oil

WORK ORDER NUMBER 20406.012.001.1065.01 TDD NUMBER 0001/17-065

PROJECT NUMBER _____ SDG NUMBER 490-137889-1

Weston Solutions, Inc. (WESTON®) has completed a QA review for Work Order Number 20406.012.001.1065.01; SDG No. 490-137889-1; Wilcox Oil. Four samples were analyzed for Target Analyte List (TAL) Metals and mercury by TestAmerica Laboratories, Inc. Sample numbers are listed below.

SAMPLE NUMBERS

West-01	West-02	North
South		

This data package was validated to determine if Quality Control (QC) specifications were achieved, following *USEPA National Functional Guidelines for Organic Superfund Methods Data Review* (January, 2017), *USEPA National Functional Guidelines for Inorganic Superfund Data Review* (January, 2017), *USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review* (April, 2016), *Quality Assurance/Quality Control Guidance for Removal Activities* (September, 2011), and/or the Regional Protocol for Holding Times, Blanks, and VOA Preservation (April 13, 1989). Specific data qualifications are listed in the following discussion.

REVIEWER Gloria J. Switalski DATE October 23, 2017

Data Qualifiers

Data Qualifier Definitions were supplied by the Office of Solid Waste and Emergency Response (September 1989) and are included in the Functional Guidelines. Data qualifiers may be combined (UJ, QJ) with the corresponding combination of meanings. Additional qualifiers may be added to provide additional, more specific information (JL, UB, QJK), modifying the meaning of the primary qualifier. Addition qualifiers utilized by WESTON are H, L, K, B, and Q.

U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation or detection limit, which has been adjusted for sample weight/sample volume, extraction volume, percent solids, sample dilution or other analysis specific parameters.

An additional qualifier, "B", may be appended to indicate that while the analyte was detected in the sample, the presence of the analyte may be attributable to blank contamination and the analyte is therefore considered undetected with the sample detection or quantitation limit for the analyte being elevated.

J - The analyte was analyzed for, but the associated numerical value may not be consistent with the amount actually present in the environmental sample or may not be consistent with the sample detection or quantitation limit. The value is an estimated quantity. The data should be seriously considered for decision-making and are usable for many purposes.

An additional qualifier will be appended to the "J" qualifier that indicates the bias in the reported results:

L Low bias

H High bias

K Unknown bias

Q The reported concentration is less than the sample quantitation limit for the specific analyte in the sample.

The L and H qualifier will only be employed when a single qualification is required. When more than one quality control parameter affects the analytical result and a conflict results in assigning a bias, the result will be flagged JK.

R - Quality Control indicates that data are unusable for all purposes. The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary for verification to confirm or deny the presence of an analyte.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

METALS DATA EVALUATION

1. Analytical Method:

Samples were prepared and analyzed for ICP metals using the procedures specified in **SW-846 Method 6020A.** Samples were prepared and analyzed for mercury using the procedures specified in **SW-846 Methods 7471B.**

2. Holding Times:

The samples were received above the recommended ≤6°C NFG limit. Professional judgment was used to not qualify the sample results. All samples met established holding time criteria of 180 days for ICP metals and 28 days for mercury. No qualifications are placed on the data.

3. Initial Calibration:

ICP initial calibration included a blank and three standards and initial calibration verification results fell within the control limits of 90% to 110% of the true values and mercury initial calibration included a blank and six standards and initial calibration verification results fell within the control limits of 85% to 115% values. No qualifications are placed on the data.

4. Continuing Calibration:

All ICP results fell within the control limits of 90% to 110% of the true values and all mercury results fell within the control limits of 85% to 115% of the true values. No qualifications are placed on the data.

5. CRDL Standard:

All results for the CRDL standard were within the control limits of 70% to 130% of the true values or the sample results were greater than the CRDL action level. No qualifications are placed on the data.

6. Blanks:

A. Laboratory Blanks:

A method blank was prepared at the required frequency of every time samples were prepared/digested for each matrix or every 20 samples whichever is greater. Target analytes were detected in the method and calibration blanks at concentrations that warrant blank action. Sample concentrations less than five times the highest analyte concentration reported in associated blanks are flagged UB (not detected, detection limit raised due to possible blank contamination). Details are noted below:

INSTRUMENT ID DATE/TIME	ANALYTE/BLANK ID	CONCENTRATION	AFFECTED SAMPLES
ICPMS3 10/6/17 @11:05	Iron/MB 490-465078/1-A	2.856 mg/kg	All Solids, remove laboratory "B" flag
ICPMS2 10/4/2017 @12:40	Antimony/CCB 490-465475/20	0.0008651 mg/L	UB, All Solids

MB=Method Blank; CCB=Continuing Calibration Blank

B. Field Blanks:

No field or rinsate blank samples were submitted with this analytical package. No qualifications are placed on the data.

7. ICP Interference Check:

All results for the interference check sample were within the control limits of 80% to 120% of the true values. No qualifications are placed on the data.

8. Laboratory Control Sample (LCS):

The recoveries for the LCS were within the control limits provided. No qualifications are placed on the data.

9. Duplicate Sample Analysis:

A. Laboratory Duplicate Analysis:

No sample from this analytical package underwent matrix spike/matrix spike duplicate (MS/MSD) analysis. No qualifications are placed on the data.

B. Field Duplicate Analysis:

No field duplicate samples were submitted with this analytical package. No qualifications are placed on the data.

10. Spiked Sample Analysis:

No sample from this analytical package underwent MS/MSD analysis. No qualifications are placed on the data.

11. ICP Serial Dilution:

No sample from this analytical package underwent serial dilution. No qualifications are placed on the data.

12. Sample Quantitation and Reporting Limits:

Concentrations of all reported analytes were correctly calculated.

Reported concentrations less than the reporting limit (RL) qualified "J" by the laboratory are qualified "JQ" to indicate that the result is less than the RL but greater than the method detection limit (MDL).

Manganese, selenium, and zinc in one sample were analyzed at a 5-fold dilution due to the high concentration of target analytes and/or due to the sample matrix. RL in this sample are as a result of the dilution performed.

13. Laboratory Contact

The laboratory was contacted on October 12, 2017 regarding the manganese percent recovery on a Form 2B-IN. An acceptable response was received on October 20, 2017.

14. Overall Assessment:

The antimony result in all solid samples was qualified due to method blank action.

Reported concentrations less than the RL qualified "J" by the laboratory are qualified "JQ" to indicate that the result is less than the RL but greater than the MDL.

The analytical data is acceptable for use with the qualifications listed above.

DATA QUALITY ASSURANCE REVIEW

SITE NAME Wilcox Oil

WORK ORDER NUMBER 20406.012.001.1065.01 TDD NUMBER 0001/17-065

PROJECT NUMBER _____ SDG NUMBER 490-137889-1

Weston Solutions, Inc. (WESTON®) has completed a QA review for Work Order Number 20406.012.001.1065.01; SDG No. 490-137889-1; Wilcox Oil. Six samples were analyzed for Polynuclear Aromatic Hydrocarbons (PAHs) by TestAmerica Laboratories, Inc. Sample numbers are listed below.

SAMPLE NUMBERS

WOR006-012-36-171002-56	WOR006-011-36-171002-56	West-01
West-02	North	South

This data package was validated to determine if Quality Control (QC) specifications were achieved, following *USEPA National Functional Guidelines for Organic Superfund Methods Data Review* (January, 2017), *USEPA National Functional Guidelines for Inorganic Superfund Data Review* (January, 2017), *USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review* (April, 2016), *Quality Assurance/Quality Control Guidance for Removal Activities* (September, 2011), and/or the Regional Protocol for Holding Times, Blanks, and VOA Preservation (April 13, 1989). Specific data qualifications are listed in the following discussion.

REVIEWER Gloria J. Switalski DATE October 12, 2017

Data Qualifiers

Data Qualifier Definitions were supplied by the Office of Solid Waste and Emergency Response (September 1989) and are included in the Functional Guidelines. Data qualifiers may be combined (UJ, QJ) with the corresponding combination of meanings. Additional qualifiers may be added to provide additional, more specific information (JL, UB, QJK), modifying the meaning of the primary qualifier. Addition qualifiers utilized by WESTON are H, L, K, B, and Q.

U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation or detection limit, which has been adjusted for sample weight/sample volume, extraction volume, percent solids, sample dilution or other analysis specific parameters.

An additional qualifier, "B", may be appended to indicate that while the analyte was detected in the sample, the presence of the analyte may be attributable to blank contamination and the analyte is therefore considered undetected with the sample detection or quantitation limit for the analyte being elevated.

J - The analyte was analyzed for, but the associated numerical value may not be consistent with the amount actually present in the environmental sample or may not be consistent with the sample detection or quantitation limit. The value is an estimated quantity. The data should be seriously considered for decision-making and are usable for many purposes.

An additional qualifier will be appended to the "J" qualifier that indicates the bias in the reported results:

L Low bias

H High bias

K Unknown bias

Q The reported concentration is less than the sample quantitation limit for the specific analyte in the sample.

The L and H qualifier will only be employed when a single qualification is required. When more than one quality control parameter affects the analytical result and a conflict results in assigning a bias, the result will be flagged JK.

R - Quality Control indicates that data are unusable for all purposes. The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary for verification to confirm or deny the presence of an analyte.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

PAH FRACTION EVALUATION

1. Analytical Method:

Samples were prepared and analyzed using the procedures specified in **SW-846 Method 8270D Selective Ion Monitoring (SIM).**

2. Holding Time:

The samples were received within the recommended ≤6°C NFG limit. All samples were extracted within the required holding time of less than 7 days for waters and less than 14 days for solids/wastes after collection. Analysis of the samples was conducted within 40 days of extraction. No qualifications are placed on the data.

3. Tuning/Performance:

DFTPP tuning of the mass spectrometer(s) is not required when performing SIM. No qualifications are placed on the data.

4. Initial Calibration:

All individual relative response factors (RRFs) and average RRFs for the initial calibration were greater than the compound dependent (see Table 34 of National Functional Guidelines) control limits. All percent relative standard deviations (%RSDs) were less than the compound dependent (see Table 34 of National Functional Guidelines) control limits or the correlation coefficient was > 0.990. No qualifications are placed on the data.

5. Continuing Calibration:

All individual RRFs for the initial calibration verification (ICV) and continuing calibration (CC) standards were greater than the compound dependent (see Table 34 of National Functional Guidelines) control limits. All percent differences (%Ds) were less than the compound dependent (see Table 34 of National Functional Guidelines) control limits. No qualifications are placed on the data.

6. Blanks:

A. Laboratory Blanks:

A method blank was prepared at the required frequency of every time samples were extracted for each matrix and concentration or every 20 samples whichever is greater. No target analytes were detected in the method blank at concentrations that warrant blank action. No qualifications are placed on the data.

B. Field Blanks:

No field or rinsate blank samples were submitted with this analytical package. No qualifications are placed on the data.

7. System Monitoring Compounds (SMC):

All recoveries of the system monitoring compounds (surrogates) were within the control limits with the following exceptions:

SAMPLE ID	SURROGATE	%R	QC LIMITS	QUALIFIER FLAG
WOR006-012-36-171002-56	Nitrobenzene-d5	247	27-120%	None, only 1 out & 10X DL
WOR006-011-36-171002-56	Nitrobenzene-d5	255	27-120%	None, only 1 out & 10X DL
West-01	2-Fluorobiphenyl	19	29-120%	None, only 1 out & 10X DL
West-02	2-Fluorobiphenyl Nitrobenzene-d5	19 17	29-120% 27-120%	None, 10X DL
North	2-Fluorobiphenyl Nitrobenzene-d5 Terphenyl-d4	6 5 8	29-120% 27-120% 13-120%	None, 25X DL
South	2-Fluorobiphenyl Nitrobenzene-d5	14 13	29-120% 27-120%	None, 25X DL

DL=dilution

8. Duplicates:

A. Laboratory Duplicate Analysis:

No sample from this analytical package underwent matrix spike/matrix spike duplicate (MS/MSD) analysis. No qualifications are placed on the data.

B. Field Duplicate Analysis:

No field duplicate samples were submitted with this analytical package. No qualifications are placed on the data.

9. Matrix Spike/Matrix Spike Duplicate (MS/MSD):

No sample from this analytical package underwent MS/MSD analysis. No qualifications are placed on the data.

10. Internal Standards:

Areas of the six internal standards were within the control limits of a factor of 2 (-50% to +100%) and retention times were within 30 seconds from the associated 12 hour calibration standard with the following exceptions:

SAMPLE ID	INTERNAL STANDARD	% AREA OF 12 HR STD	QUALIFIER FLAG *
WOR006-012-36-171002-56 (10X)	Perylene-d12	43.4%	None, affected compounds reported from 25X
WOR006-011-36-171002-56 (10X)	1,4-Dichlorobenzene-d4 Perylene-d12	48.5% 42.1%	None, affected compounds reported from 25X
West-01	Perylene-d12	41.3%	JH
West-02	Perylene-d12	45.4%	JH/UJ

*Impacted compounds include benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; dibenz(a,h)anthracene; and indeno(1,2,3-cd)pyrene.

11. Laboratory Control Sample (LCS):

The laboratory analyzed an LCS and recoveries were within the control limits provided. No qualifications are placed on the data.

12. Target Compound Identification:

All target compounds reported by the laboratory met identification criteria of relative retention times (RRT) within 0.06 RRT units of the 12 hour standard and that all ions present in the standard mass spectrum were present in the sample mass spectrum and the abundance of these ions agreed within $\pm$ 20% of the standard. No qualifications are placed on the data.

13. Target Compound Quantitation and Reporting Limits:

Concentrations of all reported compounds were correctly calculated.

Reported concentrations less than the reporting limit (RL) qualified "J" by the laboratory are qualified "JQ" to indicate that the result is less than the RL but greater than the method detection limit (MDL).

All samples were analyzed at a 10 or 25-fold dilution due to the high concentration of target analytes and/or due to the sample matrix. RL in these samples are elevated as a result of the dilutions performed.

14. Laboratory Contact:

No laboratory contact was required.

15. Overall Assessment

Benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; dibenz(a,h)anthracene; and indeno(1,2,3-cd)pyrene results in two samples were estimated due to low internal standard area recoveries.

Reported concentrations less than the RL qualified "J" by the laboratory are qualified "JQ" to indicate that the result is less than the RL but greater than the MDL.

The analytical data is acceptable for use with the qualifications listed above.

DATA QUALITY ASSURANCE REVIEW

SITE NAME Wilcox Oil

WORK ORDER NUMBER 20406.012.001.1065.01 TDD NUMBER 0001/17-065

PROJECT NUMBER _____ SDG NUMBER 490-137889-1

Weston Solutions, Inc. (WESTON®) has completed a QA review for Work Order Number 20406.012.001.1065.01; SDG No. 490-137889-1; Wilcox Oil. Four samples were analyzed for Semivolatile Organic Compounds (SVOCs) by TestAmerica Laboratories, Inc. Sample numbers are listed below.

SAMPLE NUMBERS

West-01	West-02	North
South		

This data package was validated to determine if Quality Control (QC) specifications were achieved, following *USEPA National Functional Guidelines for Organic Superfund Methods Data Review* (January, 2017), *USEPA National Functional Guidelines for Inorganic Superfund Data Review* (January, 2017), *USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review* (April, 2016), *Quality Assurance/Quality Control Guidance for Removal Activities* (September, 2011), and/or the Regional Protocol for Holding Times, Blanks, and VOA Preservation (April 13, 1989). Specific data qualifications are listed in the following discussion.

REVIEWER Gloria J. Switalski DATE October 23, 2017

Data Qualifiers

Data Qualifier Definitions were supplied by the Office of Solid Waste and Emergency Response (September 1989) and are included in the Functional Guidelines. Data qualifiers may be combined (UJ, QJ) with the corresponding combination of meanings. Additional qualifiers may be added to provide additional, more specific information (JL, UB, QJK), modifying the meaning of the primary qualifier. Addition qualifiers utilized by WESTON are H, L, K, B, and Q.

U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation or detection limit, which has been adjusted for sample weight/sample volume, extraction volume, percent solids, sample dilution or other analysis specific parameters.

An additional qualifier, "B", may be appended to indicate that while the analyte was detected in the sample, the presence of the analyte may be attributable to blank contamination and the analyte is therefore considered undetected with the sample detection or quantitation limit for the analyte being elevated.

J - The analyte was analyzed for, but the associated numerical value may not be consistent with the amount actually present in the environmental sample or may not be consistent with the sample detection or quantitation limit. The value is an estimated quantity. The data should be seriously considered for decision-making and are usable for many purposes.

An additional qualifier will be appended to the "J" qualifier that indicates the bias in the reported results:

L Low bias

H High bias

K Unknown bias

Q The reported concentration is less than the sample quantitation limit for the specific analyte in the sample.

The L and H qualifier will only be employed when a single qualification is required. When more than one quality control parameter affects the analytical result and a conflict results in assigning a bias, the result will be flagged JK.

R - Quality Control indicates that data are unusable for all purposes. The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary for verification to confirm or deny the presence of an analyte.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

SVOC FRACTION EVALUATION

1. Analytical Method:

Samples were prepared and analyzed for SVOCs using the procedures specified in **SW-846 Method 8270D.**

2. Holding Time:

The samples were received within the recommended ≤6°C NFG limit. All samples were extracted within the required holding time of less than 7 days for waters and less than 14 days for solids/wastes after collection. Analysis of the samples was conducted within 40 days of extraction. No qualifications are placed on the data.

3. Tuning/Performance:

DFTPP tuning of the mass spectrometer(s) was conducted at the required frequency and results were within the required criteria. No qualifications are placed on the data.

4. Initial Calibration:

All individual relative response factors (RRFs) and average RRFs for the initial calibration were greater than the compound dependent (see Table 34 of National Functional Guidelines) control limits. All percent relative standard deviations (%RSDs) were less than the compound dependent (see Table 34 of National Functional Guidelines) control limits or the correlation coefficient was > 0.990. No qualifications are placed on the data.

5. Continuing Calibration:

All individual RRFs for the initial calibration verification (ICV) and continuing calibration (CC) standards were greater than the compound dependent (see Table 34 of National Functional Guidelines) control limits. All percent differences (%Ds) were less than the compound dependent (see Table 34 of National Functional Guidelines) control limits with the following exceptions:

STANDARD TYPE	ANALYTE	%D	QC LIMIT	AFFECTED SAMPLES	QUALIFIER FLAG
ICV	Benzaldehyde	46.4	≤40	All	UJK
	Hexachlorocyclopentadiene	45.4	≤25		UJK
	Benzidine	51.0	≤30		UJK

6. Blanks:

A. Laboratory Blanks

A method blank was prepared at the required frequency of every time samples were extracted for each matrix and concentration or every 20 samples whichever is greater. Target compounds were not detected in the blanks analyzed. No qualifications are placed on the data.

B. Field Blanks:

No field blank samples were submitted with this analytical package. No qualifications are placed on the data.

7. System Monitoring Compounds (SMC):

All recoveries of the system monitoring compounds (surrogates) were within the control limits with the following exceptions:

SAMPLE ID	SURROGATE	%R	QC LIMITS	QUALIFIER FLAG
West-02	2-Fluorobiphenyl Nitrobenzene-d5 Phenol-d5	10 12 9	29-120% 27-120% 10-120%	None, 25X DL
North	2-Fluorobiphenyl 2-Fluorophenol Nitrobenzene-d5 Phenol-d5 Terphenyl-d4	3 9 3 4 5	29-120% 10-120% 27-120% 10-120% 13-120%	None, 25X DL
South	2,4,6-Tribromophenol	478	10-120%	None, 200X DL

DL=dilution

8. Matrix Spike/Matrix Spike Duplicate (MS/MSD):

No sample from this analytical package underwent MS/MSD analysis for the soil matrix. No qualifications are placed on the data.

9. Duplicates:

A. Laboratory Duplicate Analysis:

No sample from this analytical package underwent MS/MSD analysis for the soil matrix. No qualifications are placed on the data.

B. Field Duplicate Analysis:

No field duplicate samples were submitted with this analytical package. No qualifications are placed on the data.

10. Internal Standards:

Areas of the six internal standards were within the control limits of a factor of 2 (-50% to +100%) and retention times were within 30 seconds from the associated 12 hour calibration standard. No qualifications are placed on the data.

11. Laboratory Control Sample (LCS):

The laboratory analyzed LCS and recoveries were within the control limits provided. No qualifications are placed on the data.

12. Target Compound Identification:

All target compounds reported by the laboratory met identification criteria of relative retention times (RRT) within 0.06 RRT units of the 12 hour standard and that all ions present in the standard mass spectrum were present in the sample mass spectrum and the abundance of these ions agreed within ± 20% of the standard. No qualifications are placed on the data.

13. Target Compound Quantitation and Reporting Limits:

All samples were ND.

All samples were analyzed at a 25 or 200-fold dilution due to the high concentration of target analytes and/or due to the sample matrix. Reporting limits in these samples are elevated as a result of the dilutions performed.

14. Laboratory Contact:

The laboratory was contacted on October 12, 2017 regarding the lack of initial calibration data and why samples weren't analyzed at lesser dilutions. An acceptable response was received on October 20, 2017.

15. Overall Assessment

Benzaldehyde, hexachlorocyclopentadiene, and benzidine results in all samples were estimated due to high initial calibration verification %D.

The analytical data is acceptable for use with the qualifications listed above.

APPENDIX F

ANALYTICAL RESULTS

The analytical results will be provided with the final Report CD.

APPENDIX G

QUALITY ASSURANCE SAMPLING PLAN

QUALITY ASSURANCE SAMPLING PLAN

FOR

R6 WILCOX OIL REFINERY REMOVAL ASSESSMENT
WEST 221st STREET SOUTH/REFINERY ROAD
BRISTOW, CREEK COUNTY, OKLAHOMA

Prepared for

U.S. Environmental Protection Agency Region 6
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Through

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NRC No. N/A
SEMS ID OK0001010917
FPN N/A
EPA OSC Steve Mason
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August 2017

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1. INTRODUCTION

Weston Solutions, Inc. (WESTON®), the Superfund Technical Assessment and Response Team (START) Contractor has been tasked by the U.S. Environmental Protection Agency (EPA) Region 6 Prevention and Response Branch (PRB) under Region 8 Contract No. EP-S8-13-01, Technical Direction Document (TDD) No. 0009/WESTON-042-17-064 (Appendix C) to provide technical support during the time critical removal action at the Wilcox Oil Company Superfund Site, located at West 221st Street South/Refinery Road near Bristow, Creek County, Oklahoma. A Site Location Map is provided as Figure 1-1. All figures are provided as separate portable document format (PDF) files. The Superfund Enterprise Management System (SEMS) Identification Number assigned to the Site is OK0001010917. Site coordinates are Latitude 35.842144° North and Longitude 96.381456° West.

START has prepared this Quality Assurance Sampling Plan (QASP) to describe the technical scope of work and activities to be completed as part of the TDD. START will work concurrently with the Emergency and Rapid Response Services (ERRS) contractor, Environmental Restoration, LLC., who will be responsible for excavation, transportation, and disposal of site-related contaminated soil including benzo(a)pyrene and sludge containing total petroleum hydrocarbons (TPH). Specific ERRS site-related activities will be described in their respective work plan documents.

1.1 PROJECT OBJECTIVES

START is providing general technical support to EPA for performance of the Wilcox Oil Refinery time-critical removal action. START activities include establishing on-site excavation grids; collecting post-excavation samples; performing laboratory analysis, data validation, and data management; air monitoring; and maintaining site documentation using Response Manager. In addition, written, digital, and cost documentation will be compiled documenting the removal activities.

Specific field investigation activities will include discussion of data quality objectives (DQOs), health and safety protocol, community relations, field activity meetings, command post establishment, and quality control/quality assurance.

The objective of the time-critical removal action is to remove the threat to human health and the environment posed by chemicals of concern (COCs) resulting from historical site operations conducted at the former Wilcox Oil Refinery Site, specifically related to Property 006. The objective of the time-critical removal action will be achieved by excavating contaminated soils ranging from a depth of 0 to 24 inches below ground surface (bgs). Post-excavation soil samples will be collected by START prior to backfilling the excavated grids with clean fill material. Soil samples representing each grid will be analyzed for Semi-volatile Organic Compounds (SVOCs) following SW-846 Method 8270 - Selected Ion Monitoring (SIM). The site-specific COC is Target Analyte List (TAL) benzo(a)pyrene. The site-specific action level, as specified in the May 2017 "EPA Action Memorandum," is provided in Table 1-1.

Table 1-1
Site-Specific Action Level
Wilcox Oil Refinery
Bristow, Creek County, Oklahoma

Analyte	Action Level[1]	Units
Benzo(a)pyrene	0.11	mg/kg

Notes:
mg/kg - milligrams per kilogram
1 – specified in the "EPA Action Memorandum, May 2017."

1.2 PROJECT TEAM

The START Project Team Leader (PTL) position will be held by Derrick Cobb, and the Field Team Leader (FTL), Meagan Willis, will fill positions of Field Safety Officer (FSO) and Data Manager. The PTL will be responsible for the technical quality of work performed in the field, documentation of site operations, collecting confirmation soil samples, providing overall site health and safety support, and will serve as the START liaison to the EPA Region 6 On-Scene Coordinator (OSC) Steve Mason. The FTL, in collaboration with EPA OSC Mason will determine the location for sample collection in the field, collect samples as necessary, log the activities at each sample location in the field logbook, and verify the sample documentation. Data management will include entering samples collected into SCRIBE; producing accurate chain-of-custody documentation for the samples during the removal action; entering daily operations and sample collection data into the Regional Response Center–Enterprise Data Management System (RRC-

EDMS) Response Manager software; and sample shipment. START will conduct sample collection, preparation, and documentation; and document site activities in field logbooks and data sheets. The START Scope of Work Leader, Jeff Criner, will provide technical support to the START personnel during project activities.

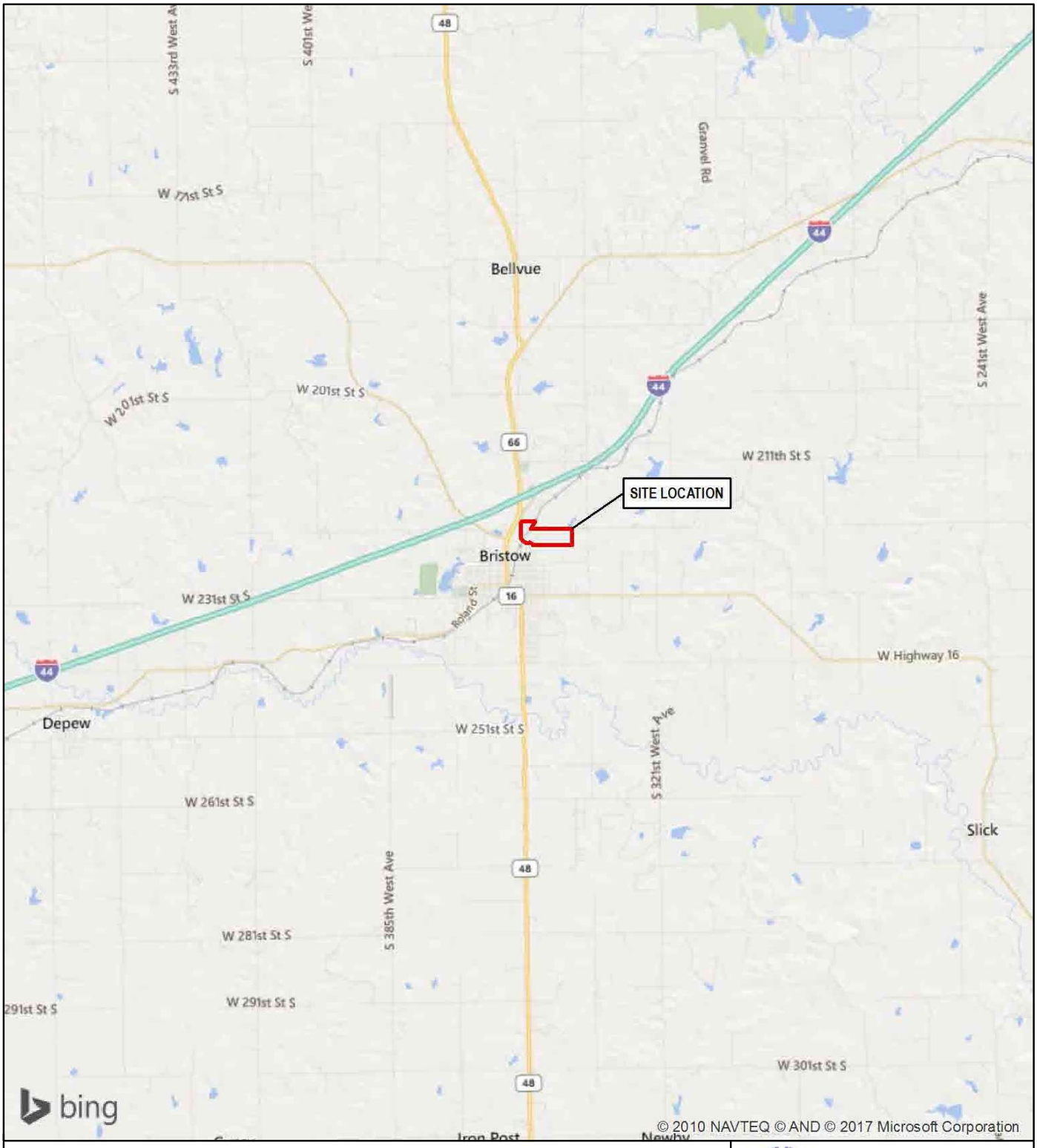
1.3 QASP FORMAT

This QASP has been organized in a format that is intended to facilitate and effectively meet the objective of the removal action. The QASP is organized as follows:

- Section 1 – Introduction
- Section 2 – Site Background
- Section 3 – Sampling Approach and Procedures
- Section 4 – Analytical Methods and Data Validation
- Section 5 – Quality Assurance

All figures are provided as separate Portable Document Format (PDF) files. Appendices are attached with the following information.

- Appendix A Standard Operating Procedures
- Appendix B Data Quality Objective
- Appendix C TDD No. 0009/WESTON-042-17-064



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LEGEND

Wilcox Oil Refinery Boundary

N

TDD NO: 0009/Weston-042-17-064
SEMS NO. OK0001010917

SOURCE: 2010 Microsoft Corporation and its data suppliers

US EPA REGION 6

FIGURE 1-1
SITE LOCATION MAP
WILCOX OIL REFINERY
WEST 221st STREET SOUTH/
REFINERY ROAD
BRISTOW, CREEK COUNTY, OKLAHOMA

DATE	PROJECT NO	SCALE
AUGUST, 2017	20408.012.009.6064.01	AS SHOWN

FILE: L:\20406_START3_R6\WILCOX_OIL\GIS\MXDs\QASP Figures\Figure 1-1 Site Location Map.mxd 10:45:31 AM 8/8/2017 wilderj

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2. SITE BACKGROUND

This section presents a summary of background information for the Wilcox Oil Refinery site including site location and description, operational and regulatory history, previous investigations, and sources of contamination.

2.1 SITE LOCATION AND DESCRIPTION

The Wilcox Oil Refinery site is an abandoned and demolished oil refinery and associated tank farm located north of Bristow, Creek County, Oklahoma. The geographic coordinates of the Site are approximately 35°50'31" North latitude and 96°23'02" West longitude. A detailed title search in the Creek County Clerk office confirms that the property was used in oil refinery operations from approximately 1915 until November 1963. The former Lorraine refinery, including associated tank farm, operated under numerous companies from approximately 1915 to 1937 when the property was sold to Wilcox Oil and Gas Company. Wilcox Oil and Gas Company purchased refinery operations on the remaining acres east of the railroad tracks and operated as a crude oil refinery from the 1920s until the property was sold on 01 November 1963. The site encompasses approximately 140 to 150 acres. A Site Area Map is provided as Figure 2-1, and a Site Property Map is provided as Figure 2-2.

The site is flanked by Route 66 to the west; a residential area and Turner Turnpike to the northwest and north; Sand Creek to the southwest; and residential, agricultural, and wooded areas to the east and south. The topography in the vicinity of the site slopes to the south. Surface water runoff would follow the topography in the vicinity of the site. There are several fresh-water ponds on the site, and some local residents indicated that, historically, fishing has occurred. Two intermittent streams drain the eastern and western portions of the site, and these streams flow south into Sand Creek.

The former Wilcox Process Area is fenced while residential and agricultural properties on the site are partially fenced with barbed wire. A chain-link fence was installed around the former Lorraine Process Area during the 2015 Phase II removal assessment.

The Site is divided into five major former operational areas: the Wilcox Refinery, the Lorraine Refinery, the North Tank Farm, the East Tank Farm, and the Loading Dock Area. These five areas are described as follows:

- The former Wilcox Refinery Area is fenced and covers approximately 26 acres. Most of the equipment and storage tanks that remained on-site in 1963 were auctioned and have been salvaged for scrap iron by private land owners, and what remains are in ruins. Four aboveground storage tanks (ASTs) (12,500 gallons each) remain standing, in addition to a number of buildings, discarded drums and pieces of scrap iron and piping. There are multiple areas of stressed vegetation, barren areas, and visible black tarry waste of a hydrocarbon nature. A building in the northern part of the former refinery has been converted to a residence. An intermittent creek flows southward across the eastern portion of the refinery area through a small pond in the southeast corner of the refinery area and into Sand Creek.

- The former Lorraine Refinery Area covers approximately 8 acres and includes the southwestern portion of the Site, south of Refinery Road and west of the railroad. No refinery structures remain in the processing area. The First Assembly of God Church, a playground, and one residence are located here. There are multiple areas of stressed vegetation, barren areas, and visible black tarry waste of a hydrocarbon nature.

- The East Tank Farm was a large crude oil storage area/tank farm covering approximately 80 acres and contains pits, ponds, and a number of circular berms that surrounded tank locations. All of the tanks have been cut down and removed; however, remnants of the tank locations remain and are visible. Many of the berms surrounding the pits, ponds, and former tanks have been cut or leveled. An intermittent creek is located in the eastern portion of the tank farm and flows south to Sand Creek. A pumping or gas compressor station exists in the north-central portion of the Site, and an active pipeline crosses from northwest to southeast across the middle of the Site. There are four residences located on top of or directly next to former tank locations. There are multiple areas of stressed vegetation, barren areas, and visible black tarry waste of a hydrocarbon nature. Waste was also observed in several drainage channels that empty into Sand Creek.

- The North Tank Farm was a crude and fuel oil storage area consisting of approximately 20 acres. No refinery structures remain in the product storage area, and all tanks have been cut down and removed. Remnants of the tank locations are not visible, and historic locations are difficult to pinpoint. One residence is located in this area.

- The Loading Dock Area is approximately 7 acres and was used for loading and unloading product by rail. Just a few refinery structures/supports remain and are generally located

parallel to the existing rail lines. There are multiple areas of stressed vegetation, barren areas, and visible black tarry waste of a hydrocarbon nature.

2.2 OPERATIONAL AND REGULATORY HISTORY

A modern skimming and cracking plant was constructed in 1929. The upgraded facility had an operating capacity of 4,000 barrels of crude oil per day. The main components of the system consisted of a skimming plant, cracking unit, and re-distillation battery with a vapor recovery system and continuous treating equipment. The crude oil was brought directly from the field, eliminating storage and handling facilities, but resulting in crude oil with high sediment and water.

Sanborn fire insurance maps can be used to understand historical property usage. The Wilcox Oil and Gas Company and Lorraine Refining Company Sanborn Insurance Maps indicate that the properties contained approximately 80 storage tanks of various sizes, a cooling pond, and approximately 10 buildings housing refinery operations. The maps also indicate that crude oil, fuel oil, gas oil, distillate, kerosene, naptha, and benzene (petroleum ether) were all stored on the property.

After the refinery operations ceased and most of the tanks and buildings were demolished and sold for scrap, the property was sold to private interests. Beginning in 1975 with the construction of the church, private residences were constructed on 6 parcels of land that were part of the former refinery operations. The most recent being constructed in 2003/2004. One former building associated with the refinery was repurposed as a residence. As a result, there is a total of seven residences on the Site, all of which are located on former tank or refinery operations locations. Three of the residences located on the eastern portion of the Site are known to use water from domestic/private wells. The drainage pattern of the Site is primarily toward Sand Creek that serves as the western and southwestern boundaries of the Site. Two intermittent streams and several drainage channels cross the portion of the Site east of the railroad and flow into Sand Creek.

The refinery waste source areas of concern include a backfilled oily waste pond and pit, a breached settling pond, a former pond apparently backfilled with solid refinery waste, and a number of former tank storage areas. The contaminants of concern are metals and organic compounds (Total Petroleum Hydrocarbons (TPH) and Polycyclic Aromatic Hydrocarbons [PAHs]). These potential

contaminants of concern are found in soil, sediment, and waste material.

Specifically, Property 006 (subject to this removal action) is currently occupied by a family. During previous assessment activities, levels of benzo(a)pyrene were found to exceed the screening level of 0.016 mg/kg at depths ranging from 0.0 inches bgs to 24 inches bgs. No other SVOC or TPH exceedances were reported for Property 006.

2.3 SUMMARY OF PREVIOUS INVESTIGATIONS

Multiple investigations have been performed on the Site since 1994. These documents were used to summarize the Site background and operational history described above.

- Preliminary Assessment (PA) was performed at the former Wilcox Refinery Site by the Oklahoma Department of Environmental Quality (ODEQ) in December 1994.
- Expanded Site Inspection (ESI) was performed at the former Wilcox Refinery Site for the EPA in March 1997.
- Site Assessment (SA) was performed at the former Wilcox Refinery Site by EPA in March 1999.
- PA was performed at the former Lorraine Refinery Site by ODEQ in September 2008.
- Site Inspection (SI) was performed at the former Lorraine Refinery Site by ODEQ in August 2009.
- ESI was performed at the former Lorraine Refinery Site by ODEQ in September 2010.
- ESI was performed at the former Wilcox Refinery Site by ODEQ in September 2011.
- Hazard Ranking System Package was completed in May 2013.

In 2014, the EPA ERRS contractor capped and locked an abandoned drinking water well located near the former location of the First Assembly of God Church to the west of the site. ERRS also installed a fence with signage around an oily sludge pit located on a residential property developed within the historical refinery boundary (Property 001).

In 2014 and 2015, WESTON, the EPA Region 6 START contractor, was tasked by EPA Region 6 to perform a Removal Assessment at the Wilcox Oil Refinery site under TDD No. 5/WESTON-042-15-004. Phase 1 was conducted 08 - 11 December 2014, and Phase 2 was conducted 18 May 2015 through 12 June 2015. The field sampling strategy focused on collecting soil samples from

residential properties that have been built on or are in close proximity to the Wilcox Oil Refinery Site.

Prior to initiating the sampling activities in Phase 1, EPA gained access to one targeted residential property (Property 001) within the former Wilcox Oil Refinery Site boundary. As part of the assessment activities, the EPA Team collected 187 soil samples (including duplicate QA/QC samples) from a total of 57 grids. Two samples were also taken at the request of the EPA OSC from soil on the bank of an on-site pond and soil that was affected with a tar-like substance from an unknown source.

Prior to initiating Phase 2, EPA gained access to 9 residential properties. The EPA Team collected a total of 240 soil samples (including duplicate QA/QC samples) from a total of 52 grids from 9 properties on and around the Wilcox Oil Refinery Site (5 properties located on the site and 4 properties located adjacent to the site). At the direction of the EPA OSC, select locations were pushed to deeper depths to visually investigate the presence of potential refinery waste. Based on historical site operations and historical aerial photographs, selected grids were investigated below 24 inches bgs. These grids were identified on Properties 002, 006, 008, and 011. The center point of each grid was advanced to a maximum depth of 8 feet bgs or refusal (i.e., bedrock). Visual observations were noted. No analytical samples were collected from these at-depth soil investigation borings.

Results from previous investigations are presented in the EPA START-3 *Wilcox Oil Company Superfund Site Removal Assessment Report*, (TDD No. 5/WESTON-042-15-004) dated January 2016, for results from previous investigations.

2.4 POTENTIAL SOURCES OF HAZARDOUS MATERIALS

Information concerning the known or potential hazardous substance source areas at the site (Property 006) and the COCs thought to be associated with each source are presented in the following section. Based on the EPA START-3 Removal Assessment Report, former site activities that contributed to potential sources include the following:

- The Wilcox Refinery
- Lorraine Refinery

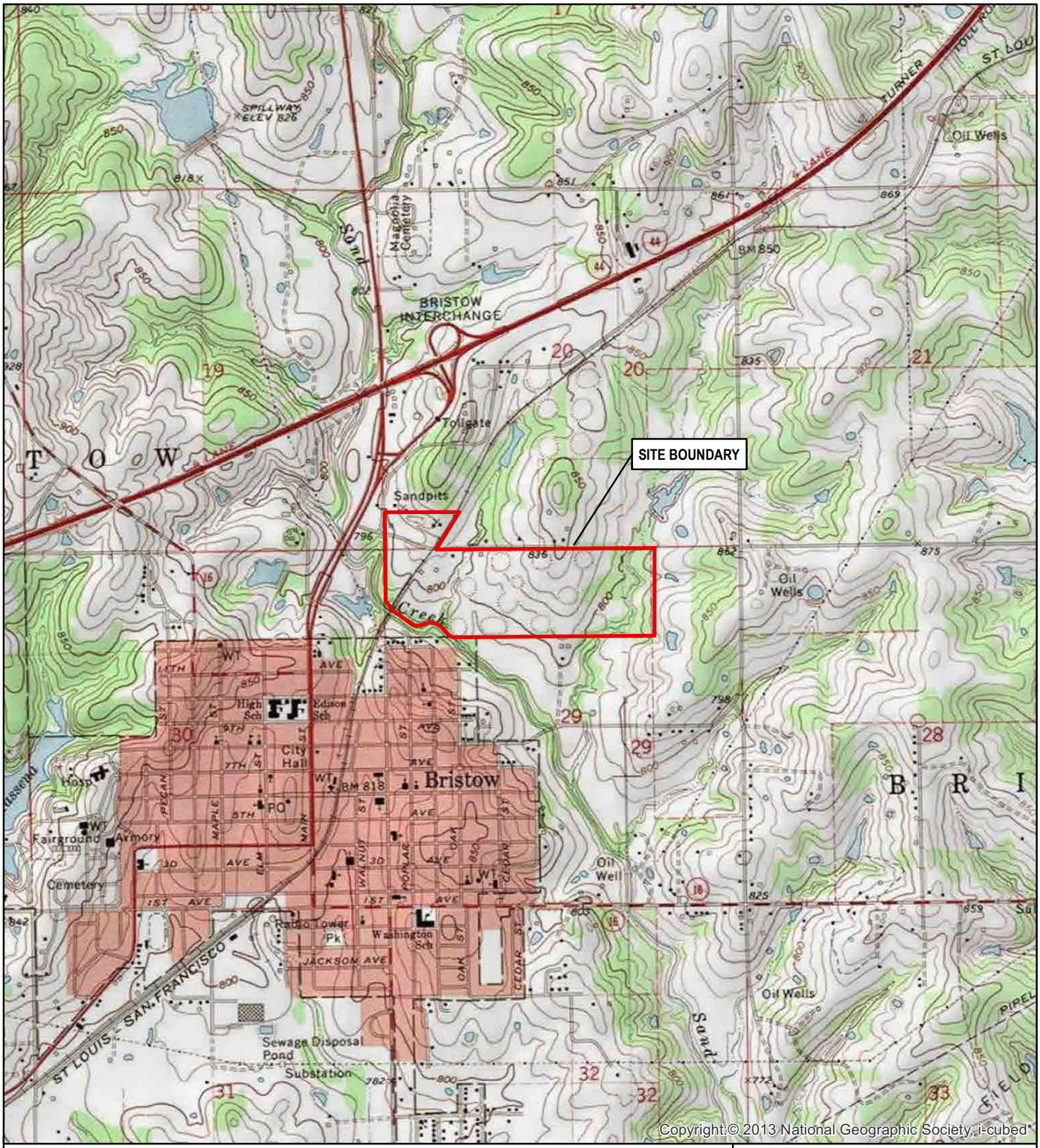
- North Tank Farm
- East Tank Farm
- Loading Dock Area

2.5 SITE CONCERNS

The site presents concerns regarding public health and the environment as a result of the following circumstances:

- Surface and subsurface soils contaminated with SVOCs (specifically benzo(a)pyrene) to depths of 24 inches exceeding the removal action level (0.11 mg/kg) established for the site.
- Exposure to hazardous substances could be from ingestion, skin absorption, and inhalation.

The COCs for Property 006 are SVOCs associated with former refinery operations.



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LEGEND

Wilcox Oil Refinery Boundary

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TDD NO: 0009/Weston-042-17-064
SEMS NO. OK0001010917

SOURCE: 2013 Esri Topographic Map

US EPA REGION 6

FIGURE 2-1
SITE AREA MAP
WILCOX OIL REFINERY
WEST 221st STREET SOUTH/
REFINERY ROAD
BRISTOW, CREEK COUNTY, OKLAHOMA

DATE	PROJECT NO	SCALE
AUGUST, 2017	20408.012.009.6064.01	AS SHOWN

FILE: L:\20406_START3_R6\WILCOX_OIL\GIS\MXDs\QASP Figures\Figure 2-1 Site Area Map.mxd 10:43:59 AM 8/8/2017 wilderj

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LEGEND

Property Boundaries

Historical Site Areas

N

TDD NO: 0009/Weston-042-17-064
SEMS NO. OK0001010917

SOURCE: 2010 Microsoft Corporation and its data suppliers

US EPA REGION 6

FIGURE 2-2
SITE PROPERTY MAP
WILCOX OIL REFINERY
WEST 221st STREET SOUTH/
REFINERY ROAD
BRISTOW, CREEK COUNTY, OKLAHOMA

DATE	PROJECT NO	SCALE
AUGUST, 2017	20408.012.009.6064.01	AS SHOWN

FILE: L:\20406_START3_R6\WILCOX_OIL\GIS\MXDs\QASP Figures\Figure 2-2 Site Overview Map.mxd 10:53:29 AM 8/8/2017 wilderj

3. SAMPLING APPROACH AND PROCEDURES

The specific field investigation activities that will be conducted during the Wilcox Oil Refinery removal are presented in the following subsections. An overview of sampling activities, along with a discussion of data quality objectives, health and safety protocol, community relations, field activity meetings, and command post establishment are summarized in Subsection 3.1. Subsection 3.2 summarizes grid establishment, post excavation soil sampling, and quality control/quality assurance. Relevant START Standard Operating Procedures (SOPs) for field sampling methods are included in Appendix A.

3.1 OVERVIEW OF SAMPLING ACTIVITIES

Based on historical site data, a sampling strategy was developed to collect data necessary to evaluate and meet the objectives of the removal action. A Proposed Excavation Map is provided as Figure 3-1.

3.1.1 Data Quality Objective

The objective of the removal action is to remove the threat to human health and the environment posed by COCs resulting from historical site operations conducted at the Wilcox Oil Refinery Site at Property 006. To accomplish this, a data quality objective (DQO) for determining the presence or absence of site-related contaminated soils that are above or below the site-specific action level for this project was developed (Appendix B). This site-specific DQO was developed using the seven-step process set out in the *EPA Guidance for Quality Assurance Project Plans: EPA QA/G-5*.

3.1.2 Health and Safety Plan Implementation

START field activities will be conducted in accordance with a site-specific Health and Safety Plan (HASP) prepared for the Wilcox Oil Refinery removal action. START will coordinate its safety practices and procedures with EPA and ERRS. The HASP specifies that soil sampling activities will proceed in modified Level D personal protective equipment (PPE) including coveralls and/or long-sleeve shirts/pants, safety glasses, disposable gloves, and steel-toed boots. The PTL will act as the FSO and will be responsible for implementation of the HASP during START field activities.

START will be required to conduct work according to the guidelines and requirements of the HASP. In accordance with the START general health and safety operating procedures, the field team will also drive the route to the hospital specified in the HASP prior to initiating sampling activities.

3.1.3 Community Relations

Community relations may require additional EPA involvement due to the general nature of the site. Community relations issues will be directed to the EPA OSC. If the EPA OSC is not present, the START PTL, under the guidance of the Scope of Work (SOW) Leader, will manage community relations in the field as directed by the EPA OSC.

3.1.4 Field Activities Review Meeting

START will conduct a meeting with the entire field team to familiarize them with the project scope of work, discuss the planned field activities, roles and responsibilities, and review the project HASP and other relevant operating procedures. This meeting will be conducted prior to any site activities. It is anticipated that EPA, ERRS, and START will conduct daily planning meetings and document overall site activities and progress as necessary.

3.1.5 Mobilization and Command Post Establishment

START will mobilize the equipment required for the removal activities from the WESTON Regional Equipment Store (RES) warehouse located in Houston, Texas, and the EPA Warehouse located in Addison, Texas, as necessary.

3.2 SAMPLING/MONITORING APPROACH

Sampling will be conducted in general accordance with the *EPA Compendium of Emergency Response Team (ERT) Soil Sampling and Surface Geophysics Procedures* and with EPA ERT and START SOPs (Appendix A). WESTON SOPs include SOP No. 0110.01 and 1001.10 (Surface Soil Sampling and Composite Sampling). The specific sampling, decontamination, and sample handling procedures, including disposition of investigation-derived waste (IDW), are described in the following subsections. The following subsections describe the proposed sampling, sample

handling procedures, and field quality control (QC) samples for the removal action activities. The EPA OSC will be notified, and concurrence will be obtained if significant deviations from the planned sampling activities are proposed. Details regarding deviations of the QASP will be documented in the START site logbook.

3.2.1 Post-Excavation Soil Sampling

Upon completion of ERRS excavation activities, START will collect confirmation samples from the 100-foot by 100-foot systematic grids established across the site (Figure 3-1). ERRS will excavate 8 grids to depths ranging from 0 to 24 inches bgs. After ERRS excavation activities, START will collect approximately 10 confirmation soil samples (8 normal and 2 quality assurance samples) from 8 excavated grids.

Each sample will be collected from the bottom of the excavated grid and will consist of a 5-point composite sample. Samples will be collected using equipment and procedures appropriate to the matrix, parameters, and sampling objectives. Samples will be collected with dedicated (disposable) plastic scoops. The samples will then be stored in cleaned, unused glass or plastic containers and preserved in a manner appropriate to the analysis to be performed. Sampling personnel will change gloves between each sample collection/handling. The volume of the sample collected will be sufficient to perform the laboratory analysis requested. The composite samples will be placed in appropriate laboratory containers and labeled with appropriate sample nomenclature, and placed immediately on ice, prior to shipment to a laboratory for analysis (following SOP 1101.01 and 1102.01).

Information regarding sample management, sample nomenclature, decontamination, and sample preservation, containers and holding times can be found in Sections 3.3 and 3.4. Information regarding sample analysis and data validation is summarized in Section 4.

3.2.2 Field Quality Control Samples

START will collect field quality control samples as needed during the removal action according to SOPs 1005.01, 1005.02. Quality assurance/quality control (QA/QC) samples will be collected according to the following:

- Blind field duplicate samples will be collected during sample activities for locations selected by the PTL. The data obtained from these samples will be used to ensure the quality assurance of the sampling procedures and laboratory analytical data by following an evaluation of reproducibility of results. Efforts will be made to collect duplicate samples from an area co-located from the original sample location where there is visual evidence of contamination or where contamination is suspected. One duplicate sample will be collected for every 10 samples of the same matrix.

- Matrix Spike (MS)/Matrix Spike Duplicate (MSD) samples will be collected during the sample activities for locations selected by the PTL. The data obtained from these samples will be used to ensure the quality assurance of the sampling procedures and laboratory analytical data by following an evaluation of reproducibility of results. Efforts will be made to collect MS/MSD samples from an area co-located from the original sample location where there is visual evidence of contamination or where contamination is suspected. One MS and one MSD samples will be collected for every 20 samples of the same matrix.

- Temperature blanks will be prepared in the field and will consist of one 40-milliliter glass sample container with Teflon-lined septum cap. The temperature blank will be packaged along with the field samples in the shipping cooler and will represent the temperature of the incoming cooler upon receipt at the laboratory. Use of these samples within a shipping container enables the laboratory to assess the temperature of the shipment without disturbing any of the field samples.

3.3 SAMPLE MANAGEMENT

Specific nomenclature that will be used by START will provide a consistent means of facilitating the sampling and overall data management for the project (SOP 0110.05) The START Scope of Work Leader must approve any deviations from the sample nomenclature proposed below.

As stated in SOP 0110.05, sample nomenclature will follow a general format regardless of the type or location of the sample collected. The general nomenclature consists of the following components:

- Property/Site Identification (ID) or Area of Concern
- Grid ID
- Sample Collection Depth
- Collection Type (Soil, Field QC, etc.)
- QA/QC Type (Normal, Duplícate, etc.).

The following presents the sample nomenclature for analytical samples that will generate unique sample names compatible with most data management systems. The sample nomenclature is based upon specific requirements for reporting these results.

SAMPLE NOMENCLATURE - SOIL

Property ID - Grid ID - Depth - Collection Type + QC Type + Date

Where:

Property ID: An identifier used to designate the particular property or Area of Concern (AOC) where the sample was collected.

Grid ID: A two- or three-character alphanumeric code used to designate the particular grid or station within the AOC where the sample was collected.

Depth: A two-digit code used to designate what depth of sample was collected:

06	0 to 6 inches
18	6 to 18 inches
24	18 to 24 inches
48	24 to 48 inches

Collection Type: A one-digit code used to designate what type of sample was collected:

1	Surface Water	6	Oil
2	Groundwater	7	Waste
3	Leachate	8	Other
4	Field QC/Water Sample	9	Drinking Water
5	Soil	0	Sediment

QC Type: A one-digit code used to designate the QC type of the sample:

1	Normal	6	Confirmation
2	Duplicate	7	Confirmation Duplicate
3	Rinsate Blank		
4	Trip Blank		
5	Field Blank		

Date: An identifier used to designate the date of sample collection.

Examples:

- ***WOR006-D4-24-170811-56_***: Represents a confirmation soil sample collected from Wilcox Oil Refinery Property 006 from Grid D4 at a depth of 24 inches bgs on August 1, 2017.
- ***WOR006-D4-24-170811-57***: Represents the duplicate confirmation soil sample collected from Wilcox Oil Refinery Property 006 Grid D4 at a depth of 24 inches bgs on August 1, 2017.

Sample data management will be completed utilizing SCRIBE including chain of custody and sample documentation needs.

3.4 DECONTAMINATION

The non-disposable sampling equipment, if any, (hand trowels, stainless steel bowls, Geoprobe coring shoe, etc.) used during the sample collection process will be thoroughly pre-cleaned before initial use, between use, and at the end of the field investigation. Equipment decontamination, as described in SOP 1201.01, will be completed in the following steps:

- Water spray or brush, if needed, to remove soil/sediment from the equipment.
- Nonphosphate detergent and potable water wash to clean the equipment.
- Final potable water rinse.
- Equipment air-dried.

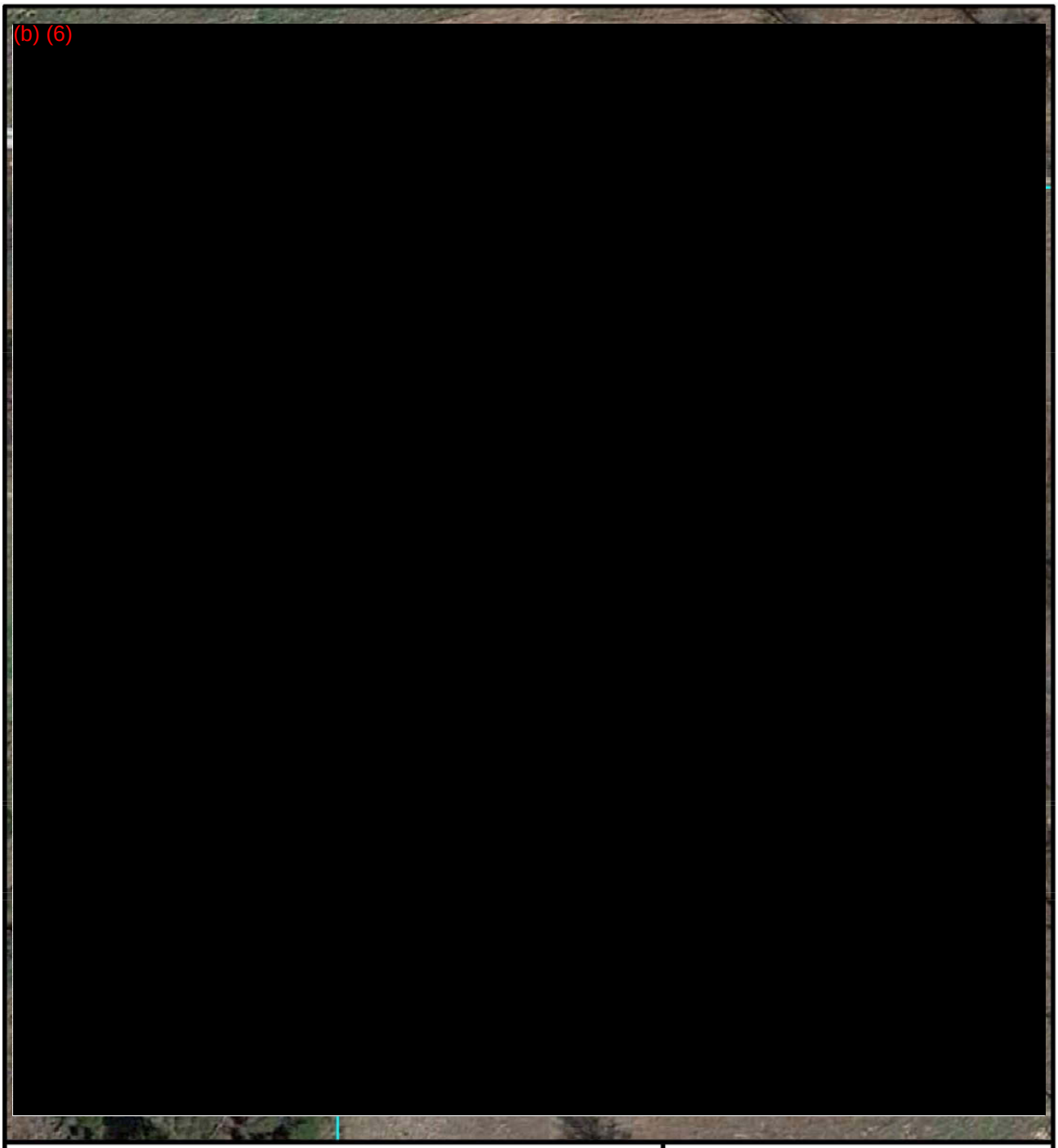
Personnel decontamination procedures will be described in the site-specific HASP that will be prepared by START prior to implementation of activities at the Site. All decontamination activities will be conducted at a temporary decontamination pad that will be constructed/designated in an area to be determined by the PTL.

3.5 SAMPLE PRESERVATION, CONTAINERS, AND HOLD TIMES

Sample preservation, containers, and holding times utilized during this Removal Action will be consistent with analytical methods and laboratory volume requirements as provided in Table 3-1. Once collected, samples will be stored in coolers and kept at approximately 4^{o} C while at the site and until they are submitted for analysis. Chain-of-custody forms will be completed for each sample shipment and sent with the samples to the designated laboratory. Samples that have been analyzed will be disposed of by the designated laboratory in accordance with the laboratory SOPs.

Table 3-1
Requirements for Containers, Preservation Techniques,
Sample Volumes, and Holding Times
Wilcox Oil Refinery
Bristow, Creek County, Oklahoma

Name	Analytical Methods	Matrix	Container	Preservation	Minimum Volume or Weight	Maximum Holding Time
SVOCs	SW846 8270-SIM	Soil	Glass	4°C	8 oz.	14 days to extraction (soil)/ 40 days after extraction to analysis



LEGEND:

- PROPERTY BOUNDARY
- NO EXCEEDANCE REPORTED
- 00" DEPTH RESULT EXCEEDED
- 06" DEPTH RESULT EXCEEDED
- 12" DEPTH RESULT EXCEEDED
- 24" DEPTH RESULT EXCEEDED
- SLUDGE AFFECTED AREA

SOURCE: GOOGLE EARTH PRO AERIAL 2016.
SEMS No.: OK0001010917
TDD No.: 0009/WESTON-042-17-064

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SCALE IN FEET

US EPA REGION 6

FIGURE 3-1
PROPOSED EXCAVATION MAP (PROPERTY 006)
WILCOX OIL REFINERY
WEST 221st STREET SOUTH/ REFINERY ROAD
BRISTOW, CREEK COUNTY, OKLAHOMA

DATE:	W.O. #	SCALE:
AUG 2017	20408.012.009.6064.01	AS SHOWN

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4. ANALYTICAL METHODS AND DATA VALIDATION

Soil samples will be submitted to a participating EPA laboratory for analytical analysis. Requested sample analysis will be indicated on the chain-of-custody form and will include the following method:

- SVOCs [benzo(a)pyrene] by EPA SW-846 Method 8270-SIM

Table 4-1 below illustrates the sample description and rationale.

Table 4-1
Sample Description and Rationale
Wilcox Oil Refinery
Wilcox, Creek County, Oklahoma

Sample Location	Sample Collection Method	Sample Depth	No. of Samples[1]	Rationale	EPA Analytical Method
Soil	Disposable Scoop Hand Trowel	24 inches bgs	10	To document the removal of site-specific constituents of concern in subsurface soil	SVOCs – EPA SW-846 Method 8270-SIM

Notes: [1]Soil Samples – 8 Normal and 2 QA/QC samples including field duplicates and MS/MSD samples.

Following analysis, the laboratory will provide preliminary deliverables data via email in PDF. The final data deliverable will include a full Contract Laboratory Program (CLP)-like data package (Level IV data package with QC and raw data) in PDF and a final Electronic Data Deliverable (EDD) in Microsoft Excel format. Initial data deliverables (preliminary results) will be based on a 1-business-day Turn-around Time (TAT), unless otherwise directed by the EPA OSC. The TAT criteria will be initiated when the sample group is received by the laboratory and continues until the data deliverable is submitted to START. The final Level IV data deliverable will be submitted by the laboratory based on a 10-business-day TAT.

START will validate the analytical data generated by the laboratory and provide an evaluation of QA/QC samples for reporting purposes. Data validation will be conducted in accordance with the EPA CLP *National Functional Guidelines for Organic Superfund Data Review – August 2014 (*EPA-S40-R-014-002) *and National Functional Guidelines for Inorganic Superfund Data Review – August 2014* (EPA-S40-R-013-001). A summary of the data validation findings will be

presented in Data Validation Summary Reports as part of the final report. The following will be evaluated to verify that the analytical data is within acceptable QA/QC tolerances:

- The completeness of the laboratory reports, verifying that required components of the report are present and that the samples indicated on the accompanying chain of custody are addressed in the report.
- The calibration and tuning records for the laboratory instruments used for the sample analyses.
- The results of internal standards analyses.
- The results of laboratory blank analyses.
- The results of laboratory control sample (LCS) analyses.
- The results of MS/MSD analyses.
- The results of surrogate recovery analyses.
- Compound identification and quantification accuracy.
- Laboratory precision, by reviewing the results for blind field duplicates.
- Variances from the QA/QC objectives will be addressed as part of the Data Validation Summary Reports.

5. QUALITY ASSURANCE

Quality Assurance (QA) will be conducted in accordance with the WESTON Corporate Quality Management Manual, dated October 2016; the WESTON START Quality Management Plan; and EPA Guidance for Performing Removal Actions under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Following receipt of the TDD from EPA, a Quality Control (QC) officer will be assigned and will monitor work conducted throughout the entire project including reviewing interim report deliverables and field audits. The START PTL will be responsible for QA/QC of the field investigation activities. The designated laboratory utilized during the investigation will be responsible for QA/QC related to the analytical work. START will also collect samples to verify that laboratory QA/QC is consistent with the required standards and to validate the laboratory data received.

5.1 SAMPLE CHAIN-OF-CUSTODY PROCEDURES

START will utilize SCRIBE for the sample documentation and chain of custody preparation needs. Because of the evidentiary nature of sample collection, the possession of samples must be traceable from the time the samples are collected until they are introduced as evidence in legal proceedings. After sample collection and identification, the samples will be maintained under the chain-of-custody procedures. Personnel required to package and ship coolers containing potentially hazardous material will be trained accordingly.

The chain-of-custody procedures are documented in WESTON SOP 1101.01, and will be made available to personnel involved with the sampling. A typical chain-of-custody record included in SOP 1101.01 will be completed each time a sample or group of samples is prepared for shipment to the laboratory. The record will repeat the information on each of the sample labels and will serve as documentation of handling during shipment. A copy of this record will remain with the shipped samples at all times, and the member of the sampling team who originally relinquished the samples will retain another copy. START personnel will complete a chain-of-custody form for all samples sent to a designated off-site laboratory.

Samples relinquished to the participating laboratories will be subject to the following procedures for transfer of custody and shipment:

- The chain of custody record will accompany samples. When transferring possession of samples, the individuals relinquishing and receiving the samples will sign, date, and note the time of the sample transfer on the record. This custody record documents transfer of sample custody from the sampler to another person or to the laboratory.

- Samples will be properly packed for shipment and dispatched to the appropriate laboratory for analysis with separate, signed custody records enclosed in each sample box or cooler. Sample shipping containers will be custody-sealed for shipment to the laboratory. The preferred procedure includes use of a custody seal wrapped across filament tape that is wrapped around the package at least twice. The custody seal will then be folded over and stuck to the seal to ensure that the only access to the package is by cutting the filament tape or breaking the seal to unwrap the tape.

- If sent by common carrier, a bill of lading or air bill will be used. Bill of lading and air bill receipts will be retained in the project file as part of the permanent documentation of sample shipping and transfer.

SOPs 1101.01 and 1102.01, provided in Appendix A, describe these procedures in more detail.

5.2 PROJECT DOCUMENTATION

Documents will be completed legibly and in ink and by entry into field logbooks, Response Manager, or SCRIBE. Response Manager is the Enterprise Data Collection System designed to provide near real-time access to non-analytical data normally collected in logbooks. Response Manager provides a standard data collection interface for modules of data normally collected by START field personnel while on-site. These modules fall into two basic categories for response and removal. The modules include Emergency Response, Reconnaissance, Facility Assessment, Shipping, Containers, Materials, Calls, Household Hazardous Waste (HHW), and General/Site Specific data. The system provides users with a standard template for laptop/desktop/tablet PCs that will synchronize to the secure web interface using merge replication technology to provide access to field collected data via on the RRC-EDMS EPA Web Hub. Response Manager also includes an electronic template that provides some of the standard data entry templates from Response Manager to users for field data entry. Response Manager also includes an integrated Global Positioning System (GPS) unit with the secure electronic template, and the coordinates collected in Response Manager are automatically mapped on the RRC-EDMS interactive mapping

site. Geographic information system (GIS) personnel can then access this data to provide comprehensive site maps for decision-making support.

Response Manager also includes an Analytical Module that is designed to give SCRIBE users the ability to synchronize the SCRIBE field data to the RRC-EDMS Web Hub. This allows analytical data managers and data validators access to data to perform reviews from anywhere with an Internet connection. The Analytical Module is designed to take the analytical data entered into EPA SCRIBE software and make it available for multiple users to access on one site. START personnel will utilize SCRIBE for all data entry on-site and will upload to the Response Manager Analytical Module.

Field Documentation

The following field documentation will be maintained as described below.

Field Logbook

The field logbook is a descriptive notebook detailing site activities and observations so that an accurate, factual account of field procedures may be reconstructed. All entries will be signed by the individuals making them. Entries should include, at a minimum, the following:

- Site name and project number.
- Names of personnel on-site.
- Dates and times of all entries.
- Description of all site activities, including site entry and exit times.
- Noteworthy events and discussions.
- Weather conditions.
- Site observations.
- Identification and description of samples and locations.
- Subcontractor information and names of on-site personnel.
- Dates and times of sample collections and chain-of-custody information.
- Records of photographs.
- Site sketches.
- Calibration results.

Sample Labels

Sample labels will be securely affixed to the sample container. The labels will clearly identify the particular sample and include the following information:

- Site name and project number.
- Date and time the sample was collected.
- Sample preservation method.
- Analysis requested.
- Sampling location.

Chain-of-Custody Record

A chain of custody will be maintained from the time of sample collection until final deposition. Every transfer of custody will be noted and signed for and a copy of the record will be kept by each individual who has signed it.

Custody Seal

Custody seals demonstrate that a sample container has not been tampered with or opened. The individual who has custody of the samples will sign and date the seal and affix it to the container in such a manner that it cannot be opened without breaking the seal.

Photographic Documentation

START will take photographs to document site conditions and activities as site work progresses. Initial conditions should be well documented by photographing features that define the site-related contamination or special working conditions. Representative photographs should be taken of each type of site activity. The photographs should show typical operations and operating conditions as well as special situations and conditions that may arise during site activities. Site final conditions should also be documented as a record of how the site appears at completion of the work.

Photographs should be taken with either a film camera or digital camera capable of recording the date on the image. Each photograph will be recorded in the logbook and within Response Manager with the location of the photographer, direction the photograph was taken, the subject of the photograph, and its significance (i.e., why the picture was taken). Where appropriate, the

photograph location, direction, and subject will also be shown on a site sketch and recorded within Response Manager.

Response Manager

START will use the Response Manager module located on the EPA Web Hub, https://solutions.westonproject.net/epawebhub/, to compile and organize the data collected from project activities. The information to be included encompasses some or all of the following depending on the specific project needs:

- General Module – site-specific data including location and type of site. It also includes an area for key site locations including geo-spatial data associated with the key site locations.
- Emergency Response Module – includes the following sub-modules: Basic Info, HAZMAT, Release, Time Line Log, Incident Zones, Photos, Sensitive Receptors, Evacuations, Source, Cause, and Weather.
- Reconnaissance Module – provides standard templates with the flexibility of adding any additional questions of values to the drop-down lists for targeted reconnaissance efforts. Typically, the data in this module is associated with Emergency Support Function (ESF)-10 deployments and the cleanup of orphaned containers and hazardous debris, but the module can be utilized for any or all reconnaissance activities.
- Facility Assessment Module – provides standard templates with the flexibility of adding any additional questions of values to the drop-down lists for assessments of structures. Typically utilized for EPA regulated program facilities during an ESF-10 deployment of resources. This module can be utilized to track the assessment of any facilities including multiple assessments of the fixed facilities.
- Shipping Module – provides standard templates for creating a cradle-to-grave record of all waste shipments from the site until they are recycled or destroyed. This includes the ability to capture manifests and manifest line items and upload photos/original documents to support the records.
- Container Module – provides standard templates for cataloguing containers including HAZCAT and Layer information in each container. The module also allows for tracking which containers are bulked.
- Properties Module – provides standard templates with the flexibility of adding any additional questions of values to the drop-down lists for collection of property data including access

agreements and assessments of the property and current status of property regarding the site removal action.

- Materials Module – provides standard templates for tracking materials that are brought on-site or that are removed from the site.
- Daily Reports – provides standard templates for tracking daily site activities, daily site personnel, and daily site notes for reporting back to the EPA OSC in pollution reports (POLREP) or situation reports (SITREP).
- HHW Module – provides standard templates with the flexibility of adding any additional questions of values to the drop-down lists for tracking the amount of HHW collected at individual collection stations by HHW type.
- Data Files – data files can be uploaded in the photo module section and be associated with individual records or with the site in general. The meta-data associated with that data file can be filled in using the photo log fields.

The data stored in the Response Manager database can be viewed and edited by any individual with access rights to those functions. At any time deemed necessary, POLREP and/or SITREPs can be generated by exporting the data out of Response Manager into Microsoft Excel/Word. The database is stored on a secure server and backed up regularly.

5.3 REPORT PREPARATION

At the completion of the project, START will review and validate laboratory data and prepare a draft report of field activities and analytical results for EPA OSC review. Draft deliverable documents will be uploaded to the EPA TeamLink website for EPA OSC review and comment.

Appendix A

Standard Operating Procedures

SOP	**0110.01**				
GROUP	Database Management System				
SUB-GROUP	Data Collection and Acquisition				
TITLE	Sample Nomenclature				
DATE	02/26/2009	**FILE**	0110-20060227.DOC	**PAGE**	1 of 2

INTRODUCTION

The following Standard Operating Procedure (SOP) presents the sample nomenclature for analytical samples that will generate unique sample names compatible with most data management systems. The sample nomenclature is based upon specific requirements for the reporting of these results. A site specific data management plan should be prepared prior to sample collection.

PROCEDURE

SAMPLE NOMENCLATURE – SOIL AND SEDIMENT

Area of Concern – ID – Depth - Collection Type + QC Type

Where:

Area of Concern: A four-digit identifier used to designate the particular Area of Concern (AOC) that the location where the sample was collected.

ID: A three-digit identifier used to designate the particular location in the AOC from which the sample was collected or the center of the composite sample.

Depth: A two-digit code used to designate what depth of sample was collected:

03	0 to 3 inches
06	3 to 6 inches
12	6 to 12 inches

Collection Type: A one-digit code used to designate what type of sample was collected:

1	Surface Water
2	Ground Water
3	Leachate
4	Field QC/water sample
5	Soil/Sediment

6	Oil
7	Waste
8	Other
9	Drinking Water

QC Type: A one-digit code used to designate the QC type of the sample:

1	Normal
2	Duplicate
3	Rinsate Blank
4	Trip Blank
5	Field Blank
6	Confirmation

Examples:

- ***2054-055-06-51:*** Represents the normal soil sample collected from AOC 2054 at location 055 from 3 to 6 inches of depth.
- ***2054-055-06-52***: Represents the duplicate soil sample collected from AOC 2054 at location 055 from 3 to 6 inches of depth.
- ***2054-055-06-43***: Represents the rinsate water sample collected after the last sample of the day if last sample was collected from AOC 2054 at location 055 from 3 to 6 inches of depth.

SAMPLE NOMENCLATURE – WATER (from fixed station or location to be sampled more than once)

WELL OR STATION – YYYYMMDD - Collection Type + QC Type

Where:

Well or Station: For Wells and boreholes always assume there will be 10 or more so Monitoring Well 1 becomes designated MW01 or MW-01. If it is anticipated that there will be over 100 wells designate Monitoring Well 1 as MW001 or MW-001.

YYYYMMDD: A four-digit year + two-digit month + two-digit day

Collection Type: A one-digit code used to designate what type of sample was collected and are shown on page 1.

QC Type: A one-digit code used to designate the QC type of the sample and are shown on page 1.

Examples:

- ***MW01-20090226-21:*** Represents the normal groundwater sample collected from Monitoring Well 1 on 26 February 2009.
- ***MW01-20090226-44:*** Represents the trip blank in the same ice chest as the groundwater sample in the previous collected from Monitor Well 1 on 02/26/2009. All trip blanks must have a sample ID and they must be unique and on the Chain-of -Custody.
- ***2054-000-00-43:*** Represents the rinsate sample from AOC 2054

SOP	**0110.05**				
GROUP	Database Management System				
SUB-GROUP	Data Collection and Acquisition				
TITLE	Sample Nomenclature				
DATE	04/01/2010	**FILE**	0110.05.docx	**PAGE**	1 of 2

INTRODUCTION

The following Standard Operating Procedure (SOP) presents the sample nomenclature for analytical samples that will generate unique sample names compatible with most data management systems. The sample nomenclature is based upon specific requirements for the reporting of these results. A site specific data management plan should be prepared prior to sample collection.

PROCEDURE

SAMPLE NOMENCLATURE – SOIL AND SEDIMENT

Area of Concern – ID – Depth - Collection Type + QC Type

Where:

Area of Concern: A four-digit identifier used to designate the particular Area of Concern (AOC) that the location where the sample was collected.

ID: A three letter &/or digit identifier used to designate the particular location (i.e. grid A01, P06, or 055) in the AOC from which the sample was collected or the center of the composite sample.

Depth: A two-digit code used to designate what depth of sample was collected:

code	Assessment	Confirmation
00	0 to 0 Surface	N/A
03	0 to 3 inches	3 inches below original ground surface
06	3 to 6 inches	6 inches below original ground surface
12	6 to 12 inches	12 inches below original ground surface

Collection Type: A one-digit code used to designate what type of sample was collected:

1	Surface Water	6	Oil
2	Ground Water	7	Waste
3	Leachate	8	Other
4	Field QC/water sample	9	Drinking Water
5	Soil/Sediment		

QC Type: A one-digit code used to designate the QC type of the sample:

1	Normal
2	Duplicate
3	Rinsate Blank
4	Trip Blank
5	Field Blank
6	Confirmation, Normal
7	Confirmation, Duplicate

Examples:

- ***2054-055-06-51:*** Represents the normal soil sample collected from AOC 2054 at location 055 from 3 to 6 inches of depth.
- ***2054-055-06-52***: Represents the duplicate soil sample collected from AOC 2054 at location 055 from 3 to 6 inches of depth.

- ***2054-000-00-43:*** Represents the rinsate sample from AOC 2054

- ***2054-055-06-56***: Represents the normal soil sample collected from AOC 2054 at location 055 after 6 inches of material has been removed as the confirmation sample during removal.

  NOTE: The depth is in relation to the original ground surface.

- ***2054-055-06-43***: Represents the rinsate water sample collected after the last sample of the day if last sample was collected from AOC 2054 at location 055 from 3 to 6 inches of depth.

SAMPLE NOMENCLATURE – WATER (from fixed station or location to be sampled more than once)

WELL OR STATION – YYMMDD - Collection Type + QC Type

Where:

Well or Station: For Wells and boreholes always assume there will be 10 or more so Monitoring Well 1 becomes designated MW01 or MW-01. If it is anticipated that there will be over 100 wells designate Monitoring Well 1 as MW001 or MW-001. For stations along a water pathway use stations from the furthest most upstream point and travel downstream in 100 ft. increments (i.e. point of probable entry would be Station 0+00 or ST000; 525 ft. downstream would be 5+25 or ST525)

YYYYMMDD: A four-digit year + two-digit month + two-digit day

Collection Type: A one-digit code used to designate what type of sample was collected and are shown on page 1.

QC Type: A one-digit code used to designate the QC type of the sample and are shown on page 1.

Examples:

- ***ST100-100226-21:*** Represents the normal groundwater sample collected from Station 1+00 on 26 February 2010.

- ***MW01-100226-44:*** Represents the trip blank in the same ice chest as the groundwater sample from Monitor Well 1 on 02/26/2010. All trip blanks must have a sample ID and they must be unique and on the Chain-of -Custody.

SOP	**1001.10**				
GROUP	Soil Sampling Procedures				
SUB-GROUP					
TITLE	Soil Compositing				
DATE	4/24/2013	**FILE**	Compositing Soil Sampling - Revised 1001-10	**PAGE**	1 of 2

INTRODUCTION

The following Standard Operating Procedure (SOP) describes the procedure for compositing soil samples. Soil samples are typically collected for laboratory analysis, and sometimes it is necessary to composite (mix together) samples from several locations for one combined analysis at the laboratory. This soil sampling procedure is closely related to SOP Nos. 1001.01, 1001.03, and 1001.10 regarding soil sampling procedures. This procedure serves as an alternative method of sample preparation prior to placing the samples in containers, as described in the other named SOPs.

PROCEDURE

Equipment

Equipment that may be used as part of the soil compositing procedure is identified under SOP Nos. 1001.01 and 1001.03 where soil sampling methods are described. Specific equipment typically used during the compositing process after discrete samples are collected includes:

- Mixing bowls or buckets
- Scoops, spatulas, and knives
- Sample containers
- Personal protection clothing
- Plastic Sheeting
- Decontamination equipment and supplies

Method

The procedure to be used to physically collect soil samples are described in SOP Nos. 1001.01 and 1001.03. Reference should be made to these SOPs for specific sampling equipment, procedures, and other general guidelines. As soil samples are collected, the site-specific Sampling and Analysis Plan may require compositing (mixing together) of two or more samples to create a single sample that will be sent to the laboratory for analysis. When this is the case, the following compositing procedure will generally be used:

- The soil will be collected in general accordance with SOP 1001.01 or 1001.03, with the exception that samples from discrete locations will generally not be immediately placed into sample containers and an additional preparation step (i.e., compositing) will be performed.

- As they are collected, soil samples selected for compositing will be staged in a clean mixing bowl or mixing bucket until each sample to be included in the composite sample is obtained. Depending on site requirements and analytical procedures to be requested, it may be necessary to temporarily stage individual discrete-location samples within clean sample jars, aluminum foil, or other appropriate materials for the project. The method for sample staging should be specified in the site-specific sampling and analysis plan.

- For composite samples that will be analyzed for volatile organic compounds, an equal portion of soil will be removed directly from each discrete-location sample and placed into a final sample jar without homogenizing the soil.

- For analyses other than volatile organics, equal portions of soil will be removed from each discrete-location sample and placed in a clean mixing bowl. The equal portions of the samples will then be broken up and homogenized together using a scoop or spatula. Homogenization will generally continue until the discrete samples being combined are reasonably indistinguishable as individual samples in the soil mixture. However, it is recognized that homogenization can be difficult for highly plastic clays. In this case, equal amounts of the soil core of each clay sample will be cut into small, roughly cubical pieces using a stainless steel knife, and an equal numbers of pieces of each discrete sample will be placed into the bowl and homogenized to extent practical.

- The composited soil sample will be collected from the mixing bowl containing the individual homogenized samples after homogenization is performed. The composited sample will be collected using a stainless steel or disposable plastic scoop or similar tool. The sample will be placed in a clean sample container and then handled in accordance with soil sampling SOPs 1001.01 and 1001.03.

Variations on this procedure are allowable to accommodate different soil conditions and any site requirements specifically identified in the site-specific Sampling and Analysis Plan.

The number of discrete samples that may be composited into a single sample typically ranges from two to six. The number of discrete samples that may be composited for the project in question will be specified in the site-specific Sampling and Analysis Plan.

REFERENCES

SOP No. 1001.01 - Standard Operating Procedure, Surface Soil Sampling
SOP No. 1001.03 - Standard Operating Procedure, Shallow Subsurface and Near Surface Soil Sampling

SOP	**1101.01**				
GROUP	Sampling Handling				
SUB-GROUP	Sample Custody				
TITLE	Sample Custody in the Field				
DATE	**11/19/2001**	**FILE**	1101-01.DOC	**PAGE**	1 of 4

INTRODUCTION

The following Standard Operating Procedure (SOP) presents procedures for maintaining sample chain of custody (COC) during activities where samples are collected.

PROCEDURE

Sample custody is defined as being under a person's custody if any of the following conditions exist:

- it is in their possession,
- it is in their view, after being in their possession,
- it was in their possession and they locked it up, or
- it is in a designated secure area.

A designated field sampler will be personally responsible for the care and custody of collected samples until they are transferred to another person or properly dispatched to the laboratory. To the extent practicable, as few people as possible will handle the samples.

Sample tags or labels will be completed and applied to the container of each sample. When the tags or labels are being completed, waterproof ink will be used. If waterproof ink is not used, the tags or labels will be covered by transparent waterproof tape. Sample containers may also be placed in Ziploc-type storage bags to help keep them clean in the cooler. Information typically included on the sample tags or labels will include the following:

- Project Code
- Station Number and Location
- Sample Identification Number
- Date and Time of Sample Collection
- Type of Laboratory Analysis Required
- Preservation Required, if applicable
- Collector's Signature
- Priority (optional)
- Other Remarks

Additonal information may include:

- Anticipated Range of Results (Low, Medium, or High)
- Sample Analysis Priority

A COC form will be completed each time a sample or group of samples is prepared for transfer to the laboratory. The form will repeat the information on each of the sample labels and will serve as documentation of handling during shipment. The minimum information requirements of the COC form are listed in Table 1101.01-A. An example COC form is shown in Figure 1101.01-A. The completed COC must be reviewed by the Field Team Leader or Site Manager prior to sample shipment. The COC form will remain each sample shipping container at all times, and another copy will be retained by the member of the sampling team who originally relinquished the samples or in a project file.

TABLE 1101.01-A CHAIN OF CUSTODY FORM

INFORMATION	COMPLETED BY	DESCRIPTION
COC	Laboratory	enter a unique number for each chain of custody form
SHIP TO	Field Team	enter the laboratory name and address
CARRIER	Field Team	enter the name of the transporter (e.g., FedEx) or handcarried
AIRBILL	Field Team	enter the airbill number or transporter tracking number (if applicable)
PROJECT NAME	Field Team	enter the project name
SAMPLER NAME	Field Team	enter the name of the person collecting the samples
SAMPLER SIGNATURE	Field Team	signature of the person collecting the samples
SEND RESULTS TO	Field Team	enter the name and address of the prime contractor
FIELD SAMPLE ID	Field Team	enter the unique identifying number given to the field sample (includes MS, MSD, field duplicate and field blanks)
DATE	Field Team	enter the year and date the sample was collected in the format M/D (e.g., 6/3)
TIME	Field Team	enter the time the sample was collected in 24 hour format (e.g., 0900)
MATRIX	Field Team	enter the sample matrix (e.g., water, soil)
PRESERVATIVE	Field Team	enter the preservative used (e.g., HNO3) or “none”
FILTERED/ UNFILTERED	Field Team	enter “F” if the sample was filtered or “U” if the sample was not filtered
CONTAINERS	Field Team	enter the number of containers associated with the sample
MS/MSD	Field Team or Laboratory	enter “X” if the sample is designated for the MS/MSD
ANALYSES REQUESTED	Field Team	enter the method name of the analysis requested (e.g., SW6010A)
COMMENTS	Field Team	enter comments
SAMPLE CONDITION UPON RECEIPT AT LABORATORY	Laboratory	enter any problems with the condition of any sample(s)
COOLER TEMPERATURE	Laboratory	enter the internal temperature of the cooler, in degrees C, upon opening
SPECIAL INSTRUCTIONS/COMMENTS	Laboratory	enter any special instructions or comments
RELEASED BY (SIG)	Field Team and Laboratory	enter the signature of the person releasing custody of the samples
COMPANY NAME	Field Team and Laboratory	enter the company name employing the person releasing/receiving custody
RECEIVED BY (SIG)	Field Team and Laboratory	enter the signature of the person receiving custody of the samples
DATE	Field Team and Laboratory	enter the date in the format M/D/YY (e.g., 6/3/96) when the samples were released/received
TIME	Field Team and Laboratory	enter the date in 24 hour format (e.g., 0900) when the samples were released/received

FIGURE 1101.01-A CHAIN OF CUSTODY FORM

SOP	**1102.01**				
GROUP	Sample Handling				
SUB-GROUP	Sample Shipping				
TITLE	Sample Shipping				
DATE	11/19/2001	**FILE**	1102-01.DOC	**PAGE**	1 of 1

INTRODUCTION

The following Standard Operating Procedure (SOP) presents the procedures for sample shipping that will be implemented during field work involving sampling activities.

TERMS

COC - Chain-of-Custody

PROCEDURE

Prior to shipping or transferring custody of samples, they will be packed according to D.O.T. requirements with sufficient ice to maintain an internal temperature of 4°C ± 2°C during transport to the laboratory. Samples relinquished to the participating laboratories will be subject to the following procedures for transfer of custody and shipment:

1. Samples will be accompanied by a COC record. When transferring possession of samples, the individuals relinquishing and receiving the samples will sign, date, and note the time of the sample transfer on the record. If sent by common carrier, a bill of lading or airbill should be used. Bill of lading and airbill receipts will be retained in the project file as part of the permanent documentation of sample shipping and transfer. This custody record documents transfer of sample custody from the sampler to another person or to the laboratory. The designated laboratory will accept custody in the field upon sample pick-up or at the laboratory if the samples are delivered via field personnel or a courier service.
2. Samples will be properly packed in approved shipping containers for laboratory pick-up by the appropriate laboratory for analysis, with separate, signed custody records enclosed in each sample box or cooler. Sample shipping containers will be padlocked or custody-sealed for transfer to the laboratory. The preferred procedure includes use of a custody seal wrapped across filament tape that is wrapped around the package at least twice. The custody seal will then be folded over and stuck to itself so that the only access to the package is by cutting the filament tape or breaking the seal to unwrap the tape. The seal will then be signed. The designated laboratory will accept custody of the samples upon receipt.
3. Whenever samples are split with state representatives or other parties, the COC record will be marked to indicate with whom the samples were split.
4. The field sampler will call the designated laboratory to inform them of sample shipment and verify sample receipt as necessary.

SOP	**1201.01**				
GROUP	Decontamination				
SUB-GROUP	Sampling Equipment Decontamination				
TITLE	Sampling Equipment Decontamination				
DATE	11/19/2001	**FILE**	1201-01.DOC	**PAGE**	1 of 3

INTRODUCTION

The following Standard Operating Procedure (SOP) presents the methods used for minimizing the potential for cross-contamination, and provides general guidelines for sampling equipment decontamination procedures.

PROCEDURE

As part of the Health and Safety Plan (HASP), develop and set up a decontamination plan before any personnel or equipment enter the areas of potential exposure. The decontamination plan should include the following:

- The number, location, and layout of decontamination stations
- Which decontamination apparatus is needed
- The appropriate decontamination methods
- Methods for disposal of contaminated clothing, apparatus, and solutions

Decontamination Methods

Personnel, samples, and equipment leaving the contaminated area of a site will be decontaminated. Various decontamination methods will be used to either physically remove contaminants, inactivate contaminants by disinfection or sterilization, or both. The physical decontamination techniques appropriate for equipment decontamination can be grouped into two categories: abrasive methods and non-abrasive methods.

Abrasive Cleaning Methods

Abrasive cleaning methods work by rubbing/scrubbing the surface containing the contaminant. This method includes mechanical and wet blasting methods.

Mechanical cleaning methods use brushes of metal or nylon. The amount and type of contaminants removed will vary with the hardness of bristles, length of brushing time, and degree of brush contact.

Cleaning can also be accomplished by water blasting which is also referred to as steam cleaning and pressure washing. Pressure washing utilizes high-pressure that is sprayed from a nozzle onto sampling equipment to physically remove soil or (potentially) contaminated material. Steam cleaning is a modification of pressure washing where the water is heated to temperatures approaching 100°C to assist in removing organic constituents from equipment.

Disinfection/Rinse Methods

Disinfectants are a practical means of inactivating chemicals or contaminants of concern. Standard sterilization methods involve heating the equipment which is impractical for large equipment. Rinsing removes contaminants through dilution, physical attraction, and solubilization.

The use of distilled/deionized water commonly available from commercial vendors may be acceptable for decontamination of sampling equipment provided that it has been verified by laboratory analysis to be target analyte free. Tap water may be used from any municipal water treatment system for mixing of decontamination solutions. An untreated potable water supply is not an acceptable substitute for tap water. Acids and solvents are occasionally utilized in decontamination of equipment to remove metals and organics, respectively, from sampling equipment. Other than ethanol, these are avoided when possible due to the safety, disposal, and transportation concerns associated with them.

Equipment or apparatuses that may be selected for use include the following:

- Personal protective clothing
- Non-phosphate detergent
- Selected solvents for removal of polar and nonpolar organics (ethanol, methanol, hexane)
- Acid washes for removal of metals (nitric acid)
- Long-handled brushes
- Drop cloths or plastic sheeting
- Paper towels
- Galvanized tubs or buckets
- Distilled, deionized, or tap water (as required by the project)
- Storage containers for spent wash solutions
- Sprayers (pressurized and non-pressurized)
- Trash bags
- Safety glasses or splash shield

Field Sampling Equipment Cleaning Procedures

The following procedures should be followed:

1. Where applicable, follow physical removal procedures previously described (pressure wash, scrub wash)
2. Wash equipment with a non-phosphate detergent solution
3. Rinse with tap water
4. Rinse with distilled or deionized water
5. Rinse with 10% nitric acid if the sample will be analyzed for metals/organics
6. Rinse with distilled or deionized water
7. Use a solvent rinse (pesticide grade) if the sample will be analyzed for organics
8. Air dry the equipment completely
9. Rinse again with distilled or deionized water

10. Place in clean bag or container for storage/transport to subsequent sampling locations.

Selection of the solvent for use in the decontamination process is based on the contaminants present at the site. Solvent rinses are not necessarily required when organics are not a contaminant of concern and may be eliminated from the sequence specified below. Similarly, an acid rinse is not required if the analyses do not include inorganics. Use of a solvent is required when organic contamination is present on-site. Typical solvents used for removal of organic contaminants include acetone, ethanol, hexane, methanol, or water. An acid rinse step is required if metals are present on-site. If a particular contaminant fraction is not present at the site, the ten-step decontamination procedure listed above may be modified for site specificity.

Sampling equipment that requires the use of plastic tubing should be disassembled and the tubing replaced with clean tubing before commencement of sampling and between sampling locations. Plastic tubing should not be reused.

SOP	**1005.02**				
GROUP	Sampling Procedures				
SUB-GROUP	Field QA/QC Sampling				
TITLE	Rinse Blank Preparation				
DATE	2/6/2009	**FILE**	1005-02.DOC	**PAGE**	1 of 1

INTRODUCTION

The following Standard Operating Procedure (SOP) presents a method to prepare a type of quality control sample specific to the field decontamination process, the equipment rinse blank. The rinse blank provides information on the effectiveness of the decontamination process employed in the field. When used in conjunction with field blanks and trip blanks, the rinse blank can be used to assist in evaluating possible compromise of samples from field related activities.

PROCEDURE

The equipment rinse blank is prepared by passing target analyte-free (i.e., deionized) water over and through a field decontaminated sampling device, then collecting the rinse water in appropriate clean sample containers. Rinse blanks will typically be collected from equipment that comes in contact with samples, such as auger buckets, split spoons, bailers, shelby tubes, and stainless steel spoons/trowels. The collected sample will be coded appropriately prior to logging and shipping. Equipment blanks are not required if dedicated sampling equipment is used. Equipment blanks will be collected periodically during the day immediately after decontamination of the sampling equipment being used.

The frequency for collecting equipment blanks will be determined prior to engaging in field activities, and communicated in site-specific quality assurance project plans, sampling and analyses plans, or a type of work plan. Equipment blanks will be collected at a rate relative to each type of sample collection procedure (i.e., surface sample, sample at depth using a hand auger). Equipment blanks will generally be collected at a frequency of 1 per 20 (normal) samples of a given matrix.

SOP	**1005.01**				
GROUP	Sampling Procedures				
SUB-GROUP	Field QA/QC Sampling				
TITLE	Field Duplicate Collection				
DATE	4/27/2005	**FILE**	1005-01.DOC	**PAGE**	1 of 2

INTRODUCTION

The following Standard Operating Procedure (SOP) describes the procedure for collecting field duplicate soil and water samples. When samples are collected for analysis, it is typically desired that independent data allowing evaluation of laboratory precision (i.e., the degree to which a laboratory result can be repeated) on site-specific samples be collected.

A field duplicate sample is a second sample collected at the same location as the original sample. Duplicate samples are collected simultaneously or in immediate succession, using identical recovery techniques, and treated in an identical manner during storage, transportation, and analysis. The sample containers are assigned an identification number in the field such that they cannot be identified (blind duplicate) as duplicated samples by laboratory personnel performing the analysis. Specific locations are designated for collection of field duplicate samples prior to the beginning of sample collection.

The duplicate soil sampling procedure is closely related to SOP Nos. 1001.01, 1001.03, and 1001.10 regarding soil sampling procedures. This procedure serves as an alternative method or extension of sample preparation prior to placing the samples in containers, as described in the 1001 series of the SOPs (e.g. 1001.01 and 1001.03).

DUPLICATE SOIL SAMPLING PROCEDURE

The procedure to be used to physically collect soil samples are described in SOP Nos. 1001.01 and 1001.03. Reference should be made to these SOPs for specific sampling equipment, procedures, and other general guidelines. As soil is collected, the following procedure will be used to prepare a field duplicate sample:

- The soil will be collected in general accordance with SOP 1001.01 or 1001.03, with the exception that samples will generally not be immediately placed into sample containers and an additional preparation step (i.e., sample splitting) will be performed.

- As they are collected, soil samples to be submitted as field duplicates will be staged in a clean mixing bowl or mixing bucket.

- For samples that will be analyzed for volatile organic compounds, the soil sample will be split in half and an equal portion of soil will be placed directly into two or more different sample containers, each container representing a different sample for laboratory analysis. The soil will not be homogenized to minimize the potential for volatilization of the organic compounds potentially in the sample.

- For analyses of chemicals other than volatile organic compounds, the soil removed from the discrete sample location will be homogenized in a clean mixing bowl using a clean scoop or spatula (as described in SOPs 1001.01 and 1001.03). Homogenization will generally continue until the discrete samples being combined are reasonably indistinguishable as individual samples in the soil mixture. However, it is recognized that homogenization can be difficult for highly plastic clays. In this case, equal amounts of the soil core of each clay sample will be cut into small, roughly cubical pieces using a stainless steel knife and placed into a bowl and homogenized to extent practical.

- The field duplicate sample (except for volatiles as note above) will be collected from the mixing bowl containing the homogenized samples after homogenization is performed. The composited sample will be collected using a stainless steel or disposable plastic scoop or similar tool. The sample will be placed in a clean sample container and then handled in accordance with soil sampling SOPs 1001.01 and 1001.03.

Another difference from the referenced SOPs is that additional soil volume may need to be collected from a discrete sample location during the sampling process to provide sufficient sample volume for two or more sets of laboratory analyses. If the collection of additional sample volume will result in the sample interval expanding to greater depths or laterally outward, the sampling tools identified in 1001 series of the SOPs can be used at two immediately vertically or laterally adjacent locations, as appropriate. If sampling from two adjacent but distinct locations is necessary to obtain adequate sample volume, the soil from the two locations should be composited in accordance with SOP 1001.10. Field duplicates of composited samples may also be performed using this SOP for field duplicate samples.

Variations on this procedure are allowable to accommodate different soil conditions and any site requirements specifically identified in the site-specific Sampling and Analysis Plan. Equipment that may be used as part of the soil compositing procedure is identified under SOP Nos. 1001.01 and 1001.03 where soil sampling methods are described.

DUPLICATE WATER SAMPLING PROCEDURES

The procedure to be used to physically collect water samples are described in 1002 series of the SOPs (e.g. 1002.01 and 1002.02). Reference should be made to these SOPs for specific sampling equipment, procedures, and other general guidelines. A duplicate water sample will be collected from the same location as the parent sample and within 15 minutes of the collection of the parent sample.

The number of samples that may be submitted as blind field duplicates for the project in question will be specified in the site-specific sampling plan. Blind field duplicates are typically collected at a frequency of 1 per 10 samples of a given environmental media at sites, especially where laboratory analytical data will be used for evaluating regulatory compliance and other engineering judgments. Sampling in support of a routine monitoring program may not require field duplicates. Reference should be made to the site-specific contract and work plans.

REFERENCES

SOP No. 1001.01 - Standard Operating Procedure, Surface Soil Sampling
SOP No. 1001.03 - Standard Operating Procedure, Soil Sampling - Hand Auger Method
SOP No. 1001.10 - Standard Operating Procedure, Soil Compositing

APPENDIX B

SITE-SPECIFIC DATA QUALITY OBJECTIVE

(DQO)

Appendix B
Data Quality Objective No. 1 – Soil Sampling
R6 Wilcox Oil Refinery Removal
Bristow, Creek County, Oklahoma

STEP 1. STATE THE PROBLEM	
Former site operations associated with the Wilcox Oil Refinery Site resulted in site-related contaminated soil that was identified as a risk to human health and the environment. The documented contaminant of concern (COC) is Benzo(a)pyrene. A removal action will be conducted to remove contaminated soil up to 2 feet below ground surface (bgs) and document COC concentrations at the extent of the excavations.	
STEP 2. IDENTIFY THE DECISION	
Are the concentrations of constituents of concern in soils, represented by a sample, above specified action levels?	
IDENTIFY THE ALTERNATIVE ACTIONS THAT MAY BE TAKEN BASED ON THE DECISIONS.	▪ If the site-related COC in the excavation soil sample collected from the grid exceeds the site action levels, grid excavation will continue to a maximum depth of 2 feet bgs. A warning barrier will be installed prior to backfilling the excavation area in all grid areas excavated to a depth of 2 feet bgs. ▪ If no site-related COCs in the confirmation samples exceed the site actions levels, the grid area represented by that sample will not require additional excavation.
STEP 3. IDENTIFY INPUTS TO THE DECISION	
IDENTIFY THE INFORMATIONAL INPUTS NEEDED TO RESOLVE A DECISION.	▪ Contaminant concentrations in confirmation soil samples collected following excavation of grids identified during the 2015 removal assessment.
IDENTIFY THE SOURCES FOR EACH INFORMATIONAL INPUT AND LIST THE INPUTS THAT ARE OBTAINED THROUGH ENVIRONMENTAL MEASUREMENTS.	▪ Five-point composite grab samples collected to represent a 100-foot by 100-foot grid. ▪ Analytical results obtained from the laboratory following SVOCs - SW-846 Method 8270-SIM.
BASIS FOR THE CONTAMINANT-SPECIFIC ACTION LEVELS.	• The site action levels as noted in Table 1-1 of the QASP.
IDENTIFY POTENTIAL SAMPLING TECHNIQUES AND APPROPRIATE ANALYTICAL METHODS.	▪ Soil sampling techniques are described in the Quality Assurance Sampling Plan (QASP). ▪ SVOCs - SW-846 Method 8270-SIM.

Appendix B
Data Quality Objective No. 1 – Soil Sampling
(Continued)

STEP 4. DEFINE THE BOUNDARIES OF THE STUDY	
DEFINE THE DOMAIN OR GEOGRAPHIC AREA WITHIN WHICH ALL DECISIONS MUST APPLY.	The grid represented by the soil sample and analytical results within the site boundaries (QASP Figure 3-1).
SPECIFY THE CHARACTERISTICS THAT DEFINE THE POPULATION OF INTEREST.	Contaminant concentrations in on-site soil.
DEFINE THE SCALE OF DECISION MAKING.	The scale of decision will be for soil represented by each sample collected from the site.
DETERMINE THE TIME FRAME TO WHICH THE DATA APPLY.	The data will apply until the soil represented by the sample receives appropriate response actions.
DETERMINE WHEN TO COLLECT DATA.	Samples will be collected during the removal action planned to start in August 2017.
IDENTIFY PRACTICAL CONSTRAINTS ON DATA COLLECTION.	• Inclement weather. • Debris and/or structures or foundations in the proposed sample grid. • Access restrictions.
STEP 5. DEVELOP A DECISION RULE	
SPECIFY THE PARAMETER THAT CHARACTERIZES THE POPULATION OF INTEREST.	Post-excavation soil samples will be compared to the site-specific action levels presented in Table 1-1 of this QASP.
SPECIFY THE ACTION LEVEL FOR THE DECISION.	Benzo(a)pyrene – 0.11 mg/kg
DEVELOP A DECISION RULE.	If any result in a post-excavation soil sample is above the site-specific action level, grid excavation will continue to a depth of 2 feet bgs. If post-excavation soil sample results are above the site-specific action at 2 feet bgs, then a warning barrier will be installed prior to backfilling the excavated grid area.
STEP 6. SPECIFY LIMITS ON DECISION ERRORS	
DETERMINE THE POSSIBLE RANGE OF THE PARAMETER OF INTEREST.	Contaminant concentrations may range from 0 mg/kg to more than the site-specific action levels.

Appendix B
Data Quality Objective No. 1 – Soil Sampling
(Continued)

STEP 6. SPECIFY LIMITS ON DECISION ERRORS (CONTINUED)	
DEFINE BOTH TYPES OF DECISION ERRORS AND IDENTIFY THE POTENTIAL CONSEQUENCES OF EACH.	Type I Error: Deciding that the specified area represented by the soil sample does not exceed the site-specific action level when, in truth, the soil concentration of the contaminant exceeds its specified action level. The consequence of this decision error is that contaminated soil will remain on-site, possibly endangering human health and the environment. There may also be potential future liability associated with clean-up costs of leaving contaminated soil on-site. This decision error is more severe. Type II Error: Deciding that the specified area represented by the soil sample does exceed the site-specific action level when, in truth, it does not. The consequences of this decision error are that remediation of the specified area will continue and unnecessary costs will be incurred.
ESTABLISH THE TRUE STATE OF NATURE FOR EACH DECISION RULE.	The true state of nature when the soil is decided to be below the specified action levels when in fact, it is not below the specified action levels, is that the area may need remedial action. The true state of nature when the soil is decided to be above the specified action levels when in fact, it is not above the specified action levels, is that the area may not need remedial action.
DEFINE THE TRUE STATE OF NATURE FOR THE MORE SEVERE DECISION ERROR AS THE BASELINE CONDITION OR THE NULL HYPOTHESIS (H_o) AND DEFINE THE TRUE STATE FOR THE LESS SEVERE DECISION ERROR AS THE ALTERNATIVE HYPOTHESIS (H_a).	H_o: The soil represented by the soil sample of the specified area is above the specified action level. H_a: The soil represented by the soil sample of the specified area is below the specified action level.
ASSIGN THE TERMS "FALSE POSITIVE" AND "FALSE NEGATIVE" TO THE PROPER DECISION ERRORS.	• False Positive Error = Type I • False Negative Error = Type II
ASSIGN PROBABILITY VALUES TO POINTS ABOVE AND BELOW THE ACTION LEVEL THAT REFLECT THE ACCEPTABLE PROBABILITY FOR THE OCCURRENCES OF DECISION ERRORS.	To be assigned based on discussions with EPA OSC.

Appendix B
Revised Data Quality Objective No. 1 – Soil Sampling
(Continued)

STEP 7. OPTIMIZE THE DESIGN	
REVIEW THE DQOs	The sample size was based on 100-foot by 100-foot grids established within the Study Area. In order to select the optimal sampling program that satisfies the DQOs and is the most resource effective, other elements were considered.
DEVELOP GENERAL SAMPLING AND ANALYSIS DESIGN *For the post-excavation sampling, START will collect five-part composite samples from 100-foot by 100-foot grids. Based on analytical results, grid areas exhibiting COC concentrations above site-specific action levels (QASP Table 1-1) will be excavated to a maximum depth of 2 feet bgs. Approximately 10 post-excavation soil samples (including QA/QC samples) will be collected utilizing sampling procedures described in Section 3.0 of the QASP. The samples will be analyzed following EPA SW-846 Method 8270-SIM.*	

Appendix C

TDD No. 0009/WESTON-042-17-064

Technical Direction Document

U.S. EPA, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Vendor : WESTON SOLUTIONS, INC

TDD # : 0009/WESTON-042-17-064
Amendment # :
Contract # : EP-S8-13-01

TDD Title : R6 Wilcox Oil Refinery Site Assessment
Purpose : TDD INITIATION

Verbal Date :
Start Date : 06/27/2017
Completion Date : 08/22/2017
Effective Date : 06/27/2017

Priority : HIGH
Overtime Authorized : Yes
Invoice Unit :

SSID : 06GG
Project/Site Name : R6 Wilcox Oil Refinery Site Assessm
Project Address : West 221st Street
County : Creek
City : Bristow
State : OK
Zip Code : 74010

Work Area : Response / Removal
Work Area Code : RS
Activity : Removal Ass'mnt w/On-Site (walk,survey, or sample
Activity Code : RS
Operable Unit :
Emergency Code :
FPN :
Performance Based : No

Authorized TDD Ceiling :

	Amount	LOE (Hours)
Previous Action(s) :	$0.00	0.00
This Action :	$30,000.00	0.00
New Total :	$30,000.00	0.00

Specific Elements :

Description of Work :

See Schedule

Region Specific :

CERCLIS: :

Misc 2 :

Accounting and Appropriation Information:

SFO:

Line	Budget / FY	Approp.	Budget Org	Program Element	Object Class	Site Project	Cost Org	DCN Line-ID	Funding Category	TDD Amount
1	17	T	6A00	303DC6	2505	06WQWQ00	C001	176ARVC005-001	REMOVAL	$30,000.00

U.S. EPA, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Vendor : WESTON SOLUTIONS, INC

TDD # : 0009/WESTON-042-17-064
Amendment # :
Contract # : EP-S8-13-01

Project Officer : Will LaBombard (Signature) (Date)	**Branch Mail Code:** **Phone Number :** 214-665-7199 **Fax Number :**
Contracting Officer Representative Steve Mason (Signature) (Date)	**Branch Mail Code :** **Phone Number :** 214-665-2276 **Fax Number :**
Contract Specialist: Brian Delaney (Signature) (Date)	**Branch Mail Code :** **Phone Number :** 214-665-7473 **Fax Number :**
Contracting Officer : Brian Delaney Electronically Signed by Brian Delaney 06/27/2017 (Signature) (Date)	**Branch Mail Code :** **Phone Number :** 214-665-7473 **Fax Number :**
Other Agency Official (Signature) (Date)	**Branch Mail Code :** **Phone Number :** **Fax Number :**

Description of Work:The initial funding ceiling for this TDD is set at $30,000.

Contractor shall review analytical results from prior sampling activities and provide technical advice to the OSC. Contractor shall document all site activities and provide web based reporting as directed by the OSC. Contractor shall collect all facts and information pertaining to residential properties. Identify Site and adjacent property owner information, provide property owner map. Assist OSC in documenting site access from remedial program for affected parties. If review of prior sampling activities warrant additional sampling, Contractor shall collect soil samples to determine the extent of contamination on designated residential properties. Location, type, and method of sample collection will be determined by the OSC. Contractor shall develop sampling plan. Contractor shall develop draft POLREP.

Notify TM (at a minimum) within 15 days of the TDD period of performance or within 80% of the TDD ceiling if additional time or funding are required to continue the task. START shall coordinate scope and details of final report with OSC. Contact OSC Mason at 214-665-2276 to discuss site tasks.

APPENDIX H

TECHNICAL DIRECTION DOCUMENT NO. 0001/17-065

Technical Direction Document

U.S. EPA, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Vendor : WESTON SOLUTIONS, INC.

TDD # : 0001/17-065
Amendment # : 002
Contract # : EP-S5-17-02

TDD Title : Wilcox Oil Residence Site Removal
Purpose : INCREMENTAL FUNDING

Verbal Date :
Start Date : 08/23/2017
Completion Date : 12/31/2017
Effective Date : 08/23/2017

Priority : HIGH
Overtime Authorized : Yes
Invoice Unit :

SSID : 0600
Project/Site Name : Wilcox Oil Residence Site Removal
Project Address : (b) (6) Street
County : Creek
City : Bristow
State : OK
Zip Code : 74010

Work Area : Response / Removal
Work Area Code : RS
Activity : Emergency Response Action (Site Specific)
Activity Code : RV
Operable Unit :
Emergency Code :
FPN :
Performance Based : No

Authorized TDD Ceiling :

	Amount	LOE (Hours)
Previous Action(s) :	$0.00	0.00
This Action :	$0.00	0.00
New Total :	$0.00	0.00

Specific Elements :

Description of Work :

See Schedule

Region Specific :

CERCLIS: :

Misc 2 :

Accounting and Appropriation Information:

SFO:

Line	Budget / FY	Approp.	Budget Org	Program Element	Object Class	Site Project	Cost Org	DCN Line-ID	Funding Category	TDD Amount

U.S. EPA, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Vendor : WESTON SOLUTIONS, INC.

TDD # : 0001/17-065
Amendment # : 002
Contract # : EP-S5-17-02

Project Officer : Will LaBombard (Signature) (Date)	**Branch Mail Code:**	
	Phone Number :	214-665-7199
	Fax Number :	
Contracting Officer Representative Steve Mason (Signature) (Date)	**Branch Mail Code :**	
	Phone Number :	214-665-2276
	Fax Number :	
Contract Specialist: Michael J. Pheeny (Signature) (Date)	**Branch Mail Code :**	
	Phone Number :	214-665-2798
	Fax Number :	
Contracting Officer : Michael J. Pheeny Electronically Signed by Michael J. Pheeny 11/20/2017 (Signature) (Date)	**Branch Mail Code :**	
	Phone Number :	214-665-2798
	Fax Number :	
Other Agency Official (Signature) (Date)	**Branch Mail Code :**	
	Phone Number :	
	Fax Number :	

U.S. EPA, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Vendor : WESTON SOLUTIONS, INC.

TDD # : 0001/17-065
Amendment # : 002
Contract # : EP-S5-17-02

Description of Work:
Amendment 002 - Increase the funding ceiling by $7,000 (for a new ceiling of $57,000) to cover additional costs for use of START trailer on site for 2 weeks as well as additional document review.
Amendment 001 - Extend the POP to 12/31/2017 for additional use of the START trailer at the site, and close-out of reports and data.

Base ORIG - The initial funding ceiling for this TDD is set at $50,000. When available, all TDD costs shall be invoiced against the oldest 6A00E or 6A00S task order funding.

The contractor shall use SSID A6GG on all forms, reports, emails, communications, and deliverables.

Stephen Mason will be the primary COR for this TDD and Bill Rhotenberry will be the alternate COR.

Scope of Work:
Start shall coordinate all activities with the OSC.
START shall photo document / document conditions and activities at the site.
START shall maintain site files.
START shall develop and implement a QA sampling plan.
START shall conduct air monitoring and sampling for contaminants of concern.
START shall perform confirmation sampling of soil for contaminants of concern.
START shall acquire lab services for analysis of soil and air samples.
START shall draft POLREP(s).
START shall execute QASP upon approval of OSC.
START shall prepare draft removal report for OSC review.
START shall assist EPA with waste profile analyses.

In addition, the contractor shall provide documentation in support of the invoice. Documentation shall include: time sheets with description of work completed, subcontractor invoices with explanation of work provided, documentation to support internal/external equipment rentals, travel expense reports with receipts, purchases made dedicated to the project with explanation and receipts, and any other documentation that contractor determines applicable. This documentation shall be submitted with the monthly vouchers in an electronic format deliverable to the PO/CO supporting the time period and costs claimed in the invoice. Additionally, contractor shall provide a final cost package deliverable at the completion of the project. The deliverable shall include all documents previously sent to EPA rolled up into one document which includes the: Technical Direction Document (TDD), Technical Monthly Progress reports (TPRs), invoices and all supporting cost documentation described above. Contractor shall provide two electronic versions of the final deliverable: one redacted and one unredacted. On the unredacted electronic version, the Contractor shall highlight all information that is Confidential Business Information.

U.S. EPA, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Vendor : WESTON SOLUTIONS, INC.

TDD # : 0001/17-065
Amendment # :
Contract # : EP-S5-17-02

TDD Title : Wilcox Oil Residence Site Removal
Purpose : TDD INITIATION

Verbal Date :
Start Date : 08/23/2017
Completion Date : 10/31/2017
Effective Date : 08/23/2017

Priority : HIGH
Overtime Authorized : Yes
Invoice Unit :

SSID : 0600
Project/Site Name : Wilcox Oil Residence Site Removal
Project Address : (b) (6) Street
County : Creek
City : Bristow
State : OK
Zip Code : 74010

Work Area : Response / Removal
Work Area Code : RS
Activity : Emergency Response Action (Site Specific)
Activity Code : RV
Operable Unit :
Emergency Code :
FPN :
Performance Based : No

Authorized TDD Ceiling :

	Amount	LOE (Hours)
Previous Action(s) :	$0.00	0.00
This Action :	$0.00	0.00
New Total :	$0.00	0.00

Specific Elements :

Description of Work :

See Schedule

Region Specific :

CERCLIS: :

Misc 2 :

Accounting and Appropriation Information:

SFO:

Line	Budget / FY	Approp.	Budget Org	Program Element	Object Class	Site Project	Cost Org	DCN Line-ID	Funding Category	TDD Amount

U.S. EPA, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Vendor : WESTON SOLUTIONS, INC.

TDD # : 0001/17-065
Amendment # :
Contract # : EP-S5-17-02

Project Officer : Will LaBombard (Signature) (Date)	**Branch Mail Code:** **Phone Number :** 214-665-7199 **Fax Number :**	
Contracting Officer Representative Steve Mason (Signature) (Date)	**Branch Mail Code :** **Phone Number :** 214-665-2276 **Fax Number :**	
Contract Specialist: Brian Delaney (Signature) (Date)	**Branch Mail Code :** **Phone Number :** 214-665-7473 **Fax Number :**	
Contracting Officer : Brian Delaney Electronically Signed by Brian Delaney 08/23/2017 (Signature) (Date)	**Branch Mail Code :** **Phone Number :** 214-665-7473 **Fax Number :**	
Other Agency Official (Signature) (Date)	**Branch Mail Code :** **Phone Number :** **Fax Number :**	

Description of Work:The initial funding ceiling for this TDD is set at $50,000. When available, all TDD costs shall be invoiced against the oldest 6A00E or 6A00S task order funding.

The contractor shall use SSID A6GG on all forms, reports, emails, communications, and deliverables.

Stephen Mason will be the primary COR for this TDD and Bill Rhotenberry will be the alternate COR.

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