SEPTEMBER 18, 2019

RELEASE CLOSURE REPORT

XTO ENERGY, INC. – EMSU #266 (API#: 30-025-26101)

1RP-4546

Prepared for: XTO Energy, Inc.

Prepared by: Sport Environmental Services, LLC

502 N. Big Spring St.

Midland, TX 79701

www.sportenv.com

September 18, 2019

Environmental Specialist Team
New Mexico Oil Conservation Division
District 1 (Hobbs)
1625 N. French Dr.
Hobbs, NM 882140

Re: Release Closure Report
XTO Energy, Inc.
Eunice Monument South Unit (EMSU) #266
RP #: 1RP-4546
Approximate Geographic Coordinates: 32.501578°N, -103.243517°W
Unit Letter U, Section 2, Township 21S, Range 36E
Lea County, New Mexico

Dear NMOCD Environmental Specialists:

This documentation is being provided as part of XTO Energy, Inc. *(XTO* or *Client)* efforts to address historical releases that may have been addressed in the past, but which appear not to have documentation from the New Mexico Oil Conservation Division *(NMOCD)* clearly demonstrating approved closure of the release. The release referenced above was included in the list of historical releases which occurred prior to August 14, 2018 that are intended to be addressed as described within the "Compliance Agreement for Remediation for Historical Releases" *(Compliance Agreement)* entered into by NMOCD and XTO on November 8, 2018.

Executive Summary

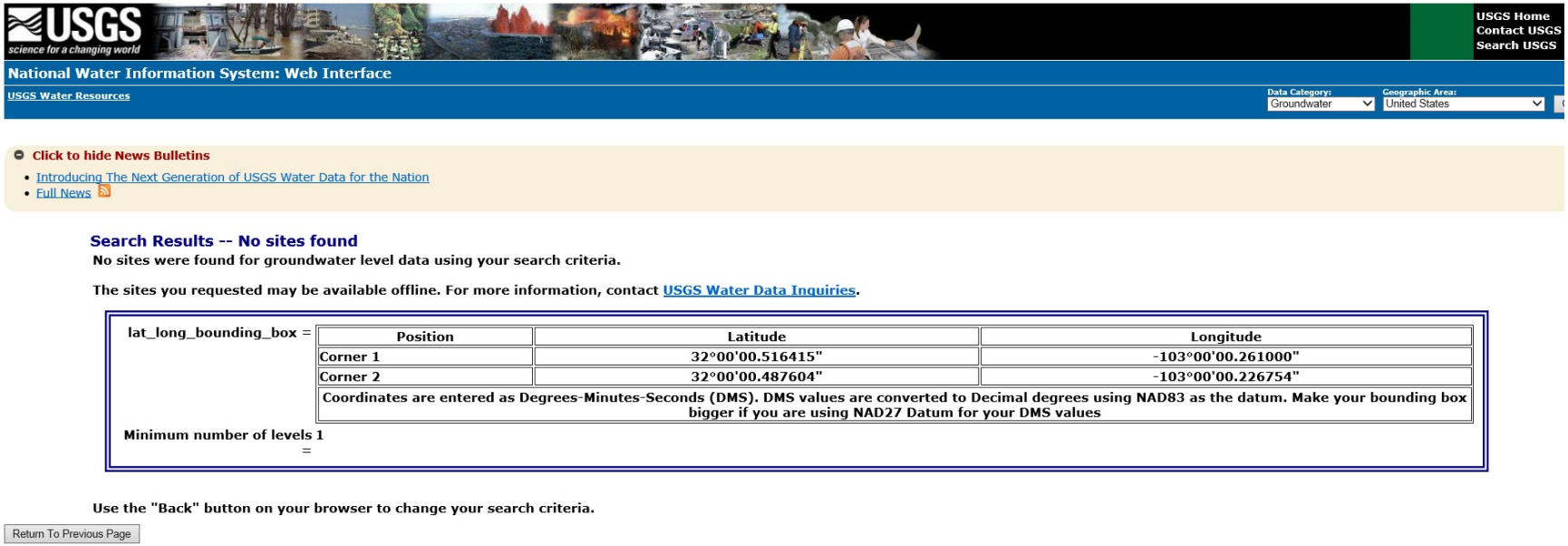
Sport Environmental Services, LLC has prepared, on behalf of XTO, a Release Closure Report for the Eunice Monument South Unit (EMSU) #266 *(EMSU #266* or *subject site)* where, based on a review of NMOCD records, a release of produced water and oil had occurred. This request for closure is based on a review of the NMOCD's Environmental and Administrative Records Database, historical aerial imagery, and recent confirmation soil sampling which demonstrated that remedial efforts took and appear to have been successful. A request for closure is being made to clearly document that the release has been addressed and that no further work is required.

The Initial C-141 Form associated with this release indicated that the release occurred on December 21, 2016 when a flow line froze due to low temperatures causing a rupture and releasing approximately 3.84 BBLs of oil and 92.22 BBBLs of produced water. The client's immediate remedial actions, including the use of a vacuum truck to clean up the standing fluids, resulted in the recovery of approximately 2.40 BBLs of oil and 57.60 BBLs of produced water. In addition to the immediate recovery efforts, aerial imagery and soil sampling indicated that soil in the area had been excavated and likely replaced with fresh backfill. The full soil sampling results are available herein and demonstrate compliance with applicable regulatory limits. An updated Final C-141 Form containing the Closure Request related to this release is available in **Attachment A**.

Site Assessment, Characterization, and Groundwater Depth Determination

As part of assessment and characterization of the subject site, aerial imagery was evaluated for the presence of major watercourses within a 0.5-mile radius of the release site. Aerial imagery demonstrating the absence of such watercourses within a 0.5-mile radius of the release site can be found within **Attachment B**.

A groundwater depth evaluation was performed as well. The relevant New Mexico Office of the State Engineer (NMOSE) and the United States Geological Survey (USGS) databases and GIS query tools were reviewed for groundwater depth information. A 0.5-mile bounding box was utilized when searching the USGS National Water Information System; however, no results appeared within this radius. A similar query was performed using the NMOSE Water Rights Reporting System, and it revealed two (2) wells drilled between 1985 and 1988 located within 1.0-mile of the subject site with a depth to water at approximately 200 feet. Please see **Figure 1** and **Figure 2** on the following pages for the results of the USGS and NMOSE queries which have established groundwater depth at the site to be approximately 200 feet below ground surface ('bgs). Therefore, the appropriate remediation standard specified in the NMOCD Table 1 (NMAC 19.15.29.11) will be applied.



USGS science for a changing world

USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater
Geographic Area: United States

Click to hide News Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Search Results -- No sites found

No sites were found for groundwater level data using your search criteria.

The sites you requested may be available offline. For more information, contact USGS Water Data Inquiries.

lat_long_bounding_box =

Position	Latitude	Longitude
Corner 1	32°00'00.516415"	-103°00'00.261000"
Corner 2	32°00'00.487604"	-103°00'00.226754"

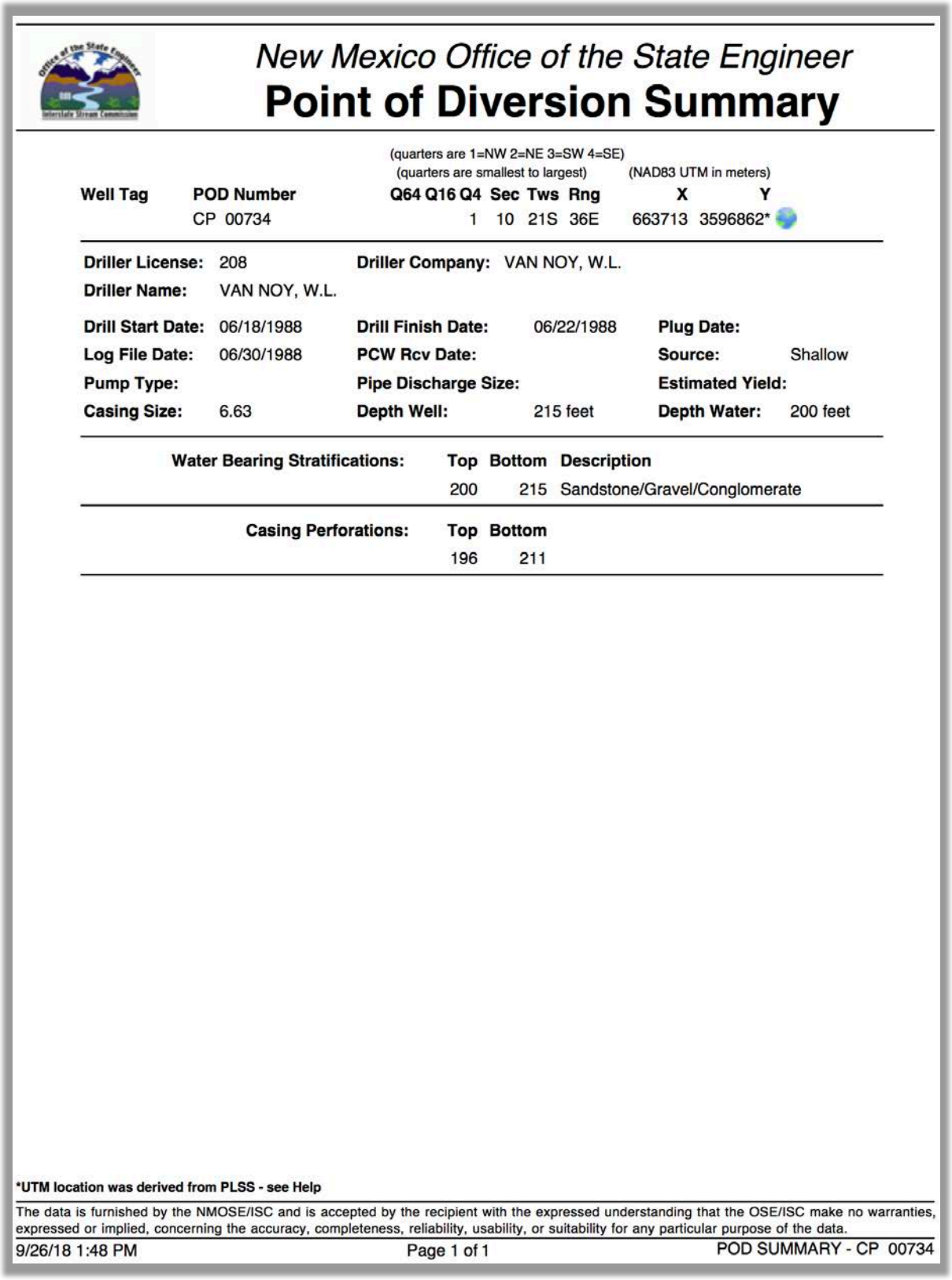
Coordinates are entered as Degrees-Minutes-Seconds (DMS). DMS values are converted to Decimal degrees using NAD83 as the datum. Make your bounding box bigger if you are using NAD27 Datum for your DMS values

Minimum number of levels = 1

Use the "Back" button on your browser to change your search criteria.

Return To Previous Page

Figure 1. *USGS National Water Information System – No results within 1.0-mile of subject site*



New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 00734			1	10	21S	36E	663713	3596862*

Driller License:	208	**Driller Company:**	VAN NOY, W.L.		
Driller Name:	VAN NOY, W.L.				
Drill Start Date:	06/18/1988	**Drill Finish Date:**	06/22/1988	**Plug Date:**	
Log File Date:	06/30/1988	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	6.63	**Depth Well:**	215 feet	**Depth Water:**	200 feet

Water Bearing Stratifications:	Top	Bottom	Description
	200	215	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	196	211

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

9/26/18 1:48 PM Page 1 of 1 POD SUMMARY - CP 00734

***Figure 2**. NMOSE Query Results (Groundwater at 200'bgs)*

Given a groundwater depth of approximately 200'bgs, the appropriate closure criteria for impacted soils at the subject site would appear to be as follows:

Table 1: Site Closure Criteria (Adapted from NMOCD Table 1(NMAC 19.15.29.11))

Closure Criteria for Soils Impacted by a Release: Minimum depth below any point within the horizontal boundary of the release to groundwater is greater than 200 feet	
Constituent	***Limit (mg/Kg)***
Chloride	20,000
TPH (Total Petroleum Hydrocarbons) (GRO+DRO+MRO)	2,500
TPH (Total Petroleum Hydrocarbons) (GRO+DRO)	1,000
BTEX (Benzene, Toluene, Ethylbenzene, and Xylenes)	50
Benzene	10

Remedial activities appear to have taken place at this location; however, the corresponding paperwork and NMOCD submissions could not be located. Therefore, confirmation soil samples were collected from within the footprint of the release as determined by a review of aerial imagery. The release footprint (approximately 4,000 ft^2) was located near the well pad and is displayed on the Release Site Plan denoting sample location placement as shown in **Attachment C.**

Soil Sampling Protocol and Scope

On November 02, 2018, discrete depth samples were collected utilizing a truck-mounted Geoprobe 540UD direct push unit. Soil samples were collected at the surface (0-6" bgs), 2'bgs, and 4' bgs the deepest point of auger refusal (whichever came first). Sample locations were selected to be representative of the affected area and to account for safety concerns regarding the position of safety hazards including subsurface lines and flowlines in the vicinity of the subject site.

Soil at the subject site was homogeneous and did not show visual or olfactory evidence of impact. The soil appeared to backfill material. For this reason, soil lithology data *(i.e.*, boring logs) data was generated only for the soil borehole location where the greatest depth (i.e., 4'bgs at SB1) was prepared for inclusion in this report to show conditions at the site. The boring log is available in **Attachment D**.

All samples were properly collected and preserved in accordance with proper sampling protocols to ensure representative characterization of soils submitted to Eurofins TestAmerica, a NELAP certified laboratory, under proper chain-of-custody for analysis. Each constituent was analyzed using appropriate analytical methods. Chlorides were analyzed using EPA Method 300, Total Petroleum Hydrocarbons (TPH) using Method 8015B, and BTEX constituents on the using Method 8260.

Soil Sampling Results

Laboratory analytical results confirmed that impacts from the release had been addressed in the past and that the subject site is clean. A summary of results is available in the table below and full analytical results, inclusive of the chain-of-custody, are provided in **Attachment E.**

Table 2. Soil Sampling Results (November 2, 2018 Confirmation Sampling)

	BTEX				Total Petroleum Hydrocarbons (TPH)			Chloride
Analyte	Benzene	Toluene	Ethylbenzene	Xylenes, Total	Gasoline Range Organics [C6 - C10]	MRO (C28-C35)	Diesel Range Organics [C10-C28]	Chloride
Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Closure Criteria for Soils Impacted by a Release where the Depth to Groundwater is greater than 100'bgs	10	Total BTEX Limit is 50 mg/Kg			Total TPH Limit is 2,500 mg/Kg GRO+DRO limit is 1,000 mg/Kg			20,000
490-162713-1 EMSU 266 - West Bore - S001 @ 0-6" bgs 11/2/2018 11:06 AM	ND	ND	ND	ND	ND	142	106	ND
490-162713-2 EMSU 266 - West Bore - S001 @ 2' bgs 11/2/2018 11:06 AM	ND	ND	ND	ND	ND	7.85	ND	ND
490-162713-3 EMSU 266 - West Bore - S001 @ 4' bgs 11/2/2018 11:06 AM	ND	ND	ND	ND	ND	3.75	ND	23.3
490-162713-4 EMSU 266 - East Bore - S001 @ 0-6" bgs 11/2/2018 12:12 PM	ND	0.000954	ND	0.000655	ND	17.3	4.53	ND
490-162713-5 EMSU 266 - East Bore - S001 @ 2' bgs 11/2/2018 12:12 PM	ND	ND	ND	ND	ND	10.2	ND	41.2

The confirmation soil samples showed that the soil at the subject site had been replaced with fresh soil. Small plants were growing within the release footprint. A review of aerial imagery depicting the subject site just prior to the release date to the most recent available images reveals that earthworks to remediate the release took place. The images associated with this review are available below for NMOCD's convenience. The images that follow depict the earthworks performed at the site and how the remedial efforts appear to have been successful.

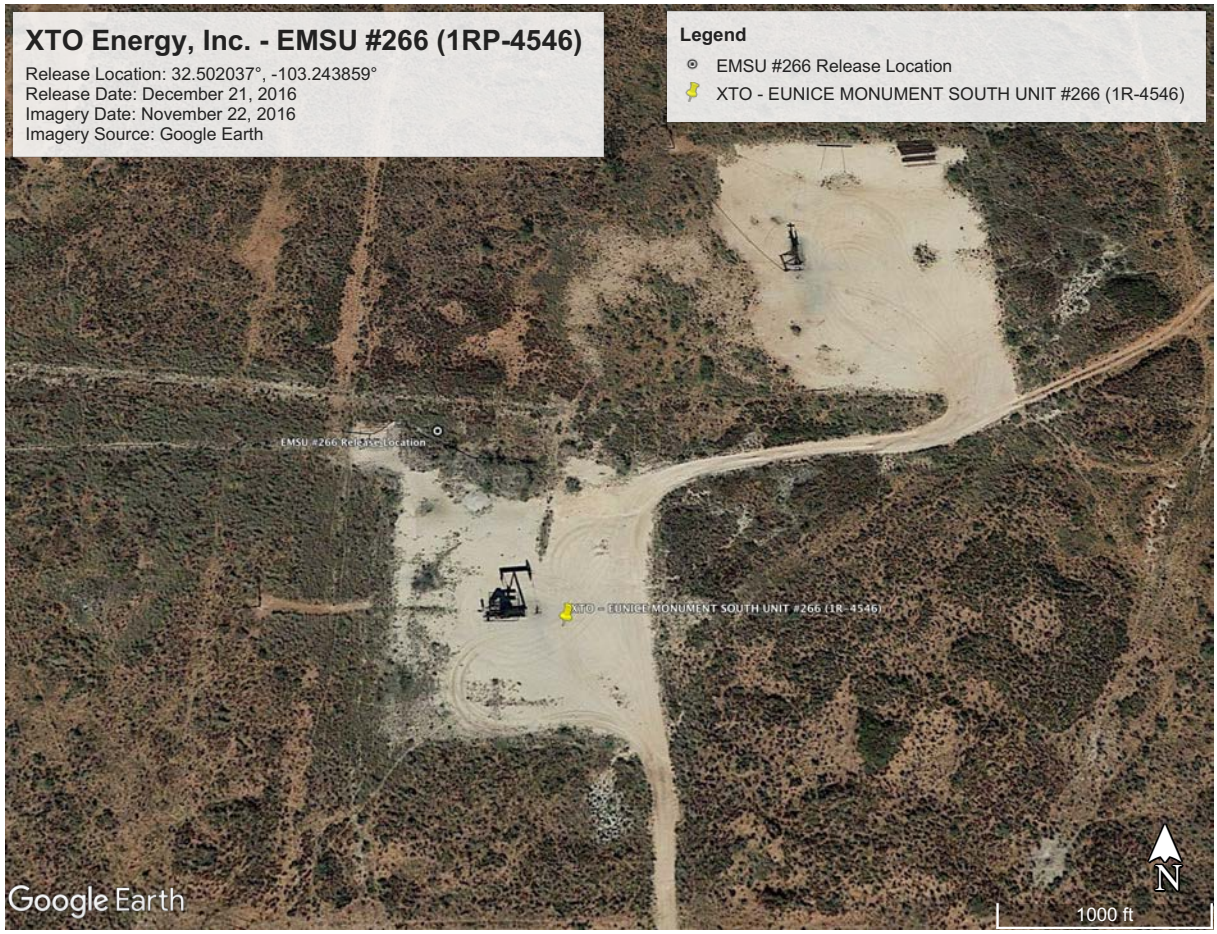


Figure 3*. Georeferenced Google Earth Image Depicting Release Point Identified in the Initial C-141. The subject site is shown in its pre-release condition.*

***Figure 4**. Georeferenced Google Earth Image Depicting Release Point Identified in the Initial C-141. The subject site is shown after the release at a period when remedial activities were likely performed to address the release. Note that an excavated area is visible at the release location.*

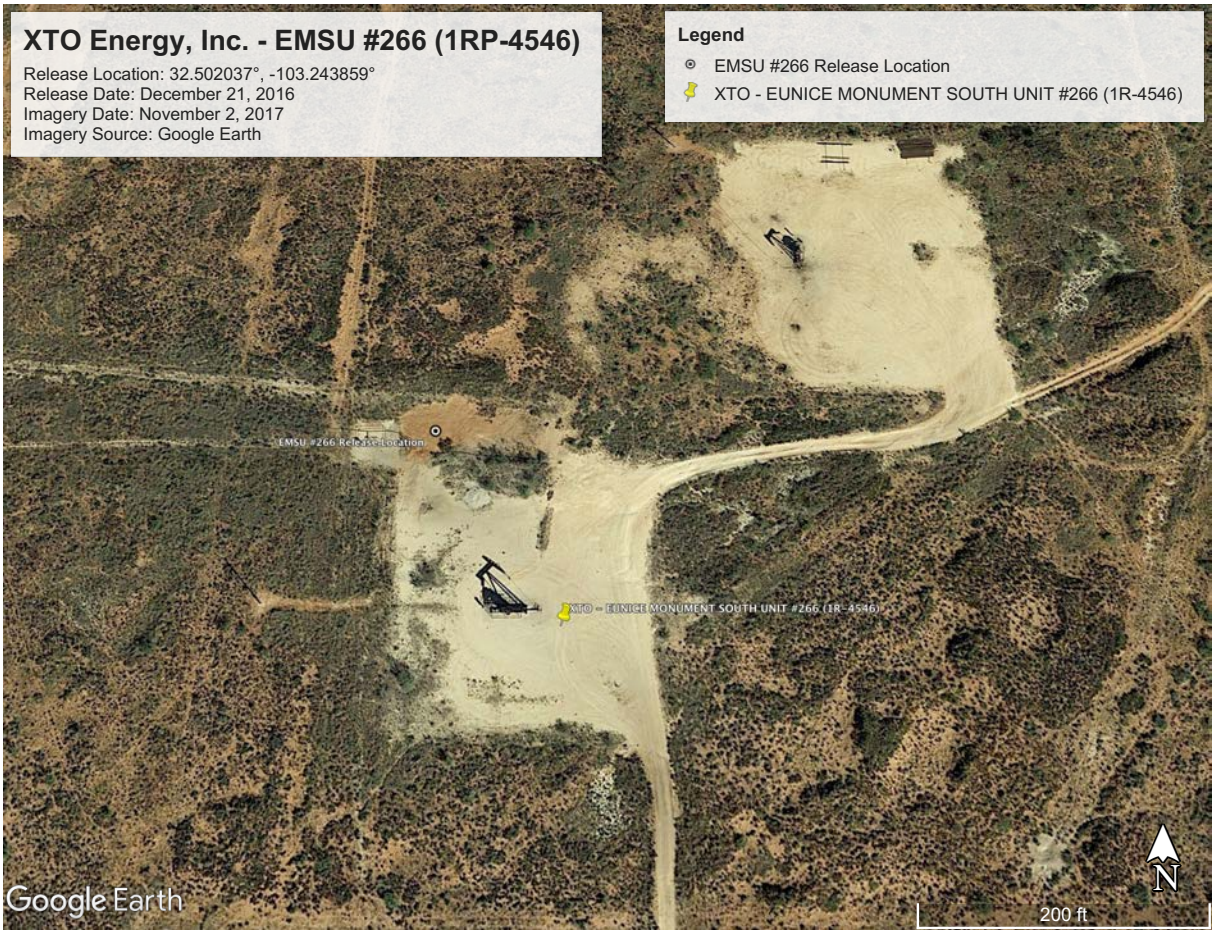


Figure 5*. Georeferenced Google Earth Image Depicting Release Point Identified in the Initial C-141. Fresh soil appears to be visible and the excavation appears to have been filled with fresh soil.*

***Figure 6**. Georeferenced Google Earth Image Depicting Release Point Identified in the Initial C-141. This is the most current aerial image of the subject site that is available at the time of report preparation. The image is from February of 2019 and shows that vegetation appears to have been re-established, though vegetation appears to be minimal in this image likely due to cooler winter temperatures.*

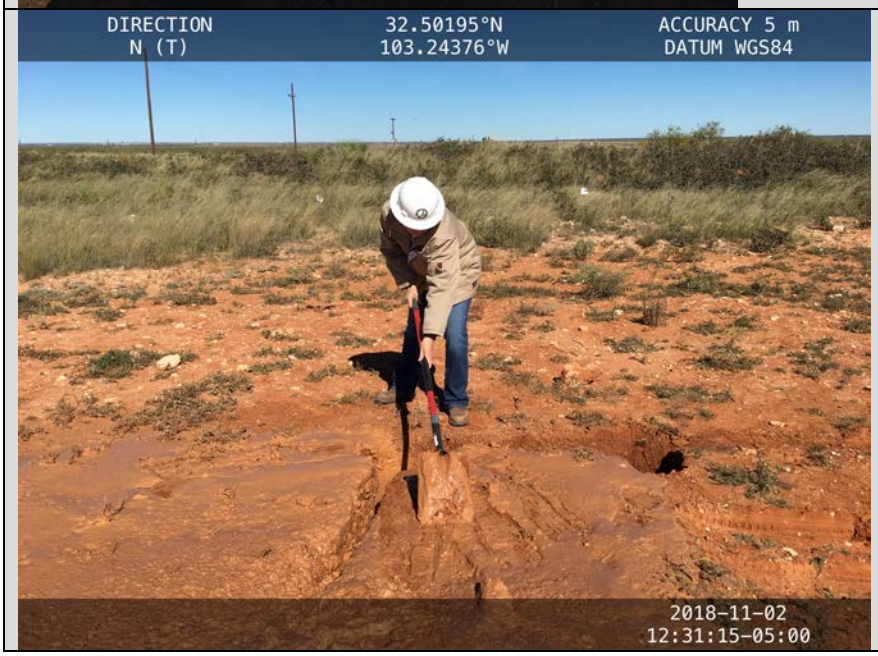
As shown in Figure 3 through Figure 6, the remedial work that was performed has resulted in the re-establishment of vegetation at the subject site and the excavation that was present has been filled and graded to match the topography of the surrounding area. The geo-tagged site photos that follow provide additional close-up views of vegetation and topography.

Geo-tagged Site Photographs

Photographs showing the release location and soil sampling activities are provided in the photographic log below. All geotagged photographs contain the geographic coordinates, date, time, and other data associated with their capture.

Photographic Log: October 22, 2018 and November 2, 2018

Photograph	Description
	The well pad and placard for the subject site is visible. This photograph was captured in October 2018 during a pre-sampling site survey to assess the location.
	The subject site is visible. The photograph shows that vegetation is present at the subject site and that the topography matches the surrounding area.

	Soil boring 1 (SB1) sample location is pictured here. No visual or olfactory indications of contamination were present.
	In addition to the standard one-call notification, a hydro-vac was utilized to clear the location prior to sampling due to safety concerns including the presence of flowlines and underground piping. The site is also located near electrical power lines.

Soil boring 2 (SB2) sample location is pictured here. No visual or olfactory indications of contamination were present.

After confirmation soil sampling was complete, the areas that were hydro-vac'ed were enclosed with orange mesh safety fencing as a protective measure.

Request for Release Closure - Confirmation Sampling Demonstrates Subject Site is Remediated

Based on the analytical data provided herein, the concentrations of all constituents (i.e., Chlorides, TPH, Benzene, Toluene, Ethylbenzene, and Xylenes) at the subject site were well below their respective limits. In addition, based on a review of aerial imagery and this confirmation sampling, it would appear that work was performed by the client in the past and that the remedial tasks were successful in restoring the subject site to its pre-release conditions. Vegetation has been reestablished and the topography of the location is similar to its surroundings.

Sport Environmental, on behalf of XTO Energy requests that closure status be granted for the EMSU B #266 which was assigned the 1R-4546 identifier. If NMOCD have any further questions or comments regarding this request for closure, please contact us at (432) 683-1100.

Sincerely,

Deborah S. Moore, ME, REPA, CESCO, RSO
President/Environmental Engineer
Sport Environmental Services, LLC

cc: Mr. Shelby Pennington (XTO Energy, Inc.)

List of Attachments:

A	*NMOCD Form C-141 (Closure)*
B	*0.5-Mile Radius Map Denoting Absence of Major Watercourses*
C	*Release Site Plan Denoting Sample Locations*
D	*Boring Log*
E	*Full Analytical Results and Chain-of-Custody*

Attachment A

NMOCD Form C-141 (Closure)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NOY1700630102
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy, Inc.	OGRID 5380
Contact Name Mr. Shelby Pennington, Environmental Supervisor	Contact Telephone (281) 723-9353
Contact email Shelby_pennington@xtoenergy.com	Incident # *(assigned by OCD)*
Contact mailing address 6401 Holiday Hill Road, Midland, TX 79707	

Location of Release Source

Latitude 32.501578 Longitude -103.243517
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Eunice Monument South Unit #266	Site Type Flow Line
Date Release Discovered December 21, 2016	API# *(if applicable)* 30-025-26101

Unit Letter	Section	Township	Range	County
U	2	21S	36E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:*)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) 3.84	Volume Recovered (bbls) 2.40
☒ Produced Water	Volume Released (bbls) 92.22	Volume Recovered (bbls) 57.60
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☒ No *(Note: This data was unavailable years after the release when this C-1141 was prepared. However, based on the concentrations of chlorides in the soil, the source water likely did not exceed 10,000 mg/L chlorides)*
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A poly flow line froze due to low temperatures and ruptured.

State of New Mexico
Oil Conservation Division

Incident ID	NOY1700630102
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The volume of fluid released exceeded 25 BBLs; therefore, the release is considered a major release.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, Mr. John Robinson (Maintenance Foreman for XTO) gave notice upon discovery by calling Ms. Kristen Lynch at NMOCD at approximately 1:00 p.m. on December 21, 2016.

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Shelby Pennington Title: Environmental Coordinator

Signature: Shelby Pennington Date: 5/20/20

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NOY1700630102
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	200 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information ***(NOTE: Photographs from the original work performed in 2016 are unavailable. However, aerial imagery from this period has been provided to supplement the record). Photos from current sampling include all metadata.***
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Shelby Pennington Title: Environmental Coordinator

Signature: Shelby Pennington Date: 5/20/20

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NOY1700630102
District RP	
Facility ID	
Application ID	

Remediation Plan

NOTE: A Remediation Plan may have been prepared by the individuals who addressed this release in the past; however, a copy of the plan, if it exists, was unavailable when this formal request for closure was prepared.

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NOY1700630102
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection) ***(Note: Due to the historical nature of this release, photographs are not available. However, aerial imagery showing the site prior to backfilling was available and is included in the closure report. In addition, several aerial images showing the recovery and revegetation of the subject site have also been included.)***

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Shelby Pennington Title: Environmental Coordinator

Signature: Shelby Pennington Date: 5/20/20

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Jocelyn Harimon Date: 06/24/2022

Printed Name: _____ Title: 06/24/2022

Attachment B

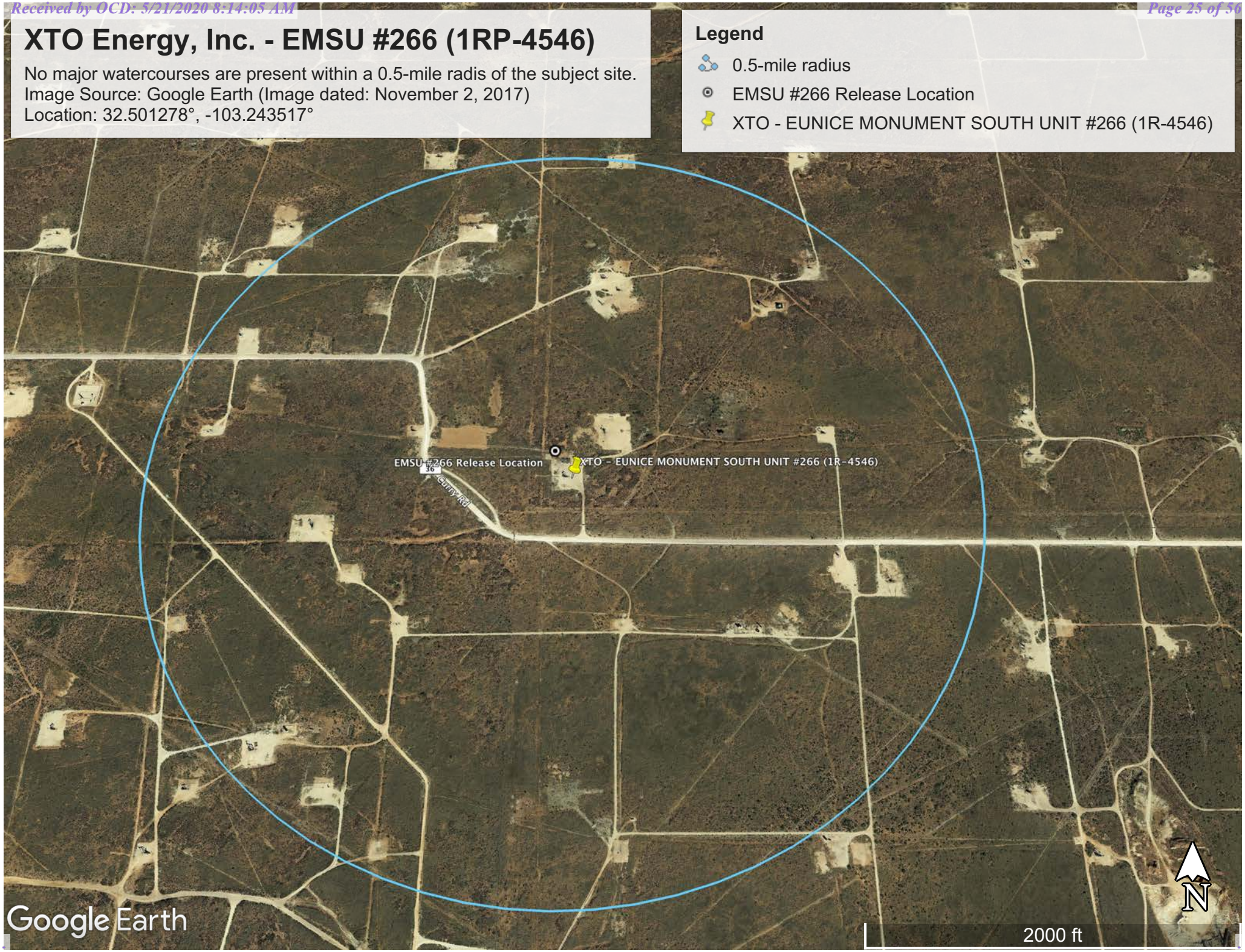
0.5-Mile Radius Map
Demonstrating Absence of Major Watercourses

XTO Energy, Inc. - EMSU #266 (1RP-4546)

No major watercourses are present within a 0.5-mile radis of the subject site.
Image Source: Google Earth (Image dated: November 2, 2017)
Location: 32.501278°, -103.243517°

Legend

- 0.5-mile radius
- EMSU #266 Release Location
- XTO - EUNICE MONUMENT SOUTH UNIT #266 (1R-4546)



Attachment C

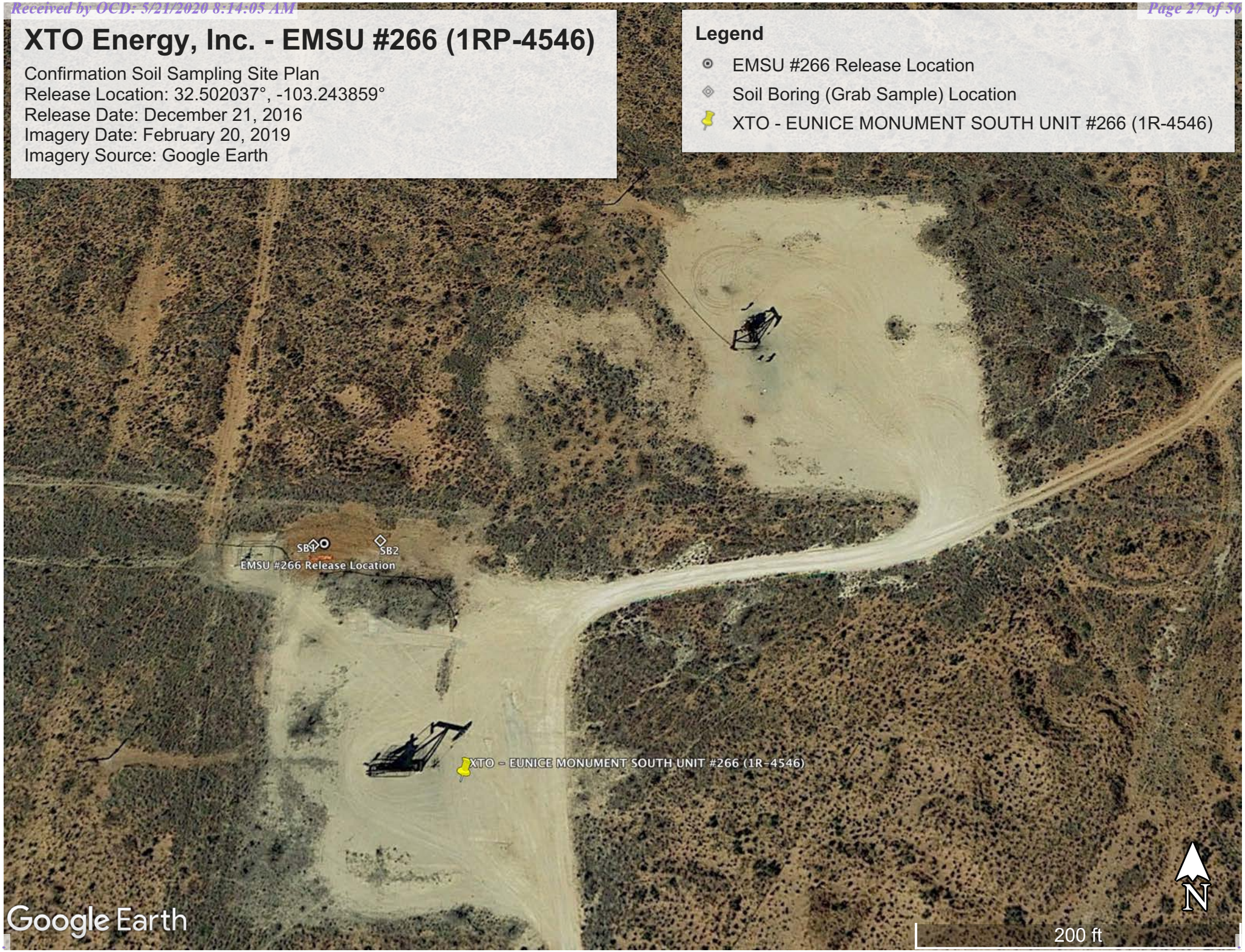
Release Site Plan
Depicting Sample Locations

XTO Energy, Inc. - EMSU #266 (1RP-4546)

Confirmation Soil Sampling Site Plan
Release Location: 32.502037°, -103.243859°
Release Date: December 21, 2016
Imagery Date: February 20, 2019
Imagery Source: Google Earth

Legend

- EMSU #266 Release Location
- Soil Boring (Grab Sample) Location
- XTO - EUNICE MONUMENT SOUTH UNIT #266 (1R-4546)



Attachment D

Boring Log

BORING AND WELL LOG LEGEND

LITHOLOGY	WATER LEVEL	WELL/BORING COMPLETION	Sample Type	DESCRIPTION
				ASPHALT
				CONCRETE
				BEDROCK
				IGNEOUS Rock
				METAMORPHIC Rock
				SEDIMENTARY Rock
				Well-graded GRAVEL (GW)
				Poorly graded GRAVEL (GP)
				Silty GRAVEL (GM)
				Clayey GRAVEL (GC)
				Well-graded GRAVEL with silt (GW-GM)
				Poorly graded GRAVEL with silt (GP-GM)
				Well-graded GRAVEL with clay (GW-GC)
				Poorly graded GRAVEL with clay (GP-GC)
				Well-graded SAND (SW)
				Poorly graded SAND (SP)
				Silty SAND (SM)
				Clayey SAND (SC)
				Well-graded SAND with silt (SW-SM)
				Poorly graded SAND with silt (SP-SM)
				Well-graded SAND with clay (SW-SC)
				Poorly graded SAND with clay (SP-SC)
				SILT (ML)
				Lean CLAY (CL)
				Organic SOIL (OL)
				Elastic SILT (MH)
				Fat CLAY (CH)
				Organic SOIL (OH)
				Organic SOIL (OL/OH)
				PEAT (PT)
				Volume Descriptors:
				Trace = <5%
				Few = 5-10%
				Little = 15-25%
				Some = 30-45%
				Mostly = >=50%
	▽			Water Level During Drilling
	▼			Water Level at End of Drilling/in Completed Well
				Cap
				Riser
				Screen
				End Plug
				Annular Seal (Bentonite-Cement Grout, Bentonite Slurry/Chips/Pellets/Powder, Other)
				Sanitary Seal (Bentonite Slurry/Chips/Pellets/Powder, Other)
				Filter Pack (Sand, Gravel, Other)
				Backfill
			GR	Grab
			EN	Encore
			SS	Split Spoon
			SH	Shelby Tube
			CO	Core Barrel
			DP	Direct Push
			ID	Lab Sample and ID

NOTES:

	Client: XTO Energy, Inc.	**BORING LOG**
	Project: EMSU #266	**Boring No.** SB1
	Address: 502 N. Big Spring St., Midland, TX	**Page:** 1 of 1

Drilling Start Date:	**11/02/2018 12:03**	Boring Depth (ft):	**4.0**
Drilling End Date:	**11/02/2018 12:10**	Boring Diameter (in):	**2.50**
Drilling Company:	**Sport Environmental**	Sampling Method(s):	
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe 540UD**	DTW After Drilling (ft):	**N/A**
Driller:	**Clint Elliott**	Ground Surface Elev. (ft):	**3,555.00**
Logged By:	**Cianna Logie**	Location (Lat, Long):	**32.5202, -103.24388**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	ELEVATION (ft)
0								(0') Poorly graded SAND with clay (SP-SC); mostly fine grained sand, medium dense, moist, 5YR (4/4) reddish brown			0
1											1
2											2
3											3
4								(4') Boring terminated			4
5											5

NOTES: Soil is homogenous, reddish brown in color, and sandy. This appears to be clean backfill soil and is present throughout the release area identified in aerial imagery.

Attachment E

Full Analytical Results and Chain-of-Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-162713-1
TestAmerica SDG: XTO Historical Release Characterization
Client Project/Site: Eunice Monument South Unit #266
Revision: 1

For:
Sport Environmental Services LLC
502 N Big Spring St
Midland, Texas 79701

Attn: Debi Sport Moore

Jennifer Gambill

Authorized for release by:
12/19/2018 12:44:20 PM

Jennifer Gambill, Project Manager I
(615)301-5044
jennifer.gambill@testamericainc.com

Table of Contents

Sample Summary

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Solid	11/02/18 11:06	11/07/18 09:55
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Solid	11/02/18 11:06	11/07/18 09:55
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Solid	11/02/18 11:06	11/07/18 09:55
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Solid	11/02/18 12:12	11/07/18 09:55
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Solid	11/02/18 12:12	11/07/18 09:55

Case Narrative

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Job ID: 490-162713-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-162713-1

Revised Report
The following report has been revised to correct the following sample IDs per the chain of custody: EMSU 266 - West Bore - S001 @ 0-6" bgs (490-162713-1) and EMSU 266 - East Bore - S001 @ 0-6" bgs (490-162713-4).

Comments
No additional comments.

Receipt
The samples were received on 11/7/2018 9:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9º C.

A revised chain of custody was received with additional project name and site information included. This chain is included in the final report.

HPLC/IC
Method(s) 300.0: The following samples were diluted due to the nature of the sample matrix: EMSU 266 - West Bore - S001 @ 0-6" bgs (490-162713-1), EMSU 266 - West Bore - S001 @ 2' bgs (490-162713-2) and EMSU 266 - East Bore - S001 @ 2' bgs (490-162713-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Client Sample ID: EMSU 266 - West Bore - S001 @ 0-6" bgs

Lab Sample ID: 490-162713-1
Date Collected: 11/02/18 11:06
Matrix: Solid
Date Received: 11/07/18 09:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00182	0.000609	mg/Kg		11/07/18 11:54	11/08/18 03:01	1
Ethylbenzene	ND		0.00182	0.000609	mg/Kg		11/07/18 11:54	11/08/18 03:01	1
Toluene	ND		0.00182	0.000673	mg/Kg		11/07/18 11:54	11/08/18 03:01	1
Xylenes, Total	ND		0.00545	0.00112	mg/Kg		11/07/18 11:54	11/08/18 03:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*	*11/07/18 11:54*	*11/08/18 03:01*	*1*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*11/07/18 11:54*	*11/08/18 03:01*	*1*
Dibromofluoromethane (Surr)	*123*		*70 - 130*	*11/07/18 11:54*	*11/08/18 03:01*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*	*11/07/18 11:54*	*11/08/18 03:01*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.93	2.47	mg/Kg		11/07/18 11:44	11/08/18 13:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*88*		*50 - 150*	*11/07/18 11:44*	*11/08/18 13:40*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**106**		4.93	2.47	mg/Kg		11/07/18 12:58	11/08/18 15:40	1
MRO (C28-C35)	**142**		4.93	2.47	mg/Kg		11/07/18 12:58	11/08/18 15:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*91*		*50 - 150*	*11/07/18 12:58*	*11/08/18 15:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		10.1	7.05	mg/Kg			11/08/18 21:34	1

Client Sample Results

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Client Sample ID: EMSU 266 - West Bore - S001 @ 2' bgs

Lab Sample ID: 490-162713-2
Date Collected: 11/02/18 11:06
Matrix: Solid
Date Received: 11/07/18 09:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00198	0.000665	mg/Kg		11/07/18 11:54	11/08/18 03:30	1
Ethylbenzene	ND		0.00198	0.000665	mg/Kg		11/07/18 11:54	11/08/18 03:30	1
Toluene	ND		0.00198	0.000734	mg/Kg		11/07/18 11:54	11/08/18 03:30	1
Xylenes, Total	ND		0.00595	0.00122	mg/Kg		11/07/18 11:54	11/08/18 03:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*	*11/07/18 11:54*	*11/08/18 03:30*	*1*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*11/07/18 11:54*	*11/08/18 03:30*	*1*
Dibromofluoromethane (Surr)	*123*		*70 - 130*	*11/07/18 11:54*	*11/08/18 03:30*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*	*11/07/18 11:54*	*11/08/18 03:30*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.83	2.41	mg/Kg		11/07/18 11:44	11/08/18 21:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*88*		*50 - 150*	*11/07/18 11:44*	*11/08/18 21:32*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.98	2.49	mg/Kg		11/07/18 12:58	11/08/18 15:57	1
MRO (C28-C35)	**7.85**		4.98	2.49	mg/Kg		11/07/18 12:58	11/08/18 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*71*		*50 - 150*	*11/07/18 12:58*	*11/08/18 15:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		9.91	6.94	mg/Kg			11/08/18 21:46	1

Client Sample Results

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Client Sample ID: EMSU 266 - West Bore - S001 @ 4' bgs

Lab Sample ID: 490-162713-3
Date Collected: 11/02/18 11:06
Matrix: Solid
Date Received: 11/07/18 09:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000669	mg/Kg		11/07/18 11:54	11/08/18 03:59	1
Ethylbenzene	ND		0.00200	0.000669	mg/Kg		11/07/18 11:54	11/08/18 03:59	1
Toluene	ND		0.00200	0.000739	mg/Kg		11/07/18 11:54	11/08/18 03:59	1
Xylenes, Total	ND		0.00599	0.00123	mg/Kg		11/07/18 11:54	11/08/18 03:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*70 - 130*	*11/07/18 11:54*	*11/08/18 03:59*	*1*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*11/07/18 11:54*	*11/08/18 03:59*	*1*
Dibromofluoromethane (Surr)	*130*		*70 - 130*	*11/07/18 11:54*	*11/08/18 03:59*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*	*11/07/18 11:54*	*11/08/18 03:59*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.92	2.46	mg/Kg		11/07/18 11:44	11/08/18 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*87*		*50 - 150*	*11/07/18 11:44*	*11/08/18 22:07*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.96	2.48	mg/Kg		11/07/18 12:58	11/08/18 16:14	1
MRO (C28-C35)	**3.75**	**J**	4.96	2.48	mg/Kg		11/07/18 12:58	11/08/18 16:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*66*		*50 - 150*	*11/07/18 12:58*	*11/08/18 16:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23.3**		9.99	7.00	mg/Kg			11/08/18 21:57	1

Client Sample Results

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Client Sample ID: EMSU 266 - East Bore - S001 @ 0-6" bgs

Lab Sample ID: 490-162713-4
Date Collected: 11/02/18 12:12
Matrix: Solid
Date Received: 11/07/18 09:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000655**	**J**	0.00183	0.000615	mg/Kg		11/07/18 11:54	11/08/18 04:28	1
Ethylbenzene	ND		0.00183	0.000615	mg/Kg		11/07/18 11:54	11/08/18 04:28	1
Toluene	**0.000954**	**J**	0.00183	0.000679	mg/Kg		11/07/18 11:54	11/08/18 04:28	1
Xylenes, Total	ND		0.00550	0.00113	mg/Kg		11/07/18 11:54	11/08/18 04:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*	*11/07/18 11:54*	*11/08/18 04:28*	*1*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*11/07/18 11:54*	*11/08/18 04:28*	*1*
Dibromofluoromethane (Surr)	*124*		*70 - 130*	*11/07/18 11:54*	*11/08/18 04:28*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*	*11/07/18 11:54*	*11/08/18 04:28*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.86	2.43	mg/Kg		11/07/18 11:44	11/08/18 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*87*		*50 - 150*	*11/07/18 11:44*	*11/08/18 22:42*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**4.53**	**J**	5.00	2.50	mg/Kg		11/07/18 12:58	11/08/18 16:31	1
MRO (C28-C35)	**17.3**		5.00	2.50	mg/Kg		11/07/18 12:58	11/08/18 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*56*		*50 - 150*	*11/07/18 12:58*	*11/08/18 16:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		9.97	6.98	mg/Kg			11/08/18 22:09	1

Client Sample Results

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Client Sample ID: EMSU 266 - East Bore - S001 @ 2' bgs

Lab Sample ID: 490-162713-5
Date Collected: 11/02/18 12:12
Matrix: Solid
Date Received: 11/07/18 09:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00184	0.000617	mg/Kg		11/07/18 11:54	11/08/18 04:56	1
Ethylbenzene	ND		0.00184	0.000617	mg/Kg		11/07/18 11:54	11/08/18 04:56	1
Toluene	ND		0.00184	0.000681	mg/Kg		11/07/18 11:54	11/08/18 04:56	1
Xylenes, Total	ND		0.00552	0.00113	mg/Kg		11/07/18 11:54	11/08/18 04:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*	*11/07/18 11:54*	*11/08/18 04:56*	*1*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*11/07/18 11:54*	*11/08/18 04:56*	*1*
Dibromofluoromethane (Surr)	*125*		*70 - 130*	*11/07/18 11:54*	*11/08/18 04:56*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*	*11/07/18 11:54*	*11/08/18 04:56*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.87	2.44	mg/Kg		11/07/18 11:44	11/08/18 23:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*88*		*50 - 150*	*11/07/18 11:44*	*11/08/18 23:17*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.98	2.49	mg/Kg		11/07/18 12:58	11/08/18 16:49	1
MRO (C28-C35)	**10.2**		4.98	2.49	mg/Kg		11/07/18 12:58	11/08/18 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*71*		*50 - 150*	*11/07/18 12:58*	*11/08/18 16:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41.2**		9.92	6.94	mg/Kg			11/08/18 22:21	1

QC Sample Results

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: 490-162714-B-9-D MS
Matrix: Solid
Analysis Batch: 555742

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 555601

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.0447	0.04123		mg/Kg		92	21 - 150
Ethylbenzene	ND		0.0447	0.03513		mg/Kg		79	10 - 150
Toluene	ND		0.0447	0.03740		mg/Kg		84	17 - 150
Xylenes, Total	ND		0.0894	0.07369		mg/Kg		82	10 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Lab Sample ID: 490-162714-B-9-E MSD
Matrix: Solid
Analysis Batch: 555742

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 555601

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		0.0489	0.04813		mg/Kg		98	21 - 150	15	50
Ethylbenzene	ND		0.0489	0.04395		mg/Kg		90	10 - 150	22	50
Toluene	ND		0.0489	0.04555		mg/Kg		93	17 - 150	20	50
Xylenes, Total	ND		0.0978	0.09141		mg/Kg		93	10 - 150	21	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: MB 490-555742/7
Matrix: Solid
Analysis Batch: 555742

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			11/08/18 01:33	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			11/08/18 01:33	1
Toluene	ND		0.00200	0.000740	mg/Kg			11/08/18 01:33	1
Xylenes, Total	ND		0.00600	0.00123	mg/Kg			11/08/18 01:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*11/08/18 01:33*	*1*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*		*11/08/18 01:33*	*1*
Dibromofluoromethane (Surr)	*122*		*70 - 130*		*11/08/18 01:33*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*11/08/18 01:33*	*1*

QC Sample Results

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-555742/4
Matrix: Solid
Analysis Batch: 555742

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.04740		mg/Kg		95	70 - 130
Ethylbenzene	0.0500	0.04180		mg/Kg		84	70 - 130
Toluene	0.0500	0.04340		mg/Kg		87	70 - 130
Xylenes, Total	0.100	0.08695		mg/Kg		87	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
Dibromofluoromethane (Surr)	*105*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 490-555742/25
Matrix: Solid
Analysis Batch: 555742

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.05224		mg/Kg		104	70 - 130	10	37
Ethylbenzene	0.0500	0.04600		mg/Kg		92	70 - 130	10	38
Toluene	0.0500	0.04788		mg/Kg		96	70 - 130	10	40
Xylenes, Total	0.100	0.09625		mg/Kg		96	70 - 130	10	38

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
Dibromofluoromethane (Surr)	*107*		*70 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 490-555592/1-A
Matrix: Solid
Analysis Batch: 555799

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 555592

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.00	2.50	mg/Kg		11/07/18 11:44	11/08/18 11:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*87*		*50 - 150*	*11/07/18 11:44*	*11/08/18 11:55*	*1*

Lab Sample ID: LCS 490-555592/2-A
Matrix: Solid
Analysis Batch: 555799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 555592

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	50.0	52.35		mg/Kg		105	70 - 130

QC Sample Results

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCS 490-555592/2-A
Matrix: Solid
Analysis Batch: 555799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 555592

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	78		50 - 150

Lab Sample ID: LCSD 490-555592/3-A
Matrix: Solid
Analysis Batch: 555799

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 555592

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]			50.0	54.05		mg/Kg		108	70 - 130	3	21

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
a,a,a-Trifluorotoluene	78		50 - 150

Lab Sample ID: 490-162713-5 MS
Matrix: Solid
Analysis Batch: 555799

Client Sample ID: EMSU 266 - East Bore - S001 @ 2' bgs
Prep Type: Total/NA
Prep Batch: 555592

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	ND		48.7	43.74		mg/Kg		90	56 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
a,a,a-Trifluorotoluene	78		50 - 150

Lab Sample ID: 490-162713-5 MSD
Matrix: Solid
Analysis Batch: 555799

Client Sample ID: EMSU 266 - East Bore - S001 @ 2' bgs
Prep Type: Total/NA
Prep Batch: 555592

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		48.7	37.96		mg/Kg		78	56 - 130	14	21

Surrogate	MSD %Recovery	MSD Qualifier	Limits
a,a,a-Trifluorotoluene	80		50 - 150

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 490-555145/1-A
Matrix: Solid
Analysis Batch: 555227

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 555145

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		5.00	2.50	mg/Kg		11/06/18 09:17	11/06/18 13:59	1
MRO (C28-C35)	ND		5.00	2.50	mg/Kg		11/06/18 09:17	11/06/18 13:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	74		50 - 150	11/06/18 09:17	11/06/18 13:59	1

QC Sample Results

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 490-555145/2-A
Matrix: Solid
Analysis Batch: 555227

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 555145

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]			40.0	36.22		mg/Kg		91	54 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl (Surr)	*80*		*50 - 150*

Lab Sample ID: 490-162556-H-10-B MS
Matrix: Solid
Analysis Batch: 555227

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 555145

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]	7.68		39.5	32.94		mg/Kg		64	10 - 142		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl (Surr)	*63*		*50 - 150*

Lab Sample ID: 490-162556-H-10-C MSD
Matrix: Solid
Analysis Batch: 555227

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 555145

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	7.68		39.1	35.65		mg/Kg		71	10 - 142	8	47

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl (Surr)	*63*		*50 - 150*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 490-555803/1-A
Matrix: Solid
Analysis Batch: 556035

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		9.99	6.99	mg/Kg			11/08/18 20:13	1

Lab Sample ID: LCS 490-555803/2-A
Matrix: Solid
Analysis Batch: 556035

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			100	97.09		mg/Kg		97	90 - 110		

QC Sample Results

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 490-555803/3-A
Matrix: Solid
Analysis Batch: 556035

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			100	98.99		mg/Kg		99	90 - 110	2	20

Lab Sample ID: 490-162712-A-1-C MS
Matrix: Solid
Analysis Batch: 556035

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	ND		101	101.0		mg/Kg		100	80 - 120		

Lab Sample ID: 490-162712-A-1-D MSD
Matrix: Solid
Analysis Batch: 556035

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	ND		101	101.2		mg/Kg		100	80 - 120	0	20

QC Association Summary

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

GC/MS VOA

Prep Batch: 555601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Total/NA	Solid	5030B	
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Total/NA	Solid	5030B	
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Total/NA	Solid	5030B	
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Total/NA	Solid	5030B	
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	5030B	
490-162714-B-9-D MS	Matrix Spike	Total/NA	Solid	5030B	
490-162714-B-9-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5030B	

Analysis Batch: 555742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Total/NA	Solid	8260B	555601
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Total/NA	Solid	8260B	555601
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Total/NA	Solid	8260B	555601
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Total/NA	Solid	8260B	555601
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	8260B	555601
MB 490-555742/7	Method Blank	Total/NA	Solid	8260B	
LCS 490-555742/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-555742/25	Lab Control Sample Dup	Total/NA	Solid	8260B	
490-162714-B-9-D MS	Matrix Spike	Total/NA	Solid	8260B	555601
490-162714-B-9-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	555601

GC VOA

Prep Batch: 555592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Total/NA	Solid	5030B	
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Total/NA	Solid	5030B	
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Total/NA	Solid	5030B	
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Total/NA	Solid	5030B	
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	5030B	
MB 490-555592/1-A	Method Blank	Total/NA	Solid	5030B	
LCS 490-555592/2-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 490-555592/3-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
490-162713-5 MS	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	5030B	
490-162713-5 MSD	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	5030B	

Analysis Batch: 555799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Total/NA	Solid	8015B	555592
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Total/NA	Solid	8015B	555592
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Total/NA	Solid	8015B	555592
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Total/NA	Solid	8015B	555592
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	8015B	555592
MB 490-555592/1-A	Method Blank	Total/NA	Solid	8015B	555592
LCS 490-555592/2-A	Lab Control Sample	Total/NA	Solid	8015B	555592
LCSD 490-555592/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	555592
490-162713-5 MS	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	8015B	555592
490-162713-5 MSD	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	8015B	555592

QC Association Summary

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

GC Semi VOA

Prep Batch: 555145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Total/NA	Solid	3550C	
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Total/NA	Solid	3550C	
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Total/NA	Solid	3550C	
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Total/NA	Solid	3550C	
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	3550C	
MB 490-555145/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 490-555145/2-A	Lab Control Sample	Total/NA	Solid	3550C	
490-162556-H-10-B MS	Matrix Spike	Total/NA	Solid	3550C	
490-162556-H-10-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	

Analysis Batch: 555227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 490-555145/1-A	Method Blank	Total/NA	Solid	8015B	555145
LCS 490-555145/2-A	Lab Control Sample	Total/NA	Solid	8015B	555145
490-162556-H-10-B MS	Matrix Spike	Total/NA	Solid	8015B	555145
490-162556-H-10-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	555145

Analysis Batch: 555918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Total/NA	Solid	8015B	555145
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Total/NA	Solid	8015B	555145
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Total/NA	Solid	8015B	555145
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Total/NA	Solid	8015B	555145
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Total/NA	Solid	8015B	555145

HPLC/IC

Leach Batch: 555803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Soluble	Solid	DI Leach	
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Soluble	Solid	DI Leach	
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Soluble	Solid	DI Leach	
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Soluble	Solid	DI Leach	
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Soluble	Solid	DI Leach	
MB 490-555803/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 490-555803/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 490-555803/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
490-162712-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
490-162712-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 556035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162713-1	EMSU 266 - West Bore - S001 @ 0-6" bgs	Soluble	Solid	300.0	555803
490-162713-2	EMSU 266 - West Bore - S001 @ 2' bgs	Soluble	Solid	300.0	555803
490-162713-3	EMSU 266 - West Bore - S001 @ 4' bgs	Soluble	Solid	300.0	555803
490-162713-4	EMSU 266 - East Bore - S001 @ 0-6" bgs	Soluble	Solid	300.0	555803
490-162713-5	EMSU 266 - East Bore - S001 @ 2' bgs	Soluble	Solid	300.0	555803
MB 490-555803/1-A	Method Blank	Soluble	Solid	300.0	555803
LCS 490-555803/2-A	Lab Control Sample	Soluble	Solid	300.0	555803
LCSD 490-555803/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	555803

QC Association Summary

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

HPLC/IC (Continued)

Analysis Batch: 556035 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-162712-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	555803
490-162712-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	555803

Lab Chronicle

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Client Sample ID: EMSU 266 - West Bore - S001 @ 0-6" bgs

Lab Sample ID: 490-162713-1
Date Collected: 11/02/18 11:06
Matrix: Solid
Date Received: 11/07/18 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.50 g	5.0 mL	555601	11/07/18 11:54	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	555742	11/08/18 03:01	PN	TAL NSH
Total/NA	Prep	5030B			5.07 g	5.0 mL	555592	11/07/18 11:44	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	555799	11/08/18 13:40	S1S	TAL NSH
Total/NA	Prep	3550C			25.34 g	1.00 mL	555145	11/07/18 12:58	MBV	TAL NSH
Total/NA	Analysis	8015B		1			555918	11/08/18 15:40	S1S	TAL NSH
Soluble	Leach	DI Leach			2.9808 g	30 mL	555803	11/08/18 07:35	JHS	TAL NSH
Soluble	Analysis	300.0		1			556035	11/08/18 21:34	SOO	TAL NSH

Client Sample ID: EMSU 266 - West Bore - S001 @ 2' bgs

Lab Sample ID: 490-162713-2
Date Collected: 11/02/18 11:06
Matrix: Solid
Date Received: 11/07/18 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.04 g	5.0 mL	555601	11/07/18 11:54	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	555742	11/08/18 03:30	PN	TAL NSH
Total/NA	Prep	5030B			5.18 g	5.0 mL	555592	11/07/18 11:44	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	555799	11/08/18 21:32	S1S	TAL NSH
Total/NA	Prep	3550C			25.11 g	1.00 mL	555145	11/07/18 12:58	MBV	TAL NSH
Total/NA	Analysis	8015B		1			555918	11/08/18 15:57	S1S	TAL NSH
Soluble	Leach	DI Leach			3.0278 g	30 mL	555803	11/08/18 07:35	JHS	TAL NSH
Soluble	Analysis	300.0		1			556035	11/08/18 21:46	SOO	TAL NSH

Client Sample ID: EMSU 266 - West Bore - S001 @ 4' bgs

Lab Sample ID: 490-162713-3
Date Collected: 11/02/18 11:06
Matrix: Solid
Date Received: 11/07/18 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5.0 mL	555601	11/07/18 11:54	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	555742	11/08/18 03:59	PN	TAL NSH
Total/NA	Prep	5030B			5.08 g	5.0 mL	555592	11/07/18 11:44	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	555799	11/08/18 22:07	S1S	TAL NSH
Total/NA	Prep	3550C			25.21 g	1.00 mL	555145	11/07/18 12:58	MBV	TAL NSH
Total/NA	Analysis	8015B		1			555918	11/08/18 16:14	S1S	TAL NSH
Soluble	Leach	DI Leach			3.0016 g	30 mL	555803	11/08/18 07:35	JHS	TAL NSH
Soluble	Analysis	300.0		1			556035	11/08/18 21:57	SOO	TAL NSH

Client Sample ID: EMSU 266 - East Bore - S001 @ 0-6" bgs

Lab Sample ID: 490-162713-4
Date Collected: 11/02/18 12:12
Matrix: Solid
Date Received: 11/07/18 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.45 g	5.0 mL	555601	11/07/18 11:54	JLP	TAL NSH

Lab Chronicle

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Client Sample ID: EMSU 266 - East Bore - S001 @ 0-6" bgs

Lab Sample ID: 490-162713-4
Matrix: Solid
Date Collected: 11/02/18 12:12
Date Received: 11/07/18 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 g	5 mL	555742	11/08/18 04:28	PN	TAL NSH
Total/NA	Prep	5030B			5.14 g	5.0 mL	555592	11/07/18 11:44	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	555799	11/08/18 22:42	S1S	TAL NSH
Total/NA	Prep	3550C			25.02 g	1.00 mL	555145	11/07/18 12:58	MBV	TAL NSH
Total/NA	Analysis	8015B		1			555918	11/08/18 16:31	S1S	TAL NSH
Soluble	Leach	DI Leach			3.0101 g	30 mL	555803	11/08/18 07:35	JHS	TAL NSH
Soluble	Analysis	300.0		1			556035	11/08/18 22:09	SOO	TAL NSH

Client Sample ID: EMSU 266 - East Bore - S001 @ 2' bgs

Lab Sample ID: 490-162713-5
Matrix: Solid
Date Collected: 11/02/18 12:12
Date Received: 11/07/18 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.43 g	5.0 mL	555601	11/07/18 11:54	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	555742	11/08/18 04:56	PN	TAL NSH
Total/NA	Prep	5030B			5.13 g	5.0 mL	555592	11/07/18 11:44	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	555799	11/08/18 23:17	S1S	TAL NSH
Total/NA	Prep	3550C			25.08 g	1.00 mL	555145	11/07/18 12:58	MBV	TAL NSH
Total/NA	Analysis	8015B		1			555918	11/08/18 16:49	S1S	TAL NSH
Soluble	Leach	DI Leach			3.0245 g	30 mL	555803	11/08/18 07:35	JHS	TAL NSH
Soluble	Analysis	300.0		1			556035	11/08/18 22:21	SOO	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
8015B	Gasoline Range Organics - (GC)	SW846	TAL NSH
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL NSH
300.0	Anions, Ion Chromatography	MCAWW	TAL NSH
3550C	Ultrasonic Extraction	SW846	TAL NSH
5030B	Purge and Trap	SW846	TAL NSH
DI Leach	Deionized Water Leaching Procedure	ASTM	TAL NSH

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Accreditation/Certification Summary

Client: Sport Environmental Services LLC
Project/Site: Eunice Monument South Unit #266

TestAmerica Job ID: 490-162713-1
SDG: XTO Historical Release Characterization

Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-19
Alaska (UST)	State Program	10	UST-087	06-30-19
Arizona	State Program	9	AZ0473	05-05-19
Arkansas DEQ	State Program	6	88-0737	04-25-19
California	State Program	9	2938	10-31-18 *
Connecticut	State Program	1	PH-0220	12-31-19
Florida	NELAP	4	E87358	06-30-19
Georgia	State Program	4	NA: NELAP & A2LA	12-31-19
Illinois	NELAP	5	200010	12-09-18 *
Iowa	State Program	7	131	04-01-20
Kansas	NELAP	7	E-10229	10-31-19
Kentucky (UST)	State Program	4	19	06-30-19
Kentucky (WW)	State Program	4	90038	12-31-18
Louisiana	NELAP	6	30613	06-30-19
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-19
Massachusetts	State Program	1	M-TN032	06-30-19
Minnesota	NELAP	5	047-999-345	12-31-18
Mississippi	State Program	4	N/A	06-30-19
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-19
New Hampshire	NELAP	1	2963	10-09-19
New Jersey	NELAP	2	TN965	06-30-19
New York	NELAP	2	11342	03-31-19
North Carolina (WW/SW)	State Program	4	387	12-31-18
North Dakota	State Program	8	R-146	06-30-19
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-19
Oregon	NELAP	10	TN200001	04-26-19
Pennsylvania	NELAP	3	68-00585	07-31-19
Rhode Island	State Program	1	LAO00268	12-30-18
South Carolina	State Program	4	84009 (001)	02-28-19
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-19
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-19
Virginia	NELAP	3	460152	06-14-19
Washington	State Program	10	C789	07-19-19
West Virginia DEP	State Program	3	219	02-28-19
Wisconsin	State Program	5	998020430	08-31-19
Wyoming (UST)	A2LA	8	453.07	12-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Phone (615) 726-0177 Fax (615) 726-3404

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Debi S. Moore	Lab PM: Gambill, Jennifer	Carrier Tracking No(s):	COC No:
Client Contact: Debi Sport Moore	Phone: (432) 683-1100	E-Mail: jennifer.gambill@testamericainc.com		Page: Page 1 of 1
Company: Sport Environmental Services LLC				Job #:
Address: 502 N Big Spring St	Due Date Requested:			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-683-1100	PO #: Purchase Order not required			
Email: debi@sportenv.com	WO #:			
Project Name: XTO Historical Release Characterization	TestAmerica Project #: 49014499			
Site: Eunice Monument South Unit #266	SSOW#:			

Analysis Requested

Preservation Codes: A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; Other:

Sample Identification	Sample Date	Sample Time (NM)	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFMS - Chloride	8015B_DRO - DRO/MRO	8015B_GRO	8260B BTEX	Total Number of containers	Special In
			Preservation Code:				N	N	N	N		
~~EMSU 266 - EB - Soil~~				Solid								
EMSU 266 - West Bore - Soil @ 0-6" bgs	11-2-18	1106	G	Solid			X	X	X	X		
EMSU 266 - West Bore - Soil @ 2' bgs	11-2-18	1106	G	Solid			X	X	X	X		
EMSU 266 - West Bore - Soil @ 4' bgs	11-2-18	1106	G	Solid			X	X	X	X		
EMSU 266 - East Bore - Soil @ 0-6" bgs	11-2-18	1212	G	Solid			X	X	X	X		
EMSU 266 - East Bore - Soil @ 2' bgs	11-2-18	1212	G	Solid			X	X	X	X		
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								

Midland 490515 264

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Debi S. Moore	11-6-18 1557 MST	Sport	[signature]	11-6-18 1557	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 08/04/2016

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-162713 Chain of Custody

Cooler Received/Opened On 11/7/2018 @ 9:55

Time Samples Removed From Cooler_____ Time Samples Placed In Storage_____ (2 Hour Window)

1. Tracking # 1435 (last 4 digits, FedEx) Courier: FedEx
   IR Gun ID 17960358 pH Strip Lot N/A Chlorine Strip Lot N/A
2. Temperature of rep. sample or temp blank when opened: 2.9 Degrees Celsius
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA
4. Were custody seals on outside of cooler? YES...NO...NA
   If yes, how many and where: 1 front
5. Were the seals intact, signed, and dated correctly? YES...NO...NA
6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) _____

7. Were custody seals on containers: YES NO and Intact YES...NO...NA
   Were these signed and dated correctly? YES...NO...NA
8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None
9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None
10. Did all containers arrive in good condition (unbroken)? YES...NO...NA
11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA
12. Did all container labels and tags agree with custody papers? YES...NO...NA
13a. Were VOA vials received? YES...NO...NA
   b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) ASH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA
   b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA
16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) ASH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA
18. Did you sign the custody papers in the appropriate place? YES...NO...NA
19. Were correct containers used for the analysis requested? YES...NO...NA
20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) ASH

I certify that I attached a label with the unique LIMS number to each container (intial) ASH

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Phone (615) 726-0177 Fax (615) 726-3404

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Debi S. Moore	Lab PM: Gambill, Jennifer	Carrier Tracking No(s):	COC No:
Client Contact: Debi Sport Moore	Phone: (432) 683-1100	E-Mail: jennifer.gambill@testamericainc.com		Page: Page 1 of 1
Company: Sport Environmental Services LLC				Job #:
Address: 502 N Big Spring St	Due Date Requested:			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-683-1100	PO #: Purchase Order not required			
Email: debi@sportenv.com	WO #:			
Project Name:	TestAmerica Project #: 49014499			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M
N
C
F
Other:

Loc: 490
162713

490515

Sample Identification	Sample Date	Sample Time (24 hr)	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFMS - Chloride	8015B_DRO - DRO/MRO	8015B_GRO	8260B BTEX	Total Number of containers	Special In
			Preservation Code:				N	N	N	N		
~~EMSU 266 - EB - Soil~~				Solid								
EMSU 266 - West Bore - Soil @ 0-6" bgs	11-2-18	1106	G	Solid			X	X	X	X		
EMSU 266 - West Bore - Soil @ 2' bgs	11-2-18	1106	G	Solid			X	X	X	X		
EMSU 266 - West Bore - Soil @ 4' bgs	11-2-18	1106	G	Solid			X	X	X	X		
EMSU 266 - East Bore - Soil @ 0-6" bgs	11-2-18	1212	G	Solid			X	X	X	X		
EMSU 266 - East Bore - Soil @ 2' bgs	11-2-18	1212	G	Solid			X	X	X	X		
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Debi S. Moore	11-6-18 1557 hrs	Sport		11-6-18 1557	
2		11-6-18 1558			11/7/18 0955	TA-NAS
3		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 2.9

Ver: 08/04/2016