AE Order Number Banner

Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.

App Number: pJXK1620946667

1RP - 2729

SOUTHERN UNION GAS SERVICES LTD

7/27/2016

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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

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

HOBBS OCD
AUG 03 2011
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Form C-141
Revised October 10, 2003
Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Southern Union Gas Services	Contact	Rose Slade
Address	P.O. Box 1226 Jal, New Mexico 88252	Telephone No.	432-940-5147
Facility Name	Trunk "O" - Fulfer	Facility Type	Natural Gas Pipeline

Surface Owner	Mineral Owner	API No
Fulfer		30-025-28822

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	30	25S	37E					Lea

Latitude 32 degrees 06.380' **Longitude** 103 degrees 12.482'

NATURE OF RELEASE

Type of Release Natural Gas, Crude Oil and Produced Water	Volume of Release 10 bbls	Volume Recovered None
Source of Release 30-Inch Steel Pipeline (Low Pressure)	Date and Hour of Occurrence July 28, 2011 - Unknown	Date and Hour of Discovery July 28, 2011 – 1400 hrs
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Failure of a segment of the thirty (30) inch low pressure steel pipeline resulted in the release of natural gas, crude oil and produced water. The release occurred on the edge of a caliche road and flowed along the western edge of the edge for approximately 450 feet in a ribbon measuring one (1) to two (2) feet in width. Recovery of the released liquids was not possible. A pipeline clamp was installed on the pipeline to mitigate the release.

Describe Area Affected and Cleanup Action Taken.*
An area measuring approximately 675 square feet was affected by the release. The release will be remediated to NMOCD regulatory guidelines.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Rose Slade

Printed Name: Rose Slade

Title: EHS Compliance Specialist

E-mail Address: rose.slade@sug.com

Date: August 3, 2011 Phone: 432-940-5147

OIL CONSERVATION DIVISION

Approved by ~~District Supervisor~~ ENV. ENGINEER Geoff Leking

Approval Date: 08/03/11 Expiration Date: 10/03/11

Conditions of Approval: SUBMIT FINAL C-141 BY 10/03/11.

Attached ☐
IRP-08-2729

* Attach Additional Sheets If Necessary,

REMEDIATION SUMMARY

AND SITE

CLOSURE REQUEST

Southern Union Gas Services
Trunk "O" Fulfer Release
Lea County, New Mexico
UNIT LTR "D" (NW ¼ /NW ¼), Section 30, Township 25 South, Range 37 East
Latitude 32° 06.380' North, Longitude 103° 12.482' West
NMOCD Reference # 1RP-2729

NOVA safety and environmental

Prepared For:

Southern Union Gas Services
801 South Loop 464
Monahans, Texas 79756

HOBBS OCD
OCT 24 11
RECEIVED

Prepared By:

NOVA Safety & Environmental
2057 Commerce
Midland, Texas 79703

October 2011

Camille J. Bryant
Project Manager

Brittan K. Byerly, P.G.
President

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Appendix B – Photographs
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Appendix D – Release Notification and Corrective Action (Form-C-141)

1.0 INTRODUCTION

Nova Safety & Environmental (NOVA), on behalf of Southern Union Gas Services (SUG), has prepared this Remediation Summary and Site Closure Request for the release site known as Trunk "O" Fulfer. The legal description of the release site is Unit Letter "D" (NW ¼ NW ¼), Section 30, Township 25 South, Range 37 East, in Lea County, New Mexico. The property affected by the release is owned by Mr. Greg Fulfer. The release site GPS coordinates are 32° 06.380' North and 103° 12.482' West. Please reference Figure 1 for a Site Location Map and Figure 2 for a Site Details Schematic and Confirmation Soil Sample Locations Map. The Release Notification and Corrective Action (Form C-141) is provided as Appendix D.

On July 28, 2011, SUG discovered a release of crude oil, natural gas and produced water had occurred from a thirty (30) inch low pressure steel pipeline. The cause of the release was attributed to failure of a segment of the steel pipeline. The release occurred on the edge of a caliche road and flowed along the western edge of the road for approximately four hundred fifty (450) feet. During initial response activities, SUG installed a temporary pipeline clamp on the pipeline to mitigate the release. SUG submitted the Release Notification and Corrective Action (Form C-141) to the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office on August 3, 2011 The C-141 indicated approximately ten (10) barrels of fluids were released from the pipeline, with no recovery. General photographs of the site are provided as Appendix B.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Office of the State Engineer (NMOSE) database did not identify the average depth to groundwater information for Section 30, Township 25 South, Range 37 East. A reference map utilized by the NMOCD indicated depth to groundwater at the release site should be encountered at approximately one hundred eighty-five (185) feet below ground surface (bgs). The depth to groundwater at the Trunk "O" Fulfer Release Site results in a score of zero (0) points being assigned to the site, based on the NMOCD depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there are no water wells less than 1,000 feet from the release, resulting in zero (0) points being assigned to this site as a result of this criteria.

There are no surface water bodies located within 1,000 feet of the site. Based on the NMOCD ranking system zero (0) points will be assigned to the site as a result of the criteria.

The NMOCD guidelines indicate the Trunk "O" Fulfer Release Site has ranking score of zero (0). Based on this score, the soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- BTEX – 50 mg/Kg (ppm)
- TPH – 5,000 mg/Kg (ppm)

The NMOCD chloride cleanup level concentrations are site specific and will be determined by the NMOCD Hobbs District Office.

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On August 10, 2011, Nova, at the request of SUG, commenced remediation activities at the Trunk "O" Fulfer Release Site. Excavated soil was stockpiled on-site pending final disposition. The excavation of impacted soil was completed on August 30, 2011. Approximately 723 cubic yards of soil was stockpiled on-site during excavation activities. The final dimensions of the excavation were approximately one hundred (100) feet in length, approximately twenty (20) feet in width and ranged from approximately nine (9) feet to thirteen (13) feet in depth. The flow path excavation measured approximately one thirty-five (135) feet in length, approximately ten (10) feet in width and ranged from approximately six (6) inches to one (1) foot in depth. Please reference Figure 2 for site details.

On August 19, 2011, fourteen (14) soil samples (North S/W @ 8', West S/W-1 @ 8', East S/W-1 @ 8', R.P. Floor @ 9', West S/W-2 @ 5', East S/W-2 @ 5', Floor -2 @ 6', East S/W-3 @ 7', West S/W-3 @ 7', Floor-3 @ 8', South S/W @ 7', Flowpath-1, Flowpath-2, and Flowpath-3) were collected from the excavation and flow path area. The soil samples were submitted to the laboratory for determination of concentrations of benzene, toluene, ethyl-benzene and xylene (BTEX), total petroleum hydrocarbon (TPH), and chlorides using EPA SW-846 8021b, SW-846 8015M, and E 300, respectively. The analytical results indicated benzene concentrations were less than the appropriate laboratory method detection limit (MDL) for all the submitted soil samples with the exception of soil sample West S/W-2 @ 5', which exhibited a benzene concentration of 0.00163 mg/Kg. BTEX concentrations ranged from less than the appropriate laboratory MDL for soil samples Floor-2 @ 6', East S/W-3 @ 7' and Floor-3 @ 8' to 0.754 mg/Kg for soil sample North S/W @ 8'. Laboratory analytical results indicated TPH concentrations ranged from 15.4 mg/Kg for soil sample Flowpath-1 to 1,540 mg/Kg for soil sample R.P. Floor @ 9'. Chloride concentrations ranged from less than the laboratory MDL for soil sample Flowpath-1 to 2,200 mg/Kg for soil sample Floor-2 @ 6' A review of the laboratory analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than the NMOCD regulatory guidelines for all submitted soil samples, with the exception of soil samples Floor-2 @ 6' and Floor-3 @ 8', which exceeded regulatory guidelines for chloride concentrations. Table 1 summarizes the Concentrations of BTEX, TPH and Chlorides in Soil. Laboratory analytical reports are provided as Appendix A.

The excavated soil was stockpiled east of the excavation, in a cleared area and remediated by mixing and blending methods. On August 19, 2011, the stockpiled soil was subdivided into three (3) discreet stockpiles. One (1) composite soil sample was collected from each stockpile, resulting in three (3) composite soil samples identified as SP-AS, SP-AN, and SP-B1. The stockpiles represented by soil samples SP-AN and SP-AS each contained approximately two hundred sixty (260) cubic yards of soil removed from the excavation. The stockpile represented by soil sample SP-B1 contained approximately one hundred (100) cubic yards of material removed from the caliche road. The three (3) composite soil samples (SP-AS, SP-AN, and SP-B1) were submitted to the laboratory and analyzed for concentrations of benzene, BTEX, TPH and chlorides. Laboratory analytical results indicated benzene concentrations ranged from less than the laboratory MDL for soil sample SP-B1 to 0.00468 mg/Kg for soil sample SP-AS. BTEX concentrations ranged from 0.619 mg/kg for soil sample SP-B1 to 1.00 mg/Kg for soil sample SP-AN. Laboratory analytical results indicated TPH concentrations ranged from 1,500

mg/Kg for soil sample SP-AS to 4,680 mg/Kg for soil sample SP-B1. Chloride concentrations ranged from 230 mg/Kg for soil sample SP-AS to 1,190 mg/Kg for soil sample SP-AN (Table 1).

On August 29, 2011, additional excavation was conducted on the floor of the excavation in the areas of soil samples Floor-2 @ 6' and Floor-3 @ 8'. The excavated soil was stockpiled separately from the previously excavated soil.

On August 30, 2011, two (2) soil samples (Floor-2 @ 10' and Floor-3 @ 13') were collected from the excavation and submitted to the laboratory for chloride analysis. Laboratory analytical results indicated chloride concentrations of 45.7 mg/Kg for soil sample Floor-2 @ 10 and 77.9 mg/Kg for soil sample Floor-3 @ 13'. A review of the laboratory analytical results indicated chloride concentrations were less than the NMOCD regulatory guidelines for both soil samples. Please reference Figure 2 for soil sample locations.

Based on analytical results of the soil samples collected on August 19, 2011, the soil contained in stockpiles represented by soil samples SP-AN and SP-B1 required additional blending and resampling. On August 30, 2011, after additional mixing and blending activities were conducted on the stockpiled material represented by soil samples SP-AN and SP-B1, two (2) composite soil samples (SP-AN-1 and SP-B-2) were collected from the remediated soil and submitted to the laboratory for chloride analysis. In addition, one (1) composite soil sample (SP-C) was collected from the newly excavated soil and submitted to the laboratory for analysis. Laboratory analytical results indicated chloride concentrations ranged from 580 mg/Kg for soil sample SP-B-2 to 1,440 mg/Kg for soil sample SP-C (Table 1).

On September 6, 2011, SUG and NOVA representatives met with an NMOCD Hobbs District Office representative to present the results of the soil sampling event, and request permission to backfill the excavation. The NMOCD representative granted approval to backfill the excavation with the stockpiled soil represented by soil samples SP-AS, SP-AN-1 and SP-B-2. The stockpiled soil represented by soil sample SP-C would be transported to Sundance Services, Inc. for disposal.

A total of approximately one hundred twenty (120) cubic yards of soil represented by soil sample SP-C was transported to Sundance Services, Inc. (NMOCD Permit # 01-0003) for disposal. The manifests documenting soil disposal volumes are provided as Appendix C.

The excavation was backfilled with non-impacted, locally obtained soil and with the stockpiled soil represented by soil samples SP-AS, SP-AN-1 and SP-B-2. On completion of backfilling activities the impacted area was contoured to fit the surrounding area and the caliche road was reestablished. The site will be reseeded with vegetation approved by the landowner.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil Samples were delivered to Xenco Laboratories, Inc., of Odessa, Texas for BTEX and/or TPH and/or chloride analyses using the methods described below. Soil samples were analyzed for BTEX and/or TPH and/or chloride concentrations within fourteen (14) days following the sampling event.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030
- TPH concentrations in accordance with modified EPA Method 8015M GRO/DRO
- Chloride concentration in accordance with Method E 300.

4.2 Decontamination of Equipment

Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use and between each sample, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

4.3 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody (COC) form. These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

5.0 SITE CLOSURE REQUEST

Based on the analytical results of confirmation soil samples, NOVA recommends SUG provide the NMOCD a copy of this Remediation Summary and Site Closure Request and request the NMOCD grant closure to the Trunk "O" Fulfer Release Site.

6.0 LIMITATIONS

NOVA Safety and Environmental has prepared this Remediation Summary and Site Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

NOVA Safety and Environmental has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. NOVA Safety and Environmental has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. NOVA Safety and Environmental has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. NOVA Safety and Environmental also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Southern Union Gas Services. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of NOVA Safety and Environmental and/or Southern Union Gas.

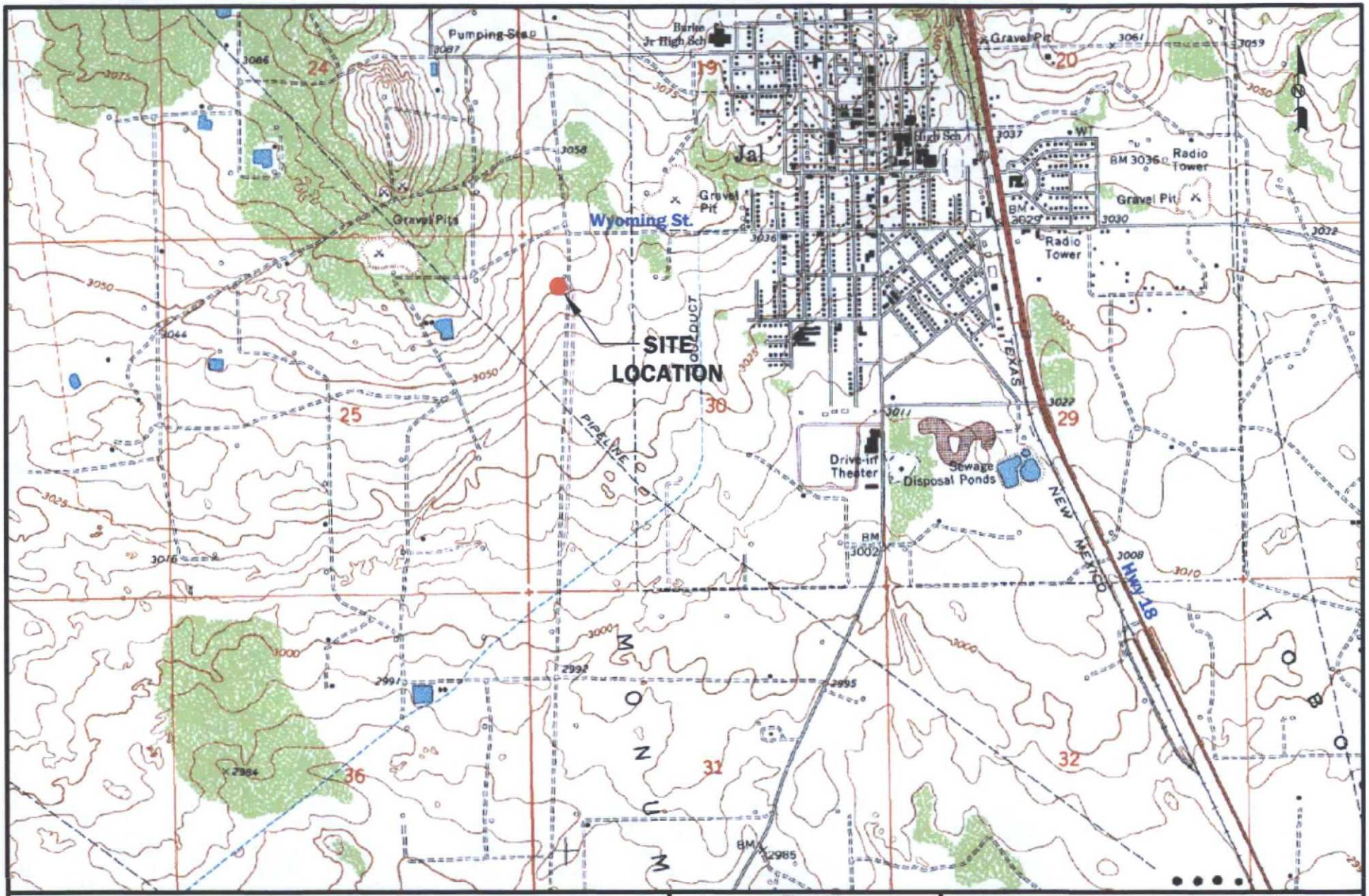
7.0 DISTRIBUTION:

Copy 1: Geoffrey Leking
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division (District 1)
1625 French Drive
Hobbs, New Mexico 88240

Copy 2: Rose Slade and Curt Stanley
Southern Union Gas Services
801 South Loop 464
Monahans, Texas 79756

Copy 3: Nova Safety & Environmental
2057 Commerce Street
Midland, Texas 79703

FIGURES



LEGEND:

2000 1000 0 1000 2000

Distance in Feet

Figure 1

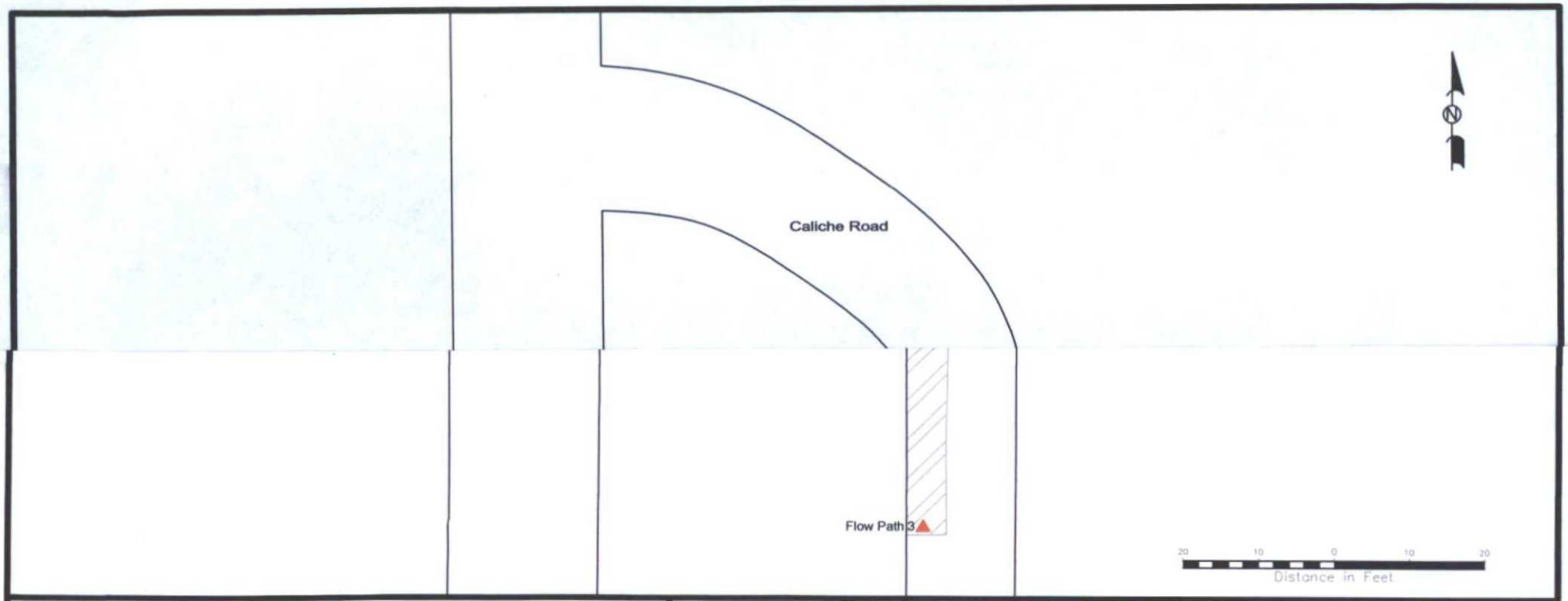
Site Location Map
Southern Union Gas Services
Trunk O Fulfer
Lea County, NM

NOVA safety and environmental

2057 Commerce Drive
Midland, Texas 79703
432.520.7720

www.novasafetyandenvironmental.com

August 5, 2011	Scale: 1" = 2000'	CAD By: TA	Checked By: CJB
Lat. N 32° 06.380' Long. W 103° 12.482'			



LEGEND:

Figure 2
Site Details & Confirmation
Soil Sample Locations
Southern Union Gas Services
Trunk O Fulfer
Lea County, NM

NOVA safety and environmental
2057 Commerce Drive
Midland, Texas 79703
432.520.7720
www.novasafetyandenvironmental.com

August 31, 2011	Scale: 1" = 20'	CAD By: TA	Checked By: RKR
Lat. N 32° 06.380' Long. W 103° 12.482'		NW1/4 SE1/4 Sec 18 T18S R36E	

TABLES

TABLE 1

CONCENTRATIONS OF BTEX, TPH AND CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES
TRUNK "O" FULFER RELEASE SITE
LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

SAMPLE LOCATION	SAMPLE DATE	METHODS: SW 846-8021b						METHOD: SW 8015M				E 300.1
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	TOTAL BTEX	TPH GRO C_6-C_{12}	TPH DRO C_{12}-C_{28}	TPH ORO C_{28}-C_{35}	TOTAL TPH C_6-C_{35}	CHLORIDE
NMOCD Regulatory Limit		**10**	-	-	-		**50**	-	-	-	**5,000**	-
North S/W @ 8'	08/19/11	<0.00105	0.0078	0.0854	0.458	0.203	0.754	73	337	<15.8	410	72.2
West S/W-1 @ 8'	08/19/11	<0.00102	<0.00205	<0.00102	0.00409	0.00203	0.00612	<15.3	24.7	<15.3	24.7	67.1
East S/W-1 @ 8'	08/19/11	<0.00103	0.00327	0.00524	0.0343	0.0128	0.0556	<15.4	30.4	<15.4	30.4	10.9
R.P. Floor @ 9'	08/19/11	<0.00104	0.0219	0.103	0.489	0.0635	0.677	251	1290	<15.4	1,540	17.7
West S/W-2 @ 5'	08/19/11	0.00163	0.0114	0.00759	0.0318	0.0122	0.0646	<15.3	31.7	<15.3	31.7	13.2
East S/W-2 @ 5'	08/19/11	<0.00103	<0.00205	0.00137	0.00713	0.00349	0.012	<15.4	55.8	<15.4	55.8	34.3
Floor-2 @ 6'	08/19/11	<0.00105	<0.00210	<0.00105	<0.00210	<0.00105	<0.00105	<15.7	83.2	<15.7	83.2	2,200
East S/W-3 @ 7'	08/19/11	<0.00102	<0.00204	<0.00102	<0.00204	<0.00102	<0.00102	<15.3	22.5	<15.3	22.5	180
West S/W-3 @ 7'	08/19/11	<0.00101	<0.00202	0.00158	0.00774	0.00290	0.0122	<15.2	188	<15.2	188	18.9
Floor-3 @ 8'	08/19/11	<0.00105	<0.00211	<0.00105	<0.00211	<0.00105	<0.00105	29.1	92.3	<15.8	121	1,470
South S/W @ 7'	08/19/11	<0.00101	<0.00203	0.00154	0.00799	0.00282	0.0124	<15.4	66.1	<15.4	66.1	12.2
Flowpath-1	08/19/11	<0.00102	<0.00204	0.00275	0.0165	0.00573	0.025	<15.2	15.4	<15.2	15.4	<4.26
Flowpath-2	08/19/11	<0.00146	0.0058	0.00738	0.0518	0.0254	0.0904	64.3	782	<21.8	846	70.7
Flowpath-3	08/19/11	<0.00101	<0.00203	0.0012	0.00334	0.0013	0.00584	<15.2	35.9	<15.2	35.9	7.27
SP-AS	08/19/11	0.00468	0.127	0.0886	0.454	0.175	0.849	163	1300	38.1	1,500	230
SP-AN	08/19/11	0.00349	0.152	0.109	0.532	0.205	1.00	285	3000	196	3,480	1,190
SP-B1	08/19/11	<0.00101	0.0275	0.0625	0.369	0.160	0.619	401	3920	362	4,680	802
Floor-2 @ 10'	08/30/11	-	-	-	-	-	-	-	-	-	-	45.7
Floor-3 @ 13'	08/30/11	-	-	-	-	-	-	-	-	-	-	77.9
SP-AN-1	08/30/11	-	-	-	-	-	-	-	-	-	-	618
SP-B-2	08/30/11	-	-	-	-	-	-	-	-	-	-	580
SP-C	08/30/11	-	-	-	-	-	-	-	-	-	-	1,440

APPENDICES

APPENDIX A:
Analytical Reports

Analytical Report 426152

for

Southern Union Gas Services- Monahans

Project Manager: Curt Stanley

Trunk 'O' Fulfer

26-AUG-11

Collected By: Client

Celebrating 20 Years of commitment to excellence in Environmental Testing Services

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

XENCO Laboratories

26-AUG-11

Project Manager: **Curt Stanley**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **426152**
Trunk 'O' Fulfer
Project Address: Lea Co., NM

Curt Stanley:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 426152. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 426152 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II
Odessa Laboratory Manager

XENCO Laboratories

Sample Cross Reference 426152

Southern Union Gas Services- Monahans, Monahans, TX

Trunk 'O' Fulfer

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
North S/W @ 8'	S	08-19-11 10:30		426152-001
West S/W-1 @ 8'	S	08-19-11 10:35		426152-002
East S/W-1 @ 8'	S	08-19-11 10:40		426152-003
R.P. Floor @ 9'	S	08-19-11 10:45		426152-004
West S/W-2 @ 5'	S	08-19-11 11:00		426152-005
East S/W-2 @ 5'	S	08-19-11 11:05		426152-006
Floor-2 @ 6'	S	08-19-11 11:10		426152-007
East S/W-3 @ 7'	S	08-19-11 11:20		426152-008
West S/W-3 @ 7'	S	08-19-11 11:25		426152-009
Floor- 3 @ 8'	S	08-19-11 11:30		426152-010
South S/W @ 7'	S	08-19-11 11:35		426152-011
Flowpath-1	S	08-19-11 11:40		426152-012
Flowpath-2	S	08-19-11 11:45		426152-013
Flowpath-3	S	08-19-11 11:50		426152-014

CASE NARRATIVE

XENCO Laboratories

Client Name: Southern Union Gas Services- Monahans
Project Name: Trunk 'O' Fulfer

Project ID:
Work Order Number: 426152

Report Date: 26-AUG-11
Date Received: 08/19/2011

Sample receipt non conformances and comments:
None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-868184 TPH By SW8015 Mod
SW8015MOD_NM

Batch 868184, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 426152-013.

Batch: LBA-868410 BTEX by EPA 8021B
SW8021BM

Batch 868410, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 426152-014, -008, -006, -013, -007, -011, -005, -009, -001, -012, -004, -003, -010, -002.
The Laboratory Control Sample for Toluene, Ethylbenzene, m_p-Xylenes , o-Xylene is within laboratory Control Limits

SW8021BM

Batch 868410, 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 426152-001 S,426152-001 SD,426152-001,426152-004.

Certificate of Analysis Summary 426152

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Trunk 'O' Fulfer

Project Id:
Contact: Curt Stanley
Project Location: Lea Co., NM

Date Received in Lab: Fri Aug-19-11 03:38 pm
Report Date: 26-AUG-11
Project Manager: Brent Barron II

Analysis Requested		426152-001		426152-002		426152-003		426152-004		426152-005		426152-006	
	Field Id:	North S/W @ 8'		West S/W-1 @ 8'		East S/W-1 @ 8'		R.P. Floor @ 9'		West S/W-2 @ 5'		East S/W-2 @ 5'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-19-11 10:30		Aug-19-11 10:35		Aug-19-11 10:40		Aug-19-11 10:45		Aug-19-11 11:00		Aug-19-11 11:05	
Anions by E300	Extracted:												
	Analyzed:	Aug-22-11 19:28		Aug-22-11 19:28		Aug-22-11 19:28		Aug-22-11 19:28		Aug-22-11 19:28		Aug-22-11 19:28	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		72.2	4.41	67.1	4.30	10.9	4.30	17.7	4.33	13.2	4.26	34.3	4.30
BTEX by EPA 8021B	Extracted:	Aug-25-11 14:30		Aug-25-11 14:30		Aug-25-11 14:30		Aug-25-11 14:30		Aug-25-11 14:30		Aug-25-11 14:30	
	Analyzed:	Aug-25-11 23:05		Aug-25-11 16:59		Aug-26-11 00:13		Aug-26-11 00:35		Aug-25-11 17:22		Aug-25-11 17:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.00105	ND	0.00102	ND	0.00103	ND	0.00104	0.00163	0.00102	ND	0.00103
Toluene		0.00780	0.00211	ND	0.00205	0.00327	0.00207	0.0219	0.00208	0.0114	0.00204	ND	0.00205
Ethylbenzene		0.0854	0.00105	ND	0.00102	0.00524	0.00103	0.103	0.00104	0.00759	0.00102	0.00137	0.00103
m_p-Xylenes		0.458	0.00211	0.00409	0.00205	0.0343	0.00207	0.489	0.00208	0.0318	0.00204	0.00713	0.00205
o-Xylene		0.203	0.00105	0.00203	0.00102	0.0128	0.00103	0.0635	0.00104	0.0122	0.00102	0.00349	0.00103
Total Xylenes		0.661	0.00105	0.00612	0.00102	0.0471	0.00103	0.553	0.00104	0.0440	0.00102	0.0106	0.00103
Total BTEX		0.754	0.00105	0.00612	0.00102	0.0556	0.00103	0.677	0.00104	0.0646	0.00102	0.0120	0.00103
Percent Moisture	Extracted:												
	Analyzed:	Aug-21-11 15:50		Aug-21-11 15:50		Aug-21-11 15:50		Aug-21-11 15:50		Aug-21-11 15:50		Aug-21-11 16:05	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		4.80	1.00	2.24	1.00	2.40	1.00	2.96	1.00	1.37	1.00	2.24	1.00
TPH By SW8015 Mod	Extracted:	Aug-22-11 10:45		Aug-22-11 10:45		Aug-22-11 10:45		Aug-22-11 10:45		Aug-22-11 10:45		Aug-22-11 10:45	
	Analyzed:	Aug-23-11 07:22		Aug-23-11 07:52		Aug-23-11 08:22		Aug-23-11 08:51		Aug-23-11 09:21		Aug-23-11 09:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		73.0	15.8	ND	15.3	ND	15.4	251	15.4	ND	15.3	ND	15.4
C12-C28 Diesel Range Hydrocarbons		337	15.8	24.7	15.3	30.4	15.4	1290	15.4	31.7	15.3	55.8	15.4
C28-C35 Oil Range Hydrocarbons		ND	15.8	ND	15.3	ND	15.4	ND	15.4	ND	15.3	ND	15.4
Total TPH		410	15.8	24.7	15.3	30.4	15.4	1540	15.4	31.7	15.3	55.8	15.4

Brent Barron II
Odessa Laboratory Manager

Final 1.000

Certificate of Analysis Summary 426152

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Trunk 'O' Fulfer

Project Id:
Contact: Curt Stanley
Project Location: Lea Co., NM

Date Received in Lab: Fri Aug-19-11 03:38 pm
Report Date: 26-AUG-11
Project Manager: Brent Barron II

Analysis Requested		426152-007		426152-008		426152-009		426152-010		426152-011		426152-012	
	Lab Id:	426152-007		426152-008		426152-009		426152-010		426152-011		426152-012	
	Field Id:	Floor-2 @ 6'		East S/W-3 @ 7'		West S/W-3 @ 7'		Floor- 3 @ 8'		South S/W @ 7'		Flowpath-1	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-19-11 11:10		Aug-19-11 11:20		Aug-19-11 11:25		Aug-19-11 11:30		Aug-19-11 11:35		Aug-19-11 11:40	
Anions by E300	Extracted:												
	Analyzed:	Aug-22-11 19:28		Aug-22-11 19:28		Aug-22-11 19:28		Aug-22-11 19:28		Aug-22-11 19:28		Aug-23-11 18:23	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2200	43.8	180	4.27	18.9	4.25	1470	22.0	12.2	4.30	ND	4.26
BTEX by EPA 8021B	Extracted:	Aug-25-11 14:30		Aug-25-11 14:30		Aug-25-11 14:30		Aug-25-11 14:30		Aug-25-11 14:30		Aug-25-11 14:30	
	Analyzed:	Aug-25-11 18:08		Aug-25-11 18:31		Aug-25-11 18:54		Aug-25-11 19:17		Aug-25-11 19:40		Aug-25-11 20:02	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.00105	ND	0.00102	ND	0.00101	ND	0.00105	ND	0.00101	ND	0.00102
Toluene		ND	0.00210	ND	0.00204	ND	0.00202	ND	0.00211	ND	0.00203	ND	0.00204
Ethylbenzene		ND	0.00105	ND	0.00102	0.00158	0.00101	ND	0.00105	0.00154	0.00101	0.00275	0.00102
m_p-Xylenes		ND	0.00210	ND	0.00204	0.00774	0.00202	ND	0.00211	0.00799	0.00203	0.0165	0.00204
o-Xylene		ND	0.00105	ND	0.00102	0.00290	0.00101	ND	0.00105	0.00282	0.00101	0.00573	0.00102
Total Xylenes		ND	0.00105	ND	0.00102	0.0106	0.00101	ND	0.00105	0.0108	0.00101	0.0222	0.00102
Total BTEX		ND	0.00105	ND	0.00102	0.0122	0.00101	ND	0.00105	0.0124	0.00101	0.0250	0.00102
Percent Moisture	Extracted:												
	Analyzed:	Aug-21-11 16:05		Aug-21-11 16:05		Aug-21-11 16:05		Aug-21-11 16:05		Aug-21-11 16:05		Aug-21-11 16:05	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		4.21	1.00	1.57	1.00	1.23	1.00	4.65	1.00	2.37	1.00	1.49	1.00
TPH By SW8015 Mod	Extracted:	Aug-22-11 10:45		Aug-22-11 10:45		Aug-22-11 10:45		Aug-22-11 10:45		Aug-22-11 10:45		Aug-22-11 10:45	
	Analyzed:	Aug-23-11 10:21		Aug-23-11 10:51		Aug-23-11 11:52		Aug-24-11 01:56		Aug-24-11 02:26		Aug-24-11 02:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.7	ND	15.3	ND	15.2	29.1	15.8	ND	15.4	ND	15.2
C12-C28 Diesel Range Hydrocarbons		83.2	15.7	22.5	15.3	188	15.2	92.3	15.8	66.1	15.4	15.4	15.2
C28-C35 Oil Range Hydrocarbons		ND	15.7	ND	15.3	ND	15.2	ND	15.8	ND	15.4	ND	15.2
Total TPH		83.2	15.7	22.5	15.3	188	15.2	121	15.8	66.1	15.4	15.4	15.2

Brent Barron II
Odessa Laboratory Manager

Final 1.000

Certificate of Analysis Summary 426152

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Trunk 'O' Fulfer

Project Id:
Contact: Curt Stanley
Project Location: Lea Co., NM

Date Received in Lab: Fri Aug-19-11 03:38 pm
Report Date: 26-AUG-11
Project Manager: Brent Barron II

Analysis Requested									
	Lab Id:	426152-013		426152-014					
	Field Id:	Flowpath-2		Flowpath-3					
	Depth:								
	Matrix:	SOIL		SOIL					
	Sampled:	Aug-19-11 11:45		Aug-19-11 11:50					
Anions by E300	*Extracted:*								
	Analyzed:	Aug-23-11 18:23		Aug-23-11 18:23					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		70.7	6.09	7.27	4.25				
BTEX by EPA 8021B	*Extracted:*	Aug-25-11 14:30		Aug-25-11 14:30					
	Analyzed:	Aug-25-11 20:25		Aug-25-11 21:57					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		ND	0.00146	ND	0.00101				
Toluene		0.00580	0.00293	ND	0.00203				
Ethylbenzene		0.00738	0.00146	0.00120	0.00101				
m_p-Xylenes		0.0518	0.00293	0.00334	0.00203				
o-Xylene		0.0254	0.00146	0.00130	0.00101				
Total Xylenes		0.0772	0.00146	0.00464	0.00101				
Total BTEX		0.0904	0.00146	0.00584	0.00101				
Percent Moisture	*Extracted:*								
	Analyzed:	Aug-21-11 16:05		Aug-21-11 16:05					
	Units/RL:	%	RL	%	RL				
Percent Moisture		31.0	1.00	1.11	1.00				
TPH By SW8015 Mod	*Extracted:*	Aug-22-11 10:45		Aug-22-11 10:45					
	Analyzed:	Aug-24-11 03:26		Aug-24-11 03:56					
	Units/RL:	mg/kg	RL	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		64.3	21.8	ND	15.2				
C12-C28 Diesel Range Hydrocarbons		782	21.8	35.9	15.2				
C28-C35 Oil Range Hydrocarbons		ND	21.8	ND	15.2				
Total TPH		846	21.8	35.9	15.2				

Brent Barron II
Odessa Laboratory Manager

Final 1.000

XENCO Laboratories

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantiation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Trunk 'O' Fulfer

Work Orders 426152,

Project ID:

Lab Batch #: 868184 **Sample:** 426152-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/23/11 07:22

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	64.3	50.2	128	70-135	

Lab Batch #: 868184 **Sample:** 426152-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/23/11 07:52

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.9	109	70-135	
o-Terphenyl	60.0	50.0	120	70-135	

Lab Batch #: 868184 **Sample:** 426152-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/23/11 08:22

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	58.1	50.2	116	70-135	

Lab Batch #: 868184 **Sample:** 426152-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/23/11 08:51

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	99.8	123	70-135	
o-Terphenyl	58.9	49.9	118	70-135	

Lab Batch #: 868184 **Sample:** 426152-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/23/11 09:21

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	63.4	50.2	126	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Trunk 'O' Fulfer

Work Orders 426152,

Project ID:

Lab Batch #: 868184 **Sample:** 426152-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/23/11 09:51

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	58.1	50.1	116	70-135	

Lab Batch #: 868184 **Sample:** 426152-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/23/11 10:21

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	64.5	50.2	128	70-135	

Lab Batch #: 868184 **Sample:** 426152-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/23/11 10:51

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.3	101	97	70-135	
o-Terphenyl	54.7	50.3	109	70-135	

Lab Batch #: 868184 **Sample:** 426152-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/23/11 11:52

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.5	100	100	70-135	
o-Terphenyl	55.3	50.2	110	70-135	

Lab Batch #: 868184 **Sample:** 426152-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/24/11 01:56

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	58.4	50.2	116	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Trunk 'O' Fulfer

Work Orders 426152,

Project ID:

Lab Batch #: 868184 **Sample:** 426152-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/24/11 02:26

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.4	101	95	70-135	
o-Terphenyl	54.8	50.3	109	70-135	

Lab Batch #: 868184 **Sample:** 426152-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/24/11 02:55

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	99.6	110	70-135	
o-Terphenyl	62.6	49.8	126	70-135	

Lab Batch #: 868184 **Sample:** 426152-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/24/11 03:26

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	135	100	135	70-135	
o-Terphenyl	78.4	50.2	156	70-135	*

Lab Batch #: 868184 **Sample:** 426152-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/24/11 03:56

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	57.6	50.1	115	70-135	

Lab Batch #: 868410 **Sample:** 426152-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/25/11 16:59

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Trunk 'O' Fulfer

Work Orders 426152,

Project ID:

Lab Batch #: 868410 **Sample:** 426152-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/25/11 17:22

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

Lab Batch #: 868410 **Sample:** 426152-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/25/11 17:45

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 868410 **Sample:** 426152-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/25/11 18:08

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 868410 **Sample:** 426152-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/25/11 18:31

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0325	0.0300	108	80-120	

Lab Batch #: 868410 **Sample:** 426152-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/25/11 18:54

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Trunk 'O' Fulfer

Work Orders 426152,

Project ID:

Lab Batch #: 868410 **Sample:** 426152-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/25/11 19:17

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

Lab Batch #: 868410 **Sample:** 426152-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/25/11 19:40

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0331	0.0300	110	80-120	

Lab Batch #: 868410 **Sample:** 426152-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/25/11 20:02

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0264	0.0300	88	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 868410 **Sample:** 426152-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/25/11 20:25

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 868410 **Sample:** 426152-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/25/11 21:57

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0303	0.0300	101	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Trunk 'O' Fulfer

Work Orders 426152,

Project ID:

Lab Batch #: 868410 **Sample:** 426152-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/25/11 23:05

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0684	0.0300	228	80-120	*

Lab Batch #: 868410 **Sample:** 426152-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/26/11 00:13

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

Lab Batch #: 868410 **Sample:** 426152-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/26/11 00:35

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0242	0.0300	81	80-120	
4-Bromofluorobenzene	0.0942	0.0300	314	80-120	*

Lab Batch #: 868184 **Sample:** 610369-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/23/11 05:51

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.9	101	70-135	
o-Terphenyl	55.9	50.0	112	70-135	

Lab Batch #: 868410 **Sample:** 610488-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/25/11 16:36

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Trunk 'O' Fulfer

Work Orders 426152, **Project ID:**

Lab Batch #: 868184 **Sample:** 610369-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/23/11 04:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	99.6	126	70-135	
o-Terphenyl	65.7	49.8	132	70-135	

Lab Batch #: 868410 **Sample:** 610488-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/25/11 15:05

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

Lab Batch #: 868184 **Sample:** 610369-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/23/11 05:21

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	100	121	70-135	
o-Terphenyl	59.0	50.2	118	70-135	

Lab Batch #: 868410 **Sample:** 610488-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/25/11 15:28

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 868184 **Sample:** 426152-014 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/24/11 06:25

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	61.4	50.2	122	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Trunk 'O' Fulfer

Work Orders 426152,

Project ID:

Lab Batch #: 868410 **Sample:** 426152-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/26/11 02:06

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0422	0.0300	141	80-120	*

Lab Batch #: 868184 **Sample:** 426152-014 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/24/11 06:55

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.6	119	70-135	
o-Terphenyl	64.2	49.8	129	70-135	

Lab Batch #: 868410 **Sample:** 426152-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/26/11 02:29

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0496	0.0300	165	80-120	*

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

BS / BSD Recoveries

Project Name: Trunk 'O' Fulfer

Work Order #: 426152 **Project ID:**

Analyst: ASA **Date Prepared:** 08/25/2011 **Date Analyzed:** 08/25/2011

Lab Batch ID: 868410 **Sample:** 610488-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.110	110	0.100	0.110	110	0	70-130	35	
Toluene	<0.00200	0.100	0.0981	98	0.100	0.0975	98	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.109	109	0.100	0.108	108	1	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.218	109	0.200	0.215	108	1	70-135	35	
o-Xylene	<0.00100	0.100	0.101	101	0.100	0.103	103	2	71-133	35	

Analyst: BRB **Date Prepared:** 08/22/2011 **Date Analyzed:** 08/22/2011

Lab Batch ID: 867991 **Sample:** 867991-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.20	100	106	106	100	107	107	1	75-125	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

XENCO Laboratories

BS / BSD Recoveries

Project Name: Trunk 'O' Fulfer

Work Order #: 426152 **Project ID:**

Analyst: BRB **Date Prepared:** 08/23/2011 **Date Analyzed:** 08/23/2011

Lab Batch ID: 868301 **Sample:** 868301-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.20	100	106	106	100	107	107	1	75-125	20	

Analyst: BBH **Date Prepared:** 08/22/2011 **Date Analyzed:** 08/23/2011

Lab Batch ID: 868184 **Sample:** 610369-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<14.9	996	831	83	1000	798	80	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<14.9	996	923	93	1000	851	85	8	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

XENCO Laboratories

Form 3 - MS Recoveries

Project Name: Trunk 'O' Fulfer

Work Order #: 426152
Lab Batch #: 867991
Project ID:
Date Analyzed: 08/22/2011
Date Prepared: 08/22/2011
Analyst: BRB
QC- Sample ID: 426155-001 S
Batch #: 1
Matrix: Soil
Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	11500	5140	15600	80	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: Trunk 'O' Fulfer

Work Order # : 426152 **Project ID:**

Lab Batch ID: 868410 **QC- Sample ID:** 426152-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/26/2011 **Date Prepared:** 08/25/2011 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00105	0.105	0.0921	88	0.105	0.0892	85	3	70-130	35	
Toluene	0.00780	0.105	0.0783	67	0.105	0.0739	63	6	70-130	35	X
Ethylbenzene	0.0854	0.105	0.0798	0	0.105	0.0719	0	10	71-129	35	X
m_p-Xylenes	0.458	0.210	0.160	0	0.211	0.147	0	8	70-135	35	X
o-Xylene	0.203	0.105	0.0759	0	0.105	0.0699	0	8	71-133	35	X

Lab Batch ID: 868184 **QC- Sample ID:** 426152-014 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/24/2011 **Date Prepared:** 08/22/2011 **Analyst:** BBH

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.2	1010	763	76	1010	784	78	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	35.9	1010	928	88	1010	935	89	1	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

XENCO Laboratories

Sample Duplicate Recovery

Project Name: Trunk 'O' Fulfer

Work Order #: 426152

Lab Batch #: 867991 **Project ID:**

Date Analyzed: 08/22/2011 19:28 **Date Prepared:** 08/22/2011 **Analyst:** BRB

QC- Sample ID: 426155-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by E300 Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	11500	11400	1	20	

Lab Batch #: 867874

Date Analyzed: 08/21/2011 15:50 **Date Prepared:** 08/21/2011 **Analyst:** BRB

QC- Sample ID: 426157-019 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	1.38	1.28	8	20	

Lab Batch #: 867877

Date Analyzed: 08/21/2011 16:05 **Date Prepared:** 08/21/2011 **Analyst:** BRB

QC- Sample ID: 426152-006 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	2.24	2.12	6	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Xenco Laboratories

The Environmental Lab of Texas

Bill to SLG

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Camille Bryant/Curt Stanley
Company Name: Nova Safety & Environmental
Company Address: 2057 Commerce
City/State/Zip: Midland TX 79703
Telephone No: (432)520-7720 Fax No: (432)520-7701
Sampler Signature: Camille Bryant
e-mail: cbryant@novatraining.cc curt.stanley@slg.com

Project Name: Trunk 'O' Pulfer
Project #:
Project Loc: Lea Co. NM
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 426152

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 / 8015M / 8015B	TOTAL: TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides	RUSH TAT (Pre-Scheduled) 24, 48, 72 hrs	Standard TAT
001	North S/W @ 8'			8/19	1030		1	X								SO	X								X			X		X
002	West S/W-1 @ 8'				1035																									
003	East S/W-1 @ 8'				1040																									
004	R.P. Floor @ 9'				1045																									
005	West S/W-2 @ 5'				1100																									
006	East S/W-2 @ 5'				1105																									
007	Floor-2 @ 6'				1110																									
008	East S/W-3 @ 7'				1120																									
009	West S/W-3 @ 7'				1125																									
010	Floor-3 @ 8'			↓	1130		↓	↓								↓	↓								↓			↓		↓

Special Instructions:

	Date	Time		Date	Time
Relinquished by: Camille Bryant	8/19/11	1532	Received by:		
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Lisa Murdock	8-19-11	15:38

Laboratory Comments:
Sample Containers Intact? Y
VOCs Free of Headspace? Y
Labels on container(s) Y
Custody seals on container(s) N/A
Custody seals on cooler(s) N/A
Sample Hand Delivered by Sampler/Client Rep. ? Y
by Courier? UPS DHL FedEx Lone Star N
Temperature Upon Receipt: 4 oz g/c 4.1 °C

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

S.U.G.

Project Manager: Camille Bryant / Curt Stanley
Company Name: Nova Safety & Environmental
Company Address: 2057 Commerce
City/State/Zip: Midland, TX 79703
Telephone No: (432) 520-7720
Fax No: (432) 520-7701
Sampler Signature: Camille Bryant
e-mail: Cbryant@novatraining.cc
Curt-Stanley@slg.com

Project Name: Trunk 'O' Fulfer
Project #:
Project Loc: Lea Co, New Mexico
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 426152

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge / GW=Groundwater S=Soil/Solid / NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 (8015M) 8015B	TOTAL: TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
	South SW @ 8' CB																												X
011	South SW @ 7'			8/19/2011	1135		1	X								Soil	X								X			X		X
012	Flowpath-1				1140																									
013	Flowpath-2				1145																									
014	Flowpath-3				1150																									

Special Instructions:

	Date	Time		Date	Time
Relinquished by: Camille Bryant	8/19/11	1539	Received by:		
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Lisa Murdock	Date 8-19-11	Time 15:38

Laboratory Comments:
Sample Containers Intact? Y
VOCs Free of Headspace? Y
Labels on container(s) Y
Custody seals on container(s) N/A
Custody seals on cooler(s) N
Sample Hand Delivered by Sampler/Client Rep. ? N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 4.0 2.9 C / 4.1 °C

XENCO Laboratories

XENCO Laboratories
Atlanta, Boca Raton, Corpus Christi, Dallas
Houston, Miami, Odessa, Philadelphia
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS-SRC
Revision/Date: No. 01, 5/27/2010
Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
Date/Time: 8-19-11 15:38
Lab ID # : 426152
Initials: LM

Sample Receipt Checklist

1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	(N/A)	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	(No)	N/A	
17. VOC sample have zero head space?	Yes	No	(N/A)	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	4.1 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact:_____ Contacted by:_____ Date/Time:_____

Regarding: _____

Corrective Action Taken: _____

Check all that apply:
- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
- ☐ Initial and Backup Temperature confirm out of temperature conditions
- ☐ Client understands and would like to proceed with analysis

Analytical Report 426199

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Trunk 'O' Fulfer

29-AUG-11

Collected By: Client

Celebrating 20 Years of commitment to excellence in Environmental Testing Services

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

XENCO Laboratories

29-AUG-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **426199**
Trunk 'O' Fulfer
Project Address: Lea County, New Mexico

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 426199. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 426199 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II
Odessa Laboratory Manager

XENCO Laboratories

Sample Cross Reference 426199

Southern Union Gas Services- Monahans, Monahans, TX

Trunk 'O' Fulfer

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP- A S	S	08-19-11 14:20		426199-001
SP- A N	S	08-19-11 14:30		426199-002
SP- B 1	S	08-19-11 14:40		426199-003

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Trunk 'O' Fulfer

Project ID:
Work Order Number: 426199

Report Date: 29-AUG-11
Date Received: 08/22/2011

Sample receipt non conformances and comments:
None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-868200 TPH By SW8015 Mod
SW8015MOD_NM

Batch 868200, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 426199-002.

Batch: LBA-868554 BTEX by EPA 8021B
SW8021BM

Batch 868554, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 426199-002.
4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 426199-003.

SW8021BM

Batch 868554, Benzene, Ethylbenzene recovered above QC limits in the Blank Spike Duplicate. Samples affected are: 426199-001, -002, -003. These compounds were within limits in the Blank Spike as well as the Matrix Spike and Matrix Spike Duplicate. This is most likely a spiking error and should have no effect to the analytical data.

Certificate of Analysis Summary 426199

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Trunk 'O' Fulfer

Project Id:

Contact: Rose Slade

Project Location: Lea County, New Mexico

Date Received in Lab: Mon Aug-22-11 10:10 am

Report Date: 29-AUG-11

Project Manager: Brent Barron II

Analysis Requested											
	Lab Id:	426199-001		426199-002		426199-003					
	Field Id:	SP- A S		SP- A N		SP- B 1					
	Depth:										
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	Aug-19-11 14:20		Aug-19-11 14:30		Aug-19-11 14:40					
Anions by E300	*Extracted:*										
	Analyzed:	Aug-26-11 10:03		Aug-26-11 10:03		Aug-26-11 17:23					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		230	21.1	1190	42.3	802	42.3				
BTEX by EPA 8021B	*Extracted:*	Aug-26-11 14:30		Aug-26-11 14:30		Aug-26-11 14:30					
	Analyzed:	Aug-27-11 02:17		Aug-27-11 02:39		Aug-27-11 01:08					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		0.00468	0.00100	0.00349	0.00101	ND	0.00101				
Toluene		0.127	0.00200	0.152	0.00201	0.0275	0.00201				
Ethylbenzene		0.0886	0.00100	0.109	0.00101	0.0625	0.00101				
m_p-Xylenes		0.454	0.00200	0.532	0.00201	0.369	0.00201				
o-Xylene		0.175	0.00100	0.205	0.00101	0.160	0.00101				
Total Xylenes		0.629	0.00100	0.737	0.00101	0.529	0.00101				
Total BTEX		0.849	0.00100	1.00	0.00101	0.619	0.00101				
Percent Moisture	*Extracted:*										
	Analyzed:	Aug-22-11 11:20		Aug-22-11 11:20		Aug-22-11 11:20					
	Units/RL:	%	RL	%	RL	%	RL				
Percent Moisture		ND	1.00	ND	1.00	ND	1.00				
TPH By SW8015 Mod	*Extracted:*	Aug-22-11 10:45		Aug-22-11 11:50		Aug-22-11 11:50					
	Analyzed:	Aug-24-11 05:54		Aug-22-11 15:47		Aug-22-11 16:17					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		163	15.0	285	15.0	401	15.2				
C10-C28 Diesel Range Hydrocarbons		1300	15.0	3000	15.0	3920	15.2				
C28-C35 Oil Range Hydrocarbons		38.1	15.0	196	15.0	362	15.2				
Total TPH		1500	15.0	3480	15.0	4680	15.2				

Brent Barron II
Odessa Laboratory Manager

Final 1.000

XENCO Laboratories

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantiation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Trunk 'O' Fulfer

Work Orders : 426199,

Project ID:

Lab Batch #: 868200 **Sample:** 426199-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/22/11 15:47

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	99.6	127	70-135	
o-Terphenyl	22.6	49.8	45	70-135	**

Lab Batch #: 868200 **Sample:** 426199-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/22/11 16:17

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	101	120	70-135	
o-Terphenyl	61.4	50.3	122	70-135	

Lab Batch #: 868184 **Sample:** 426199-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/24/11 05:54

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.6	113	70-135	
o-Terphenyl	54.4	49.8	109	70-135	

Lab Batch #: 868554 **Sample:** 426199-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/27/11 01:08

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0263	0.0300	88	80-120	
4-Bromofluorobenzene	0.0454	0.0300	151	80-120	*

Lab Batch #: 868554 **Sample:** 426199-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/27/11 02:17

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0259	0.0300	86	80-120	
4-Bromofluorobenzene	0.0331	0.0300	110	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Trunk 'O' Fulfer

Work Orders : 426199,

Project ID:

Lab Batch #: 868554 **Sample:** 426199-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/27/11 02:39

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0234	0.0300	78	80-120	*
4-Bromofluorobenzene	0.0310	0.0300	103	80-120	

Lab Batch #: 868200 **Sample:** 610373-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/22/11 13:46

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.5	99.8	91	70-135	
o-Terphenyl	48.4	49.9	97	70-135	

Lab Batch #: 868184 **Sample:** 610369-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/23/11 05:51

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.9	101	70-135	
o-Terphenyl	55.9	50.0	112	70-135	

Lab Batch #: 868554 **Sample:** 610570-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/26/11 18:42

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0258	0.0300	86	80-120	
4-Bromofluorobenzene	0.0246	0.0300	82	80-120	

Lab Batch #: 868200 **Sample:** 610373-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/22/11 12:45

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	101	106	70-135	
o-Terphenyl	48.8	50.3	97	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Trunk 'O' Fulfer

Work Orders : 426199, **Project ID:**

Lab Batch #: 868184 **Sample:** 610369-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/23/11 04:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	99.6	126	70-135	
o-Terphenyl	65.7	49.8	132	70-135	

Lab Batch #: 868554 **Sample:** 610570-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/26/11 17:11

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	80-120	
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

Lab Batch #: 868200 **Sample:** 610373-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/22/11 13:15

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.6	111	70-135	
o-Terphenyl	48.3	49.8	97	70-135	

Lab Batch #: 868184 **Sample:** 610369-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/23/11 05:21

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	100	121	70-135	
o-Terphenyl	59.0	50.2	118	70-135	

Lab Batch #: 868554 **Sample:** 610570-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/26/11 17:34

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Trunk 'O' Fulfer

Work Orders : 426199,

Project ID:

Lab Batch #: 868200 **Sample:** 426135-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/23/11 01:20

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	99.7	115	70-135	
o-Terphenyl	57.1	49.9	114	70-135	

Lab Batch #: 868184 **Sample:** 426152-014 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/24/11 06:25

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	61.4	50.2	122	70-135	

Lab Batch #: 868554 **Sample:** 426524-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/26/11 22:53

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 868200 **Sample:** 426135-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/23/11 01:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	48.8	50.1	97	70-135	

Lab Batch #: 868184 **Sample:** 426152-014 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/24/11 06:55

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.6	119	70-135	
o-Terphenyl	64.2	49.8	129	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Trunk 'O' Fulfer

Work Orders : 426199,

Project ID:

Lab Batch #: 868554 **Sample:** 426524-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/26/11 23:16

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Trunk 'O' Fulfer

Work Order #: 426199 **Project ID:**

Analyst: ASA **Date Prepared:** 08/26/2011 **Date Analyzed:** 08/26/2011

Lab Batch ID: 868554 **Sample:** 610570-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.106	106	0.100	0.137	137	26	70-130	35	H
Toluene	<0.00200	0.100	0.0923	92	0.100	0.122	122	28	70-130	35	
Ethylbenzene	<0.00100	0.100	0.102	102	0.100	0.133	133	26	71-129	35	H
m_p-Xylenes	<0.00200	0.200	0.203	102	0.200	0.264	132	26	70-135	35	
o-Xylene	<0.00100	0.100	0.0954	95	0.100	0.121	121	24	71-133	35	

Analyst: BRB **Date Prepared:** 08/26/2011 **Date Analyzed:** 08/26/2011

Lab Batch ID: 868503 **Sample:** 868503-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.840	20.0	22.7	114	20.0	22.5	113	1	75-125	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Trunk 'O' Fulfer

Work Order #: 426199 **Project ID:**

Analyst: BRB **Date Prepared:** 08/26/2011 **Date Analyzed:** 08/26/2011

Lab Batch ID: 868504 **Sample:** 868504-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.20	100	116	116	100	114	114	2	75-125	20	

Analyst: BBH **Date Prepared:** 08/22/2011 **Date Analyzed:** 08/23/2011

Lab Batch ID: 868184 **Sample:** 610369-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<14.9	996	831	83	1000	798	80	4	70-135	35	
C10-C28 Diesel Range Hydrocarbons	<14.9	996	923	93	1000	851	85	8	70-135	35	

Analyst: BBH **Date Prepared:** 08/22/2011 **Date Analyzed:** 08/22/2011

Lab Batch ID: 868200 **Sample:** 610373-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	731	72	996	742	74	1	70-135	35	
C10-C28 Diesel Range Hydrocarbons	<15.1	1010	784	78	996	779	78	1	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Final 1.000

XENCO Laboratories

Form 3 - MS Recoveries

Project Name: Trunk 'O' Fulfer

Work Order #: 426199

Lab Batch #: 868503 **Project ID:**

Date Analyzed: 08/26/2011 **Date Prepared:** 08/26/2011 **Analyst:** BRB

QC- Sample ID: 426199-003 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	802	1010	1870	106	75-125	

Lab Batch #: 868504

Date Analyzed: 08/26/2011 **Date Prepared:** 08/26/2011 **Analyst:** BRB

QC- Sample ID: 426157-004 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	6530	1110	7610	97	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

XENCO Laboratories

Form 3 - MS / MSD Recoveries

Project Name: Trunk 'O' Fulfer

Work Order # : 426199 **Project ID:**

Lab Batch ID: 868554 **QC- Sample ID:** 426524-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/26/2011 **Date Prepared:** 08/26/2011 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00103	0.103	0.0880	85	0.103	0.0926	90	5	70-130	35	
Toluene	<0.00206	0.103	0.0790	77	0.103	0.0812	79	3	70-130	35	
Ethylbenzene	<0.00103	0.103	0.0849	82	0.103	0.0877	85	3	71-129	35	
m_p-Xylenes	<0.00206	0.206	0.165	80	0.206	0.171	83	4	70-135	35	
o-Xylene	<0.00103	0.103	0.0768	75	0.103	0.0796	77	4	71-133	35	

Lab Batch ID: 868184 **QC- Sample ID:** 426152-014 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/24/2011 **Date Prepared:** 08/22/2011 **Analyst:** BBH

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.2	1010	763	76	1010	784	78	3	70-135	35	
C10-C28 Diesel Range Hydrocarbons	35.9	1010	928	88	1010	935	89	1	70-135	35	

Lab Batch ID: 868200 **QC- Sample ID:** 426135-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/23/2011 **Date Prepared:** 08/22/2011 **Analyst:** BBH

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.6	1040	805	77	1050	780	74	3	70-135	35	
C10-C28 Diesel Range Hydrocarbons	17.7	1040	917	86	1050	892	83	3	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

XENCO Laboratories

Sample Duplicate Recovery

Project Name: Trunk 'O' Fulfer

Work Order #: 426199

Lab Batch #: 868503 **Project ID:**

Date Analyzed: 08/26/2011 17:23 **Date Prepared:** 08/26/2011 **Analyst:** BRB

QC- Sample ID: 426199-003 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Anions by E300 **Analyte**	**Parent Sample Result [A]**	**Sample Duplicate Result [B]**	**RPD**	**Control Limits %RPD**	**Flag**
Chloride	802	827	3	20	

Lab Batch #: 868504

Date Analyzed: 08/26/2011 10:03 **Date Prepared:** 08/26/2011 **Analyst:** BRB

QC- Sample ID: 426157-004 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Anions by E300 **Analyte**	**Parent Sample Result [A]**	**Sample Duplicate Result [B]**	**RPD**	**Control Limits %RPD**	**Flag**
Chloride	6530	6440	1	20	

Lab Batch #: 868018

Date Analyzed: 08/22/2011 11:20 **Date Prepared:** 08/22/2011 **Analyst:** BRB

QC- Sample ID: 426194-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Percent Moisture **Analyte**	**Parent Sample Result [A]**	**Sample Duplicate Result [B]**	**RPD**	**Control Limits %RPD**	**Flag**
Percent Moisture	4.99	4.93	1	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Camille Bryant

Company Name: Nova Safety and Environmental

Company Address: 2057 Commerce

City/State/Zip: Midland, TX 79703

Telephone No: 432.520.7720 Fax No: 432.520.7701

Sampler Signature: Camille Bryant for David Lopez

e-mail: cbryant@novatraining.cc
curt.stanley@sug.com

Project Name: Trunk "O" Fulfer

Project #:

Project Loc: Lea County, New Mexico

PO #:

Report Format: ☐ Standard ☐ TRRP ☐ NPDES

(lab use only)

ORDER #: 426199

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge; GW = Groundwater S=Soil/Solid; NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M 8015B	TOTAL: TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
001	SP-A S			8/19/2011	1420		1	X								Soil	X								X			X		X
002	SP-A N			8/19/2011	1430		1	X								Soil	X								X			X		X
003	SP-B 1			8/19/2011	1440		1	X								Soil	X								X			X		X

Special Instructions: David Lopez

Relinquished by:	Date	Time	Received by:	Date	Time
Camille Bryant for	8/22/11	9:00	Matt Green	8-22-11	9:00
Relinquished by: Matt Green	Date 8-22-11	Time 10:10	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Lisa Murdock	Date 8-22-11	Time 10:10

Laboratory Comments:

Sample Containers Intact? Y N

VOCs Free of Headspace? Y N NA

Labels on container(s) Y N

Custody seals on container(s) Y N NA

Custody seals on cooler(s) Y N

Sample Hand Delivered by Sampler/Client Rep. ? Y N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: 4oz g/c 3.6 °C

XENCO Laboratories

XENCO Laboratories
Atlanta, Boca Raton, Corpus Christi, Dallas
Houston, Miami, Odessa, Philadelphia
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS-SRC
Revision/Date: No. 01, 5/27/2010
Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Nova Safety & Env.
Date/Time: 8-22-11 10:10
Lab ID # : 426199
Initials: RM

Sample Receipt Checklist

1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	(N/A)	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	(No)	N/A	
17. VOC sample have zero head space?	Yes	No	(N/A)	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	3.6 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact:_____ Contacted by:_____ Date/Time:_____

Regarding: _____

Corrective Action Taken: _____

Check all that apply:
- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
- ☐ Initial and Backup Temperature confirm out of temperature conditions
- ☐ Client understands and would like to proceed with analysis

Analytical Report 426772

for

Southern Union Gas Services- Monahans

Project Manager: Curt Stanley

Trunk "O" Fulfer

02-SEP-11

Collected By: Client

Celebrating 20 Years of commitment to excellence in Environmental Testing Services

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

XENCO Laboratories

02-SEP-11

Project Manager: **Curt Stanley**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **426772**
Trunk "O" Fulfer
Project Address: Lea County, New Mexico

Curt Stanley:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 426772. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 426772 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II
Odessa Laboratory Manager

Sample Cross Reference 426772

Southern Union Gas Services- Monahans, Monahans, TX

Trunk "O" Fulfer

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-AN-1	S	08-30-11 11:00		426772-001
SP-B-2	S	08-30-11 11:15		426772-002
Floor-2 @10'	S	08-30-11 11:30		426772-003
Floor-3 @13'	S	08-30-11 15:30		426772-004

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Trunk "O" Fulfer

Project ID:
Work Order Number: 426772

Report Date: 02-SEP-11
Date Received: 08/31/2011

Sample receipt non conformances and comments:
None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 426772

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Trunk "O" Fulfer

Project Id:

Contact: Curt Stanley

Project Location: Lea County, New Mexico

Date Received in Lab: Wed Aug-31-11 09:02 am

Report Date: 02-SEP-11

Project Manager: Brent Barron II

Analysis Requested											
	Lab Id:	426772-001		426772-002		426772-003		426772-004			
	Field Id:	SP-AN-1		SP-B-2		Floor-2 @10'		Floor-3 @13'			
	Depth:										
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	Aug-30-11 11:00		Aug-30-11 11:15		Aug-30-11 11:30		Aug-30-11 15:30			
Anions by E300	*Extracted:*										
	Analyzed:	Aug-31-11 18:04		Aug-31-11 18:04		Aug-31-11 18:04		Aug-31-11 18:04			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		618	8.45	580	21.1	45.7	4.28	77.9	4.35		
Percent Moisture	*Extracted:*										
	Analyzed:	Aug-31-11 11:57		Aug-31-11 11:57		Aug-31-11 11:57		Aug-31-11 11:57			
	Units/RL:	%	RL	%	RL	%	RL	%	RL		
Percent Moisture		ND	1.00	ND	1.00	1.85	1.00	3.54	1.00		

Brent Barron II
Odessa Laboratory Manager

XENCO Laboratories

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantiation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

XENCO Laboratories

BS / BSD Recoveries

Project Name: Trunk "O" Fulfer

Work Order #: 426772 **Project ID:**

Analyst: BRB **Date Prepared:** 08/31/2011 **Date Analyzed:** 08/31/2011

Lab Batch ID: 868916 **Sample:** 868916-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.840	20.0	21.8	109	20.0	21.8	109	0	75-125	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

XENCO Laboratories

Form 3 - MS Recoveries

Project Name: Trunk "O" Fulfer

Work Order #: 426772
Lab Batch #: 868916
Project ID:
Date Analyzed: 08/31/2011
Date Prepared: 08/31/2011
Analyst: BRB
QC- Sample ID: 426772-001 S
Batch #: 1
Matrix: Soil
Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	618	201	811	96	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

XENCO Laboratories

Sample Duplicate Recovery

Project Name: Trunk "O" Fulfer

Work Order #: 426772

Lab Batch #: 868916 **Project ID:**

Date Analyzed: 08/31/2011 18:04 **Date Prepared:** 08/31/2011 **Analyst:** BRB

QC- Sample ID: 426772-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by E300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	618	619	0	20	

Lab Batch #: 868906

Date Analyzed: 08/31/2011 11:40 **Date Prepared:** 08/31/2011 **Analyst:** BRB

QC- Sample ID: 426766-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	2.32	2.33	0	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Bill to SUG

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Camille Bryant

Company Name: Nova Safety and Environmental

Company Address: 2057 Commerce

City/State/Zip: Midland, TX 79703

Telephone No: 432.520.7720 Fax No: 432.520.7701

Sampler Signature: Camille Bryant e-mail: cbryant@novatraining.cc
curt.stanley@sug..com

Project Name: Trunk "O" Fulfer

Project #:

Project Loc: Lea County, New Mexico

PO #:

Report Format: ☒ Standard ☐ TRRP ☐ NPI

(lab use only)

ORDER #: 426772

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge / GW = Groundwater S=Soil/Solid / NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M 8015B	TOTAL: TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride			RUSH TAT (Pre-Schedule) (24, 48, 72 hrs)	Standard TAT
001	SP-AN-1			8/30/2011	1100		1	X								Soil												X			X	
002	SP-B-2			8/30/2011	1115		1	X								Soil												X			X	
003	Floor-2 @ 10'			8/30/2011	1130		1	X								Soil												X			X	
004	Floor-3 @ 13'			8/30/2011	1530		1	X								Soil												X			X	

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Camille Bryant	8/31/11	0400			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Lisa Murdock	8-31-11	9:02

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N/A
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

4 02 c/c

Temperature Upon Receipt: 2.6 °C

XENCO Laboratories

XENCO Laboratories
Atlanta, Boca Raton, Corpus Christi, Dallas
Houston, Miami, Odessa, Philadelphia
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS-SRC
Revision/Date: No. 01, 5/27/2010
Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
Date/Time: 8 31-11 9-02
Lab ID # : 426772
Initials: LM

Sample Receipt Checklist

1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	(N/A)	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	(No)	N/A	
17. VOC sample have zero head space?	Yes	No	(N/A)	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	2.6 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact:_____ Contacted by:_____ Date/Time:_____

Regarding: _____

Corrective Action Taken: _____

Check all that apply:
- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
- ☐ Initial and Backup Temperature confirm out of temperature conditions
- ☐ Client understands and would like to proceed with analysis

Analytical Report 426773

for

Southern Union Gas Services- Monahans

Project Manager: Curt Stanley

Trunk "O" Fulfer

01-SEP-11

Collected By: Client

Celebrating 20 Years of commitment to excellence in Environmental Testing Services

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

01-SEP-11

Project Manager: **Curt Stanley**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **426773**
Trunk "O" Fulfer
Project Address: Lea County, New Mexico

Curt Stanley:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 426773. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 426773 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II
Odessa Laboratory Manager

Sample Cross Reference 426773

Southern Union Gas Services- Monahans, Monahans, TX

Trunk "O" Fulfer

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-C	S	08-30-11 16:00		426773-001

CASE NARRATIVE

XENCO Laboratories

Client Name: Southern Union Gas Services- Monahans
Project Name: Trunk "O" Fulfer

Project ID:
Work Order Number: 426773

Report Date: 01-SEP-11
Date Received: 08/31/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 426773

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Trunk "O" Fulfer

Project Id:

Contact: Curt Stanley

Project Location: Lea County, New Mexico

Date Received in Lab: Wed Aug-31-11 09:02 am

Report Date: 01-SEP-11

Project Manager: Brent Barron II

Analysis Requested								
	Lab Id:	426773-001						
	Field Id:	SP-C						
	Depth:							
	Matrix:	SOIL						
	Sampled:	Aug-30-11 16:00						
Anions by E300	*Extracted:*							
	Analyzed:	Aug-31-11 18:04						
	Units/RL:	mg/kg	RL					
Chloride		1440	21.5					
Percent Moisture	*Extracted:*							
	Analyzed:	Aug-31-11 11:57						
	Units/RL:	%	RL					
Percent Moisture		2.21	1.00					

Brent Barron II
Odessa Laboratory Manager

XENCO Laboratories

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantiation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

XENCO Laboratories

BS / BSD Recoveries

Project Name: Trunk "O" Fulfer

Work Order #: 426773 **Project ID:**

Analyst: BRB **Date Prepared:** 08/31/2011 **Date Analyzed:** 08/31/2011

Lab Batch ID: 868916 **Sample:** 868916-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.840	20.0	21.8	109	20.0	21.8	109	0	75-125	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

XENCO Laboratories

Form 3 - MS Recoveries

Project Name: Trunk "O" Fulfer

Work Order #: 426773
Lab Batch #: 868916
Project ID:
Date Analyzed: 08/31/2011
Date Prepared: 08/31/2011
Analyst: BRB
QC- Sample ID: 426772-001 S
Batch #: 1
Matrix: Soil
Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	618	201	811	96	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Sample Duplicate Recovery

Project Name: Trunk "O" Fulfer

Work Order #: 426773

Lab Batch #: 868916 **Project ID:**

Date Analyzed: 08/31/2011 18:04 **Date Prepared:** 08/31/2011 **Analyst:** BRB

QC- Sample ID: 426772-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by E300 Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	618	619	0	20	

Lab Batch #: 868906

Date Analyzed: 08/31/2011 11:40 **Date Prepared:** 08/31/2011 **Analyst:** BRB

QC- Sample ID: 426766-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	2.32	2.33	0	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Bill to SUG

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Camille Bryant

Company Name: Nova Safety and Environmental

Company Address: 2057 Commerce

City/State/Zip: Midland, TX 79703

Telephone No: 432.520.7720 Fax No: 432.520.7701

Sampler Signature: Camille Bryant for David Lopez

e-mail: cbryant@novatraining.cc
curt.stanley@sug..com

Project Name: Trunk "O" Fulfer

Project #:

Project Loc: Lea County, New Mexico

PO #:

Report Format: ☒ Standard ☐ TRRP ☐ NPI

(lab use only)

ORDER #: 426773

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride			RUSH TAT (Pre-Scheduled) 24, 48, 72 hrs	Standard TAT
001	SP-C			8/30/2011	1600		1	X								Soil												X			X	

Special Instructions: Hold for TPH and BTEX analysis

Relinquished by:	Date	Time	Received by:	Date	Time
David Lopez / Camille Bryant for	8/31/11	0902			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Lisa Murdock	Date 8-31-11	Time 9.02

Laboratory Comments:

Sample Containers Intact? (Y) N
VOCs Free of Headspace? Y (N/A)
Labels on container(s) Y N
Custody seals on container(s) Y (N/A)
Custody seals on cooler(s) Y N
Sample Hand Delivered by Sampler/Client Rep. ? (Y) N
by Courier? UPS DHL FedEx Lone Star
4 oz a/c

Temperature Upon Receipt: 2.6 °C

XENCO Laboratories

XENCO Laboratories
Atlanta, Boca Raton, Corpus Christi, Dallas
Houston, Miami, Odessa, Philadelphia
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS-SRC
Revision/Date: No. 01, 5/27/2010
Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
Date/Time: 8-31-11 9:02
Lab ID # : 426773
Initials: LM

Sample Receipt Checklist

1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	(N/A)	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	(No)	N/A	
17. VOC sample have zero head space?	Yes	No	(N/A)	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	2.6 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact:_____ Contacted by:_____ Date/Time:_____

Regarding: _____

Corrective Action Taken: _____

Check all that apply:
- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
- ☐ Initial and Backup Temperature confirm out of temperature conditions
- ☐ Client understands and would like to proceed with analysis

APPENDIX B:
Photographs

NOVA
safety and environmental

Photographic Documentation

Client: Southern Union Gas Services
Project Name: Trunk "O" Fulfer

Prepared by: NOVA
Location: Lea County, New Mexico

Photograph No. 1

Direction:
Facing Southeast

Description:
View of the initial release.

Photograph No. 2

Direction:
Facing South

Description:
View of the initial release.

NOVA
safety and environmental

Photographic Documentation

Client: Southern Union Gas Services
Project Name: Trunk "O" Fulfer

Prepared by: NOVA
Location: Lea County, New Mexico

Photograph No. 3

Direction:
Facing Southeast

Description:
View of excavation activities along the flow path.

Photograph No. 4

Direction:
Facing Southeast

Description:
View of excavation activities.

NOVA
safety and environmental

Photographic Documentation

Client: Southern Union Gas Services
Project Name: Trunk "O" Fulfer

Prepared by: NOVA
Location: Lea County, New Mexico

Photograph No. 5

Direction:
Facing South

Description:
View of excavation activities along the flow path.

Photograph No. 6

Direction:
Facing North

Description:
View of excavation.

NOVA
safety and environmental

Photographic Documentation

Client: Southern Union Gas Services
Project Name: Trunk "O" Fulfer

Prepared by: NOVA
Location: Lea County, New Mexico

Photograph No. 7

Direction:
Facing South

Description:
View of backfilling activities.

Photograph No. 8

Direction:
Facing South

Description:
View of backfilling activities.

NOVA
safety and environmental

Photographic Documentation

Client: Southern Union Gas Services
Project Name: Trunk "O" Fulfer

Prepared by: NOVA
Location: Lea County, New Mexico

Photograph No. 9

Direction:
Facing South.

Description:
View of site restoration activities.

Photograph No. 10

Direction:
Facing South.

Description:
View of restored site.

NOVA
safety and environmental

Photographic Documentation

Client: Southern Union Gas Services
Project Name: Trunk "O" Fulfer

Prepared by: NOVA
Location: Lea County, New Mexico

Photograph No. 11

Direction:
Facing South

Description:
View of restored road.

APPENDIX C:
Soil Disposal Manifests

SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
(575) 394-2511

TICKET No. 180466

LEASE OPERATOR/SHIPPER/COMPANY: SLG

LEASE NAME: Trunk O Fulfer Rd.

TRANSPORTER COMPANY: A+S Truck

TIME 3:19 AM/PM

DATE: 9/15/11 **VEHICLE NO:** 3

GENERATOR COMPANY MAN'S NAME: D. Stanley

CHARGE TO: SLG

RIG NAME AND NUMBER

TYPE OF MATERIAL

[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	[X] Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out

Description: O/D

RRC or API # **C-133#**

VOLUME OF MATERIAL [ ] BBLS. _____ : [X] YARD 20 : [ ] _____

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY *that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.*

DRIVER: Eladio Arredondo
(SIGNATURE)

FACILITY REPRESENTATIVE: J. Sta Cruz
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
(575) 394-2511

TICKET No. 130465

LEASE OPERATOR/SHIPPER/COMPANY:	SUG
LEASE NAME:	Trunk O Fulfer Rd.
TRANSPORTER COMPANY:	R+R Truck
TIME	3:18 AM/PM
DATE:	9/15/11
VEHICLE NO:	01
GENERATOR COMPANY MAN'S NAME:	C. Stanley
CHARGE TO:	SUG
RIG NAME AND NUMBER	

TYPE OF MATERIAL

[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	[X] Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out

Description: O/D

RRC or API # **C-133#**

VOLUME OF MATERIAL [ ] BBLS. _____ : [X] YARD 20 : [ ] _____

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY *that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.*

DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: S. Sta Cruz
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
(575) 394-2511

TICKET No. 180464

LEASE OPERATOR/SHIPPER/COMPANY: SUG

LEASE NAME: Trunk O Fulfer Rd.

TRANSPORTER COMPANY: A+S Truck

TIME 3:16 AM/PM

DATE: 9/15/11 **VEHICLE NO:** 4

GENERATOR COMPANY MAN'S NAME: C. Stanley

CHARGE TO: SUG

RIG NAME AND NUMBER

TYPE OF MATERIAL

[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	[X] Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out

Description: O/D

RRC or API # **C-133#**

VOLUME OF MATERIAL [ ] BBLS. _____ : [X] YARD 20 : [ ] _____

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY *that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.*

DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: D. Sta Cruz
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
(575) 394-2511

TICKET No. 180449

LEASE OPERATOR/SHIPPER/COMPANY: SUG

LEASE NAME: Trunk O Fulfer Rd.

TRANSPORTER COMPANY: R+R Trucking | **TIME** 1:00 AM/PM

DATE: 9/15/11 **VEHICLE NO:** 01 | **GENERATOR COMPANY MAN'S NAME:** C. Stanley

CHARGE TO: SUG | **RIG NAME AND NUMBER**

TYPE OF MATERIAL

[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	[X] Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out

Description: O/D

RRC or API # | **C-133#**

VOLUME OF MATERIAL [ ] BBLS. _____ : [X] YARD 20 : [ ] _____

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY *that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.*

DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: J. Sta Cruz
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
(575) 394-2511

TICKET No. 180448

LEASE OPERATOR/SHIPPER/COMPANY: SUG

LEASE NAME: Trunk C Fulfer Rd.

TRANSPORTER COMPANY: A+S Trucking | **TIME** 12:49 AM/PM

DATE: 9/15/11 **VEHICLE NO:** 3 **GENERATOR COMPANY MAN'S NAME:** C. Stanley

CHARGE TO: SUG | **RIG NAME AND NUMBER**

TYPE OF MATERIAL

[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	[X] Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out

Description: O/D

RRC or API # **C-133#**

VOLUME OF MATERIAL [ ] BBLS. _____ : [X] YARD 20 : [ ] _____

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY *that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.*

DRIVER: Eladio Heredia
(SIGNATURE)

FACILITY REPRESENTATIVE: Jr Sta Cruz
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
(575) 394-2511

TICKET No. 180447

LEASE OPERATOR/SHIPPER/COMPANY: SUG

LEASE NAME: Trunk O Fulfer. Rd.

TRANSPORTER COMPANY: H1S Trucking | **TIME** 12:54 AM/PM

DATE: 9/15/11 **VEHICLE NO:** 4 | **GENERATOR COMPANY MAN'S NAME:** C. Stanley

CHARGE TO: SUG | **RIG NAME AND NUMBER**

TYPE OF MATERIAL

[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	[X] Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out

Description: O/D

RRC or API # | **C-133#**

VOLUME OF MATERIAL [ ] BBLS. _____ : [X] YARD 20 : [ ] _____

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY *that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.*

DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: S. De La Cruz
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

APPENDIX D:
Release Notification and Corrective Action
(Form-C-141)