

# *Basin Environmental Service Technologies, LLC*

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## **REMEDIATION SUMMARY & SITE CLOSURE REQUEST**

**SOUTHERN UNION GAS SERVICES  
TRUNK "O" 30-INCH (1RP-1817)  
HISTORICAL RELEASE SITE**

**Lea County, New Mexico**

**Unit Letter "O" (SW/SE), Section 5, Township 21 South, Range 36 East**

**Latitude 32° 30.258' North, Longitude 103° 17.165' West**

**NMOCD Reference # 1RP-1817**

**NMOCD Reference # 1RP-1801**

Prepared For:

Southern Union Gas Services  
801 S. Loop 464  
Monahans, TX 79756

Prepared By:

Basin Environmental Service Technologies, LLC  
3100 Plains Highway  
Lovington, New Mexico 88260

**March 2013**

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Joel W. Lowry  
Project Manager

## TABLE OF CONTENTS

1.0 INTRODUCTION & BACKGROUND INFORMATION.....	1
2.0 NMOCD SITE CLASSIFICATION.....	1
3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES.....	2
4.0 QA/QC PROCEDURES.....	3
4.1 Soil Sampling.....	3
4.2 Decontamination of Equipment.....	3
4.3 Laboratory Protocol.....	3
5.0 SITE CLOSURE REQUEST.....	3
6.0 LIMITATIONS.....	4
7.0 DISTRIBUTION.....	5

## FIGURES

Figure 1 – Site Location Map

Figure 2 – Site & Sample Location Map

## TABLES

Table 1 – Concentrations of Benzene, BTEX, TPH & Chloride in Soil

## APPENDICES

Appendix A – Photographs

Appendix B – Laboratory Analytical Reports

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

## **1.0 INTRODUCTION & BACKGROUND INFORMATION**

Basin Environmental Service Technologies, LLC (Basin), on behalf of Southern Union Gas Services (Southern Union), has prepared this *Remediation Summary & Site Closure Request* for the Trunk "O" 30" Historical Release Site (1RP-1817). The legal description of the release site is Unit Letter "O" (SW/SE), Section 5, Township 21 South, Range 36 East, in Lea County, New Mexico. The geographic coordinates of the release site are 32° 30.258' North latitude and 103° 17.165' West longitude. The property affected by the release is owned by the State of New Mexico and administered by the New Mexico State Land Office (NMSLO). Please reference Figure 1 for a "Site Location Map".

On February 20, 2008, Southern Union discovered a release had occurred on the Trunk "O" 30" Pipeline. The "Release Notification and Corrective Action Form" (Form C-141) indicated failure of a section of thirty-inch (30") low-pressure pipeline resulted in the release of an unknown volume of natural gas and produced water. The release was reported to the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office on March 4, 2008. The Form C-141 indicated the release affected approximately four thousand, five hundred square feet (4,500 ft<sup>2</sup>) of pasture land. General photographs of the release site are provided as Appendix A. The Form C-141 is provided as Appendix C.

## **2.0 NMOCD SITE CLASSIFICATION**

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 5, Township 21 South, Range 36 East. An NMOCD representative indicated groundwater should be encountered at approximately one hundred and twenty feet (120') below ground surface (bgs). Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

A search of the NMWRRS database indicated there are no water wells within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, twenty (20) points will be assigned to the site as a result of this criterion.

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

NMOCD guidelines indicate the Trunk "O" 30" Historical Release Site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- Benzene, toluene, ethylbenzene and xylene (BTEX) – 50 mg/Kg (ppm)
- Total petroleum hydrocarbons (TPH) – 5,000 mg/Kg (ppm)

The New Mexico Administrative Code (NMAC) does not currently specify a remediation level for chloride concentrations in soil. Chloride remediation levels are set by the NMOCD on a site-specific basis.

### **3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES**

On March 5, 2008, Basin began remediation activities at the release site. The excavation floor and sidewalls were advanced until photo-ionization detector readings and chloride field test suggested concentrations of BTEX, TPH and chloride were less than NMOCD regulatory standards. Excavated material was stockpiled on-site, pending final disposition.

On March 5, 2008, three (3) soil samples (#1, #2, and #3) were collected from the excavation floor and sidewalls and submitted to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated TPH concentrations were less than the appropriate laboratory method detection limit (MDL) for each of the submitted soil samples with the exception of soil sample #3, which had a concentration of 40.1. Soil samples #1 and #2 were also analyzed for chloride concentrations which were determined to be <5.00 mg/Kg and 2,880 mg/Kg, respectively. Soil sample #2 was also analyzed for BTEX constituent concentrations which were determined to be less than the laboratory MDL. The excavation was advanced in the areas represented by soil samples #2 and #3. Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil". Soil sample locations are depicted in Figure 2, "Site & Sample Location Map". Laboratory analytical reports are provided as Appendix B.

On March 10, 2008, two (2) soil samples (#4 and #5) were collected from the excavation floor and sidewalls and submitted to the laboratory for analysis TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from 34.5 mg/Kg for soil sample #4 to 107.7 mg/Kg for soil sample #5. Analytical results indicated chloride concentrations ranged from less than the laboratory MDL for soil sample #5 to 31.1 mg/Kg for soil sample #4.

In addition, six (6) five-point composite soil samples (Stockpile 1, Stockpile 2, Stockpile 3, Stockpile 4, Stockpile 5, and Stockpile 6) were collected from the on-site stockpiled material and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from 37.4 mg/Kg for soil sample Stockpile 6 to 115.2 mg/Kg for soil sample Stockpile 3. Analytical results indicated chloride concentrations ranged from 27.1 mg/Kg for soil sample Stockpile 1 to 141 mg/Kg for soil sample Stockpile 2. Based on laboratory analytical results from composite soil samples, the stockpiled material was deemed suitable for use as backfill.

On March 20 and 21, 2008, the excavation was backfilled with the on-site stockpiled material represented by soil samples Stockpile 1, Stockpile 2, Stockpile 3, Stockpile 4, Stockpile 5 and Stockpile 6. Excavation backfill was water-packed and compacted in lifts. Upon backfilling the excavation, the area was contoured to match the surrounding topography. Prior to backfilling the final dimensions of the excavation were approximately

On February 21, 2013, Basin responded to the Trunk "O" 30" Historical Release Site in an effort to determine if soil containing BTEX, TPH and chloride concentrations above NMOCD regulatory standards remained in-situ and to collect confirmation soil samples. A hand auger was utilized to locate native soil representing the former excavation sidewalls. Three (3) soil samples (South SW, North SW and West SW) were collected from the location and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results

indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. Chloride concentrations ranged from 16.2 mg/Kg for soil sample South SW to 40.6 mg/Kg for soil sample North SW. Based on laboratory analytical results from confirmation soil samples, it was determined that previous remediation activities met the objectives of the NMOCD.

#### **4.0 QA/QC PROCEDURES**

##### **4.1 Soil Sampling**

Soil samples were delivered to Xenco Laboratories, of Odessa, Texas, for BTEX, TPH, and/or chloride analyses using the methods described below:

- BTEX concentrations in accordance with EPA Method SW-846 8021b
- TPH concentrations in accordance with modified EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Method 300/300.1

##### **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 form(s). These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

#### **5.0 SITE CLOSURE REQUEST**

Confirmation soil samples collected from the Trunk “O” 30” Historical Release Site suggested previous remediation activities met the requirements of the NMOCD’s “Guidelines for Remediation of Leaks, Spills and Releases”. Laboratory analytical results indicated benzene, BTEX, TPH and chloride concentrations were less than NMOCD regulatory standards in each of the submitted soil samples. Based on these laboratory analytical results, Basin recommends Southern Union provide the NMOCD Hobbs District Office a copy of this *Remediation Summary & Site Closure Request* and request the NMOCD grant site closure to the Trunk “O” 30” Historical Release Site.

## 6.0 LIMITATIONS

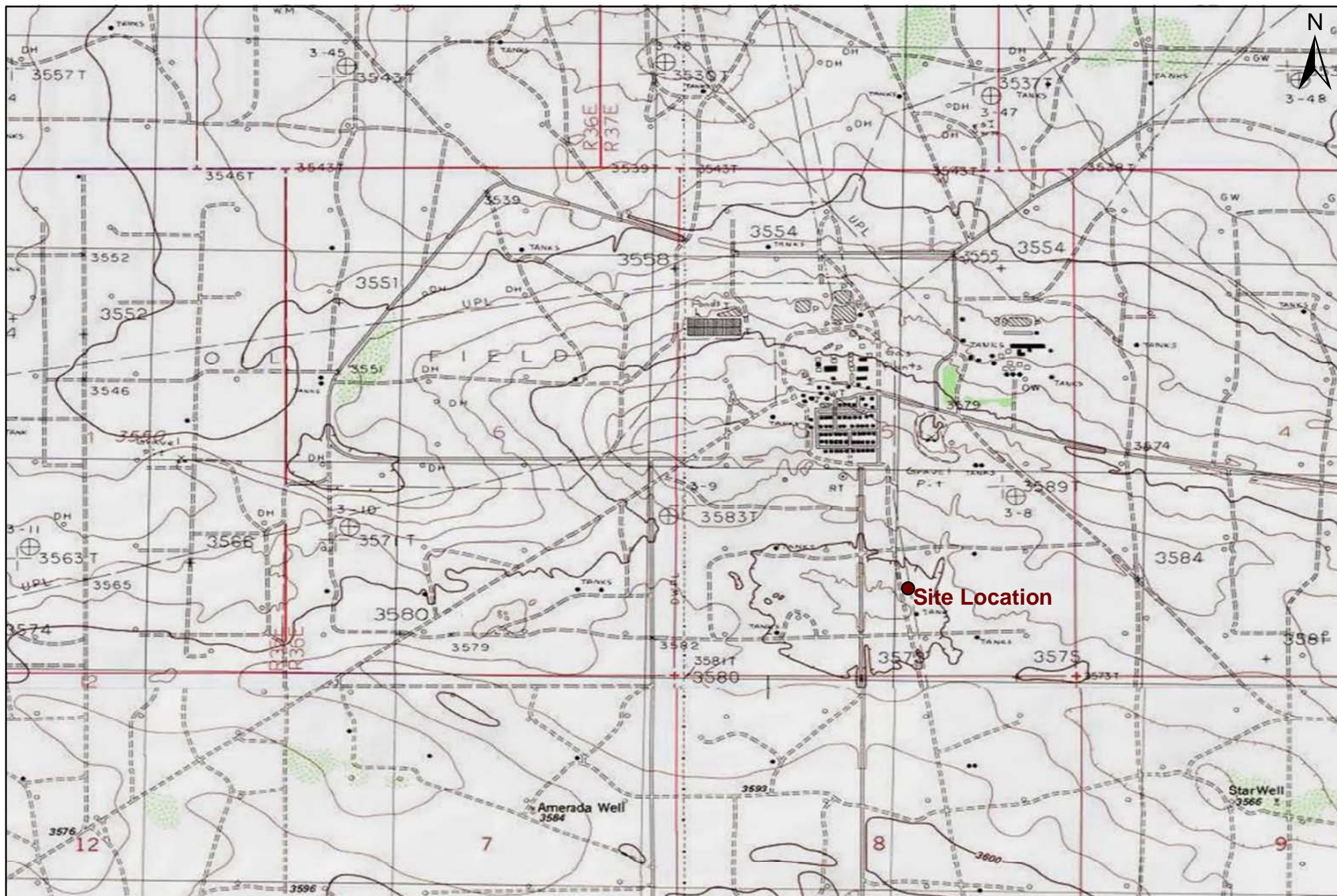
Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary & Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin has not conducted an independent examination of the facts contained in referenced materials and statements. Basin has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin 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 Basin Environmental Service Technologies, LLC, and/or Southern Union Gas Services.

## **7.0 DISTRIBUTION**

- Copy 1: Geoffrey Leking  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division (District 1)  
1625 French Drive  
Hobbs, NM 88240  
GeoffreyR.Leking@state.nm.us
- Copy 2: Bill Sonnamaker  
New Mexico State Land Office  
2702-D North Grimes  
Hobbs, NM 88240
- Copy 3: Rose Slade  
Southern Union Gas Services  
801 S. Loop 464  
Monahans, Texas 79756  
rose.slade@sug.com
- Copy 4: Basin Environmental Service Technologies, LLC  
P.O. Box 301  
Lovington, New Mexico 88260





1,000 500 0 1,000 2,000  
 Distance in Feet

**Figure 1**  
**Site Location Map**  
 Southern Union Gas Services  
 Trunk "O" 30-Inch  
 Lea County, New Mexico  
 NMOCD Reference #: 1RP-1817



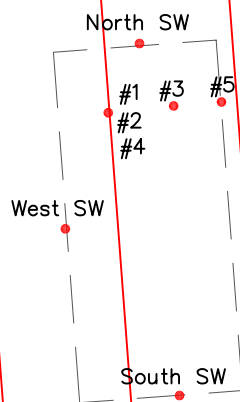
Basin Environmental Service Technologies, LLC  
 3100 Plains Hwy.  
 Lovington, NM 88260

Drawn By: BJA      Checked By: JWL

October 17, 2012      Scale: 1" = 2000'



El Paso Right-of-Way Road

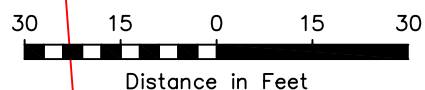


SUG Trunk "L"

SUG Trunk "O" 30"

El Paso High Pressure

El Paso High Pressure



LEGEND:

- Sample Location
- Excavation Extent
- Pipeline
- Road

Figure 2

Site & Sample Location Map  
Southern Union Gas Services  
Trunk "O" 30" (RP-1817)  
Lea County, NM

Basin Environmental Services

Scale: 1" = 50'	Drawn By: JWL	Prepared By: BJA
October 8, 2012		

TABLE 1

## CONCENTRATIONS OF BENZENE, BTEX, TPH &amp; CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES  
 TRUNK "O" 30"  
 HISTORICAL RELEASE SITE  
 LEA COUNTY, NEW MEXICO  
 NMOCD REF# 1RP-1817

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C <sub>6</sub> -C <sub>28</sub> (mg/Kg)	EPA: 300 CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)		
#1	5'	3/5/2008	Excavated	-	-	-	-	-	<16.7	<16.7	<16.7	<16.7	<5.00
#2	14'	3/5/2008	Excavated	<0.0011	<0.0022	<0.0011	<0.0022	<0.0022	<16.4	<16.4	<16.4	<16.4	2,880
#3	10'	3/5/2008	In-Situ	-	-	-	-	-	19.6	20.5	<16.5	40.1	-
#4	16'	3/10/2008	In-Situ	-	-	-	-	-	17.6	16.9	<16.4	34.5	31.1
#5	N/A	3/10/2008	In-Situ	-	-	-	-	-	32.3	55.2	20.2	107.7	<5.00
Stockpile 1	N/A	3/10/2008	Backfilled	-	-	-	-	-	39.1	76.0	<16.6	115.1	27.1
Stockpile 2	N/A	3/10/2008	Backfilled	-	-	-	-	-	37.0	65.8	<16.0	102.8	141
Stockpile 3	N/A	3/10/2008	Backfilled	-	-	-	-	-	37.8	77.4	<15.9	115.2	130
Stockpile 4	N/A	3/10/2008	Backfilled	-	-	-	-	-	29.6	50.8	<16.0	80.4	133
Stockpile 5	N/A	3/10/2008	Backfilled	-	-	-	-	-	26.4	60.3	<16.3	86.7	37.1
Stockpile 6	N/A	3/10/2008	Backfilled	-	-	-	-	-	16.6	20.8	<15.9	37.4	69.9
South SW	5'	2/21/2013	In-Situ	<0.00104	<0.00208	<0.00104	<0.00208	<0.00208	<15.6	<15.6	<15.6	<15.6	16.2
North SW	5'	2/21/2013	In-Situ	<0.00107	<0.00217	<0.00107	<0.00217	<0.00217	<16.2	<16.2	<16.2	<16.2	40.6
West SW	5'	2/21/2013	In-Situ	<0.00106	<0.00213	<0.00106	<0.00213	<0.00213	<16.0	<16.0	<16.0	<16.0	16.4
NMOCD Standard				10				50				5,000	1,000

- = Not analyzed.



Historical photograph of the Trunk "O" 30" Release Site.



Historical photograph of the Trunk "O" 30" Release Site.





Photograph of the collection of confirmation sidewall soil samples at the Trunk "O" 30" Release Site.



Photograph of the collection of confirmation sidewall soil samples at the Trunk "O" 30" Release Site.





Photograph of the collection of confirmation sidewall soil samples at the Trunk "O" 30" Release Site.



Photograph of the collection of confirmation sidewall soil samples at the Trunk "O" 30" Release Site.

# **Analytical Report 298936**

**for**

## **Southern Union Gas Services-Jal**

**Project Manager: Tony Savoie**

**Trunk "O" 30"**

**2008-003**

**06-MAR-08**



**12600 West I-20 East Odessa, Texas 79765**

Texas certification numbers:  
Houston, TX T104704215

Florida certification numbers:  
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675  
Norcross(Atlanta), GA E87429

South Carolina certification numbers:  
Norcross(Atlanta), GA 98015

North Carolina certification numbers:  
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America  
Midland - Corpus Christi - Atlanta



06-MAR-08

Project Manager: **Tony Savoie**  
**Southern Union Gas Services-Jal**  
610 Commerce  
Jal, NM 88252

Reference: XENCO Report No: **298936**  
**Trunk "O" 30"**  
Project Address:

**Tony Savoie:**

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 298936. 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. 298936 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

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## Sample Cross Reference 298936



Southern Union Gas Services-Jal, Jal, NM

Trunk "O" 30"

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
# 1	S	Mar-05-08 00:00		298936-001
# 2	S	Mar-05-08 00:00		298936-002
# 3	S	Mar-05-08 00:00		298936-003



# Certificate of Analysis Summary 298936

Southern Union Gas Services-Jal, Jal, NM

Project Name: Trunk "O" 30"

Project Id: 2008-003

Contact: Tony Savoie

Date Received in Lab: Wed Mar-05-08 04:45 pm

Report Date: 06-MAR-08


Project Location:

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b>	298936-001	298936-002	298936-003			
	<b>Field Id:</b>	# 1	# 2	# 3			
	<b>Depth:</b>						
	<b>Matrix:</b>	SOIL	SOIL	SOIL			
	<b>Sampled:</b>	Mar-05-08 00:00	Mar-05-08 00:00	Mar-05-08 00:00			
<b>Anions by EPA 300/300.1</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Mar-06-08 10:53	Mar-06-08 10:53				
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL				
Chloride		ND 5.00	2880 50.0				
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>		Mar-05-08 18:00				
	<b>Analyzed:</b>		Mar-06-08 02:47				
	<b>Units/RL:</b>		mg/kg RL				
Benzene			ND 0.0011				
Toluene			ND 0.0022				
Ethylbenzene			ND 0.0011				
m,p-Xylenes			ND 0.0022				
o-Xylene			ND 0.0011				
Xylenes, Total			ND				
Total BTEX			ND				
<b>Percent Moisture</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Mar-06-08 13:30	Mar-06-08 13:30	Mar-06-08 13:30			
	<b>Units/RL:</b>	% RL	% RL	% RL			
Percent Moisture		10.3 0.500	8.27 0.500	8.91 0.500			
<b>TPH By SW8015 Mod</b>	<b>Extracted:</b>	Mar-06-08 09:48	Mar-06-08 09:48	Mar-06-08 09:48			
	<b>Analyzed:</b>	Mar-06-08 12:38	Mar-06-08 13:02	Mar-06-08 13:28			
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		ND 16.7	ND 16.4	19.6 16.5			
C12-C28 Diesel Range Hydrocarbons		ND 16.7	ND 16.4	20.5 16.5			
C28-C35 Oil Range Hydrocarbons		ND 16.7	ND 16.4	ND 16.5			
Total TPH		ND	ND	40.1			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.  
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.  
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.  
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron  
Odessa Laboratory Director



## 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL(PQL) and above the SQL(MDL).
- 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.

\* Outside XENCO'S scope of NELAC Accreditation

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5757 NW 158th St, Miami Lakes, FL 33014  
6017 Financial Dr., Norcross, GA 30071

Phone	Fax
(281) 589-0692	(281) 589-0695
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477

Project Name: Trunk "O" 30"

Work Order #: 298936

Project ID: 2008-003

Lab Batch #: 716366

Sample: 298936-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0354	0.0300	118	80-120	
4-Bromofluorobenzene	0.0343	0.0300	114	80-120	

Lab Batch #: 716366

Sample: 505525-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0314	0.0300	105	80-120	
4-Bromofluorobenzene	0.0343	0.0300	114	80-120	

Lab Batch #: 716366

Sample: 505525-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0332	0.0300	111	80-120	
4-Bromofluorobenzene	0.0355	0.0300	118	80-120	

Lab Batch #: 716366

Sample: 505525-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0358	0.0300	119	80-120	

Lab Batch #: 716393

Sample: 298936-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	97.6	100	98	70-135	
o-Terphenyl	53.7	50.0	107	70-135	

\*\* 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.

Project Name: Trunk "O" 30"

Work Order #: 298936

Project ID: 2008-003

Lab Batch #: 716393

Sample: 298936-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	55.7	50.0	111	70-135	

Lab Batch #: 716393

Sample: 298936-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	57.1	50.0	114	70-135	

Lab Batch #: 716393

Sample: 505532-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	54.1	50.0	108	70-135	

Lab Batch #: 716393

Sample: 505532-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	94.4	100	94	70-135	
o-Terphenyl	51.9	50.0	104	70-135	

Lab Batch #: 716393

Sample: 505532-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	54.1	50.0	108	70-135	

\*\* 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.



# Blank Spike Recovery



Project Name: Trunk "O" 30"

Work Order #: 298936

Project ID:

2008-003

Lab Batch #: 716388

Sample: 716388-1-BKS

Matrix: Solid

Date Analyzed: 03/06/2008

Date Prepared: 03/06/2008

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

## BLANK /BLANK SPIKE RECOVERY STUDY

Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	9.77	98	75-125	

Blank Spike Recovery [D] =  $100 \times [C] / [B]$

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



## BS / BSD Recoveries



**Project Name: Trunk "O" 30"**

**Work Order #: 298936**

**Analyst: SHE**

**Date Prepared: 03/05/2008**

**Project ID: 2008-003**

**Date Analyzed: 03/06/2008**

**Lab Batch ID: 716366**

**Sample: 505525-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	ND	0.1000	0.1003	100	0.1	0.0970	97	3	70-130	35	
Toluene	ND	0.1000	0.1018	102	0.1	0.0988	99	3	70-130	35	
Ethylbenzene	ND	0.1000	0.1075	108	0.1	0.1061	106	1	71-129	35	
m,p-Xylenes	ND	0.2000	0.2112	106	0.2	0.2102	105	0	70-135	35	
o-Xylene	ND	0.1000	0.1113	111	0.1	0.1084	108	3	71-133	35	

**Analyst: SHE**

**Date Prepared: 03/06/2008**

**Date Analyzed: 03/06/2008**

**Lab Batch ID: 716393**

**Sample: 505532-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

<b>TPH By SW8015 Mod</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
C6-C12 Gasoline Range Hydrocarbons	ND	1000	862	86	1000	861	86	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	871	87	1000	867	87	0	70-135	35	

Relative Percent Difference RPD =  $200 * |(D-F)/(D+F)|$

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





## Form 3 - MS Recoveries



Project Name: Trunk "O" 30"

Work Order #: 298936

Lab Batch #: 716388

Date Analyzed: 03/06/2008

QC- Sample ID: 298936-002 S

Reporting Units: mg/kg

Date Prepared: 03/06/2008

Batch #: 1

Project ID: 2008-003

Analyst: LATCOR

Matrix: Soil

### MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	2880	1000	4010	113	75-125	

Matrix Spike Percent Recovery [D] =  $100 \times (C-A)/B$

Relative Percent Difference [E] =  $200 \times (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes



## Sample Duplicate Recovery



Project Name: Trunk "O" 30"

Work Order #: 298936

Lab Batch #: 716388

Date Analyzed: 03/06/2008

QC- Sample ID: 298936-002 D

Reporting Units: mg/kg

Project ID: 2008-003

Analyst: LATCOR

Date Prepared: 03/06/2008

Batch #: 1

Matrix: Soil

### SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by EPA 300/300.1	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	2880	2880	0	20	

Lab Batch #: 716401

Date Analyzed: 03/06/2008

QC- Sample ID: 298941-001 D

Reporting Units: %

Date Prepared: 03/06/2008

Analyst: RBA

Batch #: 1

Matrix: Soil

### SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	0.863	1.08	22	20	F

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



# Environmental Lab of Texas

## Variance/ Corrective Action Report- Sample Log-In

Client: SUGS  
 Date/ Time: 3 5 08 4.45  
 Lab ID #: 298736  
 Initials: AL

### Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	<del>Yes</del>	No	2.5 °C
#2	Shipping container in good condition?	<del>Yes</del>	No	
#3	Custody Seals intact on shipping container/ cooler?	<del>Yes</del>	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	<del>Yes</del>	No	Not Present
#5	Chain of Custody present?	<del>Yes</del>	No	
#6	Sample instructions complete of Chain of Custody?	<del>Yes</del>	No	
#7	Chain of Custody signed when relinquished/ received?	<del>Yes</del>	No	
#8	Chain of Custody agrees with sample label(s)?	<del>Yes</del>	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	<del>Yes</del>	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<del>Yes</del>	No	
#11	Containers supplied by ELOT?	<del>Yes</del>	No	
#12	Samples in proper container/ bottle?	<del>Yes</del>	No	See Below
#13	Samples properly preserved?	<del>Yes</del>	No	See Below
#14	Sample bottles intact?	<del>Yes</del>	No	
#15	Preservations documented on Chain of Custody?	<del>Yes</del>	No	
#16	Containers documented on Chain of Custody?	<del>Yes</del>	No	
#17	Sufficient sample amount for indicated test(s)?	<del>Yes</del>	No	See Below
#18	All samples received within sufficient hold time?	<del>Yes</del>	No	See Below
#19	Subcontract of sample(s)?	<del>Yes</del>	No	Not Applicable
#20	VOC samples have zero headspace?	<del>Yes</del>	No	Not Applicable

### Variance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_

- Check all that Apply:
- ☐ See attached e-mail/ fax
  - ☐ Client understands and would like to proceed with analysis
  - ☐ Cooling process had begun shortly after sampling event

# **Analytical Report 299366**

**for**

## **Southern Union Gas Services-Jal**

**Project Manager: Tony Savoie**

**Trunk "O" 30"**

**2008-003**

**17-MAR-08**



**12600 West I-20 East Odessa, Texas 79765**

Texas certification numbers:  
Houston, TX T104704215

Florida certification numbers:  
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675  
Norcross(Atlanta), GA E87429

South Carolina certification numbers:  
Norcross(Atlanta), GA 98015

North Carolina certification numbers:  
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America  
Midland - Corpus Christi - Atlanta



17-MAR-08

Project Manager: **Tony Savoie**  
**Southern Union Gas Services-Jal**  
610 Commerce  
Jal, NM 88252

Reference: XENCO Report No: **299366**  
**Trunk "O" 30"**  
Project Address:

**Tony Savoie:**

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 299366. 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. 299366 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

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## Sample Cross Reference 299366

Southern Union Gas Services-Jal, Jal, NM

Trunk "O" 30"

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
# 4	S	Mar-10-08 10:15		299366-001
# 5	S	Mar-10-08 10:35		299366-002
Stockpile1	S	Mar-10-08 15:15		299366-003
Stockpile 2	S	Mar-10-08 15:20		299366-004
Stockpile 3	S	Mar-10-08 15:25		299366-005
Stockpile 4	S	Mar-10-08 15:30		299366-006
Stockpile 5	S	Mar-10-08 15:35		299366-007
Stockpile 6	S	Mar-10-08 15:40		299366-008





# Certificate of Analysis Summary 299366

Southern Union Gas Services-Jal, Jal, NM

Project Name: Trunk "O" 30"

Project Id: 2008-003

Contact: Tony Savoie

Date Received in Lab: Wed Mar-12-08 09:05 am

Report Date: 17-MAR-08


Project Location:

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b>	299366-001	299366-002	299366-003	299366-004	299366-005	299366-006
	<b>Field Id:</b>	# 4	# 5	Stockpile1	Stockpile 2	Stockpile 3	Stockpile 4
	<b>Depth:</b>						
	<b>Matrix:</b>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<b>Sampled:</b>	Mar-10-08 10:15	Mar-10-08 10:35	Mar-10-08 15:15	Mar-10-08 15:20	Mar-10-08 15:25	Mar-10-08 15:30
<b>Anions by EPA 300/300.1</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Mar-12-08 14:43	Mar-12-08 15:02	Mar-12-08 15:22	Mar-12-08 15:42	Mar-12-08 16:02	Mar-12-08 16:21
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		31.1 5.00	ND 5.00	27.1 10.0	141 10.0	130 10.0	133 10.0
<b>Percent Moisture</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Mar-12-08 17:00	Mar-12-08 17:00	Mar-12-08 17:00	Mar-12-08 17:00	Mar-12-08 17:00	Mar-12-08 17:00
	<b>Units/RL:</b>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		8.26	6.31	9.78	5.98	5.78	5.96
<b>TPH By SW8015 Mod</b>	<b>Extracted:</b>	Mar-13-08 09:30	Mar-13-08 09:30	Mar-13-08 09:30	Mar-13-08 09:30	Mar-13-08 09:30	Mar-13-08 09:30
	<b>Analyzed:</b>	Mar-14-08 14:13	Mar-14-08 12:57	Mar-14-08 14:39	Mar-14-08 15:05	Mar-14-08 15:30	Mar-14-08 16:22
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		17.6 16.4	32.3 16.0	39.1 16.6	37.0 16.0	37.8 15.9	29.6 16.0
C12-C28 Diesel Range Hydrocarbons		16.9 16.4	55.2 16.0	76.0 16.6	65.8 16.0	77.4 15.9	50.8 16.0
C28-C35 Oil Range Hydrocarbons		ND 16.4	20.2 16.0	ND 16.6	ND 16.0	ND 15.9	ND 16.0
Total TPH		34.5	107.7	115.1	102.8	115.2	80.4

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.  
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.  
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Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron  
Odessa Laboratory Director



# Certificate of Analysis Summary 299366

Southern Union Gas Services-Jal, Jal, NM

Project Name: Trunk "O" 30"

Project Id: 2008-003

Contact: Tony Savoie

Date Received in Lab: Wed Mar-12-08 09:05 am

Report Date: 17-MAR-08


Project Location:

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b> 299366-007 <b>Field Id:</b> Stockpile 5 <b>Depth:</b> <b>Matrix:</b> SOIL <b>Sampled:</b> Mar-10-08 15:35	299366-008 Stockpile 6  SOIL Mar-10-08 15:40				
<b>Anions by EPA 300/300.1</b>	<b>Extracted:</b> <b>Analyzed:</b> <b>Units/RL:</b> mg/kg RL	Mar-12-08 16:41 Mar-12-08 17:01 mg/kg RL				
Chloride	37.1 10.0	69.9 10.0				
<b>Percent Moisture</b>	<b>Extracted:</b> <b>Analyzed:</b> <b>Units/RL:</b> % RL	Mar-12-08 17:00 Mar-12-08 17:00 % RL				
Percent Moisture	7.81	5.88				
<b>TPH By SW8015 Mod</b>	<b>Extracted:</b> <b>Analyzed:</b> <b>Units/RL:</b> mg/kg RL	Mar-13-08 09:30 Mar-14-08 16:47 mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons	26.4 16.3	16.6 15.9				
C12-C28 Diesel Range Hydrocarbons	60.3 16.3	20.8 15.9				
C28-C35 Oil Range Hydrocarbons	ND 16.3	ND 15.9				
Total TPH	86.7	37.4				

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Brent Barron  
Odessa Laboratory Director



## 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL(PQL) and above the SQL(MDL).
- 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.

\* Outside XENCO'S scope of NELAC Accreditation

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6017 Financial Dr., Norcross, GA 30071

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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477

Project Name: Trunk "O" 30"

Work Order #: 299366

Project ID: 2008-003

Lab Batch #: 717290

Sample: 299363-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	62.0	50.0	124	70-135	

Lab Batch #: 717290

Sample: 299363-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	54.8	50.0	110	70-135	

Lab Batch #: 717290

Sample: 299366-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	87.8	100	88	70-135	
o-Terphenyl	47.2	50.0	94	70-135	

Lab Batch #: 717290

Sample: 299366-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	89.8	100	90	70-135	
o-Terphenyl	49.5	50.0	99	70-135	

Lab Batch #: 717290

Sample: 299366-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	88.7	100	89	70-135	
o-Terphenyl	48.5	50.0	97	70-135	

\*\* 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.

Project Name: Trunk "O" 30"

Work Order #: 299366

Project ID: 2008-003

Lab Batch #: 717290

Sample: 299366-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	90.5	100	91	70-135	
o-Terphenyl	48.6	50.0	97	70-135	

Lab Batch #: 717290

Sample: 299366-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	90.6	100	91	70-135	
o-Terphenyl	49.3	50.0	99	70-135	

Lab Batch #: 717290

Sample: 299366-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	89.4	100	89	70-135	
o-Terphenyl	48.4	50.0	97	70-135	

Lab Batch #: 717290

Sample: 299366-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	87.6	100	88	70-135	
o-Terphenyl	49.0	50.0	98	70-135	

Lab Batch #: 717290

Sample: 299366-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	82.6	100	83	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

\*\* 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.

Project Name: Trunk "O" 30"

Work Order #: 299366

Project ID: 2008-003

Lab Batch #: 717290

Sample: 505965-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	94.2	100	94	70-135	
o-Terphenyl	50.7	50.0	101	70-135	

Lab Batch #: 717290

Sample: 505965-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	87.5	100	88	70-135	
o-Terphenyl	48.2	50.0	96	70-135	

Lab Batch #: 717290

Sample: 505965-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	88.7	100	89	70-135	
o-Terphenyl	49.5	50.0	99	70-135	

\*\* 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.



# Blank Spike Recovery



Project Name: Trunk "O" 30"

Work Order #: 299366

Project ID:

2008-003

Lab Batch #: 716973

Sample: 716973-1-BKS

Matrix: Solid

Date Analyzed: 03/12/2008

Date Prepared: 03/12/2008

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

## BLANK /BLANK SPIKE RECOVERY STUDY

Anions by EPA 300/300.1  Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	9.57	96	75-125	

Blank Spike Recovery [D] =  $100 \times [C] / [B]$

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





## BS / BSD Recoveries



**Project Name:** Trunk "O" 30"

**Work Order #:** 299366

**Analyst:** SHE

**Date Prepared:** 03/13/2008

**Project ID:** 2008-003

**Date Analyzed:** 03/13/2008

**Lab Batch ID:** 717290

**Sample:** 505965-1-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	ND	1000	847	85	1000	797	80	6	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	891	89	1000	838	84	6	70-135	35	

Relative Percent Difference RPD =  $200 * |(D-F)/(D+F)|$

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



## Form 3 - MS Recoveries



Project Name: Trunk "O" 30"

Work Order #: 299366

Lab Batch #: 716973

Date Analyzed: 03/12/2008

QC- Sample ID: 299281-001 S

Reporting Units: mg/kg

Date Prepared: 03/12/2008

Batch #: 1

Project ID: 2008-003

Analyst: LATCOR

Matrix: Soil

### MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	3470	1000	4550	108	75-125	

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



# Form 3 - MS / MSD Recoveries



Project Name: Trunk "O" 30"

Work Order # : 299366

Project ID: 2008-003

Lab Batch ID: 717290

QC- Sample ID: 299363-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/15/2008

Date Prepared: 03/13/2008

Analyst: SHE

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod  Analytes	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	ND	1060	1090	103	1060	921	87	17	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1060	1160	109	1060	984	93	16	70-135	35	

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

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



## Sample Duplicate Recovery



Project Name: Trunk "O" 30"

Work Order #: 299366

Lab Batch #: 716973

Date Analyzed: 03/12/2008

QC- Sample ID: 299281-001 D

Reporting Units: mg/kg

Project ID: 2008-003

Analyst: LATCOR

Date Prepared: 03/12/2008

Batch #: 1

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by EPA 300/300.1	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	3470	3460	0	20	

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

Project Manager: Tony Saviole  
Company Name: Southern Union Gas  
Company Address: SUGS, Jal  
City/State/Zip: Jal, New Mexico 88252  
Telephone No: (575) 631-9376  
Sampler Signature: Tony Saviole  
Fax No: (575) 631-9376  
e-mail: tony.saviole@sug.com

Project Name: Tank 110" 30"  
Project #: 2008-003  
Project Loc:  
PO #:  
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

LAB # (lab use only)		FIELD CODE										Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers										Matrix	Analyze For:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: S.U.G.S.

Date/ Time: 3-12-08 9:05

Lab ID #: 299366

Initials: QL

Sample Receipt Checklist

Client Initials

#1	Temperature of container/ cooler?	<u>Yes</u>	No	<u>1.5</u> ° C	
#2	Shipping container in good condition?	<u>Yes</u>	No		
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	<u>Yes</u>	No	Not Present	
#5	Chain of Custody present?	<u>Yes</u>	No		
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No		
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No		
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No		
#11	Containers supplied by ELOT?	<u>Yes</u>	No		
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below	
#13	Samples properly preserved?	<u>Yes</u>	No	See Below	
#14	Sample bottles intact?	<u>Yes</u>	No		
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No		
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No		
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below	
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below	
#19	Subcontract of sample(s)?	<u>Yes</u>	No	<del>Not Applicable</del>	
#20	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable	

Variance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

\_\_\_\_\_

Corrective Action Taken:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- Check all that Apply:
- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

**Analytical Report 458123**  
**for**  
**Southern Union Gas Services- Monahans**

**Project Manager: Joel Lowry**

**Trunk "O" 30 Inch**

**RP-1817**

**25-FEB-13**

Collected By: Client



**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), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD ( L10-135)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Lakeland: Florida (E84098)

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)



25-FEB-13

Project Manager: **Joel Lowry**  
**Southern Union Gas Services- Monahans**  
801 South Loop 464  
Monahans, TX 79756

Reference: XENCO Report No(s): **458123**  
**Trunk "O" 30 Inch**  
Project Address: Lea County, NM

**Joel Lowry:**

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(s) 458123. 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. The uncertainty of measurement associated with the results of analysis reported is available upon request. 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. 458123 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,

---

**Nicholas Straccione**

Project Manager

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## Sample Cross Reference 458123



### Southern Union Gas Services- Monahans, Monahans, TX

Trunk "O" 30 Inch

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
South SW	S	02-21-13 13:30		458123-001
North SW	S	02-21-13 14:00		458123-002
West SW	S	02-21-13 13:45		458123-003



## CASE NARRATIVE

*Client Name: Southern Union Gas Services- Monahans*

*Project Name: Trunk "O" 30 Inch*



Project ID: *RP-1817*

Work Order Number(s): *458123*

Report Date: *25-FEB-13*

Date Received: *02/21/2013*

---

### **Sample receipt non conformances and comments:**

---

### **Sample receipt non conformances and comments per sample:**

None

### **Analytical non conformances and comments:**

Batch: LBA-907638 Inorganic Anions by EPA 300/300.1  
E300

Batch 907638, Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 458123-003, -001, -002.

The Laboratory Control Sample for Chloride is within laboratory Control Limits

# Certificate of Analysis Summary 458123

## Southern Union Gas Services- Monahans, Monahans, TX



**Project Id:** RP-1817

**Contact:** Joel Lowry

**Project Name:** Trunk "O" 30 Inch

**Date Received in Lab:** Thu Feb-21-13 02:02 pm

**Report Date:** 25-FEB-13

**Project Location:** Lea County, NM

**Project Manager:** Nicholas Straccione

<b>Analysis Requested</b>	<b>Lab Id:</b>	458123-001	458123-002	458123-003			
	<b>Field Id:</b>	South SW	North SW	West SW			
	<b>Depth:</b>						
	<b>Matrix:</b>	SOIL	SOIL	SOIL			
	<b>Sampled:</b>	Feb-21-13 13:30	Feb-21-13 14:00	Feb-21-13 13:45			
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	Feb-25-13 07:50	Feb-25-13 07:50	Feb-25-13 07:50			
	<b>Analyzed:</b>	Feb-25-13 09:51	Feb-25-13 10:07	Feb-25-13 10:57			
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		ND 0.00104	ND 0.00107	ND 0.00106			
Toluene		ND 0.00208	ND 0.00214	ND 0.00213			
Ethylbenzene		ND 0.00104	ND 0.00107	ND 0.00106			
m_p-Xylenes		ND 0.00208	ND 0.00214	ND 0.00213			
o-Xylene		ND 0.00104	ND 0.00107	ND 0.00106			
Total Xylenes		ND 0.00104	ND 0.00107	ND 0.00106			
Total BTEX		ND 0.00104	ND 0.00107	ND 0.00106			
<b>Inorganic Anions by EPA 300/300.1 SUB: TX104704215</b>	<b>Extracted:</b>	Feb-23-13 13:37	Feb-23-13 13:37	Feb-23-13 13:37			
	<b>Analyzed:</b>	Feb-23-13 16:01	Feb-23-13 16:53	Feb-23-13 17:10			
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		16.2 0.996	40.6 0.995	16.4 0.987			
<b>Percent Moisture</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Feb-25-13 12:30	Feb-25-13 12:30	Feb-25-13 12:30			
	<b>Units/RL:</b>	% RL	% RL	% RL			
Percent Moisture		3.90 1.00	7.45 1.00	6.14 1.00			
<b>TPH By SW8015 Mod</b>	<b>Extracted:</b>	Feb-22-13 13:45	Feb-22-13 13:45	Feb-22-13 13:45			
	<b>Analyzed:</b>	Feb-22-13 22:34	Feb-22-13 23:06	Feb-22-13 23:37			
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		ND 15.6	ND 16.2	ND 16.0			
C12-C28 Diesel Range Hydrocarbons		ND 15.6	ND 16.2	ND 16.0			
C28-C35 Oil Range Hydrocarbons		ND 15.6	ND 16.2	ND 16.0			
Total TPH		ND 15.6	ND 16.2	ND 16.0			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Nicholas Straccione  
Project Manager

## 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 quantitation 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.

\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

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

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

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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 5332 Blackberry Drive, San Antonio TX 78238  
 2505 North Falkenburg Rd, Tampa, FL 33619  
 12600 West I-20 East, Odessa, TX 79765  
 6017 Financial Drive, Norcross, GA 30071  
 3725 E. Atlanta Ave, Phoenix, AZ 85040

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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



## Form 2 - Surrogate Recoveries

Project Name: Trunk "O" 30 Inch

Work Orders : 458123,

Project ID: RP-1817

Lab Batch #: 907551

Sample: 458123-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 02/22/13 22:34

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.5	99.7	96	70-135	
o-Terphenyl	47.8	49.9	96	70-135	

Lab Batch #: 907551

Sample: 458123-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 02/22/13 23:06

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.6	99.8	100	70-135	
o-Terphenyl	50.6	49.9	101	70-135	

Lab Batch #: 907551

Sample: 458123-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 02/22/13 23:37

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.4	100	98	70-135	
o-Terphenyl	49.5	50.1	99	70-135	

Lab Batch #: 907668

Sample: 458123-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 02/25/13 09:51

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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	0.0271	0.0300	90	80-120	

Lab Batch #: 907668

Sample: 458123-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 02/25/13 10:07

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0241	0.0300	80	80-120	
4-Bromofluorobenzene	0.0257	0.0300	86	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.

## Form 2 - Surrogate Recoveries

Project Name: Trunk "O" 30 Inch

Work Orders : 458123,

Project ID: RP-1817

Lab Batch #: 907668

Sample: 458123-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 02/25/13 10:57		SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1,4-Difluorobenzene		0.0293	0.0300	98	80-120
4-Bromofluorobenzene		0.0268	0.0300	89	80-120

Lab Batch #: 907551

Sample: 634168-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 02/22/13 10:53		SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		101	99.8	101	70-135
o-Terphenyl		51.7	49.9	104	70-135

Lab Batch #: 907668

Sample: 634244-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 02/25/13 09:35		SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1,4-Difluorobenzene		0.0314	0.0300	105	80-120
4-Bromofluorobenzene		0.0320	0.0300	107	80-120

Lab Batch #: 907551

Sample: 634168-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 02/22/13 09:47		SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		111	99.9	111	70-135
o-Terphenyl		44.5	50.0	89	70-135

Lab Batch #: 907668

Sample: 634244-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 02/25/13 08:46		SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1,4-Difluorobenzene		0.0338	0.0300	113	80-120
4-Bromofluorobenzene		0.0344	0.0300	115	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.



## Form 2 - Surrogate Recoveries

Project Name: Trunk "O" 30 Inch

Work Orders : 458123,

Project ID: RP-1817

Lab Batch #: 907551

Sample: 634168-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 02/22/13 10:20		SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		112	100	112	70-135
o-Terphenyl		43.5	50.1	87	70-135

Lab Batch #: 907668

Sample: 634244-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 02/25/13 09:02		SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1,4-Difluorobenzene		0.0344	0.0300	115	80-120
4-Bromofluorobenzene		0.0320	0.0300	107	80-120

Lab Batch #: 907551

Sample: 458073-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 02/22/13 15:58		SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		126	100	126	70-135
o-Terphenyl		53.3	50.0	107	70-135

Lab Batch #: 907668

Sample: 458123-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 02/25/13 13:24		SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1,4-Difluorobenzene		0.0339	0.0300	113	80-120
4-Bromofluorobenzene		0.0308	0.0300	103	80-120

Lab Batch #: 907551

Sample: 458073-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 02/22/13 16:31		SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		127	100	127	70-135
o-Terphenyl		54.2	50.0	108	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.



# Blank Spike Recovery



**Project Name: Trunk "O" 30 Inch**

**Work Order #:** 458123

**Project ID:**

RP-1817

**Lab Batch #:** 907638

**Sample:** 634210-1-BKS

**Matrix:** Solid

**Date Analyzed:** 02/23/2013

**Date Prepared:** 02/23/2013

**Analyst:** RKO

**Reporting Units:** mg/kg

**Batch #:** 1

## BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1  Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<1.00	100	109	109	80-120	

Blank Spike Recovery [D] =  $100 \times [C] / [B]$

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

BRL - Below Reporting Limit



**Project Name: Trunk "O" 30 Inch**

**Work Order #: 458123**

**Analyst: KEB**

**Date Prepared: 02/25/2013**

**Project ID: RP-1817**

**Date Analyzed: 02/25/2013**

**Lab Batch ID: 907668**

**Sample: 634244-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.000992	0.0992	0.0832	84	0.0994	0.0818	82	2	70-130	35	
Toluene	<0.00198	0.0992	0.0810	82	0.0994	0.0807	81	0	70-130	35	
Ethylbenzene	<0.000992	0.0992	0.0844	85	0.0994	0.0845	85	0	71-129	35	
m_p-Xylenes	<0.00198	0.198	0.160	81	0.199	0.162	81	1	70-135	35	
o-Xylene	<0.000992	0.0992	0.0831	84	0.0994	0.0919	92	10	71-133	35	

**Analyst: KEB**

**Date Prepared: 02/22/2013**

**Date Analyzed: 02/22/2013**

**Lab Batch ID: 907551**

**Sample: 634168-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

<b>TPH By SW8015 Mod</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
C6-C12 Gasoline Range Hydrocarbons	<15.0	999	1100	110	1000	1120	112	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	999	1130	113	1000	1160	116	3	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



## Form 3 - MS Recoveries



Project Name: Trunk "O" 30 Inch

Work Order #: 458123

Lab Batch #: 907668

Date Analyzed: 02/25/2013

QC- Sample ID: 458123-001 S

Reporting Units: mg/kg

Date Prepared: 02/25/2013

Batch #: 1

Project ID: RP-1817

Analyst: KEB

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
BTEX by EPA 8021B	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Benzene	<0.00104	0.104	0.0920	88	70-130	
Toluene	<0.00209	0.104	0.0893	86	70-130	
Ethylbenzene	<0.00104	0.104	0.0904	87	71-129	
m_p-Xylenes	<0.00209	0.209	0.177	85	70-135	
o-Xylene	<0.00104	0.104	0.0845	81	71-133	

Matrix Spike Percent Recovery [D] =  $100 \times (C-A)/B$

Relative Percent Difference [E] =  $200 \times (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



# Form 3 - MS / MSD Recoveries



Project Name: Trunk "O" 30 Inch

Work Order #: 458123

Project ID: RP-1817

Lab Batch ID: 907638

QC- Sample ID: 458123-003 S

Batch #: 1 Matrix: Soil

Date Analyzed: 02/23/2013

Date Prepared: 02/23/2013

Analyst: RKO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Inorganic Anions by EPA 300/300.1	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
Analytes											
Chloride	16.4	98.7	129	114	98.7	126	111	2	80-120	20	

Lab Batch ID: 907638

QC- Sample ID: 458125-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 02/23/2013

Date Prepared: 02/23/2013

Analyst: RKO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Inorganic Anions by EPA 300/300.1	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
Analytes											
Chloride	730	100	779	49	100	797	67	2	80-120	20	X

Lab Batch ID: 907551

QC- Sample ID: 458073-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 02/22/2013

Date Prepared: 02/22/2013

Analyst: KEB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
TPH By SW8015 Mod	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
Analytes											
C6-C12 Gasoline Range Hydrocarbons	<17.2	1150	1380	120	1150	1400	122	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<17.2	1150	1420	123	1150	1450	126	2	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

**Project Name: Trunk "O" 30 Inch**

**Work Order #:** 458123

**Lab Batch #:** 907652

**Project ID:** RP-1817

**Date Analyzed:** 02/25/2013 12:30

**Date Prepared:** 02/25/2013

**Analyst:** WRU

**QC- Sample ID:** 458123-001 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	3.90	3.94	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

# Kenco 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: Joel Lowry

Project Name: Trunk "D" 30 inch

Company Name: Basin Environmental

Project #: RP-1817

Company Address: 3100 Plains Ave.

Project Loc: Lea, Co NM

City/State/Zip: Lawington, NM 88266

PO #: Bill Southern Union

Telephone No: 575-396-2372

Fax No: 575-396-1429

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: [Signature]

e-mail: PM@basinenr.com

(lab use only)

ORDER #:

458123

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None	Other (Specify)	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH: 418.1 8015M 801	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO <sub>4</sub> , Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg S	Volatiles	SemiVolatiles	BTEX 8021B 8030 or BTEX 8260	RCI	N.O.R.M.	TX Chloride	RUSH TAT (pre-Schedule 24)	Standard TAT	
	South SW			2-21-13	13:30		1	X								Soil	X								X					X	
	North SW			2-21-13	14:00		1	X								Soil	X								X					X	
	West SW			2-21-13	13:45		1	X								Soil	X								X					X	

### Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>2-21-13</u>	<u>14:05</u>	<u>Steve Butler</u>	<u>2-21-13</u>	<u>14:02</u>
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			<u>Maureen Smith</u>	<u>2/22/13</u>	<u>12:40</u>

### Laboratory Comments:

Sample Containers Intact? (Y) (N)  
 VOCs Free of Headspace? (Y) (N)  
 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? (Y) UPS (Y) DHL (Y) FedEx (Y) Lone Star (Y)  
 As Read (Y) Corrected (Y)  
 Temperature Upon Receipt: -1 °C



## Prelogin/Nonconformance Report- Sample Log-In

**Client:** Southern Union Gas Services- Monahan

**Date/ Time Received:** 02/21/2013 02:02:00 PM

**Work Order #:** 458123

**Acceptable Temperature Range:** 0 - 6 degC

**Air and Metal samples Acceptable Range:** Ambient

**Temperature Measuring device used :**

### Sample Receipt Checklist

### Comments

#1 *Temperature of cooler(s)?	-1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Sample instructions complete on Chain of Custody?	Yes
#9 Any missing/extra samples?	No
#10 Chain of Custody signed when relinquished/ received?	Yes
#11 Chain of Custody agrees with sample label(s)?	Yes
#12 Container label(s) legible and intact?	Yes
#13 Sample matrix/ properties agree with Chain of Custody?	Yes
#14 Samples in proper container/ bottle?	Yes
#15 Samples properly preserved?	Yes
#16 Sample container(s) intact?	Yes
#17 Sufficient sample amount for indicated test(s)?	Yes
#18 All samples received within hold time?	Yes
#19 Subcontract of sample(s)?	Yes
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	Yes
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	Yes
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	Yes

**\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:	PH Device/Lot#:
----------	-----------------

\_\_\_\_\_  
**Checklist completed by:**

Date: \_\_\_\_\_

\_\_\_\_\_  
**Checklist reviewed by:**

Date: \_\_\_\_\_

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

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, Ltd.	Contact	Tony Savoie
Address	P.O. Box 1226 Jal, N.M. 88252	Telephone No.	575-395-2116
Facility Name	Lea County Field Dept.	Facility Type	Natural Gas Gathering

Surface Owner: State of N.M.	Mineral Owner: State of N.M.	Lease No.
------------------------------	------------------------------	-----------

**LOCATION OF RELEASE**

Unit Letter O	Section 5	Township 21S	Range 36E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
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Latitude N32 30.258 Longitude W103 17.165

**NATURE OF RELEASE**

Type of Release : Natural Gas and Produced water	Volume of Release: Unknown	Volume Recovered None
Source of Release : 30" Natural Gas Pipeline	Date and Hour of Occurrence not known	Date and Hour of Discovery 2/20/08 9:45 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse:	

If a Watercourse was Impacted, Describe Fully.\*

MAR 04 2008  
HOBBS OCD

Describe Cause of Problem and Remedial Action Taken.\*  
A 30" Natural Gas gathering line operating at approximately 30 p.s.i. developed a leak. Date and time of loss is unknown, the leak area was discovered during a pipe replacement.

Describe Area Affected and Cleanup Action Taken. An area of pasture land measuring approximately 4,500sq. ft. has discolored soil in the backfill material, the soil is dark to light gray in appearance. Final remediation will follow the NMOCD recommended guidelines for leaks and spills.

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: <i>Tony Savoie</i>	OIL CONSERVATION DIVISION <i>[Signature]</i>	
Printed Name: John A. Savoie	Approved by District Supervisor ENVIRONMENTAL ENGINEER	
Title: Waste Management and Remediation Specialist	Approval Date: 3.18.08	Expiration Date: 5.16.08
E-mail Address: tony.savoie@sug.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 2/23/08 Phone: 575-395-2116	SUBMIT FINAL C-141 w/DOCS BY 1RP#1817	

\* Attach Additional Sheets If Necessary

FCOHD 808036090



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.  
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side of form

**Release Notification and Corrective Action**

**OPERATOR**

☒ Initial Report ☐ Final Report

Name of Company	Southern Union Gas Services, Ltd.	Contact	Tony Savoie
Address	P.O. Box 1226 Jal, N.M. 88252	Telephone No.	575-395-2116
Facility Name	Lea County Field Dept.	Facility Type	Natural Gas Gathering

Surface Owner: State of N.M.	Mineral Owner: State of N.M.	Lease No.
------------------------------	------------------------------	-----------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	5	21S	36E					Lea

Latitude N32 30.258 Longitude W103 17.165

**NATURE OF RELEASE**

Type of Release : Natural Gas and Produced water	Volume of Release: Unknown	Volume Recovered	None
Source of Release : 30" Natural Gas Pipeline	Date and Hour of Occurrence not known	Date and Hour of Discovery	2/20/08 9:45 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?		
By Whom?	Date and Hour:		
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.		

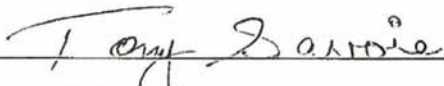

If a Watercourse was Impacted, Describe Fully.\*

**Describe Cause of Problem and Remedial Action Taken.\***

A 30" Natural Gas gathering line operating at approximately 30 p.s.i. developed a leak. Date and time of loss is unknown, the leak area was discovered during a pipe replacement.

Describe Area Affected and Cleanup Action Taken. An area of pasture land measuring approximately 4,500sq. ft. has discolored soil in the backfill material, the soil is dark to light gray in appearance. Final remediation will follow the NMOCD recommended guidelines for leaks and spills.

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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: John A. Savoie	Approved by District Supervisor: 	
Title: Waste Management and Remediation Specialist	Approval Date: 03/03/2008	Expiration Date: 05/03/2008
E-mail Address: tony.savoie@sug.com	Conditions of Approval:	Attached <input type="checkbox"/> RP# 1801
Date: 2/23/08	Phone: 575-395-2116	

\* Attach Additional Sheets If Necessary

fc0h0 806 353 069

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  
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Revised October 10, 2003

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## Release Notification and Corrective Action

### OPERATOR

Initial Report

☒ Final Report

Name of Company	Southern Union Gas Services, Ltd.	Contact	Crystal Callaway
Address	801 S. Loop 464, Monahans, TX, 79756	Telephone No.	(817) 302-9407
Facility Name:	Trunk "O" 30" (RP-1817 and RP-1801)	Facility Type	Natural Gas Gathering
Surface Owner	State of N.M.	Mineral Owner:	State of N.M.
		Lease No.	

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	5	21S	36E					Lea

Latitude N32 30.258

Longitude W103 17.165

### NATURE OF RELEASE

Type of Release:	Natural Gas and Produced water	Volume of Release	Unknown	Volume Recovered	None
Source of Release:	30" Natural Gas Pipeline	Date and Hour of Occurrence	Not known	Date and Hour of Discovery	2/20/08 Time: 9:45 a.m.
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?	Date and Hour:				
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken:

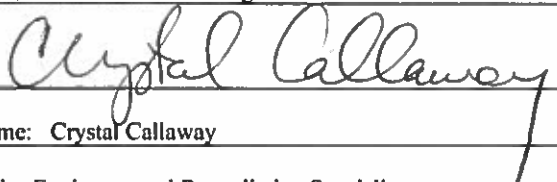
A 30" Natural Gas gathering line operating at approximately 30 p.s.i. developed a leak. Date and time of loss is unknown, the leak area was discovered during a pipeline replacement.

Describe Area Affected and Cleanup Action Taken.\* An area of pasture land measuring approximately 4,500 sq.ft. has discolored soil in the backfill material, the soil is dark to light gray in appearance. Final remediation will follow the NMOCD recommended guidelines for leaks and spills.

Confirmation soil samples collected from the Trunk "O" 30" Historical Remediation site indicate concentrations of BTEX, TPH and chloride are less than NMOCD Regulatory Standards.

Please reference the attached Basin Environmental Services Technologies Remediation Summary and Site Closure Request for details of remediation activities.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to 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: 	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Crystal Callaway	Approved by District Supervisor:	
Title: Senior Environmental Remediation Specialist	Approval Date:	Expiration Date:
E-mail Address: Crystal.Callaway@Regencygas.com	Conditions of Approval:	
Date: 10/31/14	Phone: (817) 302-9407	