Basin Environmental Service Technologies, LLC

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Effective Solutions

REMEDIATION SUMMARY &

SITE CLOSURE REQUEST

SOUTHERN UNION GAS SERVICES
TRUNK "O" #4 (1RP-1510)
HISTORICAL RELEASE SITE
Lea County, New Mexico
Unit Letter "F" (SE/NW), Section 34, Township 22 South, Range 36 East
Latitude 32° 20.921' North, Longitude 103° 15.296' West
NMOCD Reference # 1RP-1510

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

November 2012

Joel W. Lowry
Project Manager

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APPENDICES

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" #4 Historical Release Site (1RP-1510). The legal description of the release site is Unit Letter "F" (SE/NW), Section 34, Township 22 South, Range 36 East, in Lea County, New Mexico. The geographic coordinates of the release site are 32° 20.921' North latitude and 103° 15.296' West longitude. The property affected by the release is owned by Wanda Jones. Please reference Figure 1 for a "Site Location Map".

On August 21, 2007, Southern Union discovered a release had occurred on the Trunk "O" 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 approximately fifteen barrels (15 bbls) of crude oil and produced water mixture along with forty-five (45) mcf of natural gas. The release was reported to the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office on August 21, 2007. The Form C-141 indicated the release affected approximately six hundred square feet (600 ft^2) of pasture land and forty-four square feet (44 ft^2) of caliche lease road. General photographs of the release site are provided as Appendix A. The Form C-141 is provided as Appendix C.

Previous remediation activities were conducted at the Trunk "O" #4 Release Site by an environmental contractor that is no longer affiliated with the site. The nature and extent of the aforementioned activities remains unclear, as environmental reports and work records are not readily available.

On June 22, 2012, at the request of Southern Union, Basin assumed remediation responsibilities at the Trunk "O" #4 Historical Release Site.

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 34, Township 22 South, Range 36 East. A depth to groundwater reference map utilized by the NMOCD indicated groundwater should be encountered at approximately three hundred feet (300') 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, zero (0) 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" #4 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 October 3, 2012, Basin responded to the Trunk "O" #4 Historical Release Site. An initial investigation indicated previous remediation activities had been conducted at the release site. A series of test trenches were advanced in the disturbed areas around the inferred release point in an effort to determine if impacted soil containing BTEX, TPH and chloride concentrations above NMOCD regulatory standards remained in-situ.

Test Trench #1 was advanced to approximately three and one-half feet (3.5') bgs near the center of the disturbed area. During the advancement of the test trench, select soil samples were field-screened using a photo-ionization detector (PID) and chloride field test kit. Two (2) soil samples (TT-1 @ Surface and TT-1 @ 3.5') were collected and submitted to Xenco Laboratories, of Odessa, Texas, for determination of chloride concentrations in accordance with EPA Method 300.1. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL for soil sample TT-1 @ Surface to 4.14 mg/Kg in soil sample TT-1 @ 3.5'. Soil sample TT-1 @ 3.5' was also analyzed for concentrations of BTEX and TPH in accordance with EPA Methods SW 846-8021B, SW 846-8015M, respectively. Analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL. 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.

Test Trench #2 was advanced to approximately three and one-half feet (3.5') bgs near the inferred release point, within the disturbed area. During the advancement of the test trench, select soil samples were field-screened using a PID and chloride field test kit. Two (2) soil samples (TT-2 @ Surface and TT-2 @ 3.5') were collected and submitted to the laboratory for chloride analysis. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL for soil sample TT-2 @ Surface to 9.51 mg/Kg in soil sample TT-2 @ 3.5'. Soil sample TT-2 @ 3.5' was also analyzed for concentrations of BTEX and TPH. Analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL.

Test Trench #3 was advanced to approximately three and one-half feet (3.5') bgs near the northwest margin of the disturbed area. During the advancement of the test trench, select soil samples were field-screened using a PID and chloride field test kit. Two (2) soil samples (TT-3 @ Surface and TT-3 @ 3.5') were collected and submitted to the laboratory for chloride analysis. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL for soil sample TT-3 @ Surface to 6.51 mg/Kg in soil sample TT-3 @ 3.5'. Soil sample TT-3 @ 3.5' was also analyzed for concentrations of BTEX and TPH. Analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL.

Test Trench #4 was advanced to approximately three and one-half feet (3.5') bgs near the western margin of the disturbed area. During the advancement of the test trench, select soil samples were field-screened using a PID and chloride field test kit. Two (2) soil samples (TT-4 @ Surface and TT-4 @ 3.5') were collected and submitted to the laboratory for chloride analysis. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL for soil sample TT-4 @ Surface to 9.15 mg/Kg in soil sample TT-4 @ 3.5'. Soil sample TT-4 @ 3.5' was also analyzed for concentrations of BTEX and TPH. Analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL.

Test Trench #5 was advanced to approximately three and one-half feet (3.5') bgs near the southwest margin of the disturbed area. During the advancement of the test trench, select soil samples were field-screened using a PID and chloride field test kit. Two (2) soil samples (TT-5 @ Surface and TT-5 @ 3.5') were collected and submitted to the laboratory for analysis. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL for soil sample TT-5 @ Surface to 18.60 mg/Kg in soil sample TT-5 @ 3.5'. Soil sample TT-5 @ 3.5' was also analyzed for concentrations of BTEX and TPH. Analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL.

Test Trench #6 was advanced to approximately three and one-half feet (3.5') bgs near the northeast margin of the disturbed area. During the advancement of the test trench, select soil samples were field-screened using a PID and chloride field test kit. Two (2) soil samples (TT-6 @ Surface and TT-6 @ 3.5') were collected and submitted to the laboratory for chloride analysis. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL for soil sample TT-6 @ Surface to 8.04 mg/Kg in soil sample TT-6 @ 3.5'. Soil sample TT-6 @ 3.5' was also analyzed for concentrations of BTEX and TPH. Analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL.

Test Trench #7 was advanced to approximately three and one-half feet (3.5') bgs near the eastern margin of the disturbed area. During the advancement of the test trench, select soil samples were field-screened using a PID and chloride field test kit. Two (2) soil samples (TT-7 @ Surface and TT-7 @ 3.5') were collected and submitted to the laboratory for chloride analysis. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL for soil sample TT-7 @ Surface to 3.41 mg/Kg in soil sample TT-7 @ 3.5'. Soil sample TT-7 @ 3.5' was also analyzed for concentrations of BTEX and TPH. Analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL.

Test Trench #8 was advanced to approximately three and one-half feet (3.5') bgs near the southeast margin of the disturbed area. During the advancement of the test trench, select soil samples were field-screened using a PID and chloride field test kit. Two (2) soil samples (TT-8 @ Surface and TT-8 @ 3.5') were collected and submitted to the laboratory for chloride analysis. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL for soil sample TT-8 @ Surface to 5.61 mg/Kg in soil sample TT-8 @ 3.5'. Soil sample TT-8 @ 3.5' was also analyzed for concentrations of BTEX and TPH. Analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL.

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 eight (8) on-site test trenches suggested previous remediation activities at the Trunk "O" #4 Release Site 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" #4 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: Rose Slade
Southern Union Gas Services
801 S. Loop 464
Monahans, Texas 79756
rose.slade@sug.com

Copy 3: Basin Environmental Service Technologies, LLC
P.O. Box 301
Lovington, New Mexico 88260

1,000 500 0 1,000 2,000

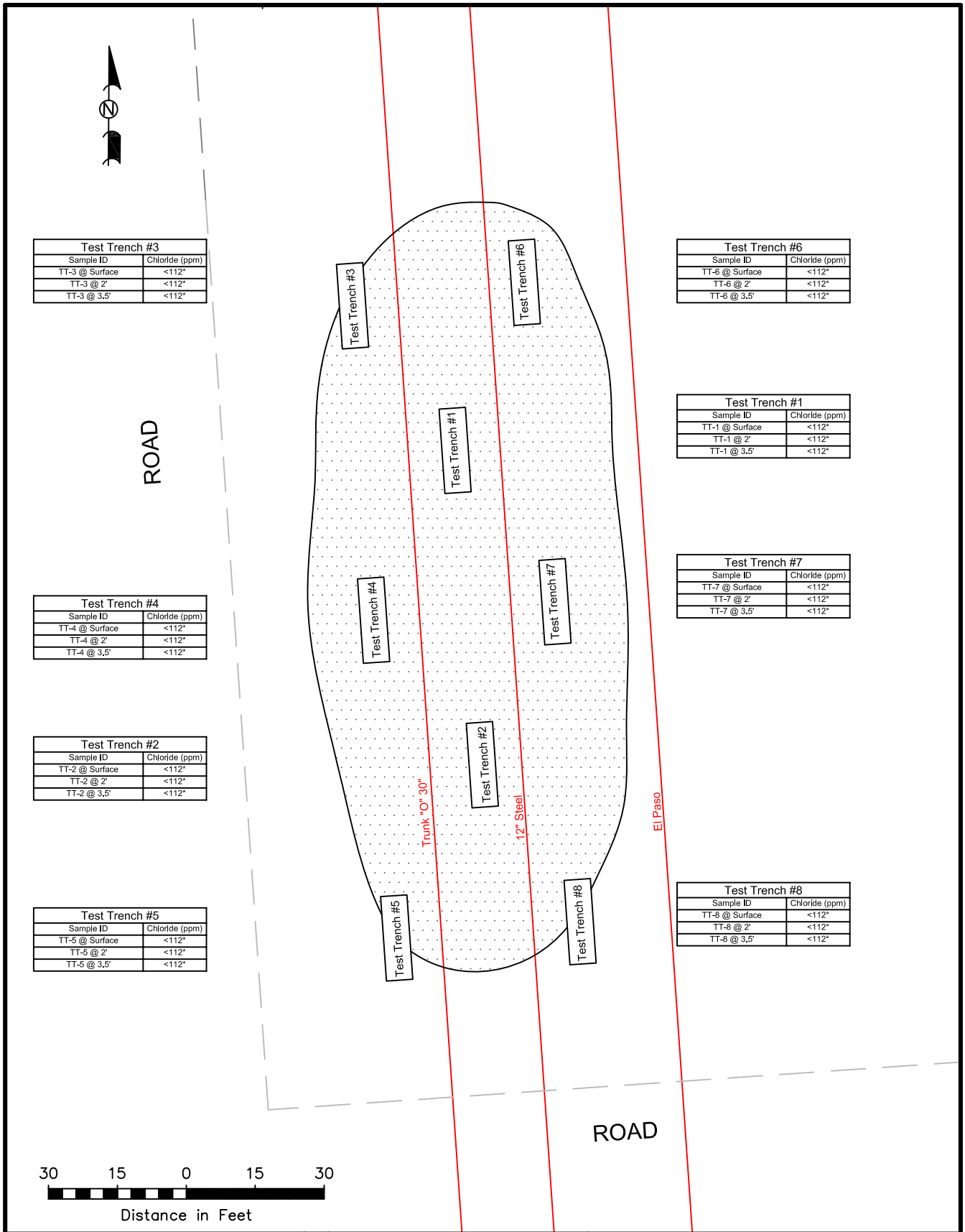
Distance in Feet

Figure 1
Site Location Map
Southern Union Gas Services
Trunk "O" #4 Historical
Lea County, New Mexico
NMOCD Reference #: 1RP-1510

Basin Environmental Service Technologies
Effective Solutions

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

Drawn By: BJA	Checked By: JWL
October 16, 2012	Scale: 1" = 2000'



Test Trench #3	
Sample ID	Chloride (ppm)
TT-3 @ Surface	<112*
TT-3 @ 2'	<112*
TT-3 @ 3.5'	<112*

Test Trench #6	
Sample ID	Chloride (ppm)
TT-6 @ Surface	<112*
TT-6 @ 2'	<112*
TT-6 @ 3.5'	<112*

Test Trench #1	
Sample ID	Chloride (ppm)
TT-1 @ Surface	<112*
TT-1 @ 2'	<112*
TT-1 @ 3.5'	<112*

Test Trench #4	
Sample ID	Chloride (ppm)
TT-4 @ Surface	<112*
TT-4 @ 2'	<112*
TT-4 @ 3.5'	<112*

Test Trench #7	
Sample ID	Chloride (ppm)
TT-7 @ Surface	<112*
TT-7 @ 2'	<112*
TT-7 @ 3.5'	<112*

Test Trench #2	
Sample ID	Chloride (ppm)
TT-2 @ Surface	<112*
TT-2 @ 2'	<112*
TT-2 @ 3.5'	<112*

Test Trench #5	
Sample ID	Chloride (ppm)
TT-5 @ Surface	<112*
TT-5 @ 2'	<112*
TT-5 @ 3.5'	<112*

Test Trench #8	
Sample ID	Chloride (ppm)
TT-8 @ Surface	<112*
TT-8 @ 2'	<112*
TT-8 @ 3.5'	<112*

LEGEND:

- Road
- Pipeline
- Test Trench
- Disturbed Area
- * Chloride Field Test Result

Figure 2

Site & Sample Location Map
Southern Union Gas Services
Trunk "O" #4 (RP-1510)
Lea County, NM

Basin Environmental Services

Scale: 1" = 30'	Drawn By: JWL	Checked By: BJA
October 8, 2012		

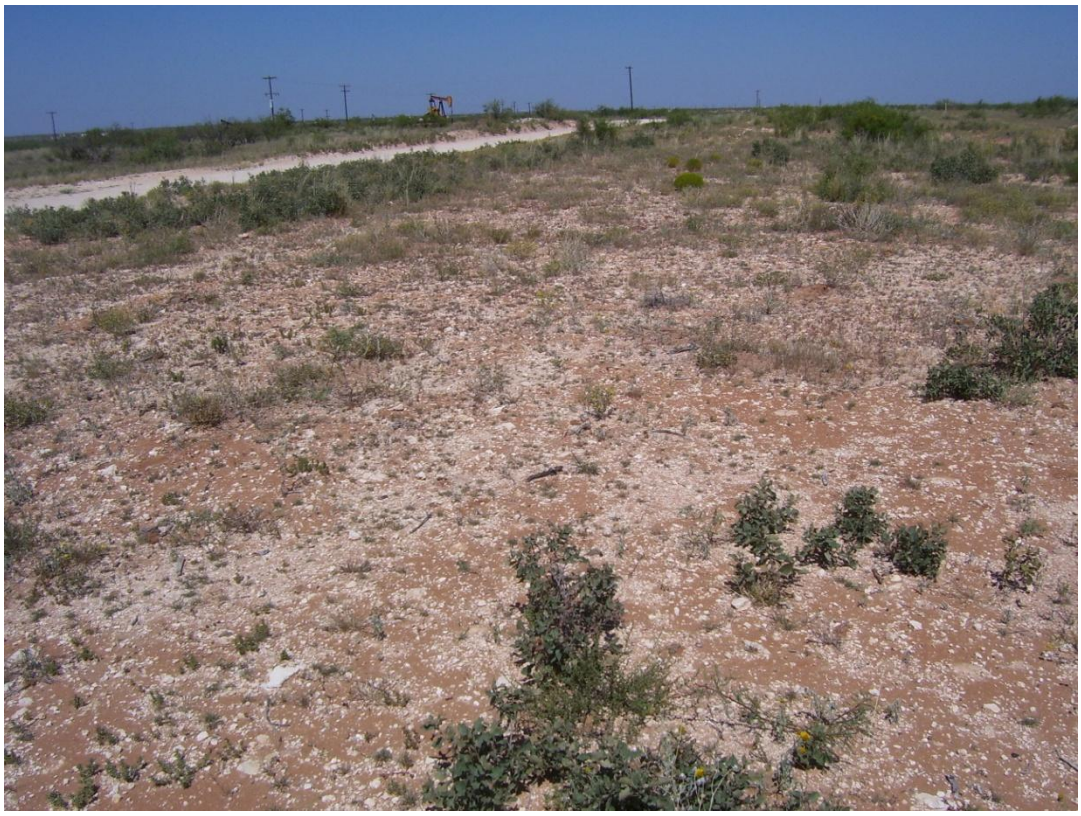
TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES
TRUNK "O" #4
HISTORICAL RELEASE SITE
LEA COUNTY, NEW MEXICO
NMOCD REF# 1RP-1510

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	EPA SW 846-8021B, 5030					EPA SW 846-8015M			TOTAL TPH C_6-C_{35} (mg/Kg)	EPA 300/300.1
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C_6-C_{12} (mg/Kg)	DRO C_{12}-C_{28} (mg/Kg)	ORO C_{28}-C_{35} (mg/Kg)		CHLORIDE (mg/Kg)
TT-1 @ Surface	Surface	10/3/2012	In-Situ	-	-	-	-	-	-	-	-	-	<1.00
TT-1 @ 3.5'	3.5'	10/3/2012	In-Situ	<0.00108	<0.00216	<0.00108	<0.00216	<0.00216	<16.2	<16.2	<16.2	<16.2	4.14
TT-2 @ Surface	Surface	10/3/2012	In-Situ	-	-	-	-	-	-	-	-	-	<1.15
TT-2 @ 3.5'	3.5'	10/3/2012	In-Situ	<0.00107	<0.00214	<0.00107	<0.00214	<0.00214	<16.0	<16.0	<16.0	<16.0	9.51
TT-3 @ Surface	Surface	10/3/2012	In-Situ	-	-	-	-	-	-	-	-	-	<1.02
TT-3 @ 3.5'	3.5'	10/3/2012	In-Situ	<0.00104	<0.00208	<0.00104	<0.00208	<0.00208	<15.6	<15.6	<15.6	<15.6	6.51
TT-4 @ Surface	Surface	10/3/2012	In-Situ	-	-	-	-	-	-	-	-	-	<1.08
TT-4 @ 3.5'	3.5'	10/3/2012	In-Situ	<0.00106	<0.00212	<0.00106	<0.00212	<0.00212	<15.9	<15.9	<15.9	<15.9	9.15
TT-5 @ Surface	Surface	10/3/2012	In-Situ	-	-	-	-	-	-	-	-	-	<1.05
TT-5 @ 3.5'	3.5'	10/3/2012	In-Situ	<0.00106	<0.00212	<0.00106	<0.00212	<0.00212	<15.9	<15.9	<15.9	<15.9	18.60
TT-6 @ Surface	Surface	10/3/2012	In-Situ	-	-	-	-	-	-	-	-	-	<0.991
TT-6 @ 3.5'	3.5'	10/3/2012	In-Situ	<0.00102	<0.00204	<0.00102	<0.00204	<0.00204	<15.3	<15.3	<15.3	<15.3	8.04
TT-7 @ Surface	Surface	10/3/2012	In-Situ	-	-	-	-	-	-	-	-	-	<1.12
TT-7 @ 3.5'	3.5'	10/3/2012	In-Situ	<0.00104	<0.00208	<0.00104	<0.00208	<0.00208	<15.9	<15.9	<15.9	<15.9	3.41
TT-8 @ Surface	Surface	10/3/2012	In-Situ	-	-	-	-	-	-	-	-	-	<1.00
TT-8 @ 3.5'	3.5'	10/3/2012	In-Situ	<0.00106	<0.00212	<0.00106	<0.00212	<0.00212	<15.9	<15.9	<15.9	<15.9	5.61
NMOCD Standard				**10**				**50**				**5,000**	**1,000**

- = Not analyzed.



Photograph of the disturbed area at the Trunk “O” #4 Historical Release Site.

Photograph of delineation activities at the Trunk “O” #4 Historical Release Site.

Photograph of the eight (8) Test Trenches advanced at the Trunk “O” #4 Historical Release Site.

Photograph of the eight (8) Test Trenches advanced at the Trunk “O” #4 Historical Release Site.

Analytical Report 450295

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Trunk "O" #4 (RP-1510)

SUG Historical Releases

12-OCT-12

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)

12-OCT-12

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

Reference: XENCO Report No: **450295**
Trunk "O" #4 (RP-1510)
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 450295. 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. 450295 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

Sample Cross Reference 450295

Southern Union Gas Services- Monahans, Monahans, TX

Trunk "O" #4 (RP-1510)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TT-1 @ Surface	S	10-03-12 08:30		450295-001
TT-1 @ 3.5'	S	10-03-12 08:40		450295-002
TT-2 @ Surface	S	10-03-12 09:00		450295-003
TT-2 @ 3.5	S	10-03-12 09:10		450295-004
TT-3 @ Surface	S	10-03-12 09:30		450295-005
TT-3 @ 3.5'	S	10-03-12 09:40		450295-006
TT-4 @ Surface	S	10-03-12 10:00		450295-007
TT-4 @ 3.5	S	10-03-12 10:10		450295-008
TT-5 @ Surface	S	10-03-12 10:30		450295-009
TT-5 @ 3.5	S	10-03-12 10:40		450295-010
TT-6 @ Surface	S	10-03-12 11:00		450295-011
TT-6 @ 3.5	S	10-03-12 11:00		450295-012
TT-7 @ Surface	S	10-03-12 11:20		450295-013
TT-7 @ 3.5	S	10-03-12 11:30		450295-014
TT-8 @ Surface	S	10-03-12 11:50		450295-015
TT-8 @ 3.5	S	10-03-12 12:00		450295-016

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Trunk "O" #4 (RP-1510)

Project ID:	*SUG Historical Releases*	*Report Date:*	*12-OCT-12*
Work Order Number:	*450295*	*Date Received:*	*10/05/2012*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 450295

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Trunk "O" #4 (RP-1510)

Project Id: SUG Historical Releases
Contact: Rose Slade
Project Location: Lea County, New Mexico

Date Received in Lab: Fri Oct-05-12 11:30 am
Report Date: 12-OCT-12
Project Manager: Nicholas Straccione

Analysis Requested													
	Lab Id:	450295-001		450295-002		450295-003		450295-004		450295-005		450295-006	
	Field Id:	TT-1 @ Surface		TT-1 @ 3.5'		TT-2 @ Surface		TT-2 @ 3.5		TT-3 @ Surface		TT-3 @ 3.5'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-03-12 08:30		Oct-03-12 08:40		Oct-03-12 09:00		Oct-03-12 09:10		Oct-03-12 09:30		Oct-03-12 09:40	
BTEX by EPA 8021B	***Extracted:***			Oct-09-12 15:15				Oct-09-12 15:15				Oct-09-12 15:15	
	Analyzed:			Oct-09-12 16:30				Oct-09-12 16:45				Oct-09-12 16:59	
	Units/RL:			mg/kg	RL			mg/kg	RL			mg/kg	RL
Benzene				ND	0.00108			ND	0.00107			ND	0.00104
Toluene				ND	0.00216			ND	0.00214			ND	0.00208
Ethylbenzene				ND	0.00108			ND	0.00107			ND	0.00104
m,p-Xylenes				ND	0.00216			ND	0.00214			ND	0.00208
o-Xylene				ND	0.00108			ND	0.00107			ND	0.00104
Total Xylenes				ND	0.00108			ND	0.00107			ND	0.00104
Total BTEX				ND	0.00108			ND	0.00107			ND	0.00104
Inorganic Anions by EPA 300/300.1 SUB: E871002	***Extracted:***	Oct-08-12 14:07		Oct-08-12 14:39		Oct-08-12 14:55		Oct-08-12 15:11		Oct-08-12 15:27		Oct-08-12 15:44	
	Analyzed:	Oct-08-12 14:07		Oct-08-12 14:39		Oct-08-12 14:55		Oct-08-12 15:11		Oct-08-12 15:27		Oct-08-12 15:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	1.00	4.14	1.10	ND	1.15	9.51	1.02	ND	1.02	6.51	1.04
Percent Moisture	***Extracted:***												
	Analyzed:	Oct-09-12 13:50		Oct-09-12 13:50		Oct-09-12 13:50		Oct-09-12 13:50		Oct-09-12 13:50		Oct-09-12 13:50	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		5.39	1.00	7.68	1.00	9.12	1.00	6.52	1.00	5.56	1.00	4.01	1.00
TPH By SW8015 Mod	***Extracted:***			Oct-09-12 15:10				Oct-09-12 15:10				Oct-11-12 08:30	
	Analyzed:			Oct-10-12 10:24				Oct-10-12 10:52				Oct-11-12 12:50	
	Units/RL:			mg/kg	RL			mg/kg	RL			mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons				ND	16.2			ND	16.0			ND	15.6
C12-C28 Diesel Range Hydrocarbons				ND	16.2			ND	16.0			ND	15.6
C28-C35 Oil Range Hydrocarbons				ND	16.2			ND	16.0			ND	15.6
Total TPH				ND	16.2			ND	16.0			ND	15.6

Nicholas Straccione
Project Manager

Certificate of Analysis Summary 450295

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Trunk "O" #4 (RP-1510)

Project Id: SUG Historical Releases
Contact: Rose Slade
Project Location: Lea County, New Mexico

Date Received in Lab: Fri Oct-05-12 11:30 am
Report Date: 12-OCT-12
Project Manager: Nicholas Straccione

Analysis Requested													
	Lab Id:	450295-007		450295-008		450295-009		450295-010		450295-011		450295-012	
	Field Id:	TT-4 @ Surface		TT-4 @ 3.5		TT-5 @ Surface		TT-5 @ 3.5		TT-6 @ Surface		TT-6 @ 3.5	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-03-12 10:00		Oct-03-12 10:10		Oct-03-12 10:30		Oct-03-12 10:40		Oct-03-12 11:00		Oct-03-12 11:00	
BTEX by EPA 8021B	***Extracted:***			Oct-09-12 15:15				Oct-09-12 15:15				Oct-09-12 15:15	
	Analyzed:			Oct-09-12 17:14				Oct-09-12 17:29				Oct-09-12 17:44	
	Units/RL:			mg/kg	RL			mg/kg	RL			mg/kg	RL
Benzene				ND	0.00106			ND	0.00106			ND	0.00102
Toluene				ND	0.00212			ND	0.00212			ND	0.00204
Ethylbenzene				ND	0.00106			ND	0.00106			ND	0.00102
m,p-Xylenes				ND	0.00212			ND	0.00212			ND	0.00204
o-Xylene				ND	0.00106			ND	0.00106			ND	0.00102
Total Xylenes				ND	0.00106			ND	0.00106			ND	0.00102
Total BTEX				ND	0.00106			ND	0.00106			ND	0.00102
Inorganic Anions by EPA 300/300.1 SUB: E871002	***Extracted:***	Oct-08-12 16:00		Oct-08-12 16:16		Oct-08-12 16:32		Oct-08-12 17:20		Oct-08-12 17:36		Oct-08-12 17:52	
	Analyzed:	Oct-08-12 16:00		Oct-08-12 16:16		Oct-08-12 16:32		Oct-08-12 17:20		Oct-08-12 17:36		Oct-08-12 17:52	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	1.08	9.15	1.04	ND	1.05	18.6	1.17	ND	0.991	8.04	0.881
Percent Moisture	***Extracted:***												
	Analyzed:	Oct-09-12 13:50		Oct-09-12 13:50		Oct-09-12 13:50		Oct-09-12 13:50		Oct-09-12 13:50		Oct-09-12 13:50	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		7.12	1.00	5.53	1.00	7.32	1.00	6.13	1.00	4.98	1.00	1.96	1.00
TPH By SW8015 Mod	***Extracted:***			Oct-09-12 15:10				Oct-09-12 15:10				Oct-11-12 08:30	
	Analyzed:			Oct-10-12 12:27				Oct-10-12 12:56				Oct-11-12 13:49	
	Units/RL:			mg/kg	RL			mg/kg	RL			mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons				ND	15.9			ND	15.9			ND	15.3
C12-C28 Diesel Range Hydrocarbons				ND	15.9			ND	15.9			ND	15.3
C28-C35 Oil Range Hydrocarbons				ND	15.9			ND	15.9			ND	15.3
Total TPH				ND	15.9			ND	15.9			ND	15.3

Nicholas Straccione
Project Manager

Certificate of Analysis Summary 450295

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Trunk "O" #4 (RP-1510)

Project Id: SUG Historical Releases
Contact: Rose Slade
Project Location: Lea County, New Mexico

Date Received in Lab: Fri Oct-05-12 11:30 am
Report Date: 12-OCT-12
Project Manager: Nicholas Straccione

Analysis Requested													
	Lab Id:	450295-013		450295-014		450295-015		450295-016					
	Field Id:	TT-7 @ Surface		TT-7 @ 3.5		TT-8 @ Surface		TT-8 @ 3.5					
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Oct-03-12 11:20		Oct-03-12 11:30		Oct-03-12 11:50		Oct-03-12 12:00					
BTEX by EPA 8021B	***Extracted:***			Oct-09-12 15:15				Oct-09-12 15:15					
	Analyzed:			Oct-09-12 17:59				Oct-09-12 18:14					
	Units/RL:			mg/kg	RL			mg/kg	RL				
Benzene				ND	0.00104			ND	0.00106				
Toluene				ND	0.00208			ND	0.00211				
Ethylbenzene				ND	0.00104			ND	0.00106				
m,p-Xylenes				ND	0.00208			ND	0.00211				
o-Xylene				ND	0.00104			ND	0.00106				
Total Xylenes				ND	0.00104			ND	0.00106				
Total BTEX				ND	0.00104			ND	0.00106				
Inorganic Anions by EPA 300/300.1 SUB: E871002	***Extracted:***	Oct-08-12 18:08		Oct-08-12 18:25		Oct-08-12 18:41		Oct-08-12 18:57					
	Analyzed:	Oct-08-12 18:08		Oct-08-12 18:25		Oct-08-12 18:41		Oct-08-12 18:57					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		ND	1.12	3.41	1.02	ND	1.00	21.8	1.11				
Percent Moisture	***Extracted:***												
	Analyzed:	Oct-09-12 13:50		Oct-09-12 13:50		Oct-09-12 13:50		Oct-09-12 14:12					
	Units/RL:	%	RL	%	RL	%	RL	%	RL				
Percent Moisture		8.18	1.00	4.08	1.00	5.18	1.00	5.61	1.00				
TPH By SW8015 Mod	***Extracted:***			Oct-11-12 08:30				Oct-09-12 16:20					
	Analyzed:			Oct-11-12 14:19				Oct-09-12 18:50					
	Units/RL:			mg/kg	RL			mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons				ND	15.7			ND	15.9				
C12-C28 Diesel Range Hydrocarbons				ND	15.7			ND	15.9				
C28-C35 Oil Range Hydrocarbons				ND	15.7			ND	15.9				
Total TPH				ND	15.7			ND	15.9				

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 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.

* 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 **MQL** 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

Form 2 - Surrogate Recoveries

Project Name: Trunk "O" #4 (RP-1510)

Work Orders : 450295,

Project ID: SUG Historical Releases

Lab Batch #: 898398 **Sample:** 450295-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/09/12 16:30

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Lab Batch #: 898398 **Sample:** 450295-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/09/12 16:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0263	0.0300	88	80-120	
4-Bromofluorobenzene	0.0240	0.0300	80	80-120	

Lab Batch #: 898398 **Sample:** 450295-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/09/12 16:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 898398 **Sample:** 450295-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/09/12 17:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0250	0.0300	83	80-120	

Lab Batch #: 898398 **Sample:** 450295-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/09/12 17:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	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" #4 (RP-1510)

Work Orders : 450295,

Project ID: SUG Historical Releases

Lab Batch #: 898398 **Sample:** 450295-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/09/12 17:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 898398 **Sample:** 450295-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/09/12 17:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0249	0.0300	83	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

Lab Batch #: 898398 **Sample:** 450295-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/09/12 18:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 898390 **Sample:** 450295-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/09/12 18:50

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.9	99.8	96	70-135	
o-Terphenyl	44.9	49.9	90	70-135	

Lab Batch #: 898513 **Sample:** 450295-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/10/12 10:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.9	99.5	96	70-135	
o-Terphenyl	45.1	49.8	91	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.

Form 2 - Surrogate Recoveries

Project Name: Trunk "O" #4 (RP-1510)

Work Orders : 450295,

Project ID: SUG Historical Releases

Lab Batch #: 898513 **Sample:** 450295-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/10/12 10:52

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.8	100	96	70-135	
o-Terphenyl	45.2	50.0	90	70-135	

Lab Batch #: 898513 **Sample:** 450295-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/10/12 12:27

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.7	100	92	70-135	
o-Terphenyl	42.3	50.1	84	70-135	

Lab Batch #: 898513 **Sample:** 450295-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/10/12 12:56

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.1	99.6	95	70-135	
o-Terphenyl	43.8	49.8	88	70-135	

Lab Batch #: 898604 **Sample:** 450295-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/11/12 12:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.0	99.9	89	70-135	
o-Terphenyl	43.9	50.0	88	70-135	

Lab Batch #: 898604 **Sample:** 450295-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/11/12 13:49

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.1	100	88	70-135	
o-Terphenyl	43.5	50.0	87	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.

Form 2 - Surrogate Recoveries

Project Name: Trunk "O" #4 (RP-1510)

Work Orders : 450295,

Project ID: SUG Historical Releases

Lab Batch #: 898604 **Sample:** 450295-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/11/12 14:19

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.4	100	88	70-135	
o-Terphenyl	43.6	50.1	87	70-135	

Lab Batch #: 898398 **Sample:** 628365-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/09/12 16:15

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0265	0.0300	88	80-120	
4-Bromofluorobenzene	0.0280	0.0300	93	80-120	

Lab Batch #: 898390 **Sample:** 628359-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/09/12 18:21

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.2	100	94	70-135	
o-Terphenyl	44.9	50.2	89	70-135	

Lab Batch #: 898513 **Sample:** 628376-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/10/12 02:07

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.6	99.8	93	70-135	
o-Terphenyl	45.3	49.9	91	70-135	

Lab Batch #: 898604 **Sample:** 628489-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/11/12 11:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.2	100	90	70-135	
o-Terphenyl	45.4	50.0	91	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.

Form 2 - Surrogate Recoveries

Project Name: Trunk "O" #4 (RP-1510)

Work Orders : 450295, **Project ID:** SUG Historical Releases

Lab Batch #: 898398 **Sample:** 628365-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/09/12 15:45

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0336	0.0300	112	80-120	
4-Bromofluorobenzene	0.0323	0.0300	108	80-120	

Lab Batch #: 898390 **Sample:** 628359-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/09/12 17:19

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.7	100	100	70-135	
o-Terphenyl	50.8	50.0	102	70-135	

Lab Batch #: 898513 **Sample:** 628376-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/10/12 01:00

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.8	100	96	70-135	
o-Terphenyl	50.9	50.0	102	70-135	

Lab Batch #: 898604 **Sample:** 628489-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/11/12 10:52

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.5	100	99	70-135	
o-Terphenyl	52.7	50.1	105	70-135	

Lab Batch #: 898398 **Sample:** 628365-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/09/12 16:00

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0269	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.

Form 2 - Surrogate Recoveries

Project Name: Trunk "O" #4 (RP-1510)

Work Orders : 450295,

Project ID: SUG Historical Releases

Lab Batch #: 898390 **Sample:** 628359-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/09/12 17:47

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	52.3	50.1	104	70-135	

Lab Batch #: 898513 **Sample:** 628376-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/10/12 01:37

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	99.6	97	70-135	
o-Terphenyl	50.8	49.8	102	70-135	

Lab Batch #: 898604 **Sample:** 628489-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/11/12 11:21

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.6	99.8	98	70-135	
o-Terphenyl	52.7	49.9	106	70-135	

Lab Batch #: 898390 **Sample:** 450295-016 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/09/12 19:24

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.9	100	96	70-135	
o-Terphenyl	47.9	50.0	96	70-135	

Lab Batch #: 898398 **Sample:** 450295-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/09/12 19:28

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0316	0.0300	105	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" #4 (RP-1510)

Work Orders : 450295,

Project ID: SUG Historical Releases

Lab Batch #: 898513 **Sample:** 450295-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/10/12 14:30

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	50.6	50.2	101	70-135	

Lab Batch #: 898604 **Sample:** 450295-006 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/11/12 21:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	54.2	50.0	108	70-135	

Lab Batch #: 898398 **Sample:** 450295-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/09/12 19:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 898390 **Sample:** 450295-016 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/09/12 19:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.8	101	70-135	
o-Terphenyl	51.7	49.9	104	70-135	

Lab Batch #: 898513 **Sample:** 450295-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/10/12 14:58

SURROGATE RECOVERY STUDY

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

Form 2 - Surrogate Recoveries

Project Name: Trunk "O" #4 (RP-1510)

Work Orders : 450295,

Project ID: SUG Historical Releases

Lab Batch #: 898604 **Sample:** 450295-006 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/11/12 21:46

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.6	100	95	70-135	
o-Terphenyl	50.6	50.1	101	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.

BS / BSD Recoveries

Project Name: Trunk "O" #4 (RP-1510)

Work Order #: 450295 **Project ID:** SUG Historical Releases

Analyst: KEB **Date Prepared:** 10/09/2012 **Date Analyzed:** 10/09/2012

Lab Batch ID: 898398 **Sample:** 628365-1-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	<0.000994	0.0994	0.104	105	0.100	0.0814	81	24	70-130	35	
Toluene	<0.00199	0.0994	0.106	107	0.100	0.0808	81	27	70-130	35	
Ethylbenzene	<0.000994	0.0994	0.105	106	0.100	0.0802	80	27	71-129	35	
m,p-Xylenes	<0.00199	0.199	0.223	112	0.201	0.171	85	26	70-135	35	
o-Xylene	<0.000994	0.0994	0.108	109	0.100	0.0844	84	25	71-133	35	

Analyst: TTE **Date Prepared:** 10/08/2012 **Date Analyzed:** 10/08/2012

Lab Batch ID: 898337 **Sample:** 628330-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	<0.996	99.6	94.5	95	102	98.4	96	4	80-120	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" #4 (RP-1510)

Work Order #: 450295 **Project ID:** SUG Historical Releases

Analyst: KEB **Date Prepared:** 10/09/2012 **Date Analyzed:** 10/09/2012

Lab Batch ID: 898390 **Sample:** 628359-1-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	<15.0	1000	1010	101	1000	1030	103	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	969	97	1000	985	99	2	70-135	35	

Analyst: KEB **Date Prepared:** 10/09/2012 **Date Analyzed:** 10/10/2012

Lab Batch ID: 898513 **Sample:** 628376-1-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	<15.0	1000	946	95	996	928	93	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	968	97	996	943	95	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

BS / BSD Recoveries

Project Name: Trunk "O" #4 (RP-1510)

Work Order #: 450295
Project ID: SUG Historical Releases
Analyst: KEB
Date Prepared: 10/11/2012
Date Analyzed: 10/11/2012
Lab Batch ID: 898604
Sample: 628489-1-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	<15.0	1000	956	96	998	986	99	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	990	99	998	1000	100	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

Form 3 - MS Recoveries

Project Name: Trunk "O" #4 (RP-1510)

Work Order #: 450295

Lab Batch #: 898337 **Project ID:** SUG Historical Releases

Date Analyzed: 10/08/2012 **Date Prepared:** 10/08/2012 **Analyst:** TTE

QC- Sample ID: 450295-001 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	<1.00	100	96.5	97	80-120	

Lab Batch #: 898337

Date Analyzed: 10/08/2012 **Date Prepared:** 10/08/2012 **Analyst:** TTE

QC- Sample ID: 450296-002 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	3.41	101	103	99	80-120	

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" #4 (RP-1510)

Work Order # : 450295 **Project ID:** SUG Historical Releases

Lab Batch ID: 898398 **QC- Sample ID:** 450295-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/09/2012 **Date Prepared:** 10/09/2012 **Analyst:** KEB

Reporting Units: mg/kg

BTEX by EPA 8021B 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
	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
Benzene	<0.00109	0.109	0.0836	77	0.109	0.0899	82	7	70-130	35	
Toluene	<0.00218	0.109	0.0893	82	0.109	0.0930	85	4	70-130	35	
Ethylbenzene	<0.00109	0.109	0.0782	72	0.109	0.0863	79	10	71-129	35	
m,p-Xylenes	<0.00218	0.218	0.159	73	0.218	0.179	82	12	70-135	35	
o-Xylene	<0.00109	0.109	0.0772	71	0.109	0.0883	81	13	71-133	35	

Lab Batch ID: 898390 **QC- Sample ID:** 450295-016 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/09/2012 **Date Prepared:** 10/09/2012 **Analyst:** KEB

Reporting Units: mg/kg

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
	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
C6-C12 Gasoline Range Hydrocarbons	<15.9	1060	1010	95	1060	1070	101	6	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.9	1060	973	92	1060	1040	98	7	70-135	35	

Lab Batch ID: 898513 **QC- Sample ID:** 450295-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/10/2012 **Date Prepared:** 10/09/2012 **Analyst:** KEB

Reporting Units: mg/kg

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
	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
C6-C12 Gasoline Range Hydrocarbons	<16.3	1090	1090	100	1080	1050	97	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<16.3	1090	1050	96	1080	1050	97	0	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

Form 3 - MS / MSD Recoveries

Project Name: Trunk "O" #4 (RP-1510)

Work Order # : 450295 **Project ID:** SUG Historical Releases

Lab Batch ID: 898604 **QC- Sample ID:** 450295-006 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/11/2012 **Date Prepared:** 10/11/2012 **Analyst:** KEB

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	1030	99	1040	992	95	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.6	1040	1070	103	1040	1000	96	7	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

Sample Duplicate Recovery

Project Name: Trunk "O" #4 (RP-1510)

Work Order #: 450295

Lab Batch #: 898413 **Project ID:** SUG Historical Releases

Date Analyzed: 10/09/2012 13:50 **Date Prepared:** 10/09/2012 **Analyst:** WRU

QC- Sample ID: 450295-001 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	5.39	5.51	2	15	

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

BRL - Below Reporting Limit

LAB Order ID # 450295

Xenco

Company Name: Basin Environmental Service Technologies	Phone #: 575-396-2378
Address: P.O. 301 Lovington, NM, 88260	Fax #: 575-396-1429
Contact Person: Rose Slade (SUG) Joel Lowry (Basin)	E-mail: pm@basinenv.com rose.slade@sug.com
Invoice to: Southern Union Gas Services	
Project #: SUG Historical Releases	Project Name: Trunk "O" #4 (RP-1510)
Project Location: (include state) Lea County, New Mexico	Sampler Signature: Bobby R Blackwood Jr.

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B / 200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity Cl-	Na, Ca, Mg, K, TDS, EC			Turn Around Time if different from standard	Hold
	TT-1 @ Surface	1			X							X		10/3	830																X					
	TT-1 @ 3.5'	1			X							X		10/3	840		X	X													X					
	TT-2 @ Surface	1			X							X		10/3	900																X					
	TT-2 @ 3.5'	1			X							X		10/3	910		X	X													X					
	TT-3 @ Surface	1			X							X		10/3	930																X					
	TT-3 @ 3.5'	1			X							X		10/3	940		X	X													X					
	TT-4 @ Surface	1			X							X		10/3	1000																X					
	TT-4 @ 3.5'	1			X							X		10/3	1010		X	X													X					
	TT-5 @ Surface	1			X							X		10/3	1030																X					
	TT-5 @ 3.5'	1			X							X		10/3	1040		X	X													X					
	TT-6 @ Surface	1			X							X		10/3	1100																X					

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Bobby R Blackwood Jr.		10/5	7:15	Troy Nahm		10/05	0715	INST ____ OBS ____ °C COR ____ °C
Troy Nahm		10/05/12	11:30					INST ____ OBS ____ °C COR ____ °C
				Maureen Smith		10/5/12	11:30	INST ____ OBS ____ °C COR ____ °C

LAB USE ONLY

Intact Y / N

Headspace Y / N /NA

Log-in Review

REMARKS:

1.5

☐ Dry Weight Basis Required

☐ TRRP Report Required

☐ Check If Special Reporting Limits Are Needed

Carrier #

Submittal of samples constitutes agreement to Terms and Conditions

ORIGINAL COPY

LAB Order ID # 450295

Company Name:	Basin Environmental Service Technologies
Phone #:	575-396-2378
Address:	P.O. 301 Lovington, NM, 88260
Fax #:	575-396-1429
Contact Person:	Rose Slade (SUG) Joel Lowry (Basin)
E-mail:	pm@basinenv.com rose.slade@sug.com
Invoice to:	Southern Union Gas Services
Project #:	SUG Historical Releases
Project Name:	Trunk "O" #4 (RP-1510)
Project Location: (include state)	Lea County, New Mexico
Sampler Signature:	Bobby R Blackwood Jr.

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B / 200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC			Turn Around Time if different from standard	Hold
	TT-6 @ 3.5'	1			X							X		10/3	1100		X	X													X					
	TT-7 @ Surface	1			X							X		10/3	1120																X					
	TT-7 @ 3.5'	1			X							X		10/3	1130		X	X													X					
	TT-8 @ Surface	1			X							X		10/3	1150																X					
	TT-8 @ 3.5'	1			X							X		10/3	1200		X	X													X					

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Bobby R Blackwood Jr.		10/5	7:15	Troy Hahn		10/05	0715	INST ____ OBS ____ °C COR ____ °C
Troy Hahn		10/05/12	1130					INST ____ OBS ____ °C COR ____ °C
				Shannon Smith		10/5/12	11:30	INST ____ OBS ____ °C COR ____ °C

LAB USE ONLY

Intact Y / N

Headspace Y / N /NA

Log-in Review

REMARKS:

☐ Dry Weight Basis Required

☐ TRRP Report Required

☐ Check If Special Reporting Limits Are Needed

Carrier #

Submittal of samples constitutes agreement to Terms and Conditions

ORIGINAL COPY

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Southern Union Gas Services- Monahan

Date/ Time Received: 10/05/2012 11:30:00 AM

Work Order #: 450295

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)?	7.5
#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

AUG 2007
Received

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Trunk "O" # 4

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.	505-395-2116
Facility Name	Lea County Field Dept.	Facility Type	Natural Gas Gathering

Surface Owner: Wanda Jones	Mineral Owner: Fee	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	34	22S	36E					Lea

Latitude N32 20.921 Longitude W103 15.296

NATURE OF RELEASE

Type of Release : Crude Oil, Produced water, and Natural Gas	Volume of Release: 15 Bbls Fluid and 45 MCF Nat. Gas	Volume Recovered 0 Bbls crude Oil and produced water
Source of Release : 30" Natural Gas Pipeline	Date and Hour of Occurrence not known	Date and Hour of Discovery 7/21/07 Time: 7:00 p.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD on call representative	
By Whom? Tony Savoie	Date and Hour: 7/21/07 7:15 p.m.	
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.*
A 30" Natural Gas gathering line developed a leak due to excess fluid delivered by a producer caused the line to pressure up and leak fluid and natural gas. Crews began shutting the line in at 7:45 pm. All of the fluid lost had soaked into the ground before the vacuum trucks arrived on site.

Describe Area Affected and Cleanup Action Taken. Approximately 600 Square feet of pasture land and approximately 44 square feet of caliche lease road was impacted by the release. No cleanup actions were taken at the time of the release.
The final remediation will follow the NMOCD guidelines for the remediation of 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: Tony Savoie	OIL CONSERVATION DIVISION
Printed Name: Tony Savoie John A. Savoie	Approved by District Supervisor: ENVIRO ENGR
Title: Remediation Supervisor	Approval Date: 8-7-07 Expiration Date: 10-2-07
E-mail Address: tony.savoie@sug.com	Conditions of Approval: SUBMIT FINAL C-141 w/ SUPPORTING DOCUMENTATION BY RP# 1510 Attached ☐
Date: 7/31/07 Phone: 505-395-2116	

* Attach Additional Sheets If Necessary

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	Crystal Callaway
Address	801 S. Loop 464, Monahans, TX, 79756	Telephone No.	(817) 302-9407
Facility Name: Trunk "O" #4 (RP-1510) Lea County Field Dept.		Facility Type	Natural Gas Gathering

Surface Owner Wanda Jones	Mineral Owner: Fee	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	34	22S	36E					Lea

Latitude N32 20.921 **Longitude W103 15.296**

NATURE OF RELEASE

Type of Release Crude Oil, Produced water and Natural Gas	Volume of Release 15 Bbls Fluid and 45 MCF Nat. Gas	Volume Recovered 0 Bbls crude oil and produced water
Source of Release 30" Natural Gas Pipeline	Date and Hour of Occurrence not known	Date and Hour of Discovery 7/21/07 Time: 7:00 p.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD on call representative	
By Whom? Tony Savoie	Date and Hour: 7/21/07 7:15 p.m.	
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:
A 30" Natural Gas gathering line developed a leak due to excess fluid delivered by a producer caused the line to pressure up and leak fluid and natural gas. Crews began shutting the line in at 7:45 pm. All of the fluid lost had soaked into the ground before the vacuum trucks arrived on site.

Describe Area Affected and Cleanup Action Taken. Approximately 600 Square feet of pasture land and approximately 44 square feet of caliche lease road was impacted by the release. No cleanup actions were taken at the time of the release. The final remediation will follow the NMOCD guidelines for the remediation of leaks and spills.

Prior to June 22, 2012, remediation activities were conducted at the Trunk "O" #4 Release Site by an environmental contractor that is no longer affiliated with the site. On October 3, 2012, the site was revisited in an effort to determine if soil exhibiting benzene, BTEX, TPH and chloride concentrations above NMOCD regulatory standards remained in-situ and collect confirmation soil samples. Laboratory analytical reports from the confirmation soil samples suggested previous remediation activities met the requirements of the NMOCD.

Please see the attached Basin Environmental Services Technologies *Remediation Summary and Site Closure Request* for details of remedial activities and the site investigation.

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: Crystal Callaway	OIL CONSERVATION DIVISION	
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: 10/27/2014 Phone: (817) 302-9407		