## Basin Environmental Service Technologies, LLC

3100 Plains Highway P. O. Box 301 Lovington, New Mexico 88260

jwlowry@basinenv.com

Office: (575) 396-2378 Fax: (575) 396-1429



# REMEDIATION SUMMARY & SITE CLOSURE REQUEST

SOUTHERN UNION GAS SERVICES
A-14 6" LINE (RP-1127)
HISTORICAL RELEASE SITE
Lea County, New Mexico
Unit Letter "B" (NW/NE), Section 7, Township 23 South, Range 34 East
Latitude 32° 19.563' North, Longitude 103° 30.334' West
NMOCD Reference # 1RP-1127

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

December 2014

Joel W. Lowry Project Manager

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### 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 release site known as A-14 6" Line Historical. The legal description of the release site is Unit Letter "B" (NW/NE), Section 7, Township 23 South, Range 34 East, in Lea County, New Mexico. The geographic coordinates of the release site are 32° 19.563' North latitude and 103° 30.334' West longitude. The property affected by the release is owned by the United States Department of the Interior - Bureau of Land Management (BLM). Please reference Figure 1 for a "Site Location Map".

On October 29, 2006, Southern Union discovered a release had occurred on the A-14 pipeline. Failure of a section of six-inch (6") low-pressure pipeline resulted in the release of approximately ninety (90) Mcf of natural gas and seven barrels (7 bbls) of crude oil. The release was reported to the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office on November 18, 2006. The "Release Notification and Corrective Action Form" (Form C-141) indicated the release affected approximately one thousand square feet (1,000 ft²) of pasture land. General photographs of the release site are provided as Appendix A. The Form C-141 is provided as Appendix E.

Between December 22, 2006, and February 8, 2007, remediation activities were conducted at the release site by an environmental contractor that is no longer affiliated with the site. Analytical documentation suggests that at least a portion of the excavation was advanced to tweny-six and one-half (26.5') below ground surface (bgs). Confirmation soil samples collected from the floor and sidewalls of the excavation were not analyzed for concentrations of chloride. The previously excavated area was approximately fifty feet (50') in length, twenty feet (20') in width, and up to twenty-six and one-half feet (26.5') in depth. Table 1 summarizes the "Historical Concentrations of Benzene, BTEX, TPH & Chloride in Soil".

On June 22, 2012, Basin assumed remediation responsibilities at the A-14 6" Line 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 7, Township 23 South, Range 34 East. An NMOCD representative indicated the depth to groundwater is approximately three hundred and twenty-nine feet (329') bgs on the initial C-141. 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 A-14 6" Line 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 December 19, 2012, Basin responded to the A-14 6" Historical Release Site. A drilling rig was dispatched to the location in an effort to collect discrete soil samples from the floor of the historical excavation at twenty-seven feet (27') bgs. Soil boring SB-1 was advanced in the northern portion of the previously excavated area. During the advancement of the soil bore, four (4) soil samples (SB-1 @ 5', SB-1 @ 15', SB-1 @ 25' and SB-1 @ 27') were collected and submitted to Xenco Laboratories Inc., of Odessa, Texas, for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 10.3 mg/Kg for soil sample SB-1 @ 25' to 67.4 mg/Kg for soil sample SB-1 @ 15'. Soil samples SB-1 @ 15' and SB-1 @ 27' were also analyzed for TPH concentrations which were determined to be less than the laboratory method detection limit (MDL) for both samples. Soil sample SB-1 @ 27' was also analyzed for BTEX concentrations, which were determined to be less than the laboratory MDL for each constituent. Table 2 summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil" from recent remediation activities. Soil sample locations are depicted in Figure 2, "Site & Sample Location Map". Soil boring logs are provided as Appendix B. Laboratory analytical reports are provided as Appendix C.

Soil boring SB-2 was advanced in the southern portion of the previously excavated area. During the advancement of the soil bore, four (4) soil samples (SB-2 @ 5', SB-2 @ 15', SB-2 @ 25' and SB-2 @ 27') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 43.3 mg/Kg for soil sample SB-2 @ 25' to 185 mg/Kg for soil sample SB-2 @ 15'. Soil samples SB-2 @ 15' and SB-2 @ 27' were also analyzed for TPH concentrations, which were determined to be less than the laboratory MDL for both samples. Soil sample SB-2 @ 27' was also analyzed for BTEX concentrations, which were determined to be less than the laboratory MDL for each constituent.

On December 21, 2012, Basin excavated a series of test trenches in an effort to collect discrete sidewall soil samples for analysis of chloride and TPH concentrations. During the advancement of the test trenches, soil exhibiting chloride concentrations of 2,500 mg/Kg was encountered. An additional series of delineation trenches were advanced to the north, south, east and west of the area field tests suggested contained the highest concentration of chloride. During the advancement of the delineation trenches, thirteen (13) soil samples (North Sidewall, West Sidewall, South Trench #1, South Trench #2, South Trench #2 @ 14', South Trench #3, South

Trench #4, West Trench #1, West Trench #2, West Trench #3, East Trench #1, East Trench #2 and East Trench #3) were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 7.17 mg/Kg for soil sample North Sidewall to 2,580 mg/Kg for soil sample South Trench #3. Each of the soil samples exhibited chloride concentrations less than 1,000 mg/Kg with the exception of South Trench #2, South Trench #3 and West Trench #1.

Beginning December 31, 2012, excavation activities commenced at the location. The area defined by soil samples South Trench #2, South Trench #3 and West Trench #1 was excavated to approximately ten feet (10') bgs. The excavation sidewalls were advanced until field tests suggested chloride concentrations were less than NMOCD regulatory standards.

On January 3, 2013, six (6) soil samples (Floor, West Wall, North Wall, South Wall, East Wall and East Floor) were collected from the excavation floor and sidewalls and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. TPH concentrations were less than the appropriate laboratory MDL for each of the submitted samples, with the exception of soil sample North Wall, which had a concentration of 98.0 mg/Kg. Chloride concentrations ranged from 19.6 mg/Kg for soil sample East Floor to 655 mg/Kg for soil sample North Wall. BTEX, TPH and chloride concentrations were below NMOCD regulatory standards in each of the submitted soil samples, but further delineation would be required in the areas represented by soil samples North Wall, South Trench #2 and South Trench #4.

On January 17, 2012, upon receiving laboratory analytical results from the latest soil sampling event, Basin revisited the remediation site in an effort to fully delineate the areas exhibiting chloride concentrations above 250 mg/Kg. A delineation trench was advanced off of the northern sidewall in the area represented by soil sample North Wall. During the advancement of the delineation trench, two (2) soil samples (North Wall #2 @ 4' and North Wall #2 @ 8') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentration was 4.38 mg/Kg for soil sample North Wall #2 @ 4' and 2.42 mg/Kg for soil sample North Wall #2 @ 8'

A delineation trench was advanced approximately ten feet (10') to the southeast of soil sample South Trench #4. During the advancement of the delineation trench, two (2) soil samples (South Trench #5 @ 4' and South Trench #5 @ 8') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentration was 14.5 mg/Kg for South Trench #5 @ 4' and 5.26 mg/Kg for South Trench #5 @ 8'.

An additional delineation trench (West Floor Trench) was advanced in the floor of the excavation in the area represented by soil samples South Trench #2, South Trench #3 and Floor. The delineation trench was advanced to approximately eighteen feet (18') bgs. During the advancement of the delineation trench, two (2) soil samples (West Floor Trench @ 16' and West Floor Trench @ 18') were collected and submitted to laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentration was 701 mg/Kg for West Floor Trench @ 16' and 255 mg/Kg for West Floor Trench @ 18'. Soil sample West Floor Trench @ 18' was also analyzed for TPH concentrations, which were determined to be less

than the laboratory MDL. Based on laboratory analytical results, it was determined that vertical delineation had been achieved.

Between January 9 and 15, 2012, approximately five hundred and twenty cubic yards (520 yd<sup>3</sup>) of impacted material was hauled to Sundance Services, Inc. (NMOCD Permit # NM-01-003) for disposal. The final dimensions of the excavation were approximately forty-eight feet (48') in length, thirty feet (30') in width and ten feet (10') in depth.

On January 25, 2012, upon receiving NMOCD approval, the excavation was backfilled with locally purchased, non-impacted soil. Backfill was compacted in lifts and contoured to match the surrounding topography. The site will be reseeded at a time more conducive to germination.

### 4.0 QA/QC PROCEDURES

### 4.1 Soil Sampling

Soil samples were delivered to Xenco Laboratories, Inc., 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 300.1

### 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 floor and sidewalls of the A-14 6" Line excavation were analyzed by an NMOCD-approved laboratory, which determined concentrations of benzene, BTEX, TPH and chloride were less than the regulatory remediation action levels established for the site. Based on these laboratory analytical results, Basin recommends Southern Union provide the NMOCD Hobbs District Office and the BLM a copy of this *Remediation Summary & Site Closure Request* and request the NMOCD grant site closure to the A-14 6" Line 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, New Mexico 88240 GeoffreyR.Leking@state.nm.us

Copy 2: James Amo

Bureau of Land Management

602 E. Greene Street

Carlsbad, New Mexico 88220 James Amos@blm.gov

Copy 3: Rose Slade

Southern Union Gas Services

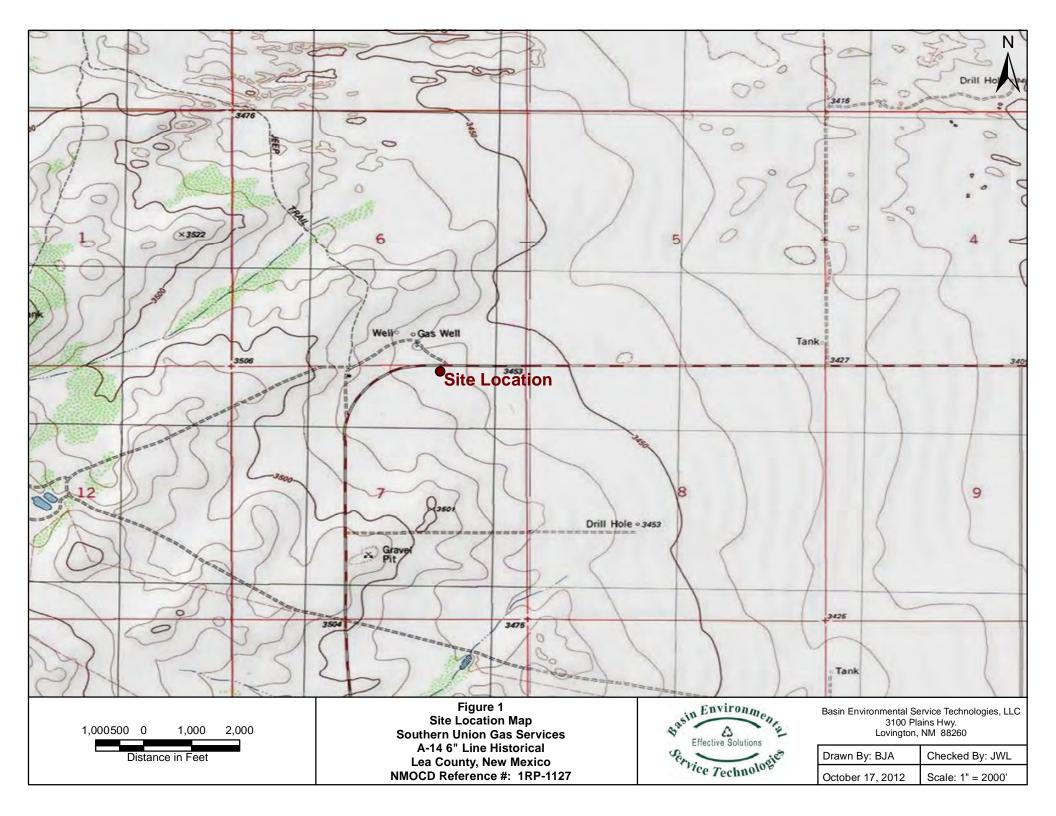
801 S. Loop 464

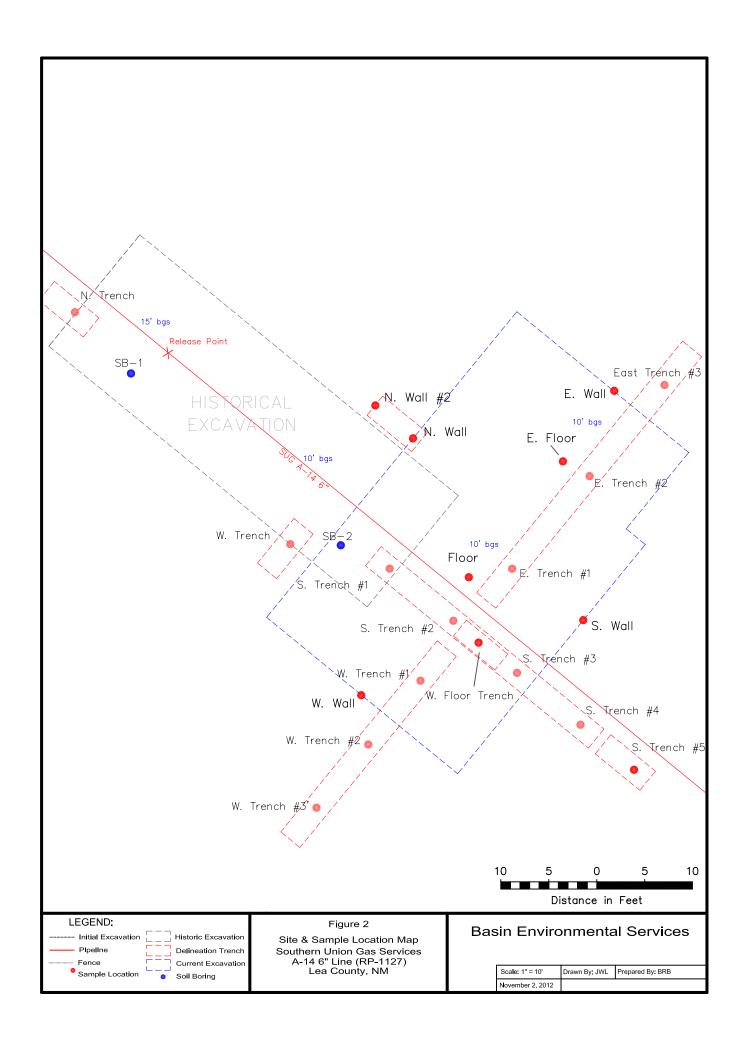
Monahans, Texas 79756 rose.slade@sug.com

Copy 4: Basin Environmental Service Technologies, LLC

P.O. Box 301

Lovington, New Mexico 88260





### TABLE 1

### HISTORICAL CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

# SOUTHERN UNION GAS SERVICES A-14 6" LINE HISTORICAL RELEASE SITE LEA COUNTY, NEW MEXICO NMOCD REF# 1RP-1127

	METHOD: EPA SW 846-8021B, 5030 METHOD: 8015M						5M	TOTAL	EPA: 300				
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	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)	TPH C <sub>6</sub> -C <sub>28</sub> (mg/Kg)	CHLORIDE (mg/Kg)
PR @ 7' #3 A	7'	12/22/2006	N/A	0.0152	0.243	0.140	2.98	3.378	1,680	2,750	76	4,506	-
PR @ 9'	9'	12/22/2006	N/A	0.317	6.42	3.39	14.01	24.137	7,990	7,410	273	15,700	-
SM #1 of 2	N/A	12/22/2006	N/A	-	-	-	-	-	-	-	-	-	5,420
SM #2 of 2	N/A	12/22/2006	N/A	-	-	-	-	-	-	-	-	-	5,530
NW- Comp.	N/A	12/22/2006	N/A	-	-	-	-	-	267	555	39	861	-
WW- Comp.	N/A	12/22/2006	N/A	-	-	-	-	-	2,000	3,450	65	5,510	-
EW- Comp.	N/A	12/22/2006	N/A	-	-	-	-	-	260	855	53	1,170	-
B- Comp.	N/A	12/22/2006	N/A	-	-	-	-	-	7,000	7,070	55	14,100	-
SP-1 Comp.	N/A	12/22/2006	Stockpiled	-	-	-	-	-	659	2,110	102	2,870	-
SP-2 Comp.	N/A	12/22/2006	Stockpiled	-	-	-	-	-	479	1,630	69.8	2,180	-
·													
PR @15'	15'	1/3/2007	N/A	0.897	14.3	4.25	118.8	138.25	4,880	4,360	100	9,340	437
PR-Comp	N/A	1/3/2007	N/A	-	-	-	-	-	4,110	4,500	103	8,710	-
·													
PR @ 18'	18'	1/10/2007	N/A	<0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	17.8	68.7	<10.0	86.5	-
NE 1/4B @ 18'4"	18' 4"	1/29/2007	N/A	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	-
SW 1/4 B Comp. @ 18', 18' 4", 18' 9"	N/A	1/29/2007	N/A	-	-	-	-	-	748	1,290	52.8	2,090	-
SW 1/4 B @ 19'10"	19' 10"	1/29/2007	N/A	-	-	-	-	-	2,280	3,380	112	5,770	-
SP-1 Comp.	N/A	2/6/2007	Stockpiled	-	-	-	-	-	194	639	31.5	864	-
SP-2 Comp.	N/A	2/6/2007	Stockpiled	-	-	-	-	-	290	894	34.0	1,220	-
SP-3 Comp.	N/A	2/6/2007	Stockpiled	-	-	-	-	-	211	1,080	38.0	1,330	-
SP-4 Comp.	N/A	2/6/2007	Stockpiled	-	-	-	-	-	183	1,140	41.4	1,360	-
SP-5 Comp.	N/A	2/6/2007	Stockpiled	-	-	-	-	-	133	834	37.0	1,000	-
SP-6 Comp.	N/A	2/6/2007	Stockpiled	-	-	-	-	-	316	1,660	65.9	2,040	-
SP-7 Comp.	N/A	2/6/2007	Stockpiled	-	-	-	-	-	267	1,290	33.0	1,590	-
SP-8 Comp.	N/A	2/6/2007	Stockpiled	-	-	-	-	-	198	1,130	46.2	1,370	-
SP-9 Comp.	N/A	2/6/2007	Stockpiled	-	-	-	-	-	235	1,110	43.9	1,390	-
SP-10 Comp.	N/A	2/6/2007	Stockpiled	<0.0250	0.0820	0.0590	2.89	3.03	760	2,080	55	2,890	-
										,		,	
S/W 1/4 @ 26.5'	26.5'	2/8/2007	N/A	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	-
NMOCD Standard				10				50				5,000	1,000

<sup>- =</sup> Not analyzed.

### TABLE 2

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

# SOUTHERN UNION GAS SERVICES A-14 6" LINE HISTORICAL RELEASE SITE LEA COUNTY, NEW MEXICO NMOCD REF# 1RP-1127

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	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)	TOTAL TPH C <sub>6</sub> -C <sub>28</sub> (mg/Kg)	CHLORIDE (mg/Kg)
SB-1 @ 5'	5'	12/19/2012	In-Situ	-	-	-	-	-	-	-	-	-	17.0
SB-1 @ 15'	15'	12/19/2012	In-Situ	-	-	-	-	-	<15.5	<15.5	<15.5	<15.5	67.4
SB-1 @ 25'	25'	12/19/2012	In-Situ	-	-	-	-	-	-	-	-	-	10.3
SB-1 @ 27'	27'	12/19/2012	In-Situ	<0.00102	< 0.00205	< 0.00102	< 0.00205	< 0.00205	<15.4	<15.4	<15.4	<15.4	11.2
SB-2 @ 5'	5'	12/19/2012	In-Situ	-	-	-	-	-	-	-	-	-	145
SB-2 @ 15'	15'	12/19/2012	In-Situ	-	-	-	-	-	<17.6	<17.6	<17.6	<17.6	185
SB-2 @ 25'	25'	12/19/2012	In-Situ	-	-	-	-	-	-	-	-	-	43.3
SB-2 @ 27'	27'	12/19/2012	In-Situ	<0.00101	<0.00203	<0.00101	<0.00203	<0.00203	<15.1	<15.1	<15.1	<15.1	54.4
North Sidewall	8'	12/21/2012	In-Situ		-	-	-	-	<19.2	<19.2	<19.2	<19.2	7.17
West Sidewall	8'	12/21/2012	In-Situ		-				<19.2	<19.2			
South Trench #1	8'	12/21/2012		-	-	-	-	-	<18.0	80.3	<19.6 <18.0	<19.6 80.3	7.48 191
South Trench #2	8'	12/21/2012	Excavated	-	-			-	<10.0	- 60.3	<10.0	- 00.3	1.930
South Trench #2 @ 14'	14'	12/21/2012	In-Situ	-		-		-			-		414
South Trench #3	8'	12/21/2012		-	-		-	-	-	-	-		2.580
South Trench #4	8'	12/21/2012	In-Situ	-		-		-	-		-		392
West Trench #1	8'	12/21/2012		-		-		_			_		1.400
West Trench #2	8'	12/21/2012	In-Situ	-				-	-	-	-		358
West Trench #3	8'	12/21/2012	In-Situ	-	-			-	-		-		226
East Trench #1	8'	12/21/2012		-	-		-	-	-	-	-		644
East Trench #2	8'	12/21/2012		-	-			-	-		-	-	588
East Trench #3	8'	12/21/2012	In-Situ	-				-	-		-		128
East Hench #3	0	12/21/2012	III-Silu	-	-	-	-	-	-	-	-	-	120
Floor	10'	1/3/2013	In-Situ	<0.00120	<0.00241	<0.00120	<0.00241	<0.00241	<17.9	<17.9	<17.9	<17.9	263
West Wall	8'	1/3/2013	In-Situ	< 0.00107	< 0.00215	< 0.00107	< 0.00215	< 0.00215	<16.1	<16.1	<16.1	<16.1	167
North Wall	8'	1/3/2013	In-Situ	<0.00111	< 0.00223	< 0.00111	< 0.00223	<0.00223	<16.7	98.0	<16.7	98.0	655
South Wall	8'	1/3/2013	In-Situ	< 0.00125	< 0.00250	< 0.00125	< 0.00250	<0.00250	<18.7	<18.7	<18.7	<18.7	233
East Wall	8'	1/3/2013	In-Situ	< 0.00106	< 0.00211	< 0.00106	< 0.00211	<0.00211	<15.8	<15.8	<15.8	<15.8	72.5
East Floor	8'	1/3/2013	In-Situ	< 0.00104	< 0.00209	< 0.00104	< 0.00209	< 0.00209	<15.7	<15.7	<15.7	<15.7	19.6
Stockpile	N/A	1/3/2013	Disposed	-	-	-	-	-	-	-	-	-	710
West Floor Tench @ 16'	16'	1/17/2013	In-Situ		-	-	-	-	-		_	-	701
West Floor Trench @ 18'	18'	1/17/2013	In-Situ	-	_	_	_	-	<17.9	<17.9	<17.9	<17.9	255
North Wall #2 @ 4'	4'	1/17/2013	In-Situ	-	_	_	_	-	-	-	-		4.38
North Wall #2 @ 8'	8'	1/17/2013	In-Situ	-	_	_	_	_	-	-	- 1		2.42
South Trench #5 @ 4'	4'	1/17/2013	In-Situ	-	_	_	_	_	-	_	_		14.5
South Trench #5 @ 8'	8'	1/17/2013	In-Situ	-	_	_	_	_	-	_	_	-	5.26
Countrion in Co		./11/2010	iii Oita										0.20
NMOCD Standard				10				50				5,000	1,000



Photograph of advancement of soil bores and collection of core sample at the A-14 6" Line Historical Release Site.



Photograph of delineation activities at the A-14 6" Line Historical Release Site.



Photograph of delineation activities at the A-14 6" Line Historical Release Site.



Photograph of the completed excavation at the A-14 6" Line Historical Release Site.



Photograph of the completed excavation at the A-14 6" Line Historical Release Site.



Photograph of the collection of soil sample North Wall #2 at the A-14 6" Line Historical Release Site.

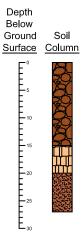


Photograph of backfilling activities at the A-14  $6^{\prime\prime}$  Line Historical Release Site.



Post-Remediation photograph of the A-14  $6^{\prime\prime}$  Line Historical Release Site.

## Soil Boring SB-1



### Soil Description

0' - 15' - Backfill

15' - 20' - Medium Hard Caliche

20' - 27' - Tan Red Silty Sand

### Boring SB-1

December 19, 2012 Date Drilled\_ Thickness of Bentonite Seal 25' Depth of Exploratory Boring \_\_\_\_\_27' bgs Depth to Groundwater N/A Ground Water Elevation



Indicates the PSH level measured on N/A
Indicates the groundwater level measured on N/A
Indicates samples selected for Laboratory Analysis.

### Completion Notes

- The soil boring was advanced on date using air rotary drilling techniques.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

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

Prep By: JWL Checked By: BJA January 3, 2013

**Southern Union Gas Services** A-14 6" Line Lea County, New Mexico NMOCD Reference #: 1RP-1127

## Soil Boring SB-2



### Soil Description

0' - 10' - Backfill

10' - 20' - Tan Silty Sand & Caliche

20' - 27' - Tan Silty Sand

### Boring SB-2

December 19, 2012 Date Drilled\_ Thickness of Bentonite Seal 25' Depth of Exploratory Boring \_\_\_\_\_27' bgs Depth to Groundwater N/A Ground Water Elevation





Indicates the PSH level measured on N/A
Indicates the groundwater level measured on N/A
Indicates samples selected for Laboratory Analysis.

### Completion Notes

- The soil boring was advanced on date using air rotary drilling techniques.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

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

Prep By: JWL Checked By: BJA January 3, 2013

**Southern Union Gas Services** A-14 6" Line Lea County, New Mexico NMOCD Reference #: 1RP-1127



# Analytical Report

### **Prepared for:**

Tony Savoie Southern Union Gas Services- Jal P.O. Box 1226 Jal, NM 88252

Project: A-14 6 inch
Project Number: 2006-054 North Leg

Location: Site #3

Lab Order Number: 6L22012

Report Date: 12/31/06

P.O. Box 1226 Jal NM, 88252 Project: A-14 6 inch

Project Number: 2006-054 North Leg

Project Manager: Tony Savoie

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PR@ 7' #3- A	6L22012-01	Soil	12/22/06 13:00	12-22-2006 15:50
PR@ 9'	6L22012-02	Soil	12/22/06 13:00	12-22-2006 15:50
SM #1 of 2	6L22012-03	Soil	12/22/06 13:00	12-22-2006 15:50
SM #2 of 2	6L22012-04	Soil	12/22/06 13:00	12-22-2006 15:50
NW- Comp.	6L22012-05	Soil	12/22/06 13:00	12-22-2006 15:50
WW- Comp.	6L22012-06	Soil	12/22/06 13:00	12-22-2006 15:50
EW- Comp.	6L22012-07	Soil	12/22/06 13:00	12-22-2006 15:50
B- Comp.	6L22012-08	Soil	12/22/06 13:00	12-22-2006 15:50
SP-1- Comp.	6L22012-09	Soil	12/22/06 13:00	12-22-2006 15:50
SP-2- Comp.	6L22012-10	Soil	12/22/06 13:00	12-22-2006 15:50
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	55.1	12/22/00 13:00	12-22-2000 1.

P.O. Box 1226 Jal NM, 88252

Project: A-14 6 inch

Project Number: 2006-054 North Leg

Project Manager: Tony Savoie

### Organics by GC **Environmental Lab of Texas**

Analyte	Result	Reporting Limit		Dilution	Batch	Prepared	Analyzed	Math - d	***
PR@ 7' #3- A (6L22012-01) Soil				Diffici	Buten	Trepared	Allalyzed	Method	Note
Benzene	J [0.0152]	0.0250	mg/kg dry	25	EL62807	12/27/06	12/28/06	EPA 8021B	
Toluene	0.243	0.0250			0	"	12/28/00	"	
Ethylbenzene	0.140	0.0250	w		71	10			
Xylene (p/m)	1.74	0.0250	0.		n :	*	· ir	-4	
Xylene (o)	1.24	0.0250	e.	ń.	6		- 6		
Surrogate: a.a.a-Trifluorotoluene		128 %	80-12	0	, i	"	"	n.	S-0
Surrogate: 4-Bromofluorobenzene		206 %	80-12	0		"	"	"	S-0
Carbon Ranges C6-C12	1680	10.0	mg/kg dry	-1	EL62218	12/22/06	12/23/06	EPA 8015M	5-0
Carbon Ranges C12-C28	2750	10.0	"		"	"	12/23/00	"	
Carbon Ranges C28-C35	76.0	10.0	ñ	-0				0	
Total Hydrocarbons	4510	10.0	ii ·	n				W.	
Surrogate: 1-Chlorooctane		164 %	70-130	2	•	,,	"	'W	
Surrogate: 1-Chlorooctadecane		140 %	70-130		,,	,,	,,	"	S-0- S-0-
PR@ 9' (6L22012-02) Soil									
Benzene	0.317	0.0250	mg/kg dry	25	EL62807	12/27/06	12/28/06	EPA 8021B	_
Гoluene	6.42	0.0250		"	"	"	12/28/00	"	
Ethylbenzene	3.39	0.0250	n	ii .	1.0			H	
Kylene (p/m)	32.5	0.0250					H		
Kylene (o)	9.43	0.0250	"			ж			
Surrogate: a,a,a-Trifluorotoluene		635 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		378 %	80-120		".	,,	,,	/#	S-04
Carbon Ranges C6-C12	7990	50.0	mg/kg dry	5	EL62218	12/22/06	12/22/06	EPA 8015M	S-04
Carbon Ranges C12-C28	7410	50.0	"		"	12/22/06	12/27/06	0 BO15W	
Carbon Ranges C28-C35	273	50.0				1.0			
otal Hydrocarbons	15700	50.0	11	10	in .	ŵ	H.		
urrogate: 1-Chlorooctane		70.0 %	70-130		"	*	"	ii	
urrogate: 1-Chlorooctadecane		45.2 %	70-130		"	,,	,,	w.	S-06 S-06
W- Comp. (6L22012-05) Soil									
arbon Ranges C6-C12	267	10.0	mg/kg dry	1	EL62218	12/22/06	12/23/06	EPA 8015M	-
arbon Ranges C12-C28	555	10.0	"	n	"	"	12/23/06	"	
arbon Ranges C28-C35	39.4	10.0	(r	н			ii.		
otal Hydrocarbons	861	10.0	n	ii.			-31	n e	
urrogate: 1-Chlorooctane		103 %	70-130			<i>i</i> i.	"	Ĥ	
urrogate: 1-Chlorooctadecane		114%	70-130					"	

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

P.O. Box 1226 Jal NM, 88252 Project: A-14 6 inch

Project Number: 2006-054 North Leg

Project Manager: Tony Savoie

### Organics by GC Environmental Lab of Texas

Environmental Lab of Texas												
Analyte	Result	Reporting Limit		Dilution	Batch	Prepared	Analyzed	Method	Note			
WW- Comp. (6L22012-06) Soil												
Carbon Ranges C6-C12	2000	10.0	mg/kg dry	1	EL62218	12/22/06	12/23/06	EPA 8015M				
Carbon Ranges C12-C28	3450	10.0			"	12/22/00	12/23/00	LI A BUTSIN				
Carbon Ranges C28-C35	64.7	10.0	- 11		9		**	0				
Total Hydrocarbons	5510	10.0			10	,,						
Surrogate: 1-Chlorooctane		198 %	70-1.	30		"	у,	"	24.0			
Surrogate: 1-Chlorooctadecane		182 %	70-1.		"	"	н	ir.	S-6 S-6			
EW- Comp. (6L22012-07) Soil												
Carbon Ranges C6-C12	260	10.0	mg/kg dry	1	EL62218	12/22/06	12/23/06	EPA 8015M	_			
Carbon Ranges C12-C28	855	10.0	.00		"	"	12/23/00	*				
Carbon Ranges C28-C35	53.4	10.0	**	4.				in .				
Total Hydrocarbons	1170	10.0	**					Ñ.				
Surrogate: 1-Chlorooctane		104 %	70-13	30	,		*	· W				
Surrogate: 1-Chlorooctadecane		114%	70-13	0		ii.	w	w				
B- Comp. (6L22012-08) Soil												
Carbon Ranges C6-C12	7000	10.0	mg/kg dry	T.	EL62218	12/22/06	12/23/06	EPA 8015M				
Carbon Ranges C12-C28	7070	10.0	11		6	"	12/23/00					
Carbon Ranges C28-C35	55.2	10.0					v	*				
Total Hydrocarbons	14100	10.0	16.	*	16	(0)	и.	4				
Surrogate: 1-Chlorooctane		254 %	70-13	0	· re	*	"	"	0.04			
Surrogate: 1-Chlorooctadecane		224 %	70-13			n -	n	n -	S-04 S-04			
6P-1- Comp. (6L22012-09) Soil												
Carbon Ranges C6-C12	659	10.0	mg/kg dry	1	EL62701	12/22/06	10/00/62	EPA 8015M	-			
Carbon Ranges C12-C28	2110	10.0		u u	" "	12/22/06	12/23/06	"				
Carbon Ranges C28-C35	102	10.0	ie	36			W.					
otal Hydrocarbons	2870	10.0	*									
urrogate: 1-Chlorooctane		155 %	70-130	)		u	"	,,				
urrogate: 1-Chlorooctadecane		164 %	70-130		"	,,	"	"	S-04			
		200					-		S-04			

Project: A-14 6 inch

Fax: 505-395-2326

P.O. Box 1226 Jal NM, 88252

Project Number: 2006-054 North Leg Project Manager: Tony Savoie

# Organics by GC Environmental Lab of Texas

Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
						1000		rotes
479	10.0	mg/kg dry	1	FL 62701	12/22/06	12/22/06	FPA 8015M	
1630	10.0	"			12/22/00	12/23/00	"	
69.8	10.0		w.					
2180	10.0	-0		"		**	n.	
	137 %	70-1.	30	<i>n</i> .	"	,,	"	200
	154 %			,	"	*		S-04 S-04
	479 1630 69.8	Result Limit  479 10.0 1630 10.0 69.8 10.0 2180 10.0	Result Limit Units  479 10.0 mg/kg dry 1630 10.0 " 69.8 10.0 " 2180 10.0 "	Result         Limit         Units         Dilution           479         10.0         mg/kg dry         I           1630         10.0         "         "           69.8         10.0         "         "           2180         10.0         "         "           137 %         70-130         "	Result         Limit         Units         Dilution         Batch           479         10.0         mg/kg dry         I         EL62701           1630         10.0         "         "         "           69.8         10.0         "         "         "           2180         10.0         "         "         "           137 %         70-130         "	Result         Limit         Units         Dilution         Batch         Prepared           479         10.0         mg/kg dry         I         EL62701         12/22/06           1630         10.0         "         "         "         "           69.8         10.0         "         "         "         "         "           2180         10.0         "         "         "         "         "         "	Result         Limit         Units         Dilution         Batch         Prepared         Analyzed           479         10.0         mg/kg dry         I         EL62701         12/22/06         12/23/06           1630         10.0         "         "         "         "         "           69.8         10.0         "         "         "         "         "         "           2180         10.0         "         "         "         "         "         "	Result         Limit         Units         Dilution         Batch         Prepared         Analyzed         Method           479         10.0         mg/kg dry         1         EL62701         12/22/06         12/23/06         EPA 8015M           1630         10.0         "         "         "         "         "         "           69.8         10.0         "

# Environmental Lab of Texas

Phone: 432-563-1800 CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST Odessa, Texas 79765 12600 West i-20 East

TAT brebnetz NPDES 222622 RUSH TAT (Pre-Schodule) 24, 48, 72 hrs Lone Star S 694 3000 6" WORTH 0 432-563-1713 TRRP M.S.O.N 0 54 BCI Laboratory Comments: Sample Containers Intect? Labais on container(s) Custody seals on container(s) Custody seals on cooler(s) Sample Hand Delivered by Eample Clent Rep. ? by Courier? UPS Dt 402.C. (1986) Temperatury Upon Receipt. BTEX 802 MISO30 or BTEX 8260 0 VOCs Free of Headspace? Analyze For Fax: Project # 2006 Standard A-14 Melals: As Ag Ba Cd Cr Pb Hg Se S TCLP SAR / ESP / CEC TOTAL Aniona(CL)SO4, Alkalinily) Project Name: Project Loc: PO # Cations (Ca. Mg. Na. K) Report Format: 8001 XT TX 1005 Hdi 2/2/04/15:50 Тт 80156 METOS 1.814 Hal Matrix is S Date Date Officer ( Specify) AOUG COSSEN HOEN OSTH HCI CONH 93 otal #. of Containers benetiil blei Fax No: e-mail. 00 Time Sampled 1 -1 1 Received by ELOT: 12.22-06 00 Received by: Received by 12-22 Date Sampled --1 11 88252 0 Ending Depth à H 0 610 COMMAKACE 0 0 0 Time me me 395-2116 Beginning Depth JAL. N.M. 0 0 JONY SAVOIE ZXXCL Date Date 5.4.65 505-FIELD CODE Company Address: Sampler Signature: Project Manager: COM EW-Comp. Company Name Charles - MAM WW-Comp Telephone No: City/State/Zip: Special Instructions: -4-65 SM Relinquished by: (lab use only) Relinquished by Relinquished by ORDER #: (Vino esu del) # 8A



# Analytical Report

### Prepared for:

Tony Savoie Southern Union Gas Services- Jal P.O. Box 1226 Jal, NM 88252

Project: A-14 6 Inch North Leg

Project Number: 2006-054

Site#3

Location: Delaware Basin Road

Lab Order Number: 7A03006

Report Date: 01/08/07

50 mb. 1310J

P.O. Box 1226 Jal NM, 88252 Project: A-14 6 Inch North Leg

Project Number: 2006-054 Project Manager: Tony Savoie

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PR @ 15'	7A03006-01	Soil	01/03/07 09:30	01-03-2007 13:37
PR-Comp	7A03006-02	Soil	01/03/07 09:30	01-03-2007 13:37

Southern Union Gas Services- Jal P.O. Box 1226 Jal NM, 88252

Project: A-14 6 Inch North Leg

Project Number: 2006-054
Project Manager: Tony Savoie

Fax: 505-395-2326

### Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PR @ 15' (7A03006-01) Soil					0.111.71	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	7 mary 200	Wethod	Notes
Benzene	0.897	0.200	mg/kg dry	200	EA70401	01/04/07	01/04/07	EPA 8021B	-
Toluene	14.3	0.200	. 11		10	"	01/04/07	"	
Ethylbenzene	4,25	0.200			ii-			11-	
Xylene (p/m)	95.1	0.200	10	,,	ii .	"			
Xylene (o)	23.7	0.200	0	и			n		
Surrogate: a,a,a-Trifluorotoluene		111%	80-12	20	ı,	"		"	
Surrogate: 4-Bromofluorobenzene		146 %	80-12		"		"	,,	S-04
Carbon Ranges C6-C12	4880	10.0	mg/kg dry	i	EA70303	01/03/07	01/03/07	EPA 8015M	3-04
Carbon Ranges C12-C28	4360	10.0	"		"	01/05/07	**	"	
Carbon Ranges C28-C35	100	10.0	0		n.				
Total Hydrocarbons	9340	10.0	"	100	ii .	ii.		· u	
Surrogate: 1-Chlorooctane		258 %	70-13	0	jr	"	,	ii.	S-04
Surrogate: 1-Chlorooctadecane		148 %	70-13	0	v	· ii	*	m	S-04
PR-Comp (7A03006-02) Soil									
Carbon Ranges C6-C12	4110	10.0	mg/kg dry	1	EA70303	01/03/07	01/03/07	EPA 8015M	_
Carbon Ranges C12-C28	4500	10.0			"	01/03/07	"	"	
Carbon Ranges C28-C35	103	10.0			0	q	in.		
Total Hydrocarbons	8710	10.0	9			24	**		
Surrogate: 1-Chlorooctane		272 %	70-130	9	w.	ii.	"	*	S-04
Surrogate: 1-Chlorooctadecane		176%	70-130	)	- 14	**	,,	w.	S-04
									12.17.4

Southern Union Gas Services- Jal P.O. Box 1226

Jal NM, 88252

Project: A-14 6 Inch North Leg

Project Number: 2006-054 Project Manager: Tony Savoie Fax: 505-395-2326

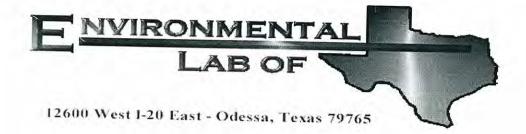
### General Chemistry Parameters by EPA / Standard Methods Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PR @ 15' (7A03006-01) Soil								7,040,0	
Chloride	437	20.0	mg/kg	40	EA70309	01/03/07	01/03/07	EPA 300.0	
% Moisture	8.4	0.1	%	E.	EA70406	01/03/07	01/04/07	% calculation	
PR-Comp (7A03006-02) Soil									
% Moisture	9.4	0.1	%	1	EA70406	01/03/07	01/04/07	% calculation	

# Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

	166	1	in Ragal		NPDES		anti	127	AT HRI (Pre-Schodule) 24, 48	SIS BU	2							2	222	2 2 2 2 2 3 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	x Lone Star	2.0.6
X G	Y	Project # 2008-05 4	Project Loc: VELOWARE BASIN	%0%	ormat: Estandard [] TRRP	Analyze For:	TCLP:	iotal	PH TX 1006 TX 1006 Sations (Ca. Mg. Nag. K) Iniona (Cl.) SOA. Alkalinity) Relas: As Ag Ba Cd Cr Pb Hg Solatiles Intervolatiles PH TEX (REL) SOGO OF BTEX 8260	8 8								Laboratory Comments: Sartiple Containers Intact?	VOCs Free of Headspace? Labels on container(s) Custody seals on container(s)	4	by Courier? UPS DHL	Temperature Upon Receipt:
	Proje		PTO		Report Format:		1	Matrix	tos (M2108) 1.811 Hq	1	1 7	-	-	+	+	H	+	1	Time	Time	Time	(337
East 9765					2			-	torec Ontror Other (Specify) W-Dinding Water SL-Sludge Water Groundwarer S-Solusohia		10								Date	Date	Dale	101-0307
12600 West i-20 East Odessa, Texas 79765								Preservation & # of Containers	Total # of Containers HUO3 HUO3 HUO3	7	1											W
					e-mail:				Time Sampled	9:30	9.30											moon
. W		8	8252						Dale Sampled	1-3-06	13								Received by:	Received by:	y ELOT	Lans
101		69	582	1	9			-	Ending Depth	15	140											
N		14	3	4	4			L	Reginning Depth		0	1							13:37	Time	BEI	
JOHN SAVOIE	54.65	610 Com MEACE	JOL NIM	505-305-2111	Decen					(gozeloss)	(46.3/63								1-3-07	Oute	<u>.</u>	
Project Manager:	Company Name	Company Address:	City/State/Zip:	Telephone No:	Sampler Signature:	1-	ORDER#: 740300G		FIELD CODE	+	or ( V Comp.						Special Instructions:	Relinguished by	9 m Lenn	Relinquished by:		



# Analytical Report

### Prepared for:

Tony Savoie Southern Union Gas Services- Jal P.O. Box 1226 Jal, NM 88252

Project: A-14 6" North Leg Site #3
Project Number: 2006-054
Location: Delaware Basin Road

Lab Order Number: 7A10015

Report Date: 01/15/07

P.O. Box 1226 Jal NM, 88252 Project: A-14 6" North Leg Site #3

Project Number: 2006-054 Project Manager: Tony Savoie

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
P.R. @ 18'	7A10015-01	Soil	01/10/07 11:00	01-10-2007 14:10

P.O. Box 1226 Jal NM, 88252 Project: A-14 6" North Leg Site #3

Fax: 505-395-2326

Project Number: 2006-054 Project Manager: Tony Savoie

### Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P.R. @ 18' (7A10015-01) Soil					22.08		, mary zea	Wichiod	Notes
Benzene	ND	0.0250	mg/kg dry	25	EA71014	01/10/07	01/12/07	EPA 8021B	
Toluene	J [0.0143]	0.0250		H.	11	"	11/12/07	LI A 6021B	1
Ethylbenzene	ND	0.0250	Ĥ		16	m ·	n.	10	J
Xylene (p/m)	0.0312	0.0250	ii.		ū	лic		ii .	
Xylene (o)	ND	0.0250					10		
Surrogate: a,a,a-Trifluorotoluene		97.8 %	80-1	20	"	"	n	n.	
Surrogate: 4-Bromofluorobenzene		96.5 %	80-1	20	"	"	"	ii.	
Carbon Ranges C6-C12	17.8	10.0	mg/kg dry	1	EA71007	01/10/07	01/13/07	EPA 8015M	
Carbon Ranges C12-C28	68.7	10.0	iii	0	"	"	01/13/07	U 3015W	
Carbon Ranges C28-C35	ND	10.0	0			0	w	0	
Total Hydrocarbons	86.5	10.0	in-	ii.				n ·	
Surrogate: 1-Chlorooctane		108 %	70-1.	30	"	11	n	"	
Surrogate: 1-Chlorooctadecane		119 %	70-1.		"	"	,,	"	

# Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Odessa, Texas 79765 12600 West I-20 East

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

Project Name: A-14 6 NORTH LEG

Project #: 2006-054

Project Loc: DELMWARE BASIN

# Od

Report Format:

Fax No:

4

JAL, N.M. 882

505-395-2116

Bull

Sampler Signature:

Telephone No:

City/State/Zip:

7A110015

ORDER #: (lab use only)

610 COMMERCE

Company Address:

TONY SAVOIR

Project Manager:

5.4.6.5.

Company Name

e-mail:

N Standard

E

Analyze For TCLP: TOTAL TAT brebnets

M.A.O.N

Volatiles

Hdl

:Hd1

None

Nazszon

OSZH HCI HNO 106

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Temperature Upon Receipt:

Lime

Received by ELOT:

Time

Date

7:16

116 67

H

by Sample /Client Rep.

ZZZZZZZ

Best Ose of Ose

Labels on container(s)
Custody seals on container(s)
Custody seals on cooler(s)
Sample Hand Delivered

Ime

Date

VOCs Free of Headspace? Sample Containers Intact?

me

Date

Received by:

Time

Date

Special Instructions:

Received by

-10-07 14:09 Date

elinquished by

re

Relinquished by:

Relinquished by

Laboratory Comments:

RUSH TAT (Pre-Schedule) 24, 48, 72 hrs

BTEX 80278/5030 or BTEX 8260

Metals: As Ag Ba Cd Cr Pb Hg Se

9001 XI

METOB

Specify Other

35108

heldes

Preservation & # of Contain

Anions (Cl., SO4, Alkalinity)

Cations (Ca, Mg, Na, K)

1X 1005

1.814

sidstoq-non=qu

DW=Drinking Water

Other (Specify)

otal # of Containers Filtered

Time Sampled

Date Sampled

Ending Depth

FIELD CODE

 $\vec{0}$ 

Beginning Depth

LAB # (lab use only)

11:00

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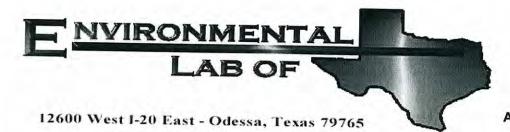
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A Xenco Laboratories Company

# Analytical Report

### Prepared for:

Tony Savoie Southern Union Gas Services- Jal P.O. Box 1226 Jal, NM 88252

Project: A-14 6" North Leg Project Number: 2006-054 Location: Site #3

Lab Order Number: 7A29025

Report Date: 02/05/07

P.O. Box 1226 Jal NM, 88252 Project: A-14 6" North Leg

Project Number: 2006-054 Project Manager: Tony Savoie

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	
NE 1/4 B@ 18'4"	7A29025-01	Soil	01/29/07 11:30		
SW 1/4 B Comp.@ 18', 18' 4", 18' 9"	7A29025-02	Soil	01/29/07 11:30	01-29-2007 15:0	
SW 1/4 B@ 19'10"	7A29025-03			01-29-2007 15:0	
	7A29023-03	Soil	01/29/07 11:30	01-29-2007 15:07	

P.O. Box 1226 Jal NM, 88252 Project: A-14 6" North Leg

Fax: 505-395-2326

Project Number: 2006-054 Project Manager: Tony Savoie

### Organics by GC Environmental Lab of Texas

			mental L	uo or .	CAUS				
Analyte	Result	Reporting Limit		Dilution	Batch	Prepared	Analyzed	Method	Note
NE 1/4 B@ 18'4" (7A29025-01) Soil	Or The State of th							1 2 2 2 2 2 2	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	Í	EA73008	01/30/07	02/02/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0		n		W	"		
Carbon Ranges C28-C35	ND	10.0		w		Ü	w	11	
Total Hydrocarbons	ND	10.0					n ·	-0	
Surrogate: 1-Chlorooctane		88.8 %	70-1.	30		"	,	"	
Surrogate: 1-Chlorooctadecane		88.2 %	70-1.	30	w	,,	"	ä	
SW 1/4 B Comp.@ 18', 18' 4'', 18' 9'	'' (7A29025-02) S	Soil							
Carbon Ranges C6-C12	748	10.0	mg/kg dry	1	EA73008	01/30/07	02/02/07	EPA 8015M	
Carbon Ranges C12-C28	1290	10.0		н	"	"	"	"	
Carbon Ranges C28-C35	52.8	10.0			ò	- 11	96		
Total Hydrocarbons	2090	10.0	96		n			-	
Surrogate: 1-Chlorooctane		138 %	70-13	30	"	ii.	"	n	S-04
Surrogate: 1-Chlorooctadecane		117%	70-13	30	"	"	"	n	5-04
SW 1/4 B@ 19'10" (7A29025-03) So	il .								
Carbon Ranges C6-C12	2280	10.0	mg/kg dry	1	EA73008	01/30/07	02/02/07	EPA 8015M	
Carbon Ranges C12-C28	3380	10.0	ij.	(#)		11	"		
Carbon Ranges C28-C35	112	10.0		n i			,	ii .	
Total Hydrocarbons	5770	10.0	- ii		, in	16.	,	ii.	
Surrogate: 1-Chlorooctane		228 %	70-13	30	"	"		ii .	S-04
Surrogate: 1-Chlorooctadecane		167 %	70-13	80	"	u	**		S-04

# Environmental Lab of Texas

NPDES RUSH TAT (Pre-Schedule) 24, 48, 72 hrs. ZZZZZZZ Westh LEG Fax: 432-563-1713 Phone: 432-563-1800 CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST TRRP M.A.O.M. 2006-054 # BCI BTEX 80218/5030 or BTEX 8260 Sample Containers Intact? Analyze For d Laboratory Comments: L Standard Project Name: A-14 Metals: As Ag Ba Cd Cr Pb Hg Se TCLP: TOTAL SAR / ESP / CEC Anions (CI, SO4, Alkalinity) Project #: # Od Project Loc: Cations (Ca, Mg, Na, K) Report Format: 9001 XI TX 1005 HdI B015B WG108 1.814 Hal Specify Other Matrix Non allage S 8 Other (Specify) Preservation & # of Containers Odessa, Texas 79765 12600 West I-20 East Na2S2O3 HOPN OSZH HCI HNO Total #, of Containers ield Filtered Fax No: e-mail: Time Sampled 4 47 -39.07 Date Sampled 887 1 1 4,8 505-395. 2116 910 610 COMMERCE Ending Depth Loen Tony SAVOIR Beginning Depth W.M 5.9.45 306 Hon FIELD CODE NA79025 Company Address: Sampler Signature: Project Manager: Company Name Telephone No: City/State/Zip: Special instructions: 30 Relinguished by: (lab use only) ORDER #:

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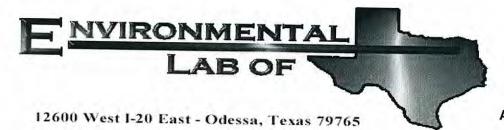
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VOCs Free of Headspace?

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A Xenco Laboratories Company

# Analytical Report

### Prepared for:

Tony Savoie Southern Union Gas Services- Jal P.O. Box 1226 Jal, NM 88252

Project: A-14 6" North Leg Site #3
Project Number: 2006-054
Location: Site 3

Lab Order Number: 7B06012

Report Date: 02/12/07

Southern Union Gas Services- Jal P.O. Box 1226

P.O. Box 1226 Jal NM, 88252 Project: A-14 6" North Leg Site #3

Project Number: 2006-054 Project Manager: Tony Savoie

# ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Matrix	Date Sampled	Date Received
7B06012-01	Soil		02-06-2007 14:30
7B06012-02			02-06-2007 14:30
7B06012-03			02-06-2007 14:30
7B06012-04			02-06-2007 14:30
7B06012-05			02-06-2007 14:30
7B06012-06	Soil		02-06-2007 14:30
7B06012-07	Soil		02-06-2007 14:30
7B06012-08	Soil		02-06-2007 14:30
7B06012-09	Soil	A AMERICAN CONTRACTOR	02-06-2007 14:30
7B06012-10	Soil		02-06-2007 14:30
	7B06012-01 7B06012-02 7B06012-03 7B06012-04 7B06012-05 7B06012-06 7B06012-07 7B06012-08 7B06012-09	7B06012-01 Soil 7B06012-02 Soil 7B06012-03 Soil 7B06012-04 Soil 7B06012-05 Soil 7B06012-06 Soil 7B06012-07 Soil 7B06012-08 Soil 7B06012-09 Soil	7B06012-01 Soil 02/06/07 11:00 7B06012-02 Soil 02/06/07 11:00 7B06012-03 Soil 02/06/07 11:00 7B06012-04 Soil 02/06/07 11:00 7B06012-05 Soil 02/06/07 11:00 7B06012-06 Soil 02/06/07 11:00 7B06012-07 Soil 02/06/07 11:00 7B06012-08 Soil 02/06/07 11:00 7B06012-09 Soil 02/06/07 11:00

Fax: 505-395-2326

Southern Union Gas Services- Jal P.O. Box 1226

Jal NM, 88252

Project: A-14 6" North Leg Site #3

Project Number: 2006-054 Project Manager: Tony Savoie Fax: 505-395-2326

		LHVII OIII	mental L	ab of	lexas				
Analyte	Result	Reporting Limit		Dilution	Batch	Prepared	Analyzed	Method	Note
SP 1 Comp. (7B06012-01) Soil									.,010
Carbon Ranges C6-C12	194	10.0	mg/kg dry	ĭ	EB70807	02/08/07	02/11/07	EPA 8015M	
Carbon Ranges C12-C28	639	10.0	"	10	"	11	02/11/0/	LIA 8015W	
Carbon Ranges C28-C35	31.5	10.0	n n	0-	n.	n.	ii ii	"	
Total Hydrocarbons	864	10.0	n						
Surrogate: 1-Chlorooctane		80.4 %	70-1	30	,	"	"	"	
Surrogate: 1-Chlorooctadecane		73.8 %	70-1		"	*	"	n)	
SP 2 Comp. (7B06012-02) Soil									
Carbon Ranges C6-C12	290	10.0	mg/kg dry	1	EB70807	02/08/07	02/11/07	EPA 8015M	
Carbon Ranges C12-C28	894	10.0	И		"	11	02/11/07	# W	
Carbon Ranges C28-C35	34.0	10.0							
Total Hydrocarbons	1220	10.0	n in	. 0	,,				
Surrogate: 1-Chlorooctane		85.0 %	70-1.	30	ŋ	n	,	"	
Surrogate: 1-Chlorooctadecane		71.2 %	70-1.		"	,,	"	"	
SP 3 Comp. (7B06012-03) Soil									
Carbon Ranges C6-C12	211	10.0	mg/kg dry	1	EB70807	02/08/07	02/11/07	EPA 8015M	
Carbon Ranges C12-C28	1080	10.0	n .		"	02/06/07	02/11/07	LI A GOTSIVI	
Carbon Ranges C28-C35	38.0	10.0	n	ū	-				
Total Hydrocarbons	1330	10.0	Ü			ir	n i		
Surrogate: 1-Chlorooctane		89.2 %	70-13	30	"		,		
Surrogate: 1-Chlorooctadecane		83.6 %	70-13			,,	,,	,,	
SP 4 Comp. (7B06012-04) Soil									
Carbon Ranges C6-C12	183	10.0	mg/kg dry	1	EB70807	02/08/07	02/11/07	EPA 8015M	_
Carbon Ranges C12-C28	1140	10.0	"		LD/080/	02/08/07	02/11/07	EPA 8015W	
Carbon Ranges C28-C35	41.4	10.0	ir.						
Total Hydrocarbons	1360	10.0		9	11			ii.	
Surrogate: 1-Chlorooctane		84.4 %	70-13	0	"	,,		"	
urrogate: 1-Chlorooctadecane		82.2 %	70-13		,,	"			
g solution in		02.2 70	70-13	U	.,,	"	"	"	

Southern Union Gas Services- Jal P.O. Box 1226

Jal NM, 88252

Project: A-14 6" North Leg Site #3

Project Number: 2006-054 Project Manager: Tony Savoie Fax: 505-395-2326

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Analyte	Result	Reporting Limit		Dilution	Batch	Prepared	Analyzed	Method	Note
SP 5 Comp. (7B06012-05) Soil								, , , , , , , , , , , , , , , , , , ,	11010
Carbon Ranges C6-C12	133	10.0	mg/kg dry	1	EB70807	02/08/07	02/11/07	EPA 8015M	
Carbon Ranges C12-C28	834	10.0		,	"	02/08/07	02/11/0/	E1 74 8015W1	
Carbon Ranges C28-C35	37.0	10.0	-11		n.		in .	10	
Total Hydrocarbons	1000	10.0	- n		0	- 1	n n	n-	
Surrogate: 1-Chlorooctane		80.2 %	70-1	30	u	"	- in	"	
Surrogate: 1-Chlorooctadecane		76.2 %			.,,		,,		
SP 6 Comp. (7B06012-06) Soil									
Carbon Ranges C6-C12	316	10.0	mg/kg dry	11	EB70807	02/08/07	02/11/07	EPA 8015M	
Carbon Ranges C12-C28	1660	10.0	**		,	11	"		
Carbon Ranges C28-C35	65.9	10.0		- 11					
Total Hydrocarbons	2040	10.0		9-			ñ		
Surrogate: 1-Chlorooctane		97.0 %	70-13	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		93.8 %	70-13	30	u	"	n	"	
SP 7 Comp. (7B06012-07) Soil									
Carbon Ranges C6-C12	267	10.0	mg/kg dry	i	EB70807	02/08/07	02/11/07	EPA 8015M	
Carbon Ranges C12-C28	1290	10.0	**	0	"	"	"	"	
Carbon Ranges C28-C35	33.0	10.0		10.0	. 0	n	100	cii i	
Total Hydrocarbons	1590	10.0					iic	n .	
Surrogate: 1-Chlorooctane		93.6 %	70-13	80			n	,,	
Surrogate: 1-Chlorooctadecane		87.0 %	70-13		"	"	,,	n	
SP 8 Comp. (7B06012-08) Soil									
Carbon Ranges C6-C12	198	10.0	mg/kg dry	1	EB70807	02/08/07	02/11/07	EPA 8015M	
Carbon Ranges C12-C28	1130	10.0			"	11	02/11/07	" BUTSIVI	
Carbon Ranges C28-C35	46.2	10.0					Ü!	n	
Total Hydrocarbons	1370	10.0				100		n .	
Surrogate: 1-Chlorooctane		87.0 %	70-13	0	"	-	<b>n</b>	n	
iurrogate: 1-Chlorooctadecane		83.8 %	70-13		n	"	"	· ·	

Southern Union Gas Services- Jal P.O. Box 1226 Jal NM, 88252

Project: A-14 6" North Leg Site #3

Fax: 505-395-2326

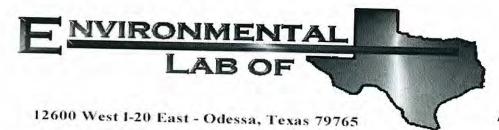
Project Number: 2006-054 Project Manager: Tony Savoie

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Analyte	Result	Reporting Limit		Dilution	Batch	Prepared	Analyzed	Method	Note
SP 9 Comp. (7B06012-09) Soil					100		Tutayzed	Withou	Note
Carbon Ranges C6-C12	235	10.0	mg/kg dry		EB70807	02/08/07	02/11/07	EPA 8015M	
Carbon Ranges C12-C28	1110	10.0	11		LD/0307	02/08/07	02/11/07	EFA 8015M	
Carbon Ranges C28-C35	43.9	10.0							
Total Hydrocarbons	1390	10.0			- 10	n.			
Surrogate: 1-Chlorooctane		94.6%	70-1.	30	w	-	,,	"	
Surrogate: 1-Chlorooctadecane		85.4 %	70-1.		"	,	"	"	
SP 10 Comp. (7B06012-10) Soil									
Carbon Ranges C6-C12	760	10.0	mg/kg dry	1	EB70807	02/08/07	02/11/07	EPA 8015M	
Carbon Ranges C12-C28	2080	10.0	10	,	"	02/08/07	02/11/07	EFA 8015M	
Carbon Ranges C28-C35	54.7	10.0	ii.	u			ar.		
Total Hydrocarbons	2890	10.0	n	n					
Surrogate: 1-Chlorooctane		122 %	70-13	30	"	,,	*		
Surrogate: 1-Chlorooctadecane		103 %	70-13			"	n	"	

# **Environmental Lab of Texas**

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A Xenco Laboratories Company

# Analytical Report

# Prepared for:

Tony Savoie Southern Union Gas Services- Jal P.O. Box 1226 Jal, NM 88252

Project: A-14 6" North Leg Project Number: 2006-054 Location: Site #3

Lab Order Number: 7B09018

Report Date: 02/14/07

Southern Union Gas Services- Jal P.O. Box 1226 Jal NM, 88252

Project: A-14 6" North Leg

Project Number: 2006-054 Project Manager: Tony Savoie

# ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW 1/4 @ 26.5'	7B09018-01	Soil	02/08/07 00:00	02-09-2007 14:15

Fax: 505-395-2326

Southern Union Gas Services- Jal P.O. Box 1226 Jal NM, 88252

Project: A-14 6" North Leg

Project Number: 2006-054 Project Manager: Tony Savoie Fax: 505-395-2326

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SW 1/4 @ 26.5' (7B09018-01) Soil						- or prove	rmaryzed	iviethod	Notes
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EB71006	02/10/07	02/13/07	EPA 8015M	
Carbon Ranges C12-C28	J [6.07]	10.0	"	- 10		02/10/07	02/13/07	EFA 8015M	
Carbon Ranges C28-C35	ND	10.0			0		70		1
Total Hydrocarbons	ND	10.0	i ii	- 11			ir.		
Surrogate: 1-Chlorooctane		102 %	70-1	30	"	,,	74	*	
Surrogate: 1-Chlorooctadecane		102 %	70-1		ii-	ii.	"	,,	

# Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

NPDES Project Name: 4-14 6" N. 109 Phone: 432-563-1800 Fax: 432-563-1713 TRRP Project #: 2006-054 Analyze For: [] Standard Project Loc: 5, te # Od Report Format: 12600 West I-20 East Odessa, Texas 79765 e-mail: Fax No: Jul N.M. 88252 395-2116 Company Address: 610 Commerce Project Manager: Town Love Lore 505) Sampler Signature: Company Name Telephone No: City/State/Zip: (lab use only)

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	quished by:	Date	Time		Received by ELO	2						-	Date	-	Time		by C	ourier,	, loon	UPS			FedE	× Lor	e Sta

# **Analytical Report 454748**

# for Southern Union Gas Services- Monahans

Project Manager: Joel Lowry
A-14 6-Inch Line
RP-1127
31-DEC-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)





31-DEC-12

Project Manager: Joel Lowry

**Southern Union Gas Services- Monahans** 

801 South Loop 464 Monahans, TX 79756

Reference: XENCO Report No(s): 454748

A-14 6-Inch Line

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) 454748. 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. 454748 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 454748**



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

### A-14 6-Inch Line

Sample Id	Matrix	<b>Date Collected</b>	Sample Depth	Lab Sample Id
SB-1 @ 25'	S	12-19-12 08:40		454748-001
SB-1 @ 27'	S	12-19-12 08:50		454748-002
SB-2 @ 25'	S	12-19-12 09:40		454748-003
SB-2 @ 27'	S	12-19-12 09:50		454748-004

### **CASE NARRATIVE**



Client Name: Southern Union Gas Services- Monahans

Project Name: A-14 6-Inch Line



Project ID:RP-1127Report Date:31-DEC-12Work Order Number(s):454748Date Received:12/24/2012

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

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Final 1.000



**Contact:** Joel Lowry

Project Location: Lea County, NM

# **Certificate of Analysis Summary 454748**

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



Project Id: RP-1127 Project Name: A-14 6-Inch Line

**Date Received in Lab:** Mon Dec-24-12 03:00 pm

**Report Date:** 31-DEC-12

Project Manager: Nicholas Straccione

							I Toject Ma	nager.	Tricholas Straccione			
Lab Id:	454748-0	01	454748-0	02	454748-0	03	454748-0	004				
Field Id:	SB-1 @ 2	25'	SB-1 @ 2	27'	SB-2 @ 2	25'	SB-2 @	27'				
Depth:												
Matrix:	SOIL		SOIL		SOIL		SOIL					
Sampled:	Dec-19-12 (	08:40	Dec-19-12 0	08:50	Dec-19-12 0	9:40	Dec-19-12	09:50				
Extracted:			Dec-28-12 1	6:00			Dec-28-12	16:00				
C MAIS, TEES							ND	0.00101				
			ND	0.00205			ND	0.00203				
			ND	0.00102			ND	0.00101				
			ND	0.00205			ND	0.00203				
			ND	0.00102			ND	0.00101				
			ND	0.00102			ND	0.00101				
			ND	0.00102			ND	0.00101				
Extracted:	Dec-27-12	13:52	Dec-27-12 1	4:09	Dec-27-12 1	14:26	Dec-27-12	14:44				
Analyzed:	Dec-27-12	13:52	Dec-27-12 1	4:09	Dec-27-12 1	14:26	Dec-27-12	14:44				
Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
	10.3	1.02	11.2	1.02	43.3	1.02	54.4	1.01				
Extracted:												
Analyzed:	Dec-27-12	10:55	Dec-27-12 1	0:55	Dec-27-12 1	10:55	Dec-27-12	10:55				
Units/RL:	%	RL	%	RL	%	RL	%	RL				
	2.24	1.00	2.21	1.00	1.68	1.00	1.28	1.00				
Extracted:	Dec-27-12	12:00	Dec-27-12 1	2:00	Dec-27-12 1	12:00	Dec-27-12	12:00				
Analyzed:	Dec-27-12	20:13	Dec-27-12 2	20:40	Dec-27-12 2	21:06	Dec-27-12	21:33				
Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
	ND	15.3	ND	15.4	ND	15.2	ND	15.1				
	ND	15.3	ND	15.4	ND	15.2	ND	15.1				
	ND	15.3	ND	15.4	ND	15.2	ND	15.1				
	ND	15.3	ND	15.4	ND	15.2	ND	15.1				
	Field Id: Depth: Matrix: Sampled: Extracted: Analyzed: Units/RL:  Extracted: Analyzed: Units/RL:  Extracted: Analyzed: Units/RL:  Extracted: Analyzed: Analyzed: Analyzed:	Field Id: Depth: Matrix: SOIL Sampled: Dec-19-12 (  Extracted: Analyzed: Units/RL: Dec-27-12 Units/RL: mg/kg 10.3  Extracted: Analyzed: Units/RL: % 2.24  Extracted: Dec-27-12 Units/RL: mg/kg ND ND	Field Id:     Depth:     Matrix:	Field Id:         SB-1 @ 25'         SB-1 @ 2           Depth:         Matrix:         SOIL         SOIL           Sampled:         Dec-19-12 08:40         Dec-19-12 0           Extracted:         Dec-28-12 1         Dec-28-12 1           Analyzed:         Dec-28-12 1         mg/kg           ND         ND         ND           ND         ND         ND           Extracted:         Dec-27-12 13:52         Dec-27-12 1           Analyzed:         Dec-27-12 13:52         Dec-27-12 1           Units/RL:         mg/kg         RL         mg/kg           Extracted:         Analyzed:         Dec-27-12 10:55         Dec-27-12 1           Extracted:         Poc-27-12 10:55         Dec-27-12 1         Dec-27-12 1           Extracted:         Dec-27-12 10:00         Dec-27-12 1         Dec-27-12 1           Analyzed:         Dec-27-12 0:13         Dec-27-12 2         Dec-27-12 2           Units/RL:         mg/kg         RL         mg/kg           ND         15.3         ND           ND         15.3         ND           ND         15.3         ND	Field Id:         SB-1 @ 25'         SB-1 @ 27'           Depth:         Matrix:         SOIL         SOIL           Sampled:         Dec-19-12 08:40         Dec-19-12 08:50           Extracted:         Dec-28-12 16:00         Dec-28-12 17:53           Units/RL:         mg/kg         RL           ND         0.00102         ND         0.00102           ND         0.00102         ND         0.00102           ND         0.00102         ND         0.00102           Extracted:         Dec-27-12 13:52         Dec-27-12 14:09         Dec-27-12 14:09           Units/RL:         mg/kg         RL         mg/kg         RL           Units/RL:         Mg/kg         RL         mg/kg         RL           Littracted:         Analyzed:         Dec-27-12 10:55         Dec-27-12 10:55         Dec-27-12 10:05           Extracted:         Dec-27-12 10:55         Dec-27-12 10:00         Dec-27-12 10:00         Dec-27-12 10:00           Extracted:         Dec-27-12 10:00         Dec-27-12 20:40         Dec-27-12 20:40         Dec-27-12 20:40           Units/RL:         mg/kg         RL         mg/kg         RL           ND         15.3         ND         15.4	Field Id:         SB-1 @ 25'         SB-1 @ 27'         SB-2 @ 2           Depth:         Matrix:         SOIL         SOIL         SOIL           Sampled:         Dec-19-12 08:40         Dec-19-12 08:50         Dec-19-12 0           Extracted:         Dec-28-12 17:53         Dec-19-12 0           Analyzed:         Dec-28-12 17:53         MD         0.00102           ND         0.00205         ND         0.00205           ND         0.00102         ND         0.00102           Extracted:         Dec-27-12 13:52         Dec-27-12 14:09         Dec-27-12 1           Analyzed:         Dec-27-12 13:52         Dec-27-12 14:09         Dec-27-12 1           Units/RL:         mg/kg         RL         mg/kg         RL         mg/kg           Units/RL:         Mg/kg         RL         mg/kg         RL         mg/kg           Units/RL:         %         RL         %         RL         %           Extracted:         Analyzed:         Dec-27-12 10:55         Dec-27-12 10:05         Dec-27-12 10:05         Dec-27-12 10:00         Dec-27-12 10:00<	Field Id:         SB-1 @ 25'         SB-2 @ 25'           Matrix:         SOIL         SOIL <th <="" colspan="2" th=""><th>Lab Id:         454748-001         454748-002         454748-003         454748-08           Field Id:         SB-1 @ 25¹         SB-1 @ 27¹         SB-2 @ 25¹         SB-2 @           Matrix:         SOIL         SOIL</th><th>Lab Id:         454748-001         454748-002         454748-003         454748-004         454748-004         Field Id:         SB-1 @ 25'         SB-1 @ 27'         SB-2 @ 25'         SB-2 @ 27'         SB-2 @ 27'</th><th>Field Id:         SB-1 @ 25'         SB-1 @ 27'         SB-2 @ 25'         SB-2 @ 27'           Depth:         Matrix:         SOIL         SOIL</th></th>	<th>Lab Id:         454748-001         454748-002         454748-003         454748-08           Field Id:         SB-1 @ 25¹         SB-1 @ 27¹         SB-2 @ 25¹         SB-2 @           Matrix:         SOIL         SOIL</th> <th>Lab Id:         454748-001         454748-002         454748-003         454748-004         454748-004         Field Id:         SB-1 @ 25'         SB-1 @ 27'         SB-2 @ 25'         SB-2 @ 27'         SB-2 @ 27'</th> <th>Field Id:         SB-1 @ 25'         SB-1 @ 27'         SB-2 @ 25'         SB-2 @ 27'           Depth:         Matrix:         SOIL         SOIL</th>		Lab Id:         454748-001         454748-002         454748-003         454748-08           Field Id:         SB-1 @ 25¹         SB-1 @ 27¹         SB-2 @ 25¹         SB-2 @           Matrix:         SOIL         SOIL	Lab Id:         454748-001         454748-002         454748-003         454748-004         454748-004         Field Id:         SB-1 @ 25'         SB-1 @ 27'         SB-2 @ 25'         SB-2 @ 27'         SB-2 @ 27'	Field Id:         SB-1 @ 25'         SB-1 @ 27'         SB-2 @ 25'         SB-2 @ 27'           Depth:         Matrix:         SOIL         SOIL

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.

**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

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<sup>\*</sup> Surrogate recovered outside laboratory control limit.



# **Form 2 - Surrogate Recoveries**

**Project Name: A-14 6-Inch Line** 

**Work Orders:** 454748, 454748

Project ID: RP-1127

Units: mg/kg Date Analyzed: 12/27/12 20:13	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.9	106	70-135	
o-Terphenyl	49.9	50.0	100	70-135	

Units: mg/kg Date Analyzed: 12/27/12 20:40	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
•					
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	49.4	50.1	99	70-135	

Units: mg/kg Date Analyzed: 12/27/12 21:06	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	102	99.9	102	70-135			
o-Terphenyl	48.9	50.0	98	70-135			

Units: mg/kg Date Analyzed: 12/27/12 21:33	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	105	99.7	105	70-135			
o-Terphenyl	51.2	49.9	103	70-135			

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 12/28/12 17:53	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Difluorobenzene	0.0264	0.0300	88	80-120			
4-Bromofluorobenzene	0.0247	0.0300	82	80-120			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 \* A / B

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



4-Bromofluorobenzene

# Form 2 - Surrogate Recoveries

**Project Name: A-14 6-Inch Line** 

Work Orders: 454748, 454748

Project ID: RP-1127

81

80-120

Lab Batch #: 903888 **Sample:** 454748-004 / SMP Batch: Matrix: Soil

SURROGATE RECOVERY STUDY Units: mg/kg **Date Analyzed:** 12/28/12 19:16 Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits **Flags** %R [A] [B] %R [D] **Analytes** 1,4-Difluorobenzene 0.0279 0.0300 93 80-120 0.0300

0.0243

Matrix: Solid Lab Batch #: 903786 Sample: 631807-1-BLK / BLK Batch: 1

SURROGATE RECOVERY STUDY Units: mg/kg Date Analyzed: 12/27/12 15:52 Amount True Control TPH By SW8015 Mod **Found** Amount Recovery Limits **Flags** [A] [B] %R %R [D] **Analytes** 1-Chlorooctane 94.4 100 94 70-135 o-Terphenyl 44.7 50.1 89 70-135

**Sample:** 631865-1-BLK / BLK **Lab Batch #:** 903888 Matrix: Solid Batch: 1

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 12/28/12 17:37	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Difluorobenzene	0.0250	0.0300	83	80-120			
4-Bromofluorobenzene	0.0242	0.0300	81	80-120			

Lab Batch #: 903786 **Sample:** 631807-1-BKS / BKS Matrix: Solid Batch:

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 12/27/12 14:57	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
Analytes			נעו				
1-Chlorooctane	91.1	100	91	70-135			
o-Terphenyl	52.9	50.1	106	70-135			

Lab Batch #: 903888 **Sample:** 631865-1-BKS / BKS Matrix: Solid Batch: 1

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 12/28/12 17:04	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Difluorobenzene	0.0266	0.0300	89	80-120			
4-Bromofluorobenzene	0.0309	0.0300	103	80-120			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 \* A / B

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



# Form 2 - Surrogate Recoveries

**Project Name: A-14 6-Inch Line** 

**Work Orders:** 454748, 454748

Project ID: RP-1127

Lab Batch #: 903786 Sample: 631807-1-BSD / BSD Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 12/27/12 15:25	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	93.7	100	94	70-135			
o-Terphenyl	47.8	50.1	95	70-135			

**Lab Batch #:** 903888

**Sample:** 631865-1-BSD / BSD

Batch: 1

Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 12/28/12 17:20	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Difluorobenzene	0.0294	0.0300	98	80-120			
4-Bromofluorobenzene	0.0331	0.0300	110	80-120			

**Lab Batch #:** 903786

**Sample:** 454643-001 S / MS

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 12/27/12 16:52	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	84.9	100	85	70-135			
o-Terphenyl	49.3	50.1	98	70-135			

Lab Batch #: 903786

**Sample:** 454643-001 SD / MSD

Batch: 1

Matrix: Soil

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 12/27/12 17:23	SU	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	92.0	99.9	92	70-135			
o-Terphenyl	48.6	50.0	97	70-135			

**Lab Batch #:** 903888

**Sample:** 454748-002 SD / MSD

Batch:

Matrix: Soil

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 12/28/12 18:26	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Difluorobenzene	0.0331	0.0300	110	80-120			
4-Bromofluorobenzene	0.0297	0.0300	99	80-120			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 \* A / B

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



### **BS / BSD Recoveries**



**Project Name: A-14 6-Inch Line** 

**Work Order #:** 454748, 454748

**Date Prepared:** 12/28/2012 **Batch #:** 1

Project ID: RP-1127
Date Analyzed: 12/28/2012

Lab Batch ID: 903888

Analyst: KEB

Sample: 631865-1-BKS

Matrix: Solid

Matrix: Solid

Units: mg/kg

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

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Benzene	< 0.00100	0.100	0.0769	77	0.0994	0.0830	84	8	70-130	35	
Toluene	< 0.00201	0.100	0.0782	78	0.0994	0.0833	84	6	70-130	35	
Ethylbenzene	< 0.00100	0.100	0.0777	78	0.0994	0.0866	87	11	71-129	35	
m,p-Xylenes	< 0.00201	0.201	0.153	76	0.199	0.167	84	9	70-135	35	
o-Xylene	< 0.00100	0.100	0.0792	79	0.0994	0.0870	88	9	71-133	35	

Analyst: RKO Date Prepared: 12/27/2012 Date Analyzed: 12/27/2012

Lab Batch ID: 903747 Sample: 631776-1-BKS Batch #: 1 Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Units: mg/kg Blk. Spk Blank Spike Blank Blank Blank Control Control **Inorganic Anions by EPA 300/300.1** Spike Sample Result Added Spike Spike Spike Dup. RPD Limits Limits Flag Added [A] Result %R Duplicate %R % %R %RPD Result [F] [B] [C] [D] [G] [E] **Analytes** Chloride < 1.00 100 104 104 100 104 104 0 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: A-14 6-Inch Line** 

**Work Order #:** 454748, 454748

**Date Prepared:** 12/27/2012

Project ID: RP-1127 **Date Analyzed:** 12/27/2012

Analyst: KEB

**Lab Batch ID:** 903786

**Batch #:** 1 Sample: 631807-1-BKS

Matrix: Solid

Units: mg/kg		BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY									
TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1040	104	1000	1000	100	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	998	100	1000	966	97	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



**Work Order #:** 454748

**Lab Batch #:** 903747 **Date Analyzed:** 12/27/2012

**Date Prepared:** 12/27/2012

Project ID: RP-1127

Analyst: RKO Matrix: Soil

**QC- Sample ID:** 454701-001 S

Batch #:

Reporting Units: mg/kg	MATRIX	A / MATRIX SPIKE REC	OVERY STUDY	
Inorganic Anions by FPA 300	Parent	Spiked Sample	Control	

**Project Name: A-14 6-Inch Line** 

Inorganic Anions by EPA 300  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	49.9	135	178	95	80-120	

**Lab Batch #:** 903747

**Date Prepared:** 12/27/2012 Analyst: RKO **Date Analyzed:** 12/27/2012

**QC- Sample ID:** 454749-004 S Batch #: Matrix: Soil

Reporting Units: mg/kg 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	37.5	105	141	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: A-14 6-Inch Line** 

**Work Order #: 454748 Project ID: RP-1127** 

**Lab Batch ID:** 903786 **QC- Sample ID:** 454643-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 12/27/2012 Date Prepared: 12/27/2012 KEB

Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
TPH By SW8015 Mod	Parent Sample Result	Spike	Spiked Sample Result	Sample		Duplicate Spiked Sample	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag	
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	% <b>K</b> [G]	%0	% <b>K</b>	%RPD		
C6-C12 Gasoline Range Hydrocarbons	<16.3	1090	1020	94	1090	1070	98	5	70-135	35		
C12-C28 Diesel Range Hydrocarbons	<16.3	1090	1010	93	1090	1020	94	1	70-135	35		



# **Sample Duplicate Recovery**



**Project Name: A-14 6-Inch Line** 

**Work Order #:** 454748

**Lab Batch #:** 903714 **Project ID:** RP-1127

 Date Analyzed:
 12/27/2012 10:55
 Date Prepared:
 12/27/2012
 Analyst: RKO

 QC- Sample ID:
 454749-003 D
 Batch #:
 1
 Matrix: Soil

Reporting Units: %	SAMPLE / SAMPLE DUPLICATE RECOVERY							
Percent Moisture	Parent Sample Result [A]	Duplicate Result	RPD	Control Limits %RPD	Flag			
Analyte		[B]						
Percent Moisture	8.80	8.64	2	20				

**Lab Batch #:** 903714

 Date Analyzed:
 12/27/2012 10:55
 Date Prepared:
 12/27/2012
 Analyst: RKO

 QC- Sample ID:
 454754-001 D
 Batch #:
 1
 Matrix:
 Soil

Reporting Units: %	SAMPLE / SAMPLE DUPLICATE RECOVERY							
1 42 40 41 41 41 41 41 41 41 41 41 41 41 41 41	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag			
Analyte		[B]						
Percent Moisture	5.70	5.68	0	20				

# **Xenco Laboratories**

### 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:	Ben J. Argui	ijo; Joel Lowr	ry			<u> </u>		· —			· ·				<u></u> :		Pro	ject	Nan	1e: <u>A</u>	<u>\-14</u>	6-Ir	nch	Line		· 	<del></del>	<u>.</u>		
	Company Name	Basin Enviro	onmental Serv	vice T	echnol	ogies, LLC	<u> </u>			· · ·			· · · ·					4 19	Pre	oject	#: <u>(</u>	RP-	112	7)	• • • • • • • • • • • • • • • • • • • •				di na		
	Company Address:	P.O. Box 301	<u> </u>	<del></del>							<del></del>						-	P	roje	ct Lo	ж: <u>L</u>	ea C	oun	ty, N	M						
	City/State/Zip:	Lovington, N	IM 88260	· ::								: '								РО	#: <u>B</u>	ill S	outh	iern l	Union	ı Gar	s		4 <u>                                    </u>		<del></del>
	Telephone No:	(575)396-237	<b>/8</b>		<u> </u>		Fax No:	<u>(</u>	<u>(575</u>	5) 396	<u>6-14</u>	29	·:				Re	port	For	mat:	X	St	anda	ard		П т	RRF	<u>;</u>		NPD	ES
	Sampler Signature:	Quel.	Journ	$\chi$		:	e-mail:	1	ose	.slad	<u>e@s</u>	ug.co	<u>m. c</u>	yndi.in	ıskee	<u>p@</u> q	sug.co	<u>om, p</u>	<u>m@</u>	<u>basin</u>	env.c	<u>:0m</u>								: 	
(lab use		_/	1	O							-											TCLP	<b>)</b> :	ınalyz	ze Fo		T	$\top$	$\Box$	$\prod$	72 hrs
ORDEI	r#: 4547	48				:				Pre	serva	ation	& # C	of Cont	taine	_	Mat	_	83	T	T	TOTAL	+	+	1 1	X 8					48,
LAB#(lab use only)	FIEI	LD CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	lce	HNO <sub>3</sub>	HCI H.SO.	HOEN	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None		DW=Drinking Water SL=Sludg GW = Groundwater S=Soil/Soi	ion-Potable S		TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K) Anions (Cl SO4 Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Votatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	KCI NORM	N.C.K.M. CHLORIDES	Total Dissolved Solids		RUSH TAT (Pre-Schedule) 24, Standard TAT 4 DAY
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Special	Instructions:																			S	Samp	ie Co	ontai	iners	ents: Intac dspac	t?			<b>9</b>		N/A)
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### **XENCO Laboratories**



### Prelogin/Nonconformance Report- Sample Log-In

Client: Southern Union Gas Services- Monahan

Date/ Time Received: 12/24/2012 03:00:00 PM

Air and Metal samples Acceptable Range: Ambient

Acceptable Temperature Range: 0 - 6 degC

Temperature Measuring device used :

ork Order #: 45474	8	Temperature Measuring device used :
	Sample Receip	ot Checklist Comments
#1 *Temperature of co	poler(s)?	2.5
#2 *Shipping containe	er in good condition?	Yes
#3 *Samples received	d on ice?	Yes
#4 *Custody Seals in	tact on shipping container/ cooler?	Yes
#5 Custody Seals into	act on sample bottles?	Yes
#6 *Custody Seals Si	gned and dated?	Yes
#7 *Chain of Custody	present?	Yes
#8 Sample instruction	ns 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/ p	roperties agree with Chain of Custody?	Yes
#14 Samples in prope	er container/ bottle?	Yes
#15 Samples properly	y preserved?	Yes
#16 Sample containe	r(s) intact?	Yes
#17 Sufficient sample	amount for indicated test(s)?	Yes
#18 All samples rece	ived within hold time?	Yes
#19 Subcontract of sa	ample(s)?	Yes
#20 VOC samples ha	ve zero headspace (less than 1/4 inch b	bubble)? Yes
#21 <2 for all sample	s preserved with HNO3,HCL, H2SO4?	Yes
#22 >10 for all sampl	es preserved with NaAsO2+NaOH, ZnA	Ac+NaOH? Yes
	or after-hours delivery of samples pr	ior to placing in the refrigerator
Analyst:	PH Device/Lot#:	
Checklist	completed by:	Date: <u>12/26/2012</u>
Checklis	t reviewed by:	

Date: 12/26/2012

# **Analytical Report 454911**

# for Southern Union Gas Services- Monahans

Project Manager: Joel Lowry
A-14 6-Inch Line
(RP-1127)
07-JAN-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)





07-JAN-13

Project Manager: Joel Lowry

**Southern Union Gas Services- Monahans** 

801 South Loop 464 Monahans, TX 79756

Reference: XENCO Report No(s): 454911

A-14 6-Inch Line

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) 454911. 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. 454911 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Odessa - San Antonio - Tampa - Lakeland - Atlanta - Phoenix - Oklahoma - Latin America



# **Sample Cross Reference 454911**



# Southern Union Gas Services- Monahans, Monahans, TX

### A-14 6-Inch Line

Sample Id	Matrix	<b>Date Collected</b>	Sample Depth	Lab Sample Id
SB-1 @ 5'	S	12-19-12 08:30		454911-001
SB-1 @ 15'	S	12-19-12 08:35		454911-002
SB-2 @ 5'	S	12-19-12 09:30		454911-003
SB-2 @ 15'	S	12-19-12 09:35		454911-004

### **CASE NARRATIVE**



Client Name: Southern Union Gas Services- Monahans

Project Name: A-14 6-Inch Line



 Project ID:
 (RP-1127)
 Report Date: 07-JAN-13

 Work Order Number(s):
 454911
 Date Received: 12/31/2012

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



**Contact:** Joel Lowry

Project Location: Lea County, NM

# **Certificate of Analysis Summary 454911**

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



Project Id: (RP-1127) Project Name: A-14 6-Inch Line

**Date Received in Lab:** Mon Dec-31-12 11:38 am

**Report Date:** 07-JAN-13

Project Manager: Nicholas Straccione

								Project Mai	nager:	Nicholas Straccione	
	Lab Id:	454911-0	001	454911-0	02	454911-0	003	454911-0	04		
Analysis Paguested	Field Id:	SB-1 @	5'	SB-1 @ 15'		SB-2 @ 5'		SB-2 @ 15'			
Analysis Requested	Depth:										
	Matrix:	SOIL	SOIL			SOIL		SOIL			
	Sampled:	Dec-19-12	08:30	Dec-19-12 (	8:35	Dec-19-12 (	09:30	Dec-19-12 (	9:35		
Inorganic Anions by EPA 300/300.1	Extracted:	Jan-02-13	20:57	Jan-02-13 2	1:32	Jan-02-13 21:49		Jan-02-13 2	2:06		
SUB: E871002	Analyzed:	Jan-02-13	20:57	Jan-02-13 2	1:32	Jan-02-13 21:49		Jan-02-13 22:06			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		17.0	0.991	67.4	0.996	145	1.00	185	0.980		
Percent Moisture	Extracted:										
	Analyzed:	Jan-02-13	10:25	Jan-02-13 10:25		Jan-02-13 10:25		Jan-02-13 10:25			
	Units/RL:	%	RL	%	RL	%	RL	%	RL		
Percent Moisture		16.6	1.00	3.39	1.00	23.2	1.00	15.1	1.00		
TPH By SW8015 Mod	Extracted:			Jan-02-13 0	9:00			Jan-02-13 (	9:00		
	Analyzed:			Jan-02-13 1	7:00			Jan-02-13 1	7:30		
	Units/RL:			mg/kg	RL			mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons				ND	15.5			ND	17.6		
C12-C28 Diesel Range Hydrocarbons				ND	15.5			ND	17.6		
C28-C35 Oil Range Hydrocarbons				ND	15.5			ND	17.6		
Total TPH		_	_	ND	15.5			ND	17.6		

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.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

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.

**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

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9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
6017 Financial Drive, Norcross, GA 30071	(770) 449-8800	(770) 449-5477
3725 E. Atlanta Ave, Phoenix, AZ 85040	(602) 437-0330	

Page 6 of 14

Final 1.000

<sup>\*</sup> Surrogate recovered outside laboratory control limit.



# Form 2 - Surrogate Recoveries

**Project Name: A-14 6-Inch Line** 

**Work Orders:** 454911, **Project ID:** (RP-1127)

Lab Batch #: 904017 Sample: 454911-002 / SMP Batch: 1 Matrix: Soil

SUPPOGATE PECOVERY STUDY

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/02/13 17:00	SURROGATE RECOVERT STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	94.4	99.9	94	70-135			
o-Terphenyl	45.2	50.0	90	70-135			

**Lab Batch #:** 904017 **Sample:** 454911-004 / SMP **Batch:** 1 **Matrix:** Soil

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/02/13 17:30	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1-Chlorooctane	86.1	99.5	87	70-135		
o-Terphenyl	42.2	49.8	85	70-135		

Lab Batch #: 904017 Sample: 631942-1-BLK / BLK Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 01/02/13 15:06 SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	88.5	99.9	89	70-135	
o-Terphenyl	42.4	50.0	85	70-135	

Lab Batch #: 904017 Sample: 631942-1-BKS / BKS Batch: 1 Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/02/13 14:07	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	86.6	100	87	70-135			
o-Terphenyl	47.7	50.1	95	70-135			

Lab Batch #: 904017 Sample: 631942-1-BSD / BSD Batch: 1 Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/02/13 14:36	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	85.8	99.9	86	70-135			
o-Terphenyl	44.6	50.0	89	70-135			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 \* A / B

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



# Form 2 - Surrogate Recoveries

**Project Name: A-14 6-Inch Line** 

**Work Orders :** 454911, **Project ID:** (RP-1127)

Units: mg/kg Date Analyzed: 01/02/13 21:36 SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1-Chlorooctane	91.3	99.8	91	70-135		
o-Terphenyl	51.0	49.9	102	70-135		

**Lab Batch #:** 904017 **Sample:** 454911-002 SD / MSD **Batch:** 1 **Matrix:** Soil

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/02/13 22:02	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	85.8	99.7	86	70-135			
o-Terphenyl	48.2	49.9	97	70-135			

Surrogate Recovery [D] = 100 \* A / B

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



### **BS / BSD Recoveries**



**Project Name: A-14 6-Inch Line** 

Work Order #: 454911

**Date Prepared:** 01/02/2013 **Batch #:** 1

**Project ID:** (RP-1127) **Date Analyzed:** 01/02/2013

3

3

70-135

70-135

35

35

98

95

Analyst: JOL **Lab Batch ID:** 904013

Sample: 631941-1-BKS

Matrix: Solid

Units mg/kg

C6-C12 Gasoline Range Hydrocarbons

C12-C28 Diesel Range Hydrocarbons

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

983

954

Cmts8											
Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Chloride	<1.00	100	106	106	100	106	106	0	80-120	20	

Analyst: KEB **Date Prepared:** 01/02/2013 **Date Analyzed:** 01/02/2013

Matrix: Solid **Lab Batch ID:** 904017 **Batch #:** 1 **Sample:** 631942-1-BKS

1000

1000

<15.0

<15.0

Units: mg/kg Blank Blank Control TPH By SW8015 Mod Blank Spike Blank Blk. Spk Control Spike Sample Result Added Spike Spike Dup. **RPD** Limits Limits Flag Spike Added %R **Duplicate** %R % %R %RPD [A] Result [B] Result [F] [C] [D] [E] [G] **Analytes** 

101

98

999

999

1010

983

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: A-14 6-Inch Line** 

**Work Order #:** 454911

**Project ID:** (RP-1127) **Lab Batch #:** 904013

**Date Prepared:** 01/02/2013 Analyst: JOL **Date Analyzed:** 01/02/2013 **QC- Sample ID:** 454910-001 S Batch #: Matrix: Soil

Reporting Units: mg/kg MATRIX / MATRIX SPIKE RECOVERY STUDY

Reporting Omes. mg/kg	MATE	CIA / WIA	I KIX 51 IKE	RECO	EKIBIO	<u> </u>
Inorganic Anions by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes	[A]	[B]		. ,		
Chloride	7.17	124	136	104	80-120	

**Lab Batch #:** 904013

**Date Prepared:** 01/02/2013 Analyst: JOL **Date Analyzed:** 01/02/2013 **QC- Sample ID:** 454911-001 S Batch #:

Matrix: Soil Reporting Units: mg/kg MATRIX / MATRIX SPIKE RECOVERY STUDY

Reporting Units: mg/kg	MATRIX / MATRIX SPIKE RECOVERT STUDY										
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag					
Analytes	[]	[10]									
Chloride	17.0	99.1	117	101	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: A-14 6-Inch Line** 

**Work Order #:** 454911 **Project ID:** (RP-1127)

**Lab Batch ID:** 904017 **QC- Sample ID:** 454911-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 01/02/2013 Date Prepared: 01/02/2013 KEB

Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY													
TPH By SW8015 Mod	Parent Sample Result	Spike Added	Spiked Sample Result	Spiked Sample %R	Spike Added	Duplicate Spiked Sample	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag			
Analytes	[A]	[B]	[C]	%K [D]	Added [E]	Result [F]	%K [G]	%0	%oK	%KPD				
C6-C12 Gasoline Range Hydrocarbons	<15.5	1030	1090	106	1030	1060	103	3	70-135	35				
C12-C28 Diesel Range Hydrocarbons	<15.5	1030	1090	106	1030	1050	102	4	70-135	35				



# **Sample Duplicate Recovery**



**Project Name: A-14 6-Inch Line** 

Work Order #: 454911

**Lab Batch #:** 904018 **Project ID:** (RP-1127)

 Date Analyzed:
 01/02/2013 10:25
 Date Prepared:
 01/02/2013
 Analyst: WRU

 QC- Sample ID:
 454910-001 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							
Allalyte												
Percent Moisture	21.8	21.9	0	20								

# **Xenco Laboratories**

#### 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						•									F	Proje	ct Na	me:	<u>A-1</u>	4 6	-Inc	h Li	ne			· · ·			
	Company Name	Basin Enviro	nmental Serv	rice Te	chnolo	ogies, LLC								. 11				F	roje	ct #:	(RI	P-11	27)		1 2.1 1.2					<u>.</u>	<u> </u>
:	Company Address:	P.O. Box 301						* .										Pro	ject	Loc:	Lea	Соц	ınty	, NM							
	City/State/Zip:	Lovington, N							٠.				:			-			P	O #:		- 1						-	-	: 	
	Telephone No:	(575)396-2378	3		<u>.                                    </u>		Fax No:				96-1					<u> </u>		ort F			X				_	TRI	RP.		□ N	IPDES	3
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AB#(lab use only)				Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers		13		A # OON	of Control Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>			2 B	NP = Non-Potable Specify Othe X	TX 1005 TX 10	s (Ca, Mg, Na,	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	CHLORIDES	Total Dissolved Solids	4.	Standard TAT 4 DAY
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### **XENCO Laboratories**



### Prelogin/Nonconformance Report- Sample Log-In

Client: Southern Union Gas Services- Monahan

Date/ Time Received: 12/31/2012 11:38:00 AM

Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

ork Order #: 454	1911	remperature Mea	suring device used :
	Sample	Receipt Checklist	Comments
#1 *Temperature o	f cooler(s)?		1.4
#2 *Shipping conta	ainer in good condition?		Yes
#3 *Samples recei	ved on ice?		Yes
#4 *Custody Seals	intact on shipping container/ coo	ler?	Yes
#5 Custody Seals	intact on sample bottles?		Yes
#6 *Custody Seals	Signed and dated?		Yes
#7 *Chain of Custo	ody present?		Yes
#8 Sample instruc	tions complete on Chain of Custo	dy?	Yes
#9 Any missing/ex	tra samples?		No
#10 Chain of Cust	ody signed when relinquished/ red	ceived?	Yes
#11 Chain of Cust	ody agrees with sample label(s)?		Yes
#12 Container labe	el(s) legible and intact?		Yes
#13 Sample matrix	v properties agree with Chain of C	Custody?	Yes
#14 Samples in pr	oper container/ bottle?		Yes
#15 Samples prop	erly preserved?		Yes
#16 Sample conta	iner(s) intact?		Yes
#17 Sufficient sam	pple amount for indicated test(s)?		Yes
#18 All samples re	eceived within hold time?		Yes
#19 Subcontract o	f sample(s)?		Yes
#20 VOC samples	have zero headspace (less than	1/4 inch bubble)?	Yes
#21 <2 for all sam	ples preserved with HNO3,HCL, F	12SO4?	Yes
#22 >10 for all san	nples preserved with NaAsO2+Na	OH, ZnAc+NaOH?	Yes
Must be complete	ed for after-hours delivery of sar	mples prior to placing in th	ne refrigerator
Analyst:	PH Device/Lot#:		
Checkl	list completed by:		ate:
Check	klist reviewed by:		

Date:

# **Analytical Report 454910,454913**

for Southern Union Gas Services- Monahans

Project Manager: Joel Lowry
A-14 6-Inch Line
(RP-1127)
09-JAN-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)





09-JAN-13

Project Manager: Joel Lowry

**Southern Union Gas Services- Monahans** 

801 South Loop 464 Monahans, TX 79756

Reference: XENCO Report No(s): 454910,454913

A-14 6-Inch Line

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) 454910,454913. 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. 454910 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 454910,454913



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

A-14 6-Inch Line

Sample Id	Matrix	<b>Date Collected</b>	Sample Depth	Lab Sample Id
North Sidewall	S	12-21-12 09:40		454910-001
West Sidewall	S	12-21-12 10:00		454910-002
South Trench #1	S	12-21-12 10:30		454910-003
South Trench #2	S	12-21-12 10:50		454910-004
South Trench #2 @ 14	S	12-21-12 14:00		454910-005
South Trench #3	S	12-21-12 11:10		454910-006
South Trench #4	S	12-21-12 11:20		454910-007
West Trench #1	S	12-21-12 11:30		454910-008
West Trench #2	S	12-21-12 11:50		454910-009
West Trench #3	S	12-21-12 12:10		454910-010
East Trench #1	S	12-21-12 12:50		454913-001
East Trench #2	S	12-21-12 13:10		454913-002
East Trench #3	S	12-21-12 13:30		454913-003

#### CASE NARRATIVE



Client Name: Southern Union Gas Services- Monahans

Project Name: A-14 6-Inch Line



 Project ID:
 (RP-1127)
 Report Date: 09-JAN-13

 Work Order Number(s):
 454910,454913
 Date Received: 12/31/2012

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-904135 Inorganic Anions by EPA 300/300.1

E300

Batch 904135, Chloride recovered below QC limits in the Matrix Spike.

Samples affected are: 454910-006, -008, -004.

The Laboratory Control Sample for Chloride is within laboratory Control Limits

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Final 1.001



## Certificate of Analysis Summary 454910,454913

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

**Project Name: A-14 6-Inch Line** 



**Project Id:** (RP-1127) **Contact:** Joel Lowry

**Report Date:** 09-JAN-13

Project Location: Lea County, NM

Project Manager: Nicholas Straccione

Date Received in Lab: Mon Dec-31-12 11:37 am

								1 Toject Min	iuger.	vicioias Suac	CIOIIC		
	Lab Id:	454910-0	01	454910-0	02	454910-0	03	454910-0	04	454910-0	05	454910-0	06
Analusia Dogunated	Field Id:	North Side	wall	West Sidev	vall	South Trend	ch #1	South Trenc	h #2	South Trench #	2 @ 14	South Trenc	h #3
Analysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-21-12 (	9:40	Dec-21-12 1	0:00	Dec-21-12 1	10:30	Dec-21-12 10:50		Dec-21-12 14:00		Dec-21-12 1	1:10
Inorganic Anions by EPA 300/300.1	Extracted:	Jan-02-13	7:11	Jan-02-13 1	7:45	Jan-02-13 1	8:03	Jan-02-13 1	8:20	Jan-02-13 1	8:38	Jan-02-13 1	8:55
SUB: E871002	Analyzed:	Jan-02-13	7:11	Jan-02-13 1	7:45	Jan-02-13 1	8:03	Jan-02-13 1	8:20	Jan-02-13 1	8:38	Jan-02-13 1	8:55
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		7.17	1.24	7.48	1.28	191	1.18	1930 D	5.46	414	1.05	2580 D	5.39
Percent Moisture	Extracted:												
	Analyzed:	Jan-02-13	0:25	Jan-02-13 1	0:25	Jan-02-13 1	0:25	Jan-02-13 1	0:25	Jan-02-13 1	0:25	Jan-02-13 1	0:25
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		21.8	1.00	23.9	1.00	16.9	1.00	9.71	1.00	5.39	1.00	7.19	1.00
TPH By SW8015 Mod	Extracted:	Jan-02-13 (	9:00	Jan-02-13 0	9:00	Jan-02-13 0	9:00						
	Analyzed:	Jan-02-13	5:35	Jan-02-13 1	6:01	Jan-02-13 1	6:31						
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL						
C6-C12 Gasoline Range Hydrocarbons		ND	19.2	ND	19.6	ND	18.0						
C12-C28 Diesel Range Hydrocarbons		ND	19.2	ND	19.6	80.3	18.0						
C28-C35 Oil Range Hydrocarbons		ND	19.2	ND	19.6	ND	18.0						
Total TPH		ND	19.2	ND	19.6	80.3	18.0					_	

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Nicholas Straccione Project Manager



**Project Id:** (RP-1127)

Project Location: Lea County, NM

**Contact:** Joel Lowry

## Certificate of Analysis Summary 454910,454913

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



Project Name: A-14 6-Inch Line

**Date Received in Lab:** Mon Dec-31-12 11:37 am

**Report Date:** 09-JAN-13

Project Manager: Nicholas Straccione

								Project Mai	nager:	Nicholas Straccione	
	Lab Id:	454910-0	07	454910-0	08	454910-0	09	454910-0	10		
Analysis Requested	Field Id:	South Trend	ch #4	West Trenc	h #1	West Trenc	h #2	West Trenc	h #3		
Anaiysis Kequesiea	Depth:										
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	Dec-21-12	11:20	Dec-21-12 1	1:30	Dec-21-12 1	1:50	Dec-21-12	12:10		
Inorganic Anions by EPA 300/300.1	Extracted:	Jan-02-13 1	9:47	Jan-02-13 2	0:05	Jan-02-13 2	0:22	Jan-02-13 2	0:39		
SUB: E871002	Analyzed:	Jan-02-13 1	9:47	Jan-02-13 2	0:05	Jan-02-13 2	0:22	Jan-02-13 2	0:39		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		392	1.03	1400 D	5.38	358	1.04	226	1.02		
Percent Moisture	Extracted:										
	Analyzed:	Jan-02-13 1	0:25	Jan-02-13 1	0:25	Jan-02-13 1	0:25	Jan-02-13 1	0:25		
	Units/RL:	%	RL	%	RL	%	RL	%	RL		
Percent Moisture		2.99	1.00	7.14	1.00	4.11	1.00	3.94	1.00		

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Nul Ctr



**Contact:** Joel Lowry

Project Location: Lea County, NM

## Certificate of Analysis Summary 454910,454913

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



Project Id: (RP-1127) Project Name: A-14 6-Inch Line

**Date Received in Lab:** Mon Dec-31-12 11:37 am

**Report Date:** 09-JAN-13

Project Manager: Nicholas Straccione

								i roject Manager.	Nicholas Straccione	
	Lab Id:	454913-0	001	454913-0	02	454913-0	03			
Analysis Requested	Field Id:	East Trenc	h #1	East Trench	n #2	East Trencl	n #3			
Anaiysis Kequesieu	Depth:									
	Matrix:	SOIL		SOIL		SOIL				
	Sampled:	Dec-21-12	12:50	Dec-21-12 1	3:10	Dec-21-12 1	3:30			
Inorganic Anions by EPA 300/300.1	Extracted:	Jan-02-13 2	23:16	Jan-02-13 2	3:33	Jan-02-13 2	3:51			
SUB: E871002	Analyzed:	Jan-02-13 2	23:16	Jan-02-13 2	3:33	Jan-02-13 2	3:51			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Chloride		644	0.973	588	0.974	128	0.998			
Percent Moisture	Extracted:									
	Analyzed:	Jan-02-13	11:00	Jan-02-13 1	1:00	Jan-02-13 1	1:00			
	Units/RL:	%	RL	%	RL	%	RL			
Percent Moisture		6.99	1.00	5.48	1.00	19.6	1.00			

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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 quantiation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

- + 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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<sup>\*</sup> Surrogate recovered outside laboratory control limit.



**Project Name: A-14 6-Inch Line** 

**Work Orders:** 454910, 454910,454913 **Project ID:** (RP-1127)

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/02/13 15:35	SU	RROGATE RE	COVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes	[]	[-]	[D]	,,,	
1-Chlorooctane	90.0	100	90	70-135	
o-Terphenyl	43.6	50.1	87	70-135	

**Lab Batch #:** 904017 **Sample:** 454910-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg Date Analyzed: 01/02/13 16:01	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	87.4	99.5	88	70-135	
o-Terphenyl	43.0	49.8	86	70-135	

**Lab Batch #:** 904017 **Sample:** 454910-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg Date Analyzed: 01/02/13 16:31	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	85.3	99.6	86	70-135	
o-Terphenyl	41.8	49.8	84	70-135	

Lab Batch #: 904017 Sample: 631942-1-BLK / BLK Batch: 1 Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/02/13 15:06	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	88.5	99.9	89	70-135	
o-Terphenyl	42.4	50.0	85	70-135	

Lab Batch #: 904017 Sample: 631942-1-BKS / BKS Batch: 1 Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/02/13 14:07	SURROGATE RECOVERY STUDY								
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
Analytes			[D]						
1-Chlorooctane	86.6	100	87	70-135					
o-Terphenyl	47.7	50.1	95	70-135					

<sup>\*</sup> Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 \* A / B

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



**Project Name: A-14 6-Inch Line** 

**Work Orders**: 454910, 454910,454913 **Project ID**: (RP-1127)

Lab Batch #: 904017 Sample: 631942-1-BSD / BSD Batch: 1 Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/02/13 14:36	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.8	99.9	86	70-135	
o-Terphenyl	44.6	50.0	89	70-135	

**Lab Batch #:** 904017 **Sample:** 454911-002 S / MS **Batch:** 1 **Matrix:** Soil

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/02/13 21:36	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes			. ,		
1-Chlorooctane	91.3	99.8	91	70-135	
o-Terphenyl	51.0	49.9	102	70-135	

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/02/13 22:02	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	85.8	99.7	86	70-135	
o-Terphenyl	48.2	49.9	97	70-135	

Surrogate Recovery [D] = 100 \* A / B

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



### **BS / BSD Recoveries**



**Project Name: A-14 6-Inch Line** 

Work Order #: 454910, 454910,454913

**Date Prepared:** 01/02/2013

**Lab Batch ID:** 904013

Analyst: JOL

**Sample:** 631941-1-BKS **Batch #:** 1

**Project ID:** (RP-1127) **Date Analyzed:** 01/02/2013

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	<1.00	100	106	106	100	106	106	0	80-120	20	

Analyst: JOL **Date Analyzed:** 01/03/2013 **Date Prepared:** 01/03/2013

Matrix: Solid **Lab Batch ID:** 904135 **Batch #:** 1 **Sample:** 632018-1-BKS

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Units: mg/kg

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Chloride	<1.00	100	105	105	100	105	105	0	80-120	20	

Analyst: KEB **Date Prepared:** 01/02/2013 **Date Analyzed:** 01/02/2013

Matrix: Solid **Lab Batch ID:** 904017 **Sample:** 631942-1-BKS **Batch #:** 1

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Units: mg/kg

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	999	983	98	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	983	98	999	954	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



### Form 3 - MS Recoveries



Work Order #: 454910

**Project ID:** (RP-1127) **Lab Batch #:** 904013

**Project Name: A-14 6-Inch Line** 

**Date Prepared:** 01/02/2013 Analyst: JOL **Date Analyzed:** 01/02/2013 **QC- Sample ID:** 454910-001 S Batch #: Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY Reporting Units: mg/kg Parent Spiked Sample Control **Inorganic Anions by EPA 300** Sample Spike Result %R Limits Flag Result Added %R [C] [D] [A] [B] **Analytes** 

7.17

124

136

104

80-120

**Lab Batch #:** 904013

Chloride

**Date Prepared:** 01/02/2013 Analyst: JOL **Date Analyzed:** 01/02/2013 **QC- Sample ID:** 454911-001 S

Matrix: Soil MATRIX / MATRIX SPIKE RECOVERY STUDY Reporting Units: mg/kg

Reporting Units: mg/kg	MIAIR	IIA / WIA	I KIA SEIKE	KECO	VEKI SIU	<u> </u>
Inorganic Anions by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes	[A]	[B]				
Chloride	17.0	99.1	117	101	80-120	

Batch #:

**Lab Batch #:** 904135

**Date Prepared:** 01/03/2013 Analyst: JOL **Date Analyzed:** 01/03/2013

**QC- Sample ID:** 454862-001 S Batch #: 1 Matrix: Soil

Reporting Units: mg/kg	MATE	RIX / MA'	TRIX SPIKE	RECOV	VERY STU	DY
Inorganic Anions by EPA 300  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	1180	134	1280	75	80-120	X

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

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### Form 3 - MS / MSD Recoveries



**Project Name: A-14 6-Inch Line** 

**Work Order #:** 454910 **Project ID:** (RP-1127)

**Lab Batch ID:** 904017 **QC- Sample ID:** 454911-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 01/02/2013 Date Prepared: 01/02/2013 Analyst: KEB

Reporting Units: mg/kg		M	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	<15.5	1030	1090	106	1030	1060	103	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.5	1030	1090	106	1030	1050	102	4	70-135	35	



# **Sample Duplicate Recovery**



**Project Name: A-14 6-Inch Line** 

**Work Order #:** 454910

**Lab Batch #:** 904018 **Project ID:** (RP-1127)

 Date Analyzed:
 01/02/2013 10:25
 Date Prepared:
 01/02/2013
 Analyst:
 WRU

 QC- Sample ID:
 454910-001 D
 Batch #:
 1
 Matrix:
 Soil

Reporting Units: %	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture  Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Amaryte					
Percent Moisture	21.8	21.9	0	20	

# **Xenco Laboratories**

#### 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	·	<del>.</del>		:								•			-	Pro	ject	Nan	ne: <u>/</u>	\ <u>-14</u>	6-lı	nch l	_ine						
	Company Name	Basin Environme	ental Serv	ice Te	chnol	ogies, LLC											-		Pre	oject	#: <u>(</u>	RP-	112	7)							<u></u>
	Company Address:	P.O. Box 301							•									F	roje	ct L	oc: L	ea C	oun	ty, NI	vi						
	City/State/Zip:	Lovington, NM 8	8260										:							РО	#:										
							Foy No.		·	:	00.4	400										K s				7 -	RRP	,	П	NPD	==
	Telephone No:	(575)396-2378	0				Fax No:				96-1				CVD	diin	-,	eport							_		KKP			MEDI	
	Sampler Signature:	() vel -	Jour	M	ř		e-mail:		108	C.3	iauc	. <u></u>	<u>ug.c</u>	—	, Cyri	CH.II	ISINO		Jug.	COII	i, pii	i(Q)D			e For					一	7
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ORDEF	`` <i>\\</i> 4549\	U .				. :				Pre	eserv	/atio	1 & #	of C	ontaiı	ners	M	atrix	15B	T	Т	IUIA	- g	H	_	-1				];	24, 48, 7
						: ::									:		SL = Sludg	S=Soil/Soil	80.	< 1006		(A)	Metals: As Ag Ba Cd Cr Pb Hg (		Semivolatiles	EX 82			spi	2	AY AY
only)				돭		-	٠		ers								ter		8015M	ĭ	Cations (Ca, Mg, Na, K)	SO4, Aikalinity)	<u>0</u>			5			Total Dissolved Solids		KUSH IAI (Pre-Schedule) Standard TAT 4 DAY
nse				g De	epth	Sampled	mple	- R	Contair							ecify)	ing Wa	ındwa otable	ı	TX 1005	a, Mg,	2 Z	Ag Ba		Se l	96/90		္က	solve	ļ	ĬĮ.
LAB# (lab				Beginning Depth	Ending Depth	te Sa	Time Sampled	Field Filtered	Total #. of Containers		ပိ		ő	NaOH	် ကို	er (Sp	DW=Drinking Wa	GW = Groundwater NP=Non-Potable S	: 418.1	Υ <u>.</u>	O) suc	Anions (CI, SO4, 7 SAR / ESP / CEC	als: As	Volatiles	Semivolatiles	X 802	NO.R.M.	CHLORIDES	a Dis	i ii	רל ndar
LAB	FIE	LD CODE		Beg	End	Date		Field	Total		HNO3	모	H <sub>2</sub> SO <sub>4</sub>	ž ž	Na <sub>2</sub> S <sub>2</sub>	₽	-	_	ТРН:	TPH:	Caţi	AMI SAR	Met	S S	Ser	<u> </u>	٥ <u>د</u> ع		ğ	4	Sta
O١	Norti	n Sidewall	<u> </u>			12/21/2012	940		1	K		$\Box$	-			_	7		X		_	_	$\bot$	ightharpoonup	$\perp$	-	+	<u>  x</u>	$\vdash$	+	1
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# **Xenco Laboratories**

#### 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							<u> </u>						<b>-</b> :	Proj	ect N	ame:	<u>A-</u>	<u> 14 6-</u>	-Inc	h Liı	ne					
· · ·	Company Name	Basin Environmental Se	ervice T	echnol	ogies, LLC				: '						:: 		Proje	ect #:	<u>(R</u> l	P-11	27)					· —		
	Company Address:	P.O. Box 301													•:	Pr	oject	Loc:	Lea	Cou	ınty,	, NM						
	City/State/Zip:	Lovington, NM 88260													- · · · · · · · · · · · · · · · · · · ·		F	PO #:										
	Telephone No:	(575)396-2378				Fax No:	<u>(</u>	575)	396-	1429	)	·			Rep	ort F	orm	at:	X	Stan	dard	i		TRI	RP	ļ		PDES
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LAB # (lab use only)	FIE	LD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	l otal #. of Containers	HNO3	HCI	H₂SO₄	NaOH	None None	Other (Specify)	DW=Drinking Water SL=Sludg GW = Groundwater S=Soil/Soil	lon-Potable Specify	TPH: 418.1 8015M 80.	s (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles Semivolatiles	/5030 or BTEX	RCI	N.O.R.M.	CHLORIDES Total Dissolved Solids	I otal Dissolved Solids	RUSH TAT (Pre-Schedule) 24, Standard TAT 4 DAY
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# **Analytical Report 455231**

## for Southern Union Gas Services- Monahans

Project Manager: Joel Lowry
A-14 6" Historical
RP-1127
10-JAN-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)





10-JAN-13

Project Manager: Joel Lowry

**Southern Union Gas Services- Monahans** 

801 South Loop 464 Monahans, TX 79756

Reference: XENCO Report No(s): 455231

A-14 6" Historical

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) 455231. 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. 455231 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 455231**



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

A-14 6" Historical

Sample Id	Matrix	<b>Date Collected</b>	Sample Depth	Lab Sample Id
Floor	S	01-03-13 10:20		455231-001
West Wall	S	01-03-13 12:00		455231-002
North Wall	S	01-03-13 13:10		455231-003
South Wall	S	01-03-13 13:45		455231-004
East Wall	S	01-07-13 09:00		455231-005
East Floor	S	01-07-13 09:15		455231-006
Stockpile	S	01-07-13 09:20		455231-007

#### CASE NARRATIVE



Client Name: Southern Union Gas Services- Monahans

Project Name: A-14 6" Historical



Project ID:RP-1127Report Date: 10-JAN-13Work Order Number(s): 455231Date Received: 01/08/2013

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-904350 Inorganic Anions by EPA 300/300.1

E300

Batch 904350, Chloride recovered below QC limits in the Matrix Spike.

Samples affected are: 455231-001.

The Laboratory Control Sample for Chloride is within laboratory Control Limits

Batch: LBA-904408 BTEX by EPA 8021B

SW8021BM

Batch 904408, Ethylbenzene, Toluene, m,p-Xylenes RPD was outside QC limits.

Samples affected are: 455231-004

SW8021BM

Batch 904408, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene recovered below QC limits in the Matrix Spike Duplicate.

Samples affected are: 455231-004.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

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Final 1.000



## **Certificate of Analysis Summary 455231**

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

Project Name: A-14 6" Historical



**Project Id:** RP-1127 **Contact:** Joel Lowry

Project Location: Lea County, NM

**Date Received in Lab:** Tue Jan-08-13 02:18 pm

**Report Date:** 10-JAN-13

Project Manager: Nicholas Straccione

								1 Toject Ma	mager.	Micholas Strac	CLIOHE		
	Lab Id:	455231-0	001	455231-0	02	455231-0	003	455231-	004	455231-0	005	455231-	006
Analysis Passastad	Field Id:	Floor	.	West Wa	all	North W	all	South W	/all	East Wa	ıll	East Flo	oor
Analysis Requested	Depth:												
	Matrix:	SOIL	,	SOIL		SOIL	,	SOIL		SOIL		SOIL	_
	Sampled:	Jan-03-13	10:20	Jan-03-13 1	2:00	Jan-03-13	13:10	Jan-03-13	13:45	Jan-07-13 (	09:00	Jan-07-13	09:15
BTEX by EPA 8021B	Extracted:	Jan-09-13	08:00	Jan-09-13 0	08:00	Jan-09-13	08:00	Jan-09-13	15:40	Jan-09-13 (	08:00	Jan-09-13	08:00
	Analyzed:	Jan-09-13	09:40	Jan-09-13 1	1:17	Jan-09-13	10:11	Jan-10-13	10:30	Jan-09-13	10:44	Jan-09-13	11:00
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.00120	ND	0.00107	ND	0.00111	ND	0.00125	ND	0.00106	ND	0.00104
Toluene		ND	0.00241	ND	0.00215	ND	0.00223	ND	0.00250	ND	0.00211	ND	0.00209
Ethylbenzene		ND	0.00120	ND	0.00107	ND	0.00111	ND	0.00125	ND	0.00106	ND	0.00104
m,p-Xylenes		ND	0.00241	ND	0.00215	ND	0.00223	ND	0.00250	ND	0.00211	ND	0.00209
o-Xylene		ND	0.00120	ND	0.00107	ND	0.00111	ND	0.00125	ND	0.00106	ND	0.00104
Total Xylenes		ND	0.00120	ND	0.00107	ND	0.00111	ND	0.00125	ND	0.00106	ND	0.00104
Total BTEX		ND	0.00120	ND	0.00107	ND	0.00111	ND	0.00125	ND	0.00106	ND	0.00104
Inorganic Anions by EPA 300/300.1	Extracted:	Jan-09-13	14:45	Jan-09-13 1	5:37	Jan-09-13	15:55	Jan-09-13	16:12	Jan-09-13	16:29	Jan-09-13	16:47
SUB: E871002	Analyzed:	Jan-09-13	14:45	Jan-09-13 1	5:37	Jan-09-13	15:55	Jan-09-13	16:12	Jan-09-13	16:29	Jan-09-13	16:47
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		263	1.18	167	1.06	655	1.12	233	1.25	72.5	1.06	19.6	1.05
Percent Moisture	Extracted:												
	Analyzed:	Jan-08-13	15:25	Jan-08-13 1	5:25	Jan-08-13	15:40	Jan-08-13	15:40	Jan-08-13	15:40	Jan-08-13	15:40
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		16.4	1.00	7.01	1.00	10.4	1.00	20.1	1.00	5.25	1.00	4.49	1.00
TPH By SW8015 Mod	Extracted:	Jan-08-13	14:45	Jan-08-13 1	4:45	Jan-08-13	14:45	Jan-08-13	14:45	Jan-08-13	14:45	Jan-08-13	14:45
	Analyzed:	Jan-08-13	17:49	Jan-08-13 1	8:48	Jan-08-13	19:17	Jan-08-13	19:46	Jan-08-13 2	20:14	Jan-08-13	20:42
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	17.9	ND	16.1	ND	16.7	ND	18.7	ND	15.8	ND	15.7
C12-C28 Diesel Range Hydrocarbons		ND	17.9	ND	16.1	98.0	16.7	ND	18.7	ND	15.8	ND	15.7
C28-C35 Oil Range Hydrocarbons		ND	17.9	ND	16.1	ND	16.7	ND	18.7	ND	15.8	ND	15.7
Total TPH		ND	17.9	ND	16.1	98.0	16.7	ND	18.7	ND	15.8	ND	15.7

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



## **Certificate of Analysis Summary 455231**

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



**Project Id:** RP-1127

Project Location: Lea County, NM

**Contact:** Joel Lowry

**Project Name: A-14 6" Historical** 

**Date Received in Lab:** Tue Jan-08-13 02:18 pm

**Report Date:** 10-JAN-13

Project Manager: Nicholas Straccione

				1 Toject Manager.	Nicholas Straccione	
	Lab Id:	455231-007				
Analysis Requested	Field Id:	Stockpile				
Anaiysis Requesieu	Depth:					
	Matrix:	SOIL				
	Sampled:	Jan-07-13 09:20				
Inorganic Anions by EPA 300/300.1	Extracted:	Jan-09-13 17:22				
SUB: E871002	Analyzed:	Jan-09-13 17:22				
	Units/RL:	mg/kg RL				
Chloride		710 1.10				
Percent Moisture	Extracted:					
	Analyzed:	Jan-08-13 14:50				
	Units/RL:	% RL				
Percent Moisture		8.72 1.00				

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.

**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

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<sup>\*</sup> Surrogate recovered outside laboratory control limit.



Project Name: A-14 6" Historical

Work Orders: 455231, Project ID: RP-1127

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/08/13 17:49	Su	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	96.4	99.9	96	70-135	
o-Terphenyl	47.0	50.0	94	70-135	

Units: mg/kg Date Analyzed: 01/08/13 18:48	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	93.6	100	94	70-135	
o-Terphenyl	45.3	50.0	91	70-135	

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/08/13 19:17	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	93.8	99.9	94	70-135	
o-Terphenyl	45.8	50.0	92	70-135	

Units: mg/kg Date Analyzed: 01/08/13 19:46	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	92.7	99.5	93	70-135	
o-Terphenyl	45.6	49.8	92	70-135	

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/08/13 20:14	SU	RROGATE RE	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	99.7	99.9	100	70-135	
o-Terphenyl	47.7	50.0	95	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 \* A / B

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: A-14 6" Historical

Work Orders: 455231, Project ID: RP-1127

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/08/13 20:42	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	93.0	100	93	70-135	
o-Terphenyl	44.8	50.0	90	70-135	

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/09/13 09:40	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0252	0.0300	84	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/09/13 10:11	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0250	0.0300	83	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Units: mg/kg Date Analyzed: 01/09/13 10:44	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/09/13 11:00	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 \* A / B

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: A-14 6" Historical

Work Orders: 455231, Project ID: RP-1127

**Lab Batch #:** 904355 **Sample:** 455231-002 / SMP **Batch:** 1 **Matrix:** Soil

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/09/13 11:17	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0281	0.0300	94	80-120		
4-Bromofluorobenzene	0.0260	0.0300	87	80-120		

**Lab Batch #:** 904408 **Sample:** 455231-004 / SMP **Batch:** 1 **Matrix:** Soil

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/10/13 10:30	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0242	0.0300	81	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 904313 Sample: 632121-1-BLK / BLK Batch: 1 Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/08/13 12:24	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	92.0	99.8	92	70-135	
o-Terphenyl	44.9	49.9	90	70-135	

Lab Batch #: 904355 Sample: 632171-1-BLK / BLK Batch: 1 Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/09/13 09:24	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0338	0.0300	113	80-120	

Lab Batch #: 904408 Sample: 632201-1-BLK / BLK Batch: 1 Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/09/13 17:40	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0312	0.0300	104	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 \* A / B

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: A-14 6" Historical

Work Orders: 455231, Project ID: RP-1127

Lab Batch #: 904313 Sample: 632121-1-BKS / BKS Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 01/08/13 11:28	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	94.5	99.9	95	70-135	
o-Terphenyl	49.0	50.0	98	70-135	

Lab Batch #: 904355 Sample: 632171-1-BKS / BKS Batch: 1 Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/09/13 08:51	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

Lab Batch #: 904408 Sample: 632201-1-BKS / BKS Batch: 1 Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/09/13 17:07	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0325	0.0300	108	80-120	
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

Lab Batch #: 904313 Sample: 632121-1-BSD / BSD Batch: 1 Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/08/13 11:56	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	95.7	99.9	96	70-135			
o-Terphenyl	50.5	50.0	101	70-135			

Lab Batch #: 904355 Sample: 632171-1-BSD / BSD Batch: 1 Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/09/13 09:08	SU	SURROGATE RECOVERY STUDY							
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
Analytes			[D]						
1,4-Difluorobenzene	0.0312	0.0300	104	80-120					
4-Bromofluorobenzene	0.0332	0.0300	111	80-120					

<sup>\*</sup> Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 \* A / B

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: A-14 6" Historical

Work Orders: 455231, Project ID: RP-1127

Lab Batch #: 904408 Sample: 632201-1-BSD / BSD Batch: 1 Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/09/13 17:24	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Difluorobenzene	0.0327	0.0300	109	80-120			
4-Bromofluorobenzene	0.0329	0.0300	110	80-120			

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/08/13 23:31	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	98.7	99.7	99	70-135	
o-Terphenyl	53.6	49.9	107	70-135	

**Lab Batch #:** 904355 **Sample:** 455231-001 S / MS **Batch:** 1 **Matrix:** Soil

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/09/13 15:54	SURROGATE RECOVERY STUDY							
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes			[D]					
1,4-Difluorobenzene	0.0283	0.0300	94	80-120				
4-Bromofluorobenzene	0.0319	0.0300	106	80-120				

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/09/13 22:15	SU	SURROGATE RECOVERY STUDY							
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
Analytes			[D]						
1,4-Difluorobenzene	0.0324	0.0300	108	80-120					
4-Bromofluorobenzene	0.0347	0.0300	116	80-120					

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/08/13 23:59	SU	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	Control Limits %R	Flags				
Analytes			[D]				
1-Chlorooctane	105	100	105	70-135			
o-Terphenyl	54.7	50.1	109	70-135			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 \* A / B

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: A-14 6" Historical

Work Orders: 455231, Project ID: RP-1127

**Lab Batch #:** 904355 **Sample:** 455231-001 SD / MSD **Batch:** 1 **Matrix:** Soil

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/09/13 15:38	SURROGATE RECOVERY STUDY							
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes			[D]					
1,4-Difluorobenzene	0.0324	0.0300	108	80-120				
4-Bromofluorobenzene	0.0301	0.0300	100	80-120				

**Lab Batch #:** 904408 **Sample:** 455346-001 SD / MSD **Batch:** 1 **Matrix:** Soil

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/09/13 22:31	SU	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1.4-Difluorobenzene	0.0331	0.0300	110	80-120				
4-Bromofluorobenzene	0.0290	0.0300	97	80-120				

Surrogate Recovery [D] = 100 \* A / B

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



### **BS / BSD Recoveries**



**Project Name: A-14 6" Historical** 

Work Order #: 455231

**Date Prepared:** 01/09/2013 **Batch #:** 1

Project ID: RP-1127 **Date Analyzed:** 01/09/2013

Analyst: KEB **Lab Batch ID:** 904355

**Sample:** 632171-1-BKS

Matrix: Solid

Units: mg/kg	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY
Cilita88	

BTEX by EPA 8021B	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
Analytes					[-]	,					
Benzene	< 0.00100	0.100	0.0790	79	0.0996	0.0753	76	5	70-130	35	
Toluene	< 0.00200	0.100	0.0790	79	0.0996	0.0749	75	5	70-130	35	
Ethylbenzene	< 0.00100	0.100	0.0807	81	0.0996	0.0757	76	6	71-129	35	
m,p-Xylenes	< 0.00200	0.200	0.154	77	0.199	0.143	72	7	70-135	35	
o-Xylene	< 0.00100	0.100	0.0818	82	0.0996	0.0714	72	14	71-133	35	

**Date Prepared:** 01/09/2013 **Date Analyzed:** 01/09/2013 Analyst: KEB

Matrix: Solid **Lab Batch ID:** 904408 **Batch #:** 1 **Sample:** 632201-1-BKS

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Units: mg/kg

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	<0.000996	0.0996	0.0846	85	0.0998	0.0934	94	10	70-130	35	
Toluene	< 0.00199	0.0996	0.0811	81	0.0998	0.0943	94	15	70-130	35	
Ethylbenzene	< 0.000996	0.0996	0.0835	84	0.0998	0.0908	91	8	71-129	35	
m,p-Xylenes	< 0.00199	0.199	0.160	80	0.200	0.172	86	7	70-135	35	
o-Xylene	< 0.000996	0.0996	0.0841	84	0.0998	0.0893	89	6	71-133	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: A-14 6" Historical

Work Order #: 455231

**Date Prepared:** 01/09/2013

**Project ID:** RP-1127 **Date Analyzed:** 01/09/2013

Analyst: RKO

Matrix: Solid

**Lab Batch ID:** 904350

Sample: 632166-1-BKS

**Batch #:** 1

Units: mg/kg	BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Chloride	<1.00	100	105	105	100	105	105	0	80-120	20	

**Date Prepared:** 01/08/2013 **Date Analyzed:** 01/08/2013 Analyst: KEB

Matrix: Solid **Lab Batch ID:** 904313 **Batch #:** 1 **Sample:** 632121-1-BKS

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Units: mg/kg Control TPH By SW8015 Mod Blank Spike Blank Blank Blank Blk. Spk Control Spike Sample Result Added Spike Dup. **RPD** Limits Limits Flag Spike Spike Added %R % %R %RPD [A] Result %R **Duplicate** [B] Result [F] [C] [D] [E] [G] **Analytes** C6-C12 Gasoline Range Hydrocarbons <15.0 999 947 95 999 966 97 2 70-135 35 C12-C28 Diesel Range Hydrocarbons <15.0 999 921 92 999 929 93 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

A ACCOUNT

Project Name: A-14 6" Historical

**Work Order #:** 455231

**Lab Batch #:** 904350 **Project ID:** RP-1127

Date Analyzed:01/09/2013Date Prepared:01/09/2013Analyst: RKO

**QC- Sample ID:** 455231-006 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	19.6	105	125	100	80-120			

**Lab Batch #:** 904350

Date Analyzed: 01/09/2013 Date Prepared: 01/09/2013 Analyst: RKO

QC- Sample ID: 455245-001 S Batch #: 1 Matrix: Soil

Reporting Units: mg/kg	MATI	RIX / MA'	TRIX SPIKE	RECOV	VERY STU	DY
Inorganic Anions by EPA 300  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	178	102	248	69	80-120	X

Matrix Spike Percent Recovery [D] = 100\*(C-A)/BRelative 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: A-14 6" Historical

Work Order #: 455231 Project ID: RP-1127

**Lab Batch ID:** 904355 **QC- Sample ID:** 455231-001 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
BTEX by EPA 8021B	Parent Sample	Spike	Spiked Sample Result	Sample		Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Benzene	< 0.00120	0.120	0.113	94	0.120	0.0951	79	17	70-130	35	
Toluene	< 0.00239	0.120	0.104	87	0.120	0.0916	76	13	70-130	35	
Ethylbenzene	< 0.00120	0.120	0.108	90	0.120	0.0945	79	13	71-129	35	
m,p-Xylenes	< 0.00239	0.239	0.208	87	0.239	0.180	75	14	70-135	35	
o-Xylene	< 0.00120	0.120	0.103	86	0.120	0.0909	76	12	71-133	35	

**Lab Batch ID:** 904408 **QC- Sample ID:** 455346-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 01/09/2013 Date Prepared: 01/09/2013 KEB

Reporting Units: mg/kg		M	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY S	STUDY		
BTEX by EPA 8021B	Parent Sample	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample	•	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Benzene	< 0.00119	0.119	0.0870	73	0.118	0.0609	52	35	70-130	35	X
Toluene	< 0.00237	0.119	0.0817	69	0.118	0.0513	43	46	70-130	35	XF
Ethylbenzene	<0.00119	0.119	0.0746	63	0.118	0.0474	40	45	71-129	35	XF
m,p-Xylenes	< 0.00237	0.237	0.139	59	0.237	0.0912	38	42	70-135	35	XF
o-Xylene	< 0.00119	0.119	0.0725	61	0.118	0.0545	46	28	71-133	35	X

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



### Form 3 - MS / MSD Recoveries



Project Name: A-14 6" Historical

Work Order #: 455231 Project ID: RP-1127

**Lab Batch ID:** 904313 **QC- Sample ID:** 455231-006 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 01/08/2013 Date Prepared: 01/08/2013 Analyst: KEB

Reporting Units: mg/kg		M	ATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY S	STUDY		
TPH By SW8015 Mod	Parent Sample Result	Spike	Spiked Sample Result	Sample		Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	<15.7	1040	1050	101	1050	1120	107	6	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.7	1040	1040	100	1050	1100	105	6	70-135	35	



## **Sample Duplicate Recovery**



**Project Name: A-14 6" Historical** 

Work Order #: 455231

**Lab Batch #:** 904293 **Project ID:** RP-1127

 Date Analyzed:
 01/08/2013 14:50
 Date Prepared:
 01/08/2013
 Analyst: WRU

 QC- Sample ID:
 455218-001 D
 Batch #:
 1
 Matrix:
 Soil

Reporting Units: %	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture  Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	7.60	7.37	3	20	

## **Xenco Laboratories**

#### 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		:											Pr	ojec	t Nan	ne: <u>A</u>	-14	6" H	listo	<u>rica</u>	1	·				
	Company Name	Basin Environmental Ser	vice Te	echnol	ogies, LLC								 			Pr	oject	#:_R	P-1	127								
	Company Address:	P.O. Box 301			· · · · · · · · · · · · · · · · · · ·								:			Proje	ct Lo	oc: L	ea Co	ount	y, NM	i I						1
	City/State/Zip:	Lovington, NM 88260					•					٠.,			: -		PO	#:	:									
	Telephone No:	(575)396-2378				Fax No:	(	575)	396-1	1429					Repor	t For	mat:	X	Sta	nda	rd	ſ	☐ TR	RP		□ N	PDF:	3
• :	Sampler Signature:		ردر	~		- e-mail:		m@			-	<u>m</u>					:				:							
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ORDEF	マ#: 「リンム	$\mathcal{O}($		:				Р	reser	vatic	n & #	of Co	ontain	ers	Matrix	<u>8</u>	П	T	TAL.	ě			_				48, 7	İ
LAB # (lab use only)	FIEL	_D CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered		်			NaOH Na:S:O:		Other ( Specify)	DW=Drinking Water SL=Sludg GW = Groundwater S=Soil/Soil NP=Non-Potable Specify Othe	TPH: 418.1 8015M 8015	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K) Anions (Cl. SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BIEA 60215/30 OF BIEX 826/	N.O.R.M.	CHLORIDES	Total Dissolved Solids	RUSH TAT (Pre-Schedule) 24, 4	Standard TAT 4 DAY
01		Floor		-	1/3/2013	1020		1 X							Soil	Х							X		x		十	Ž
<i>0</i> 2	We	st Wall			1/3/2013	1200		1 X							Soil	х							x		х		T	人
63	Noi	rth Wall			1/3/2013	1310		1 X							Soil	X			1 .			7	x		x		T	$\sqrt{}$
σч	Sou	ıth Wall			1/3/2013	1345	·	ı x							Soil	х						7	X		x			X
05		st Wall			1/7/2013	900	•	ı X							Soil	х						7	x		х		Т	X
06	Eas	st Floor			1/7/2013	915	•	ı x							Soil	х						7,	x	П	х			X
07	Sto	ockpile			1/7/2013	920		ı x							Soil							:			х			X
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elinquis!	el low	Date 1/7/13	2:00		Received by:	Han	<u> </u>	:					l	Da	1/13	Time	70	abels Sustoo Sustoo	on c ly se ly se	onta als c als c	iner(s on con on coc	s) ntaine oler(s	er(s)				N M	
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Relinquis	ried by:	Date	III	ile (	Received by EL		ZY	$\Upsilon$	14	1	)			Da S	* 31	Time	18	empe	eratur	e Up	oon R	eceij	ρt:	)( )(		့) <u>~</u>	one St O	



### **XENCO Laboratories**



### Prelogin/Nonconformance Report- Sample Log-In

Client: Southern Union Gas Services- Monahan

Date/ Time Received: 01/08/2013 02:18:00 PM

Work Order #: 455231

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

**Temperature Measuring device used:** 

		Sample Receipt Checkl	list Commen	ts
#1 *Temperature of cod	oler(s)?		2	
#2 *Shipping container	in good condition	?	Yes	
#3 *Samples received	on ice?		Yes	
#4 *Custody Seals inta	ct on shipping cor	tainer/ cooler?	Yes	
#5 Custody Seals intac	ct on sample bottle	s?	Yes	
#6 *Custody Seals Sig	ned and dated?		Yes	
#7 *Chain of Custody	present?		Yes	
#8 Sample instructions	complete on Cha	in of Custody?	Yes	
#9 Any missing/extra s	amples?		No	
#10 Chain of Custody	signed when relind	quished/ received?	Yes	
#11 Chain of Custody	agrees with sample	e label(s)?	Yes	
#12 Container label(s)	legible and intact?		Yes	
#13 Sample matrix/ pro	operties 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 indicate	ed test(s)?	Yes	
#18 All samples receiv	ed within hold time	9?	Yes	
#19 Subcontract of sai	mple(s)?		Yes	
#20 VOC samples hav	e zero headspace	(less than 1/4 inch bubble)?	Yes	
#21 <2 for all samples	preserved with HN	IO3,HCL, H2SO4?	Yes	
#22 >10 for all sample	s preserved with N	aAsO2+NaOH, ZnAc+NaOH?	Yes	
Must be completed fo	r after-hours deli PH Devi	very of samples prior to plac	cing in the refrigerator	
Checklist o	completed by:		 Date:	
Checklist	reviewed by:			

Date:

## **Analytical Report 456071**

### for Southern Union Gas Services- Monahans

Project Manager: Joel Lowry
A-14 6-Inch Line
RP-1127
22-JAN-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)





22-JAN-13

Project Manager: Joel Lowry

**Southern Union Gas Services- Monahans** 

801 South Loop 464 Monahans, TX 79756

Reference: XENCO Report No(s): 456071

A-14 6-Inch Line

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) 456071. 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. 456071 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 456071**



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

A-14 6-Inch Line

Sample Id	Matrix	<b>Date Collected</b>	Sample Depth	Lab Sample Id
West Floor Trench @ 16'	S	01-17-13 09:00		456071-001
West Floor Trench @ 18'	S	01-17-13 09:30		456071-002
North Wall #2 @ 4'	S	01-17-13 13:30		456071-003
North Wall #2 @ 8'	S	01-17-13 13:40		456071-004
South Trench #5 @ 4'	S	01-17-13 14:20		456071-005
South Trench #5 @ 8'	S	01-17-13 14:30		456071-006

#### CASE NARRATIVE



Client Name: Southern Union Gas Services- Monahans

Project Name: A-14 6-Inch Line



Project ID: RP-1127 Report Date: 22-JAN-13 Work Order Number(s): 456071 Date Received: 01/21/2013

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-905180 Inorganic Anions by EPA 300/300.1

E300

Batch 905180, Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 456071-004, -003, -002, -005, -001, -006.

The Laboratory Control Sample for Chloride is within laboratory Control Limits

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Final 1.000



**Contact:** Joel Lowry

Project Location: Lea County, NM

### **Certificate of Analysis Summary 456071**

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



Project Id: RP-1127 Project Name: A-14 6-Inch Line

Date Received in Lab: Mon Jan-21-13 09:00 am

**Report Date:** 22-JAN-13

Project Manager: Nicholas Straccione

								Froject Mai	lager:	Micholas Strac	cione		
	Lab Id:	456071-0	001	456071-0	02	456071-0	03	456071-0	04	456071-0	05	456071-0	006
Analysis Dogwood	Field Id:	West Floor Tren	ich @ 16'	West Floor Trend	ch @ 18'	North Wall #2	2 @ 4'	North Wall #2 @ 8'		South Trench #5 @ 4'		South Trench #	#5 @ 8'
Analysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-17-13 (	9:00	Jan-17-13 0	9:30	Jan-17-13 1	3:30	Jan-17-13 1	3:40	Jan-17-13 1	4:20	Jan-17-13 1	4:30
Inorganic Anions by EPA 300/300.1	Extracted:	Jan-22-13	10:58	Jan-22-13 1	1:50	Jan-22-13 1	2:08	Jan-22-13 1	2:25	Jan-22-13 1	2:42	Jan-22-13 1	3:00
SUB: E871002	Analyzed:	Jan-22-13	10:58	Jan-22-13 1	1:50	Jan-22-13 1	Jan-22-13 12:08		2:25	Jan-22-13 1	2:42	Jan-22-13 1	3:00
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		701	1.21	255	1.19	4.38	1.26	2.42	1.23	14.5	1.25	5.26	1.19
Percent Moisture	Extracted:												
	Analyzed:	Jan-22-13	12:25	Jan-22-13 1	2:25	Jan-22-13 1	2:25	Jan-22-13 1	2:25	Jan-22-13 1	2:25	Jan-22-13 1	2:25
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		17.5	1.00	16.1	1.00	20.4	1.00	18.7	1.00	20.0	1.00	16.1	1.00
TPH By SW8015 Mod	Extracted:			Jan-22-13 0	9:45								
	Analyzed:			Jan-22-13 1	0:41								
	Units/RL:			mg/kg	RL								
C6-C12 Gasoline Range Hydrocarbons				ND	17.9								
C12-C28 Diesel Range Hydrocarbons				ND	17.9								
C28-C35 Oil Range Hydrocarbons				ND	17.9								
Total TPH				ND	17.9	_				_		_	

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.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

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.

**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

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	Phone	Fax
4143 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
6017 Financial Drive, Norcross, GA 30071	(770) 449-8800	(770) 449-5477
3725 E. Atlanta Ave, Phoenix, AZ 85040	(602) 437-0330	

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Final 1.000

<sup>\*</sup> Surrogate recovered outside laboratory control limit.



## Form 2 - Surrogate Recoveries

Project Name: A-14 6-Inch Line

Work Orders: 456071, Project ID: RP-1127

Units: mg/kg Date Analyzed: 01/22/13 10:41	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	88.0	100	88	70-135	
o-Terphenyl	47.4	50.1	95	70-135	

Lab Batch #: 905199 Sample: 632683-1-BLK / BLK Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 01/22/13 14:51	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	87.5	99.8	88	70-135	
o-Terphenyl	46.4	49.9	93	70-135	

Lab Batch #: 905199 Sample: 632683-1-BKS / BKS Batch: 1 Matrix: Solid

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/22/13 12:40	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	79.8	99.6	80	70-135	
o-Terphenyl	53.5	49.8	107	70-135	

Lab Batch #: 905199 Sample: 632683-1-BSD / BSD Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 01/22/13 13:38	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	87.5	99.9	88	70-135	
o-Terphenyl	56.1	50.0	112	70-135	

Surrogate Recovery [D] = 100 \* A / B

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

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## **Blank Spike Recovery**



**Project Name: A-14 6-Inch Line** 

**Work Order #:** 456071 **Project ID:** RP-1127

 Lab Batch #: 905180
 Sample: 632692-1-BKS
 Matrix: Solid

 Date Analyzed: 01/22/2013
 Date Prepared: 01/22/2013
 Analyst: RKO

Reporting Units: mg/kg Batch #: 1 BLANK /BLANK SPIKE RECOVERY STUDY

	tten // 1	DE/II (II / E	Em vic or i	THE THE	OVERT	TODI
Inorganic Anions by EPA 300/300.1	Blank Result	Spike Added	Blank Spike	Blank Spike	Control Limits	Flags
Analytes	[A]	[B]	Result [C]	%R [D]	%R	
Chloride	<1.00	100	95.6	96	80-120	



### **BS / BSD Recoveries**



**Project Name: A-14 6-Inch Line** 

**Work Order #:** 456071

**Date Prepared:** 01/22/2013

**Batch #:** 1

**Project ID:** RP-1127 **Date Analyzed:** 01/22/2013

Analyst: KEB Lab Batch ID: 905199

Sample: 632683-1-BKS

35 ( ) 6 111

Matrix: Solid

Units: mg/kg

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

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<14.9	996	862	87	999	900	90	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<14.9	996	938	94	999	950	95	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 / MSD Recoveries



**Project Name: A-14 6-Inch Line** 

Work Order #: 456071 Project ID: RP-1127

**Lab Batch ID:** 905180 **QC- Sample ID:** 456071-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 01/22/2013 Date Prepared: 01/22/2013 Analyst: RKO

Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
Inorganic Anions by EPA 300/300.1	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	•	Duplicate Spiked Sample			Control Limits	Control Limits	Flag		
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD			
Chloride	701	121	685	0	121	691	0	1	80-120	20	X		



## **Sample Duplicate Recovery**



**Project Name: A-14 6-Inch Line** 

**Work Order #:** 456071

**Lab Batch #:** 905195 **Project ID:** RP-1127

 Date Analyzed:
 01/22/2013 12:25
 Date Prepared:
 01/22/2013
 Analyst:
 WRU

 QC- Sample ID:
 456071-001 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	17.5	17.1	2	20									

## **Xenco Laboratories**

#### 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			· · · · · · · · · · · · · · · · · · ·					٠.		-			-	- :	Pro	ect	Nam	e: <u>A</u>	-14	6-In	ch	Line	. · · ·		<del></del>			
	Company Name	Basin Environmental Ser	vice T	echnol	ogies, LLC	·		. •			: :					. : •		Pro	ject :	#: <u>(F</u>	RP-1	127	7)				,			
	Company Address:	P.O. Box 301					:							:		<b>.</b>	Pı	ojec	t Lo	:: <u>Le</u>	a Co	ount	y, N	M						
	City/State/Zip:	Lovington, NM 88260					<u> </u>		*:				-:						PO i	‡: <u>Bi</u>	II So	uth	ern l	Unior	n Ga	15				
	Telephone No:	(575)396-2378				_ Fax No:		(57	5) 3	96-1	429					Re	port	Forn	nat:	X	Sta	anda	ırd		<u> </u>	TRR	Ρ		] NPC	DES
	Sampler Signature:	Quel low		1		e-mail:		pm(	@ba	sine	nv.co	m. ro	ose.sl	ade@	SUC	∋.com,	cyndi	insk	eep@	sug.	<u>com</u>								: ''	
(lab use	only) ノムー c 。。	1		8													-			:	TCLP:	_	nalyz	ze Fo		7	$\overline{T}$	$\overline{T}$	$\exists$	SE .
ORDEF	""" 4560'	\[\frac{1}{1} \]			:				Pre	eserv	atio	1 & #	of Co	ontair	ers	Mat	rix	g l	Τ"	T	OTAL:	e e		$\vdash$	X		.   .			48, 72 hrs
AB#(lab use only)			Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	6	HNO <sub>3</sub>	нсі	H <sub>2</sub> SO <sub>4</sub>	NaOH Na.S.O.	None	Other (Specify)	DW=Drinking Water SL=Sludg GW = Groundwater S=Soil/Soi	Specify	418.1 801	PH: IX 1005 IX 1006		SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	/olatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260		N.O.R.M. CHLORIDES	Total Dissolved Solids		RUSH TAT (Pre-Schedule) 24,
		LD CODE	Be	<u> </u>			<u>ie</u>			Ī	Ĭ	<u> </u>	žįž	Ž	ō	MO S	Ą	Ħ.	H 1	Ā	\ S	We	lo/	Ser	圖	교	<del></del>		_	
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્રી પ		Wall #2 @ 8'			1/17/2013	140		1	Х			1	<u> </u>						1	T	T				T		x	_	1 1	X
<i>o</i> ડ		rench #5 @ 4'			1/17/2013	220		1	х			Ī	-											一	1	İ	х		_	X
OV	South Tr	rench #5 @ 8'			1/17/2013	230		1	X				-											$\Box$	Ţ		Х	-		Х
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Special	Instructions:																		S	ampl	e Co	ntaii	ners	ents: Intac Ispac	t?)			Y Y	OTTO MARKET	N.
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#### **XENCO Laboratories**



### Prelogin/Nonconformance Report- Sample Log-In

Client: Southern Union Gas Services- Monahan

Date/ Time Received: 01/21/2013 09:00:00 AM

Work Order #: 456071

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

**Temperature Measuring device used:** 

	Sample Receipt Checklist	Comments
#1 *Temperature of coo	er(s)?	8.1
#2 *Shipping container	in good condition?	Yes
#3 *Samples received of	on ice?	Yes
#4 *Custody Seals intag	ct on shipping container/ cooler?	Yes
#5 Custody Seals intac	t on sample bottles?	Yes
#6 *Custody Seals Sign	ned and dated?	Yes
#7 *Chain of Custody p	resent?	Yes
#8 Sample instructions	complete on Chain of Custody?	Yes
#9 Any missing/extra sa	amples?	No
#10 Chain of Custody s	igned when relinquished/ received?	Yes
#11 Chain of Custody a	grees with sample label(s)?	Yes
#12 Container label(s) I	egible and intact?	Yes
#13 Sample matrix/ pro	perties agree with Chain of Custody?	Yes
#14 Samples in proper	container/ bottle?	Yes
#15 Samples properly p	preserved?	Yes
#16 Sample container(s	s) intact?	Yes
#17 Sufficient sample a	mount for indicated test(s)?	Yes
#18 All samples receive	ed within hold time?	Yes
#19 Subcontract of sam	nple(s)?	Yes
#20 VOC samples have	e zero headspace (less than 1/4 inch bubble)?	Yes
#21 <2 for all samples p	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	g in the refrigerator
Analyst:	PH Device/Lot#:	
Checklist c	ompleted by:	Date:
Checklist i	reviewed by:	

Date:

SUNDANCE SERV P.O. Box 1737 Eunice, New M. (575) 394-2511	TCES, Inc.	TICKET No. 232739
LEASE OPERATOR/SHIPPER/COMPANY:  LEASE NAME:  TRANSPORTER COMPANY:  DATE: -15-2013 VEHICLE NO:  CHARGE TO:		TIME 2.22 AM/PM  ERATOR COMPANY MAN'S NAME:  RIG NAME AND NUMBER
T	YPE OF MATERIAL	
[ ] Production Water [ ] Tank Bottoms [ ] Solids  Description:	[ ] Drilling Fluids [ ] Contaminated Soil [ ] BS&W Content:	[ ] Rinsate [ ] Jet Out [ ] Call Out
RRC or API#		C-133#
VOLUME OF MATERIAL [ ] BBLS	_: YARD	20: 11
AS A CONDITION TO SUNDANCE SERVICE TICKET, OPERATOR/SHIPPER REPRESENTS AN MATERIAL EXEMPT FROM THE RESOURCE, CON TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEATHERETO, BY VIRTUE OF THE EXEMPTION AFF ASSOCIATED WITH THE EXPLORATION, DEVER GEOTHERMAL ENERGY.	ID WARRANTS THAT THE WA NSERVATION AND RECOVERY A ALTH AND SAF. CODE § 361.00 ORDED DRILLING FLUIDS, PR LOPMENT OR PRODUCTION	STE MATERIAL SHIPPED HEREWITH IS ACT OF 1976, AS AMENDED FROM TIME 01 et seq., AND REGULATIONS RELATED ODUCED WATERS, AND OTHER WASTE OF CRUDE OIL OR NATURAL GAS OR
ALSO AS A CONDITION TO SUNDANCE SERVI TICKET. TRANSPORTER REPRESENTS AND OPERATOR/SHIPPER TO TRANSPORTER IS NO FACILITY FOR DISPOSAL.  THIS WILL CERTIFY that the above Transported above described location, and that it was tended materials were added to this load, and that the results in the service of the	O WARRANTS THAT ONLY  DW DELIVERED BY TRANSPOR  er loaded the material represent	THE MATERIAL DELIVERED BY RTER TO SUNDANCE SERVICES, INC.'S steed by this Transporter Statement at the
DRIVER: (SIGNATURE)		
FACILITY REPRESENTATIVE:	(n	a R

andance Canary - Sundance Acct #1 Pink - Tr

Pink - Transporter

(SIGNATURE)

White - Sundance

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=	M	

P.O. Box 1737 Eunice, New (575) 394-251	Mexico 88231 1	TICKET No. 232783
LEASE OPERATOR/SHIPPER/COMPANY:	CHA	
LEASE NAME: 14-14 / 14/1	2017	
TRANSPORTER COMPANY:	10 M	TIME DIEGIAM/PM
DATE: 1-15-13 VEHICLE NO:	150 GENE	RATOR COMPANY MAN'S NAME:
CHARGE TO: 511G		IG NAME ND NUMBER
	TYPE OF MATERIAL	
[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	IJ Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out
Description:	D	
RRC or API #		C-133#
VOLUME OF MATERIAL [ ] BBLS	: [] YARD	11
AS A CONDITION TO SUNDANCE SERVIOR TICKET, OPERATOR/SHIPPER REPRESENTS A MATERIAL EXEMPT FROM THE RESOURCE, CO TO TIME, 40 U.S.C. § 6901, et seg., THE NM H	ONSERVATION AND RECOVERY A	CT OF 1076 AS AMENDED FROM THE

THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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

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

DRIVER:		
(SIGNATURE)	1 1	
FACILITY REPRESENTATIVE:	la Crus	
(SIGNATURE)		ı

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

P.O. Box 1737 Eunice, New Mexico 88 (575) 394-2511	ES, Inc. TICKET No. 232744
LEASE OPERATOR/SHIPPER/COMPANY:	
LEASE NAME: A - 14 (0" / 1)	76
TRANSPORTER COMPANY: Triple	1 TIME 12-24 AMPN
DATE: 1.15. 2013 VEHICLE NO: 04	GENERATOR COMPANY MAN'S NAME:
CHARGE TO: SUG	RIG NAME AND NUMBER
ТҮРЕ	OF MATERIAL
[ ] Production Water	Drilling Fluids [ ] Rinsate
[ ] Tank Bottoms	Contaminated Soil [ ] Jet Out
[ ] Solids	BS&W Content: [ ] Call Out
Description: 0/0	
RRC or API #	C-133#
VOLUME OF MATERIAL [ ] BBLS:	1 YARD 20 : []

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

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

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

DRIVER:	Track
(SIGNATURE)	Market 1
FACILITY REPRESENTATIVE:	(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



P.O. Box 1737 Eunice, New Mex (575) 394-2511	ico 88231	TICKET No. 232701
LEASE OPERATOR/SHIPPER/COMPANY:	IIG	
LEASE NAME: A - 14	Line	
TRANSPORTER COMPANY:	M Trucking	TIME / O: / AM/PM
DATE: 1-15.7013 VEHICLE NO: 04	GENERATO	PR COMPANY MAN'S NAME:
CHARGE TO: SUG	RIG NA AND NI	
TY	PE OF MATERIAL	
[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	[ ] Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out
Description:		
RRC or API #		C-133#
VOLUME OF MATERIAL [ ] BBLS	: I YARD	]: []
AS A CONDITION TO SUNDANCE SERVICES,	INC.'S ACCEPTANCE OF THE MA	ATERIALS SHIPPED WITH THIS IOR

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

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

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

DRIVER: (SIGNATURE)	
FACILITY REPRESENTATIVE: (SIGNATURE)	

White - Sundance

Canary - Sundance Acct #1



	(575) 394-251		HICKET NO.	202//0
LEASE OPERATOR/	SHIPPER/COMPANY:	SIIG		
LEASE NAME:	A-14	le" Line		
TRANSPORTER CO	MPANY: TEID	EM	TIM	ME 2:44 AM/PM
DATE:  -  5	2013 VEHICLE NO:	CA GENER	RATOR COMPANY MAN'S NAME:	C. Stanler
CHARGE TO:	SUG		G NAME ND NUMBER	0
		TYPE OF MATERIAL		
	[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate	
	[ ] Tank Bottoms	[1] Contaminated Soil	[ ] Jet Out	
	[ ] Solids	[ ] BS&W Content:	[ ] Call Ou	t
Description	n: 0/K	)		
RRC or API #			C-133#	
VOLUME OF MATER	RIAL []BBLS	YARD YARD	20:	[]
MATERIAL EXEI TO TIME, 40 U.S THERETO, BY V ASSOCIATED W GEOTHERMAL	AIOR/SHIPPER REPRESENTS / MPT FROM THE RESOURCE, CI 5.C. § 6901, et seq., THE NM H 'IRTUE OF THE EXEMPTION A VITH THE EXPLORATION, DEV	CES, INC.'S ACCEPTANCE OF THE MAND WARRANTS THAT THE WAS ONSERVATION AND RECOVERY A BEALTH AND SAF. CODE § 361.001 FFORDED DRILLING FLUIDS, PROJECTION OF THE PRODUCTION OF TH	TE MATERIAL SHIPI CT OF 1976, AS AME 1 et seq., AND REGU DDUCED WATERS, A	PED HEREWITH IS ENDED FROM TIME LATIONS RELATED ND OTHER WASTE

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

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DRIVER:

(SIGNATURE)

**FACILITY REPRESENTATIVE:** 

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



P.O. Box 1737 Eunice, New Mexico 88231 TICKET No. 23	2700
LEASE OPERATOR/SHIPPER/COMPANY:	
LEASE NAME: A - 14 16"	
TRANSPORTER COMPANY: Triple Time 9	april Assiras
DATE: -15-7013 VEHICLE NO: GENERATOR COMPANY MAN'S NAME: C. St.	:56 AM/PM
CHARGE TO:  RIG NAME AND NUMBER	
TYPE OF MATERIAL	
[ ] Production Water [ ] Drilling Fluids [ ] Rinsate	
[ ] Tank Bottoms [ ] Contaminated Soil [ ] Jet Out	
[ ] Solids [ ] BS&W Content: [ ] Call Out	
Description:	
RRC or API # C-133#	
VOLUME OF MATERIAL []BBLS: [] YARD: [].	
AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HE MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED ITO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATION THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS. PRODUCED WATERS, AND COM-	FROM TIME

ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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

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DRIVER:	Util 1	
FACILITY REPRESENTATIV	E: ConstRonces	

White - Sundance

Canary - Sundance Acct #1



## SUNDANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231

(575) 394-2511	TEXTED 00251	IICKEI NO. 23203 [
LEASE OPERATOR/SHIPPER/COMPANY:	UG	
LEASE NAME: 1-14 (01)		
TRANSPORTER COMPANY:	1	TIME
DATE: 1-14-2013 VEHICLE NO: 15	GENERATO M	R COMPANY AN'S NAME:
CHARGETO: 54G	RIG NAI AND NU	
	TYPE OF MATERIAL	
[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out
Description:		
RRC or API #		C-133#
VOLUME OF MATERIAL [ ] BBLS	_: X YARD_20	: []
AS A CONDITION TO SUNDANCE SERVICE	ES, INC.'S ACCEPTANCE OF THE MA	TERIALS SHIPPED WITH THIS JOB

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

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

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DRIVER:	
FACILITY REPRESENTATIVE:	5/2/17/12

White - Sundance Canary - Sundance Acct #1

(SIGNATURE)

Pink - Transporter



P.O. Box 1737 Eunice, New (575) 394-251		TICKET No. 232516
LEASE OPERATOR/SHIPPER/COMPANY:	illG	
LEASE NAME: A - 1 L4	c" Line	5
TRANSPORTER COMPANY:	le M	TIME 22 AM/PM
DATE:  - 14-70/3 VEHICLE NO:	GENERA	ATOR COMPANY SAME: Stondard
CHARGETO: SUG		NAME D NUMBER
	TYPE OF MATERIAL	
[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	[ ] Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out
Description:		
RRC or API #		C-133#
VOLUME OF MATERIAL [ ] BBLS	: []YARD	26: 11
AS A CONDITION TO SUNDANCE SERVI TICKET, OPERATOR/SHIPPER REPRESENTS MATERIAL EXEMPT FROM THE RESOURCE, C TO TIME, 40 U.S.C. § 6901, et seq., THE NM F THERETO, BY VIRTUE OF THE EXEMPTION A	AND WARRANTS THAT THE WAST ONSERVATION AND RECOVERY AC HEALTH AND SAF. CODE § 361.001 IFFORDED DRILLING FLUIDS, PRO	TE MATERIAL SHIPPED HEREWITH IS CT OF 1976, AS AMENDED FROM TIME et seg., AND REGULATIONS RFI ATED

ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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

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DRIVER: Uta
(SIGNATURE)
FACILITY REPRESENTATIVE:

White - Sundance

(SIGNATURE)

Canary - Sundance Acct #1



P.O. Box 1737 Eunice, New Mex (575) 394-2511	ico 88231	TICKET	0. 45	25/3
LEASE OPERATOR/SHIPPER/COMPANY: 54	16			
LEASE NAME: A-14	" Line			
TRANSPORTER COMPANY:	M		TIME !	O ( AM/PM)
DATE: 1-14-7013 VEHICLE NO: 15	O G	ENERATOR COMPANY MAN'S NAME:	2.54	anley
CHARGETO: 546		RIG NAME AND NUMBER		
TYPE OF MATERIAL				
[ ] Production Water	[ ] Drilling Fluids	[ ] Rii	nsate	
[ ] Tank Bottoms	[ ] Contaminated Soil	[ ] Je	t Out	
[ ] Solids	[ ] BS&W Content:	[ ] Ca	II Out	
Description: 010				
RRC or API #		C-133	#	
VOLUME OF MATERIAL [ ] BBLS.	_: YARD_	20:	[].	
AS A CONDITION TO SUNDANCE SERVICES,	INC.'S ACCEPTANCE OF	THE MATERIALS SI	HIPPED WITI	H THIS IOB

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

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DRIVER:	State
FACILITY REPRESENTATIVE	(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

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P.O. Box 1737 Eunice, New Mexico 88231 (575) 394-2511 TICKET No. 232614

(575) 394	2511	
LEASE OPERATOR/SHIPPER/COMPANY:	5116	
LEASE NAME: A - 14 6 112	ine	
TRANSPORTER COMPANY:	1e M	TIME 3:07 AM/PM
DATE: 1-14-2013 VEHICLE NO:	150 GENERA	TOR COMPANY MAN'S NAME: O. STULLEY
CHARGE TO: 54 G		NAME NUMBER
TYPE OF MATERIAL		
[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	M Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out
Description:	DID	
RRC or API #	,	C-133#
VOLUME OF MATERIAL [ ] BBLS	: X YARD 20	· []

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

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

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DRIVER:
(SIGNATURE)
FACILITY REPRESENTATIVE:
(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



P.O. Box 1737 Eunice, New Mexi (575) 394-2511	co 88231	TICKET No. 232648
LEASE OPERATOR/SHIPPER/COMPANY:	G	
LEASE NAME: 17-14 ("Line	tud	
TRANSPORTER COMPANY:	1000	TIME 4:54 AM/PM
DATE: 1-14-2013 VEHICLE NO: 03		OR COMPANY MAN'S NAME:
CHARGETO: 5UG	RIG N. AND I	AME NUMBER
TY	PE OF MATERIAL	
[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	1 Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out
Description:	7	
RRC or API #	Test.	C-133#
VOLUME OF MATERIAL [ ] BBLS	YARD 26	: []
AS A CONDITION TO SUNDANCE SERVICES, TICKET, OPERATOR/SHIPPER REPRESENTS AND MATERIAL EXEMPT FROM THE RESOURCE, CONSI TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEAL	WARRANTS THAT THE WASTE ERVATION AND RECOVERY ACT	MATERIAL SHIPPED HEREWITH IS OF 1976, AS AMENDED FROM TIME

THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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

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	A district material was delivered without incident.
DRIVER:	
(SIGNATURE) FACILITY REPRESENTATIVE:	1 Sta Prince
(SIGNATU	RE)
White - Sundance	Canary - Sundance Acct #1 Pink - Transporter



## SUNDANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231

TICKET No. 232619

(373) 394-2311				
LEASE OPERATOR/SHIPPER/COMPANY:	16			
LEASE NAME: A - 14 6 11 /	1114			
TRANSPORTER COMPANY: Triple	M TIME 2:11 A	AM/PM		
DATE:   - 14 - 2013 VEHICLE NO:   6	GENERATOR COMPANY MAN'S NAME: 5 to 10 to	4		
CHARGE TO: SUG	RIG NAME AND NUMBER	0		
TYPE OF MATERIAL				
[ ] Production Water	[ ] Drilling Fluids [ ] Rinsate			
[ ] Tank Bottoms	[ ] Jet Out			
[ ] Solids	[ ] BS&W Content: [ ] Call Out			
Description: O D				
RRC or API #	C-133#			
VOLUME OF MATERIAL [ ] BBLS	: YARD_2(: []			

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

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

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DRIVER:	cel	
(SIGNATURE)		
FACILITY REPRESENTATIVE:	1. STA (3112/	,
(SIGNATURE		
White - Sundance	Canary - Sundance Acct #1	Pink - Transporter



SUNDANCE SER P.O. Box 1737 Eunice, New		TICKET No. 232515	
(575) 394-251			
LEASE OPERATOR/SHIPPER/COMPANY:	SUG		
LEASE NAME: A - 14	Line		
TRANSPORTER COMPANY:	e M	TIME 10:19 AM/PM	
DATE: 1-14-2013 VEHICLE NO:	GENERATOR MA	R COMPANY AN'S NAME:	
CHARGE TO: 54G	RIG NAN AND NU		
	TYPE OF MATERIAL		
[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate	
[ ] Tank Bottoms	I 1 Contaminated Soil	[ ] Jet Out	
[ ] Solids	[ ] BS&W Content:	[ ] Call Out	
Description: 6/E			
RRC or API #		C-133#	
VOLUME OF MATERIAL [ ] BBLS	: LYARD 2	): [1	
AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.  ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.  THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.  DRIVER:  (SIGNATURE)			
FACILITY REPRESENTATIVE: (SIGNATURE)	ice hours		
White - Sundance	Canary - Sundance Acct #1	Pink - Transporter	

SUNDANCE SE P.O. Box 1737 Eunice, N (575) 394-	New Mexico 88231	TICKET N	o. 232564
LEASE OPERATOR/SHIPPER/COMPANY:	SUG		
LEASE NAME: A-14 (	" Line		
TRANSPORTER COMPANY:	DIEM		TIME 12:49 AM/PM
DATE: 1-14-2013 VEHICLE NO:	GENER.	ATOR COMPANY MAN'S NAME:	: Stanley
CHARGE TO: 5UG		NAME D NUMBER	1
	TYPE OF MATERIAL		
[ ] Production Water	[ ] Drilling Fluids	[ ] Rin	sate
[ ] Tank Bottoms	Contaminated Soil	[ ] Jet	
[ ] Solids	[ ] BS&W Content:		l Out
Description:	10		

Illi

RRC or API#

VOLUME OF MATERIAL

[ ] BBLS.\_

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

[ ] YARD

C-133#

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

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DRIVER:	d	
(SIGNATURE)	2	
FACILITY REPRESENTATIVE:	mic Komer	
(SIGNATURE	)	
White - Sundance	Canary - Sundance Acct #1	Pink - Transporter

SUNDANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231 (575) 394-2511	TICKET No. 232294			
LEASE OPERATOR/SHIPPER/COMPANY:				
LEASE NAME:	15			
TRANSPORTER COMPANY:	- 11			
DATE: 1-11-2012 VEHICLE NO:	TIME 4:22 AM/PM			
1112015	GENERATOR COMPANY MAN'S NAME:			
CHARGE TO: SUG	RIG NAME AND NUMBER			
TYPE OF MATERIA				
[ ] Production Water [ ] Drilling Fluids				
t i Diming Halas	[ ] Rinsate			
Contaminated				
[ ] BS&W Content:	[ ] Call Out			
Description:				
RRC or API #	C-133#			
VOLUME OF MATERIAL [ ] BBLS. : I VARI	7			
VOLUME OF MATERIAL [] BBLS: YARI	D			
AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.  ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.				
THIS WILL CERTIFY				

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DRIVER: (SIGNATURE)

FACILITY REPRESENTATIVE: (SIGNATURE)

White - Sundance Canary - Sundance Acct #1



# SUNDANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231

TICKET No. 232209

(575) 394-2511		
LEASE OPERATOR/SHIPPER/COMPANY:	SUG	
LEASE NAME:	6" 2100	
TRANSPORTER COMPANY:		TIME 1/ S/ AM/PM
DATE: -11.7013 VEHICLE NO:	GENERAT	TIME AM/PM OR COMPANY MAN'S NAME:
CHARGE TO: SUG	RIG N AND I	AME NUMBER
	TYPE OF MATERIAL	
[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	[ ] Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out
Description:		
RRC or API #		C-133#
VOLUME OF MATERIAL [ ] BBLS	: [ ] YARD	0: [1
AS A CONDITION TO SUNDANCE SERVICE		Mark Market and the second

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

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DRIVER:
(SIGNATURE)
FACILITY REPRESENTATIVE:
(SIGNATURE)
Marie C 1

White - Sundance

Canary - Sundance Acct #1



# SUNDANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231

TICKET No. 232180

	'  ' (575) 394-2511						
	LEASE OPERATOR/SHIPPER/COMPANY:						
	LEASE NAME: A - 14 LU LIGHT						
	TRANSPORTER COMPANY: TIME 10 04 AM/PM						
	DATE: 2013 VEHICLE NO: GENERATOR COMPANY MAN'S NAME: 6 STORAGE						
L	CHARGE TO:  RIG NAME AND NUMBER						
	TYPE OF MATERIAL						
	[ ] Production Water [ ] Drilling Fluids [ ] Rinsate						
	[ ] Tank Bottoms [ ] Contaminated Soil [ ] Jet Out						
T	[ ] Solids [ ] BS&W Content: [ ] Call Out						
Description:							
	RRC or API # C-133#						
	VOLUME OF MATERIAL []BBLS: [] YARD: []						

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

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DRIVER:	15/0/
(SIGNATURE)  FACILITY REPRESENTATIVE	Connie Roman
	(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



# SUNDANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231

TICKET No. 232250

(575) 394-251	1	HEREFILD.			
LEASE OPERATOR/SHIPPER/COMPANY:	SIIG				
LEASE NAME:	Lo" Line				
TRANSPORTER COMPANY:	o M	TIME 7 -7 - AM/PM			
DATE: 1-11-2013 VEHICLE NO:	150	GENERATOR COMPANY MAN'S NAME:			
CHARGE TO: 516		RIG NAME AND NUMBER			
	TYPE OF MATERIAL				
[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate			
[ ] Tank Bottoms	Contaminated S	oil [ ] Jet Out			
[ ] Solids	[ ] BS&W Content:	[ ] Call Out			
Description:					
RRC or API #		C-133#			
VOLUME OF MATERIAL [ ] BBLS.	: [] YARD	20: 11			
AS A CONDITION TO SUNDANCE SERVIC TICKET, OPERATOR/SHIPPER REPRESENTS A	CES, INC.'S ACCEPTANCE O	F THE MATERIALS SHIPPED WITH THIS JOB			

THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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

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DF	er: SUSITA
	(SIGNATURE)
FA	ITY REPRESENTATIVE: Conserve Koncey
	(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

P.O. Box 1737 Eunice, New Mex (575) 394-2511	CES, Inc. TICKET No. 232174
LEASE OPERATOR/SHIPPER/COMPANY:  LEASE NAME:  TRANSPORTER COMPANY:  DATE:  VEHICLE NO:	TIME 9.52 AM/PI
CHARGE TO: SUG	RIG NAME AND NUMBER  PE OF MATERIAL
[ ] Production Water [ ] Tank Bottoms [ ] Solids	[ ] Drilling Fluids
Description: C   C   C   C   C   C   C   C   C   C	C 122#

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

YARD\_

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	and delivered without incluent.
DRIVER.	
DRIVER: (SIGNATURE)	May Jelle
(SIGNATURE)	A
FACILITY REPRESENTATIVE	Connic Romers
	(SIGNATURE)

White - Sundance

**VOLUME OF MATERIAL** 

[ ] BBLS.\_

Canary - Sundance Acct #1

Pink - Transporter

[]

P.O. Box 1737 Eunice, New Mex (575) 394-2511	CES, Inc. TICKET No. 232206
LEASE OPERATOR/SHIPPER/COMPANY:	UG
LEASE NAME: A - 14	É Line
TRANSPORTER COMPANY:  DATE: VEHICLE NO:	10
CHARGE TO: SUG	RIG NAME AND NUMBER
TY	PE OF MATERIAL
[ ] Production Water	[ ] Drilling Fluids [ ] Rinsate
[ ] Tank Bottoms	[ ] Jet Out
[ ] Solids	[ ] BS&W Content: [ ] Call Out
Description:	
RRC or API #	C-133#
VOLUME OF MATERIAL [ ] BBLS	: 1 YARD 20: []

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

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DRIVER:	o Chu	201			
(SIGN)	TURE)	1			
FACILITY REF	PRESENTATIVE:	Conne	· Koner	N	
	(SIGI	NATURE)			
1	White Cundance	6 6	And the second second		

Winte Sundance

Canary - Sundance Acct #1

P.O. Box 1737 Eunice, New M (575) 394-2511	TCES, Inc.	TICKET No.	232248
LEASE OPERATOR/SHIPPER/COMPANY:  LEASE NAME:  TRANSPORTER COMPANY:  DATE:  VEHICLE NO:	SUG L' Linc LE M GENERA	TIN  NTOR COMPANY MAN'S NAME:	ME 2:02 AM/PM
CHARGE TO:		NAME O NUMBER	- TO 1700 0
[ ] Production Water [ ] Tank Bottoms [ ] Solids	[ ] Drilling Fluids [ ] Contaminated Soil [ ] BS&W Content:	[ ] Rinsate [ ] Jet Out [ ] Call Out	
Description:	: [1 VARD	C-133#	

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

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DRIVER:	Sill
(SIGNATURE)	ć dana
FACILITY REPRESENTATIVE	
	(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1



## SUNDANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231

TICKET No. 2210A0

(575) 394-2511	2XICO 88231	IICKEI No. 231940
LEASE OPERATOR/SHIPPER/COMPANY:	UG	
LEASE NAME: A - 14 10"	in e	
TRANSPORTER COMPANY:	ale Al	TIME
DATE: 1-9-2013 VEHICLE NO:		OR COMPANY MAN'S NAME:
CHARGE TO: 511 G	RIG N AND I	AME NUMBER
Т	YPE OF MATERIAL	
[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	[ ] Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out
Description:	)	
RRC or API #		C-133#
VOLUME OF MATERIAL [ ] BBLS	: X1 YARD_2(	
AS A CONDITION TO SUNDANCE SERVICES		

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

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ACILITY REPRESENTATIVE:	Sta A.
	JII (7112/
(SIGNATURE)	The state of the s

SUNDANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231 (575) 394-2511	TICKET No. 231941
LEASE OPERATOR/SHIPPER/COMPANY: 5UG  LEASE NAME: A - 14 6" Line  TRANSPORTER COMPANY: 78 DIE M  DATE: 1-9-2013 VEHICLE NO: 150  CHARGE TO: 5UG	GENERATOR COMPANY MAN'S NAME:  RIG NAME AND NUMBER
TYPE OF MATERIAL  [ ] Production Water	[ ] Rinsate Soil [ ] Jet Out
RRC or API #  VOLUME OF MATERIAL [ ] BBLS: [ ] YARD	C-133#

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

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

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DRIVER: (SIGNATURE)
FACILITY REPRESENTATIVE:  (SIGNATURE)
White - Sundance Canary - Sundance Acct #1 Pink - Transporter

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SUNDANCE SERV P.O. Box 1737 Eunice, New M (575) 394-2511	Mexico 88231	TICKET No. 2	31916
LEASE OPERATOR/SHIPPER/COMPANY:  LEASE NAME: A - 14 6 1 L  TRANSPORTER COMPANY:	sug	TIME	2.515
DATE: 1-9-2012 VEHICLE NO:	150 GENERA	TOR COMPANY ROS	1 Comments
CHARGE TO: 5UG		NAME NUMBER	4
	TYPE OF MATERIAL		
[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate	
[ ] Tank Bottoms	[ ] Contaminated Soil	[ ] Jet Out	
[ ] Solids	[ ] BS&W Content:	[ ] Call Out	
Description:	D		
RRC or API #		C-133#	
VOLUME OF MATERIAL [ ] BBLS	: NYARD 2	0 .	1

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

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DRIVER:	Stel			
(SIGNATURE)	an Com	and the same of th		
FACILITY REPRESENTATIVE:		. Sta	Cruse	
	(SIGNATURE)			

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



## SUNDANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231

TICKET No. 231047

(575) 394-2511	TEXICO 0023	TICKET NO. 201317
LEASE OPERATOR/SHIPPER/COMPANY:	SUG	
LEASE NAME: A - 14 (0 11 )	ine	
TRANSPORTER COMPANY:	M	TIME / D: DO AM/PM
DATE: 1-9-2012 VEHICLE NO: -		TOR COMPANY MAN'S NAME: RUSe Stude
CHARGETO: SUG	RIG N AND I	IAME NUMBER
	TYPE OF MATERIAL	
[ ] Production Water	[ ] Drilling Fluids	[ ] Rinsate
[ ] Tank Bottoms	M Contaminated Soil	[ ] Jet Out
[ ] Solids	[ ] BS&W Content:	[ ] Call Out
Description:	D	
RRC or API #		C-133#
VOLUME OF MATERIAL [ ] BBLS.	_: YARD_2(	5: [1
AS A CONDITION TO SUNDANCE SERVICE	ES INCIS ASSERTINGS OF THE	

dance services, inc.'s acceptance of the materials shipped with this Job TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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

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

DRIVER:	Seller	
(SIGNATURE)	1	
FACILITY REPRESENTATIVE:	S. Sta Cinz	
(SIGNATURE		
White - Sundance	Canary - Sundance Acct #1	Pink - Transporter

#### SUNDANCE SERVICES, Inc. 232298 TICKET No. Eunice, New Mexico 88231 (575) 394-2511 LEASE OPERATOR/SHIPPER/COMPANY: LEASE NAME: inc TRANSPORTER COMPANY: ri GENERATOR COMPANY MAN'S NAME VEHICLE NO: CHARCE TO: AND NUMBER TYPE OF MATERIAL [ ] Production Water [ ] Drilling Fluids [ ] Rinsate Contaminated Soil [ ] Tank Bottoms [ ] Jet Out [ ] Solids ] B5&W Content: [ ] Call Out Description: RRC or API # C-133# VOLUME OF MATERIAL [ ] BBLS. AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF, CODE § 361,001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the

above described location, and that it was tendered by the above described shipper. This will certify that no additional

Indance Canary - Sundance Acct #1 Pink - Ti

Pink - Transporter

materials were added to this load, and that the material was delivered without incident.

FACILITY REPRESENTATIVE:

White - Sundance

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 1V 1220 S. St. Francis Dr., Santa Fe, NM 87505 Oil Conservation Division

1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-141 Revised October 10, 2003

mit 2 Copies to appropriate strict Office in accordance with Rule 116 on back side of form side of form

Release Notification and Corrective Action

						<b>OPERA</b>	ror \&	)	⊠ Initi	Report
						Contact Contact Tony Savoie				
Address		P.C		26 Jal, N.M. 882		Telephone N	10.			505-395-2116
Facility Nan	ne		Lea	County Field De	ept.   I	Facility Typ	<u>e</u>			Natural Gas Gathering
Surface Own	ner: Feder	al		Mineral O	wner: F	ederal			Lease N	lo.
LOCATION OF RELEASE										
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/V	West Line	County
В	7	238	34Ē					}		Lea
3	329 G w Latitude N32 19.563 Longitude W103 30.334 NATURE OF RELEASE									
Type of Relea	ase : Crude	oil, and natur	al gas			Volume of 7 bbls crud	Release: 90 mcf	f gas,	Volume R	Recovered 0 bbls
Source of Rel	lease			6" Pipeline		Date and Hour of Occurrence Date and Hour of Discovery 10/29/06				
Was Immedia	te Notice (	Given?				Unknown If YES, To	Whom?		Time: 11:	00 a.m.
was minicula	ile Notice (		Yes	No 🛛 Not Rec	quired		was contacted a	t 0800 o	n 10/30/06	
By Whom? T			ion Gas S	ervices			lour: 10/30/06 0			
Was a Watero	course Read		Yes 🛭	l No		If YES, Vo	lume Impacting	the Wate	ercourse.	
If a Waterson										
If a Watercourse was Impacted, Describe Fully.*										
				ction Taken.*						
				25 psi develope sure on the line is						ak repair clamp was placed 000 ppm.
Describe Area Affected and Cleanup Action Taken. The affected area is pasture. An area covering approximately 1000 sq. ft. was affected by the release and response activities. Remediation activities will start after the landowner has approved the remediation plan. All remediation activities will follow the NMOCD Recommended 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.										
							OIL CON	SERV	ATION	DIVISION
Signature:			(	Tony Savoie			<u>.</u> د	بس		
Printed Name	»:			John A. Savoie	1	Approved by	District Supervis		Del	~S5~
Title:			EH&S	Comp. Coord.	F	Approval Dat	e: 1118.05		\ Expiration 1	Date: (2.18.06
E-mail Addre	ess:	, <u> </u>	john.savoi	e@sug.com		Conditions of	Approval:			Attached
Date: 11/9/06	1 61 -	-4- ICNI	Pho	one: 505-395-211	6					
inud applie	ent- ation	- PAC - PAC - PPA	063 063	321 <i>562</i> 321 <i>56</i> 2	431			-		RP#1127

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

Form C-141 Revised October 10, 2003

#### **Release Notification and Corrective Action**

					OPERATOR			Initia	Initial Report		
Name of Company Southern Union Gas Services, Ltd.						Contact					stal Callaway
Address				nahans, TX, 797		Telephone					7-302-9407
Facility Nat	me: A-14 (	6" Line (RP-	1127) Le	a County Field D	ept.	Facility Ty	ре			Natu	al Gas Gathering
Surface Ow	ner Fede	ral		Mineral O	wner:	Federal			Lease N	lo.	
				LOCA	TIO	N OF REI	FASE				
Unit Letter	Section	Township	Range	Feet from the		/South Line	Feet from the	Fast/	West Line	County	
В	7	22S	34E			, ocatii Diiio				Le	ea
<u> </u>				<u> </u>							
				Latitude N3	32 19.	563 Loi	ngitude W103	<u>30.334</u>			
5	NATUR										
Type of Rele	ase Crude	Oil and Natur	ral Gas			Volume of 7 bbls crud	Release 90 Mcf	Gas,	Volume I	Recovered 0	bbls
Source of Re	lease		(	" Pipeline		Date and Hour of Occurrence Date and Hour of Discovery 10/29/06				covery 10/29/06	
Was Immedia	ata Nation (	Tivon?				Unknown If YES, To	Whom?				
was infineur	ate Notice (		Yes 🗌	No Not Rec	quired		whom? was contacted a	t 0800 o	n 10/30/06		
By Whom?	Tony Savo	ie, Southern L	Inion Gas	Services		Date and H	Iour: 10/30/06				
Was a Water	course Rea	_		7		If YES, Vo	olume Impacting	the Wat	ercourse.		
				No No							
If a Watercou	ırse was Im	pacted, Descr	ibe Fully.	k							
Describe Cau	ise of Probl	em and Reme	dial Actio	n Taken:							
									eak repair c	lamp was pla	aced on the affected
	area. Normal operating pressure on the line is 20 psi to 30 psi, with a potential H₂S content of 4000 ppm.  Describe Area Affected and Cleanup Action Taken. The affected area is pasture. An area covering approximately 1,000 sq. ft. was affected by the release										
and response	activities.	Remediation	activities	will start after the	landov	vner has appro					ities will follow the
NMOCD rec	ommended	Guidelines fo	r the Rem	ediation of Leaks a	and Sp	ills.					
Between De	cember 22	, 2006, and F	ebruary 8	, 2007, remediati	on act	tivities were c	onducted at the	A-14 6	" Line Rel	ease Site by	an environmental
contractor t	hat is no lo	nger affiliate	d with th	e site. On Decem	ber 19	9, 2012, Basin	responded to t	he relea	se site to c	onduct an ir	iitial investigation.
											vated accordingly. al dimensions were
											MOCD approved
								gulator	y Standard	ls. On Janu	ary 25, 2013, upon
receiving N	MOCD app	oroval, the ex	cavation v	vas backfilled wit	h non-	-impacted soi	l.				
Please see th	e attached	Remediation	Summary	and Site Closure	Reque	est for details	of remedial acti	vities aı	nd the site i	investigation	١.
											NMOCD rules and
											hich may endanger operator of liability
should their	operations	have failed to	adequatel	y investigate and r	remedi	ate contamina	tion that pose a t	hreat to	ground wa	ter, surface v	vater, human health
or the enviro	onment. In	addition, NM	10CD acc								ince with any other
federal, state	, or local la	ws and/or regi	ulations.				OIL CON	CEDI	/ A TION	DIVIGIO	NT
	1	$A \cap$	$\bigcap_{\alpha} I$	$\mathcal{I}_{\mathcal{O}}$			OIL CON	SEK	ATION	DIVISIC	<u>'IN</u>
Signature:	My	Hel	Chi	Lauran	$\vdash$						
Printed Nam	e: Crvstal	Callaway			/	Approved by	District Supervis	sor:			
		•									
Title: Senior	Environme	ental Remediat	non Specia	alist		Approval Da	te:		Expiration	Date:	
E-mail Addr	ess: Crysta	l.Callaway@F	Regencyga	s.com		Conditions of	f Approval:				
Date: 12/01/2014 Phone: 817-302-9407											