

NM2 - _____ 19 _____

**MONITORING
REPORTS
YEAR(S):**

____ 2011 ____

Basin Environmental Service Technologies, LLC

3100 Plains Highway
P. O. Box 301
Lovington, New Mexico 88260
bjarguijo@basinenv.com
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ANNUAL REPORT - 2011

SOUTHERN UNION GAS SERVICES SOUTHERN UNION LANDFARM

Lea County, New Mexico

**SE ¼ of the NW ¼ of Section 36, Township 23 South, Range 36 East
Permit #NM-02-0019**

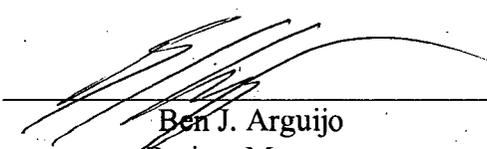
Prepared For:

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

Prepared By:

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

March 2012



Ben J. Arguijo
Project Manager


**Southern Union
Gas Services**

RECEIVED OCD

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801 S. Loop 464
Monahans, Texas 79756

432.943.1100 Fax: 432.943.1101

March 29, 2012

Mr. Brad Jones
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Annual Report - 2011
Southern Union Gas Services
Southern Union Landfarm - Permit #NM-02-0019
SE ¼ of the NW ¼ of Section 36, Township 23 South, Range 36 East
Lea County, New Mexico

Mr. Jones,

Enclosed is the Southern Union Gas Services Landfarm facility "*Annual Report - 2011*", dated March 28, 2012. The Southern Union Gas Services Landfarm is located in Unit Letter "F", Section 36, Township 23 South, Range 36 East, in rural Lea County, New Mexico.

I have personally reviewed this document, prepared by Basin Environmental Service Technologies on behalf of Southern Union Gas Services, and believe the facts are true and accurate to the best of my knowledge and ability. If you have any questions or comments, please contact me at 575-390-7595 or by email at curt.stanley@sug.com.

Respectfully submitted,



Curt D. Stanley
EHS Compliance Specialist
Southern Union Gas Services, Ltd
801 S. Loop 464
Monahans, Texas 79756
curt.stanley@sug.com

Cc:
Edward J. Hansen - NMOCD - Santa Fe, New Mexico
SUG Environmental Files

Enclosure

Basin Environmental Service Technologies, LLC

3100 Plains Highway
P. O. Box 301
Lovington, New Mexico 88260
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Office: (575) 396-2378 Fax: (575) 396-1429



March 28, 2012

Mr. Brad Jones
New Mexico Energy, Minerals and Natural Resources Department
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Annual Report – 2011
Southern Union Gas Services
Southern Union Landfarm – Permit #NM-02-0019
SE ¼ of the NW ¼ of Section 36, Township 23 South, Range 36 East
Lea County, New Mexico

Dear Mr. Jones:

Basin Environmental Service Technologies, LLC (Basin), at the request of Southern Union Gas Services (Southern Union), assumed maintenance and reporting responsibilities of the Southern Union Landfarm in December 2009. Basin, on behalf of Southern Union, is submitting the *2011 Annual Report* for the Southern Union Landfarm. The Southern Union Landfarm is operated and maintained in accordance with New Mexico Oil Conservation Division (NMOCD), Natural Resources and Wildlife, Oil and Gas Surface Waste Management Facilities (Title 19 Chapter 15 Part 36). The Landfarm is operated by Southern Union as a “centralized” facility for Southern Union use only. Sample location maps of the Southern Union Landfarm are provided as Figure 1, “Sample Location Map – June 2011”, and Figure 2, “Sample Location Map – November 2011”.

DISPOSAL VOLUME

Receipt of impacted soil began in January 2002. As of December 31, 2011, a total of approximately 65,815 cubic yards (cy) of impacted soil from within the Southern Union gas gathering system have been emplaced in Cell 1 through Cell 15. No impacted soil was transported to the Southern Union Landfarm during the 2011 reporting period.

MAINTENANCE

Mechanical plowing of the soil contained in the treatment cells occurred every two weeks.

TREATMENT ZONE MONITORING

On June 14, 2011, Basin collected one (1) to five (5) four-point composite treatment zone soil samples from each of the treatment cells (Cells 1 through 15) being utilized, with the exception of Cell 8 – Grid 1. Soil located in Cell 8 - Grid 1 was removed and transported to Sundance Services, Inc. (NMOCD Permit # NM-01003), for disposal during the 2010 reporting period. The soil samples were analyzed for concentrations of Total Petroleum Hydrocarbons (TPH) and chloride, using EPA Method SW-846 8015M and EPA Method 300.1, respectively. Analytical results indicated TPH concentrations ranged from 89.3 mg/Kg for soil sample TZ Cell 5 G1 to 3,770 mg/Kg for soil sample TZ Cell 3 G4. Chloride concentrations ranged from less than the laboratory method detection limit (MDL) for soil samples TZ Cell 5 G-1 and TZ Cell 10 G-2 to 458 mg/Kg for soil sample TZ Cell 13 G1. Please reference Table 1, “Concentrations of TPH & Chloride in the Treatment Zone”, for additional information.

On November 28, 2011, Basin collected one (1) to five (5) four-point composite treatment zone soil samples from each of the treatment cells (Cells 1 through 15) being utilized, with the exception of Cell 8 – Grid 1. The soil samples were analyzed for concentrations of TPH and chloride. Analytical results indicated TPH concentrations ranged from less than the laboratory MDL of 19.1 for soil sample TZ Cell 1 G1 to 8,170 mg/Kg for soil sample TZ Cell 4 G4. Chloride concentrations ranged from less than the laboratory MDL of 4.22 mg/Kg for soil sample TZ Cell 5 G1 to 651 mg/Kg for soil sample TZ Cell 11 G1.

The locations of soil samples collected from the treatment zone of Cells 1 through 15 during the June 2011 and December 2011 sampling events are depicted in Figure 1, “Sample Location Map – June 2011”, and Figure 2, “Sample Location Map – November 2011”, respectively.

VADOSE ZONE MONITORING

A single soil sample (Landfarm Background) was collected on April 11, 2001, from the vadose zone in an undisturbed location within the Landfarm area to establish background concentrations of NMOCD constituents of concern (COCs) as listed below:

- Total petroleum hydrocarbons (TPH);
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX);
- Anions and cations; and
- RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver).

Analytical results of the background sample indicated the TPH concentration was 134 mg/Kg. Anions, cations, and RCRA metals concentrations of background samples were typical of native undisturbed soil. Please reference Table 2, “Historic Concentrations of Hydrocarbons, Chlorides, Sulfates & Alkalinity in the Vadose Zone”, and Table 3, “Historic Concentrations of Metals in the Vadose Zone”, for additional information.

On June 14, 2011, Basin collected one (1) to five (5) grab samples from the vadose zone of Cells 1 through 15 at a depth of approximately three (3) to four (4) feet below ground surface (bgs). The soil samples were analyzed for concentrations of BTEX using EPA Method SW-846 8021b, TPH using EPA Method SW-846 8015M, and chloride using EPA Method 300.1. Analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for each soil sample submitted. Chloride concentrations ranged from less than the appropriate laboratory MDL for soil samples VZ Cell 1 G-1, VZ Cell 1 G-4, VZ Cell 1 G-5, VZ Cell 2 G-3, VZ Cell 3 G-1 through VZ Cell 3 G-5, VZ Cell 4 G-1 through VZ Cell 4 G-5, VZ Cell 5 G-1, VZ Cell 6 G-1, VZ Cell 6 G-2, VZ Cell 7 G-

1, VZ Cell 10 G-2 and VZ Cell 10 G-4 to 99.7 mg/Kg for soil sample VZ Cell 15 G1. Please reference Table 4, "2011 Concentrations of Benzene, BTEX, TPH & Chloride in the Vadose Zone", for additional information.

On November 28 through 29, 2011, Basin collected one (1) to five (5) grab samples from the vadose zone of Cells 1 through 15 at a depth of approximately three (3) to four (4) feet bgs. The soil samples were analyzed for concentrations of BTEX, TPH, and chloride. Analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for each soil sample submitted. Chloride concentrations ranged from less than the appropriate laboratory MDL for soil samples VZ Cell 2 G-2, VZ Cell 2 G-4, VZ Cell 3 G-2, VZ Cell 4 G-1, VZ Cell 4 G-2, VZ Cell 4 G-4, VZ Cell 4 G-5, VZ Cell 5 G-1, VZ Cell 6 G-1, VZ Cell 6 G-2, VZ Cell 7 G-1, VZ Cell 9 G-1, and VZ Cell 12 G-1 to 132 mg/Kg for soil sample VZ Cell 10 G1.

The locations of soil samples collected in the vadose zone of Cells 1 through 15 during the June 2011 and December 2011 sampling events are depicted in Figure 1, "Sample Location Map – June 2011", and Figure 2, "Sample Location Map – December 2011", respectively.

CONCLUSIONS

Laboratory analytical results of vadose zone soil sampling indicate soil beneath the Southern Union Landfarm has not been significantly affected above background levels established prior to the construction of the landfarm treatment cells.

Laboratory analytical results indicate hydrocarbon-impacted soil placed in the treatment cells is naturally attenuating within the lifts. Laboratory analytical results from soil samples collected on November 28, 2011, indicated soil samples TZ Cell 1 G-1, TZ Cell 5 G-1, TZ Cell 6 G-2, TZ Cell 8 G-2, TZ Cell 9 G-3, TZ Cell 10 G-2, TZ Cell 10 G-3, TZ Cell 11 G-2, TZ Cell 13 G-1, and TZ Cell 14 G-1 exhibited TPH concentrations less than NMOCD remedial goals (500 mg/Kg).

RECOMMENDATIONS

Based on the analytical results of soil samples collected from Treatment Cells #1, #5, #6, #8, #9, #10, #11, #13, and #14, Basin recommends Southern Union request NMOCD approval to commence activities outlined in Subsection F of 19.15.36.15 New Mexico Administrative code (NMAC), "Treatment Zone Closure Performance Standards". The activities outlined in Subsection F of 19.15.36.15 NMAC are required to demonstrate compliance with the closure performance standards, cease further remediation activities within the individual treatment cell(s), and leave the above referenced soils in place.

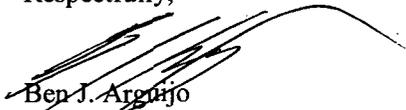
Basin, on behalf of Southern Union, proposes to collect one (1) composite soil sample, consisting of four (4) discreet samples from each of the nine (9) treatment zones exhibiting benzene, BTEX, TPH, and chloride concentrations less than the treatment zone closure performance standards. The collected soil samples will be submitted to the laboratory and analyzed for concentrations of constituents listed in Subsection F of 19.15.36.15 NMAC. In addition, the soil samples will be analyzed for the concentrations of constituents listed in Subsections A and B of 20.6.2.3103 NMAC.

On receipt and evaluation of the analytical results, Southern Union will forward the analytical results to the New Mexico Energy, Minerals and Natural Resources Department and may request approval to cease remediation activities within individual treatment cells which demonstrate compliance with Subsection F of 19.15.36.15 NMAC and Subsections A and B of 20.6.2.3103 NMAC.

Until otherwise instructed by the Mexico Energy, Minerals and Natural Resources Department, bi-monthly plowing of the treatment zones will continue throughout the 2012 reporting period. Soil samples from the vadose and treatment zones will be collected and submitted to the laboratory for determination of constituent concentrations on a bi-annual schedule. Vadose zone soil samples will be analyzed using EPA Method SW-846 8021b (BTEX), EPA Method SW-846 8015M (TPH), and EPA Method 300.1 (chloride). Treatment zone soil samples will be analyzed using EPA Method SW-846 8015M (TPH) and EPA Method 300.1 (chloride). An Annual Report will be submitted in 2013, documenting the analytical results of the 2012 treatment cell and vadose zone sampling events.

Should you have any questions or concerns, please contact Rose Slade at (432) 940-5147 or me at (575) 396-2378.

Respectfully,



Ben J. Arguizo
Basin Environmental Service Technologies, LLC

Cc: Ed Hansen, NMOCD-Santa Fe, New Mexico (edwardj.hansen@state.nm.us)
Rose Slade, Southern Union Gas Services, Monahans, Texas (rose.slade@sug.com)

Enclosures:

Figures

Figure 1: Sample Location Map – June 2011

Figure 2: Sample Location Map – November 2011

Tables

Table 1: 2011 Concentrations of Benzene, BTEX, TPH & Chloride in the Treatment Zone.

Table 2: Historic Concentrations of Hydrocarbons, Chlorides, Sulfates & Alkalinity in the Vadose Zone.

Table 3: Historic Concentrations of Metals in the Vadose Zone

Table 4: 2011 Concentrations of Benzene, BTEX, TPH & Chloride in the Vadose Zone

Laboratory Analytical Reports

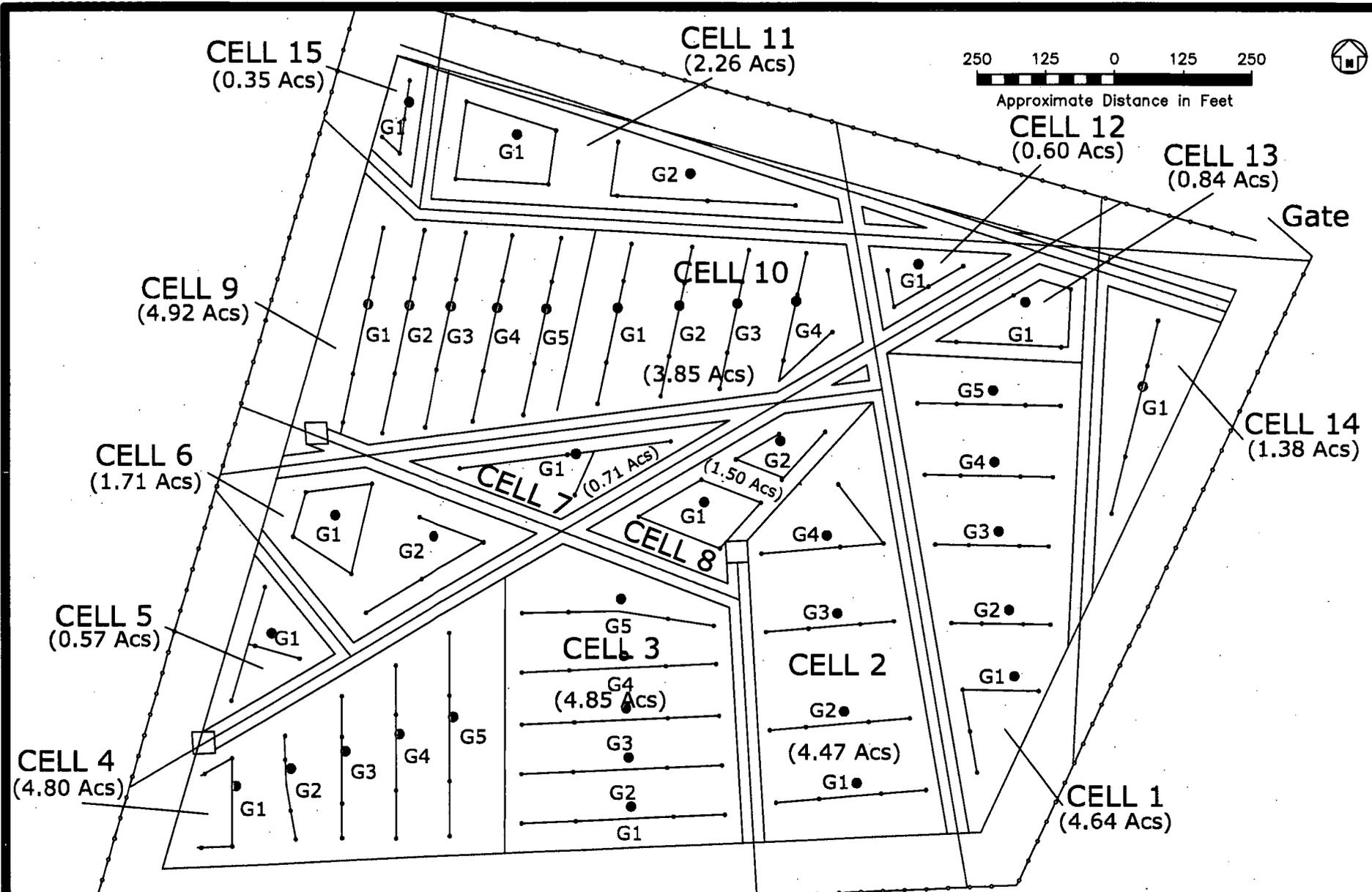
Photographs

LIMITATIONS

Basin Environmental Service Technologies, LLC has prepared this Southern Union Landfarm Annual Report 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.

Figures

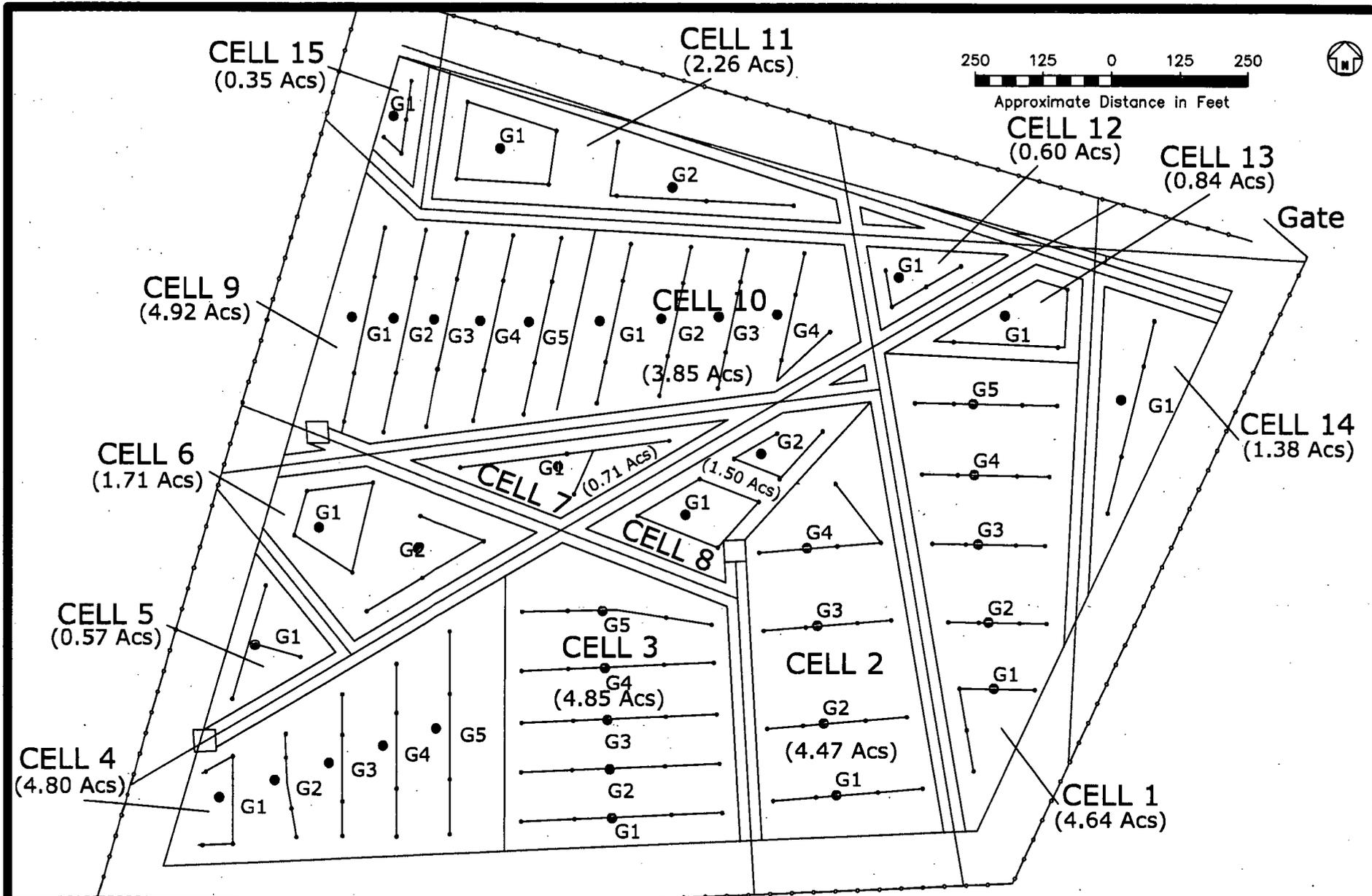


- Legend:**
- Pipeline
 - Fenceline
 - Landfarm Extent
 - Individual Cell Extent
 - Vadoso Zone Sample Location
 - Treatment Zone Composite
 - Sample Location

Figure 1
 Sample Location Map
 June 2011
 Southern Union Gas Services
 Landfarm
 Lea County, New Mexico
 NMOCD Permit # NM02-0019

Basin Environmental Service Technologies, LLC

Prep By: BJA	Checked By: BRB
March 28, 2012	Scale: Approximately 1"=100'



- Legend:**
- Pipeline
 - Fenceline
 - Landfarm Extent
 - Individual Cell Extent
 - Vadose Zone Sample Location
 - Treatment Zone Composite
 - Sample Location

Figure 2
 Sample Location Map
 November 2011
 Southern Union Gas Services
 Landfarm
 Lea County, New Mexico
 NMOC Permit # NM02-0019

Basin Environmental Service Technologies, LLC

Prep By: BJA	Checked By: BRB
March 28, 2012	Scale: Approximately 1"=100'

Tables

TABLE 1

2011 CONCENTRATIONS OF TPH & CHLORIDE IN THE TREATMENT ZONE

SOUTHERN UNION GAS SERVICES
 SOUTHERN UNION LAND FARM
 LEA COUNTY, NEW MEXICO
 NMOCD PERMIT #NM-02-0019

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	EPA 300 Chloride (mg/kg)
			GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
TZ Cell 1 G-1	-	6/14/2011	<15.1	887	118	1,010	67.8
TZ Cell 1 G-2	-	6/14/2011	<15.1	665	37.3	702	107
TZ Cell 1 G-3	-	6/14/2011	<15.2	1,510	157	1,670	184
TZ Cell 1 G-4	-	6/14/2011	<15.1	1,580	131	1,710	304
TZ Cell 1 G-5	-	6/14/2011	15.9	1,120	121	1,260	105
TZ Cell 2 G-1	-	6/14/2011	<15.1	722	45.7	768	16.5
TZ Cell 2 G-2	-	6/14/2011	<15.1	644	27.7	672	55.5
TZ Cell 2 G-3	-	6/14/2011	18.1	828	100	946	151
TZ Cell 2 G-4	-	6/14/2011	<14.8	579	49.7	629	51.8
TZ Cell 3 G-1	-	6/14/2011	<15.1	3,250	317	3,570	14.3
TZ Cell 3 G-2	-	6/14/2011	<15.2	3,720	<15.2	3,720	25.0
TZ Cell 3 G-3	-	6/14/2011	<15.2	3,290	<15.2	3,290	10.9
TZ Cell 3 G-4	-	6/14/2011	22.0	3,750	<15.1	3,770	9.30
TZ Cell 3 G-5	-	6/14/2011	19.5	3,100	<15.2	3,120	23.2
TZ Cell 4 G-1	-	6/14/2011	<15.2	2,790	<15.2	2,790	33.0
TZ Cell 4 G-2	-	6/14/2011	17.6	3,560	16.6	3,590	39.0
TZ Cell 4 G-3	-	6/14/2011	20.9	3,710	19.2	3,750	52.3
TZ Cell 4 G-4	-	6/14/2011	<15.2	2,350	<15.2	2,350	57.7
TZ Cell 4 G-5	-	6/14/2011	<15.1	2,210	<15.1	2,210	79.7
TZ Cell 5 G-1	-	6/14/2011	<15.1	71.1	18.2	89.3	<4.22
TZ Cell 6 G-1	-	6/14/2011	<15.2	398	<15.2	398	51.7
TZ Cell 6 G-2	-	6/14/2011	<15.2	462	<15.2	462	72.8
TZ Cell 7 G-1	-	6/14/2011	<15.2	719	27.5	747	28.9
TZ Cell 8 G-2	-	6/14/2011	<15.2	449	33.4	482	66.5
TZ Cell 9 G-1	-	6/14/2011	<15.1	262	<15.1	262	107
TZ Cell 9 G-2	-	6/14/2011	<15.1	165	<15.1	165	163
TZ Cell 9 G-3	-	6/14/2011	<15.0	216	<15.0	216	109
TZ Cell 9 G-4	-	6/14/2011	<14.9	221	<14.9	221	86.0
TZ Cell 9 G-5	-	6/14/2011	<15.1	153	<15.1	153	75.4

TABLE 1

2011 CONCENTRATIONS OF TPH & CHLORIDE IN THE TREATMENT ZONE

SOUTHERN UNION GAS SERVICES
SOUTHERN UNION LAND FARM
LEA COUNTY, NEW MEXICO
NMOCD PERMIT #NM-02-0019

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	EPA 300 Chloride (mg/kg)
			GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
TZ Cell 10 G-1	-	6/14/2011	<15.0	513	43.8	557	16.8
TZ Cell 10 G-2	-	6/14/2011	<15.1	234	<15.1	234	<8.43
TZ Cell 10 G-3	-	6/14/2011	<15.0	185	<15.0	185	26.0
TZ Cell 10 G-4	-	6/14/2011	<15.0	549	70.4	619	90.6
TZ Cell 11 G-1	-	6/14/2011	<15.2	350	<15.2	350	305
TZ Cell 11 G-2	-	6/14/2011	<15.0	274	<15.0	274	112
TZ Cell 12 G-1	-	6/14/2011	<15.1	573	18.0	591	29.0
TZ Cell 13 G-1	-	6/14/2011	<15.3	414	25.6	440	458
TZ Cell 14 G-1	-	6/14/2011	<15.1	110	<15.1	110	15.7
TZ Cell 15 G-1	-	6/14/2011	<15.4	205	<15.4	205	64.1
TZ Cell 1 G-1	-	11/28/2011	<19.1	<19.1	<19.1	<19.1	45.7
TZ Cell 1 G-2	-	11/28/2011	<15.4	560	196	756	27.7
TZ Cell 1 G-3	-	11/28/2011	<15.5	1,110	359	1,470	306
TZ Cell 1 G-4	-	11/28/2011	<15.4	1,380	376	1,760	309
TZ Cell 1 G-5	-	11/28/2011	<15.4	1,720	655	2,380	214
TZ Cell 2 G-1	-	11/28/2011	<15.5	1,100	421	1,520	17.2
TZ Cell 2 G-2	-	11/28/2011	<15.3	661	280	941	150
TZ Cell 2 G-3	-	11/28/2011	<15.4	672	304	976	89.9
TZ Cell 2 G-4	-	11/28/2011	<15.4	635	283	918	200
TZ Cell 3 G-1	-	11/28/2011	<15.3	3,760	870	4,630	13.2
TZ Cell 3 G-2	-	11/28/2011	<15.4	4,790	913	5,700	45.2
TZ Cell 3 G-3	-	11/28/2011	<15.2	4,330	1,010	5,340	16.5
TZ Cell 3 G-4	-	11/28/2011	<15.2	4,070	893	4,960	50.7
TZ Cell 3 G-5	-	11/28/2011	<15.2	4,690	1,020	5,710	21.6
TZ Cell 4 G-1	-	11/28/2011	<15.2	3,270	779	4,050	33.6
TZ Cell 4 G-2	-	11/28/2011	<15.2	4,270	1,050	5,320	22.5
TZ Cell 4 G-3	-	11/28/2011	<15.2	3,470	764	4,230	76.3
TZ Cell 4 G-4	-	11/28/2011	<15.2	6,420	1,750	8,170	12.2
TZ Cell 4 G-5	-	11/28/2011	<15.3	3,540	868	4,410	81.1

TABLE 1

2011 CONCENTRATIONS OF TPH & CHLORIDE IN THE TREATMENT ZONE

SOUTHERN UNION GAS SERVICES
 SOUTHERN UNION LAND FARM
 LEA COUNTY, NEW MEXICO
 NMOCD PERMIT #NM-02-0019

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	EPA 300 Chloride (mg/kg)
			GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
TZ Cell 5 G-1	-	11/28/2011	<15.1	151	196	347	<5.04
TZ Cell 6 G-1	-	11/28/2011	<15.3	333	182	515	20.4
TZ Cell 6 G-2	-	11/28/2011	<15.3	297	147	444	86.2
TZ Cell 7 G-1	-	11/28/2011	<15.5	535	202	737	11.4
TZ Cell 8 G-2	-	11/28/2011	<15.3	208	83.4	291	140
TZ Cell 9 G-1	-	11/28/2011	<15.4	391	307	698	145
TZ Cell 9 G-2	-	11/28/2011	<15.3	828	286	1,110	218
TZ Cell 9 G-3	-	11/28/2011	<15.4	279	187	466	130
TZ Cell 9 G-4	-	11/28/2011	<15.1	531	271	802	87.0
TZ Cell 9 G-5	-	11/28/2011	<15.6	305	200	505	77.5
TZ Cell 10 G-1	-	11/28/2011	<15.5	671	246	917	14.3
TZ Cell 10 G-2	-	11/28/2011	<15.3	324	154	478	24.3
TZ Cell 10 G-3	-	11/28/2011	<15.2	269	152	421	21.8
TZ Cell 10 G-4	-	11/28/2011	<15.3	767	246	1,010	138
TZ Cell 11 G-1	-	11/28/2011	<15.5	721	195	916	651
TZ Cell 11 G-2	-	11/28/2011	<15.1	212	74.4	286	76.9
TZ Cell 12 G-1	-	11/28/2011	<15.3	452	161	613	28.1
TZ Cell 13 G-1	-	11/28/2011	<15.5	211	112	323	311
TZ Cell 14 G-1	-	11/28/2011	<15.4	88.5	62.3	151	7.62
TZ Cell 15 G-1	-	11/28/2011	<15.5	322	219	541	30.9

TABLE 2

HISTORIC CONCENTRATIONS OF HYDROCARBONS, CHLORIDES, SULFATES & ALKALINITY IN THE VADOSE ZONE

SOUTHERN UNION GAS SERVICES
SOUTHERN UNION LAND FARM
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENES (mg/Kg)	O-XYLENES (mg/Kg)	BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TOTAL TPH C ₆ -C ₃₅ (mg/Kg)
Landfarm Background	2' bgs	4/11/2001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	-	-	-	134.0

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	SODIUM (mg/kg)	CALCIUM (mg/Kg)	MAGNESIUM (mg/Kg)	POTASSIUM (mg/Kg)	CHLORIDE (mg/Kg)	SULFATE (mg/Kg)	CARBONATE (mg/Kg)	BICARBONATE (mg/Kg)
Landfarm Background	2' bgs	4/11/2001	14.4	73.54	8.54	11.24	<10	35.2	<1.0	140

TABLE 3

HISTORIC CONCENTRATIONS OF METALS IN THE VADOSE ZONE

SOUTHERN UNION GAS SERVICES
SOUTHERN UNION LAND FARM
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	SILVER (mg/Kg)	ARSENIC (mg/Kg)	BARIUM (mg/Kg)	CADMIUM (mg/Kg)	CHROMIUM (mg/Kg)	MERCURY (mg/Kg)	LEAD (mg/Kg)	SELENIUM (mg/Kg)
Landfarm Background	2' bgs	4/11/2001	ND	0.923	47.92	0.3605	4.21	ND	ND	1.959

TABLE 4

2011 CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN THE VADOSE ZONE

SOUTHERN UNION GAS SERVICES
SOUTHERN UNION LAND FARM
LEA COUNTY, NEW MEXICO
NMOCD PERMIT #NM-02-0019

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030						METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	EPA 300 Chloride (mg/kg)
			BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENES (mg/Kg)	O-XYLENES (mg/Kg)	BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
VZ Cell 1 G-1	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	<16.2	<16.2	<16.2	<4.52
VZ Cell 1 G-2	3' - 4'	6/14/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.8	<15.8	<15.8	<15.8	7.03
VZ Cell 1 G-3	3' - 4'	6/14/2011	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.3	<17.3	<17.3	<17.3	26.5
VZ Cell 1 G-4	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	<16.2	<16.2	<16.2	<4.57
VZ Cell 1 G-5	3' - 4'	6/14/2011	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.0	<17.0	<17.0	<17.0	<4.79
VZ Cell 2 G-1	3' - 4'	6/14/2011	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.4	<17.4	<17.4	<17.4	11.8
VZ Cell 2 G-2	3' - 4'	6/14/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.0	<16.0	<16.0	<16.0	4.75
VZ Cell 2 G-3	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	<16.2	<16.2	<16.2	<4.51
VZ Cell 2 G-4	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.3	<16.3	<16.3	<16.3	6.19
VZ Cell 3 G-1	3' - 4'	6/14/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.0	<16.0	<16.0	<16.0	<8.93
VZ Cell 3 G-2	3' - 4'	6/14/2011	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<16.8	<16.8	<16.8	<16.8	<9.40
VZ Cell 3 G-3	3' - 4'	6/14/2011	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<15.5	<15.5	<15.5	<15.5	<4.36
VZ Cell 3 G-4	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	<9.17
VZ Cell 3 G-5	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	<4.61
VZ Cell 4 G-1	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	<16.2	<16.2	<16.2	<9.04
VZ Cell 4 G-2	3' - 4'	6/14/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.0	<16.0	<16.0	<16.0	<4.48
VZ Cell 4 G-3	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.6	<16.6	<16.6	<16.6	<4.63
VZ Cell 4 G-4	3' - 4'	6/14/2011	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.1	<17.1	<17.1	<17.1	<4.79
VZ Cell 4 G-5	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.5	<16.5	<16.5	<16.5	<9.20
VZ Cell 5 G-1	3' - 4'	6/14/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.0	<16.0	<16.0	<16.0	<4.5
VZ Cell 6 G-1	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	<4.62
VZ Cell 6 G-2	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.1	<16.1	<16.1	<16.1	<4.52
VZ Cell 7 G-1	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	<16.2	<16.2	<16.2	<4.55
VZ Cell 8 G-1	3' - 4'	6/14/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.1	<16.1	<16.1	<16.1	95.3
VZ Cell 8 G-2	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	20.3

TABLE 4

2011 CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN THE VADOSE ZONE

SOUTHERN UNION GAS SERVICES
SOUTHERN UNION LAND FARM
LEA COUNTY, NEW MEXICO
NMOC D PERMIT #NM-02-0019

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030						METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	EPA 300 Chloride (mg/kg)
			BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENES (mg/Kg)	O-XYLENES (mg/Kg)	BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
VZ Cell 9 G-1	3' - 4'	6/14/2011	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.1	<17.1	<17.1	<17.1	43.5
VZ Cell 9 G-2	3' - 4'	6/14/2011	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<17.5	<17.5	<17.5	<17.5	8.50
VZ Cell 9 G-3	3' - 4'	6/14/2011	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.4	<17.4	<17.4	<17.4	23.2
VZ Cell 9 G-4	3' - 4'	6/14/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.6	<15.6	<15.6	<15.6	16.5
VZ Cell 9 G-5	3' - 4'	6/14/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.1	<16.1	<16.1	<16.1	7.22
VZ Cell 10 G-1	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	<16.2	<16.2	<16.2	20.9
VZ Cell 10 G-2	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	<16.7	<16.7	<16.7	<9.30
VZ Cell 10 G-3	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.9	<16.9	<16.9	<16.9	19.3
VZ Cell 10 G-4	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.6	<16.6	<16.6	<16.6	<9.36
VZ Cell 11 G-1	3' - 4'	6/14/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.8	<15.8	<15.8	<15.8	5.13
VZ Cell 11 G-2	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	19.0
VZ Cell 12 G-1	3' - 4'	6/14/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.0	<16.0	<16.0	<16.0	13.7
VZ Cell 13 G-1	3' - 4'	6/14/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.1	<16.1	<16.1	<16.1	45.5
VZ Cell 14 G-1	3' - 4'	6/14/2011	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<16.9	<16.9	<16.9	<16.9	20.2
VZ Cell 15 G-1	3' - 4'	6/14/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	<16.7	<16.7	<16.7	99.7
VZ Cell 1 G-1	3' - 4'	11/28/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.0	<16.0	<16.0	<16.0	9.58
VZ Cell 1 G-2	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.1	<16.1	<16.1	<16.1	9.29
VZ Cell 1 G-3	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.5	<16.5	<16.5	<16.5	36.5
VZ Cell 1 G-4	3' - 4'	11/28/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.8	<15.8	<15.8	<15.8	7.15
VZ Cell 1 G-5	3' - 4'	11/28/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.9	<15.9	<15.9	<15.9	5.65
VZ Cell 2 G-1	3' - 4'	11/28/2011	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.5	<17.5	<17.5	<17.5	14.0
VZ Cell 2 G-2	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	<4.59
VZ Cell 2 G-3	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.8	<16.8	<16.8	<16.8	12.0
VZ Cell 2 G-4	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	<4.60

TABLE 4

2011 CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN THE VADOSE ZONE

SOUTHERN UNION GAS SERVICES
SOUTHERN UNION LAND FARM
LEA COUNTY, NEW MEXICO
NMOCD PERMIT #NM-02-0019

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030						METHOD: 8015M			TOTAL	EPA 300
			BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENES (mg/Kg)	O-XYLENES (mg/Kg)	BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TPH C ₆ -C ₃₅ (mg/Kg)	Chloride (mg/kg)
VZ Cell 3 G-1	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.5	<16.5	<16.5	<16.5	5.24
VZ Cell 3 G-2	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.1	<16.1	<16.1	<16.1	<4.52
VZ Cell 3 G-3	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	6.43
VZ Cell 3 G-4	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	<16.7	<16.7	<16.7	9.78
VZ Cell 3 G-5	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.5	<16.5	<16.5	<16.5	7.78
VZ Cell 4 G-1	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.6	<16.6	<16.6	<16.6	<4.67
VZ Cell 4 G-2	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.3	<16.3	<16.3	<16.3	<4.60
VZ Cell 4 G-3	3' - 4'	11/28/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.7	<15.7	<15.7	<15.7	4.64
VZ Cell 4 G-4	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.9	<16.9	<16.9	<16.9	<4.72
VZ Cell 4 G-5	3' - 4'	11/28/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.0	<16.0	<16.0	<16.0	<4.49
VZ Cell 5 G-1	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	<16.2	<16.2	<16.2	<4.55
VZ Cell 6 G-1	3' - 4'	11/29/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.3	<16.3	<16.3	<16.3	<4.57
VZ Cell 6 G-2	3' - 4'	11/29/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.0	<16.0	<16.0	<16.0	<4.50
VZ Cell 7 G-1	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	<4.59
VZ Cell 8 G-1	3' - 4'	11/28/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.1	<16.1	<16.1	<16.1	12.9
VZ Cell 8 G-2	3' - 4'	11/28/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.9	<15.9	<15.9	<15.9	16.1
VZ Cell 9 G-1	3' - 4'	11/29/2011	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.4	<17.4	<17.4	<17.4	<4.89
VZ Cell 9 G-2	3' - 4'	11/29/2011	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<18.1	<18.1	<18.1	<18.1	6.66
VZ Cell 9 G-3	3' - 4'	11/29/2011	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<17.7	<17.7	<17.7	<17.7	22.6
VZ Cell 9 G-4	3' - 4'	11/29/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	7.62
VZ Cell 9 G-5	3' - 4'	11/29/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.3	<16.3	<16.3	<16.3	5.56
VZ Cell 10 G-1	3' - 4'	11/29/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.8	<16.8	<16.8	<16.8	132
VZ Cell 10 G-2	3' - 4'	11/29/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	<16.7	<16.7	<16.7	52.8
VZ Cell 10 G-3	3' - 4'	11/29/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.1	<16.1	<16.1	<16.1	22.4
VZ Cell 10 G-4	3' - 4'	11/29/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.5	<16.5	<16.5	<16.5	17.6

TABLE 4

2011 CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN THE VADOSE ZONE

SOUTHERN UNION GAS SERVICES
 SOUTHERN UNION LAND FARM
 LEA COUNTY, NEW MEXICO
 NMOCD PERMIT #NM-02-0019

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030						METHOD: 8015M			TOTAL	EPA 300
			BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENES (mg/Kg)	O-XYLENES (mg/Kg)	BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TPH C ₆ -C ₃₅ (mg/Kg)	Chloride (mg/kg)
VZ Cell 11 G-1	3' - 4'	11/29/2011	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<16.9	<16.9	<16.9	<16.9	17.4
VZ Cell 11 G-2	3' - 4'	11/29/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.6	<16.6	<16.6	<16.6	64.0
VZ Cell 12 G-1	3' - 4'	11/29/2011	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<16.9	<16.9	<16.9	<16.9	<4.72
VZ Cell 13 G-1	3' - 4'	11/29/2011	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.8	<15.8	<15.8	<15.8	32.4
VZ Cell 14 G-1	3' - 4'	11/29/2011	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.0	<17.0	<17.0	<17.0	17.4
VZ Cell 15 G-1	3' - 4'	11/29/2011	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	<16.2	<16.2	<16.2	7.72

Laboratory Analytical Reports

Analytical Report 420233
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

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Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
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Rhode Island (LAO00312), USDA (S-44102)

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Xenco Phoenix (EPA Lab Code: AZ00901):

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420233**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420233. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420233 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420233



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 1 G-1	S	Jun-14-11 09:30		420233-001
VZ Cell 1 G-2	S	Jun-14-11 09:40		420233-002
VZ Cell 1 G-3	S	Jun-14-11 09:50		420233-003
VZ Cell 1 G-4	S	Jun-14-11 10:00		420233-004
VZ Cell 1 G-5	S	Jun-14-11 10:10		420233-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420233

Report Date: 22-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

*Batch: LBA-860711 BTEX by EPA 8021B
SW8021BM*

Batch 860711, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420233-005, -001, -003, -004, -002.

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

*Batch: LBA-860995 TPH By SW8015 Mod
SW8015MOD_NM*

Batch 860995, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420252-005 D.



Certificate of Analysis Summary 420233

Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	420233-001	420233-002	420233-003	420233-004	420233-005	
	<i>Field Id:</i>	VZ Cell 1 G-1	VZ Cell 1 G-2	VZ Cell 1 G-3	VZ Cell 1 G-4	VZ Cell 1 G-5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Jun-14-11 09:30	Jun-14-11 09:40	Jun-14-11 09:50	Jun-14-11 10:00	Jun-14-11 10:10	
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-18-11 02:06	Jun-18-11 02:06	Jun-18-11 02:06	Jun-18-11 02:06	Jun-18-11 07:45	
	<i>Units/RL:</i>	mg/kg RL					
Chloride		ND 4.52	7.03 4.45	26.5 4.88	ND 4.57	ND 4.79	
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-17-11 11:45					
	<i>Analyzed:</i>	Jun-18-11 08:10	Jun-18-11 08:32	Jun-18-11 08:55	Jun-18-11 09:17	Jun-18-11 09:40	
	<i>Units/RL:</i>	mg/kg RL					
Benzene		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	
Toluene		ND 0.0022	ND 0.0021	ND 0.0023	ND 0.0022	ND 0.0023	
Ethylbenzene		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	
m_p-Xylenes		ND 0.0022	ND 0.0021	ND 0.0023	ND 0.0022	ND 0.0023	
o-Xylene		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	
Total Xylenes		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	
Total BTEX		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 10:55					
	<i>Units/RL:</i>	% RL					
Percent Moisture		7.02 1.00	5.65 1.00	13.9 1.00	8.06 1.00	12.3 1.00	
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-20-11 15:30					
	<i>Analyzed:</i>	Jun-21-11 21:45	Jun-21-11 22:15	Jun-21-11 22:45	Jun-21-11 23:15	Jun-21-11 23:45	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 16.2	ND 15.8	ND 17.3	ND 16.2	ND 17.0	
C12-C28 Diesel Range Hydrocarbons		ND 16.2	ND 15.8	ND 17.3	ND 16.2	ND 17.0	
C28-C35 Oil Range Hydrocarbons		ND 16.2	ND 15.8	ND 17.3	ND 16.2	ND 17.0	
Total TPH		ND 16.2	ND 15.8	ND 17.3	ND 16.2	ND 17.0	

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

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Brent Barron, II
Odessa Laboratory 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 MQL and above the SQL.
 - 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420233,

Project ID:

Lab Batch #: 860711

Sample: 605512-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/17/11 23:11		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0309	0.0300	103	80-120	
4-Bromofluorobenzene		0.0305	0.0300	102	80-120	

Lab Batch #: 860711

Sample: 605512-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/17/11 23:33		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0301	0.0300	100	80-120	
4-Bromofluorobenzene		0.0273	0.0300	91	80-120	

Lab Batch #: 860711

Sample: 605512-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/18/11 00:41		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0273	0.0300	91	80-120	
4-Bromofluorobenzene		0.0247	0.0300	82	80-120	

Lab Batch #: 860711

Sample: 420029-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/18/11 04:47		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0290	0.0300	97	80-120	
4-Bromofluorobenzene		0.0325	0.0300	108	80-120	

Lab Batch #: 860711

Sample: 420029-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/18/11 05:10		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0309	0.0300	103	80-120	
4-Bromofluorobenzene		0.0314	0.0300	105	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420233,

Project ID:

Lab Batch #: 860711

Sample: 420233-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 08:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 860711

Sample: 420233-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 08:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 860711

Sample: 420233-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 08:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 860711

Sample: 420233-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 09:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 860711

Sample: 420233-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 09:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420233,

Project ID:

Lab Batch #: 860995

Sample: 605661-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/21/11 11:55	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		130	100	130	70-135	
o-Terphenyl		59.9	50.1	120	70-135	

Lab Batch #: 860995

Sample: 605661-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/21/11 12:25	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		130	100	130	70-135	
o-Terphenyl		60.8	50.2	121	70-135	

Lab Batch #: 860995

Sample: 605661-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/21/11 12:56	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		118	100	118	70-135	
o-Terphenyl		62.2	50.0	124	70-135	

Lab Batch #: 860995

Sample: 420233-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/21/11 21:45	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		104	100	104	70-135	
o-Terphenyl		55.7	50.2	111	70-135	

Lab Batch #: 860995

Sample: 420233-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/21/11 22:15	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		144	199	72	70-135	
o-Terphenyl		77.8	99.5	78	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420233,

Project ID:

Lab Batch #: 860995

Sample: 420233-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/21/11 22:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	99.5	121	70-135	
o-Terphenyl	65.5	49.8	132	70-135	

Lab Batch #: 860995

Sample: 420233-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/21/11 23:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.6	109	70-135	
o-Terphenyl	58.8	49.8	118	70-135	

Lab Batch #: 860995

Sample: 420233-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/21/11 23:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	59.8	49.8	120	70-135	

Lab Batch #: 860995

Sample: 420252-005 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 00:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	131	100	131	70-135	
o-Terphenyl	67.9	50.0	136	70-135	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420233

Analyst: ASA

Date Prepared: 06/17/2011

Project ID:

Date Analyzed: 06/17/2011

Lab Batch ID: 860711

Sample: 605512-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.102	102	0.100	0.0880	88	15	70-130	35	
Toluene	<0.00200	0.100	0.0933	93	0.100	0.0803	80	15	70-130	35	
Ethylbenzene	<0.00100	0.100	0.102	102	0.100	0.0874	87	15	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.197	99	0.200	0.169	85	15	70-135	35	
o-Xylene	<0.00100	0.100	0.0971	97	0.100	0.0841	84	14	71-133	35	

Analyst: LATCOR

Date Prepared: 06/18/2011

Date Analyzed: 06/18/2011

Lab Batch ID: 860625

Sample: 860625-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	10.2	102	10.0	10.2	102	0	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420233

Analyst: LATCOR

Lab Batch ID: 860627

Sample: 860627-1-BKS

Date Prepared: 06/18/2011

Batch #: 1

Project ID:

Date Analyzed: 06/18/2011

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	9.02	90	10.0	10.0	100	10	75-125	20	

Analyst: BEV

Date Prepared: 06/20/2011

Date Analyzed: 06/21/2011

Lab Batch ID: 860995

Sample: 605661-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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	863	86	1000	875	88	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	794	79	1000	777	78	2	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420233

Lab Batch #: 860625

Date Analyzed: 06/18/2011

QC- Sample ID: 420166-032 S

Reporting Units: mg/kg

Project ID:

Analyst: LATCOR

Date Prepared: 06/18/2011

Batch #: 1

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	16.2	100	117	101	75-125	

Lab Batch #: 860627

Date Analyzed: 06/18/2011

QC- Sample ID: 420233-005 S

Reporting Units: mg/kg

Date Prepared: 06/18/2011

Analyst: LATCOR

Batch #: 1

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	<4.79	114	111	97	75-125	

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

Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420233

Project ID:

Lab Batch ID: 860711

QC- Sample ID: 420029-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/18/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00114	0.114	0.0531	47	0.115	0.0600	52	12	70-130	35	X
Toluene	<0.00229	0.114	0.0505	44	0.115	0.0553	48	9	70-130	35	X
Ethylbenzene	<0.00114	0.114	0.0559	49	0.115	0.0610	53	9	71-129	35	X
m_p-Xylenes	<0.00229	0.229	0.106	46	0.230	0.114	50	7	70-135	35	X
o-Xylene	<0.00114	0.114	0.0503	44	0.115	0.0568	49	12	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

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

Sample Duplicate Recovery

Project Name: Southern Union Gas Landfarm

Work Order #: 420233

Lab Batch #: 860625

Project ID:

Date Analyzed: 06/18/2011 02:06

Date Prepared: 06/18/2011

Analyst: LATCOR

QC- Sample ID: 420166-032 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	16.2	14.4	12	20	

Lab Batch #: 860627

Date Analyzed: 06/18/2011 07:45

Date Prepared: 06/18/2011

Analyst: LATCOR

QC- Sample ID: 420233-005 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	<4.79	<4.79	0	20	

Lab Batch #: 860648

Date Analyzed: 06/20/2011 10:55

Date Prepared: 06/20/2011

Analyst: WRU

QC- Sample ID: 420026-005 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	10.3	10.1	2	20	

Lab Batch #: 860995

Date Analyzed: 06/22/2011 00:15

Date Prepared: 06/20/2011

Analyst: BEV

QC- Sample ID: 420252-005 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.1	<15.1	0	35	
C12-C28 Diesel Range Hydrocarbons	153	192	23	35	
C28-C35 Oil Range Hydrocarbons	<15.1	<15.1	0	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420233
 Initials: XM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420234
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

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Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420234**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420234. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420234 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420234



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 2 G-1	S	Jun-14-11 10:25		420234-001
VZ Cell 2 G-2	S	Jun-14-11 10:35		420234-002
VZ Cell 2 G-3	S	Jun-14-11 10:45		420234-003
VZ Cell 2 G-4	S	Jun-14-11 10:55		420234-004



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420234

Report Date: 22-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-860715 BTEX by EPA 8021B
SW8021BM

Batch 860715, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420234-001, -002, -004, -003.

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



Certificate of Analy Summary 420234

Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	420234-001	420234-002	420234-003	420234-004		
	<i>Field Id:</i>	VZ Cell 2 G-1	VZ Cell 2 G-2	VZ Cell 2 G-3	VZ Cell 2 G-4		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Jun-14-11 10:25	Jun-14-11 10:35	Jun-14-11 10:45	Jun-14-11 10:55		
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-18-11 07:45	Jun-18-11 07:45	Jun-18-11 07:45	Jun-18-11 07:45		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		11.8 4.87	4.75 4.50	ND 4.51	6.19 4.57		
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-17-11 13:15	Jun-17-11 13:15	Jun-17-11 13:15	Jun-17-11 13:15		
	<i>Analyzed:</i>	Jun-18-11 16:14	Jun-18-11 16:36	Jun-18-11 16:59	Jun-18-11 17:21		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0011		
Toluene		ND 0.0023	ND 0.0021	ND 0.0022	ND 0.0022		
Ethylbenzene		ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0011		
m_p-Xylenes		ND 0.0023	ND 0.0021	ND 0.0022	ND 0.0022		
o-Xylene		ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0011		
Total Xylenes		ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0011		
Total BTEX		ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0011		
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 10:55	Jun-20-11 10:55	Jun-20-11 10:55	Jun-20-11 10:55		
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL		
Percent Moisture		13.7 1.00	6.60 1.00	6.90 1.00	8.02 1.00		
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-20-11 15:30	Jun-20-11 15:30	Jun-20-11 15:30	Jun-20-11 15:30		
	<i>Analyzed:</i>	Jun-22-11 04:40	Jun-22-11 05:09	Jun-22-11 05:38	Jun-22-11 06:08		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		ND 17.4	ND 16.0	ND 16.2	ND 16.3		
C12-C28 Diesel Range Hydrocarbons		ND 17.4	ND 16.0	ND 16.2	ND 16.3		
C28-C35 Oil Range Hydrocarbons		ND 17.4	ND 16.0	ND 16.2	ND 16.3		
Total TPH		ND 17.4	ND 16.0	ND 16.2	ND 16.3		

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

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Brent Barron, II
Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420234,

Project ID:

Lab Batch #: 860715

Sample: 605519-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 10:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0299	0.0300	100	80-120	
4-Bromofluorobenzene		0.0309	0.0300	103	80-120	

Lab Batch #: 860715

Sample: 605519-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 10:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0290	0.0300	97	80-120	
4-Bromofluorobenzene		0.0307	0.0300	102	80-120	

Lab Batch #: 860715

Sample: 605519-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 15:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0280	0.0300	93	80-120	
4-Bromofluorobenzene		0.0250	0.0300	83	80-120	

Lab Batch #: 860715

Sample: 420234-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 16:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0293	0.0300	98	80-120	
4-Bromofluorobenzene		0.0280	0.0300	93	80-120	

Lab Batch #: 860715

Sample: 420234-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 16:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0290	0.0300	97	80-120	
4-Bromofluorobenzene		0.0269	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420234,

Project ID:

Lab Batch #: 860715

Sample: 420234-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 16:59

SURROGATE RECOVERY STUDY

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

Lab Batch #: 860715

Sample: 420234-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 17:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 860715

Sample: 420234-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 19:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 860715

Sample: 420234-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 20:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 861002

Sample: 605666-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 03:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	64.4	50.1	129	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420234,
Lab Batch #: 861002

Project ID:

Sample: 605666-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 06/22/11 03:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	64.2	50.2	128	70-135	

Lab Batch #: 861002

Sample: 605666-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 06/22/11 04:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	67.4	50.0	135	70-135	

Lab Batch #: 861002

Sample: 420234-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/22/11 04:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	61.8	50.1	123	70-135	

Lab Batch #: 861002

Sample: 420234-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/22/11 05:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.9	113	70-135	
o-Terphenyl	62.4	50.0	125	70-135	

Lab Batch #: 861002

Sample: 420234-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/22/11 05:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	101	121	70-135	
o-Terphenyl	66.5	50.3	132	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420234,

Lab Batch #: 861002

Sample: 420234-004 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 06:08

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.7	113	70-135	
o-Terphenyl	61.9	49.9	124	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420234

Analyst: ASA

Date Prepared: 06/17/2011

Project ID:

Date Analyzed: 06/18/2011

Lab Batch ID: 860715

Sample: 605519-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0948	95	0.100	0.0957	96	1	70-130	35	
Toluene	<0.00200	0.100	0.0875	88	0.100	0.0882	88	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0944	94	0.100	0.0959	96	2	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.179	90	0.200	0.183	92	2	70-135	35	
o-Xylene	<0.00100	0.100	0.0917	92	0.100	0.0909	91	1	71-133	35	

Analyst: LATCOR

Date Prepared: 06/18/2011

Date Analyzed: 06/18/2011

Lab Batch ID: 860627

Sample: 860627-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	9.02	90	10.0	10.0	100	10	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420234

Analyst: BEV

Lab Batch ID: 861002

Sample: 605666-1-BKS

Date Prepared: 06/20/2011

Batch #: 1

Project ID:

Date Analyzed: 06/22/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	929	93	1000	933	93	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	853	85	1000	815	82	5	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420234

Lab Batch #: 860627

Date Analyzed: 06/18/2011

QC- Sample ID: 420233-005 S

Reporting Units: mg/kg

Date Prepared: 06/18/2011

Batch #: 1

Project ID:

Analyst: LATCOR

Matrix: Soil

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	<4.79	114	111	97.	75-125

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420234

Project ID:

Lab Batch ID: 860715

QC- Sample ID: 420234-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/18/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00117	0.117	0.0602	51	0.115	0.0496	43	19	70-130	35	X
Toluene	<0.00233	0.117	0.0600	51	0.115	0.0460	40	26	70-130	35	X
Ethylbenzene	<0.00117	0.117	0.0665	57	0.115	0.0528	46	23	71-129	35	X
m_p-Xylenes	<0.00233	0.233	0.128	55	0.229	0.102	45	23	70-135	35	X
o-Xylene	<0.00117	0.117	0.0655	56	0.115	0.0528	46	21	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420234

Lab Batch #: 860627

Project ID:

Date Analyzed: 06/18/2011 07:45

Date Prepared: 06/18/2011

Analyst: LATCOR

QC- Sample ID: 420233-005 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	<4.79	<4.79	0	20	

Lab Batch #: 860648

Date Analyzed: 06/20/2011 10:55

Date Prepared: 06/20/2011

Analyst: WRU

QC- Sample ID: 420026-005 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	10.3	10.1	2	20	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420234
 Initials: LM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420235
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



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Texas (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
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22-JUN-11

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

Reference: XENCO Report No: **420235**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420235. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420235 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420235



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 3 G-1	S	Jun-14-11 11:05		420235-001
VZ Cell 3 G-2	S	Jun-14-11 11:15		420235-002
VZ Cell 3 G-3	S	Jun-14-11 11:25		420235-003
VZ Cell 3 G-4	S	Jun-14-11 11:35		420235-004
VZ Cell 3 G-5	S	Jun-14-11 11:45		420235-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:

Work Order Number: 420235

Report Date: 22-JUN-11

Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-860715 BTEX by EPA 8021B

SW8021BM

Batch 860715, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420235-002, -004, -005, -003, -001.

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



Certificate of Analysis Summary 420235

Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	420235-001	420235-002	420235-003	420235-004	420235-005
	Field Id:	VZ Cell 3 G-1	VZ Cell 3 G-2	VZ Cell 3 G-3	VZ Cell 3 G-4	VZ Cell 3 G-5
	Depth:					
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Jun-14-11 11:05	Jun-14-11 11:15	Jun-14-11 11:25	Jun-14-11 11:35	Jun-14-11 11:45
Anions by E300	Extracted:					
	Analyzed:	Jun-18-11 07:45				
	Units/RL:	mg/kg RL				
Chloride		ND 8.93	ND 9.40	ND 4.36	ND 9.17	ND 4.61
BTEX by EPA 8021B	Extracted:	Jun-17-11 13:15				
	Analyzed:	Jun-18-11 17:44	Jun-18-11 18:06	Jun-18-11 18:29	Jun-18-11 18:51	Jun-18-11 19:14
	Units/RL:	mg/kg RL				
Benzene		ND 0.0011	ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0011
Toluene		ND 0.0021	ND 0.0023	ND 0.0021	ND 0.0022	ND 0.0022
Ethylbenzene		ND 0.0011	ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0011
m_p-Xylenes		ND 0.0021	ND 0.0023	ND 0.0021	ND 0.0022	ND 0.0022
o-Xylene		ND 0.0011	ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0011
Total Xylenes		ND 0.0011	ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0011
Total BTEX		ND 0.0011	ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0011
Percent Moisture	Extracted:					
	Analyzed:	Jun-20-11 11:12				
	Units/RL:	% RL				
Percent Moisture		5.91 1.00	10.6 1.00	3.63 1.00	8.44 1.00	8.98 1.00
TPH By SW8015 Mod	Extracted:	Jun-20-11 15:30				
	Analyzed:	Jun-22-11 06:37	Jun-22-11 07:06	Jun-22-11 07:35	Jun-22-11 08:04	Jun-22-11 08:34
	Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 16.0	ND 16.8	ND 15.5	ND 16.4	ND 16.4
C12-C28 Diesel Range Hydrocarbons		ND 16.0	ND 16.8	ND 15.5	ND 16.4	ND 16.4
C28-C35 Oil Range Hydrocarbons		ND 16.0	ND 16.8	ND 15.5	ND 16.4	ND 16.4
Total TPH		ND 16.0	ND 16.8	ND 15.5	ND 16.4	ND 16.4

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

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Brent Barron, II
Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420235,

Project ID:

Lab Batch #: 860715

Sample: 605519-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/18/11 10:25	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0299	0.0300	100	80-120	
4-Bromofluorobenzene		0.0309	0.0300	103	80-120	

Lab Batch #: 860715

Sample: 605519-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/18/11 10:47	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0290	0.0300	97	80-120	
4-Bromofluorobenzene		0.0307	0.0300	102	80-120	

Lab Batch #: 860715

Sample: 605519-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/18/11 15:51	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0280	0.0300	93	80-120	
4-Bromofluorobenzene		0.0250	0.0300	83	80-120	

Lab Batch #: 860715

Sample: 420235-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/18/11 17:44	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0304	0.0300	101	80-120	
4-Bromofluorobenzene		0.0301	0.0300	100	80-120	

Lab Batch #: 860715

Sample: 420235-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/18/11 18:06	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0257	0.0300	86	80-120	
4-Bromofluorobenzene		0.0259	0.0300	86	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420235,

Project ID:

Lab Batch #: 860715

Sample: 420235-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 18:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 860715

Sample: 420235-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 18:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0250	0.0300	83	80-120	

Lab Batch #: 860715

Sample: 420235-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 19:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Lab Batch #: 860715

Sample: 420234-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 19:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 860715

Sample: 420234-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 20:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420235,

Project ID:

Lab Batch #: 861002

Sample: 605666-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 03:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	64.4	50.1	129	70-135	

Lab Batch #: 861002

Sample: 605666-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 03:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	64.2	50.2	128	70-135	

Lab Batch #: 861002

Sample: 605666-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 04:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	67.4	50.0	135	70-135	

Lab Batch #: 861002

Sample: 420235-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 06:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	61.2	50.1	122	70-135	

Lab Batch #: 861002

Sample: 420235-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 07:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	62.7	50.0	125	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420235,

Project ID:

Lab Batch #: 861002

Sample: 420235-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 07:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	99.6	115	70-135	
o-Terphenyl	61.7	49.8	124	70-135	

Lab Batch #: 861002

Sample: 420235-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 08:04

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	99.9	120	70-135	
o-Terphenyl	67.3	50.0	135	70-135	

Lab Batch #: 861002

Sample: 420235-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 08:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	99.6	123	70-135	
o-Terphenyl	65.4	49.8	131	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420235

Analyst: ASA

Date Prepared: 06/17/2011

Project ID:

Date Analyzed: 06/18/2011

Lab Batch ID: 860715

Sample: 605519-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0948	95	0.100	0.0957	96	1	70-130	35	
Toluene	<0.00200	0.100	0.0875	88	0.100	0.0882	88	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0944	94	0.100	0.0959	96	2	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.179	90	0.200	0.183	92	2	70-135	35	
o-Xylene	<0.00100	0.100	0.0917	92	0.100	0.0909	91	1	71-133	35	

Analyst: LATCOR

Date Prepared: 06/18/2011

Date Analyzed: 06/18/2011

Lab Batch ID: 860627

Sample: 860627-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	9.02	90	10.0	10.0	100	10	75-125	20	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420235

Analyst: BEV

Lab Batch ID: 861002

Sample: 605666-1-BKS

Date Prepared: 06/20/2011

Batch #: 1

Project ID:

Date Analyzed: 06/22/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	929	93	1000	933	93	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	853	85	1000	815	82	5	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420235
Lab Batch #: 860627
Date Analyzed: 06/18/2011
QC- Sample ID: 420233-005 S
Reporting Units: mg/kg

Date Prepared: 06/18/2011
Batch #: 1
Project ID:
Analyst: LATCOR
Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	<4.79	114	111	97	75-125	

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

Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420235

Project ID:

Lab Batch ID: 860715

QC- Sample ID: 420234-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/18/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00117	0.117	0.0602	51	0.115	0.0496	43	19	70-130	35	X
Toluene	<0.00233	0.117	0.0600	51	0.115	0.0460	40	26	70-130	35	X
Ethylbenzene	<0.00117	0.117	0.0665	57	0.115	0.0528	46	23	71-129	35	X
m_p-Xylenes	<0.00233	0.233	0.128	55	0.229	0.102	45	23	70-135	35	X
o-Xylene	<0.00117	0.117	0.0655	56	0.115	0.0528	46	21	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420235

Lab Batch #: 860627

Project ID:

Date Analyzed: 06/18/2011 07:45

Date Prepared: 06/18/2011

Analyst: LATCOR

QC- Sample ID: 420233-005 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	<4.79	<4.79	0	20	

Lab Batch #: 860654

Date Analyzed: 06/20/2011 11:12

Date Prepared: 06/20/2011

Analyst: WRU

QC- Sample ID: 420235-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	5.91	6.84	15	20	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420235
 Initials: LM

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420236
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

23-JUN-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



23-JUN-11

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

Reference: XENCO Report No: **420236**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420236. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420236 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420236



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 4 G-1	S	Jun-14-11 12:00		420236-001
VZ Cell 4 G-2	S	Jun-14-11 12:10		420236-002
VZ Cell 4 G-3	S	Jun-14-11 12:20		420236-003
VZ Cell 4 G-4	S	Jun-14-11 12:30		420236-004
VZ Cell 4 G-5	S	Jun-14-11 12:40		420236-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420236

Report Date: 23-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

*Batch: LBA-860715 BTEX by EPA 8021B
SW8021BM*

Batch 860715, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420236-002, -004, -001, -003, -005.

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



Certificate of Analy Summary 420236

Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 23-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	<i>Lab Id:</i>	420236-001	420236-002	420236-003	420236-004	420236-005	
	<i>Field Id:</i>	VZ Cell 4 G-1	VZ Cell 4 G-2	VZ Cell 4 G-3	VZ Cell 4 G-4	VZ Cell 4 G-5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Jun-14-11 12:00	Jun-14-11 12:10	Jun-14-11 12:20	Jun-14-11 12:30	Jun-14-11 12:40	
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-18-11 07:45					
	<i>Units/RL:</i>	mg/kg RL					
Chloride		ND 9.04	ND 4.48	ND 4.63	ND 4.79	ND 9.20	
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-17-11 13:15					
	<i>Analyzed:</i>	Jun-18-11 19:36	Jun-18-11 21:28	Jun-18-11 21:51	Jun-18-11 22:13	Jun-18-11 22:36	
	<i>Units/RL:</i>	mg/kg RL					
Benzene		ND 0.0011					
Toluene		ND 0.0022	ND 0.0021	ND 0.0022	ND 0.0023	ND 0.0022	
Ethylbenzene		ND 0.0011					
m_p-Xylenes		ND 0.0022	ND 0.0021	ND 0.0022	ND 0.0023	ND 0.0022	
o-Xylene		ND 0.0011					
Total Xylenes		ND 0.0011					
Total BTEX		ND 0.0011					
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:12					
	<i>Units/RL:</i>	% RL					
Percent Moisture		7.07 1.00	6.27 1.00	9.37 1.00	12.4 1.00	8.67 1.00	
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-20-11 15:30					
	<i>Analyzed:</i>	Jun-22-11 09:03	Jun-22-11 10:02	Jun-22-11 10:31	Jun-22-11 11:01	Jun-22-11 11:30	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 16.2	ND 16.0	ND 16.6	ND 17.1	ND 16.5	
C12-C28 Diesel Range Hydrocarbons		ND 16.2	ND 16.0	ND 16.6	ND 17.1	ND 16.5	
C28-C35 Oil Range Hydrocarbons		ND 16.2	ND 16.0	ND 16.6	ND 17.1	ND 16.5	
Total TPH		ND 16.2	ND 16.0	ND 16.6	ND 17.1	ND 16.5	

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

Brent Barron, II
Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420236,
Lab Batch #: 860715

Sample: 605519-1-BKS / BKS

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 10:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 860715

Sample: 605519-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 10:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 860715

Sample: 605519-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 15:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0250	0.0300	83	80-120	

Lab Batch #: 860715

Sample: 420236-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 19:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0310	0.0300	103	80-120	

Lab Batch #: 860715

Sample: 420234-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 19:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420236,

Project ID:

Lab Batch #: 860715

Sample: 420234-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 20:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 860715

Sample: 420236-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 21:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 860715

Sample: 420236-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 21:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0252	0.0300	84	80-120	
4-Bromofluorobenzene	0.0255	0.0300	85	80-120	

Lab Batch #: 860715

Sample: 420236-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 22:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 860715

Sample: 420236-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 22:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420236,
Lab Batch #: 861002

Project ID:

Sample: 605666-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 03:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	64.4	50.1	129	70-135	

Lab Batch #: 861002

Sample: 605666-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 03:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	64.2	50.2	128	70-135	

Lab Batch #: 861002

Sample: 605666-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 04:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	67.4	50.0	135	70-135	

Lab Batch #: 861002

Sample: 420236-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 09:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	64.3	50.1	128	70-135	

Lab Batch #: 861002

Sample: 420236-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 10:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.9	119	70-135	
o-Terphenyl	64.8	50.0	130	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420236,

Project ID:

Lab Batch #: 861002

Sample: 420236-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 10:31

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	101	117	70-135	
o-Terphenyl	65.0	50.3	129	70-135	

Lab Batch #: 861002

Sample: 420236-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 11:01

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	99.8	118	70-135	
o-Terphenyl	63.7	49.9	128	70-135	

Lab Batch #: 861002

Sample: 420236-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 11:30

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	101	114	70-135	
o-Terphenyl	62.3	50.3	124	70-135	

Lab Batch #: 861002

Sample: 420240-002 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 15:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	153	200	77	70-135	
o-Terphenyl	84.4	100	84	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420236

Analyst: ASA

Date Prepared: 06/17/2011

Project ID:

Date Analyzed: 06/18/2011

Lab Batch ID: 860715

Sample: 605519-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0948	95	0.100	0.0957	96	1	70-130	35	
Toluene	<0.00200	0.100	0.0875	88	0.100	0.0882	88	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0944	94	0.100	0.0959	96	2	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.179	90	0.200	0.183	92	2	70-135	35	
o-Xylene	<0.00100	0.100	0.0917	92	0.100	0.0909	91	1	71-133	35	

Analyst: LATCOR

Date Prepared: 06/18/2011

Date Analyzed: 06/18/2011

Lab Batch ID: 860627

Sample: 860627-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	9.02	90	10.0	10.0	100	10	75-125	20	

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

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420236

Analyst: BEV

Lab Batch ID: 861002

Sample: 605666-1-BKS

Date Prepared: 06/20/2011

Batch #: 1

Project ID:

Date Analyzed: 06/22/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	929	93	1000	933	93	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	853	85	1000	815	82	5	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420236

Lab Batch #: 860627

Date Analyzed: 06/18/2011

QC- Sample ID: 420233-005 S

Reporting Units: mg/kg

Date Prepared: 06/18/2011

Batch #: 1

Project ID:

Analyst: LATCOR

Matrix: Soil

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	<4.79	114	111	97	75-125

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

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

All Results are based on MDL and Validated for QC Purposes.

BL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420236

Project ID:

Lab Batch ID: 860715

QC- Sample ID: 420234-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/18/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00117	0.117	0.0602	51	0.115	0.0496	43	19	70-130	35	X
Toluene	<0.00233	0.117	0.0600	51	0.115	0.0460	40	26	70-130	35	X
Ethylbenzene	<0.00117	0.117	0.0665	57	0.115	0.0528	46	23	71-129	35	X
m_p-Xylenes	<0.00233	0.233	0.128	55	0.229	0.102	45	23	70-135	35	X
o-Xylene	<0.00117	0.117	0.0655	56	0.115	0.0528	46	21	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420236

Lab Batch #: 860627

Project ID:

Date Analyzed: 06/18/2011 07:45

Date Prepared: 06/18/2011

Analyst: LATCOR

QC- Sample ID: 420233-005 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	<4.79	<4.79	0	20	

Lab Batch #: 860654

Analyst: WRU

Date Analyzed: 06/20/2011 11:12

Date Prepared: 06/20/2011

QC- Sample ID: 420235-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	5.91	6.84	15	20	

Lab Batch #: 861002

Analyst: BEV

Date Analyzed: 06/22/2011 15:00

Date Prepared: 06/20/2011

QC- Sample ID: 420240-002 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<16.4	<16.4	0	35	
C12-C28 Diesel Range Hydrocarbons	<16.4	<16.4	0	35	
C28-C35 Oil Range Hydrocarbons	<16.4	<16.4	0	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420236
 Initials: LM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420237
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

23-JUN-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



23-JUN-11

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

Reference: XENCO Report No: **420237**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420237. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420237 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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

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Sample Cross Reference 420237



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 5 G-1	S	Jun-14-11 12:50		420237-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420237

Report Date: 23-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-860715 BTEX by EPA 8021B
SW8021BM

Batch 860715, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420237-001.

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



Certificate of Analy Summary 420237
Southern Union Gas Services- Monahans, Monahans, TX
Project Name: Southern Union Gas Landfarm



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 23-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	<i>Lab Id:</i>	420237-001				
	<i>Field Id:</i>	VZ Cell 5 G-1				
	<i>Depth:</i>					
	<i>Matrix:</i>	SOIL				
	<i>Sampled:</i>	Jun-14-11 12:50				
Anions by E300	<i>Extracted:</i>					
	<i>Analyzed:</i>	Jun-18-11 07:45				
	<i>Units/RL:</i>	mg/kg RL				
Chloride		ND 4.50				
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-17-11 13:15				
	<i>Analyzed:</i>	Jun-18-11 22:59				
	<i>Units/RL:</i>	mg/kg RL				
	Benzene		ND 0.0011			
Toluene		ND 0.0021				
Ethylbenzene		ND 0.0011				
m_p-Xylenes		ND 0.0021				
o-Xylene		ND 0.0011				
Total Xylenes		ND 0.0011				
Total BTEX		ND 0.0011				
Percent Moisture	<i>Extracted:</i>					
	<i>Analyzed:</i>	Jun-20-11 11:12				
	<i>Units/RL:</i>	% RL				
Percent Moisture		6.61 1.00				
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-20-11 15:30				
	<i>Analyzed:</i>	Jun-22-11 12:00				
	<i>Units/RL:</i>	mg/kg RL				
	C6-C12 Gasoline Range Hydrocarbons		ND 16.0			
	C12-C28 Diesel Range Hydrocarbons		ND 16.0			
C28-C35 Oil Range Hydrocarbons		ND 16.0				
Total TPH		ND 16.0				

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

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

Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420237,

Project ID:

Lab Batch #: 860715

Sample: 605519-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 10:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 860715

Sample: 605519-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 10:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 860715

Sample: 605519-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 15:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0250	0.0300	83	80-120	

Lab Batch #: 860715

Sample: 420234-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 19:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 860715

Sample: 420234-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 20:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420237,

Project ID:

Lab Batch #: 860715

Sample: 420237-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 22:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 861002

Sample: 605666-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 03:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	64.4	50.1	129	70-135	

Lab Batch #: 861002

Sample: 605666-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 03:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	64.2	50.2	128	70-135	

Lab Batch #: 861002

Sample: 605666-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 04:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	67.4	50.0	135	70-135	

Lab Batch #: 861002

Sample: 420237-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 12:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	117	99.9	117	70-135	
o-Terphenyl	62.9	50.0	126	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420237,

Lab Batch #: 861002

Sample: 420240-002 D / MD

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 15:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	153	200	77	70-135	
o-Terphenyl	84.4	100	84	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420237

Analyst: ASA

Lab Batch ID: 860715

Sample: 605519-1-BKS

Date Prepared: 06/17/2011

Batch #: 1

Project ID:

Date Analyzed: 06/18/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0948	95	0.100	0.0957	96	1	70-130	35	
Toluene	<0.00200	0.100	0.0875	88	0.100	0.0882	88	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0944	94	0.100	0.0959	96	2	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.179	90	0.200	0.183	92	2	70-135	35	
o-Xylene	<0.00100	0.100	0.0917	92	0.100	0.0909	91	1	71-133	35	

Analyst: LATCOR

Date Prepared: 06/18/2011

Date Analyzed: 06/18/2011

Lab Batch ID: 860627

Sample: 860627-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	9.02	90	10.0	10.0	100	10	75-125	20	

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

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420237

Analyst: BEV

Date Prepared: 06/20/2011

Project ID:

Date Analyzed: 06/22/2011

Lab Batch ID: 861002

Sample: 605666-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	929	93	1000	933	93	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	853	85	1000	815	82	5	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420237

Lab Batch #: 860627

Date Analyzed: 06/18/2011

Date Prepared: 06/18/2011

Project ID:

Analyst: LATCOR

QC- Sample ID: 420233-005 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	<4.79	114	111	97	75-125	

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

BRL - Below Reporting Limit



Form 3 - Matrix MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420237

Project ID:

Lab Batch ID: 860715

QC- Sample ID: 420234-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/18/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Benzene	<0.00117	0.117	0.0602	51	0.115	0.0496	43	19	70-130	35
Toluene	<0.00233	0.117	0.0600	51	0.115	0.0460	40	26	70-130	35	X
Ethylbenzene	<0.00117	0.117	0.0665	57	0.115	0.0528	46	23	71-129	35	X
m_p-Xylenes	<0.00233	0.233	0.128	55	0.229	0.102	45	23	70-135	35	X
o-Xylene	<0.00117	0.117	0.0655	56	0.115	0.0528	46	21	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420237

Lab Batch #: 860627

Project ID:

Date Analyzed: 06/18/2011 07:45

Date Prepared: 06/18/2011

Analyst: LATICOR

QC- Sample ID: 420233-005 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	<4.79	<4.79	0	20	

Lab Batch #: 860654

Date Analyzed: 06/20/2011 11:12

Date Prepared: 06/20/2011

Analyst: WRU

QC- Sample ID: 420235-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	5.91	6.84	15	20	

Lab Batch #: 861002

Date Analyzed: 06/22/2011 15:00

Date Prepared: 06/20/2011

Analyst: BEV

QC- Sample ID: 420240-002 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<16.4	<16.4	0	35	
C12-C28 Diesel Range Hydrocarbons	<16.4	<16.4	0	35	
C28-C35 Oil Range Hydrocarbons	<16.4	<16.4	0	35	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

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

BRL - Below Reporting Limit



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420237
 Initials: AM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420238
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

23-JUN-11

Collected By: Client



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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

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

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Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

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North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



23-JUN-11

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

Reference: XENCO Report No: **420238**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420238. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420238 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420238



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 6 G-1	S	Jun-14-11 13:00		420238-001
VZ Cell 6 G-2	S	Jun-14-11 13:10		420238-002



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420238

Report Date: 23-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-860715 BTEX by EPA 8021B
SW8021BM

Batch 860715, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420238-001, -002.

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



Certificate of Analy Summary 420238
Southern Union Gas Services- Monahans, Monahans, TX
Project Name: Southern Union Gas Landfarm



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 23-JUN-11

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	420238-001	420238-002				
	<i>Field Id:</i>	VZ Cell 6 G-1	VZ Cell 6 G-2				
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL				
	<i>Sampled:</i>	Jun-14-11 13:00	Jun-14-11 13:10				
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-18-11 07:45	Jun-18-11 07:45				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		ND 4.62	ND 4.52				
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-17-11 13:15	Jun-17-11 13:15				
	<i>Analyzed:</i>	Jun-18-11 23:22	Jun-18-11 23:45				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Benzene		ND 0.0011	ND 0.0011				
Toluene		ND 0.0022	ND 0.0022				
Ethylbenzene		ND 0.0011	ND 0.0011				
m_p-Xylenes		ND 0.0022	ND 0.0022				
o-Xylene		ND 0.0011	ND 0.0011				
Total Xylenes		ND 0.0011	ND 0.0011				
Total BTEX		ND 0.0011	ND 0.0011				
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:12	Jun-20-11 11:12				
	<i>Units/RL:</i>	% RL	% RL				
Percent Moisture		9.05 1.00	7.10 1.00				
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-20-11 15:30	Jun-20-11 15:30				
	<i>Analyzed:</i>	Jun-22-11 12:29	Jun-22-11 12:59				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 16.4	ND 16.1				
C12-C28 Diesel Range Hydrocarbons		ND 16.4	ND 16.1				
C28-C35 Oil Range Hydrocarbons		ND 16.4	ND 16.1				
Total TPH		ND 16.4	ND 16.1				

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

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Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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12600 West I-20 East, Odessa, TX 79765
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(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420238,

Project ID:

Lab Batch #: 860715

Sample: 605519-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/18/11 10:25		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0299	0.0300	100	80-120	
4-Bromofluorobenzene		0.0309	0.0300	103	80-120	

Lab Batch #: 860715

Sample: 605519-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/18/11 10:47		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0290	0.0300	97	80-120	
4-Bromofluorobenzene		0.0307	0.0300	102	80-120	

Lab Batch #: 860715

Sample: 605519-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/18/11 15:51		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0280	0.0300	93	80-120	
4-Bromofluorobenzene		0.0250	0.0300	83	80-120	

Lab Batch #: 860715

Sample: 420234-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/18/11 19:58		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0283	0.0300	94	80-120	
4-Bromofluorobenzene		0.0320	0.0300	107	80-120	

Lab Batch #: 860715

Sample: 420234-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/18/11 20:21		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0285	0.0300	95	80-120	
4-Bromofluorobenzene		0.0291	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420238,

Project ID:

Lab Batch #: 860715

Sample: 420238-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 23:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 860715

Sample: 420238-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 23:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0261	0.0300	87	80-120	

Lab Batch #: 861002

Sample: 605666-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 03:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	64.4	50.1	129	70-135	

Lab Batch #: 861002

Sample: 605666-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 03:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	64.2	50.2	128	70-135	

Lab Batch #: 861002

Sample: 605666-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 04:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	67.4	50.0	135	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420238,

Project ID:

Lab Batch #: 861002

Sample: 420238-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 12:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.5	118	70-135	
o-Terphenyl	63.3	49.8	127	70-135	

Lab Batch #: 861002

Sample: 420238-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 12:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.5	118	70-135	
o-Terphenyl	63.5	49.8	128	70-135	

Lab Batch #: 861002

Sample: 420240-002 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 15:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	153	200	77	70-135	
o-Terphenyl	84.4	100	84	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420238

Analyst: ASA

Lab Batch ID: 860715

Sample: 605519-1-BKS

Batch #: 1

Project ID:

Date Analyzed: 06/18/2011

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0948	95	0.100	0.0957	96	1	70-130	35	
Toluene	<0.00200	0.100	0.0875	88	0.100	0.0882	88	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0944	94	0.100	0.0959	96	2	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.179	90	0.200	0.183	92	2	70-135	35	
o-Xylene	<0.00100	0.100	0.0917	92	0.100	0.0909	91	1	71-133	35	

Analyst: LATCOR

Date Prepared: 06/18/2011

Date Analyzed: 06/18/2011

Lab Batch ID: 860627

Sample: 860627-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	9.02	90	10.0	10.0	100	10	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420238

Analyst: BEV

Date Prepared: 06/20/2011

Project ID:

Date Analyzed: 06/22/2011

Lab Batch ID: 861002

Sample: 605666-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	929	93	1000	933	93	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	853	85	1000	815	82	5	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C) / (B)$

Blank Spike Duplicate Recovery [G] = $100 * (F) / (E)$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420238

Lab Batch #: 860627

Date Analyzed: 06/18/2011

QC- Sample ID: 420233-005 S

Date Prepared: 06/18/2011

Project ID:

Analyst: LATCOR

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	<4.79	114	111	97	75-125	

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

BRL - Below Reporting Limit



Form 3 - MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420238

Project ID:

Lab Batch ID: 860715

QC- Sample ID: 420234-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/18/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Benzene	<0.00117	0.117	0.0602	51	0.115	0.0496	43	19	70-130	35
Toluene	<0.00233	0.117	0.0600	51	0.115	0.0460	40	26	70-130	35	X
Ethylbenzene	<0.00117	0.117	0.0665	57	0.115	0.0528	46	23	71-129	35	X
m_p-Xylenes	<0.00233	0.233	0.128	55	0.229	0.102	45	23	70-135	35	X
o-Xylene	<0.00117	0.117	0.0655	56	0.115	0.0528	46	21	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420238

Lab Batch #: 860627

Date Analyzed: 06/18/2011 07:45

Date Prepared: 06/18/2011

Project ID:

Analyst: LATCOR

QC- Sample ID: 420233-005 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	<4.79	<4.79	0	20	

Lab Batch #: 860654

Date Analyzed: 06/20/2011 11:12

Date Prepared: 06/20/2011

Analyst: WRU

QC- Sample ID: 420235-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	5.91	6.84	15	20	

Lab Batch #: 861002

Date Analyzed: 06/22/2011 15:00

Date Prepared: 06/20/2011

Analyst: BEV

QC- Sample ID: 420240-002 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<16.4	<16.4	0	35	
C12-C28 Diesel Range Hydrocarbons	<16.4	<16.4	0	35	
C28-C35 Oil Range Hydrocarbons	<16.4	<16.4	0	35	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

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

BRL - Below Reporting Limit



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420238
 Initials: XM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420239
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

23-JUN-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



23-JUN-11

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

Reference: XENCO Report No: **420239**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420239. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420239 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420239



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 7 G-1	S	Jun-14-11 13:20		420239-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420239

Report Date: 23-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-860715 BTEX by EPA 8021B
SW8021BM

Batch 860715, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420239-001.

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



Certificate of Analysis Summary 420239
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 23-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	Lab Id: 420239-001 Field Id: VZ Cell 7 G-1 Depth: Matrix: SOIL Sampled: Jun-14-11 13:20					
Anions by E300	Extracted: Analyzed: Jun-18-11 07:45 Units/RL: mg/kg RL					
Chloride	ND 4.55					
BTEX by EPA 8021B	Extracted: Jun-17-11 13:15 Analyzed: Jun-19-11 00:07 Units/RL: mg/kg RL					
Benzene	ND 0.0011					
Toluene	ND 0.0022					
Ethylbenzene	ND 0.0011					
m_p-Xylenes	ND 0.0022					
o-Xylene	ND 0.0011					
Total Xylenes	ND 0.0011					
Total BTEX	ND 0.0011					
Percent Moisture	Extracted: Analyzed: Jun-20-11 11:12 Units/RL: % RL					
Percent Moisture	7.75 1.00					
TPH By SW8015 Mod	Extracted: Jun-20-11 15:30 Analyzed: Jun-22-11 13:29 Units/RL: mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons	ND 16.2					
C12-C28 Diesel Range Hydrocarbons	ND 16.2					
C28-C35 Oil Range Hydrocarbons	ND 16.2					
Total TPH	ND 16.2					

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

Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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842 Cantwell Lane, Corpus Christi, TX 78408
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(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420239,

Project ID:

Lab Batch #: 860715

Sample: 605519-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 10:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 860715

Sample: 605519-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 10:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 860715

Sample: 605519-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 15:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0250	0.0300	83	80-120	

Lab Batch #: 860715

Sample: 420234-001 S / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 19:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 860715

Sample: 420234-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 20:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420239,

Project ID:

Lab Batch #: 860715

Sample: 420239-001 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/19/11 00:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 861002

Sample: 605666-1-BKS / BKS

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 06/22/11 03:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	64.4	50.1	129	70-135	

Lab Batch #: 861002

Sample: 605666-1-BSD / BSD

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 06/22/11 03:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	64.2	50.2	128	70-135	

Lab Batch #: 861002

Sample: 605666-1-BLK / BLK

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 06/22/11 04:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	67.4	50.0	135	70-135	

Lab Batch #: 861002

Sample: 420239-001 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/22/11 13:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	99.6	122	70-135	
o-Terphenyl	66.6	49.8	134	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420239,

Project ID:

Lab Batch #: 861002

Sample: 420240-002 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 15:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	153	200	77	70-135	
o-Terphenyl	84.4	100	84	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420239

Analyst: ASA

Date Prepared: 06/17/2011

Project ID:

Date Analyzed: 06/18/2011

Lab Batch ID: 860715

Sample: 605519-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0948	95	0.100	0.0957	96	1	70-130	35	
Toluene	<0.00200	0.100	0.0875	88	0.100	0.0882	88	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0944	94	0.100	0.0959	96	2	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.179	90	0.200	0.183	92	2	70-135	35	
o-Xylene	<0.00100	0.100	0.0917	92	0.100	0.0909	91	1	71-133	35	

Analyst: LATCOR

Date Prepared: 06/18/2011

Date Analyzed: 06/18/2011

Lab Batch ID: 860627

Sample: 860627-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	9.02	90	10.0	10.0	100	10	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420239

Analyst: BEV

Date Prepared: 06/20/2011

Project ID:

Date Analyzed: 06/22/2011

Lab Batch ID: 861002

Sample: 605666-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	929	93	1000	933	93	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	853	85	1000	815	82	5	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420239

Project ID:

Lab Batch #: 860627

Date Prepared: 06/18/2011

Analyst: LATCOR

Date Analyzed: 06/18/2011

Batch #: 1

Matrix: Soil

QC- Sample ID: 420233-005 S

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	<4.79	114	111	97	75-125	

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

BRL - Below Reporting Limit



Form 3 - MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420239

Project ID:

Lab Batch ID: 860715

QC- Sample ID: 420234-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/18/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Benzene	<0.00117	0.117	0.0602	51	0.115	0.0496	43	19	70-130	35
Toluene	<0.00233	0.117	0.0600	51	0.115	0.0460	40	26	70-130	35	X
Ethylbenzene	<0.00117	0.117	0.0665	57	0.115	0.0528	46	23	71-129	35	X
m_p-Xylenes	<0.00233	0.233	0.128	55	0.229	0.102	45	23	70-135	35	X
o-Xylene	<0.00117	0.117	0.0655	56	0.115	0.0528	46	21	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420239

Lab Batch #: 860627
Date Analyzed: 06/18/2011 07:45
QC- Sample ID: 420233-005 D
Reporting Units: mg/kg

Date Prepared: 06/18/2011
Batch #: 1

Project ID:
Analyst: LATCOR
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	<4.79	<4.79	0	20	

Lab Batch #: 860654
Date Analyzed: 06/20/2011 11:12
QC- Sample ID: 420235-001 D
Reporting Units: %

Date Prepared: 06/20/2011
Batch #: 1

Analyst: WRU
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	5.91	6.84	15	20	

Lab Batch #: 861002
Date Analyzed: 06/22/2011 15:00
QC- Sample ID: 420240-002 D
Reporting Units: mg/kg

Date Prepared: 06/20/2011
Batch #: 1

Analyst: BEV
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<16.4	<16.4	0	35	
C12-C28 Diesel Range Hydrocarbons	<16.4	<16.4	0	35	
C28-C35 Oil Range Hydrocarbons	<16.4	<16.4	0	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420239
 Initials: PM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420240
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

23-JUN-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



23-JUN-11

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

Reference: XENCO Report No: **420240**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420240. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420240 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420240



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 8 G-1	S	Jun-14-11 13:30		420240-001
VZ Cell 8 G-2	S	Jun-14-11 13:40		420240-002



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420240

Report Date: 23-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-860715 BTEX by EPA 8021B
SW8021BM

Batch 860715, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420240-001, -002.

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



Certificate of Analysis Summary 420240
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 23-JUN-11

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	420240-001	420240-002				
	<i>Field Id:</i>	VZ Cell 8 G-1	VZ Cell 8 G-2				
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL				
	<i>Sampled:</i>	Jun-14-11 13:30	Jun-14-11 13:40				
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:52	Jun-21-11 15:42				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		95.3 9.04	20.3 4.60				
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-17-11 13:15	Jun-17-11 13:15				
	<i>Analyzed:</i>	Jun-19-11 00:29	Jun-19-11 00:52				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Benzene		ND 0.0011	ND 0.0011				
Toluene		ND 0.0021	ND 0.0022				
Ethylbenzene		ND 0.0011	ND 0.0011				
m_p-Xylenes		ND 0.0021	ND 0.0022				
o-Xylene		ND 0.0011	ND 0.0011				
Total Xylenes		ND 0.0011	ND 0.0011				
Total BTEX		ND 0.0011	ND 0.0011				
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:12	Jun-20-11 11:12				
	<i>Units/RL:</i>	% RL	% RL				
Percent Moisture		7.08 1.00	8.64 1.00				
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-20-11 15:30	Jun-20-11 15:30				
	<i>Analyzed:</i>	Jun-22-11 13:59	Jun-22-11 14:29				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 16.1	ND 16.4				
C12-C28 Diesel Range Hydrocarbons		ND 16.1	ND 16.4				
C28-C35 Oil Range Hydrocarbons		ND 16.1	ND 16.4				
Total TPH		ND 16.1	ND 16.4				

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

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Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420240,

Project ID:

Lab Batch #: 860715

Sample: 605519-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 10:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 860715

Sample: 605519-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 10:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 860715

Sample: 605519-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/18/11 15:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0250	0.0300	83	80-120	

Lab Batch #: 860715

Sample: 420234-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 19:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 860715

Sample: 420234-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/18/11 20:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420240,

Project ID:

Lab Batch #: 860715

Sample: 420240-001 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/19/11 00:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 860715

Sample: 420240-002 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/19/11 00:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0280	0.0300	93	80-120	

Lab Batch #: 861002

Sample: 605666-1-BKS / BKS

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 06/22/11 03:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	64.4	50.1	129	70-135	

Lab Batch #: 861002

Sample: 605666-1-BSD / BSD

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 06/22/11 03:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	64.2	50.2	128	70-135	

Lab Batch #: 861002

Sample: 605666-1-BLK / BLK

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 06/22/11 04:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	67.4	50.0	135	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420240,

Project ID:

Lab Batch #: 861002

Sample: 420240-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 13:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	100	121	70-135	
o-Terphenyl	66.4	50.0	133	70-135	

Lab Batch #: 861002

Sample: 420240-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 14:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	61.9	50.1	124	70-135	

Lab Batch #: 861002

Sample: 420240-002 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 15:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	153	200	77	70-135	
o-Terphenyl	84.4	100	84	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420240

Analyst: ASA

Lab Batch ID: 860715

Sample: 605519-1-BKS

Date Prepared: 06/17/2011

Batch #: 1

Project ID:

Date Analyzed: 06/18/2011

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0948	95	0.100	0.0957	96	1	70-130	35	
Toluene	<0.00200	0.100	0.0875	88	0.100	0.0882	88	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0944	94	0.100	0.0959	96	2	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.179	90	0.200	0.183	92	2	70-135	35	
o-Xylene	<0.00100	0.100	0.0917	92	0.100	0.0909	91	1	71-133	35	

Analyst: LATCOR

Date Prepared: 06/20/2011

Date Analyzed: 06/20/2011

Lab Batch ID: 860805

Sample: 860805-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	8.03	80	10.0	8.76	88	9	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420240

Analyst: LATCOR

Date Prepared: 06/21/2011

Project ID:

Date Analyzed: 06/21/2011

Lab Batch ID: 860961

Sample: 860961-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	8.68	87	10.0	8.18	82	6	75-125	20	

Analyst: BEV

Date Prepared: 06/20/2011

Date Analyzed: 06/22/2011

Lab Batch ID: 861002

Sample: 605666-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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	929	93	1000	933	93	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	853	85	1000	815	82	5	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420240

Project ID:

Lab Batch #: 860805

Date Prepared: 06/20/2011

Analyst: LATCOR

Date Analyzed: 06/20/2011

Batch #: 1

Matrix: Soil

QC- Sample ID: 420240-001 S

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	95.3	215	304	97	75-125	

Lab Batch #: 860961

Date Prepared: 06/21/2011

Analyst: LATCOR

Date Analyzed: 06/21/2011

Batch #: 1

Matrix: Sludge

QC- Sample ID: 420468-002 S

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	1180	500	1740	112	75-125	

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

BRL - Below Reporting Limit



Form 3 - MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420240

Project ID:

Lab Batch ID: 860715

QC- Sample ID: 420234-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/18/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00117	0.117	0.0602	51	0.115	0.0496	43	19	70-130	35	X
Toluene	<0.00233	0.117	0.0600	51	0.115	0.0460	40	26	70-130	35	X
Ethylbenzene	<0.00117	0.117	0.0665	57	0.115	0.0528	46	23	71-129	35	X
m_p-Xylenes	<0.00233	0.233	0.128	55	0.229	0.102	45	23	70-135	35	X
o-Xylene	<0.00117	0.117	0.0655	56	0.115	0.0528	46	21	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420240

Lab Batch #: 860805

Date Analyzed: 06/20/2011 11:52

QC- Sample ID: 420240-001 D

Reporting Units: mg/kg

Date Prepared: 06/20/2011

Batch #: 1

Project ID:

Analyst: LATCOR

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	95.3	107	12	20	

Lab Batch #: 860961

Date Analyzed: 06/21/2011 15:42

QC- Sample ID: 420468-002 D

Reporting Units: mg/kg

Date Prepared: 06/21/2011

Batch #: 1

Analyst: LATCOR

Matrix: Sludge

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	1180	1170	1	20	

Lab Batch #: 860654

Date Analyzed: 06/20/2011 11:12

QC- Sample ID: 420235-001 D

Reporting Units: %

Date Prepared: 06/20/2011

Batch #: 1

Analyst: WRU

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	5.91	6.84	15	20	

Lab Batch #: 861002

Date Analyzed: 06/22/2011 15:00

QC- Sample ID: 420240-002 D

Reporting Units: mg/kg

Date Prepared: 06/20/2011

Batch #: 1

Analyst: BEV

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<16.4	<16.4	0	35	
C12-C28 Diesel Range Hydrocarbons	<16.4	<16.4	0	35	
C28-C35 Oil Range Hydrocarbons	<16.4	<16.4	0	35	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

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

BRL - Below Reporting Limit



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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420240
 Initials: XM

Sample Receipt Checklist

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

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____
 Regarding: _____
 Corrective Action Taken: _____

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

Analytical Report 420241
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
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Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420241**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420241. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420241 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420241



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 9 G-1	S	Jun-14-11 14:00		420241-001
VZ Cell 9 G-2	S	Jun-14-11 14:05		420241-002
VZ Cell 9 G-3	S	Jun-14-11 14:10		420241-003
VZ Cell 9 G-4	S	Jun-14-11 14:15		420241-004
VZ Cell 9 G-5	S	Jun-14-11 14:20		420241-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420241

Report Date: 22-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-860725 BTEX by EPA 8021B
SW8021BM

Batch 860725, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420241-005, -003, -001, -004, -002.

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

Batch: LBA-861003 TPH By SW8015 Mod
SW8015MOD_NM

Batch 861003, 1-Chlorooctane recovered below QC limits. Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420241-001.

o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420220-001 D.



Certificate of Analy Summary 420241
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	420241-001	420241-002	420241-003	420241-004	420241-005	
	<i>Field Id:</i>	VZ Cell 9 G-1	VZ Cell 9 G-2	VZ Cell 9 G-3	VZ Cell 9 G-4	VZ Cell 9 G-5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Jun-14-11 14:00	Jun-14-11 14:05	Jun-14-11 14:10	Jun-14-11 14:15	Jun-14-11 14:20	
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:52					
	<i>Units/RL:</i>	mg/kg RL					
Chloride		43.5 9.59	8.50 4.88	23.2 4.91	16.5 4.39	7.22 4.52	
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-17-11 13:30					
	<i>Analyzed:</i>	Jun-19-11 03:29	Jun-19-11 03:52	Jun-19-11 04:15	Jun-19-11 04:37	Jun-19-11 05:00	
	<i>Units/RL:</i>	mg/kg RL					
Benzene		ND 0.0011	ND 0.0012	ND 0.0012	ND 0.0011	ND 0.0011	
Toluene		ND 0.0023	ND 0.0024	ND 0.0023	ND 0.0021	ND 0.0021	
Ethylbenzene		ND 0.0011	ND 0.0012	ND 0.0012	ND 0.0011	ND 0.0011	
m_p-Xylenes		ND 0.0023	ND 0.0024	ND 0.0023	ND 0.0021	ND 0.0021	
o-Xylene		ND 0.0011	ND 0.0012	ND 0.0012	ND 0.0011	ND 0.0011	
Total Xylenes		ND 0.0011	ND 0.0012	ND 0.0012	ND 0.0011	ND 0.0011	
Total BTEX		ND 0.0011	ND 0.0012	ND 0.0012	ND 0.0011	ND 0.0011	
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:12	Jun-20-11 11:12	Jun-20-11 11:12	Jun-20-11 11:12	Jun-20-11 11:21	
	<i>Units/RL:</i>	% RL					
Percent Moisture		12.4 1.00	14.0 1.00	14.4 1.00	4.40 1.00	7.11 1.00	
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-21-11 10:00					
	<i>Analyzed:</i>	Jun-22-11 00:47	Jun-22-11 01:16	Jun-22-11 01:46	Jun-22-11 02:14	Jun-22-11 02:43	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 17.1	ND 17.5	ND 17.4	ND 15.6	ND 16.1	
C12-C28 Diesel Range Hydrocarbons		ND 17.1	ND 17.5	ND 17.4	ND 15.6	ND 16.1	
C28-C35 Oil Range Hydrocarbons		ND 17.1	ND 17.5	ND 17.4	ND 15.6	ND 16.1	
Total TPH		ND 17.1	ND 17.5	ND 17.4	ND 15.6	ND 16.1	

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

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Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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

PQL Practical Quantitation Limit

LOD Limit of Detection

LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420241,

Project ID:

Lab Batch #: 860725

Sample: 605525-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/19/11 01:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 860725

Sample: 605525-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/19/11 02:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 860725

Sample: 605525-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/19/11 03:07

SURROGATE RECOVERY STUDY

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

Lab Batch #: 860725

Sample: 420241-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/19/11 03:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 860725

Sample: 420241-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/19/11 03:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420241,

Project ID:

Lab Batch #: 860725

Sample: 420241-003 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/19/11 04:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0280	0.0300	93	80-120	

Lab Batch #: 860725

Sample: 420241-004 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/19/11 04:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0280	0.0300	93	80-120	

Lab Batch #: 860725

Sample: 420241-005 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/19/11 05:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 860725

Sample: 420241-001 S / MS

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/19/11 07:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 860725

Sample: 420241-001 SD / MSD

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/19/11 07:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0319	0.0300	106	80-120	
4-Bromofluorobenzene	0.0336	0.0300	112	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420241,

Project ID:

Lab Batch #: 861003

Sample: 605669-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	101	114	70-135	
o-Terphenyl	54.9	50.3	109	70-135	

Lab Batch #: 861003

Sample: 605669-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	101	115	70-135	
o-Terphenyl	62.2	50.3	124	70-135	

Lab Batch #: 861003

Sample: 605669-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 00:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	63.3	50.0	127	70-135	

Lab Batch #: 861003

Sample: 420241-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 00:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	136	200	68	70-135	*
o-Terphenyl	75.2	99.9	75	70-135	

Lab Batch #: 861003

Sample: 420241-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 01:16

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	59.3	50.1	118	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420241,

Project ID:

Lab Batch #: 861003

Sample: 420241-003 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/22/11 01:46

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	110	99.5	111	70-135	
o-Terphenyl	61.5	49.8	123	70-135	

Lab Batch #: 861003

Sample: 420241-004 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/22/11 02:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	142	199	71	70-135	
o-Terphenyl	78.2	99.5	79	70-135	

Lab Batch #: 861003

Sample: 420241-005 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/22/11 02:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	63.4	50.0	127	70-135	

Lab Batch #: 861003

Sample: 420220-001 D / MD

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/22/11 10:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	68.8	50.0	138	70-135	*

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420241

Project ID:

Analyst: ASA

Date Prepared: 06/17/2011

Date Analyzed: 06/19/2011

Lab Batch ID: 860725

Sample: 605525-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0951	95	0.100	0.0992	99	4	70-130	35	
Toluene	<0.00200	0.100	0.0872	87	0.100	0.0926	93	6	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0951	95	0.100	0.0991	99	4	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.183	92	0.200	0.190	95	4	70-135	35	
o-Xylene	<0.00100	0.100	0.0921	92	0.100	0.0950	95	3	71-133	35	

Analyst: LATCOR

Date Prepared: 06/20/2011

Date Analyzed: 06/20/2011

Lab Batch ID: 860805

Sample: 860805-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	8.03	80	10.0	8.76	88	9	75-125	20	

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

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420241

Analyst: BEV

Date Prepared: 06/21/2011

Project ID:

Date Analyzed: 06/21/2011

Lab Batch ID: 861003

Sample: 605669-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	784	78	1010	796	79	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	782	77	1010	823	81	5	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420241

Lab Batch #: 860805

Project ID:

Date Analyzed: 06/20/2011

Date Prepared: 06/20/2011

Analyst: LATCOR

QC- Sample ID: 420240-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	95.3	215	304	97	75-125	

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420241

Project ID:

Lab Batch ID: 860725

QC- Sample ID: 420241-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/19/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00115	0.115	0.0433	38	0.114	0.0500	44	14	70-130	35	X
Toluene	<0.00229	0.115	0.0393	34	0.114	0.0471	41	18	70-130	35	X
Ethylbenzene	<0.00115	0.115	0.0443	39	0.114	0.0526	46	17	71-129	35	X
m_p-Xylenes	<0.00229	0.229	0.0861	38	0.228	0.101	44	16	70-135	35	X
o-Xylene	<0.00115	0.115	0.0463	40	0.114	0.0537	47	15	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420241

Lab Batch #: 860805

Project ID:

Date Analyzed: 06/20/2011 11:52

Date Prepared: 06/20/2011

Analyst: LATCOR

QC- Sample ID: 420240-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	95.3	107	12	20	

Lab Batch #: 860654

Date Analyzed: 06/20/2011 11:12

Date Prepared: 06/20/2011

Analyst: WRU

QC- Sample ID: 420235-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	5.91	6.84	15	20	

Lab Batch #: 860655

Date Analyzed: 06/20/2011 11:21

Date Prepared: 06/20/2011

Analyst: WRU

QC- Sample ID: 420241-005 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	7.11	7.92	11	20	

Lab Batch #: 861003

Date Analyzed: 06/22/2011 10:59

Date Prepared: 06/21/2011

Analyst: BEV

QC- Sample ID: 420220-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.3	<15.3	0	35	
C12-C28 Diesel Range Hydrocarbons	414	367	12	35	
C28-C35 Oil Range Hydrocarbons	25.6	26.7	4	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420241
 Initials: SM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420242
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

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Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

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Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420242**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420242. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420242 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420242



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 10 G-1	S	Jun-14-11 14:25		420242-001
VZ Cell 10 G-2	S	Jun-14-11 14:30		420242-002
VZ Cell 10 G-3	S	Jun-14-11 14:35		420242-003
VZ Cell 10 G-4	S	Jun-14-11 14:40		420242-004



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420242

Report Date: 22-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-860725 BTEX by EPA 8021B
SW8021BM

Batch 860725, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420242-001, -003, -004, -002.

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

Batch: LBA-861003 TPH By SW8015 Mod
SW8015MOD_NM

Batch 861003, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420220-001 D,420242-004.



Certificate of Analysis Summary 420242

Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	420242-001	420242-002	420242-003	420242-004		
	<i>Field Id:</i>	VZ Cell 10 G-1	VZ Cell 10 G-2	VZ Cell 10 G-3	VZ Cell 10 G-4		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Jun-14-11 14:25	Jun-14-11 14:30	Jun-14-11 14:35	Jun-14-11 14:40		
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:52	Jun-21-11 15:42	Jun-20-11 11:52	Jun-20-11 11:52		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		20.9 9.10	ND 9.30	19.3 4.72	ND 9.36		
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-17-11 13:30	Jun-17-11 13:30	Jun-17-11 13:30	Jun-17-11 13:30		
	<i>Analyzed:</i>	Jun-19-11 05:23	Jun-19-11 05:45	Jun-19-11 06:07	Jun-19-11 06:30		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011		
Toluene		ND 0.0022	ND 0.0022	ND 0.0022	ND 0.0022		
Ethylbenzene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011		
m_p-Xylenes		ND 0.0022	ND 0.0022	ND 0.0022	ND 0.0022		
o-Xylene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011		
Total Xylenes		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011		
Total BTEX		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011		
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:21	Jun-20-11 11:21	Jun-20-11 11:21	Jun-20-11 11:21		
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL		
Percent Moisture		7.74 1.00	9.67 1.00	11.0 1.00	10.3 1.00		
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-21-11 10:00	Jun-21-11 10:00	Jun-21-11 10:00	Jun-21-11 10:00		
	<i>Analyzed:</i>	Jun-22-11 03:11	Jun-22-11 03:40	Jun-22-11 04:11	Jun-22-11 04:40		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		ND 16.2	ND 16.7	ND 16.9	ND 16.6		
C12-C28 Diesel Range Hydrocarbons		ND 16.2	ND 16.7	ND 16.9	ND 16.6		
C28-C35 Oil Range Hydrocarbons		ND 16.2	ND 16.7	ND 16.9	ND 16.6		
Total TPH		ND 16.2	ND 16.7	ND 16.9	ND 16.6		

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.

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Brent Barron, II
Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420242,

Project ID:

Lab Batch #: 860725

Sample: 605525-1-BKS / BKS

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 06/19/11 01:38

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 860725

Sample: 605525-1-BSD / BSD

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 06/19/11 02:00

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 860725

Sample: 605525-1-BLK / BLK

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 06/19/11 03:07

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

Lab Batch #: 860725

Sample: 420242-001 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/19/11 05:23

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

Lab Batch #: 860725

Sample: 420242-002 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/19/11 05:45

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0286	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420242,

Project ID:

Lab Batch #: 860725

Sample: 420242-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/19/11 06:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 860725

Sample: 420242-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/19/11 06:30

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0262	0.0300	87	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 860725

Sample: 420241-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/19/11 07:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 860725

Sample: 420241-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/19/11 07:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0319	0.0300	106	80-120	
4-Bromofluorobenzene	0.0336	0.0300	112	80-120	

Lab Batch #: 861003

Sample: 605669-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	101	114	70-135	
o-Terphenyl	54.9	50.3	109	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420242,

Project ID:

Lab Batch #: 861003

Sample: 605669-1-BSD / BSD

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:49

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	116	101	115	70-135	
o-Terphenyl	62.2	50.3	124	70-135	

Lab Batch #: 861003

Sample: 605669-1-BLK / BLK

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 06/22/11 00:18

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	63.3	50.0	127	70-135	

Lab Batch #: 861003

Sample: 420242-001 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/22/11 03:11

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	117	99.6	117	70-135	
o-Terphenyl	65.2	49.8	131	70-135	

Lab Batch #: 861003

Sample: 420242-002 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/22/11 03:40

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	62.0	50.2	124	70-135	

Lab Batch #: 861003

Sample: 420242-003 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/22/11 04:11

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	58.6	50.0	117	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420242,

Project ID:

Lab Batch #: 861003

Sample: 420242-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 04:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	99.5	122	70-135	
o-Terphenyl	67.9	49.8	136	70-135	*

Lab Batch #: 861003

Sample: 420220-001 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 10:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	68.8	50.0	138	70-135	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420242

Analyst: ASA

Date Prepared: 06/17/2011

Project ID:

Date Analyzed: 06/19/2011

Lab Batch ID: 860725

Sample: 605525-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0951	95	0.100	0.0992	99	4	70-130	35	
Toluene	<0.00200	0.100	0.0872	87	0.100	0.0926	93	6	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0951	95	0.100	0.0991	99	4	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.183	92	0.200	0.190	95	4	70-135	35	
o-Xylene	<0.00100	0.100	0.0921	92	0.100	0.0950	95	3	71-133	35	

Analyst: LATCOR

Date Prepared: 06/20/2011

Date Analyzed: 06/20/2011

Lab Batch ID: 860805

Sample: 860805-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	8.03	80	10.0	8.76	88	9	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420242

Analyst: LATCOR

Lab Batch ID: 860961

Sample: 860961-1-BKS

Date Prepared: 06/21/2011

Batch #: 1

Project ID:

Date Analyzed: 06/21/2011

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	8.68	87	10.0	8.18	82	6	75-125	20	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/21/2011

Lab Batch ID: 861003

Sample: 605669-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	784	78	1010	796	79	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	782	77	1010	823	81	5	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420242
Lab Batch #: 860805
Date Analyzed: 06/20/2011
QC- Sample ID: 420240-001 S
Reporting Units: mg/kg

Project ID:
Analyst: LATCOR
Date Prepared: 06/20/2011
Batch #: 1
Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	95.3	215	304	97	75-125	

Lab Batch #: 860961
Date Analyzed: 06/21/2011
QC- Sample ID: 420468-002 S
Reporting Units: mg/kg

Project ID:
Analyst: LATCOR
Date Prepared: 06/21/2011
Batch #: 1
Matrix: Sludge

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	1180	500	1740	112	75-125	

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

- Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420242

Project ID:

Lab Batch ID: 860725

QC- Sample ID: 420241-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/19/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00115	0.115	0.0433	38	0.114	0.0500	44	14	70-130	35	X
Toluene	<0.00229	0.115	0.0393	34	0.114	0.0471	41	18	70-130	35	X
Ethylbenzene	<0.00115	0.115	0.0443	39	0.114	0.0526	46	17	71-129	35	X
m_p-Xylenes	<0.00229	0.229	0.0861	38	0.228	0.101	44	16	70-135	35	X
o-Xylene	<0.00115	0.115	0.0463	40	0.114	0.0537	47	15	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420242

Lab Batch #: 860805

Project ID:

Date Analyzed: 06/20/2011 11:52

Date Prepared: 06/20/2011

Analyst: LATCOR

QC- Sample ID: 420240-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	95.3	107	12	20	

Lab Batch #: 860961

Date Analyzed: 06/21/2011 15:42

Date Prepared: 06/21/2011

Analyst: LATCOR

QC- Sample ID: 420468-002 D

Batch #: 1

Matrix: Sludge

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	1180	1170	1	20	

Lab Batch #: 860655

Date Analyzed: 06/20/2011 11:21

Date Prepared: 06/20/2011

Analyst: WRU

QC- Sample ID: 420241-005 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	7.11	7.92	11	20	

Lab Batch #: 861003

Date Analyzed: 06/22/2011 10:59

Date Prepared: 06/21/2011

Analyst: BEV

QC- Sample ID: 420220-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.3	<15.3	0	35	
C12-C28 Diesel Range Hydrocarbons	414	367	12	35	
C28-C35 Oil Range Hydrocarbons	25.6	26.7	4	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420242
 Initials: LM

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>0.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420243
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420243**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420243. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420243 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420243



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 11 G-1	S	Jun-14-11 15:00		420243-001
VZ Cell 11 G-2	S	Jun-14-11 15:05		420243-002



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420243

Report Date: 22-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-860725 BTEX by EPA 8021B
SW8021BM

Batch 860725, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420243-001, -002.

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

Batch: LBA-861003 TPH By SW8015 Mod
SW8015MOD_NM

Batch 861003, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420220-001 D.



Certificate of Analy Summary 420243
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	420243-001	420243-002				
	<i>Field Id:</i>	VZ Cell 11 G-1	VZ Cell 11 G-2				
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL				
	<i>Sampled:</i>	Jun-14-11 15:00	Jun-14-11 15:05				
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:52	Jun-20-11 11:52				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		5.13 4.45	19.0 4.58				
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-17-11 13:30	Jun-17-11 13:30				
	<i>Analyzed:</i>	Jun-19-11 06:52	Jun-19-11 08:45				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Benzene		ND 0.0011	ND 0.0011				
Toluene		ND 0.0021	ND 0.0022				
Ethylbenzene		ND 0.0011	ND 0.0011				
m_p-Xylenes		ND 0.0021	ND 0.0022				
o-Xylene		ND 0.0011	ND 0.0011				
Total Xylenes		ND 0.0011	ND 0.0011				
Total BTEX		ND 0.0011	ND 0.0011				
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:21	Jun-20-11 11:21				
	<i>Units/RL:</i>	% RL	% RL				
Percent Moisture		5.52 1.00	8.21 1.00				
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-21-11 10:00	Jun-21-11 10:00				
	<i>Analyzed:</i>	Jun-22-11 05:08	Jun-22-11 06:07				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 15.8	ND 16.4				
C12-C28 Diesel Range Hydrocarbons		ND 15.8	ND 16.4				
C28-C35 Oil Range Hydrocarbons		ND 15.8	ND 16.4				
Total TPH		ND 15.8	ND 16.4				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. 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

Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
 - 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420243,

Project ID:

Lab Batch #: 860725

Sample: 605525-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/19/11 01:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 860725

Sample: 605525-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/19/11 02:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 860725

Sample: 605525-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/19/11 03:07

SURROGATE RECOVERY STUDY

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

Lab Batch #: 860725

Sample: 420243-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/19/11 06:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 860725

Sample: 420241-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/19/11 07:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420243,
Lab Batch #: 860725

Sample: 420241-001 SD / MSD

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/19/11 07:37

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0319	0.0300	106	80-120	
4-Bromofluorobenzene	0.0336	0.0300	112	80-120	

Lab Batch #: 860725

Sample: 420243-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/19/11 08:45

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 861003

Sample: 605669-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 06/21/11 23:20

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	115	101	114	70-135	
o-Terphenyl	54.9	50.3	109	70-135	

Lab Batch #: 861003

Sample: 605669-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 06/21/11 23:49

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	116	101	115	70-135	
o-Terphenyl	62.2	50.3	124	70-135	

Lab Batch #: 861003

Sample: 605669-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 06/22/11 00:18

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	63.3	50.0	127	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420243,

Project ID:

Lab Batch #: 861003

Sample: 420243-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 05:08

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.6	112	70-135	
o-Terphenyl	63.5	49.8	128	70-135	

Lab Batch #: 861003

Sample: 420243-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 06:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	59.2	50.1	118	70-135	

Lab Batch #: 861003

Sample: 420220-001 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 10:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	68.8	50.0	138	70-135	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420243

Analyst: ASA

Lab Batch ID: 860725

Sample: 605525-1-BKS

Batch #: 1

Project ID:

Date Analyzed: 06/19/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0951	95	0.100	0.0992	99	4	70-130	35	
Toluene	<0.00200	0.100	0.0872	87	0.100	0.0926	93	6	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0951	95	0.100	0.0991	99	4	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.183	92	0.200	0.190	95	4	70-135	35	
o-Xylene	<0.00100	0.100	0.0921	92	0.100	0.0950	95	3	71-133	35	

Analyst: LATCOR

Date Prepared: 06/20/2011

Date Analyzed: 06/20/2011

Lab Batch ID: 860805

Sample: 860805-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	8.03	80	10.0	8.76	88	9	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSL Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420243

Analyst: BEV

Date Prepared: 06/21/2011

Project ID:

Date Analyzed: 06/21/2011

Lab Batch ID: 861003

Sample: 605669-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	784	78	1010	796	79	2	70-135	35
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	782	77	1010	823	81	5	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420243

Lab Batch #: 860805

Date Analyzed: 06/20/2011

Date Prepared: 06/20/2011

Project ID:

Analyst: LATCOR

QC- Sample ID: 420240-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
	Chloride	95.3	215	304	97	75-125

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

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

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420243

Project ID:

Lab Batch ID: 860725

QC- Sample ID: 420241-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/19/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Benzene	<0.00115	0.115	0.0433	38	0.114	0.0500	44	14	70-130	35
Toluene	<0.00229	0.115	0.0393	34	0.114	0.0471	41	18	70-130	35	X
Ethylbenzene	<0.00115	0.115	0.0443	39	0.114	0.0526	46	17	71-129	35	X
m_p-Xylenes	<0.00229	0.229	0.0861	38	0.228	0.101	44	16	70-135	35	X
o-Xylene	<0.00115	0.115	0.0463	40	0.114	0.0537	47	15	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420243

Lab Batch #: 860805

Project ID:

Date Analyzed: 06/20/2011 11:52

Date Prepared: 06/20/2011

Analyst: LATCOR

QC- Sample ID: 420240-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	95.3	107	12	20	

Lab Batch #: 860655

Date Analyzed: 06/20/2011 11:21

Date Prepared: 06/20/2011

Analyst: WRU

QC- Sample ID: 420241-005 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	7.11	7.92	11	20	

Lab Batch #: 861003

Date Analyzed: 06/22/2011 10:59

Date Prepared: 06/21/2011

Analyst: BEV

QC- Sample ID: 420220-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.3	<15.3	0	35	
C12-C28 Diesel Range Hydrocarbons	414	367	12	35	
C28-C35 Oil Range Hydrocarbons	25.6	26.7	4	35	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

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

BRL - Below Reporting Limit



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420243
 Initials: PM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420244

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



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New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
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Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420244**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420244. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420244 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420244



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 12 G-1	S	Jun-14-11 15:10		420244-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420244

Report Date: 22-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-860725 BTEX by EPA 8021B
SW8021BM

Batch 860725, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420244-001.

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

Batch: LBA-861003 TPH By SW8015 Mod
SW8015MOD_NM

Batch 861003, o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420220-001 D.



Certificate of Analy Summary 420244
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	<i>Lab Id:</i> 420244-001 <i>Field Id:</i> VZ Cell 12 G-1 <i>Depth:</i> <i>Matrix:</i> SOIL <i>Sampled:</i> Jun-14-11 15:10					
Anions by E300	<i>Extracted:</i> <i>Analyzed:</i> Jun-20-11 11:52 <i>Units/RL:</i> mg/kg RL					
Chloride		13.7	8.95			
BTEX by EPA 8021B	<i>Extracted:</i> Jun-17-11 13:30 <i>Analyzed:</i> Jun-19-11 09:08 <i>Units/RL:</i> mg/kg RL					
Benzene		ND	0.0011			
Toluene		ND	0.0021			
Ethylbenzene		ND	0.0011			
m_p-Xylenes		ND	0.0021			
o-Xylene		ND	0.0011			
Total Xylenes		ND	0.0011			
Total BTEX		ND	0.0011			
Percent Moisture	<i>Extracted:</i> <i>Analyzed:</i> Jun-20-11 11:21 <i>Units/RL:</i> % RL					
Percent Moisture		6.19	1.00			
TPH By SW8015 Mod	<i>Extracted:</i> Jun-21-11 10:00 <i>Analyzed:</i> Jun-22-11 06:37 <i>Units/RL:</i> mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND	16.0			
C12-C28 Diesel Range Hydrocarbons		ND	16.0			
C28-C35 Oil Range Hydrocarbons		ND	16.0			
Total TPH		ND	16.0			

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

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Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
 - 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420244,
Lab Batch #: 860725

Sample: 605525-1-BKS / BKS
Batch: 1 Matrix: Solid

Project ID:

Units: mg/kg		Date Analyzed: 06/19/11 01:38		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0301	0.0300	100	80-120	
4-Bromofluorobenzene		0.0298	0.0300	99	80-120	

Lab Batch #: 860725 Sample: 605525-1-BSD / BSD Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/19/11 02:00		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0287	0.0300	96	80-120	
4-Bromofluorobenzene		0.0307	0.0300	102	80-120	

Lab Batch #: 860725 Sample: 605525-1-BLK / BLK Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/19/11 03:07		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0277	0.0300	92	80-120	
4-Bromofluorobenzene		0.0277	0.0300	92	80-120	

Lab Batch #: 860725 Sample: 420241-001 S / MS Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/19/11 07:15		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0286	0.0300	95	80-120	
4-Bromofluorobenzene		0.0313	0.0300	104	80-120	

Lab Batch #: 860725 Sample: 420241-001 SD / MSD Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/19/11 07:37		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0319	0.0300	106	80-120	
4-Bromofluorobenzene		0.0336	0.0300	112	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420244,

Project ID:

Lab Batch #: 860725

Sample: 420244-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/19/11 09:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0258	0.0300	86	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 861003

Sample: 605669-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	101	114	70-135	
o-Terphenyl	54.9	50.3	109	70-135	

Lab Batch #: 861003

Sample: 605669-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	101	115	70-135	
o-Terphenyl	62.2	50.3	124	70-135	

Lab Batch #: 861003

Sample: 605669-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 00:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	63.3	50.0	127	70-135	

Lab Batch #: 861003

Sample: 420244-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 06:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99.9	107	70-135	
o-Terphenyl	61.3	50.0	123	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420244,

Project ID:

Lab Batch #: 861003

Sample: 420220-001 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 10:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	68.8	50.0	138	70-135	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420244

Analyst: ASA

Date Prepared: 06/17/2011

Project ID:

Date Analyzed: 06/19/2011

Lab Batch ID: 860725

Sample: 605525-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0951	95	0.100	0.0992	99	4	70-130	35	
Toluene	<0.00200	0.100	0.0872	87	0.100	0.0926	93	6	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0951	95	0.100	0.0991	99	4	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.183	92	0.200	0.190	95	4	70-135	35	
o-Xylene	<0.00100	0.100	0.0921	92	0.100	0.0950	95	3	71-133	35	

Analyst: LATCOR

Date Prepared: 06/20/2011

Date Analyzed: 06/20/2011

Lab Batch ID: 860805

Sample: 860805-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	8.03	80	10.0	8.76	88	9	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420244

Analyst: BEV

Date Prepared: 06/21/2011

Project ID:

Date Analyzed: 06/21/2011

Lab Batch ID: 861003

Sample: 605669-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	784	78	1010	796	79	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	782	77	1010	823	81	5	70-135	35	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420244

Lab Batch #: 860805

Date Analyzed: 06/20/2011

QC- Sample ID: 420240-001 S

Date Prepared: 06/20/2011

Project ID:

Analyst: LATCOR

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	95.3	215	304	97	75-125

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

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

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420244

Project ID:

Lab Batch ID: 860725

QC- Sample ID: 420241-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/19/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00115	0.115	0.0433	38	0.114	0.0500	44	14	70-130	35	X
Toluene	<0.00229	0.115	0.0393	34	0.114	0.0471	41	18	70-130	35	X
Ethylbenzene	<0.00115	0.115	0.0443	39	0.114	0.0526	46	17	71-129	35	X
m_p-Xylenes	<0.00229	0.229	0.0861	38	0.228	0.101	44	16	70-135	35	X
o-Xylene	<0.00115	0.115	0.0463	40	0.114	0.0537	47	15	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420244

Lab Batch #: 860805
Date Analyzed: 06/20/2011 11:52
QC- Sample ID: 420240-001 D
Reporting Units: mg/kg

Project ID:
Analyst: LATCOR
Date Prepared: 06/20/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	95.3	107	12	20	

Lab Batch #: 860655
Date Analyzed: 06/20/2011 11:21
QC- Sample ID: 420241-005 D
Reporting Units: %

Project ID:
Analyst: WRU
Date Prepared: 06/20/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	7.11	7.92	11	20	

Lab Batch #: 861003
Date Analyzed: 06/22/2011 10:59
QC- Sample ID: 420220-001 D
Reporting Units: mg/kg

Project ID:
Analyst: BEV
Date Prepared: 06/21/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.3	<15.3	0	35	
C12-C28 Diesel Range Hydrocarbons	414	367	12	35	
C28-C35 Oil Range Hydrocarbons	25.6	26.7	4	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420244
 Initials: RM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420245
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



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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)
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Xenco-Atlanta (EPA Lab Code: GA00046):

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Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420245**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420245. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420245 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420245



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 13 G-1	S	Jun-14-11 15:15		420245-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:

Work Order Number: 420245

Report Date: 22-JUN-11

Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-860725 BTEX by EPA 8021B

SW8021BM

Batch 860725, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420245-001.

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

Batch: LBA-861003 TPH By SW8015 Mod

SW8015MOD_NM

Batch 861003, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420220-001 D.



Certificate of Analy Summary 420245

Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	420245-001	Field Id:	VZ Cell 13 G-1	Depth:		Matrix:	SOIL	Sampled:	Jun-14-11 15:15
Anions by E300	Extracted:		Analyzed:	Jun-20-11 11:52	Units/RL:	mg/kg	RL			
Chloride						45.5	4.50			
BTEX by EPA 8021B	Extracted:	Jun-17-11 13:30	Analyzed:	Jun-19-11 09:30	Units/RL:	mg/kg	RL			
Benzene		ND		0.0011						
Toluene		ND		0.0021						
Ethylbenzene		ND		0.0011						
m_p-Xylenes		ND		0.0021						
o-Xylene		ND		0.0011						
Total Xylenes		ND		0.0011						
Total BTEX		ND		0.0011						
Percent Moisture	Extracted:		Analyzed:	Jun-20-11 11:00	Units/RL:	%	RL			
Percent Moisture		6.64		1.00						
TPH By SW8015 Mod	Extracted:	Jun-21-11 10:00	Analyzed:	Jun-22-11 07:05	Units/RL:	mg/kg	RL			
C6-C12 Gasoline Range Hydrocarbons		ND		16.1						
C12-C28 Diesel Range Hydrocarbons		ND		16.1						
C28-C35 Oil Range Hydrocarbons		ND		16.1						
Total TPH		ND		16.1						

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

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


 Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420245,

Project ID:

Lab Batch #: 860725

Sample: 605525-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/19/11 01:38		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0301	0.0300	100	80-120	
4-Bromofluorobenzene		0.0298	0.0300	99	80-120	

Lab Batch #: 860725

Sample: 605525-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/19/11 02:00		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0287	0.0300	96	80-120	
4-Bromofluorobenzene		0.0307	0.0300	102	80-120	

Lab Batch #: 860725

Sample: 605525-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/19/11 03:07		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0277	0.0300	92	80-120	
4-Bromofluorobenzene		0.0277	0.0300	92	80-120	

Lab Batch #: 860725

Sample: 420241-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/19/11 07:15		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0286	0.0300	95	80-120	
4-Bromofluorobenzene		0.0313	0.0300	104	80-120	

Lab Batch #: 860725

Sample: 420241-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/19/11 07:37		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0319	0.0300	106	80-120	
4-Bromofluorobenzene		0.0336	0.0300	112	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420245,

Project ID:

Lab Batch #: 860725

Sample: 420245-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/19/11 09:30

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 861003

Sample: 605669-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	101	114	70-135	
o-Terphenyl	54.9	50.3	109	70-135	

Lab Batch #: 861003

Sample: 605669-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	101	115	70-135	
o-Terphenyl	62.2	50.3	124	70-135	

Lab Batch #: 861003

Sample: 605669-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 00:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	63.3	50.0	127	70-135	

Lab Batch #: 861003

Sample: 420245-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 07:05

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	140	201	70	70-135	
o-Terphenyl	81.4	100	81	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420245,

Lab Batch #: 861003

Sample: 420220-001 D / MD

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 10:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	68.8	50.0	138	70-135	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420245

Analyst: ASA

Lab Batch ID: 860725

Sample: 605525-1-BKS

Date Prepared: 06/17/2011

Batch #: 1

Project ID:

Date Analyzed: 06/19/2011

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0951	95	0.100	0.0992	99	4	70-130	35	
Toluene	<0.00200	0.100	0.0872	87	0.100	0.0926	93	6	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0951	95	0.100	0.0991	99	4	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.183	92	0.200	0.190	95	4	70-135	35	
o-Xylene	<0.00100	0.100	0.0921	92	0.100	0.0950	95	3	71-133	35	

Analyst: LATCOR

Date Prepared: 06/20/2011

Date Analyzed: 06/20/2011

Lab Batch ID: 860805

Sample: 860805-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	8.03	80	10.0	8.76	88	9	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420245

Analyst: BEV

Lab Batch ID: 861003

Sample: 605669-1-BKS

Date Prepared: 06/21/2011

Batch #: 1

Project ID:

Date Analyzed: 06/21/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	784	78	1010	796	79	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	782	77	1010	823	81	5	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420245

Lab Batch #: 860805

Date Analyzed: 06/20/2011

QC- Sample ID: 420240-001 S

Date Prepared: 06/20/2011

Project ID:

Analyst: LATCOR

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	95.3	215	304	97	75-125

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

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

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420245

Project ID:

Lab Batch ID: 860725

QC- Sample ID: 420241-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/19/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00115	0.115	0.0433	38	0.114	0.0500	44	14	70-130	35	X
Toluene	<0.00229	0.115	0.0393	34	0.114	0.0471	41	18	70-130	35	X
Ethylbenzene	<0.00115	0.115	0.0443	39	0.114	0.0526	46	17	71-129	35	X
m_p-Xylenes	<0.00229	0.229	0.0861	38	0.228	0.101	44	16	70-135	35	X
o-Xylene	<0.00115	0.115	0.0463	40	0.114	0.0537	47	15	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420245

Lab Batch #: 860805
Date Analyzed: 06/20/2011 11:52
QC- Sample ID: 420240-001 D
Reporting Units: mg/kg

Date Prepared: 06/20/2011
Batch #: 1

Project ID:
Analyst: LATCOR
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	95.3	107	12	20	

Lab Batch #: 860867
Date Analyzed: 06/20/2011 11:00
QC- Sample ID: 420245-001 D
Reporting Units: %

Date Prepared: 06/20/2011
Batch #: 1

Analyst: BRB
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.64	6.69	1	20	

Lab Batch #: 861003
Date Analyzed: 06/22/2011 10:59
QC- Sample ID: 420220-001 D
Reporting Units: mg/kg

Date Prepared: 06/21/2011
Batch #: 1

Analyst: BEV
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.3	<15.3	0	35	
C12-C28 Diesel Range Hydrocarbons	414	367	12	35	
C28-C35 Oil Range Hydrocarbons	25.6	26.7	4	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 470245
 Initials: XM

Sample Receipt Checklist

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

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____
 Regarding: _____
 Corrective Action Taken: _____

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

Analytical Report 420246

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



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

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Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420246**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420246. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420246 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420246



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 14 G-1	S	Jun-14-11 15:20		420246-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420246

Report Date: 22-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-860725 BTEX by EPA 8021B
SW8021BM

Batch 860725, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420246-001.

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

Batch: LBA-861003 TPH By SW8015 Mod
SW8015MOD_NM

Batch 861003, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420220-001 D.



Certificate of Analy. Summary 420246
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	420246-001				
	Field Id:	VZ Cell 14 G-1				
	Depth:					
	Matrix:	SOIL				
	Sampled:	Jun-14-11 15:20				
Anions by E300	Extracted:					
	Analyzed:	Jun-20-11 11:52				
	Units/RL:	mg/kg RL				
Chloride		20.2 4.75				
BTEX by EPA 8021B	Extracted:	Jun-17-11 13:30				
	Analyzed:	Jun-19-11 09:53				
	Units/RL:	mg/kg RL				
Benzene		ND 0.0011				
Toluene		ND 0.0023				
Ethylbenzene		ND 0.0011				
m_p-Xylenes		ND 0.0023				
o-Xylene		ND 0.0011				
Total Xylenes		ND 0.0011				
Total BTEX		ND 0.0011				
Percent Moisture	Extracted:					
	Analyzed:	Jun-20-11 11:00				
	Units/RL:	% RL				
Percent Moisture		11.5 1.00				
TPH By SW8015 Mod	Extracted:	Jun-21-11 10:00				
	Analyzed:	Jun-22-11 07:34				
	Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 16.9				
C12-C28 Diesel Range Hydrocarbons		ND 16.9				
C28-C35 Oil Range Hydrocarbons		ND 16.9				
Total TPH		ND 16.9				

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.

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Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
 - 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420246,

Project ID:

Lab Batch #: 860725

Sample: 605525-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/19/11 01:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 860725

Sample: 605525-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/19/11 02:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 860725

Sample: 605525-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/19/11 03:07

SURROGATE RECOVERY STUDY

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

Lab Batch #: 860725

Sample: 420241-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/19/11 07:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 860725

Sample: 420241-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/19/11 07:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0319	0.0300	106	80-120	
4-Bromofluorobenzene	0.0336	0.0300	112	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420246,

Project ID:

Lab Batch #: 860725

Sample: 420246-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/19/11 09:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

Lab Batch #: 861003

Sample: 605669-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	115	101	114	70-135	
o-Terphenyl	54.9	50.3	109	70-135	

Lab Batch #: 861003

Sample: 605669-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	116	101	115	70-135	
o-Terphenyl	62.2	50.3	124	70-135	

Lab Batch #: 861003

Sample: 605669-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 00:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	63.3	50.0	127	70-135	

Lab Batch #: 861003

Sample: 420246-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 07:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	109	99.6	109	70-135	
o-Terphenyl	60.9	49.8	122	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420246,

Project ID:

Lab Batch #: 861003

Sample: 420220-001 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 10:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	68.8	50.0	138	70-135	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420246

Analyst: ASA

Date Prepared: 06/17/2011

Project ID:

Date Analyzed: 06/19/2011

Lab Batch ID: 860725

Sample: 605525-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0951	95	0.100	0.0992	99	4	70-130	35	
Toluene	<0.00200	0.100	0.0872	87	0.100	0.0926	93	6	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0951	95	0.100	0.0991	99	4	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.183	92	0.200	0.190	95	4	70-135	35	
o-Xylene	<0.00100	0.100	0.0921	92	0.100	0.0950	95	3	71-133	35	

Analyst: LATCOR

Date Prepared: 06/20/2011

Date Analyzed: 06/20/2011

Lab Batch ID: 860805

Sample: 860805-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	8.03	80	10.0	8.76	88	9	75-125	20	

Relative Percent Difference RPD = 200*((C-F)/(C+F))

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420246

Analyst: BEV

Date Prepared: 06/21/2011

Project ID:

Date Analyzed: 06/21/2011

Lab Batch ID: 861003

Sample: 605669-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	784	78	1010	796	79	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	782	77	1010	823	81	5	70-135	35	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420246

Lab Batch #: 860805

Date Analyzed: 06/20/2011

QC- Sample ID: 420240-001 S

Reporting Units: mg/kg

Date Prepared: 06/20/2011

Batch #: 1

Project ID:

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	95.3	215	304	97	75-125	

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

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

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - N MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420246

Project ID:

Lab Batch ID: 860725

QC- Sample ID: 420241-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/19/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00115	0.115	0.0433	38	0.114	0.0500	44	14	70-130	35	X
Toluene	<0.00229	0.115	0.0393	34	0.114	0.0471	41	18	70-130	35	X
Ethylbenzene	<0.00115	0.115	0.0443	39	0.114	0.0526	46	17	71-129	35	X
m_p-Xylenes	<0.00229	0.229	0.0861	38	0.228	0.101	44	16	70-135	35	X
o-Xylene	<0.00115	0.115	0.0463	40	0.114	0.0537	47	15	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420246

Lab Batch #: 860805

Project ID:

Date Analyzed: 06/20/2011 11:52

Date Prepared: 06/20/2011

Analyst: LATICOR

QC- Sample ID: 420240-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	95.3	107	12	20	

Lab Batch #: 860867

Date Analyzed: 06/20/2011 11:00

Date Prepared: 06/20/2011

Analyst: BRB

QC- Sample ID: 420245-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.64	6.69	1	20	

Lab Batch #: 861003

Date Analyzed: 06/22/2011 10:59

Date Prepared: 06/21/2011

Analyst: BEV

QC- Sample ID: 420220-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.3	<15.3	0	35	
C12-C28 Diesel Range Hydrocarbons	414	367	12	35	
C28-C35 Oil Range Hydrocarbons	25.6	26.7	4	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420246
 Initials: EM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420247
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



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New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
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Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420247**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420247. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420247 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420247



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 15 G-1	S	Jun-14-11 14:50		420247-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420247

Report Date: 22-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-860725 BTEX by EPA 8021B
SW8021BM

Batch 860725, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 420247-001.

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

Batch: LBA-861003 TPH By SW8015 Mod
SW8015MOD_NM

Batch 861003, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420220-001 D,420247-001.



Certificate of Analysis Summary 420247
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	420247-001				
	Field Id:	VZ Cell 15 G-1				
	Depth:					
	Matrix:	SOIL				
	Sampled:	Jun-14-11 14:50				
Anions by E300	Extracted:					
	Analyzed:	Jun-20-11 11:52				
	Units/RL:	mg/kg RL				
Chloride		99.7 9.38				
BTEX by EPA 8021B	Extracted:	Jun-17-11 13:30				
	Analyzed:	Jun-19-11 10:15				
	Units/RL:	mg/kg RL				
Benzene		ND 0.0011				
Toluene		ND 0.0022				
Ethylbenzene		ND 0.0011				
m_p-Xylenes		ND 0.0022				
o-Xylene		ND 0.0011				
Total Xylenes		ND 0.0011				
Total BTEX		ND 0.0011				
Percent Moisture	Extracted:					
	Analyzed:	Jun-20-11 11:00				
	Units/RL:	% RL				
Percent Moisture		10.4 1.00				
TPH By SW8015 Mod	Extracted:	Jun-21-11 10:00				
	Analyzed:	Jun-22-11 08:03				
	Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 16.7				
C12-C28 Diesel Range Hydrocarbons		ND 16.7				
C28-C35 Oil Range Hydrocarbons		ND 16.7				
Total TPH		ND 16.7				

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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Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420247,

Project ID:

Lab Batch #: 860725

Sample: 605525-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/19/11 01:38		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0301	0.0300	100	80-120	
4-Bromofluorobenzene		0.0298	0.0300	99	80-120	

Lab Batch #: 860725

Sample: 605525-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/19/11 02:00		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0287	0.0300	96	80-120	
4-Bromofluorobenzene		0.0307	0.0300	102	80-120	

Lab Batch #: 860725

Sample: 605525-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/19/11 03:07		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0277	0.0300	92	80-120	
4-Bromofluorobenzene		0.0277	0.0300	92	80-120	

Lab Batch #: 860725

Sample: 420241-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/19/11 07:15		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0286	0.0300	95	80-120	
4-Bromofluorobenzene		0.0313	0.0300	104	80-120	

Lab Batch #: 860725

Sample: 420241-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/19/11 07:37		SURROGATE RECOVERY STUDY		
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0319	0.0300	106	80-120	
4-Bromofluorobenzene		0.0336	0.0300	112	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420247,

Project ID:

Lab Batch #: 860725

Sample: 420247-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/19/11 10:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0286	0.0300	95	80-120	

Lab Batch #: 861003

Sample: 605669-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	115	101	114	70-135	
o-Terphenyl	54.9	50.3	109	70-135	

Lab Batch #: 861003

Sample: 605669-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	116	101	115	70-135	
o-Terphenyl	62.2	50.3	124	70-135	

Lab Batch #: 861003

Sample: 605669-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 00:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	63.3	50.0	127	70-135	

Lab Batch #: 861003

Sample: 420247-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 08:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	124	99.9	124	70-135	
o-Terphenyl	70.2	50.0	140	70-135	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420247,

Lab Batch #: 861003

Sample: 420220-001 D / MD

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 10:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	68.8	50.0	138	70-135	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420247

Analyst: ASA

Lab Batch ID: 860725

Sample: 605525-1-BKS

Date Prepared: 06/17/2011

Batch #: 1

Project ID:

Date Analyzed: 06/19/2011

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0951	95	0.100	0.0992	99	4	70-130	35	
Toluene	<0.00200	0.100	0.0872	87	0.100	0.0926	93	6	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0951	95	0.100	0.0991	99	4	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.183	92	0.200	0.190	95	4	70-135	35	
o-Xylene	<0.00100	0.100	0.0921	92	0.100	0.0950	95	3	71-133	35	

Analyst: LATCOR

Date Prepared: 06/20/2011

Date Analyzed: 06/20/2011

Lab Batch ID: 860805

Sample: 860805-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	8.03	80	10.0	8.76	88	9	75-125	20	

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

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSL Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420247

Analyst: BEV

Date Prepared: 06/21/2011

Project ID:

Date Analyzed: 06/21/2011

Lab Batch ID: 861003

Sample: 605669-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	784	78	1010	796	79	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	782	77	1010	823	81	5	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420247

Lab Batch #: 860805

Date Analyzed: 06/20/2011

QC- Sample ID: 420240-001 S

Reporting Units: mg/kg

Date Prepared: 06/20/2011

Batch #: 1

Project ID:

Analyst: LATCOR

Matrix: Soil

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	95.3	215	304	97	75-125	

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

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

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - N MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420247

Project ID:

Lab Batch ID: 860725

QC- Sample ID: 420241-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/19/2011

Date Prepared: 06/17/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00115	0.115	0.0433	38	0.114	0.0500	44	14	70-130	35	X
Toluene	<0.00229	0.115	0.0393	34	0.114	0.0471	41	18	70-130	35	X
Ethylbenzene	<0.00115	0.115	0.0443	39	0.114	0.0526	46	17	71-129	35	X
m_p-Xylenes	<0.00229	0.229	0.0861	38	0.228	0.101	44	16	70-135	35	X
o-Xylene	<0.00115	0.115	0.0463	40	0.114	0.0537	47	15	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420247

Lab Batch #: 860805
Date Analyzed: 06/20/2011 11:52
QC- Sample ID: 420240-001 D
Reporting Units: mg/kg

Project ID:
Analyst: LATCOR
Date Prepared: 06/20/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	95.3	107	12	20	

Lab Batch #: 860867
Date Analyzed: 06/20/2011 11:00
QC- Sample ID: 420245-001 D
Reporting Units: %

Date Prepared: 06/20/2011
Analyst: BRB
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.64	6.69	1	20	

Lab Batch #: 861003
Date Analyzed: 06/22/2011 10:59
QC- Sample ID: 420220-001 D
Reporting Units: mg/kg

Date Prepared: 06/21/2011
Analyst: BEV
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.3	<15.3	0	35	
C12-C28 Diesel Range Hydrocarbons	414	367	12	35	
C28-C35 Oil Range Hydrocarbons	25.6	26.7	4	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420247
 Initials: PM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420249
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

24-JUN-11

Collected By: Client



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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)

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Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



24-JUN-11

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

Reference: XENCO Report No: **420249**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420249. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420249 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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

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Sample Cross Reference 420249



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 1 G-1	S	Jun-14-11 09:30		420249-001
TZ Cell 1 G-2	S	Jun-14-11 09:35		420249-002
TZ Cell 1 G-3	S	Jun-14-11 09:40		420249-003
TZ Cell 1 G-4	S	Jun-14-11 09:45		420249-004
TZ Cell 1 G-5	S	Jun-14-11 09:50		420249-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:

Work Order Number: 420249

Report Date: 24-JUN-11

Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-861239 TPH By SW8015 Mod

SW8015MOD_NM

Batch 861239, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420221-001 D and 420249-005.

RPD is outside QC limits in the range C12-C28 between the sample and sample duplicate.

Samples affected are: 420249-001, 002, 003, 004, 005



Certificate of Analy Summary 420249

Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 24-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	<i>Lab Id:</i>	420249-001	420249-002	420249-003	420249-004	420249-005	
	<i>Field Id:</i>	TZ Cell 1 G-1	TZ Cell 1 G-2	TZ Cell 1 G-3	TZ Cell 1 G-4	TZ Cell 1 G-5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Jun-14-11 09:30	Jun-14-11 09:35	Jun-14-11 09:40	Jun-14-11 09:45	Jun-14-11 09:50	
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 17:54					
	<i>Units/RL:</i>	mg/kg RL					
Chloride		67.8 8.46	107 8.44	184 8.46	304 16.9	105 8.47	
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:42					
	<i>Units/RL:</i>	% RL					
Percent Moisture		ND 1.00					
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-21-11 10:30					
	<i>Analyzed:</i>	Jun-23-11 14:18	Jun-23-11 14:48	Jun-23-11 15:18	Jun-23-11 15:48	Jun-23-11 16:17	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 15.1	ND 15.1	ND 15.2	ND 15.1	15.9 15.1	
C12-C28 Diesel Range Hydrocarbons		887 15.1	665 15.1	1510 15.2	1580 15.1	1120 15.1	
C28-C35 Oil Range Hydrocarbons		118 15.1	37.3 15.1	157 15.2	131 15.1	121 15.1	
Total TPH		1010 15.1	702 15.1	1670 15.2	1710 15.1	1260 15.1	

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

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 Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
 - 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420249,

Project ID:

Lab Batch #: 861239

Sample: 605846-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 04:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	101	121	70-135	
o-Terphenyl	58.8	50.3	117	70-135	

Lab Batch #: 861239

Sample: 605846-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 05:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	101	124	70-135	
o-Terphenyl	65.7	50.3	131	70-135	

Lab Batch #: 861239

Sample: 605846-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 05:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.9	117	70-135	
o-Terphenyl	66.5	50.0	133	70-135	

Lab Batch #: 861239

Sample: 420249-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 14:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	154	200	77	70-135	
o-Terphenyl	82.7	99.8	83	70-135	

Lab Batch #: 861239

Sample: 420249-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 14:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	61.7	50.2	123	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420249,

Project ID:

Lab Batch #: 861239

Sample: 420249-003 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/23/11 15:18

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
l-Chlorooctane	114	101	113	70-135	
o-Terphenyl	60.4	50.3	120	70-135	

Lab Batch #: 861239

Sample: 420249-004 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/23/11 15:48

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
l-Chlorooctane	116	99.7	116	70-135	
o-Terphenyl	60.6	49.9	121	70-135	

Lab Batch #: 861239

Sample: 420249-005 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/23/11 16:17

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
l-Chlorooctane	130	99.6	131	70-135	
o-Terphenyl	68.4	49.8	137	70-135	*

Lab Batch #: 861239

Sample: 420221-001 D / MD

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/23/11 17:17

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
l-Chlorooctane	130	99.7	130	70-135	
o-Terphenyl	72.8	49.9	146	70-135	*

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420249

Analyst: LATCOR

Date Prepared: 06/20/2011

Project ID:

Date Analyzed: 06/20/2011

Lab Batch ID: 860808

Sample: 860808-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	10.1	101	10.0	10.5	105	4	75-125	20	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/23/2011

Lab Batch ID: 861239

Sample: 605846-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	921	91	1010	765	76	19	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	836	83	1010	790	78	6	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420249

Lab Batch #: 860808

Date Analyzed: 06/20/2011

Date Prepared: 06/20/2011

Project ID:

Analyst: LATCOR

QC- Sample ID: 420248-004 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	90.6	402	510	104	75-125	

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

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

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420249

Lab Batch #: 860808

Project ID:

Date Analyzed: 06/20/2011 17:54

Date Prepared: 06/20/2011

Analyst: LATCOR

QC- Sample ID: 420248-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	90.6	74.1	20	20	

Lab Batch #: 860866

Date Analyzed: 06/20/2011 11:42

Date Prepared: 06/20/2011

Analyst: BRB

QC- Sample ID: 420248-003 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	<1.00	<1.00	0	20	

Lab Batch #: 861239

Date Analyzed: 06/23/2011 17:17

Date Prepared: 06/21/2011

Analyst: BEV

QC- Sample ID: 420221-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.1	<15.1	0	35	
C12-C28 Diesel Range Hydrocarbons	110	222	67	35	F
C28-C35 Oil Range Hydrocarbons	<15.1	<15.1	0	35	

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



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
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 Phoenix, San Antonio, Tampa

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420249
 Initials: LM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420229
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

24-JUN-11

Collected By: Client



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Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

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North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



24-JUN-11

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

Reference: XENCO Report No: **420229**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420229. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420229 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420229



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 2 G-1	S	Jun-14-11 09:55		420229-001
TZ Cell 2 G-2	S	Jun-14-11 10:00		420229-002
TZ Cell 2 G-3	S	Jun-14-11 10:05		420229-003
TZ Cell 2 G-4	S	Jun-14-11 10:10		420229-004



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420229

Report Date: 24-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-861239 TPH By SW8015 Mod
SW8015MOD_NM

Batch 861239, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420229-003.



Certificate of Analysis Summary 420229
Southern Union Gas Services- Monahans, Monahans, TX
Project Name: Southern Union Gas Landfarm



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 24-JUN-11

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	420229-001	420229-002	420229-003	420229-004		
	<i>Field Id:</i>	TZ Cell 2 G-1	TZ Cell 2 G-2	TZ Cell 2 G-3	TZ Cell 2 G-4		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Jun-14-11 09:55	Jun-14-11 10:00	Jun-14-11 10:05	Jun-14-11 10:10		
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-18-11 02:06	Jun-18-11 02:06	Jun-18-11 02:06	Jun-18-11 02:06		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		16.5 4.23	55.5 8.49	151 16.9	51.8 8.47		
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:00	Jun-20-11 11:00	Jun-20-11 11:00	Jun-20-11 11:00		
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL		
Percent Moisture		ND 1.00	1.07 1.00	ND 1.00	ND 1.00		
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-21-11 10:30	Jun-21-11 10:30	Jun-21-11 10:30	Jun-21-11 10:30		
	<i>Analyzed:</i>	Jun-23-11 09:52	Jun-23-11 10:22	Jun-23-11 10:52	Jun-23-11 11:21		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		ND 15.1	ND 15.1	18.1 15.1	ND 14.8		
C12-C28 Diesel Range Hydrocarbons		722 15.1	644 15.1	828 15.1	579 14.8		
C28-C35 Oil Range Hydrocarbons		45.7 15.1	27.7 15.1	100 15.1	49.7 14.8		
Total TPH		768 15.1	672 15.1	946 15.1	629 14.8		

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

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Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
 - 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420229,

Project ID:

Lab Batch #: 861239

Sample: 605846-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/23/11 04:52		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		122	101	121	70-135	
o-Terphenyl		58.8	50.3	117	70-135	

Lab Batch #: 861239

Sample: 605846-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/23/11 05:22		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		125	101	124	70-135	
o-Terphenyl		65.7	50.3	131	70-135	

Lab Batch #: 861239

Sample: 605846-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/23/11 05:51		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		117	99.9	117	70-135	
o-Terphenyl		66.5	50.0	133	70-135	

Lab Batch #: 861239

Sample: 420229-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/23/11 09:52		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		125	100	125	70-135	
o-Terphenyl		67.3	50.0	135	70-135	

Lab Batch #: 861239

Sample: 420229-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/23/11 10:22		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		120	99.8	120	70-135	
o-Terphenyl		64.4	49.9	129	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420229,

Project ID:

Lab Batch #: 861239

Sample: 420229-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 10:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	133	99.9	133	70-135	
o-Terphenyl	71.1	50.0	142	70-135	*

Lab Batch #: 861239

Sample: 420229-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 11:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	98.0	120	70-135	
o-Terphenyl	62.4	49.0	127	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSL Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420229

Analyst: LATCOR

Date Prepared: 06/18/2011

Project ID:

Date Analyzed: 06/18/2011

Lab Batch ID: 860625

Sample: 860625-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	10.2	102	10.0	10.2	102	0	75-125	20	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/23/2011

Lab Batch ID: 861239

Sample: 605846-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	921	91	1010	765	76	19	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	836	83	1010	790	78	6	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C) / (B)$

Blank Spike Duplicate Recovery [G] = $100 * (F) / (E)$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420229

Lab Batch #: 860625

Date Analyzed: 06/18/2011

QC- Sample ID: 420166-032 S

Reporting Units: mg/kg

Date Prepared: 06/18/2011

Batch #: 1

Project ID:

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	15.2	100	117	102	75-125	

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

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

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420229

Lab Batch #: 860625

Project ID:

Date Analyzed: 06/18/2011 02:06

Date Prepared: 06/18/2011

Analyst: LATCOR

QC- Sample ID: 420166-032 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	15.2	14.4	5	20	

Lab Batch #: 860867

Date Analyzed: 06/20/2011 11:00

Date Prepared: 06/20/2011

Analyst: BRB

QC- Sample ID: 420245-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.64	6.69	1	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

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

BRL - Below Reporting Limit



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420229
 Initials: XM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420250
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

24-JUN-11

Collected By: Client



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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

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North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



24-JUN-11

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

Reference: XENCO Report No: **420250**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420250. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420250 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420250



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 3 G-1	S	Jun-14-11 10:15		420250-001
TZ Cell 3 G-2	S	Jun-14-11 10:20		420250-002
TZ Cell 3 G-3	S	Jun-14-11 10:25		420250-003
TZ Cell 3 G-4	S	Jun-14-11 10:30		420250-004
TZ Cell 3 G-5	S	Jun-14-11 10:35		420250-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420250

Report Date: 24-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-861166 TPH By SW8015 Mod
SW8015MOD_NM

*Batch 861166, 1-Chlorooctane recovered below QC limits . Matrix interferences is suspected;
data not confirmed by re-analysis*
Samples affected are: 420251-001 D,420250-004.

Batch: LBA-861239 TPH By SW8015 Mod
SW8015MOD_NM

*Batch 861239, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data
not confirmed by re-analysis*
Samples affected are: 420221-001 D.

RPD is outside QC Limits in the range C12-C28 between the sample and sample duplicate.
Samples affected are: 420250-001, 002, 003, 004, 005



Certificate of Analysis Summary 420250
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 24-JUN-11

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	420250-001	420250-002	420250-003	420250-004	420250-005	
	<i>Field Id:</i>	TZ Cell 3 G-1	TZ Cell 3 G-2	TZ Cell 3 G-3	TZ Cell 3 G-4	TZ Cell 3 G-5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Jun-14-11 10:15	Jun-14-11 10:20	Jun-14-11 10:25	Jun-14-11 10:30	Jun-14-11 10:35	
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 17:54					
	<i>Units/RL:</i>	mg/kg RL					
Chloride		14.3 8.47	25.0 8.48	10.9 8.51	9.30 8.45	23.2 8.48	
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:42					
	<i>Units/RL:</i>	% RL					
Percent Moisture		ND 1.00	ND 1.00	1.30 1.00	ND 1.00	ND 1.00	
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-21-11 10:30					
	<i>Analyzed:</i>	Jun-23-11 16:47	Jun-23-11 03:15	Jun-23-11 03:45	Jun-23-11 04:14	Jun-23-11 04:42	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 15.1	ND 15.2	ND 15.2	22.0 15.1	19.5 15.2	
C12-C28 Diesel Range Hydrocarbons		3250 15.1	3720 15.2	3290 15.2	3750 15.1	3100 15.2	
C28-C35 Oil Range Hydrocarbons		317 15.1	ND 15.2	ND 15.2	ND 15.1	ND 15.2	
Total TPH		3570 15.1	3720 15.2	3290 15.2	3770 15.1	3120 15.2	

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

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Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
 - 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.
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- RL** Reporting Limit
- MDL** Method Detection Limit
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(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420250,
Lab Batch #: 861166

Sample: 605781-1-BKS / BKS

Project ID:
Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/23/11 01:48	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		120	101	119	70-135	
o-Terphenyl		56.8	50.3	113	70-135	

Lab Batch #: 861166 Sample: 605781-1-BSD / BSD Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/23/11 02:18	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		117	101	116	70-135	
o-Terphenyl		60.6	50.3	120	70-135	

Lab Batch #: 861166 Sample: 605781-1-BLK / BLK Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/23/11 02:47	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		113	99.9	113	70-135	
o-Terphenyl		66.2	50.0	132	70-135	

Lab Batch #: 861166 Sample: 420250-002 / SMP Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/23/11 03:15	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		109	100	109	70-135	
o-Terphenyl		56.7	50.2	113	70-135	

Lab Batch #: 861166 Sample: 420250-003 / SMP Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/23/11 03:45	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		146	200	73	70-135	
o-Terphenyl		75.5	99.8	76	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420250,

Project ID:

Lab Batch #: 861166

Sample: 420250-004 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/23/11 04:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	137	200	69	70-135	*
o-Terphenyl	72.1	100	72	70-135	

Lab Batch #: 861166

Sample: 420250-005 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/23/11 04:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	101	109	70-135	
o-Terphenyl	53.9	50.3	107	70-135	

Lab Batch #: 861166

Sample: 420251-001 D / MD

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/23/11 13:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	137	201	68	70-135	*
o-Terphenyl	76.4	100	76	70-135	

Lab Batch #: 861239

Sample: 605846-1-BKS / BKS

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 06/23/11 04:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	101	121	70-135	
o-Terphenyl	58.8	50.3	117	70-135	

Lab Batch #: 861239

Sample: 605846-1-BSD / BSD

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 06/23/11 05:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	101	124	70-135	
o-Terphenyl	65.7	50.3	131	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420250,

Project ID:

Lab Batch #: 861239

Sample: 605846-1-BLK / BLK

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 06/23/11 05:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.9	117	70-135	
o-Terphenyl	66.5	50.0	133	70-135	

Lab Batch #: 861239

Sample: 420250-001 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/23/11 16:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	100	120	70-135	
o-Terphenyl	62.0	50.1	124	70-135	

Lab Batch #: 861239

Sample: 420221-001 D / MD

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/23/11 17:17

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	130	99.7	130	70-135	
o-Terphenyl	72.8	49.9	146	70-135	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420250

Analyst: LATCOR

Lab Batch ID: 860808

Sample: 860808-1-BKS

Batch #: 1

Project ID:

Date Analyzed: 06/20/2011

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	10.1	101	10.0	10.5	105	4	75-125	20	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/23/2011

Lab Batch ID: 861166

Sample: 605781-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	819	81	1010	805	80	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	820	81	1010	805	80	2	70-135	35	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/23/2011

Lab Batch ID: 861239

Sample: 605846-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	921	91	1010	765	76	19	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	836	83	1010	790	78	6	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420250

Lab Batch #: 860808

Date Analyzed: 06/20/2011

QC- Sample ID: 420248-004 S

Reporting Units: mg/kg

Date Prepared: 06/20/2011

Batch #: 1

Project ID:

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	90.6	402	510	104	75-125	

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

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420250

Lab Batch #: 860808

Project ID:

Date Analyzed: 06/20/2011 17:54

Date Prepared: 06/20/2011

Analyst: LATCOR

QC- Sample ID: 420248-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	90.6	74.1	20	20	

Lab Batch #: 861166

Date Analyzed: 06/20/2011 11:42

Date Prepared: 06/20/2011

Analyst: BRB

QC- Sample ID: 420248-003 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	<1.00	<1.00	0	20	

Lab Batch #: 861166

Date Analyzed: 06/23/2011 13:44

Date Prepared: 06/21/2011

Analyst: BEV

QC- Sample ID: 420251-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.2	16.0	NC	35	
C12-C28 Diesel Range Hydrocarbons	2790	3490	22	35	
C28-C35 Oil Range Hydrocarbons	<15.2	19.1	NC	35	

Lab Batch #: 861239

Date Analyzed: 06/23/2011 17:17

Date Prepared: 06/21/2011

Analyst: BEV

QC- Sample ID: 420221-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.1	<15.1	0	35	
C12-C28 Diesel Range Hydrocarbons	110	222	67	35	F
C28-C35 Oil Range Hydrocarbons	<15.1	<15.1	0	35	

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

BRL - Below Reporting Limit



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420250
 Initials: XM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420251
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

23-JUN-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

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North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

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Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



23-JUN-11

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

Reference: XENCO Report No: **420251**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420251. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420251 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420251



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 4 G-1	S	Jun-14-11 10:40		420251-001
TZ Cell 4 G-2	S	Jun-14-11 10:45		420251-002
TZ Cell 4 G-3	S	Jun-14-11 10:50		420251-003
TZ Cell 4 G-4	S	Jun-14-11 10:55		420251-004
TZ Cell 4 G-5	S	Jun-14-11 11:00		420251-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420251

Report Date: 23-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-861166 TPH By SW8015 Mod
SW8015MOD_NM

Batch 861166, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420251-002.

1-Chlorooctane recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420251-003.



Certificate of Analy Summary 420251

Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 23-JUN-11

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	420251-001	420251-002	420251-003	420251-004	420251-005	
	<i>Field Id:</i>	TZ Cell 4 G-1	TZ Cell 4 G-2	TZ Cell 4 G-3	TZ Cell 4 G-4	TZ Cell 4 G-5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Jun-14-11 10:40	Jun-14-11 10:45	Jun-14-11 10:50	Jun-14-11 10:55	Jun-14-11 11:00	
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 17:54					
	<i>Units/RL:</i>	mg/kg RL					
Chloride		33.0 8.48	39.0 8.49	52.3 8.49	57.7 8.47	79.7 8.47	
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:42					
	<i>Units/RL:</i>	% RL					
Percent Moisture		ND 1.00	1.02 1.00	1.08 1.00	ND 1.00	ND 1.00	
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-21-11 10:30	Jun-21-11 10:30	Jun-21-11 10:30	Jun-20-11 15:30	Jun-20-11 15:30	
	<i>Analyzed:</i>	Jun-23-11 05:10	Jun-23-11 05:41	Jun-23-11 06:09	Jun-21-11 18:15	Jun-21-11 18:47	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 15.2	17.6 15.1	20.9 15.2	ND 15.2	ND 15.1	
C12-C28 Diesel Range Hydrocarbons		2790 15.2	3560 15.1	3710 15.2	2350 15.2	2210 15.1	
C28-C35 Oil Range Hydrocarbons		ND 15.2	16.6 15.1	19.2 15.2	ND 15.2	ND 15.1	
Total TPH		2790 15.2	3590 15.1	3750 15.2	2350 15.2	2210 15.1	

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

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 Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420251,

Project ID:

Lab Batch #: 860904

Sample: 605621-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 07:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	100	128	70-135	
o-Terphenyl	60.8	50.1	121	70-135	

Lab Batch #: 860904

Sample: 605621-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 08:04

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	100	128	70-135	
o-Terphenyl	59.7	50.2	119	70-135	

Lab Batch #: 860904

Sample: 605621-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 08:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	62.0	50.0	124	70-135	

Lab Batch #: 860904

Sample: 420251-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/21/11 18:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.3	101	83	70-135	
o-Terphenyl	45.7	50.3	91	70-135	

Lab Batch #: 860904

Sample: 420251-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/21/11 18:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.0	99.9	82	70-135	
o-Terphenyl	44.2	50.0	88	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420251,

Project ID:

Lab Batch #: 860904

Sample: 420251-005 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/21/11 19:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.9	99.9	86	70-135	
o-Terphenyl	46.5	50.0	93	70-135	

Lab Batch #: 861166

Sample: 605781-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 01:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	101	119	70-135	
o-Terphenyl	56.8	50.3	113	70-135	

Lab Batch #: 861166

Sample: 605781-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 02:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	101	116	70-135	
o-Terphenyl	60.6	50.3	120	70-135	

Lab Batch #: 861166

Sample: 605781-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 02:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.9	113	70-135	
o-Terphenyl	66.2	50.0	132	70-135	

Lab Batch #: 861166

Sample: 420251-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 05:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	58.2	50.2	116	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420251,

Project ID:

Lab Batch #: 861166

Sample: 420251-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 05:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.5	129	70-135	
o-Terphenyl	71.7	49.8	144	70-135	**

Lab Batch #: 861166

Sample: 420251-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 06:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	138	100	138	70-135	**
o-Terphenyl	40.7	50.1	81	70-135	

Lab Batch #: 861166

Sample: 420251-001 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 13:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	137	201	68	70-135	**
o-Terphenyl	76.4	100	76	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420251

Analyst: LATCOR

Lab Batch ID: 860808

Sample: 860808-1-BKS

Batch #: 1

Project ID:

Date Analyzed: 06/20/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	10.1	101	10.0	10.5	105	4	75-125	20	

Analyst: BEV

Date Prepared: 06/20/2011

Date Analyzed: 06/21/2011

Lab Batch ID: 860904

Sample: 605621-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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	941	94	1000	950	95	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	973	97	1000	969	97	0	70-135	35	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/23/2011

Lab Batch ID: 861166

Sample: 605781-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	819	81	1010	805	80	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	820	81	1010	805	80	2	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420251
Lab Batch #: 860808
Date Analyzed: 06/20/2011
QC- Sample ID: 420248-004 S
Reporting Units: mg/kg

Date Prepared: 06/20/2011
Batch #: 1
Matrix: Soil
Project ID:
Analyst: LATCOR

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	90.6	402	510	104	75-125	

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

Below Reporting Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420251

Lab Batch #: 860808

Project ID:

Date Analyzed: 06/20/2011 17:54

Date Prepared: 06/20/2011

Analyst: LATICOR

QC- Sample ID: 420248-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	90.6	74.1	20	20	

Lab Batch #: 860866

Date Analyzed: 06/20/2011 11:42

Date Prepared: 06/20/2011

Analyst: BRB

QC- Sample ID: 420248-003 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	<1.00	<1.00	0	20	

Lab Batch #: 860904

Date Analyzed: 06/21/2011 19:48

Date Prepared: 06/20/2011

Analyst: BEV

QC- Sample ID: 420251-005 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.1	<15.1	0	35	
C12-C28 Diesel Range Hydrocarbons	2210	2310	4	35	
C28-C35 Oil Range Hydrocarbons	<15.1	<15.1	0	35	

Lab Batch #: 861166

Date Analyzed: 06/23/2011 13:44

Date Prepared: 06/21/2011

Analyst: BEV

QC- Sample ID: 420251-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.2	16.0	NC	35	
C12-C28 Diesel Range Hydrocarbons	2790	3490	22	35	
C28-C35 Oil Range Hydrocarbons	<15.2	19.1	NC	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420251
 Initials: RM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420215
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

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Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420215**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420215. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420215 will be filed for 60 days; and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420215



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 5 G-1	S	Jun-14-11 11:05		420215-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420215

Report Date: 22-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-861003 TPH By SW8015 Mod
SW8015MOD_NM

Batch 861003, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420220-001 D.



Certificate of Analy. Summary 420215
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	<i>Lab Id:</i> 420215-001 <i>Field Id:</i> TZ Cell 5 G-1 <i>Depth:</i> <i>Matrix:</i> SOIL <i>Sampled:</i> Jun-14-11 11:05					
Anions by E300	<i>Extracted:</i> <i>Analyzed:</i> Jun-18-11 02:06 <i>Units/RL:</i> mg/kg RL					
Chloride	ND 4.22					
Percent Moisture	<i>Extracted:</i> <i>Analyzed:</i> Jun-20-11 11:00 <i>Units/RL:</i> % RL					
Percent Moisture	ND 1.00					
TPH By SW8015 Mod	<i>Extracted:</i> Jun-21-11 10:00 <i>Analyzed:</i> Jun-22-11 08:33 <i>Units/RL:</i> mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons	ND 15.1					
C12-C28 Diesel Range Hydrocarbons	71.1 15.1					
C28-C35 Oil Range Hydrocarbons	18.2 15.1					
Total TPH	89.3 15.1					

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

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

Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420215,

Project ID:

Lab Batch #: 861003

Sample: 605669-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	101	114	70-135	
o-Terphenyl	54.9	50.3	109	70-135	

Lab Batch #: 861003

Sample: 605669-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	101	115	70-135	
o-Terphenyl	62.2	50.3	124	70-135	

Lab Batch #: 861003

Sample: 605669-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 00:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	63.3	50.0	127	70-135	

Lab Batch #: 861003

Sample: 420215-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 08:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	65.4	50.1	131	70-135	

Lab Batch #: 861003

Sample: 420220-001 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 10:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	68.8	50.0	138	70-135	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420215

Analyst: LATCOR

Lab Batch ID: 860625

Sample: 860625-1-BKS

Date Prepared: 06/18/2011

Batch #: 1

Project ID:

Date Analyzed: 06/18/2011

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	10.2	102	10.0	10.2	102	0	75-125	20	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/21/2011

Lab Batch ID: 861003

Sample: 605669-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	784	78	1010	796	79	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	782	77	1010	823	81	5	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420215

Lab Batch #: 860625

Date Analyzed: 06/18/2011

QC- Sample ID: 420166-032 S

Reporting Units: mg/kg

Date Prepared: 06/18/2011

Batch #: 1

Project ID:

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	15.2	100	117	102	75-125	

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

NDL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420215

Lab Batch #: 860625
Date Analyzed: 06/18/2011 02:06
QC- Sample ID: 420166-032 D
Reporting Units: mg/kg

Project ID:
Analyst: LATCOR
Date Prepared: 06/18/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	15.2	14.4	5	20	

Lab Batch #: 860867
Date Analyzed: 06/20/2011 11:00
QC- Sample ID: 420245-001 D
Reporting Units: %

Date Prepared: 06/20/2011
Analyst: BRB
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.64	6.69	1	20	

Lab Batch #: 861003
Date Analyzed: 06/22/2011 10:59
QC- Sample ID: 420220-001 D
Reporting Units: mg/kg

Date Prepared: 06/21/2011
Analyst: BEV
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.3	<15.3	0	35	
C12-C28 Diesel Range Hydrocarbons	414	367	12	35	
C28-C35 Oil Range Hydrocarbons	25.6	26.7	4	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420215
 Initials: RM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420224
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

24-JUN-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

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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)
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Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

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Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



24-JUN-11

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

Reference: XENCO Report No: **420224**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420224. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420224 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420224



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 6 G-1	S	Jun-14-11 11:10		420224-001
TZ Cell 6 G-2	S	Jun-14-11 11:15		420224-002



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420224

Report Date: 24-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analy. Summary 420224
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 24-JUN-11

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	420224-001	420224-002				
	<i>Field Id:</i>	TZ Cell 6 G-1	TZ Cell 6 G-2				
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL				
	<i>Sampled:</i>	Jun-14-11 11:10	Jun-14-11 11:15				
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-18-11 02:06	Jun-18-11 02:06				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		51.7 8.49	72.8 8.48				
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:00	Jun-20-11 11:00				
	<i>Units/RL:</i>	% RL	% RL				
Percent Moisture		1.07 1.00	ND 1.00				
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-21-11 10:30	Jun-21-11 10:30				
	<i>Analyzed:</i>	Jun-23-11 07:19	Jun-23-11 07:48				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 15.2	ND 15.2				
C12-C28 Diesel Range Hydrocarbons		398 15.2	462 15.2				
C28-C35 Oil Range Hydrocarbons		ND 15.2	ND 15.2				
Total TPH		398 15.2	462 15.2				

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

Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420224,

Project ID:

Lab Batch #: 861239

Sample: 605846-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 04:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	101	121	70-135	
o-Terphenyl	58.8	50.3	117	70-135	

Lab Batch #: 861239

Sample: 605846-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 05:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	101	124	70-135	
o-Terphenyl	65.7	50.3	131	70-135	

Lab Batch #: 861239

Sample: 605846-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 05:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.9	117	70-135	
o-Terphenyl	66.5	50.0	133	70-135	

Lab Batch #: 861239

Sample: 420224-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 07:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	60.5	50.1	121	70-135	

Lab Batch #: 861239

Sample: 420224-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 07:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	147	201	73	70-135	
o-Terphenyl	80.3	100	80	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420224

Analyst: LATCOR

Lab Batch ID: 860625

Sample: 860625-1-BKS

Date Prepared: 06/18/2011

Batch #: 1

Project ID:

Date Analyzed: 06/18/2011

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	10.2	102	10.0	10.2	102	0	75-125	20	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/23/2011

Lab Batch ID: 861239

Sample: 605846-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	921	91	1010	765	76	19	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	836	83	1010	790	78	6	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420224
Lab Batch #: 860625
Date Analyzed: 06/18/2011
QC- Sample ID: 420166-032 S
Reporting Units: mg/kg

Date Prepared: 06/18/2011

Project ID:
Analyst: LATCOR

Batch #: 1 Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	15.2	100	117	102	75-125	

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

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420224

Lab Batch #: 860625

Project ID:

Date Analyzed: 06/18/2011 02:06

Date Prepared: 06/18/2011

Analyst: LATCOR

QC- Sample ID: 420166-032 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	15.2	14.4	5	20	

Lab Batch #: 860867

Date Analyzed: 06/20/2011 11:00

Date Prepared: 06/20/2011

Analyst: BRB

QC- Sample ID: 420245-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.64	6.69	1	20	

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



XENCO Laboratories
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 Phoenix, San Antonio, Tampa

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420224
 Initials: XM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420217
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



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Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420217**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420217. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420217 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420217



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 7 G-1	S	Jun-14-11 11:20		420217-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:

Work Order Number: 420217

Report Date: 22-JUN-11

Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-861003 TPH By SW8015 Mod
SW8015MOD_NM

Batch 861003, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420220-001 D,420217-001.



Certificate of Analy Summary 420217
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	420217-001				
	Field Id:	TZ Cell 7 G-1				
	Depth:					
	Matrix:	SOIL				
	Sampled:	Jun-14-11 11:20				
Anions by E300	Extracted:					
	Analyzed:	Jun-18-11 02:06				
	Units/RL:	mg/kg RL				
Chloride		28.9 4.24				
Percent Moisture	Extracted:					
	Analyzed:	Jun-20-11 11:00				
	Units/RL:	% RL				
Percent Moisture		1.05 1.00				
TPH By SW8015 Mod	Extracted:	Jun-21-11 10:00				
	Analyzed:	Jun-22-11 09:01				
	Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 15.2				
C12-C28 Diesel Range Hydrocarbons		719 15.2				
C28-C35 Oil Range Hydrocarbons		27.5 15.2				
Total TPH		747 15.2				

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

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Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420217,

Project ID:

Lab Batch #: 861003

Sample: 605669-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/21/11 23:20		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		115	101	114	70-135	
o-Terphenyl		54.9	50.3	109	70-135	

Lab Batch #: 861003

Sample: 605669-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/21/11 23:49		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		116	101	115	70-135	
o-Terphenyl		62.2	50.3	124	70-135	

Lab Batch #: 861003

Sample: 605669-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/22/11 00:18		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		111	99.9	111	70-135	
o-Terphenyl		63.3	50.0	127	70-135	

Lab Batch #: 861003

Sample: 420217-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/22/11 09:01		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		131	100	131	70-135	
o-Terphenyl		74.2	50.1	148	70-135	*

Lab Batch #: 861003

Sample: 420220-001 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/22/11 10:59		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		124	100	124	70-135	
o-Terphenyl		68.8	50.0	138	70-135	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420217

Analyst: LATCOR

Date Prepared: 06/18/2011

Project ID:

Date Analyzed: 06/18/2011

Lab Batch ID: 860625

Sample: 860625-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	10.2	102	10.0	10.2	102	0	75-125	20	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/21/2011

Lab Batch ID: 861003

Sample: 605669-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	784	78	1010	796	79	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	782	77	1010	823	81	5	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420217
Lab Batch #: 860625
Date Analyzed: 06/18/2011
QC- Sample ID: 420166-032 S
Reporting Units: mg/kg

Date Prepared: 06/18/2011

Project ID:
Analyst: LATCOR

Batch #: 1 Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	15.2	100	117	102	75-125	

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

Below Reporting Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420217

Lab Batch #: 860625
Date Analyzed: 06/18/2011 02:06
QC- Sample ID: 420166-032 D

Date Prepared: 06/18/2011
Batch #: 1

Project ID:
Analyst: LATCOR
Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	15.2	14.4	5	20	

Lab Batch #: 860867
Date Analyzed: 06/20/2011 11:00
QC- Sample ID: 420245-001 D

Date Prepared: 06/20/2011
Batch #: 1

Analyst: BRB
Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.64	6.69	1	20	

Lab Batch #: 861003
Date Analyzed: 06/22/2011 10:59
QC- Sample ID: 420220-001 D

Date Prepared: 06/21/2011
Batch #: 1

Analyst: BEV
Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.3	<15.3	0	35	
C12-C28 Diesel Range Hydrocarbons	414	367	12	35	
C28-C35 Oil Range Hydrocarbons	25.6	26.7	4	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420217
 Initials: XM

Sample Receipt Checklist

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

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____
 Regarding: _____
 Corrective Action Taken: _____

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

Analytical Report 420218

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420218**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420218. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

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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.

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Odessa Laboratory Manager

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Sample Cross Reference 420218



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 8 G-2	S	Jun-14-11 11:25		420218-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420218

Report Date: 22-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-861003 TPH By SW8015 Mod
SW8015MOD_NM

Batch 861003, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420220-001 D.



Certificate of Analysis Summary 420218
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	Lab Id: 420218-001 Field Id: TZ Cell 8 G-2 Depth: Matrix: SOIL Sampled: Jun-14-11 11:25					
Anions by E300	Extracted: Analyzed: Jun-18-11 02:06 Units/RL: mg/kg RL					
Chloride	66.5 8.49					
Percent Moisture	Extracted: Analyzed: Jun-20-11 11:00 Units/RL: % RL					
Percent Moisture	1.01 1.00					
TPH By SW8015 Mod	Extracted: Jun-21-11 10:00 Analyzed: Jun-22-11 09:30 Units/RL: mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons	ND 15.2					
C12-C28 Diesel Range Hydrocarbons	449 15.2					
C28-C35 Oil Range Hydrocarbons	33.4 15.2					
Total TPH	482 15.2					

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Brent Barron, II
 Odessa Laboratory Manager

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 - D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
 - E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
 - F** RPD exceeded lab control limits.
 - J** The target analyte was positively identified below the MQL and above the SQL.
 - 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.
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 - 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.
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- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420218,

Project ID:

Lab Batch #: 861003

Sample: 605669-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	101	114	70-135	
o-Terphenyl	54.9	50.3	109	70-135	

Lab Batch #: 861003

Sample: 605669-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	101	115	70-135	
o-Terphenyl	62.2	50.3	124	70-135	

Lab Batch #: 861003

Sample: 605669-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 00:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	63.3	50.0	127	70-135	

Lab Batch #: 861003

Sample: 420218-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 09:30

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	140	200	70	70-135	
o-Terphenyl	78.0	100	78	70-135	

Lab Batch #: 861003

Sample: 420220-001 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 10:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	68.8	50.0	138	70-135	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420218

Analyst: LATCOR

Lab Batch ID: 860625

Sample: 860625-1-BKS

Date Prepared: 06/18/2011

Batch #: 1

Project ID:

Date Analyzed: 06/18/2011

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	10.2	102	10.0	10.2	102	0	75-125	20	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/21/2011

Lab Batch ID: 861003

Sample: 605669-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	784	78	1010	796	79	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	782	77	1010	823	81	5	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420218

Lab Batch #: 860625

Project ID:

Date Analyzed: 06/18/2011

Date Prepared: 06/18/2011

Analyst: LATCOR

QC- Sample ID: 420166-032 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	15.2	100	117	102	75-125	

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

BRI. - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420218

Lab Batch #: 860625
Date Analyzed: 06/18/2011 02:06
QC- Sample ID: 420166-032 D
Reporting Units: mg/kg

Project ID:
Analyst: LATCOR
Date Prepared: 06/18/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	15.2	14.4	5	20	

Lab Batch #: 860867
Date Analyzed: 06/20/2011 11:00
QC- Sample ID: 420245-001 D
Reporting Units: %

Analyst: BRB
Date Prepared: 06/20/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.64	6.69	1	20	

Lab Batch #: 861003
Date Analyzed: 06/22/2011 10:59
QC- Sample ID: 420220-001 D
Reporting Units: mg/kg

Analyst: BEV
Date Prepared: 06/21/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.3	<15.3	0	35	
C12-C28 Diesel Range Hydrocarbons	414	367	12	35	
C28-C35 Oil Range Hydrocarbons	25.6	26.7	4	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420218
 Initials: XM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420252
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



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Texas (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
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Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420252**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420252. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420252 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420252



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 9 G-1	S	Jun-14-11 11:30		420252-001
TZ Cell 9 G-2	S	Jun-14-11 11:35		420252-002
TZ Cell 9 G-3	S	Jun-14-11 11:40		420252-003
TZ Cell 9 G-4	S	Jun-14-11 11:45		420252-004
TZ Cell 9 G-5	S	Jun-14-11 11:50		420252-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:

Work Order Number: 420252

Report Date: 22-JUN-11

Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-860995 TPH By SW8015 Mod

SW8015MOD_NM

Batch 860995, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420252-005 D.



Certificate of Analy Summary 420252
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	420252-001	420252-002	420252-003	420252-004	420252-005	
	<i>Field Id:</i>	TZ Cell 9 G-1	TZ Cell 9 G-2	TZ Cell 9 G-3	TZ Cell 9 G-4	TZ Cell 9 G-5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Jun-14-11 11:30	Jun-14-11 11:35	Jun-14-11 11:40	Jun-14-11 11:45	Jun-14-11 11:50	
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 17:54	Jun-20-11 17:54	Jun-20-11 17:54	Jun-20-11 17:54	Jun-18-11 07:45	
	<i>Units/RL:</i>	mg/kg RL					
Chloride		107 8.47	163 8.47	109 16.9	86.0 16.8	75.4 8.45	
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:42	Jun-20-11 11:42	Jun-20-11 11:42	Jun-20-11 11:54	Jun-20-11 11:54	
	<i>Units/RL:</i>	% RL					
Percent Moisture		ND 1.00					
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-20-11 15:30					
	<i>Analyzed:</i>	Jun-21-11 13:58	Jun-21-11 14:29	Jun-21-11 15:00	Jun-21-11 15:31	Jun-21-11 16:03	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 15.1	ND 15.1	ND 15.0	ND 14.9	ND 15.1	
C12-C28 Diesel Range Hydrocarbons		262 15.1	165 15.1	216 15.0	221 14.9	153 15.1	
C28-C35 Oil Range Hydrocarbons		ND 15.1	ND 15.1	ND 15.0	ND 14.9	ND 15.1	
Total TPH		262 15.1	165 15.1	216 15.0	221 14.9	153 15.1	

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

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Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420252,

Project ID:

Lab Batch #: 860995

Sample: 605661-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 11:55

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	130	100	130	70-135	
o-Terphenyl	59.9	50.1	120	70-135	

Lab Batch #: 860995

Sample: 605661-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 12:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	130	100	130	70-135	
o-Terphenyl	60.8	50.2	121	70-135	

Lab Batch #: 860995

Sample: 605661-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 12:56

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	62.2	50.0	124	70-135	

Lab Batch #: 860995

Sample: 420252-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/21/11 13:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	99.6	124	70-135	
o-Terphenyl	63.5	49.8	128	70-135	

Lab Batch #: 860995

Sample: 420252-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/21/11 14:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	99.9	114	70-135	
o-Terphenyl	58.2	50.0	116	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420252,

Project ID:

Lab Batch #: 860995

Sample: 420252-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/21/11 15:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.8	113	70-135	
o-Terphenyl	56.9	49.9	114	70-135	

Lab Batch #: 860995

Sample: 420252-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/21/11 15:31

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.7	99.5	92	70-135	
o-Terphenyl	45.9	49.8	92	70-135	

Lab Batch #: 860995

Sample: 420252-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/21/11 16:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.3	100	92	70-135	
o-Terphenyl	45.9	50.0	92	70-135	

Lab Batch #: 860995

Sample: 420252-005 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 00:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	131	100	131	70-135	
o-Terphenyl	67.9	50.0	136	70-135	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420252

Analyst: LATCOR

Date Prepared: 06/18/2011

Project ID:

Date Analyzed: 06/18/2011

Lab Batch ID: 860627

Sample: 860627-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	9.02	90	10.0	10.0	100	10	75-125	20	

Analyst: LATCOR

Date Prepared: 06/20/2011

Date Analyzed: 06/20/2011

Lab Batch ID: 860808

Sample: 860808-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	10.1	101	10.0	10.5	105	4	75-125	20	

Analyst: BEV

Date Prepared: 06/20/2011

Date Analyzed: 06/21/2011

Lab Batch ID: 860995

Sample: 605661-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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	863	86	1000	875	88	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	794	79	1000	777	78	2	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420252

Lab Batch #: 860627

Date Analyzed: 06/18/2011

Date Prepared: 06/18/2011

Project ID:

Analyst: LATCOR

QC- Sample ID: 420233-005 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	<4.79	114	111	97	75-125	

Lab Batch #: 860808

Date Analyzed: 06/20/2011

Date Prepared: 06/20/2011

Analyst: LATCOR

QC- Sample ID: 420248-004 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	90.6	402	510	104	75-125	

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

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420252

Lab Batch #: 860627

Project ID:

Date Analyzed: 06/18/2011 07:45

Date Prepared: 06/18/2011

Analyst: LATCOR

QC- Sample ID: 420233-005 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	<4.79	<4.79	0	20	

Lab Batch #: 860808

Date Analyzed: 06/20/2011 17:54

Date Prepared: 06/20/2011

Analyst: LATCOR

QC- Sample ID: 420248-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	90.6	74.1	20	20	

Lab Batch #: 860865

Date Analyzed: 06/20/2011 11:54

Date Prepared: 06/20/2011

Analyst: BRB

QC- Sample ID: 420252-004 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	<1.00	<1.00	0	20	

Lab Batch #: 860866

Date Analyzed: 06/20/2011 11:42

Date Prepared: 06/20/2011

Analyst: BRB

QC- Sample ID: 420248-003 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	<1.00	<1.00	0	20	

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420252

Lab Batch #: 860995

Project ID:

Date Analyzed: 06/22/2011 00:15

Date Prepared: 06/20/2011

Analyst: BEV

QC- Sample ID: 420252-005 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

TPH By SW8015 Mod Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	<15.1	0	35	
C12-C28 Diesel Range Hydrocarbons	153	192	23	35	
C28-C35 Oil Range Hydrocarbons	<15.1	<15.1	0	35	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

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

BRL - Below Reporting Limit



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420252
 Initials: XM

Sample Receipt Checklist

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

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____
 Regarding: _____
 Corrective Action Taken: _____

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

Analytical Report 420248
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

24-JUN-11

Collected By: Client



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Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
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New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
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Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



24-JUN-11

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

Reference: XENCO Report No: **420248**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420248. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420248 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420248



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 10 G-1	S	Jun-14-11 11:55		420248-001
TZ Cell 10 G-2	S	Jun-14-11 12:00		420248-002
TZ Cell 10 G-3	S	Jun-14-11 12:05		420248-003
TZ Cell 10 G-4	S	Jun-14-11 12:10		420248-004



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420248

Report Date: 24-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analy Summary 420248

Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 24-JUN-11

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	420248-001	420248-002	420248-003	420248-004		
	<i>Field Id:</i>	TZ Cell 10 G-1	TZ Cell 10 G-2	TZ Cell 10 G-3	TZ Cell 10 G-4		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Jun-14-11 11:55	Jun-14-11 12:00	Jun-14-11 12:05	Jun-14-11 12:10		
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:52	Jun-20-11 11:52	Jun-20-11 11:52	Jun-20-11 17:54		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		16.8 4.22	ND 8.43	26.0 8.42	90.6 16.9		
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:00	Jun-20-11 11:00	Jun-20-11 11:42	Jun-20-11 11:42		
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL		
Percent Moisture		ND 1.00	ND 1.00	ND 1.00	ND 1.00		
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-21-11 10:30	Jun-21-11 10:30	Jun-21-11 10:30	Jun-21-11 10:30		
	<i>Analyzed:</i>	Jun-23-11 12:20	Jun-23-11 12:49	Jun-23-11 13:19	Jun-23-11 13:49		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		ND 15.0	ND 15.1	ND 15.0	ND 15.0		
C12-C28 Diesel Range Hydrocarbons		513 15.0	234 15.1	185 15.0	549 15.0		
C28-C35 Oil Range Hydrocarbons		43.8 15.0	ND 15.1	ND 15.0	70.4 15.0		
Total TPH		557 15.0	234 15.1	185 15.0	619 15.0		

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

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 Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
 - 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420248,

Project ID:

Lab Batch #: 861239

Sample: 605846-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 04:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	101	121	70-135	
o-Terphenyl	58.8	50.3	117	70-135	

Lab Batch #: 861239

Sample: 605846-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 05:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	101	124	70-135	
o-Terphenyl	65.7	50.3	131	70-135	

Lab Batch #: 861239

Sample: 605846-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 05:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.9	117	70-135	
o-Terphenyl	66.5	50.0	133	70-135	

Lab Batch #: 861239

Sample: 420248-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 12:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	156	200	78	70-135	
o-Terphenyl	81.8	99.8	82	70-135	

Lab Batch #: 861239

Sample: 420248-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 12:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	59.9	50.0	120	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420248,

Lab Batch #: 861239

Sample: 420248-003 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 13:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.7	112	70-135	
o-Terphenyl	59.4	49.9	119	70-135	

Lab Batch #: 861239

Sample: 420248-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 13:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.6	113	70-135	
o-Terphenyl	60.2	49.8	121	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BS_D Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420248

Analyst: LATCOR

Date Prepared: 06/20/2011

Project ID:

Date Analyzed: 06/20/2011

Lab Batch ID: 860805

Sample: 860805-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	8.03	80	10.0	8.76	88	9	75-125	20	

Analyst: LATCOR

Date Prepared: 06/20/2011

Date Analyzed: 06/20/2011

Lab Batch ID: 860808

Sample: 860808-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	10.1	101	10.0	10.5	105	4	75-125	20	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/23/2011

Lab Batch ID: 861239

Sample: 605846-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	921	91	1010	765	76	19	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	836	83	1010	790	78	6	70-135	35	

Relative Percent Difference RPD = 200*((C-F)/(C+F))

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420248

Lab Batch #: 860805

Date Analyzed: 06/20/2011

QC- Sample ID: 420240-001 S

Reporting Units: mg/kg

Project ID:

Analyst: LATCOR

Date Prepared: 06/20/2011

Batch #: 1

Matrix: Soil

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	95.3	215	304	97	75-125	

Lab Batch #: 860808

Date Analyzed: 06/20/2011

QC- Sample ID: 420248-004 S

Reporting Units: mg/kg

Date Prepared: 06/20/2011

Analyst: LATCOR

Batch #: 1

Matrix: Soil

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	90.6	402	510	104	75-125	

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

BRL - Below Reporting Limit

Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420248

Lab Batch #: 860805 **Project ID:**
Date Analyzed: 06/20/2011 11:52 **Date Prepared:** 06/20/2011 **Analyst:** LATCOR
QC- Sample ID: 420240-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	95.3	107	12	20	

Lab Batch #: 860808 **Date Prepared:** 06/20/2011 **Analyst:** LATCOR
Date Analyzed: 06/20/2011 17:52 **Batch #:** 1 **Matrix:** Soil
QC- Sample ID: 420248-004 D **Reporting Units:** mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	90.6	74.1	20	20	

Lab Batch #: 860866 **Date Prepared:** 06/20/2011 **Analyst:** BRB
Date Analyzed: 06/20/2011 11:42 **Batch #:** 1 **Matrix:** Soil
QC- Sample ID: 420248-003 D **Reporting Units:** %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	<1.00	<1.00	0	20	

Lab Batch #: 860867 **Date Prepared:** 06/20/2011 **Analyst:** BRB
Date Analyzed: 06/20/2011 11:00 **Batch #:** 1 **Matrix:** Soil
QC- Sample ID: 420245-001 D **Reporting Units:** %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.64	6.69	1	20	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420248
 Initials: PM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420227
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

24-JUN-11

Collected By: Client



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12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



24-JUN-11

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

Reference: XENCO Report No: **420227**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420227. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420227 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420227



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 11 G-1	S	Jun-14-11 12:20		420227-001
TZ Cell 11 G-2	S	Jun-14-11 12:25		420227-002



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420227

Report Date: 24-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analy Summary 420227
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 24-JUN-11

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	420227-001	420227-002				
	<i>Field Id:</i>	TZ Cell 11 G-1	TZ Cell 11 G-2				
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL				
	<i>Sampled:</i>	Jun-14-11 12:20	Jun-14-11 12:25				
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-18-11 02:06	Jun-18-11 02:06				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		305 42.6	112 21.1				
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-20-11 11:00	Jun-20-11 11:00				
	<i>Units/RL:</i>	% RL	% RL				
Percent Moisture		1.41 1.00	ND 1.00				
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-21-11 10:30	Jun-21-11 10:30				
	<i>Analyzed:</i>	Jun-23-11 08:18	Jun-23-11 09:23				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 15.2	ND 15.0				
C12-C28 Diesel Range Hydrocarbons		350 15.2	274 15.0				
C28-C35 Oil Range Hydrocarbons		ND 15.2	ND 15.0				
Total TPH		350 15.2	274 15.0				

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

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Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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5757 NW 158th St, Miami Lakes, FL 33014
12600 West I-20 East, Odessa, TX 79765
842 Cantwell Lane, Corpus Christi, TX 78408
3725 E. Atlanta Ave, Phoenix, AZ 85040

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(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
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(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420227,

Project ID:

Lab Batch #: 861239

Sample: 605846-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 04:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	101	121	70-135	
o-Terphenyl	58.8	50.3	117	70-135	

Lab Batch #: 861239

Sample: 605846-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 05:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	101	124	70-135	
o-Terphenyl	65.7	50.3	131	70-135	

Lab Batch #: 861239

Sample: 605846-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 05:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.9	117	70-135	
o-Terphenyl	66.5	50.0	133	70-135	

Lab Batch #: 861239

Sample: 420227-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 08:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	139	200	70	70-135	
o-Terphenyl	74.9	99.8	75	70-135	

Lab Batch #: 861239

Sample: 420227-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 09:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	99.8	115	70-135	
o-Terphenyl	60.7	49.9	122	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420227

Analyst: LATCOR

Lab Batch ID: 860625

Sample: 860625-1-BKS

Batch #: 1

Project ID:

Date Analyzed: 06/18/2011

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	10.2	102	10.0	10.2	102	0	75-125	20	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/23/2011

Lab Batch ID: 861239

Sample: 605846-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	921	91	1010	765	76	19	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	836	83	1010	790	78	6	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420227
Lab Batch #: 860625
Date Analyzed: 06/18/2011
QC- Sample ID: 420166-032 S
Reporting Units: mg/kg

Date Prepared: 06/18/2011

Project ID:
Analyst: LATCOR

Batch #: 1

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	15.2	100	117	102	75-125	

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

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420227

Lab Batch #: 860625
Date Analyzed: 06/18/2011 02:06
QC- Sample ID: 420166-032 D
Reporting Units: mg/kg

Project ID:
Date Prepared: 06/18/2011
Analyst: LATCOR
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	15.2	14.4	5	20	

Lab Batch #: 860867
Date Analyzed: 06/20/2011 11:00
QC- Sample ID: 420245-001 D
Reporting Units: %

Date Prepared: 06/20/2011
Analyst: BRB
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.64	6.69	1	20	

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



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

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 8/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420227
 Initials: SM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420219

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420219**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420219. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420219 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420219



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 12 G-1	S	Jun-14-11 12:30		420219-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420219

Report Date: 22-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-861003 TPH By SW8015 Mod
SW8015MOD_NM

Batch 861003, 1-Chlorooctane recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420219-001.

o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 420220-001 D.



Certificate of Analy Summary 420219
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	420219-001				
	Field Id:	TZ Cell 12 G-1				
	Depth:					
	Matrix:	SOIL				
	Sampled:	Jun-14-11 12:30				
Anions by E300	Extracted:					
	Analyzed:	Jun-18-11 02:06				
	Units/RL:	mg/kg RL				
Chloride		29.0 21.3				
Percent Moisture	Extracted:					
	Analyzed:	Jun-20-11 11:00				
	Units/RL:	% RL				
Percent Moisture		1.36 1.00				
TPH By SW8015 Mod	Extracted:	Jun-21-11 10:00				
	Analyzed:	Jun-22-11 10:00				
	Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 15.1				
C12-C28 Diesel Range Hydrocarbons		573 15.1				
C28-C35 Oil Range Hydrocarbons		18.0 15.1				
Total TPH		591 15.1				

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

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Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
 - 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420219,

Project ID:

Lab Batch #: 861003

Sample: 605669-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	115	101	114	70-135	
o-Terphenyl	54.9	50.3	109	70-135	

Lab Batch #: 861003

Sample: 605669-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	116	101	115	70-135	
o-Terphenyl	62.2	50.3	124	70-135	

Lab Batch #: 861003

Sample: 605669-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	63.3	50.0	127	70-135	

Lab Batch #: 861003

Sample: 420219-001 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	136	199	68	70-135	*
o-Terphenyl	74.2	99.6	74	70-135	

Lab Batch #: 861003

Sample: 420220-001 D / MD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	68.8	50.0	138	70-135	*

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420219

Analyst: LATCOR

Date Prepared: 06/18/2011

Project ID:

Date Analyzed: 06/18/2011

Lab Batch ID: 860625

Sample: 860625-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	10.2	102	10.0	10.2	102	0	75-125	20	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/21/2011

Lab Batch ID: 861003

Sample: 605669-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	784	78	1010	796	79	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	782	77	1010	823	81	5	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420219

Lab Batch #: 860625

Date Analyzed: 06/18/2011

Date Prepared: 06/18/2011

Project ID:

Analyst: LATCOR

QC- Sample ID: 420166-032 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	15.2	100	117	102	75-125	

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

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420219

Lab Batch #: 860625

Project ID:

Date Analyzed: 06/18/2011 02:06

Date Prepared: 06/18/2011

Analyst: LATICOR

QC- Sample ID: 420166-032 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	15.2	14.4	5	20	

Lab Batch #: 860867

Date Analyzed: 06/20/2011 11:00

Date Prepared: 06/20/2011

Analyst: BRB

QC- Sample ID: 420245-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.64	6.69	1	20	

Lab Batch #: 861003

Date Analyzed: 06/22/2011 10:59

Date Prepared: 06/21/2011

Analyst: BEV

QC- Sample ID: 420220-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.3	<15.3	0	35	
C12-C28 Diesel Range Hydrocarbons	414	367	12	35	
C28-C35 Oil Range Hydrocarbons	25.6	26.7	4	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420219
 Initials: SM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420220
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

22-JUN-11

Collected By: Client



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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



22-JUN-11

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

Reference: XENCO Report No: **420220**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420220. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420220 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420220



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 13 G-1	S	Jun-14-11 12:35		420220-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420220

Report Date: 22-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-861003 TPH By SW8015 Mod
SW8015MOD_NM

Batch 861003, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 420220-001 D,420220-001.



Certificate of Analy Summary 420220
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 22-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	Lab Id: 420220-001 Field Id: TZ Cell 13 G-1 Depth: Matrix: SOIL Sampled: Jun-14-11 12:35					
Anions by E300	Extracted: Analyzed: Jun-18-11 02:06 Units/RL: mg/kg RL					
Chloride		458	21.4			
Percent Moisture	Extracted: Analyzed: Jun-20-11 11:00 Units/RL: % RL					
Percent Moisture		1.68	1.00			
TPH By SW8015 Mod	Extracted: Jun-21-11 10:00 Analyzed: Jun-22-11 10:29 Units/RL: mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND	15.3			
C12-C28 Diesel Range Hydrocarbons		414	15.3			
C28-C35 Oil Range Hydrocarbons		25.6	15.3			
Total TPH		440	15.3			

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Brent Barron, II
 Odessa Laboratory Manager

Flagging Criteria

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- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
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(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420220,

Project ID:

Lab Batch #: 861003

Sample: 605669-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	101	114	70-135	
o-Terphenyl	54.9	50.3	109	70-135	

Lab Batch #: 861003

Sample: 605669-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/21/11 23:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	101	115	70-135	
o-Terphenyl	62.2	50.3	124	70-135	

Lab Batch #: 861003

Sample: 605669-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/22/11 00:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	63.3	50.0	127	70-135	

Lab Batch #: 861003

Sample: 420220-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 10:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	135	100	135	70-135	
o-Terphenyl	77.3	50.0	155	70-135	*

Lab Batch #: 861003

Sample: 420220-001 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/22/11 10:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	68.8	50.0	138	70-135	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420220

Analyst: LATCOR

Lab Batch ID: 860625

Sample: 860625-1-BKS

Batch #: 1

Project ID:

Date Analyzed: 06/18/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.420	10.0	10.2	102	10.0	10.2	102	0	75-125	20	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/21/2011

Lab Batch ID: 861003

Sample: 605669-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	784	78	1010	796	79	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	782	77	1010	823	81	5	70-135	35	

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

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420220
Lab Batch #: 860625
Date Analyzed: 06/18/2011
QC- Sample ID: 420166-032 S
Reporting Units: mg/kg

Date Prepared: 06/18/2011
Batch #: 1
Matrix: Soil
Project ID:
Analyst: LATCOR

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	15.2	100	117	102	75-125	

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

- Below Reporting Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420220

Lab Batch #: 860625
Date Analyzed: 06/18/2011 02:06
QC- Sample ID: 420166-032 D
Reporting Units: mg/kg

Date Prepared: 06/18/2011
Batch #: 1

Project ID:
Analyst: LATCOR
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	15.2	14.4	5	20	

Lab Batch #: 860867
Date Analyzed: 06/20/2011 11:00
QC- Sample ID: 420245-001 D
Reporting Units: %

Date Prepared: 06/20/2011
Batch #: 1

Analyst: BRB
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.64	6.69	1	20	

Lab Batch #: 861003
Date Analyzed: 06/22/2011 10:59
QC- Sample ID: 420220-001 D
Reporting Units: mg/kg

Date Prepared: 06/21/2011
Batch #: 1

Analyst: BEV
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	<15.3	<15.3	0	35	
C12-C28 Diesel Range Hydrocarbons	414	367	12	35	
C28-C35 Oil Range Hydrocarbons	25.6	26.7	4	35	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420220
 Initials: XM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420221
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

24-JUN-11

Collected By: Client



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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)
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Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

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Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



24-JUN-11

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

Reference: XENCO Report No: **420221**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420221. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420221 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420221



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 14 G-1	S	Jun-14-11 12:40		420221-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420221

Report Date: 24-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 420221
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 24-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	Lab Id: 420221-001 Field Id: TZ Cell 14 G-1 Depth: Matrix: SOIL Sampled: Jun-14-11 12:40					
Anions by E300	Extracted: Analyzed: Jun-18-11 02:06 Units/RL: mg/kg RL					
Chloride	15.7 4.23					
Percent Moisture	Extracted: Analyzed: Jun-20-11 11:00 Units/RL: % RL					
Percent Moisture	ND 1.00					
TPH By SW8015 Mod	Extracted: Jun-21-11 10:30 Analyzed: Jun-23-11 06:19 Units/RL: mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons	ND 15.1					
C12-C28 Diesel Range Hydrocarbons	110 15.1					
C28-C35 Oil Range Hydrocarbons	ND 15.1					
Total TPH	110 15.1					

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

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

Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(813) 620-2000	(813) 620-2033
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(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420221,

Project ID:

Lab Batch #: 861239

Sample: 605846-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/23/11 04:52		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		122	101	121	70-135	
o-Terphenyl		58.8	50.3	117	70-135	

Lab Batch #: 861239

Sample: 605846-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/23/11 05:22		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		125	101	124	70-135	
o-Terphenyl		65.7	50.3	131	70-135	

Lab Batch #: 861239

Sample: 605846-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/23/11 05:51		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		117	99.9	117	70-135	
o-Terphenyl		66.5	50.0	133	70-135	

Lab Batch #: 861239

Sample: 420221-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/23/11 06:19		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		106	99.7	106	70-135	
o-Terphenyl		57.7	49.9	116	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420221

Analyst: LATCOR

Lab Batch ID: 860625

Sample: 860625-1-BKS

Batch #: 1

Project ID:

Date Analyzed: 06/18/2011

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	10.2	102	10.0	10.2	102	0	75-125	20	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/23/2011

Lab Batch ID: 861239

Sample: 605846-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	921	91	1010	765	76	19	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	836	83	1010	790	78	6	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420221
Lab Batch #: 860625
Date Analyzed: 06/18/2011
QC- Sample ID: 420166-032 S
Reporting Units: mg/kg

Date Prepared: 06/18/2011

Project ID:
Analyst: LATCOR

Batch #: 1 Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	15.2	100	117	102	75-125	

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

- Below Reporting Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420221

Lab Batch #: 860625
Date Analyzed: 06/18/2011 02:06
QC- Sample ID: 420166-032 D
Reporting Units: mg/kg

Project ID:
Analyst: LATCOR
Date Prepared: 06/18/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	15.2	14.4	5	20	

Lab Batch #: 860867
Date Analyzed: 06/20/2011 11:00
QC- Sample ID: 420245-001 D
Reporting Units: %

Analyst: BRB
Date Prepared: 06/20/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.64	6.69	1	20	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420221
 Initials: SM

Sample Receipt Checklist

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

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 420222
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

24-JUN-11

Collected By: Client



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Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



24-JUN-11

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

Reference: XENCO Report No: **420222**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420222. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420222 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420222



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 15 G-1	S	Jun-14-11 12:15		420222-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 420222

Report Date: 24-JUN-11
Date Received: 06/16/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 420222
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Thu Jun-16-11 04:15 pm

Report Date: 24-JUN-11

Project Manager: Brent Barron, II

Analysis Requested	<i>Lab Id:</i>	420222-001				
	<i>Field Id:</i>	TZ Cell 15 G-1				
	<i>Depth:</i>					
	<i>Matrix:</i>	SOIL				
	<i>Sampled:</i>	Jun-14-11 12:15				
Anions by E300	<i>Extracted:</i>					
	<i>Analyzed:</i>	Jun-18-11 02:06				
	<i>Units/RL:</i>	mg/kg RL				
Chloride		64.1 43.2				
Percent Moisture	<i>Extracted:</i>					
	<i>Analyzed:</i>	Jun-20-11 11:00				
	<i>Units/RL:</i>	% RL				
Percent Moisture		2.89 1.00				
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-21-11 10:30				
	<i>Analyzed:</i>	Jun-23-11 06:49				
	<i>Units/RL:</i>	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 15.4				
C12-C28 Diesel Range Hydrocarbons		205 15.4				
C28-C35 Oil Range Hydrocarbons		ND 15.4				
Total TPH		205 15.4				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. 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

Brent Barron, II
 Odessa Laboratory 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(361) 884-0371	(361) 884-9116
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 420222,

Project ID:

Lab Batch #: 861239

Sample: 605846-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 04:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	101	121	70-135	
o-Terphenyl	58.8	50.3	117	70-135	

Lab Batch #: 861239

Sample: 605846-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 05:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	101	124	70-135	
o-Terphenyl	65.7	50.3	131	70-135	

Lab Batch #: 861239

Sample: 605846-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/11 05:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.9	117	70-135	
o-Terphenyl	66.5	50.0	133	70-135	

Lab Batch #: 861239

Sample: 420222-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/11 06:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.6	108	70-135	
o-Terphenyl	59.4	49.8	119	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420222

Analyst: LATCOR

Lab Batch ID: 860625

Sample: 860625-1-BKS

Batch #: 1

Project ID:

Date Analyzed: 06/18/2011

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	10.2	102	10.0	10.2	102	0	75-125	20	

Analyst: BEV

Date Prepared: 06/21/2011

Date Analyzed: 06/23/2011

Lab Batch ID: 861239

Sample: 605846-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	921	91	1010	765	76	19	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	836	83	1010	790	78	6	70-135	35	

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

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 420222

Lab Batch #: 860625

Date Analyzed: 06/18/2011

QC- Sample ID: 420166-032 S

Reporting Units: mg/kg

Date Prepared: 06/18/2011

Batch #: 1

Project ID:

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	15.2	100	117	102	75-125	

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

ND - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 420222

Lab Batch #: 860625
Date Analyzed: 06/18/2011 02:06
QC- Sample ID: 420166-032 D
Reporting Units: mg/kg

Project ID:
Analyst: LATCOR
Date Prepared: 06/18/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	15.2	14.4	5	20	

Lab Batch #: 860867
Date Analyzed: 06/20/2011 11:00
QC- Sample ID: 420245-001 D
Reporting Units: %

Analyst: BRB
Date Prepared: 06/20/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.64	6.69	1	20	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas
 Date/Time: 6-16-11 4:15
 Lab ID #: 420222
 Initials: XM

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>0.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 432384
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

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

Reference: XENCO Report No: **432384**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432384. 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.

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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.

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Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432384



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 1 G-1	S	11-28-11 12:00		432384-001
TZ Cell 1 G-2	S	11-28-11 12:05		432384-002
TZ Cell 1 G-3	S	11-28-11 12:10		432384-003
TZ Cell 1 G-4	S	11-28-11 12:15		432384-004
TZ Cell 1 G-5	S	11-28-11 12:20		432384-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:

Work Order Number: 432384

Report Date: 08-DEC-11

Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analy. Summary 432384
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 08-DEC-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432384-001	432384-002	432384-003	432384-004	432384-005	
	<i>Field Id:</i>	TZ Cell 1 G-1	TZ Cell 1 G-2	TZ Cell 1 G-3	TZ Cell 1 G-4	TZ Cell 1 G-5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Nov-28-11 12:00	Nov-28-11 12:05	Nov-28-11 12:10	Nov-28-11 12:15	Nov-28-11 12:20	
Inorganic Anions by EPA 300/300.1 SUB: E871002	<i>Extracted:</i>	Dec-05-11 17:23	Dec-05-11 17:38	Dec-05-11 17:52	Dec-05-11 18:07	Dec-05-11 18:21	
	<i>Analyzed:</i>	Dec-05-11 17:23	Dec-05-11 17:38	Dec-05-11 17:52	Dec-05-11 18:07	Dec-05-11 18:21	
	<i>Units/RL:</i>	mg/kg RL					
Chloride		45.7 6.38	27.7 5.15	306 5.18	309 5.16	214 5.14	
Percent Moisture SUB: E871002	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-02-11 13:00					
	<i>Units/RL:</i>	% RL					
Percent Moisture		21.6 1.00	2.92 1.00	3.48 1.00	3.05 1.00	2.72 1.00	
TPH By SW8015 Mod SUB: E871002	<i>Extracted:</i>	Dec-02-11 12:24	Dec-02-11 12:27	Dec-02-11 12:30	Dec-02-11 12:33	Dec-02-11 12:36	
	<i>Analyzed:</i>	Dec-02-11 22:18	Dec-02-11 23:04	Dec-02-11 23:27	Dec-02-11 23:50	Dec-03-11 00:13	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 19.1	ND 15.4	ND 15.5	ND 15.4	ND 15.4	
C12-C28 Diesel Range Hydrocarbons		ND 19.1	560 15.4	1110 15.5	1380 15.4	1720 15.4	
C28-C35 Oil Range Hydrocarbons		ND 19.1	196 15.4	359 15.5	376 15.4	655 15.4	
Total TPH		ND 19.1	756 15.4	1470 15.5	1760 15.4	2380 15.4	

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Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

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- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432384,

Project ID:

Lab Batch #: 876189

Sample: 432384-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 22:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.7	99.9	90	70-135	
o-Terphenyl	43.9	50.0	88	70-135	

Lab Batch #: 876189

Sample: 432384-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 23:04

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.4	99.8	88	70-135	
o-Terphenyl	41.9	49.9	84	70-135	

Lab Batch #: 876189

Sample: 432384-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 23:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.6	99.5	84	70-135	
o-Terphenyl	37.4	49.8	75	70-135	

Lab Batch #: 876189

Sample: 432384-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 23:50

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.0	99.7	86	70-135	
o-Terphenyl	42.2	49.9	85	70-135	

Lab Batch #: 876189

Sample: 432384-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 00:13

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.4	99.6	87	70-135	
o-Terphenyl	38.9	49.8	78	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432384,

Project ID:

Lab Batch #: 876189

Sample: 614872-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 03:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.9	100	98	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

Lab Batch #: 876189

Sample: 614872-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 17:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	236	200	118	70-135	
o-Terphenyl	106	100	106	70-135	

Lab Batch #: 876189

Sample: 432391-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 18:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.7	103	70-135	
o-Terphenyl	38.7	49.9	78	70-135	

Lab Batch #: 876189

Sample: 432391-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 18:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.5	99.6	94	70-135	
o-Terphenyl	39.4	49.8	79	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432384

Project ID:

Lab Batch #: 876331

Sample: 614996-1-BKS

Matrix: Solid

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<5.00	500	534	107	80-120	

Lab Batch #: 876189

Sample: 614872-1-BKS

Matrix: Solid

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
C6-C12 Gasoline Range Hydrocarbons	<15.0	3000	3030	101	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	3000	2890	96	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

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

UL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432384

Project ID:

Lab Batch ID: 876331

QC- Sample ID: 432384-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	214	514	713	97	514	712	97	0	80-120	20	

Lab Batch ID: 876331

QC- Sample ID: 432390-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	81.1	513	631	107	513	633	108	0	80-120	20	

Lab Batch ID: 876189

QC- Sample ID: 432391-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/02/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	988	98	1000	1020	102	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	151	1010	1020	86	1000	1190	104	15	70-135	35	

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

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

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

Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432384

Lab Batch #: 876164

Project ID:

Date Analyzed: 12/02/2011 13:00

Date Prepared: 12/02/2011

Analyst: MAB

QC- Sample ID: 432384-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	21.6	20.7	4	20	

Lab Batch #: 876164

Date Analyzed: 12/02/2011 13:00

Date Prepared: 12/02/2011

Analyst: MAB

QC- Sample ID: 432384-005 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.72	2.22	20	20	

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432384

Lab Batch #: 876164

Date Analyzed: 12/02/2011 13:00

Date Prepared: 12/02/2011

Project ID:

Analyst: MAB

QC- Sample ID: 432384-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	21.6	20.7	4	20	

Lab Batch #: 876164

Date Analyzed: 12/02/2011 13:00

Date Prepared: 12/02/2011

Analyst: MAB

QC- Sample ID: 432384-005 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.72	2.22	20	20	

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



XENCO Laboratories
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 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432384
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 432387

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

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

Reference: XENCO Report No: **432387**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432387. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432387 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432387



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 2 G-1	S	11-28-11 12:30		432387-001
TZ Cell 2 G-2	S	11-28-11 12:35		432387-002
TZ Cell 2 G-3	S	11-28-11 12:40		432387-003
TZ Cell 2 G-4	S	11-28-11 12:45		432387-004



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432387

Report Date: 08-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analy Summary 432387
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 08-DEC-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432387-001	432387-002	432387-003	432387-004		
	<i>Field Id:</i>	TZ Cell 2 G-1	TZ Cell 2 G-2	TZ Cell 2 G-3	TZ Cell 2 G-4		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Nov-28-11 12:30	Nov-28-11 12:35	Nov-28-11 12:40	Nov-28-11 12:45		
Inorganic Anions by EPA 300/300.1 SUB: E871002	<i>Extracted:</i>	Dec-05-11 19:04	Dec-05-11 19:47	Dec-05-11 20:02	Dec-05-11 20:16		
	<i>Analyzed:</i>	Dec-05-11 19:04	Dec-05-11 19:47	Dec-05-11 20:02	Dec-05-11 20:16		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		17.2 5.19	150 5.10	89.9 5.14	200 5.15		
Percent Moisture SUB: E871002	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-02-11 13:00	Dec-02-11 13:00	Dec-02-11 13:00	Dec-02-11 13:00		
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL		
Percent Moisture		3.61 1.00	2.01 1.00	2.63 1.00	2.88 1.00		
TPH By SW8015 Mod SUB: E871002	<i>Extracted:</i>	Dec-02-11 12:39	Dec-02-11 12:42	Dec-02-11 12:45	Dec-02-11 12:48		
	<i>Analyzed:</i>	Dec-03-11 00:36	Dec-03-11 01:00	Dec-03-11 01:23	Dec-03-11 01:46		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		ND 15.5	ND 15.3	ND 15.4	ND 15.4		
C12-C28 Diesel Range Hydrocarbons		1100 15.5	661 15.3	672 15.4	635 15.4		
C28-C35 Oil Range Hydrocarbons		421 15.5	280 15.3	304 15.4	283 15.4		
Total TPH		1520 15.5	941 15.3	976 15.4	918 15.4		

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

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Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432387,

Project ID:

Lab Batch #: 876189

Sample: 432387-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 00:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.7	99.4	83	70-135	
o-Terphenyl	38.6	49.7	78	70-135	

Lab Batch #: 876189

Sample: 432387-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 01:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.3	99.8	78	70-135	
o-Terphenyl	38.1	49.9	76	70-135	

Lab Batch #: 876189

Sample: 432387-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 01:23

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	99.9	86	70-135	
o-Terphenyl	39.2	50.0	78	70-135	

Lab Batch #: 876189

Sample: 432387-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 01:46

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.9	99.8	84	70-135	
o-Terphenyl	38.8	49.9	78	70-135	

Lab Batch #: 876189

Sample: 614872-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 03:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.9	100	98	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432387,

Project ID:

Lab Batch #: 876189

Sample: 614872-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 17:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	236	200	118	70-135	
o-Terphenyl	106	100	106	70-135	

Lab Batch #: 876189

Sample: 432391-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 18:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.7	103	70-135	
o-Terphenyl	38.7	49.9	78	70-135	

Lab Batch #: 876189

Sample: 432391-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 18:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.5	99.6	94	70-135	
o-Terphenyl	39.4	49.8	79	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Project Name: Southern Union Gas Landfarm

Work Order #: 432387

Project ID:

Lab Batch #: 876331

Sample: 614996-1-BKS

Matrix: Solid

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<5.00	500	534	107	80-120	

Lab Batch #: 876189

Sample: 614872-1-BKS

Matrix: Solid

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
C6-C12 Gasoline Range Hydrocarbons	<15.0	3000	3030	101	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	3000	2890	96	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

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

PL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432387

Project ID:

Lab Batch ID: 876331

QC- Sample ID: 432384-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	214	514	713	97	514	712	97	0	80-120	20	

Lab Batch ID: 876331

QC- Sample ID: 432390-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	81.1	513	631	107	513	633	108	0	80-120	20	

Lab Batch ID: 876189

QC- Sample ID: 432391-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/02/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	988	98	1000	1020	102	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	151	1010	1020	86	1000	1190	104	15	70-135	35	

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

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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432387

Lab Batch #: 876164

Project ID:

Date Analyzed: 12/02/2011 13:00

Date Prepared: 12/02/2011

Analyst: MAB

QC- Sample ID: 432384-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	21.6	20.7	4	20	

Lab Batch #: 876164

Date Analyzed: 12/02/2011 13:00

Date Prepared: 12/02/2011

Analyst: MAB

QC- Sample ID: 432384-005 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.72	2.22	20	20	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432384
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 432387

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

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

Reference: XENCO Report No: **432387**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432387. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432387 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432387



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 2 G-1	S	11-28-11 12:30		432387-001
TZ Cell 2 G-2	S	11-28-11 12:35		432387-002
TZ Cell 2 G-3	S	11-28-11 12:40		432387-003
TZ Cell 2 G-4	S	11-28-11 12:45		432387-004



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:

Work Order Number: 432387

Report Date: 08-DEC-11

Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analy Summary 432387

Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 08-DEC-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432387-001	432387-002	432387-003	432387-004		
	<i>Field Id:</i>	TZ Cell 2 G-1	TZ Cell 2 G-2	TZ Cell 2 G-3	TZ Cell 2 G-4		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Nov-28-11 12:30	Nov-28-11 12:35	Nov-28-11 12:40	Nov-28-11 12:45		
Inorganic Anions by EPA 300/300.1 SUB: E871002	<i>Extracted:</i>	Dec-05-11 19:04	Dec-05-11 19:47	Dec-05-11 20:02	Dec-05-11 20:16		
	<i>Analyzed:</i>	Dec-05-11 19:04	Dec-05-11 19:47	Dec-05-11 20:02	Dec-05-11 20:16		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		17.2 5.19	150 5.10	89.9 5.14	200 5.15		
Percent Moisture SUB: E871002	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-02-11 13:00	Dec-02-11 13:00	Dec-02-11 13:00	Dec-02-11 13:00		
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL		
Percent Moisture		3.61 1.00	2.01 1.00	2.63 1.00	2.88 1.00		
TPH By SW8015 Mod SUB: E871002	<i>Extracted:</i>	Dec-02-11 12:39	Dec-02-11 12:42	Dec-02-11 12:45	Dec-02-11 12:48		
	<i>Analyzed:</i>	Dec-03-11 00:36	Dec-03-11 01:00	Dec-03-11 01:23	Dec-03-11 01:46		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		ND 15.5	ND 15.3	ND 15.4	ND 15.4		
C12-C28 Diesel Range Hydrocarbons		1100 15.5	661 15.3	672 15.4	635 15.4		
C28-C35 Oil Range Hydrocarbons		421 15.5	280 15.3	304 15.4	283 15.4		
Total TPH		1520 15.5	941 15.3	976 15.4	918 15.4		

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

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Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432387,

Project ID:

Lab Batch #: 876189

Sample: 432387-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 00:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.7	99.4	83	70-135	
o-Terphenyl	38.6	49.7	78	70-135	

Lab Batch #: 876189

Sample: 432387-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 01:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.3	99.8	78	70-135	
o-Terphenyl	38.1	49.9	76	70-135	

Lab Batch #: 876189

Sample: 432387-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 01:23

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	99.9	86	70-135	
o-Terphenyl	39.2	50.0	78	70-135	

Lab Batch #: 876189

Sample: 432387-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 01:46

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.9	99.8	84	70-135	
o-Terphenyl	38.8	49.9	78	70-135	

Lab Batch #: 876189

Sample: 614872-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 03:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.9	100	98	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432387,

Project ID:

Lab Batch #: 876189

Sample: 614872-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 17:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	236	200	118	70-135	
o-Terphenyl	106	100	106	70-135	

Lab Batch #: 876189

Sample: 432391-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 18:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.7	103	70-135	
o-Terphenyl	38.7	49.9	78	70-135	

Lab Batch #: 876189

Sample: 432391-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 18:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.5	99.6	94	70-135	
o-Terphenyl	39.4	49.8	79	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432387

Project ID:

Lab Batch #: 876331

Sample: 614996-1-BKS

Matrix: Solid

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<5.00	500	534	107	80-120	

Lab Batch #: 876189

Sample: 614872-1-BKS

Matrix: Solid

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
C6-C12 Gasoline Range Hydrocarbons	<15.0	3000	3030	101	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	3000	2890	96	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

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

MDL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432387

Project ID:

Lab Batch ID: 876331

QC- Sample ID: 432384-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	214	514	713	97	514	712	97	0	80-120	20	

Lab Batch ID: 876331

QC- Sample ID: 432390-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	81.1	513	631	107	513	633	108	0	80-120	20	

Lab Batch ID: 876189

QC- Sample ID: 432391-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/02/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	988	98	1000	1020	102	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	151	1010	1020	86	1000	1190	104	15	70-135	35	

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

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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432387

Lab Batch #: 876164

Project ID:

Date Analyzed: 12/02/2011 13:00

Date Prepared: 12/02/2011

Analyst: MAB

QC- Sample ID: 432384-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	21.6	20.7	4	20	

Lab Batch #: 876164

Date Analyzed: 12/02/2011 13:00

Date Prepared: 12/02/2011

Analyst: MAB

QC- Sample ID: 432384-005 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.72	2.22	20	20	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14.37
 Lab ID #: 432387
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 432389

for Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

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

Reference: XENCO Report No: **432389**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432389. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432389 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432389



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 3 G-1	S	11-28-11 12:55		432389-001
TZ Cell 3 G-2	S	11-28-11 13:00		432389-002
TZ Cell 3 G-3	S	11-28-11 13:05		432389-003
TZ Cell 3 G-45	S	11-28-11 13:10		432389-004
TZ Cell 3 G-5	S	11-28-11 13:15		432389-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432389

Report Date: 08-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-876215 TPH by SW8015 Mod
SW8015MOD_NM

Batch 876215, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 432389-003, -004, -005, -001, -002.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits



Certificate of Analysis Summary 432389

Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 08-DEC-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432389-001	432389-002	432389-003	432389-004	432389-005	
	<i>Field Id:</i>	TZ Cell 3 G-1	TZ Cell 3 G-2	TZ Cell 3 G-3	TZ Cell 3 G-45	TZ Cell 3 G-5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Nov-28-11 12:55	Nov-28-11 13:00	Nov-28-11 13:05	Nov-28-11 13:10	Nov-28-11 13:15	
Inorganic Anions by EPA 300/300.1 SUB: E871002	<i>Extracted:</i>	Dec-05-11 20:31	Dec-05-11 20:45	Dec-05-11 20:59	Dec-05-11 21:14	Dec-05-11 21:28	
	<i>Analyzed:</i>	Dec-05-11 20:31	Dec-05-11 20:45	Dec-05-11 20:59	Dec-05-11 21:14	Dec-05-11 21:28	
	<i>Units/RL:</i>	mg/kg RL					
Chloride		13.2 5.12	45.2 5.12	16.5 5.07	50.7 5.09	21.6 5.10	
Percent Moisture SUB: E871002	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-02-11 13:00					
	<i>Units/RL:</i>	% RL					
Percent Moisture		2.43 1.00	2.38 1.00	1.35 1.00	1.69 1.00	2.03 1.00	
TPH By SW8015 Mod SUB: E871002	<i>Extracted:</i>	Dec-02-11 14:51	Dec-02-11 15:00	Dec-02-11 15:03	Dec-02-11 15:06	Dec-02-11 15:09	
	<i>Analyzed:</i>	Dec-03-11 04:05	Dec-03-11 05:15	Dec-03-11 05:39	Dec-03-11 06:02	Dec-03-11 06:25	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 15.3	ND 15.4	ND 15.2	ND 15.2	ND 15.2	
C12-C28 Diesel Range Hydrocarbons		3760 15.3	4790 15.4	4330 15.2	4070 15.2	4690 15.2	
C28-C35 Oil Range Hydrocarbons		870 15.3	913 15.4	1010 15.2	893 15.2	1020 15.2	
Total TPH		4630 15.3	5700 15.4	5340 15.2	4960 15.2	5710 15.2	

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

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Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

^ NELAC or State program does not offer Accreditation at this time.

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(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432389,

Project ID:

Lab Batch #: 876215

Sample: 432389-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 04:05

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.6	99.5	80	70-135	
o-Terphenyl	41.0	49.8	82	70-135	

Lab Batch #: 876215

Sample: 432389-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 05:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.9	99.9	81	70-135	
o-Terphenyl	41.2	50.0	82	70-135	

Lab Batch #: 876215

Sample: 432389-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 05:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.4	99.8	72	70-135	
o-Terphenyl	35.4	49.9	71	70-135	

Lab Batch #: 876215

Sample: 432389-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 06:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.6	99.6	77	70-135	
o-Terphenyl	52.9	49.8	106	70-135	

Lab Batch #: 876215

Sample: 432389-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 06:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.6	99.5	73	70-135	
o-Terphenyl	42.3	49.8	85	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432389,

Project ID:

Lab Batch #: 876215

Sample: 614882-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	47.7	50.0	95	70-135	

Lab Batch #: 876215

Sample: 614882-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 03:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

Lab Batch #: 876215

Sample: 432389-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 04:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	99.6	86	70-135	
o-Terphenyl	46.8	49.8	94	70-135	

Lab Batch #: 876215

Sample: 432389-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 04:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.9	99.7	89	70-135	
o-Terphenyl	43.3	49.9	87	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432389

Project ID:

Lab Batch #: 876331

Sample: 614996-1-BKS

Matrix: Solid

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300/300.1	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
Chloride	<5.00	500	534	107	80-120	

Lab Batch #: 876215

Sample: 614882-1-BKS

Matrix: Solid

Date Analyzed: 12/05/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY						
TPH By SW8015 Mod	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1050	105	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	946	95	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432389

Project ID:

Lab Batch ID: 876331

QC- Sample ID: 432384-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	214	514	713	97	514	712	97	0	80-120	20	

Lab Batch ID: 876331

QC- Sample ID: 432390-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	81.1	513	631	107	513	633	108	0	80-120	20	

Lab Batch ID: 876215

QC- Sample ID: 432389-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.3	1020	1090	107	1020	1110	109	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	3760	1020	4220	45	1020	4280	51	1	70-135	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432389

Lab Batch #: 876164

Project ID:

Date Analyzed: 12/02/2011 13:00

Date Prepared: 12/02/2011

Analyst: MAB

QC- Sample ID: 432384-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	21.6	20.7	4	20	

Lab Batch #: 876164

Date Analyzed: 12/02/2011 13:00

Date Prepared: 12/02/2011

Analyst: MAB

QC- Sample ID: 432384-005 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.72	2.22	20	20	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432389
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 432390
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

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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)



08-DEC-11

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

Reference: XENCO Report No: **432390**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432390. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432390 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432390



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 4 G-1	S	11-28-11 13:25		432390-001
TZ Cell 4 G-2	S	11-28-11 13:30		432390-002
TZ Cell 4 G-3	S	11-28-11 13:35		432390-003
TZ Cell 4 G-4	S	11-28-11 13:40		432390-004
TZ Cell 4 G-5	S	11-28-11 13:45		432390-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432390

Report Date: 08-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-876215 TPH by SW8015 Mod
SW8015MOD_NM

Batch 876215, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 432390-002, -003, -004, -001, -005.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits



Certificate of Analy. Summary 432390
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:
Contact: Rose Slade
Project Location: Lea County, NM

Date Received in Lab: Wed Nov-30-11 02:37 pm
Report Date: 08-DEC-11
Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432390-001	432390-002	432390-003	432390-004	432390-005	
	<i>Field Id:</i>	TZ Cell 4 G-1	TZ Cell 4 G-2	TZ Cell 4 G-3	TZ Cell 4 G-4	TZ Cell 4 G-5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Nov-28-11 13:25	Nov-28-11 13:30	Nov-28-11 13:35	Nov-28-11 13:40	Nov-28-11 13:45	
Inorganic Anions by EPA 300/300.1 SUB: E871002	<i>Extracted:</i>	Dec-05-11 21:43	Dec-05-11 21:57	Dec-05-11 22:40	Dec-05-11 22:55	Dec-05-11 23:09	
	<i>Analyzed:</i>	Dec-05-11 21:43	Dec-05-11 21:57	Dec-05-11 22:40	Dec-05-11 22:55	Dec-05-11 23:09	
	<i>Units/RL:</i>	mg/kg RL					
Chloride		33.6 5.08	22.5 5.09	76.3 5.11	12.2 5.10	81.1 5.13	
Percent Moisture SUB: E871002	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-02-11 13:00					
	<i>Units/RL:</i>	% RL					
Percent Moisture		1.58 1.00	1.71 1.00	2.10 1.00	1.90 1.00	2.53 1.00	
TPH By SW8015 Mod SUB: E871002	<i>Extracted:</i>	Dec-02-11 15:12	Dec-02-11 15:15	Dec-02-11 15:18	Dec-02-11 15:21	Dec-02-11 15:24	
	<i>Analyzed:</i>	Dec-03-11 06:48	Dec-03-11 07:12	Dec-03-11 07:35	Dec-05-11 13:37	Dec-03-11 08:22	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 15.2	ND 15.2	ND 15.2	ND 15.2	ND 15.3	
C12-C28 Diesel Range Hydrocarbons		3270 15.2	4270 15.2	3470 15.2	6420 15.2	3540 15.3	
C28-C35 Oil Range Hydrocarbons		779 15.2	1050 15.2	764 15.2	1750 15.2	868 15.3	
Total TPH		4050 15.2	5320 15.2	4230 15.2	8170 15.2	4410 15.3	

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

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Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- * Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432390,

Project ID:

Lab Batch #: 876215

Sample: 432390-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 06:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.6	99.8	78	70-135	
o-Terphenyl	37.6	49.9	75	70-135	

Lab Batch #: 876215

Sample: 432390-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 07:12

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.6	99.6	73	70-135	
o-Terphenyl	39.7	49.8	80	70-135	

Lab Batch #: 876215

Sample: 432390-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 07:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.2	99.5	79	70-135	
o-Terphenyl	39.9	49.8	80	70-135	

Lab Batch #: 876215

Sample: 432390-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 08:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.8	99.6	75	70-135	
o-Terphenyl	39.0	49.8	78	70-135	

Lab Batch #: 876215

Sample: 432390-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 13:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.0	99.4	91	70-135	
o-Terphenyl	44.1	49.7	89	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432390,

Project ID:

Lab Batch #: 876215

Sample: 614882-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	47.7	50.0	95	70-135	

Lab Batch #: 876215

Sample: 614882-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 03:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

Lab Batch #: 876215

Sample: 432389-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 04:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	99.6	86	70-135	
o-Terphenyl	46.8	49.8	94	70-135	

Lab Batch #: 876215

Sample: 432389-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 04:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.9	99.7	89	70-135	
o-Terphenyl	43.3	49.9	87	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432390

Project ID:

Lab Batch #: 876331

Sample: 614996-1-BKS

Matrix: Solid

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
Chloride	<5.00	500	534	107	80-120	

Lab Batch #: 876215

Sample: 614882-1-BKS

Matrix: Solid

Date Analyzed: 12/05/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1050	105	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	946	95	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

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

RL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432390

Project ID:

Lab Batch ID: 876331

QC- Sample ID: 432384-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	214	514	713	97	514	712	97	0	80-120	20	

Lab Batch ID: 876331

QC- Sample ID: 432390-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	81.1	513	631	107	513	633	108	0	80-120	20	

Lab Batch ID: 876215

QC- Sample ID: 432389-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.3	1020	1090	107	1020	1110	109	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	3760	1020	4220	45	1020	4280	51	1	70-135	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432390

Lab Batch #: 876164

Project ID:

Date Analyzed: 12/02/2011 13:00

Date Prepared: 12/02/2011

Analyst: MAB

QC- Sample ID: 432384-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	21.6	20.7	4	20	

Lab Batch #: 876164

Date Analyzed: 12/02/2011 13:00

Date Prepared: 12/02/2011

Analyst: MAB

QC- Sample ID: 432384-005 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.72	2.22	20	20	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11:30:11 14:37
 Lab ID #: 432390
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<input checked="" type="radio"/> Water	No	
2. Shipping container in good condition?	<input checked="" type="radio"/> Yes	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<input checked="" type="radio"/> Yes	No	N/A	
4. Chain of Custody present?	<input checked="" type="radio"/> Yes	No		
5. Sample instructions complete on chain of custody?	<input checked="" type="radio"/> Yes	No		
6. Any missing / extra samples?	Yes	<input checked="" type="radio"/> No		
7. Chain of custody signed when relinquished / received?	<input checked="" type="radio"/> Yes	No		
8. Chain of custody agrees with sample label(s)?	<input checked="" type="radio"/> Yes	No		
9. Container labels legible and intact?	<input checked="" type="radio"/> Yes	No		
10. Sample matrix / properties agree with chain of custody?	<input checked="" type="radio"/> Yes	No		
11. Samples in proper container / bottle?	<input checked="" type="radio"/> Yes	No		
12. Samples properly preserved?	<input checked="" type="radio"/> Yes	No	N/A	
13. Sample container intact?	<input checked="" type="radio"/> Yes	No		
14. Sufficient sample amount for indicated test(s)?	<input checked="" type="radio"/> Yes	No		
15. All samples received within sufficient hold time?	<input checked="" type="radio"/> Yes	No		
16. Subcontract of sample(s)?	<input checked="" type="radio"/> Yes	No	N/A	
17. VOC sample have zero head space?	<input checked="" type="radio"/> Yes	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 432391
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



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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)

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Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

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

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

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

Reference: XENCO Report No: **432391**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432391. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432391 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432391



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 5 G-1	S	11-28-11 13:55		432391-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:

Work Order Number: 432391

Report Date: 08-DEC-11

Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analy. Summary 432391
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 08-DEC-11

Project Manager: Brent Barron II

Analysis Requested	<i>Lab Id:</i>	432391-001					
	<i>Field Id:</i>	TZ Cell 5 G-1					
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL					
	<i>Sampled:</i>	Nov-28-11 13:55					
Inorganic Anions by EPA 300/300.1 SUB: E871002	<i>Extracted:</i>	Dec-06-11 00:50					
	<i>Analyzed:</i>	Dec-06-11 00:50					
	<i>Units/RL:</i>	mg/kg RL					
Chloride		ND 5.04					
Percent Moisture SUB: E871002	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-02-11 13:00					
	<i>Units/RL:</i>	% RL					
Percent Moisture		ND 1.00					
TPH By SW8015 Mod SUB: E871002	<i>Extracted:</i>	Dec-02-11 11:51					
	<i>Analyzed:</i>	Dec-02-11 18:06					
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 15.1					
C12-C28 Diesel Range Hydrocarbons		151 15.1					
C28-C35 Oil Range Hydrocarbons		196 15.1					
Total TPH		347 15.1					

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

Brent Barron II
Odessa Laboratory 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.
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- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432391,

Project ID:

Lab Batch #: 876189

Sample: 432391-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 18:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.8	99.8	83	70-135	
o-Terphenyl	38.3	49.9	77	70-135	

Lab Batch #: 876189

Sample: 614872-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 03:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.9	100	98	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

Lab Batch #: 876189

Sample: 614872-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 17:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	236	200	118	70-135	
o-Terphenyl	106	100	106	70-135	

Lab Batch #: 876189

Sample: 432391-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 18:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.7	103	70-135	
o-Terphenyl	38.7	49.9	78	70-135	

Lab Batch #: 876189

Sample: 432391-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 18:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.5	99.6	94	70-135	
o-Terphenyl	39.4	49.8	79	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432391

Project ID:

Lab Batch #: 876333

Sample: 614997-1-BKS

Matrix: Solid

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<5.00	500	482	96	80-120	

Lab Batch #: 876189

Sample: 614872-1-BKS

Matrix: Solid

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
C6-C12 Gasoline Range Hydrocarbons	<15.0	3000	3030	101	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	3000	2890	96	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

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

BRL - Below Reporting Limit



Form 3 - 1 / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432391

Project ID:

Lab Batch ID: 876333

QC- Sample ID: 432403-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	77.5	519	609	102	519	663	113	8	80-120	20	

Lab Batch ID: 876333

QC- Sample ID: 432404-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	138	512	632	96	512	633	97	0	80-120	20	

Lab Batch ID: 876189

QC- Sample ID: 432391-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/02/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	988	98	1000	1020	102	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	151	1010	1020	86	1000	1190	104	15	70-135	35	

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

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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432391

Lab Batch #: 876164
Date Analyzed: 12/02/2011 13:00
QC- Sample ID: 432384-001 D
Reporting Units: %

Project ID:
Analyst: MAB
Date Prepared: 12/02/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	21.6	20.7	4	20	

Lab Batch #: 876164
Date Analyzed: 12/02/2011 13:00
QC- Sample ID: 432384-005 D
Reporting Units: %

Project ID:
Analyst: MAB
Date Prepared: 12/02/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.72	2.22	20	20	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432391
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>20</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 432393

for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

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

Reference: XENCO Report No: **432393**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

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Sample Cross Reference 432393



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 6 G-1	S	11-28-11 14:05		432393-001
TZ Cell 6 G-2	S	11-28-11 14:10		432393-002



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432393

Report Date: 08-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 432393
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 08-DEC-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432393-001	432393-002				
	<i>Field Id:</i>	TZ Cell 6 G-1	TZ Cell 6 G-2				
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL				
	<i>Sampled:</i>	Nov-28-11 14:05	Nov-28-11 14:10				
Inorganic Anions by EPA 300/300.1 SUB: E871002	<i>Extracted:</i>	Dec-06-11 01:04	Dec-06-11 01:19				
	<i>Analyzed:</i>	Dec-06-11 01:04	Dec-06-11 01:19				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		20.4 5.14	86.2 5.12				
Percent Moisture SUB: E871002	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-03-11 13:00	Dec-03-11 13:00				
	<i>Units/RL:</i>	% RL	% RL				
Percent Moisture		2.65 1.00	2.39 1.00				
TPH By SW8015 Mod SUB: E871002	<i>Extracted:</i>	Dec-02-11 12:51	Dec-02-11 12:54				
	<i>Analyzed:</i>	Dec-03-11 02:09	Dec-03-11 02:32				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 15.3	ND 15.3				
C12-C28 Diesel Range Hydrocarbons		333 15.3	297 15.3				
C28-C35 Oil Range Hydrocarbons		182 15.3	147 15.3				
Total TPH		515 15.3	444 15.3				

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Brent Barron II
Odessa Laboratory Manager

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432393,

Project ID:

Lab Batch #: 876189

Sample: 432393-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 02:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.0	99.6	85	70-135	
o-Terphenyl	38.4	49.8	77	70-135	

Lab Batch #: 876189

Sample: 432393-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 02:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.3	99.5	81	70-135	
o-Terphenyl	36.7	49.8	74	70-135	

Lab Batch #: 876189

Sample: 614872-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 03:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.9	100	98	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

Lab Batch #: 876189

Sample: 614872-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 17:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	236	200	118	70-135	
o-Terphenyl	106	100	106	70-135	

Lab Batch #: 876189

Sample: 432391-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 18:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.7	103	70-135	
o-Terphenyl	38.7	49.9	78	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432393,

Lab Batch #: 876189

Sample: 432391-001 SD / MSD

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 18:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.5	99.6	94	70-135	
o-Terphenyl	39.4	49.8	79	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432393

Project ID:

Lab Batch #: 876333

Sample: 614997-1-BKS

Matrix: Solid

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
Chloride	<5.00	500	482	96	80-120	

Lab Batch #: 876189

Sample: 614872-1-BKS

Matrix: Solid

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
C6-C12 Gasoline Range Hydrocarbons	<15.0	3000	3030	101	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	3000	2890	96	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

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

RL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432393

Project ID:

Lab Batch ID: 876333

QC- Sample ID: 432403-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	77.5	519	609	102	519	663	113	8	80-120	20	

Lab Batch ID: 876333

QC- Sample ID: 432404-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	138	512	632	96	512	633	97	0	80-120	20	

Lab Batch ID: 876189

QC- Sample ID: 432391-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/02/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	988	98	1000	1020	102	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	151	1010	1020	86	1000	1190	104	15	70-135	35	

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

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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432393

Lab Batch #: 876165

Project ID:

Date Analyzed: 12/03/2011 13:00

Date Prepared: 12/03/2011

Analyst: MAB

QC- Sample ID: 432393-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.65	2.68	1	20	

Lab Batch #: 876165

Date Analyzed: 12/03/2011 13:00

Date Prepared: 12/03/2011

Analyst: MAB

QC- Sample ID: 432454-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	28.0	28.0	0	20	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432393
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 432399
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



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12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

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

Reference: XENCO Report No: **432399**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432399. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432399 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432399



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 7 G-1	S	11-28-11 14:20		432399-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432399

Report Date: 08-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-876215 TPH by SW8015 Mod
SW8015MOD_NM

Batch 876215, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 432399-001.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits



Certificate of Analy Summary 432399
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 08-DEC-11

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Project Manager: Brent Barron II

Analysis Requested	<i>Lab Id:</i>	432399-001					
	<i>Field Id:</i>	TZ Cell 7 G-1					
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL					
	<i>Sampled:</i>	Nov-28-11 14:20					
Inorganic Anions by EPA 300/300.1 SUB: E871002	<i>Extracted:</i>	Dec-06-11 01:33					
	<i>Analyzed:</i>	Dec-06-11 01:33					
	<i>Units/RL:</i>	mg/kg RL					
Chloride		11.4 5.18					
Percent Moisture SUB: E871002	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-03-11 13:00					
	<i>Units/RL:</i>	% RL					
Percent Moisture		3.51 1.00					
TPH By SW8015 Mod SUB: E871002	<i>Extracted:</i>	Dec-02-11 15:27					
	<i>Analyzed:</i>	Dec-03-11 09:09					
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 15.5					
C12-C28 Diesel Range Hydrocarbons		535 15.5					
C28-C35 Oil Range Hydrocarbons		202 15.5					
Total TPH		737 15.5					

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

Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432399,

Project ID:

Lab Batch #: 876215

Sample: 432399-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 09:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.2	99.8	80	70-135	
o-Terphenyl	36.2	49.9	73	70-135	

Lab Batch #: 876215

Sample: 614882-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	47.7	50.0	95	70-135	

Lab Batch #: 876215

Sample: 614882-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 03:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

Lab Batch #: 876215

Sample: 432389-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 04:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	99.6	86	70-135	
o-Terphenyl	46.8	49.8	94	70-135	

Lab Batch #: 876215

Sample: 432389-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 04:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.9	99.7	89	70-135	
o-Terphenyl	43.3	49.9	87	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432399

Project ID:

Lab Batch #: 876333

Sample: 614997-1-BKS

Matrix: Solid

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
Chloride	<5.00	500	482	96	80-120	

Lab Batch #: 876215

Sample: 614882-1-BKS

Matrix: Solid

Date Analyzed: 12/05/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1050	105	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	946	95	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432399

Project ID:

Lab Batch ID: 876333

QC- Sample ID: 432403-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	77.5	519	609	102	519	663	113	8	80-120	20	

Lab Batch ID: 876333

QC- Sample ID: 432404-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	138	512	632	96	512	633	97	0	80-120	20	

Lab Batch ID: 876215

QC- Sample ID: 432389-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.3	1020	1090	107	1020	1110	109	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	3760	1020	4220	45	1020	4280	51	1	70-135	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432399

Lab Batch #: 876165
Date Analyzed: 12/03/2011 13:00
QC- Sample ID: 432393-001 D

Date Prepared: 12/03/2011
Batch #: 1

Project ID:
Analyst: MAB
Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.65	2.68	1	20	

Lab Batch #: 876165
Date Analyzed: 12/03/2011 13:00
QC- Sample ID: 432454-001 D

Date Prepared: 12/03/2011
Batch #: 1

Analyst: MAB
Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	28.0	28.0	0	20	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432399
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VDC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 432402
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

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

Reference: XENCO Report No: **432402**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432402. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432402 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432402



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 8 G-1	S	11-28-11 14:30		432402-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432402

Report Date: 08-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-876215 TPH by SW8015 Mod
SW8015MOD_NM

Batch 876215, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 432402-001.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits



Certificate of Analy Summary 432402
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 08-DEC-11

Project Manager: Brent Barron II

Analysis Requested	<i>Lab Id:</i>	432402-001				
	<i>Field Id:</i>	TZ Cell 8 G-1				
	<i>Depth:</i>					
	<i>Matrix:</i>	SOIL				
	<i>Sampled:</i>	Nov-28-11 14:30				
Inorganic Anions by EPA 300/300.1 SUB: E871002	<i>Extracted:</i>	Dec-06-11 01:48				
	<i>Analyzed:</i>	Dec-06-11 01:48				
	<i>Units/RL:</i>	mg/kg RL				
Chloride		140 5.12				
Percent Moisture SUB: E871002	<i>Extracted:</i>					
	<i>Analyzed:</i>	Dec-03-11 13:00				
	<i>Units/RL:</i>	% RL				
Percent Moisture		2.36 1.00				
TPH By SW8015 Mod SUB: E871002	<i>Extracted:</i>	Dec-02-11 15:30				
	<i>Analyzed:</i>	Dec-05-11 14:31				
	<i>Units/RL:</i>	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 15.3				
C12-C28 Diesel Range Hydrocarbons		208 15.3				
C28-C35 Oil Range Hydrocarbons		83.4 15.3				
Total TPH		291 15.3				

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

Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

^ NELAC or State program does not offer Accreditation at this time.

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2505 North Falkenburg Rd, Tampa, FL 33619
5757 NW 158th St, Miami Lakes, FL 33014
12600 West I-20 East, Odessa, TX 79765
6017 Financial Drive, Norcross, GA 30071
3725 E. Atlanta Ave, Phoenix, AZ 85040

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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432402,

Project ID:

Lab Batch #: 876215

Sample: 432402-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 14:31

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.4	99.6	78	70-135	
o-Terphenyl	35.5	49.8	71	70-135	

Lab Batch #: 876215

Sample: 614882-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	47.7	50.0	95	70-135	

Lab Batch #: 876215

Sample: 614882-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 03:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

Lab Batch #: 876215

Sample: 432389-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 04:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	99.6	86	70-135	
o-Terphenyl	46.8	49.8	94	70-135	

Lab Batch #: 876215

Sample: 432389-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 04:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.9	99.7	89	70-135	
o-Terphenyl	43.3	49.9	87	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432402

Project ID:

Lab Batch #: 876333

Sample: 614997-1-BKS

Matrix: Solid

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
Chloride	<5.00	500	482	96	80-120	

Lab Batch #: 876215

Sample: 614882-1-BKS

Matrix: Solid

Date Analyzed: 12/05/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1050	105	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	946	95	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

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

BRL - Below Reporting Limit



Form 3 - N. MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432402

Project ID:

Lab Batch ID: 876333

QC- Sample ID: 432403-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	77.5	519	609	102	519	663	113	8	80-120	20	

Lab Batch ID: 876333

QC- Sample ID: 432404-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	138	512	632	96	512	633	97	0	80-120	20	

Lab Batch ID: 876215

QC- Sample ID: 432389-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.3	1020	1090	107	1020	1110	109	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	3760	1020	4220	45	1020	4280	51	1	70-135	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432402

Lab Batch #: 876165
Date Analyzed: 12/03/2011 13:00
QC- Sample ID: 432393-001 D

Date Prepared: 12/03/2011
Batch #: 1

Project ID:
Analyst: MAB
Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.65	2.68	1	20	

Lab Batch #: 876165
Date Analyzed: 12/03/2011 13:00
QC- Sample ID: 432454-001 D

Date Prepared: 12/03/2011
Batch #: 1

Analyst: MAB
Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	28.0	28.0	0	20	

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

BRL - Below Reporting Limit



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432402
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>20</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 432403

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

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

Reference: XENCO Report No: **432403**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432403. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432403 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432403



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 9 G-1	S	11-28-11 14:40		432403-001
TZ Cell 9 G-2	S	11-28-11 14:45		432403-002
TZ Cell 9 G-3	S	11-28-11 14:50		432403-003
TZ Cell 9 G-4	S	11-28-11 14:55		432403-004
TZ Cell 9 G-5	S	11-28-11 15:00		432403-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432403

Report Date: 08-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-876215 TPH by SW8015 Mod
SW8015MOD_NM

Batch 876215, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 432403-001, -003, -004, -005, -002.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits



Certificate of Analysis Summary 432403
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:
Contact: Rose Slade
Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm
Report Date: 08-DEC-11
Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432403-001	432403-002	432403-003	432403-004	432403-005	
	<i>Field Id:</i>	TZ Cell 9 G-1	TZ Cell 9 G-2	TZ Cell 9 G-3	TZ Cell 9 G-4	TZ Cell 9 G-5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Nov-28-11 14:40	Nov-28-11 14:45	Nov-28-11 14:50	Nov-28-11 14:55	Nov-28-11 15:00	
Inorganic Anions by EPA 300/300.1 SUB: E871002	<i>Extracted:</i>	Dec-06-11 02:02	Dec-06-11 02:16	Dec-06-11 02:31	Dec-06-11 12:07	Dec-06-11 03:29	
	<i>Analyzed:</i>	Dec-06-11 02:02	Dec-06-11 02:16	Dec-06-11 02:31	Dec-06-11 12:07	Dec-06-11 03:29	
	<i>Units/RL:</i>	mg/kg RL					
Chloride		145 5.15	218 5.10	130 5.16	87.0 5.06	77.5 5.19	
Percent Moisture SUB: E871002	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-03-11 13:00					
	<i>Units/RL:</i>	% RL					
Percent Moisture		2.93 1.00	1.94 1.00	3.02 1.00	ND 1.00	3.65 1.00	
TPH By SW8015 Mod SUB: E871002	<i>Extracted:</i>	Dec-02-11 15:33	Dec-02-11 15:36	Dec-02-11 15:39	Dec-02-11 15:42	Dec-02-11 15:45	
	<i>Analyzed:</i>	Dec-03-11 09:55	Dec-03-11 10:18	Dec-03-11 10:41	Dec-03-11 11:04	Dec-03-11 11:28	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 15.4	ND 15.3	ND 15.4	ND 15.1	ND 15.6	
C12-C28 Diesel Range Hydrocarbons		391 15.4	828 15.3	279 15.4	531 15.1	305 15.6	
C28-C35 Oil Range Hydrocarbons		307 15.4	286 15.3	187 15.4	271 15.1	200 15.6	
Total TPH		698 15.4	1110 15.3	466 15.4	802 15.1	505 15.6	

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.

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Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
 - B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
 - D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
 - E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
 - F** RPD exceeded lab control limits.
 - J** The target analyte was positively identified below the quantitation limit and above the detection limit.
 - U** Analyte was not detected.
 - L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
 - H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
 - K** Sample analyzed outside of recommended hold time.
 - JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- * Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

^ NELAC or State program does not offer Accreditation at this time.

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5757 NW 158th St, Miami Lakes, FL 33014
12600 West 1-20 East, Odessa, TX 79765
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(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432403,

Project ID:

Lab Batch #: 876215

Sample: 432403-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 09:55

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.7	99.7	78	70-135	
o-Terphenyl	40.1	49.9	80	70-135	

Lab Batch #: 876215

Sample: 432403-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 10:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.7	99.8	80	70-135	
o-Terphenyl	40.4	49.9	81	70-135	

Lab Batch #: 876215

Sample: 432403-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 10:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.7	99.5	82	70-135	
o-Terphenyl	40.3	49.8	81	70-135	

Lab Batch #: 876215

Sample: 432403-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 11:04

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.8	99.6	77	70-135	
o-Terphenyl	39.9	49.8	80	70-135	

Lab Batch #: 876215

Sample: 432403-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 11:28

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.1	99.9	85	70-135	
o-Terphenyl	39.5	50.0	79	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432403,

Project ID:

Lab Batch #: 876215

Sample: 614882-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	47.7	50.0	95	70-135	

Lab Batch #: 876215

Sample: 614882-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 03:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

Lab Batch #: 876215

Sample: 432389-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 04:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	99.6	86	70-135	
o-Terphenyl	46.8	49.8	94	70-135	

Lab Batch #: 876215

Sample: 432389-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 04:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.9	99.7	89	70-135	
o-Terphenyl	43.3	49.9	87	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432403

Project ID:

Lab Batch #: 876333

Sample: 614997-1-BKS

Matrix: Solid

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<5.00	500	482	96	80-120	

Lab Batch #: 876334

Sample: 614998-1-BKS

Matrix: Solid

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<5.00	500	524	105	80-120	

Lab Batch #: 876215

Sample: 614882-1-BKS

Matrix: Solid

Date Analyzed: 12/05/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1050	105	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	946	95	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

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

RL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432403

Project ID:

Lab Batch ID: 876333

QC- Sample ID: 432403-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	77.5	519	609	102	519	663	113	8	80-120	20	

Lab Batch ID: 876333

QC- Sample ID: 432404-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	138	512	632	96	512	633	97	0	80-120	20	

Lab Batch ID: 876334

QC- Sample ID: 432427-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	23.0	530	574	104	530	578	105	1	80-120	20	

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

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

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



Form 3 - M.S.D. Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432403

Project ID:

Lab Batch ID: 876215

QC- Sample ID: 432389-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.3	1020	1090	107	1020	1110	109	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	3760	1020	4220	45	1020	4280	51	1	70-135	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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432403

Lab Batch #: 876165
Date Analyzed: 12/03/2011 13:00
QC- Sample ID: 432393-001 D

Date Prepared: 12/03/2011
Batch #: 1

Project ID:
Analyst: MAB
Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.65	2.68	1	20	

Lab Batch #: 876165
Date Analyzed: 12/03/2011 13:00
QC- Sample ID: 432454-001 D

Date Prepared: 12/03/2011
Batch #: 1

Analyst: MAB
Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	28.0	28.0	0	20	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432403
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 432404
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



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12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

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

Reference: XENCO Report No: **432404**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432404. 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.

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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,

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Sample Cross Reference 432404



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 10 G-1	S	11-28-11 15:10		432404-001
TZ Cell 10 G-2	S	11-28-11 15:15		432404-002
TZ Cell 10 G-3	S	11-28-11 15:20		432404-003
TZ Cell 10 G-4	S	11-28-11 15:25		432404-004



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432404

Report Date: 08-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 432404
Southern Union Gas Services- Monahans, Monahans, TX
Project Name: Southern Union Gas Landfarm



Project Id:
Contact: Rose Slade
Project Location: Lea County, NM

Date Received in Lab: Wed Nov-30-11 02:37 pm
Report Date: 08-DEC-11
Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432404-001	432404-002	432404-003	432404-004		
	<i>Field Id:</i>	TZ Cell 10 G-1	TZ Cell 10 G-2	TZ Cell 10 G-3	TZ Cell 10 G-4		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Nov-28-11 15:10	Nov-28-11 15:15	Nov-28-11 15:20	Nov-28-11 15:25		
Inorganic Anions by EPA 300/300.1 SUB: E871002	<i>Extracted:</i>	Dec-06-11 04:12	Dec-06-11 04:26	Dec-06-11 04:41	Dec-06-11 04:55		
	<i>Analyzed:</i>	Dec-06-11 04:12	Dec-06-11 04:26	Dec-06-11 04:41	Dec-06-11 04:55		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		14.3 5.19	24.3 5.11	21.8 5.08	138 5.12		
Percent Moisture SUB: E871002	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-03-11 13:00	Dec-03-11 13:00	Dec-03-11 13:00	Dec-03-11 13:00		
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL		
Percent Moisture		3.57 1.00	2.10 1.00	1.52 1.00	2.34 1.00		
TPH By SW8015 Mod SUB: E871002	<i>Extracted:</i>	Dec-02-11 13:21	Dec-02-11 13:30	Dec-02-11 13:33	Dec-02-11 13:36		
	<i>Analyzed:</i>	Dec-03-11 13:47	Dec-03-11 14:56	Dec-03-11 15:20	Dec-03-11 15:43		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		ND 15.5	ND 15.3	ND 15.2	ND 15.3		
C12-C28 Diesel Range Hydrocarbons		671 15.5	324 15.3	269 15.2	767 15.3		
C28-C35 Oil Range Hydrocarbons		246 15.5	154 15.3	152 15.2	246 15.3		
Total TPH		917 15.5	478 15.3	421 15.2	1010 15.3		

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

Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432404,

Project ID:

Lab Batch #: 876221

Sample: 432404-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 13:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.8	99.6	83	70-135	
o-Terphenyl	39.4	49.8	79	70-135	

Lab Batch #: 876221

Sample: 432404-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 14:56

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.8	99.6	83	70-135	
o-Terphenyl	40.6	49.8	82	70-135	

Lab Batch #: 876221

Sample: 432404-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 15:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.6	99.7	87	70-135	
o-Terphenyl	41.5	49.9	83	70-135	

Lab Batch #: 876221

Sample: 432404-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 15:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.6	99.9	89	70-135	
o-Terphenyl	40.2	50.0	80	70-135	

Lab Batch #: 876221

Sample: 614879-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 13:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	100	96	70-135	
o-Terphenyl	45.8	50.0	92	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432404,

Project ID:

Lab Batch #: 876221

Sample: 614879-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 13:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	48.7	50.0	97	70-135	

Lab Batch #: 876221

Sample: 432404-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 14:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.3	99.5	87	70-135	
o-Terphenyl	41.3	49.8	83	70-135	

Lab Batch #: 876221

Sample: 432404-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 14:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.8	100	91	70-135	
o-Terphenyl	44.7	50.0	89	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432404

Project ID:

Lab Batch #: 876333

Sample: 614997-1-BKS

Matrix: Solid

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<5.00	500	482	96	80-120	

Lab Batch #: 876221

Sample: 614879-1-BKS

Matrix: Solid

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1050	105	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	924	92	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

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

RL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432404

Project ID:

Lab Batch ID: 876333

QC- Sample ID: 432403-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	77.5	519	609	102	519	663	113	8	80-120	20	

Lab Batch ID: 876333

QC- Sample ID: 432404-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	138	512	632	96	512	633	97	0	80-120	20	

Lab Batch ID: 876221

QC- Sample ID: 432404-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.5	1030	972	94	1040	992	95	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	671	1030	1560	86	1040	1610	90	3	70-135	35	

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

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

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



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432404

Lab Batch #: 876165

Project ID:

Date Analyzed: 12/03/2011 13:00

Date Prepared: 12/03/2011

Analyst: MAB

QC- Sample ID: 432393-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.65	2.68	1	20	

Lab Batch #: 876165

Date Analyzed: 12/03/2011 13:00

Date Prepared: 12/03/2011

Analyst: MAB

QC- Sample ID: 432454-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	28.0	28.0	0	20	

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



XENCO Laboratories
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 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432404
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 432407

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

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

Reference: XENCO Report No: **432407**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432407. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432407 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432407



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 11 G-1	S	11-28-11 15:35		432407-001
TZ Cell 11 G-2	S	11-28-11 15:40		432407-002



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432407

Report Date: 08-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-876215 TPH by SW8015 Mod
SW8015MOD_NM

Batch 876215, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate:

Samples affected are: 432407-002, -001.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits



Certificate of Analysis Summary 432407
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 08-DEC-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432407-001	432407-002				
	<i>Field Id:</i>	TZ Cell 11 G-1	TZ Cell 11 G-2				
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL				
	<i>Sampled:</i>	Nov-28-11 15:35	Nov-28-11 15:40				
Inorganic Anions by EPA 300/300.1 SUB: E871002	<i>Extracted:</i>	Dec-06-11 06:07	Dec-06-11 06:21				
	<i>Analyzed:</i>	Dec-06-11 06:07	Dec-06-11 06:21				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		651 5.18	76.9 5.08				
Percent Moisture SUB: E871002	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-03-11 13:00	Dec-03-11 13:00				
	<i>Units/RL:</i>	% RL	% RL				
Percent Moisture		3.54 1.00	1.57 1.00				
TPH By SW8015 Mod SUB: E871002	<i>Extracted:</i>	Dec-02-11 15:48	Dec-02-11 15:51				
	<i>Analyzed:</i>	Dec-03-11 11:51	Dec-03-11 12:14				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 15.5	ND 15.1				
C12-C28 Diesel Range Hydrocarbons		721 15.5	212 15.1				
C28-C35 Oil Range Hydrocarbons		195 15.5	74.4 15.1				
Total-TPH		916 15.5	286 15.1				

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

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

Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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 5757 NW 158th St, Miami Lakes, FL 33014
 12600 West I-20 East, Odessa, TX 79765
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(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432407,

Project ID:

Lab Batch #: 876215

Sample: 432407-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 11:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.7	99.9	81	70-135	
o-Terphenyl	41.0	50.0	82	70-135	

Lab Batch #: 876215

Sample: 432407-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 12:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.4	99.4	83	70-135	
o-Terphenyl	41.5	49.7	84	70-135	

Lab Batch #: 876215

Sample: 614882-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	47.7	50.0	95	70-135	

Lab Batch #: 876215

Sample: 614882-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 03:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

Lab Batch #: 876215

Sample: 432389-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 04:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	99.6	86	70-135	
o-Terphenyl	46.8	49.8	94	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432407,

Project ID:

Lab Batch #: 876215

Sample: 432389-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 04:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.9	99.7	89	70-135	
o-Terphenyl	43.3	49.9	87	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432407

Project ID:

Lab Batch #: 876333

Sample: 614997-1-BKS

Matrix: Solid

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<5.00	500	482	96	80-120	

Lab Batch #: 876215

Sample: 614882-1-BKS

Matrix: Solid

Date Analyzed: 12/05/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1050	105	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	946	95	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

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

RL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432407

Project ID:

Lab Batch ID: 876333

QC- Sample ID: 432403-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	77.5	519	609	102	519	663	113	8	80-120	20	

Lab Batch ID: 876333

QC- Sample ID: 432404-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	138	512	632	96	512	633	97	0	80-120	20	

Lab Batch ID: 876215

QC- Sample ID: 432389-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.3	1020	1090	107	1020	1110	109	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	3760	1020	4220	45	1020	4280	51	1	70-135	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

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

Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432407

Lab Batch #: 876165

Project ID:

Date Analyzed: 12/03/2011 13:00

Date Prepared: 12/03/2011

Analyst: MAB

QC- Sample ID: 432393-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.65	2.68	1	20	

Lab Batch #: 876165

Date Analyzed: 12/03/2011 13:00

Date Prepared: 12/03/2011

Analyst: MAB

QC- Sample ID: 432454-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	28.0	28.0	0	20	

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



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

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11:30-11:37
 Lab ID #: 432407
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>20</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Analytical Report 432408
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

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

Reference: XENCO Report No: **432408**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432408. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432408 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432408



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 12 G-1	S	11-28-11 15:45		432408-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432408

Report Date: 08-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 432408
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 08-DEC-11

Project Manager: Brent Barron II

Analysis Requested	<i>Lab Id:</i>	432408-001				
	<i>Field Id:</i>	TZ Cell 12 G-1				
	<i>Depth:</i>					
	<i>Matrix:</i>	SOIL				
	<i>Sampled:</i>	Nov-28-11 15:45				
Inorganic Anions by EPA 300/300.1 SUB: E871002	<i>Extracted:</i>	Dec-06-11 06:36				
	<i>Analyzed:</i>	Dec-06-11 06:36				
	<i>Units/RL:</i>	mg/kg RL				
Chloride		28.1 5.14				
Percent Moisture SUB: E871002	<i>Extracted:</i>					
	<i>Analyzed:</i>	Dec-03-11 13:00				
	<i>Units/RL:</i>	% RL				
Percent Moisture		2.75 1.00				
TPH By SW8015 Mod SUB: E871002	<i>Extracted:</i>	Dec-02-11 13:39				
	<i>Analyzed:</i>	Dec-05-11 15:20				
	<i>Units/RL:</i>	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 15.3				
C12-C28 Diesel Range Hydrocarbons		452 15.3				
C28-C35 Oil Range Hydrocarbons		161 15.3				
Total TPH		613 15.3				

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

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Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432408,

Project ID:

Lab Batch #: 876221

Sample: 432408-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 15:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.6	99.5	80	70-135	
o-Terphenyl	35.7	49.8	72	70-135	

Lab Batch #: 876221

Sample: 614879-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 13:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	100	96	70-135	
o-Terphenyl	45.8	50.0	92	70-135	

Lab Batch #: 876221

Sample: 614879-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 13:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	48.7	50.0	97	70-135	

Lab Batch #: 876221

Sample: 432404-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 14:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.3	99.5	87	70-135	
o-Terphenyl	41.3	49.8	83	70-135	

Lab Batch #: 876221

Sample: 432404-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 14:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.8	100	91	70-135	
o-Terphenyl	44.7	50.0	89	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432408

Project ID:

Lab Batch #: 876333

Sample: 614997-1-BKS

Matrix: Solid

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<5.00	500	482	96	80-120	

Lab Batch #: 876221

Sample: 614879-1-BKS

Matrix: Solid

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1050	105	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	924	92	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

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

BRL - Below Reporting Limit



Form 3 - M MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432408

Project ID:

Lab Batch ID: 876333

QC- Sample ID: 432403-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	77.5	519	609	102	519	663	113	8	80-120	20	

Lab Batch ID: 876333

QC- Sample ID: 432404-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	138	512	632	96	512	633	97	0	80-120	20	

Lab Batch ID: 876221

QC- Sample ID: 432404-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.5	1030	972	94	1040	992	95	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	671	1030	1560	86	1040	1610	90	3	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, I = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable, N = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432408

Lab Batch #: 876165

Project ID:

Date Analyzed: 12/03/2011 13:00

Date Prepared: 12/03/2011

Analyst: MAB

QC- Sample ID: 432393-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.65	2.68	1	20	

Lab Batch #: 876165

Date Analyzed: 12/03/2011 13:00

Date Prepared: 12/03/2011

Analyst: MAB

QC- Sample ID: 432454-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	28.0	28.0	0	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432408
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432409
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432409**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432409. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432409 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432409



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 13 G-1	S	11-28-11 15:50		432409-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432409

Report Date: 08-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analy. Summary 432409
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Contact: Rose Slade

Report Date: 08-DEC-11

Project Location: Lea County, NM

Project Manager: Brent Barron II

Analysis Requested	Lab Id:	432409-001				
	Field Id:	TZ Cell 13 G-1				
	Depth:					
	Matrix:	SOIL				
	Sampled:	Nov-28-11 15:50				
Inorganic Anions by EPA 300/300.1 SUB: E871002	Extracted:	Dec-06-11 08:02				
	Analyzed:	Dec-06-11 08:02				
	Units/RL:	mg/kg RL				
Chloride		311 5.19				
Percent Moisture SUB: E871002	Extracted:					
	Analyzed:	Dec-03-11 13:00				
	Units/RL:	% RL				
Percent Moisture		3.68 1.00				
TPH By SW8015 Mod SUB: E871002	Extracted:	Dec-02-11 13:42				
	Analyzed:	Dec-03-11 16:05				
	Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 15.5				
C12-C28 Diesel Range Hydrocarbons		211 15.5				
C28-C35 Oil Range Hydrocarbons		112 15.5				
Total TPH		323 15.5				

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

Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- * Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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2505 North Falkenburg Rd, Tampa, FL 33619
5757 NW 158th St, Miami Lakes, FL 33014
12600 West I-20 East, Odessa, TX 79765
6017 Financial Drive, Norcross, GA 30071
3725 E. Atlanta Ave, Phoenix, AZ 85040

Phone	Fax
(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432409,

Project ID:

Lab Batch #: 876221

Sample: 432409-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 16:05

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.5	99.8	92	70-135	
o-Terphenyl	45.5	49.9	91	70-135	

Lab Batch #: 876221

Sample: 614879-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 13:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	100	96	70-135	
o-Terphenyl	45.8	50.0	92	70-135	

Lab Batch #: 876221

Sample: 614879-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 13:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	48.7	50.0	97	70-135	

Lab Batch #: 876221

Sample: 432404-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 14:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.3	99.5	87	70-135	
o-Terphenyl	41.3	49.8	83	70-135	

Lab Batch #: 876221

Sample: 432404-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 14:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.8	100	91	70-135	
o-Terphenyl	44.7	50.0	89	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432409

Project ID:

Lab Batch #: 876334

Sample: 614998-1-BKS

Matrix: Solid

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<5.00	500	524	105	80-120	

Lab Batch #: 876221

Sample: 614879-1-BKS

Matrix: Solid

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1050	105	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	924	92	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



Form 3 - M MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432409

Project ID:

Lab Batch ID: 876334

QC- Sample ID: 432427-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Chloride	23.0	530	574	104	530	578	105	1	80-120	20

Lab Batch ID: 876221

QC- Sample ID: 432404-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	C6-C12 Gasoline Range Hydrocarbons	<15.5	1030	972	94	1040	992	95	2	70-135	35
C12-C28 Diesel Range Hydrocarbons	671	1030	1560	86	1040	1610	90	3	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432409

Lab Batch #: 876165
Date Analyzed: 12/03/2011 13:00
QC- Sample ID: 432393-001 D

Date Prepared: 12/03/2011
Batch #: 1

Project ID:
Analyst: MAB
Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.65	2.68	1	20	

Lab Batch #: 876165
Date Analyzed: 12/03/2011 13:00
QC- Sample ID: 432454-001 D

Date Prepared: 12/03/2011
Batch #: 1

Analyst: MAB
Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	28.0	28.0	0	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432409
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____
 Regarding: _____
 Corrective Action Taken: _____

- Check all that apply: Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 Initial and Backup Temperature confirm out of temperature conditions
 Client understands and would like to proceed with analysis

Analytical Report 432410
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



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12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432410**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432410. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432410 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432410



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 14 G-1	S	11-28-11 15:55		432410-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432410

Report Date: 08-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 432410
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:
Contact: Rose Slade
Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm
Report Date: 08-DEC-11
Project Manager: Brent Barron II

Analysis Requested	Lab Id: 432410-001 Field Id: TZ Cell 14 G-1 Depth: Matrix: SOIL Sampled: Nov-28-11 15:55					
Inorganic Anions by EPA 300/300.1 SUB: E871002	Extracted: Dec-06-11 08:17 Analyzed: Dec-06-11 08:17 Units/RL: mg/kg RL					
Chloride	7.62 5.12					
Percent Moisture SUB: E871002	Extracted: Analyzed: Dec-03-11 13:00 Units/RL: % RL					
Percent Moisture	2.40 1.00					
TPH By SW8015 Mod SUB: E871002	Extracted: Dec-02-11 13:45 Analyzed: Dec-03-11 16:28 Units/RL: mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons	ND 15.4					
C12-C28 Diesel Range Hydrocarbons	88.5 15.4					
C28-C35 Oil Range Hydrocarbons	62.3 15.4					
Total TPH	151 15.4					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. 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

Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432410,

Project ID:

Lab Batch #: 876221

Sample: 432410-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 16:28

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.9	99.9	90	70-135	
o-Terphenyl	41.3	50.0	83	70-135	

Lab Batch #: 876221

Sample: 614879-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 13:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	100	96	70-135	
o-Terphenyl	45.8	50.0	92	70-135	

Lab Batch #: 876221

Sample: 614879-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 13:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	48.7	50.0	97	70-135	

Lab Batch #: 876221

Sample: 432404-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 14:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.3	99.5	87	70-135	
o-Terphenyl	41.3	49.8	83	70-135	

Lab Batch #: 876221

Sample: 432404-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 14:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.8	100	91	70-135	
o-Terphenyl	44.7	50.0	89	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432410

Project ID:

Lab Batch #: 876334

Sample: 614998-1-BKS

Matrix: Solid

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
Chloride	<5.00	500	524	105	80-120	

Lab Batch #: 876221

Sample: 614879-1-BKS

Matrix: Solid

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1050	105	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	924	92	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



Form 3 - M MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432410

Project ID:

Lab Batch ID: 876334

QC- Sample ID: 432427-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Chloride	23.0	530	574	104	530	578	105	1	80-120	20

Lab Batch ID: 876221

QC- Sample ID: 432404-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	C6-C12 Gasoline Range Hydrocarbons	<15.5	1030	972	94	1040	992	95	.2	70-135	35
C12-C28 Diesel Range Hydrocarbons	671	1030	1560	86	1040	1610	90	3	70-135	35	

Matrix Spike Percent Recovery $[D] = 100 * (C-A) / B$
Relative Percent Difference $RPD = 200 * (C-F) / (C+F)$

Matrix Spike Duplicate Percent Recovery $[G] = 100 * (F-A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable, N = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432410

Lab Batch #: 876165
Date Analyzed: 12/03/2011 13:00
QC- Sample ID: 432393-001 D
Reporting Units: %

Date Prepared: 12/03/2011
Batch #: 1

Project ID:
Analyst: MAB
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.65	2.68	1	20	

Lab Batch #: 876165
Date Analyzed: 12/03/2011 13:00
QC- Sample ID: 432454-001 D
Reporting Units: %

Date Prepared: 12/03/2011
Batch #: 1

Analyst: MAB
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	28.0	28.0	0	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432410
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432411

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432411**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432411. 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.

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Odessa Laboratory Manager

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Sample Cross Reference 432411



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 15 G-1	S	11-28-11 16:00		432411-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:

Work Order Number: 432411

Report Date: 08-DEC-11

Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 432411
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 08-DEC-11

Project Manager: Brent Barron II

Analysis Requested	<i>Lab Id:</i>	432411-001				
	<i>Field Id:</i>	TZ Cell 15 G-1				
	<i>Depth:</i>					
	<i>Matrix:</i>	SOIL				
	<i>Sampled:</i>	Nov-28-11 16:00				
Inorganic Anions by EPA 300/300.1 SUB: E871002	<i>Extracted:</i>	Dec-06-11 08:31				
	<i>Analyzed:</i>	Dec-06-11 08:31				
	<i>Units/RL:</i>	mg/kg RL				
Chloride		30.9 5.20				
Percent Moisture SUB: E871002	<i>Extracted:</i>					
	<i>Analyzed:</i>	Dec-03-11 13:00				
	<i>Units/RL:</i>	% RL				
Percent Moisture		3.82 1.00				
TPH By SW8015 Mod SUB: E871002	<i>Extracted:</i>	Dec-02-11 13:48				
	<i>Analyzed:</i>	Dec-03-11 16:51				
	<i>Units/RL:</i>	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 15.5				
C12-C28 Diesel Range Hydrocarbons		322 15.5				
C28-C35 Oil Range Hydrocarbons		219 15.5				
Total TPH		541 15.5				

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Brent Barron II
Odessa Laboratory Manager

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- 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.
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- 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.

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MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

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(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432411,

Project ID:

Lab Batch #: 876221

Sample: 432411-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 16:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.6	99.6	91	70-135	
o-Terphenyl	40.5	49.8	81	70-135	

Lab Batch #: 876221

Sample: 614879-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 13:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	100	96	70-135	
o-Terphenyl	45.8	50.0	92	70-135	

Lab Batch #: 876221

Sample: 614879-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 13:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	48.7	50.0	97	70-135	

Lab Batch #: 876221

Sample: 432404-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 14:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.3	99.5	87	70-135	
o-Terphenyl	41.3	49.8	83	70-135	

Lab Batch #: 876221

Sample: 432404-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 14:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.8	100	91	70-135	
o-Terphenyl	44.7	50.0	89	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Blank Spike Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432411

Project ID:

Lab Batch #: 876334

Sample: 614998-1-BKS

Matrix: Solid

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
Chloride	<5.00	500	524	105	80-120	

Lab Batch #: 876221

Sample: 614879-1-BKS

Matrix: Solid

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

Batch #: 1

BLANK/BLANK SPIKE RECOVERY STUDY

TPH By SW8015 Mod	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1050	105	70-135	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	924	92	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]

All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



Form 3 - N MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432411

Project ID:

Lab Batch ID: 876334

QC- Sample ID: 432427-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	23.0	530	574	104	530	578	105	1	80-120	20	

Lab Batch ID: 876221

QC- Sample ID: 432404-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: JAH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.5	1030	972	94	1040	992	95	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	671	1030	1560	86	1040	1610	90	3	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable, N = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432411

Lab Batch #: 876165

Project ID:

Date Analyzed: 12/03/2011 13:00

Date Prepared: 12/03/2011

Analyst: MAB

QC- Sample ID: 432393-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.65	2.68	1	20	

Lab Batch #: 876165

Date Analyzed: 12/03/2011 13:00

Date Prepared: 12/03/2011

Analyst: MAB

QC- Sample ID: 432454-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	28.0	28.0	0	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432411
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	No	N/A	
17. VDC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432412
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

07-DEC-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



07-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432412**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432412. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432412 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432412



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 1 G-1	S	11-28-11 12:00		432412-001
VZ Cell 1 G-2	S	11-28-11 12:05		432412-002
VZ Cell 1 G-3	S	11-28-11 12:10		432412-003
VZ Cell 1 G-4	S	11-28-11 12:15		432412-004
VZ Cell 1 G-5	S	11-28-11 12:20		432412-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432412

Report Date: 07-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-876263 Anions by E300

Samples with Chloride results greater than 15 mg/Kg have been confirmed by re-extraction and re-analysis.

Batch: LBA-876303 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876303, o-Terphenyl recovered below QC limits Data not confirmed by re-analysis.
Samples affected are: 614982-1-BLK,614982-1-BSD,432412-001 S,432412-001 SD.

SW8015MOD_NM

Batch 876303, C6-C12 Gasoline Range Hydrocarbons recovered below QC limits in the Matrix Spike.

Samples affected are: 432412-001, -003, -004, -005, -002.

The Laboratory Control Sample for C6-C12 Gasoline Range Hydrocarbons is within laboratory Control Limits



Certificate of Analy Summary 432412

Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 07-DEC-11

Project Manager: Brent Barron II

Analysis Requested	Lab Id:	432412-001	432412-002	432412-003	432412-004	432412-005	
	Field Id:	VZ Cell 1 G-1	VZ Cell 1 G-2	VZ Cell 1 G-3	VZ Cell 1 G-4	VZ Cell 1 G-5	
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	Sampled:	Nov-28-11 12:00	Nov-28-11 12:05	Nov-28-11 12:10	Nov-28-11 12:15	Nov-28-11 12:20	
Anions by E300	Extracted:						
	Analyzed:	Dec-03-11 02:11					
	Units/RL:	mg/kg RL					
Chloride		9.58 4.49	9.29 4.52	36.5 4.62	7.15 4.43	5.65 4.46	
BTEX by EPA 8021B	Extracted:	Dec-02-11 17:30					
	Analyzed:	Dec-04-11 16:08	Dec-04-11 16:31	Dec-04-11 16:53	Dec-04-11 17:16	Dec-04-11 17:39	
	Units/RL:	mg/kg RL					
Benzene		ND 0.00107	ND 0.00108	ND 0.00110	ND 0.00105	ND 0.00106	
Toluene		ND 0.00214	ND 0.00215	ND 0.00220	ND 0.00211	ND 0.00212	
Ethylbenzene		ND 0.00107	ND 0.00108	ND 0.00110	ND 0.00105	ND 0.00106	
m_p-Xylenes		ND 0.00214	ND 0.00215	ND 0.00220	ND 0.00211	ND 0.00212	
o-Xylene		ND 0.00107	ND 0.00108	ND 0.00110	ND 0.00105	ND 0.00106	
Total Xylenes		ND 0.00107	ND 0.00108	ND 0.00110	ND 0.00105	ND 0.00106	
Total BTEX		ND 0.00107	ND 0.00108	ND 0.00110	ND 0.00105	ND 0.00106	
Percent Moisture	Extracted:						
	Analyzed:	Dec-01-11 12:30					
	Units/RL:	% RL					
Percent Moisture		6.37 1.00	7.00 1.00	9.10 1.00	5.13 1.00	5.78 1.00	
TPH By SW8015 Mod	Extracted:	Dec-01-11 15:30					
	Analyzed:	Dec-01-11 20:02	Dec-01-11 20:28	Dec-01-11 20:53	Dec-01-11 21:18	Dec-01-11 21:44	
	Units/RL:	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 16.0	ND 16.1	ND 16.5	ND 15.8	ND 15.9	
C12-C28 Diesel Range Hydrocarbons		ND 16.0	ND 16.1	ND 16.5	ND 15.8	ND 15.9	
C28-C35 Oil Range Hydrocarbons		ND 16.0	ND 16.1	ND 16.5	ND 15.8	ND 15.9	
Total TPH		ND 16.0	ND 16.1	ND 16.5	ND 15.8	ND 15.9	

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.

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Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

^ NELAC or State program does not offer Accreditation at this time.

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(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432412,

Project ID:

Lab Batch #: 876303

Sample: 432412-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/01/11 20:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	57.4	50.0	115	70-135	

Lab Batch #: 876303

Sample: 432412-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/01/11 20:28

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	134	100	134	70-135	
o-Terphenyl	65.1	50.0	130	70-135	

Lab Batch #: 876303

Sample: 432412-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/01/11 20:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	50.0	50.0	100	70-135	

Lab Batch #: 876303

Sample: 432412-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/01/11 21:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	58.0	50.1	116	70-135	

Lab Batch #: 876303

Sample: 432412-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/01/11 21:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	50.6	50.0	101	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432412,

Project ID:

Lab Batch #: 876345

Sample: 432412-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 16:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876345

Sample: 432412-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 16:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 876345

Sample: 432412-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 16:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 876345

Sample: 432412-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 17:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 876345

Sample: 432412-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 17:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432412,

Project ID:

Lab Batch #: 876303

Sample: 614982-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/01/11 19:37	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		71.0	100	71	70-135	
o-Terphenyl		32.8	50.0	66	70-135	*

Lab Batch #: 876345

Sample: 615005-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/04/11 15:45	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021B						
Analytes						
1,4-Difluorobenzene		0.0273	0.0300	91	80-120	
4-Bromofluorobenzene		0.0267	0.0300	89	80-120	

Lab Batch #: 876303

Sample: 614982-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/01/11 18:45	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		97.5	100	98	70-135	
o-Terphenyl		38.7	50.0	77	70-135	

Lab Batch #: 876345

Sample: 615005-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/03/11 14:41	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021B						
Analytes						
1,4-Difluorobenzene		0.0290	0.0300	97	80-120	
4-Bromofluorobenzene		0.0278	0.0300	93	80-120	

Lab Batch #: 876303

Sample: 614982-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/01/11 19:11	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		86.5	100	87	70-135	
o-Terphenyl		31.8	50.0	64	70-135	*

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432412,

Project ID:

Lab Batch #: 876345

Sample: 615005-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 15:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876303

Sample: 432412-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 05:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.0	99.5	78	70-135	
o-Terphenyl	27.0	49.8	54	70-135	*

Lab Batch #: 876345

Sample: 432412-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 19:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 876303

Sample: 432412-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 05:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.2	100	86	70-135	
o-Terphenyl	33.3	50.0	67	70-135	*

Lab Batch #: 876345

Sample: 432412-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 20:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis.

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432412

Analyst: ASA

Date Prepared: 12/02/2011

Project ID:

Date Analyzed: 12/03/2011

Lab Batch ID: 876345

Sample: 615005-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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
Benzene	<0.00100	0.100	0.0955	96	0.100	0.0947	95	1	70-130	35	
Toluene	<0.00200	0.100	0.0976	98	0.100	0.0971	97	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.102	102	0.100	0.101	101	1	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.202	101	0.200	0.198	99	2	70-135	35	
o-Xylene	<0.00100	0.100	0.103	103	0.100	0.101	101	2	71-133	35	

Analyst: BRB

Date Prepared: 12/03/2011

Date Analyzed: 12/03/2011

Lab Batch ID: 876263

Sample: 876263-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.840	20.0	20.7	104	20.0	20.9	105	1	75-125	20	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432412

Analyst: KTB

Date Prepared: 12/01/2011

Project ID:

Date Analyzed: 12/01/2011

Lab Batch ID: 876303

Sample: 614982-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	956	96	1000	968	97	1	70-135	35
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	977	98	1000	824	82	17	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432412
Lab Batch #: 876263
Date Analyzed: 12/03/2011
QC- Sample ID: 432412-001 S
Reporting Units: mg/kg

Date Prepared: 12/03/2011
Batch #: 1

Project ID:
Analyst: BRB
Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	9.58	107	114	98	75-125	

Lab Batch #: 876263
Date Analyzed: 12/03/2011
QC- Sample ID: 432414-002 S
Reporting Units: mg/kg

Date Prepared: 12/03/2011
Batch #: 1

Analyst: BRB
Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	<4.52	108	108	100	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

- Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432412

Project ID:

Lab Batch ID: 876345

QC- Sample ID: 432412-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/04/2011

Date Prepared: 12/02/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00107	0.107	0.0868	81	0.107	0.0783	73	10	70-130	35	
Toluene	<0.00214	0.107	0.0843	79	0.107	0.0760	71	10	70-130	35	
Ethylbenzene	<0.00107	0.107	0.0876	82	0.107	0.0801	75	9	71-129	35	
m_p-Xylenes	<0.00214	0.214	0.171	80	0.214	0.157	73	9	70-135	35	
o-Xylene	<0.00107	0.107	0.0869	81	0.107	0.0806	75	8	71-133	35	

Lab Batch ID: 876303

QC- Sample ID: 432412-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/02/2011

Date Prepared: 12/01/2011

Analyst: KTB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.9	1060	710	67	1070	772	72	8	70-135	35	X
C12-C28 Diesel Range Hydrocarbons	<15.9	1060	781	74	1070	900	84	14	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432412

Lab Batch #: 876263

Date Analyzed: 12/03/2011 02:11

Date Prepared: 12/03/2011

Project ID:

Analyst: BRB

QC- Sample ID: 432412-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300 Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	9.58	10.1	5	20	

Lab Batch #: 876076

Date Analyzed: 12/01/2011 12:30

Date Prepared: 12/01/2011

Analyst: BRB

QC- Sample ID: 432412-001 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	6.37	6.54	3	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
 All Results are based on MDL and validated for QC purposes.
 BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11:30-11 14:37
 Lab ID #: 432412
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	<u>Yes</u>	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432413
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

07-DEC-11

Collected By: Client



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12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



07-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432413**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432413. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432413 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432413



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 2 G-1	S	11-28-11 12:55		432413-001
VZ Cell 2 G-2	S	11-28-11 13:00		432413-002
VZ Cell 2 G-3	S	11-28-11 13:05		432413-003
VZ Cell 2 G-4	S	11-28-11 13:10		432413-004



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432413

Report Date: 07-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-876303 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876303, C6-C12 Gasoline Range Hydrocarbons recovered below QC limits in the Matrix Spike.

Samples affected are: 432413-002, -004, -003, -001.

The Laboratory Control Sample for C6-C12 Gasoline Range Hydrocarbons is within laboratory Control Limits

SW8015MOD_NM

Batch 876303, o-Terphenyl recovered below QC limits Data not confirmed by re-analysis.

Samples affected are: 614982-1-BLK, 614982-1-BSD, 432412-001 S, 432412-001 SD, 432413-004, 432413-002.



Certificate of Analy. Summary 432413
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 07-DEC-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432413-001	432413-002	432413-003	432413-004		
	<i>Field Id:</i>	VZ Cell 2 G-1	VZ Cell 2 G-2	VZ Cell 2 G-3	VZ Cell 2 G-4		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Nov-28-11 12:55	Nov-28-11 13:00	Nov-28-11 13:05	Nov-28-11 13:10		
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-03-11 02:11	Dec-03-11 02:11	Dec-03-11 02:11	Dec-03-11 02:11		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		14.0 4.90	ND 4.59	12.0 4.71	ND 4.60		
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-02-11 17:30	Dec-02-11 17:30	Dec-02-11 17:30	Dec-02-11 17:30		
	<i>Analyzed:</i>	Dec-04-11 18:02	Dec-04-11 18:25	Dec-04-11 18:48	Dec-04-11 19:11		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		ND 0.00117	ND 0.00109	ND 0.00112	ND 0.00110		
Toluene		ND 0.00233	ND 0.00219	ND 0.00224	ND 0.00219		
Ethylbenzene		ND 0.00117	ND 0.00109	ND 0.00112	ND 0.00110		
m_p-Xylenes		ND 0.00233	ND 0.00219	ND 0.00224	ND 0.00219		
o-Xylene		ND 0.00117	ND 0.00109	ND 0.00112	ND 0.00110		
Total Xylenes		ND 0.00117	ND 0.00109	ND 0.00112	ND 0.00110		
Total BTEX		ND 0.00117	ND 0.00109	ND 0.00112	ND 0.00110		
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-01-11 12:30	Dec-01-11 12:30	Dec-01-11 12:30	Dec-01-11 12:30		
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL		
Percent Moisture		14.2 1.00	8.54 1.00	10.8 1.00	8.70 1.00		
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-01-11 15:30	Dec-01-11 15:30	Dec-01-11 15:30	Dec-01-11 15:30		
	<i>Analyzed:</i>	Dec-01-11 22:09	Dec-01-11 22:34	Dec-01-11 23:00	Dec-01-11 23:26		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		ND 17.5	ND 16.4	ND 16.8	ND 16.4		
C12-C28 Diesel Range Hydrocarbons		ND 17.5	ND 16.4	ND 16.8	ND 16.4		
C28-C35 Oil Range Hydrocarbons		ND 17.5	ND 16.4	ND 16.8	ND 16.4		
Total TPH		ND 17.5	ND 16.4	ND 16.8	ND 16.4		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432413,

Project ID:

Lab Batch #: 876303

Sample: 432413-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/01/11 22:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.1	100	80	70-135	
o-Terphenyl	36.8	50.0	74	70-135	

Lab Batch #: 876303

Sample: 432413-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/01/11 22:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.4	99.9	74	70-135	
o-Terphenyl	34.3	50.0	69	70-135	*

Lab Batch #: 876303

Sample: 432413-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/01/11 23:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.3	99.9	87	70-135	
o-Terphenyl	43.4	50.0	87	70-135	

Lab Batch #: 876303

Sample: 432413-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/01/11 23:26

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.0	99.6	73	70-135	
o-Terphenyl	33.5	49.8	67	70-135	*

Lab Batch #: 876345

Sample: 432413-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 18:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432413,

Project ID:

Lab Batch #: 876345

Sample: 432413-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 18:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 876345

Sample: 432413-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 18:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

Lab Batch #: 876345

Sample: 432413-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 19:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 876303

Sample: 614982-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/01/11 19:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.0	100	71	70-135	
o-Terphenyl	32.8	50.0	66	70-135	*

Lab Batch #: 876345

Sample: 615005-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/04/11 15:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432413,

Project ID:

Lab Batch #: 876303

Sample: 614982-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/01/11 18:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.5	100	98	70-135	
o-Terphenyl	38.7	50.0	77	70-135	

Lab Batch #: 876345

Sample: 615005-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 14:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 876303

Sample: 614982-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/01/11 19:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.5	100	87	70-135	
o-Terphenyl	31.8	50.0	64	70-135	*

Lab Batch #: 876345

Sample: 615005-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 15:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876303

Sample: 432412-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 05:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.0	99.5	78	70-135	
o-Terphenyl	27.0	49.8	54	70-135	*

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432413,

Project ID:

Lab Batch #: 876345

Sample: 432412-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 19:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 876303

Sample: 432412-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 05:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	86.2	100	86	70-135	
o-Terphenyl	33.3	50.0	67	70-135	*

Lab Batch #: 876345

Sample: 432412-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 20:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432413

Analyst: ASA

Date Prepared: 12/02/2011

Project ID:

Date Analyzed: 12/03/2011

Lab Batch ID: 876345

Sample: 615005-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0955	96	0.100	0.0947	95	1	70-130	35	
Toluene	<0.00200	0.100	0.0976	98	0.100	0.0971	97	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.102	102	0.100	0.101	101	1	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.202	101	0.200	0.198	99	2	70-135	35	
o-Xylene	<0.00100	0.100	0.103	103	0.100	0.101	101	2	71-133	35	

Analyst: BRB

Date Prepared: 12/03/2011

Date Analyzed: 12/03/2011

Lab Batch ID: 876263

Sample: 876263-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.840	20.0	20.7	104	20.0	20.9	105	1	75-125	20	

Relative Percent Difference RPD = $200 * (C-F) / (C+F)$

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432413

Analyst: KTB

Date Prepared: 12/01/2011

Project ID:

Date Analyzed: 12/01/2011

Lab Batch ID: 876303

Sample: 614982-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg.

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	956	96	1000	968	97	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	977	98	1000	824	82	17	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432413
Lab Batch #: 876263
Date Analyzed: 12/03/2011
QC- Sample ID: 432412-001 S
Reporting Units: mg/kg

Date Prepared: 12/03/2011

Project ID:
Analyst: BRB

Batch #: 1 Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	9.58	107	114	98	75-125	

Lab Batch #: 876263
Date Analyzed: 12/03/2011
QC- Sample ID: 432414-002 S
Reporting Units: mg/kg

Date Prepared: 12/03/2011

Analyst: BRB

Batch #: 1 Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	<4.52	108	108	100	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

PRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432413

Project ID:

Lab Batch ID: 876345

QC- Sample ID: 432412-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/04/2011

Date Prepared: 12/02/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00107	0.107	0.0868	81	0.107	0.0783	73	10	70-130	35	
Toluene	<0.00214	0.107	0.0843	79	0.107	0.0760	71	10	70-130	35	
Ethylbenzene	<0.00107	0.107	0.0876	82	0.107	0.0801	75	9	71-129	35	
m_p-Xylenes	<0.00214	0.214	0.171	80	0.214	0.157	73	9	70-135	35	
o-Xylene	<0.00107	0.107	0.0869	81	0.107	0.0806	75	8	71-133	35	

Lab Batch ID: 876303

QC- Sample ID: 432412-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/02/2011

Date Prepared: 12/01/2011

Analyst: KTB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.9	1060	710	67	1070	772	72	8	70-135	35	X
C12-C28 Diesel Range Hydrocarbons	<15.9	1060	781	74	1070	900	84	14	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432413

Lab Batch #: 876263	Date Prepared: 12/03/2011	Project ID:
Date Analyzed: 12/03/2011 02:11		Analyst: BRB
QC- Sample ID: 432412-001 D	Batch #: 1	Matrix: Soil
Reporting Units: mg/kg		

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	9.58	10.1	5	20	

Lab Batch #: 876076	Date Prepared: 12/01/2011	Analyst: BRB
Date Analyzed: 12/01/2011 12:30		Matrix: Soil
QC- Sample ID: 432412-001 D	Batch #: 1	
Reporting Units: %		

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.37	6.54	3	20	

Spike Relative Difference RPD 200 * |(B-A)/(B+A)|
 All Results are based on MDL and validated for QC purposes.
 BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11:30-11 14:37
 Lab ID #: 45243
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432414
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

07-DEC-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



07-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432414**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432414. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432414 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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Sample Cross Reference 432414



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 3 G-1	S	11-28-11 13:20		432414-001
VZ Cell 3 G-2	S	11-28-11 13:25		432414-002
VZ Cell 3 G-3	S	11-28-11 13:30		432414-003
VZ Cell 3 G-4	S	11-28-11 13:35		432414-004
VZ Cell 3 G-5	S	11-28-11 13:40		432414-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:

Work Order Number: 432414

Report Date: 07-DEC-11

Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-876303 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876303, C6-C12 Gasoline Range Hydrocarbons recovered below QC limits in the Matrix Spike.

Samples affected are: 432414-005, -001, -002, -003, -004.

The Laboratory Control Sample for C6-C12 Gasoline Range Hydrocarbons is within laboratory Control Limits

SW8015MOD_NM

Batch 876303, o-Terphenyl recovered below QC limits Data not confirmed by re-analysis.

Samples affected are: 614982-1-BLK, 614982-1-BSD, 432412-001 S, 432412-001 SD, 432414-004.

Batch: LBA-876345 BTEX by EPA 8021B
SW8021BM

Batch 876345, 4-Bromofluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 432414-003.



Certificate of Analysis Summary 432414
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 07-DEC-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432414-001	432414-002	432414-003	432414-004	432414-005	
	<i>Field Id:</i>	VZ Cell 3 G-1	VZ Cell 3 G-2	VZ Cell 3 G-3	VZ Cell 3 G-4	VZ Cell 3 G-5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Nov-28-11 13:20	Nov-28-11 13:25	Nov-28-11 13:30	Nov-28-11 13:35	Nov-28-11 13:40	
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-03-11 02:11					
	<i>Units/RL:</i>	mg/kg RL					
Chloride		5.24 4.62	ND 4.52	6.43 4.60	9.78 4.66	7.78 4.63	
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-02-11 17:30					
	<i>Analyzed:</i>	Dec-04-11 19:34	Dec-04-11 21:28	Dec-04-11 21:51	Dec-04-11 22:13	Dec-04-11 22:36	
	<i>Units/RL:</i>	mg/kg RL					
Benzene		ND 0.00110	ND 0.00108	ND 0.00110	ND 0.00111	ND 0.00110	
Toluene		ND 0.00220	ND 0.00215	ND 0.00219	ND 0.00222	ND 0.00221	
Ethylbenzene		ND 0.00110	ND 0.00108	ND 0.00110	ND 0.00111	ND 0.00110	
m_p-Xylenes		ND 0.00220	ND 0.00215	ND 0.00219	ND 0.00222	ND 0.00221	
o-Xylene		ND 0.00110	ND 0.00108	ND 0.00110	ND 0.00111	ND 0.00110	
Total Xylenes		ND 0.00110	ND 0.00108	ND 0.00110	ND 0.00111	ND 0.00110	
Total BTEX		ND 0.00110	ND 0.00108	ND 0.00110	ND 0.00111	ND 0.00110	
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-01-11 12:30					
	<i>Units/RL:</i>	% RL					
Percent Moisture		9.15 1.00	7.14 1.00	8.78 1.00	9.93 1.00	9.31 1.00	
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-01-11 15:30					
	<i>Analyzed:</i>	Dec-01-11 23:51	Dec-02-11 01:08	Dec-02-11 01:33	Dec-02-11 01:58	Dec-02-11 02:24	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 16.5	ND 16.1	ND 16.4	ND 16.7	ND 16.5	
C12-C28 Diesel Range Hydrocarbons		ND 16.5	ND 16.1	ND 16.4	ND 16.7	ND 16.5	
C28-C35 Oil Range Hydrocarbons		ND 16.5	ND 16.1	ND 16.4	ND 16.7	ND 16.5	
Total TPH		ND 16.5	ND 16.1	ND 16.4	ND 16.7	ND 16.5	

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

Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

^ NELAC or State program does not offer Accreditation at this time.

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(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432414,

Project ID:

Lab Batch #: 876303

Sample: 432414-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/01/11 23:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.9	99.8	82	70-135	
o-Terphenyl	40.0	49.9	80	70-135	

Lab Batch #: 876303

Sample: 432414-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 01:08

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.4	99.8	85	70-135	
o-Terphenyl	40.5	49.9	81	70-135	

Lab Batch #: 876303

Sample: 432414-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 01:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.1	99.9	86	70-135	
o-Terphenyl	41.8	50.0	84	70-135	

Lab Batch #: 876303

Sample: 432414-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 01:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.6	100	74	70-135	
o-Terphenyl	34.0	50.1	68	70-135	*

Lab Batch #: 876303

Sample: 432414-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 02:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.7	100	84	70-135	
o-Terphenyl	41.3	50.0	83	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432414,

Project ID:

Lab Batch #: 876345

Sample: 432414-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 19:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

Lab Batch #: 876345

Sample: 432414-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 21:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0263	0.0300	88	80-120	
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

Lab Batch #: 876345

Sample: 432414-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 21:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0252	0.0300	84	80-120	
4-Bromofluorobenzene	0.0234	0.0300	78	80-120	*

Lab Batch #: 876345

Sample: 432414-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 22:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	80-120	
4-Bromofluorobenzene	0.0246	0.0300	82	80-120	

Lab Batch #: 876345

Sample: 432414-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 22:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0262	0.0300	87	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432414,

Project ID:

Lab Batch #: 876303

Sample: 614982-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/01/11 19:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.0	100	71	70-135	
o-Terphenyl	32.8	50.0	66	70-135	*

Lab Batch #: 876345

Sample: 615005-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/04/11 15:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 876303

Sample: 614982-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/01/11 18:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.5	100	98	70-135	
o-Terphenyl	38.7	50.0	77	70-135	

Lab Batch #: 876345

Sample: 615005-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 14:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 876303

Sample: 614982-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/01/11 19:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.5	100	87	70-135	
o-Terphenyl	31.8	50.0	64	70-135	*

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432414,

Project ID:

Lab Batch #: 876345

Sample: 615005-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 15:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876303

Sample: 432412-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 05:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.0	99.5	78	70-135	
o-Terphenyl	27.0	49.8	54	70-135	*

Lab Batch #: 876345

Sample: 432412-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 19:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 876303

Sample: 432412-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 05:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.2	100	86	70-135	
o-Terphenyl	33.3	50.0	67	70-135	*

Lab Batch #: 876345

Sample: 432412-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 20:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432414

Analyst: ASA

Date Prepared: 12/02/2011

Project ID:

Date Analyzed: 12/03/2011

Lab Batch ID: 876345

Sample: 615005-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0955	96	0.100	0.0947	95	1	70-130	35	
Toluene	<0.00200	0.100	0.0976	98	0.100	0.0971	97	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.102	102	0.100	0.101	101	1	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.202	101	0.200	0.198	99	2	70-135	35	
o-Xylene	<0.00100	0.100	0.103	103	0.100	0.101	101	2	71-133	35	

Analyst: BRB

Date Prepared: 12/03/2011

Date Analyzed: 12/03/2011

Lab Batch ID: 876263

Sample: 876263-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.840	20.0	20.7	104	20.0	20.9	105	1	75-125	20	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432414

Analyst: KTB

Lab Batch ID: 876303

Sample: 614982-1-BKS

Date Prepared: 12/01/2011

Batch #: 1

Project ID:

Date Analyzed: 12/01/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	956	96	1000	968	97	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	977	98	1000	824	82	17	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432414
Lab Batch #: 876263
Date Analyzed: 12/03/2011
QC- Sample ID: 432412-001 S
Reporting Units: mg/kg

Project ID:
Analyst: BRB
Date Prepared: 12/03/2011
Batch #: 1
Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	9.58	107	114	98	75-125	

Lab Batch #: 876263
Date Analyzed: 12/03/2011
QC- Sample ID: 432414-002 S
Reporting Units: mg/kg

Project ID:
Analyst: BRB
Date Prepared: 12/03/2011
Batch #: 1
Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	<4.52	108	108	100	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

- Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432414

Project ID:

Lab Batch ID: 876345

QC- Sample ID: 432412-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/04/2011

Date Prepared: 12/02/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00107	0.107	0.0868	81	0.107	0.0783	73	10	70-130	35	
Toluene	<0.00214	0.107	0.0843	79	0.107	0.0760	71	10	70-130	35	
Ethylbenzene	<0.00107	0.107	0.0876	82	0.107	0.0801	75	9	71-129	35	
m_p-Xylenes	<0.00214	0.214	0.171	80	0.214	0.157	73	9	70-135	35	
o-Xylene	<0.00107	0.107	0.0869	81	0.107	0.0806	75	8	71-133	35	

Lab Batch ID: 876303

QC- Sample ID: 432412-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/02/2011

Date Prepared: 12/01/2011

Analyst: KTB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.9	1060	710	67	1070	772	72	8	70-135	35	X
C12-C28 Diesel Range Hydrocarbons	<15.9	1060	781	74	1070	900	84	14	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432414

Lab Batch #: 876263

Project ID:

Date Analyzed: 12/03/2011 02:11

Date Prepared: 12/03/2011

Analyst: BRB

QC- Sample ID: 432412-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	9.58	10.1	5	20	

Lab Batch #: 876076

Date Analyzed: 12/01/2011 12:30

Date Prepared: 12/01/2011

Analyst: BRB

QC- Sample ID: 432412-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.37	6.54	3	20	

Spike Relative Difference RPD 200 * |(B-A)/(B+A)|
 All Results are based on MDL and validated for QC purposes.
 BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11:30:11 14:37
 Lab ID #: 432414
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____
 Regarding: _____
 Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432415
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

07-DEC-11

Collected By: Client



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12600 West I-20 East Odessa, Texas 79765

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Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



07-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432415**
Southern Union Gas Landfarm
Project Address:

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432415. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432415 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432415



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 4 G-1	S	11-28-11 14:30		432415-001
VZ Cell 4 G-2	S	11-28-11 14:35		432415-002
VZ Cell 4 G-3	S	11-28-11 14:40		432415-003
VZ Cell 4 G-4	S	11-28-11 14:45		432415-004
VZ Cell 4 G-5	S	11-28-11 14:50		432415-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432415

Report Date: 07-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-876303 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876303, o-Terphenyl recovered below QC limits Data not confirmed by re-analysis.
Samples affected are: 614982-1-BLK,614982-1-BSD,432412-001 S,432412-001 SD,432415-004,432415-002,432415-003.

SW8015MOD_NM

Batch 876303, C6-C12 Gasoline Range Hydrocarbons recovered below QC limits in the Matrix Spike.

Samples affected are: 432415-002, -004, -001, -003, -005.

The Laboratory Control Sample for C6-C12 Gasoline Range Hydrocarbons is within laboratory Control Limits



Certificate of Analysis Summary 432415
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location:

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 07-DEC-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432415-001	432415-002	432415-003	432415-004	432415-005	
	<i>Field Id:</i>	VZ Cell 4 G-1	VZ Cell 4 G-2	VZ Cell 4 G-3	VZ Cell 4 G-4	VZ Cell 4 G-5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Nov-28-11 14:30	Nov-28-11 14:35	Nov-28-11 14:40	Nov-28-11 14:45	Nov-28-11 14:50	
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-03-11 02:11					
	<i>Units/RL:</i>	mg/kg RL					
Chloride		ND 4.67	ND 4.60	4.64 4.41	ND 4.72	ND 4.49	
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-02-11 17:30					
	<i>Analyzed:</i>	Dec-04-11 22:59	Dec-04-11 23:21	Dec-04-11 23:44	Dec-05-11 00:07	Dec-05-11 00:29	
	<i>Units/RL:</i>	mg/kg RL					
Benzene		ND 0.00111	ND 0.00109	ND 0.00105	ND 0.00112	ND 0.00107	
Toluene		ND 0.00222	ND 0.00219	ND 0.00210	ND 0.00225	ND 0.00214	
Ethylbenzene		ND 0.00111	ND 0.00109	ND 0.00105	ND 0.00112	ND 0.00107	
m_p-Xylenes		ND 0.00222	ND 0.00219	ND 0.00210	ND 0.00225	ND 0.00214	
o-Xylene		ND 0.00111	ND 0.00109	ND 0.00105	ND 0.00112	ND 0.00107	
Total Xylenes		ND 0.00111	ND 0.00109	ND 0.00105	ND 0.00112	ND 0.00107	
Total BTEX		ND 0.00111	ND 0.00109	ND 0.00105	ND 0.00112	ND 0.00107	
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-01-11 12:30					
	<i>Units/RL:</i>	% RL					
Percent Moisture		10.0 1.00	8.62 1.00	4.81 1.00	11.0 1.00	6.50 1.00	
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-01-11 15:30					
	<i>Analyzed:</i>	Dec-02-11 02:49	Dec-02-11 03:14	Dec-02-11 03:40	Dec-02-11 04:05	Dec-02-11 04:31	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 16.6	ND 16.3	ND 15.7	ND 16.9	ND 16.0	
C12-C28 Diesel Range Hydrocarbons		ND 16.6	ND 16.3	ND 15.7	ND 16.9	ND 16.0	
C28-C35 Oil Range Hydrocarbons		ND 16.6	ND 16.3	ND 15.7	ND 16.9	ND 16.0	
Total TPH		ND 16.6	ND 16.3	ND 15.7	ND 16.9	ND 16.0	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

^ NELAC or State program does not offer Accreditation at this time.

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(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432415,

Project ID:

Lab Batch #: 876303

Sample: 432415-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 02:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.6	99.5	78	70-135	
o-Terphenyl	35.5	49.8	71	70-135	

Lab Batch #: 876303

Sample: 432415-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 03:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.2	99.5	75	70-135	
o-Terphenyl	33.7	49.8	68	70-135	*

Lab Batch #: 876303

Sample: 432415-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 03:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.2	99.7	70	70-135	
o-Terphenyl	32.2	49.9	65	70-135	*

Lab Batch #: 876303

Sample: 432415-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 04:05

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.7	100	71	70-135	
o-Terphenyl	32.1	50.1	64	70-135	*

Lab Batch #: 876303

Sample: 432415-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 04:31

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.5	99.6	90	70-135	
o-Terphenyl	41.6	49.8	84	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432415,

Project ID:

Lab Batch #: 876345

Sample: 432415-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 22:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0259	0.0300	86	80-120	
4-Bromofluorobenzene	0.0252	0.0300	84	80-120	

Lab Batch #: 876345

Sample: 432415-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 23:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 876345

Sample: 432415-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 23:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0261	0.0300	87	80-120	

Lab Batch #: 876345

Sample: 432415-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 00:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	80-120	
4-Bromofluorobenzene	0.0244	0.0300	81	80-120	

Lab Batch #: 876345

Sample: 432415-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 00:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432415,

Project ID:

Lab Batch #: 876303

Sample: 614982-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/01/11 19:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.0	100	71	70-135	
o-Terphenyl	32.8	50.0	66	70-135	*

Lab Batch #: 876345

Sample: 615005-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/04/11 15:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 876303

Sample: 614982-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/01/11 18:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.5	100	98	70-135	
o-Terphenyl	38.7	50.0	77	70-135	

Lab Batch #: 876345

Sample: 615005-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 14:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 876303

Sample: 614982-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/01/11 19:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.5	100	87	70-135	
o-Terphenyl	31.8	50.0	64	70-135	*

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432415,

Project ID:

Lab Batch #: 876345

Sample: 615005-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 15:04

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876303

Sample: 432412-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 05:21

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	78.0	99.5	78	70-135	
o-Terphenyl	27.0	49.8	54	70-135	*

Lab Batch #: 876345

Sample: 432412-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 19:57

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 876303

Sample: 432412-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 05:47

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	86.2	100	86	70-135	
o-Terphenyl	33.3	50.0	67	70-135	*

Lab Batch #: 876345

Sample: 432412-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 20:19

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432415

Analyst: ASA

Date Prepared: 12/02/2011

Project ID:

Date Analyzed: 12/03/2011

Lab Batch ID: 876345

Sample: 615005-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0955	96	0.100	0.0947	95	1	70-130	35	
Toluene	<0.00200	0.100	0.0976	98	0.100	0.0971	97	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.102	102	0.100	0.101	101	1	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.202	101	0.200	0.198	99	2	70-135	35	
o-Xylene	<0.00100	0.100	0.103	103	0.100	0.101	101	2	71-133	35	

Analyst: BRB

Date Prepared: 12/03/2011

Date Analyzed: 12/03/2011

Lab Batch ID: 876263

Sample: 876263-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.840	20.0	20.7	104	20.0	20.9	105	1	75-125	20	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432415

Analyst: KTB

Date Prepared: 12/01/2011

Project ID:

Date Analyzed: 12/01/2011

Lab Batch ID: 876303

Sample: 614982-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	956	96	1000	968	97	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	977	98	1000	824	82	17	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432415
Lab Batch #: 876263
Date Analyzed: 12/03/2011
QC- Sample ID: 432412-001 S
Reporting Units: mg/kg

Date Prepared: 12/03/2011
Batch #: 1
Matrix: Soil
Project ID:
Analyst: BRB

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	9.58	107	114	98	75-125	

Lab Batch #: 876263
Date Analyzed: 12/03/2011
QC- Sample ID: 432414-002 S
Reporting Units: mg/kg

Date Prepared: 12/03/2011
Batch #: 1
Matrix: Soil
Analyst: BRB

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	<4.52	108	108	100	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432415

Project ID:

Lab Batch ID: 876345

QC- Sample ID: 432412-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/04/2011

Date Prepared: 12/02/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00107	0.107	0.0868	81	0.107	0.0783	73	10	70-130	35	
Toluene	<0.00214	0.107	0.0843	79	0.107	0.0760	71	10	70-130	35	
Ethylbenzene	<0.00107	0.107	0.0876	82	0.107	0.0801	75	9	71-129	35	
m_p-Xylenes	<0.00214	0.214	0.171	80	0.214	0.157	73	9	70-135	35	
o-Xylene	<0.00107	0.107	0.0869	81	0.107	0.0806	75	8	71-133	35	

Lab Batch ID: 876303

QC- Sample ID: 432412-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/02/2011

Date Prepared: 12/01/2011

Analyst: KTB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.9	1060	710	67	1070	772	72	8	70-135	35	X
C12-C28 Diesel Range Hydrocarbons	<15.9	1060	781	74	1070	900	84	14	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432415

Lab Batch #: 876263

Project ID:

Date Analyzed: 12/03/2011 02:11

Date Prepared: 12/03/2011

Analyst: BRB

QC- Sample ID: 432412-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	9.58	10.1	5	20	

Lab Batch #: 876076

Date Analyzed: 12/01/2011 12:30

Date Prepared: 12/01/2011

Analyst: BRB

QC- Sample ID: 432412-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.37	6.54	3	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
 All Results are based on MDL and validated for QC purposes.
 BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432415
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432416
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

07-DEC-11

Collected By: Client



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Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



07-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432416**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432416. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432416 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432416



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 5 G-1	S	11-28-11 15:00		432416-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432416

Report Date: 07-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-876303 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876303, C6-C12 Gasoline Range Hydrocarbons recovered below QC limits in the Matrix Spike.

Samples affected are: 432416-001.

The Laboratory Control Sample for C6-C12 Gasoline Range Hydrocarbons is within laboratory Control Limits

SW8015MOD_NM

Batch 876303, o-Terphenyl recovered below QC limits Data not confirmed by re-analysis.

Samples affected are: 614982-1-BLK, 614982-1-BSD, 432412-001 S, 432412-001 SD, 432416-001.



Certificate of Analy. Summary 432416
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 07-DEC-11

Project Manager: Brent Barron II

Analysis Requested	Lab Id: 432416-001 Field Id: VZ Cell 5 G-1 Depth: Matrix: SOIL Sampled: Nov-28-11 15:00					
Anions by E300	Extracted: Analyzed: Dec-03-11 02:11 Units/RL: mg/kg RL					
Chloride	ND 4.55					
BTEX by EPA 8021B	Extracted: Dec-02-11 17:30 Analyzed: Dec-05-11 00:52 Units/RL: mg/kg RL					
Benzene	ND 0.00108					
Toluene	ND 0.00217					
Ethylbenzene	ND 0.00108					
m_p-Xylenes	ND 0.00217					
o-Xylene	ND 0.00108					
Total Xylenes	ND 0.00108					
Total BTEX	ND 0.00108					
Percent Moisture	Extracted: Analyzed: Dec-01-11 12:30 Units/RL: % RL					
Percent Moisture	7.64 1.00					
TPH By SW8015 Mod	Extracted: Dec-01-11 15:30 Analyzed: Dec-02-11 04:56 Units/RL: mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons	ND 16.2					
C12-C28 Diesel Range Hydrocarbons	ND 16.2					
C28-C35 Oil Range Hydrocarbons	ND 16.2					
Total TPH	ND 16.2					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
 - B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
 - D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
 - E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
 - F** RPD exceeded lab control limits.
 - J** The target analyte was positively identified below the quantitation limit and above the detection limit.
 - U** Analyte was not detected.
 - L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
 - H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
 - K** Sample analyzed outside of recommended hold time.
 - JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- * Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432416,

Project ID:

Lab Batch #: 876303

Sample: 432416-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 04:56

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.0	99.5	71	70-135	
o-Terphenyl	31.7	49.8	64	70-135	*

Lab Batch #: 876345

Sample: 432416-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 00:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0261	0.0300	87	80-120	

Lab Batch #: 876303

Sample: 614982-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/01/11 19:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.0	100	71	70-135	
o-Terphenyl	32.8	50.0	66	70-135	*

Lab Batch #: 876345

Sample: 615005-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/04/11 15:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 876303

Sample: 614982-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/01/11 18:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.5	100	98	70-135	
o-Terphenyl	38.7	50.0	77	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432416,

Project ID:

Lab Batch #: 876345

Sample: 615005-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 14:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 876303

Sample: 614982-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/01/11 19:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.5	100	87	70-135	
o-Terphenyl	31.8	50.0	64	70-135	*

Lab Batch #: 876345

Sample: 615005-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/03/11 15:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876303

Sample: 432412-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 05:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.0	99.5	78	70-135	
o-Terphenyl	27.0	49.8	54	70-135	*

Lab Batch #: 876345

Sample: 432412-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 19:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432416,

Project ID:

Lab Batch #: 876303

Sample: 432412-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/02/11 05:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.2	100	86	70-135	
o-Terphenyl	33.3	50.0	67	70-135	*

Lab Batch #: 876345

Sample: 432412-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/04/11 20:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432416

Analyst: ASA

Lab Batch ID: 876345

Sample: 615005-1-BKS

Date Prepared: 12/02/2011

Batch #: 1

Project ID:

Date Analyzed: 12/03/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0955	96	0.100	0.0947	95	1	70-130	35	
Toluene	<0.00200	0.100	0.0976	98	0.100	0.0971	97	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.102	102	0.100	0.101	101	1	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.202	101	0.200	0.198	99	2	70-135	35	
o-Xylene	<0.00100	0.100	0.103	103	0.100	0.101	101	2	71-133	35	

Analyst: BRB

Date Prepared: 12/03/2011

Date Analyzed: 12/03/2011

Lab Batch ID: 876263

Sample: 876263-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.840	20.0	20.7	104	20.0	20.9	105	1	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432416

Analyst: KTB

Date Prepared: 12/01/2011

Project ID:

Date Analyzed: 12/01/2011

Lab Batch ID: 876303

Sample: 614982-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	956	96	1000	968	97	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	977	98	1000	824	82	17	70-135	35	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432416

Lab Batch #: 876263

Date Analyzed: 12/03/2011

Date Prepared: 12/03/2011

Project ID:

Analyst: BRB

QC- Sample ID: 432412-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
	Chloride	9.58	107	114	98	75-125

Lab Batch #: 876263

Date Analyzed: 12/03/2011

Date Prepared: 12/03/2011

Analyst: BRB

QC- Sample ID: 432414-002 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
	Chloride	<4.52	108	108	100	75-125

Matrix Spike Percent Recovery [D] = $100 \cdot (C-A)/B$
 Relative Percent Difference [E] = $200 \cdot (C-A)/(C+B)$
 All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - N MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432416

Project ID:

Lab Batch ID: 876345

QC- Sample ID: 432412-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/04/2011

Date Prepared: 12/02/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00107	0.107	0.0868	81	0.107	0.0783	73	10	70-130	35	
Toluene	<0.00214	0.107	0.0843	79	0.107	0.0760	71	10	70-130	35	
Ethylbenzene	<0.00107	0.107	0.0876	82	0.107	0.0801	75	9	71-129	35	
m_p-Xylenes	<0.00214	0.214	0.171	80	0.214	0.157	73	9	70-135	35	
o-Xylene	<0.00107	0.107	0.0869	81	0.107	0.0806	75	8	71-133	35	

Lab Batch ID: 876303

QC- Sample ID: 432412-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/02/2011

Date Prepared: 12/01/2011

Analyst: KTB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.9	1060	710	67	1070	772	72	8	70-135	35	X
C12-C28 Diesel Range Hydrocarbons	<15.9	1060	781	74	1070	900	84	14	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable, N = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432416

Lab Batch #: 876263
Date Analyzed: 12/03/2011 02:11
QC- Sample ID: 432412-001 D

Date Prepared: 12/03/2011
Batch #: 1

Project ID:
Analyst: BRB
Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	9.58	10.1	5	20	

Lab Batch #: 876076
Date Analyzed: 12/01/2011 12:30
QC- Sample ID: 432412-001 D

Date Prepared: 12/01/2011
Batch #: 1

Analyst: BRB
Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.37	6.54	3	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11:30-11 14:37
 Lab ID #: 432416
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply: Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 Initial and Backup Temperature confirm out of temperature conditions
 Client understands and would like to proceed with analysis

Analytical Report 432417
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

08-DEC-11

Collected By: Client



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Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

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Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



08-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432417**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432417. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432417 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432417



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 6 G-1	S	11-29-11 09:15		432417-001
VZ Cell 6 G-2	S	11-29-11 09:25		432417-002



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432417

Report Date: 08-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-876229 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876229, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 432417-001 S.

Batch: LBA-876549 BTEX by EPA 8021B
SW8021BM

Batch 876549, 4-Bromofluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 432417-001.



Certificate of Analy Summary 432417

Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 08-DEC-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432417-001	432417-002				
	<i>Field Id:</i>	VZ Cell 6 G-1	VZ Cell 6 G-2				
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL				
	<i>Sampled:</i>	Nov-29-11 09:15	Nov-29-11 09:25				
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-03-11 11:04	Dec-03-11 11:04				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		ND 4.57	ND 4.50				
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-07-11 09:12	Dec-05-11 09:17				
	<i>Analyzed:</i>	Dec-07-11 13:24	Dec-05-11 19:59				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Benzene		ND 0.00109	ND 0.00107				
Toluene		ND 0.00218	ND 0.00214				
Ethylbenzene		ND 0.00109	ND 0.00107				
m_p-Xylenes		ND 0.00218	ND 0.00214				
o-Xylene		ND 0.00109	ND 0.00107				
Total Xylenes		ND 0.00109	ND 0.00107				
Total BTEX		ND 0.00109	ND 0.00107				
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-02-11 12:25	Dec-02-11 12:25				
	<i>Units/RL:</i>	% RL	% RL				
Percent Moisture		8.06 1.00	6.59 1.00				
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-02-11 13:58	Dec-02-11 13:58				
	<i>Analyzed:</i>	Dec-02-11 23:21	Dec-02-11 23:47				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 16.3	ND 16.0				
C12-C28 Diesel Range Hydrocarbons		ND 16.3	ND 16.0				
C28-C35 Oil Range Hydrocarbons		ND 16.3	ND 16.0				
Total TPH		ND 16.3	ND 16.0				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- * Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432417,

Project ID:

Lab Batch #: 876229

Sample: 432417-001 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/02/11 23:21	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		84.7	99.8	85	70-135	
o-Terphenyl		41.7	49.9	84	70-135	

Lab Batch #: 876229

Sample: 432417-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/02/11 23:47	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		84.9	99.7	85	70-135	
o-Terphenyl		41.4	49.9	83	70-135	

Lab Batch #: 876312

Sample: 432417-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/05/11 19:59	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021B						
Analytes						
1,4-Difluorobenzene		0.0282	0.0300	94	80-120	
4-Bromofluorobenzene		0.0265	0.0300	88	80-120	

Lab Batch #: 876549

Sample: 432417-001 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/07/11 13:24	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021B						
Analytes						
1,4-Difluorobenzene		0.0254	0.0300	85	80-120	
4-Bromofluorobenzene		0.0236	0.0300	79	80-120	**

Lab Batch #: 876229

Sample: 614942-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/02/11 22:54	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		77.3	100	77	70-135	
o-Terphenyl		36.5	50.0	73	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432417,

Project ID:

Lab Batch #: 876312

Sample: 614984-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 13:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 876549

Sample: 615120-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/07/11 11:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0247	0.0300	82	80-120	
4-Bromofluorobenzene	0.0241	0.0300	80	80-120	

Lab Batch #: 876229

Sample: 614942-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	38.5	50.0	77	70-135	

Lab Batch #: 876312

Sample: 614984-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 876549

Sample: 615120-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/07/11 09:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432417,

Project ID:

Lab Batch #: 876229

Sample: 614942-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	41.2	50.0	82	70-135	

Lab Batch #: 876312

Sample: 614984-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 876549

Sample: 615120-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/07/11 10:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	80-120	
4-Bromofluorobenzene	0.0254	0.0300	85	80-120	

Lab Batch #: 876229

Sample: 432417-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 08:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	100	86	70-135	
o-Terphenyl	32.1	50.2	64	70-135	*

Lab Batch #: 876312

Sample: 432619-007 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 20:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432417,

Project ID:

Lab Batch #: 876549

Sample: 432417-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/07/11 17:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0267	0.0300	89	80-120	
4-Bromofluorobenzene		0.0261	0.0300	87	80-120	

Lab Batch #: 876229

Sample: 432417-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 09:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		98.1	100	98	70-135	
o-Terphenyl		43.2	50.1	86	70-135	

Lab Batch #: 876312

Sample: 432619-007 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 20:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0273	0.0300	91	80-120	
4-Bromofluorobenzene		0.0271	0.0300	90	80-120	

Lab Batch #: 876549

Sample: 432417-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/07/11 17:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0282	0.0300	94	80-120	
4-Bromofluorobenzene		0.0270	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432417

Analyst: ASA

Date Prepared: 12/05/2011

Project ID:

Date Analyzed: 12/05/2011

Lab Batch ID: 876312

Sample: 614984-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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
Benzene	<0.00100	0.100	0.101	101	0.100	0.0905	91	11	70-130	35	
Toluene	<0.00200	0.100	0.105	105	0.100	0.0934	93	12	70-130	35	
Ethylbenzene	<0.00100	0.100	0.111	111	0.100	0.0998	100	11	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.217	109	0.200	0.197	99	10	70-135	35	
o-Xylene	<0.00100	0.100	0.110	110	0.100	0.102	102	8	71-133	35	

Analyst: ASA

Date Prepared: 12/07/2011

Date Analyzed: 12/07/2011

Lab Batch ID: 876549

Sample: 615120-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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
Benzene	<0.00100	0.100	0.112	112	0.100	0.103	103	8	70-130	35	
Toluene	<0.00200	0.100	0.114	114	0.100	0.105	105	8	70-130	35	
Ethylbenzene	<0.00100	0.100	0.117	117	0.100	0.107	107	9	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.234	117	0.200	0.214	107	9	70-135	35	
o-Xylene	<0.00100	0.100	0.115	115	0.100	0.105	105	9	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: Southern Union Gas Landfarm

Work Order #: 432417

Analyst: BRB

Lab Batch ID: 876264

Sample: 876264-1-BKS

Batch #: 1

Project ID:

Date Analyzed: 12/03/2011

Matrix: Solid

Date Prepared: 12/03/2011

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.840	20.0	21.1	106	20.0	21.0	105	0	75-125	20	

Analyst: KTB

Date Prepared: 12/02/2011

Date Analyzed: 12/02/2011

Lab Batch ID: 876229

Sample: 614942-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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	878	88	1000	869	87	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1040	104	1000	1080	108	4	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 - MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432417

Project ID:

Lab Batch ID: 876312

QC- Sample ID: 432619-007 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00113	0.113	0.0913	81	0.113	0.0856	76	6	70-130	35	
Toluene	<0.00226	0.113	0.0934	83	0.113	0.0869	77	7	70-130	35	
Ethylbenzene	<0.00113	0.113	0.0968	86	0.113	0.0894	79	8	71-129	35	
m_p-Xylenes	<0.00226	0.226	0.189	84	0.226	0.174	77	8	70-135	35	
o-Xylene	<0.00113	0.113	0.0959	85	0.113	0.0900	80	6	71-133	35	

Lab Batch ID: 876549

QC- Sample ID: 432417-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/07/2011

Date Prepared: 12/07/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00109	0.109	0.0798	73	0.109	0.0900	83	12	70-130	35	
Toluene	<0.00217	0.109	0.0823	76	0.109	0.0925	85	12	70-130	35	
Ethylbenzene	<0.00109	0.109	0.0875	80	0.109	0.0946	87	8	71-129	35	
m_p-Xylenes	<0.00217	0.217	0.172	79	0.217	0.187	86	8	70-135	35	
o-Xylene	<0.00109	0.109	0.0847	78	0.109	0.0922	85	8	71-133	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable, N = See Narrative, EQL = Estimated Quantitation Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432417

Project ID:

Lab Batch ID: 876229

QC- Sample ID: 432417-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: KTB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	757	76	1000	841	84	11	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	912	91	1000	1080	108	17	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*((C-F)/(C+F))

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable, N = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432417

Lab Batch #: 876264

Project ID:

Date Analyzed: 12/03/2011 11:04

Date Prepared: 12/03/2011

Analyst: BRB

QC- Sample ID: 432417-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	<4.57	<4.57	0	20	U

Lab Batch #: 876264

Date Analyzed: 12/03/2011 11:04

Date Prepared: 12/03/2011

Analyst: BRB

QC- Sample ID: 432421-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	132	135	2	20	

Lab Batch #: 876227

Date Analyzed: 12/02/2011 12:25

Date Prepared: 12/02/2011

Analyst: BRB

QC- Sample ID: 432417-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	8.06	7.98	1	20	

Spike Relative Difference RPD 200 * |(B-A)/(B+A)|
 All Results are based on MDL and validated for QC purposes.
 BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432417
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432418
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

06-DEC-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



06-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432418**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432418. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432418 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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Sample Cross Reference 432418



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 7 G-1	S	11-28-11 12:45		432418-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432418

Report Date: 06-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-876260 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876260, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 432619-001 S.



Certificate of Analy Summary 432418
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 06-DEC-11

Project Manager: Brent Barron II

Analysis Requested	Lab Id: 432418-001 Field Id: VZ Cell 7 G-1 Depth: Matrix: SOIL Sampled: Nov-28-11 12:45					
Anions by E300	Extracted: Analyzed: Dec-03-11 11:04 Units/RL: mg/kg RL					
Chloride	ND 4.59					
BTEX by EPA 8021B	Extracted: Dec-05-11 09:17 Analyzed: Dec-05-11 21:51 Units/RL: mg/kg RL					
Benzene	ND 0.00109					
Toluene	ND 0.00218					
Ethylbenzene	ND 0.00109					
m_p-Xylenes	ND 0.00218					
o-Xylene	ND 0.00109					
Total Xylenes	ND 0.00109					
Total BTEX	ND 0.00109					
Percent Moisture	Extracted: Analyzed: Dec-02-11 12:25 Units/RL: % RL					
Percent Moisture	8.45 1.00					
TPH By SW8015 Mod	Extracted: Dec-05-11 08:15 Analyzed: Dec-05-11 21:05 Units/RL: mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons	ND 16.4					
C12-C28 Diesel Range Hydrocarbons	ND 16.4					
C28-C35 Oil Range Hydrocarbons	ND 16.4					
Total TPH	ND 16.4					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

^ NELAC or State program does not offer Accreditation at this time.

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(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432418,

Project ID:

Lab Batch #: 876260

Sample: 432418-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 21:05

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.5	100	84	70-135	
o-Terphenyl	39.5	50.0	79	70-135	

Lab Batch #: 876312

Sample: 432418-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 21:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

Lab Batch #: 876260

Sample: 614964-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:55

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.7	102	70-135	
o-Terphenyl	49.3	49.9	99	70-135	

Lab Batch #: 876312

Sample: 614984-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 13:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 876260

Sample: 614964-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.6	101	70-135	
o-Terphenyl	43.2	49.8	87	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432418,

Project ID:

Lab Batch #: 876312

Sample: 614984-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0285	0.0300	95	80-120	
4-Bromofluorobenzene		0.0288	0.0300	96	80-120	

Lab Batch #: 876260

Sample: 614964-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:31

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		105	100	105	70-135	
o-Terphenyl		62.1	50.0	124	70-135	

Lab Batch #: 876312

Sample: 614984-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0282	0.0300	94	80-120	
4-Bromofluorobenzene		0.0291	0.0300	97	80-120	

Lab Batch #: 876312

Sample: 432619-007 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 20:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0282	0.0300	94	80-120	
4-Bromofluorobenzene		0.0288	0.0300	96	80-120	

Lab Batch #: 876260

Sample: 432619-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 22:17

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		82.8	99.7	83	70-135	
o-Terphenyl		32.9	49.9	66	70-135	*

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432418,

Project ID:

Lab Batch #: 876312

Sample: 432619-007 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 20:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

Lab Batch #: 876260

Sample: 432619-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 22:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	90.7	99.7	91	70-135	
o-Terphenyl	36.1	49.9	72	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432418

Project ID:

Analyst: ASA

Date Prepared: 12/05/2011

Date Analyzed: 12/05/2011

Lab Batch ID: 876312

Sample: 614984-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.101	101	0.100	0.0905	91	11	70-130	35	
Toluene	<0.00200	0.100	0.105	105	0.100	0.0934	93	12	70-130	35	
Ethylbenzene	<0.00100	0.100	0.111	111	0.100	0.0998	100	11	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.217	109	0.200	0.197	99	10	70-135	35	
o-Xylene	<0.00100	0.100	0.110	110	0.100	0.102	102	8	71-133	35	

Analyst: BRB

Date Prepared: 12/03/2011

Date Analyzed: 12/03/2011

Lab Batch ID: 876264

Sample: 876264-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.840	20.0	21.1	106	20.0	21.0	105	0	75-125	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432418

Analyst: BRB

Date Prepared: 12/05/2011

Project ID:

Date Analyzed: 12/05/2011

Lab Batch ID: 876260

Sample: 614964-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<14.9	996	901	90	1000	874	87	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<14.9	996	1050	105	1000	1080	108	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 / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432418

Project ID:

Lab Batch ID: 876312

QC- Sample ID: 432619-007 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00113	0.113	0.0913	81	0.113	0.0856	76	6	70-130	35	
Toluene	<0.00226	0.113	0.0934	83	0.113	0.0869	77	7	70-130	35	
Ethylbenzene	<0.00113	0.113	0.0968	86	0.113	0.0894	79	8	71-129	35	
m_p-Xylenes	<0.00226	0.226	0.189	84	0.226	0.174	77	8	70-135	35	
o-Xylene	<0.00113	0.113	0.0959	85	0.113	0.0900	80	6	71-133	35	

Lab Batch ID: 876260

QC- Sample ID: 432619-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: BRB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<17.1	1140	860	75	1140	901	79	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	19.1	1140	946	81	1140	1010	87	7	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable, N = See Narrative, EQL = Estimated Quantitation Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432419
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432419

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Southern Union Gas Landfarm

07-DEC-11

Collected By: Client



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Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



07-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432419**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432419. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432419 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432419



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 8 G-1	S	11-28-11 12:30		432419-001
VZ Cell 8 G-2	S	11-28-11 12:35		432419-002



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432419

Report Date: 07-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-876229 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876229, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 432417-001 S.

Batch: LBA-876383 Anions by E300

Samples with Results above 12 mg/kg have been confirmed by re-extraction and re-analysis



Certificate of Analysis Summary 432419
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 07-DEC-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432419-001	432419-002				
	<i>Field Id:</i>	VZ Cell 8 G-1	VZ Cell 8 G-2				
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL				
	<i>Sampled:</i>	Nov-28-11 12:30	Nov-28-11 12:35				
Anions by E300	<i>Extracted:</i>	Dec-06-11 17:58	Dec-06-11 17:58				
	<i>Analyzed:</i>						
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		12.9 4.53	16.1 4.46				
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-05-11 09:17	Dec-05-11 09:17				
	<i>Analyzed:</i>	Dec-05-11 22:13	Dec-05-11 22:35				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Benzene		ND 0.00108	ND 0.00106				
Toluene		ND 0.00216	ND 0.00212				
Ethylbenzene		ND 0.00108	ND 0.00106				
m_p-Xylenes		ND 0.00216	ND 0.00212				
o-Xylene		ND 0.00108	ND 0.00106				
Total Xylenes		ND 0.00108	ND 0.00106				
Total BTEX		ND 0.00108	ND 0.00106				
Percent Moisture	<i>Extracted:</i>	Dec-02-11 12:25	Dec-02-11 12:25				
	<i>Analyzed:</i>						
	<i>Units/RL:</i>	% RL	% RL				
Percent Moisture		7.20 1.00	5.84 1.00				
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-02-11 13:58	Dec-02-11 13:58				
	<i>Analyzed:</i>	Dec-03-11 00:13	Dec-03-11 00:39				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 16.1	ND 15.9				
C12-C28 Diesel Range Hydrocarbons		ND 16.1	ND 15.9				
C28-C35 Oil Range Hydrocarbons		ND 16.1	ND 15.9				
Total TPH		ND 16.1	ND 15.9				

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

Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- * Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit SDL Sample Detection Limit LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432419,

Project ID:

Lab Batch #: 876229

Sample: 432419-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 00:13

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.1	99.9	81	70-135	
o-Terphenyl	40.8	50.0	82	70-135	

Lab Batch #: 876229

Sample: 432419-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 00:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.5	99.5	87	70-135	
o-Terphenyl	40.4	49.8	81	70-135	

Lab Batch #: 876312

Sample: 432419-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 22:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0250	0.0300	83	80-120	

Lab Batch #: 876312

Sample: 432419-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 22:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0249	0.0300	83	80-120	

Lab Batch #: 876229

Sample: 614942-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.3	100	77	70-135	
o-Terphenyl	36.5	50.0	73	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432419,

Project ID:

Lab Batch #: 876312

Sample: 614984-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 13:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 876229

Sample: 614942-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	38.5	50.0	77	70-135	

Lab Batch #: 876312

Sample: 614984-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 876229

Sample: 614942-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	41.2	50.0	82	70-135	

Lab Batch #: 876312

Sample: 614984-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432419,

Project ID:

Lab Batch #: 876229

Sample: 432417-001 S / MS

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/03/11 08:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	100	86	70-135	
o-Terphenyl	32.1	50.2	64	70-135	*

Lab Batch #: 876312

Sample: 432619-007 S / MS

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/05/11 20:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 876229

Sample: 432417-001 SD / MSD

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/03/11 09:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.1	100	98	70-135	
o-Terphenyl	43.2	50.1	86	70-135	

Lab Batch #: 876312

Sample: 432619-007 SD / MSD

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/05/11 20:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432419

Analyst: ASA

Lab Batch ID: 876312

Sample: 614984-1-BKS

Date Prepared: 12/05/2011

Batch #: 1

Project ID:

Date Analyzed: 12/05/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.101	101	0.100	0.0905	91	11	70-130	35	
Toluene	<0.00200	0.100	0.105	105	0.100	0.0934	93	12	70-130	35	
Ethylbenzene	<0.00100	0.100	0.111	111	0.100	0.0998	100	11	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.217	109	0.200	0.197	99	10	70-135	35	
o-Xylene	<0.00100	0.100	0.110	110	0.100	0.102	102	8	71-133	35	

Analyst: BRB

Date Prepared: 12/06/2011

Date Analyzed: 12/06/2011

Lab Batch ID: 876383

Sample: 876383-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.840	20.0	19.2	96	20.0	19.2	96	0	75-125	20	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432419

Analyst: KTB

Lab Batch ID: 876229

Sample: 614942-1-BKS

Date Prepared: 12/02/2011

Batch #: 1

Project ID:

Date Analyzed: 12/02/2011

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	878	88	1000	869	87	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1040	104	1000	1080	108	4	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: Southern Union Gas Landfarm

Work Order #: 432419

Project ID:

Lab Batch ID: 876312

QC- Sample ID: 432619-007 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00113	0.113	0.0913	81	0.113	0.0856	76	6	70-130	35	
Toluene	<0.00226	0.113	0.0934	83	0.113	0.0869	77	7	70-130	35	
Ethylbenzene	<0.00113	0.113	0.0968	86	0.113	0.0894	79	8	71-129	35	
m_p-Xylenes	<0.00226	0.226	0.189	84	0.226	0.174	77	8	70-135	35	
o-Xylene	<0.00113	0.113	0.0959	85	0.113	0.0900	80	6	71-133	35	

Lab Batch ID: 876229

QC- Sample ID: 432417-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: KTB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	757	76	1000	841	84	11	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	912	91	1000	1080	108	17	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432419

Lab Batch #: 876227

Project ID:

Date Analyzed: 12/02/2011 12:25

Date Prepared: 12/02/2011

Analyst: BRB

QC- Sample ID: 432417-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	8.06	7.98	1	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
 All Results are based on MDL and validated for QC purposes.
 BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432419
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432420
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

07-DEC-11

Collected By: Client



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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)
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Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

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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-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432420**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432420. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432420 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432420



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 9 G-1	S	11-29-11 09:35		432420-001
VZ Cell 9 G-2	S	11-29-11 09:45		432420-002
VZ Cell 9 G-3	S	11-29-11 09:55		432420-003
VZ Cell 9 G-4	S	11-29-11 10:05		432420-004
VZ Cell 9 G-5	S	11-29-11 10:15		432420-005



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432420

Report Date: 07-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-876229 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876229, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 432417-001 S,432420-001.

Batch: LBA-876264 Anions by E300

Samples with Results above 12 mg/kg have been confirmed by re-extraction and re-analysis



Certificate of Analy Summary 432420
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 07-DEC-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432420-001	432420-002	432420-003	432420-004	432420-005	
	<i>Field Id:</i>	VZ Cell 9 G-1	VZ Cell 9 G-2	VZ Cell 9 G-3	VZ Cell 9 G-4	VZ Cell 9 G-5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Nov-29-11 09:35	Nov-29-11 09:45	Nov-29-11 09:55	Nov-29-11 10:05	Nov-29-11 10:15	
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-03-11 11:04					
	<i>Units/RL:</i>	mg/kg RL					
Chloride		ND 4.89	6.66 5.10	22.6 4.99	7.62 4.60	5.56 4.58	
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-05-11 09:17					
	<i>Analyzed:</i>	Dec-05-11 22:58	Dec-05-11 23:20	Dec-05-11 23:43	Dec-06-11 00:05	Dec-06-11 00:27	
	<i>Units/RL:</i>	mg/kg RL					
Benzene		ND 0.00116	ND 0.00122	ND 0.00119	ND 0.00109	ND 0.00109	
Toluene		ND 0.00233	ND 0.00243	ND 0.00238	ND 0.00219	ND 0.00218	
Ethylbenzene		ND 0.00116	ND 0.00122	ND 0.00119	ND 0.00109	ND 0.00109	
m_p-Xylenes		ND 0.00233	ND 0.00243	ND 0.00238	ND 0.00219	ND 0.00218	
o-Xylene		ND 0.00116	ND 0.00122	ND 0.00119	ND 0.00109	ND 0.00109	
Total Xylenes		ND 0.00116	ND 0.00122	ND 0.00119	ND 0.00109	ND 0.00109	
Total BTEX		ND 0.00116	ND 0.00122	ND 0.00119	ND 0.00109	ND 0.00109	
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-02-11 12:25					
	<i>Units/RL:</i>	% RL					
Percent Moisture		14.1 1.00	17.7 1.00	15.8 1.00	8.65 1.00	8.34 1.00	
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-02-11 13:58					
	<i>Analyzed:</i>	Dec-03-11 01:06	Dec-03-11 01:33	Dec-03-11 01:59	Dec-03-11 02:25	Dec-03-11 02:52	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 17.4	ND 18.1	ND 17.7	ND 16.4	ND 16.3	
C12-C28 Diesel Range Hydrocarbons		ND 17.4	ND 18.1	ND 17.7	ND 16.4	ND 16.3	
C28-C35 Oil Range Hydrocarbons		ND 17.4	ND 18.1	ND 17.7	ND 16.4	ND 16.3	
Total TPH		ND 17.4	ND 18.1	ND 17.7	ND 16.4	ND 16.3	

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

Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

^ NELAC or State program does not offer Accreditation at this time.

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Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432420,

Project ID:

Lab Batch #: 876229

Sample: 432420-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 01:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.8	99.5	71	70-135	
o-Terphenyl	33.2	49.8	67	70-135	*

Lab Batch #: 876229

Sample: 432420-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 01:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.4	99.5	78	70-135	
o-Terphenyl	36.0	49.8	72	70-135	

Lab Batch #: 876229

Sample: 432420-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 01:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.0	99.5	88	70-135	
o-Terphenyl	41.4	49.8	83	70-135	

Lab Batch #: 876229

Sample: 432420-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 02:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.8	99.7	79	70-135	
o-Terphenyl	39.0	49.9	78	70-135	

Lab Batch #: 876229

Sample: 432420-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 02:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.1	99.5	97	70-135	
o-Terphenyl	43.7	49.8	88	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432420,

Project ID:

Lab Batch #: 876312

Sample: 432420-001 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/05/11 22:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 876312

Sample: 432420-002 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/05/11 23:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 876312

Sample: 432420-003 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/05/11 23:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

Lab Batch #: 876312

Sample: 432420-004 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/06/11 00:05

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	80-120	
4-Bromofluorobenzene	0.0255	0.0300	85	80-120	

Lab Batch #: 876312

Sample: 432420-005 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/06/11 00:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432420,

Project ID:

Lab Batch #: 876229

Sample: 614942-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.3	100	77	70-135	
o-Terphenyl	36.5	50.0	73	70-135	

Lab Batch #: 876312

Sample: 614984-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 13:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 876229

Sample: 614942-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	38.5	50.0	77	70-135	

Lab Batch #: 876312

Sample: 614984-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 876229

Sample: 614942-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	41.2	50.0	82	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432420,

Project ID:

Lab Batch #: 876312

Sample: 614984-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 12/05/11 12:33	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0282	0.0300	94	80-120	
4-Bromofluorobenzene		0.0291	0.0300	97	80-120	

Lab Batch #: 876229

Sample: 432417-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 12/03/11 08:53	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		85.6	100	86	70-135	
o-Terphenyl		32.1	50.2	64	70-135	*

Lab Batch #: 876312

Sample: 432619-007 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 12/05/11 20:21	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0282	0.0300	94	80-120	
4-Bromofluorobenzene		0.0288	0.0300	96	80-120	

Lab Batch #: 876229

Sample: 432417-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 12/03/11 09:19	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		98.1	100	98	70-135	
o-Terphenyl		43.2	50.1	86	70-135	

Lab Batch #: 876312

Sample: 432619-007 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 12/05/11 20:43	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0273	0.0300	91	80-120	
4-Bromofluorobenzene		0.0271	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432420

Analyst: ASA

Date Prepared: 12/05/2011

Project ID:

Date Analyzed: 12/05/2011

Lab Batch ID: 876312

Sample: 614984-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.101	101	0.100	0.0905	91	11	70-130	35	
Toluene	<0.00200	0.100	0.105	105	0.100	0.0934	93	12	70-130	35	
Ethylbenzene	<0.00100	0.100	0.111	111	0.100	0.0998	100	11	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.217	109	0.200	0.197	99	10	70-135	35	
o-Xylene	<0.00100	0.100	0.110	110	0.100	0.102	102	8	71-133	35	

Analyst: BRB

Date Prepared: 12/03/2011

Date Analyzed: 12/03/2011

Lab Batch ID: 876264

Sample: 876264-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.840	20.0	21.1	106	20.0	21.0	105	0	75-125	20	

Relative Percent Difference RPD = 200*[(C-F)/(C+F)]

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432420

Analyst: KTB

Date Prepared: 12/02/2011

Project ID:

Date Analyzed: 12/02/2011

Lab Batch ID: 876229

Sample: 614942-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	878	88	1000	869	87	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1040	104	1000	1080	108	4	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 - I MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432420

Project ID:

Lab Batch ID: 876312

QC- Sample ID: 432619-007 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Benzene	<0.00113	0.113	0.0913	81	0.113	0.0856	76	6	70-130	35
Toluene	<0.00226	0.113	0.0934	83	0.113	0.0869	77	7	70-130	35	
Ethylbenzene	<0.00113	0.113	0.0968	86	0.113	0.0894	79	8	71-129	35	
m_p-Xylenes	<0.00226	0.226	0.189	84	0.226	0.174	77	8	70-135	35	
o-Xylene	<0.00113	0.113	0.0959	85	0.113	0.0900	80	6	71-133	35	

Lab Batch ID: 876229

QC- Sample ID: 432417-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: KTB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	757	76	1000	841	84	11	70-135	35
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	912	91	1000	1080	108	17	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable, N = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432420

Lab Batch #: 876264
Date Analyzed: 12/03/2011 11:04
QC- Sample ID: 432417-001 D
Reporting Units: mg/kg

Date Prepared: 12/03/2011
Batch #: 1

Project ID:
Analyst: BRB
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	<4.57	<4.57	0	20	U

Lab Batch #: 876264
Date Analyzed: 12/03/2011 11:04
QC- Sample ID: 432421-001 D
Reporting Units: mg/kg

Date Prepared: 12/03/2011
Batch #: 1

Analyst: BRB
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	132	135	2	20	

Lab Batch #: 876227
Date Analyzed: 12/02/2011 12:25
QC- Sample ID: 432417-001 D
Reporting Units: %

Date Prepared: 12/02/2011
Batch #: 1

Analyst: BRB
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	8.06	7.98	1	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432420
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432421

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Southern Union Gas Landfarm

07-DEC-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



07-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432421**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432421. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432421 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432421



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 10 G-1	S	11-29-11 10:25		432421-001
VZ Cell 10 G-2	S	11-29-11 10:35		432421-002
VZ Cell 10 G-3	S	11-29-11 10:45		432421-003
VZ Cell 10 G-4	S	11-29-11 10:55		432421-004



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432421

Report Date: 07-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-876229 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876229, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 432417-001 S,432421-003,432421-001.

1-Chlorooctane recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 432421-001.

Batch: LBA-876264 Anions by E300

Samples with Results above 12 mg/kg have been confirmed by re-extraction and re-analysis



Certificate of Analysis Summary 432421
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 07-DEC-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432421-001	432421-002	432421-003	432421-004		
	<i>Field Id:</i>	VZ Cell 10 G-1	VZ Cell 10 G-2	VZ Cell 10 G-3	VZ Cell 10 G-4		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Nov-29-11 10:25	Nov-29-11 10:35	Nov-29-11 10:45	Nov-29-11 10:55		
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-03-11 11:04	Dec-03-11 11:04	Dec-03-11 11:04	Dec-03-11 11:04		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		132 4.71	52.8 4.67	22.4 4.52	17.6 4.64		
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-05-11 09:17	Dec-05-11 09:17	Dec-05-11 09:17	Dec-05-11 09:17		
	<i>Analyzed:</i>	Dec-06-11 00:49	Dec-06-11 01:12	Dec-06-11 01:34	Dec-06-11 01:57		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		ND 0.00112	ND 0.00111	ND 0.00108	ND 0.00110		
Toluene		ND 0.00224	ND 0.00222	ND 0.00215	ND 0.00221		
Ethylbenzene		ND 0.00112	ND 0.00111	ND 0.00108	ND 0.00110		
m_p-Xylenes		ND 0.00224	ND 0.00222	ND 0.00215	ND 0.00221		
o-Xylene		ND 0.00112	ND 0.00111	ND 0.00108	ND 0.00110		
Total Xylenes		ND 0.00112	ND 0.00111	ND 0.00108	ND 0.00110		
Total BTEX		ND 0.00112	ND 0.00111	ND 0.00108	ND 0.00110		
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-02-11 12:25	Dec-02-11 12:25	Dec-02-11 12:25	Dec-02-11 12:25		
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL		
Percent Moisture		10.8 1.00	10.1 1.00	7.12 1.00	9.45 1.00		
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-02-11 13:58	Dec-02-11 13:58	Dec-02-11 13:58	Dec-02-11 13:58		
	<i>Analyzed:</i>	Dec-03-11 03:17	Dec-03-11 04:34	Dec-03-11 05:00	Dec-03-11 05:26		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		ND 16.8	ND 16.7	ND 16.1	ND 16.5		
C12-C28 Diesel Range Hydrocarbons		ND 16.8	ND 16.7	ND 16.1	ND 16.5		
C28-C35 Oil Range Hydrocarbons		ND 16.8	ND 16.7	ND 16.1	ND 16.5		
Total TPH		ND 16.8	ND 16.7	ND 16.1	ND 16.5		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- * Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432421,

Project ID:

Lab Batch #: 876229

Sample: 432421-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 03:17

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	69.2	99.8	69	70-135	*
o-Terphenyl	32.3	49.9	65	70-135	*

Lab Batch #: 876229

Sample: 432421-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 04:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.2	100	91	70-135	
o-Terphenyl	41.4	50.0	83	70-135	

Lab Batch #: 876229

Sample: 432421-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 05:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.2	99.7	72	70-135	
o-Terphenyl	32.2	49.9	65	70-135	*

Lab Batch #: 876229

Sample: 432421-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 05:26

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.2	99.5	75	70-135	
o-Terphenyl	36.2	49.8	73	70-135	

Lab Batch #: 876312

Sample: 432421-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 00:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432421,

Project ID:

Lab Batch #: 876312

Sample: 432421-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 01:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

Lab Batch #: 876312

Sample: 432421-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 01:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

Lab Batch #: 876312

Sample: 432421-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 01:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0252	0.0300	84	80-120	

Lab Batch #: 876229

Sample: 614942-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.3	100	77	70-135	
o-Terphenyl	36.5	50.0	73	70-135	

Lab Batch #: 876312

Sample: 614984-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 13:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432421,

Project ID:

Lab Batch #: 876229

Sample: 614942-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	38.5	50.0	77	70-135	

Lab Batch #: 876312

Sample: 614984-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 876229

Sample: 614942-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	41.2	50.0	82	70-135	

Lab Batch #: 876312

Sample: 614984-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 876229

Sample: 432417-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 08:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	100	86	70-135	
o-Terphenyl	32.1	50.2	64	70-135	*

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432421,

Project ID:

Lab Batch #: 876312

Sample: 432619-007 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 20:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 876229

Sample: 432417-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 09:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.1	100	98	70-135	
o-Terphenyl	43.2	50.1	86	70-135	

Lab Batch #: 876312

Sample: 432619-007 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 20:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432421

Analyst: ASA

Date Prepared: 12/05/2011

Project ID:

Date Analyzed: 12/05/2011

Lab Batch ID: 876312

Sample: 614984-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.101	101	0.100	0.0905	91	11	70-130	35	
Toluene	<0.00200	0.100	0.105	105	0.100	0.0934	93	12	70-130	35	
Ethylbenzene	<0.00100	0.100	0.111	111	0.100	0.0998	100	11	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.217	109	0.200	0.197	99	10	70-135	35	
o-Xylene	<0.00100	0.100	0.110	110	0.100	0.102	102	8	71-133	35	

Analyst: BRB

Date Prepared: 12/03/2011

Date Analyzed: 12/03/2011

Lab Batch ID: 876264

Sample: 876264-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.840	20.0	21.1	106	20.0	21.0	105	0	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432421

Analyst: KTB

Lab Batch ID: 876229

Sample: 614942-1-BKS

Date Prepared: 12/02/2011

Batch #: 1

Project ID:

Date Analyzed: 12/02/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	878	88	1000	869	87	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1040	104	1000	1080	108	4	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 - N. MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432421

Project ID:

Lab Batch ID: 876312

QC- Sample ID: 432619-007 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00113	0.113	0.0913	81	0.113	0.0856	76	6	70-130	35	
Toluene	<0.00226	0.113	0.0934	83	0.113	0.0869	77	7	70-130	35	
Ethylbenzene	<0.00113	0.113	0.0968	86	0.113	0.0894	79	8	71-129	35	
m,p-Xylenes	<0.00226	0.226	0.189	84	0.226	0.174	77	8	70-135	35	
o-Xylene	<0.00113	0.113	0.0959	85	0.113	0.0900	80	6	71-133	35	

Lab Batch ID: 876229

QC- Sample ID: 432417-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: KTB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	757	76	1000	841	84	11	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	912	91	1000	1080	108	17	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable, N = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432421

Lab Batch #: 876264
Date Analyzed: 12/03/2011 11:04
QC- Sample ID: 432417-001 D
Reporting Units: mg/kg

Project ID:
Analyst: BRB
Date Prepared: 12/03/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	<4.57	<4.57	0	20	U

Lab Batch #: 876264
Date Analyzed: 12/03/2011 11:04
QC- Sample ID: 432421-001 D
Reporting Units: mg/kg

Analyst: BRB
Date Prepared: 12/03/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	132	135	2	20	

Lab Batch #: 876227
Date Analyzed: 12/02/2011 12:25
QC- Sample ID: 432417-001 D
Reporting Units: %

Analyst: BRB
Date Prepared: 12/02/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	8.06	7.98	1	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432421
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432422
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

07-DEC-11

Collected By: Client



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Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



07-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432422**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432422. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432422 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432422



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 11 G-1	S	11-29-11 11:45		432422-001
VZ Cell 11 G-2	S	11-29-11 11:55		432422-002



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432422

Report Date: 07-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-876229 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876229, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 432417-001 S.

Batch: LBA-876264 Anions by E300

Samples with Results above 12 mg/kg have been confirmed by re-extraction and re-analysis



Certificate of Analy Summary 432422
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 07-DEC-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	432422-001	432422-002				
	<i>Field Id:</i>	VZ Cell 11 G-1	VZ Cell 11 G-2				
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL				
	<i>Sampled:</i>	Nov-29-11 11:45	Nov-29-11 11:55				
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-03-11 11:04	Dec-03-11 11:04				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		17.4 4.75	64.0 4.66				
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-05-11 09:17	Dec-05-11 18:00				
	<i>Analyzed:</i>	Dec-06-11 02:19	Dec-06-11 04:54				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Benzene		ND 0.00113	ND 0.00111				
Toluene		ND 0.00226	ND 0.00222				
Ethylbenzene		ND 0.00113	ND 0.00111				
m_p-Xylenes		ND 0.00226	ND 0.00222				
o-Xylene		ND 0.00113	ND 0.00111				
Total Xylenes		ND 0.00113	ND 0.00111				
Total BTEX		ND 0.00113	ND 0.00111				
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-02-11 12:25	Dec-02-11 12:25				
	<i>Units/RL:</i>	% RL	% RL				
Percent Moisture		11.5 1.00	9.86 1.00				
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-02-11 13:58	Dec-02-11 13:58				
	<i>Analyzed:</i>	Dec-03-11 05:51	Dec-03-11 06:17				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 16.9	ND 16.6				
C12-C28 Diesel Range Hydrocarbons		ND 16.9	ND 16.6				
C28-C35 Oil Range Hydrocarbons		ND 16.9	ND 16.6				
Total TPH		ND 16.9	ND 16.6				

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.

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Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- * Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432422,

Project ID:

Lab Batch #: 876229

Sample: 432422-001 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/03/11 05:51	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		87.5	99.6	88	70-135	
o-Terphenyl		40.5	49.8	81	70-135	

Lab Batch #: 876229

Sample: 432422-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/03/11 06:17	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		76.9	99.6	77	70-135	
o-Terphenyl		36.8	49.8	74	70-135	

Lab Batch #: 876312

Sample: 432422-001 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/06/11 02:19	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021B						
Analytes						
1,4-Difluorobenzene		0.0271	0.0300	90	80-120	
4-Bromofluorobenzene		0.0256	0.0300	85	80-120	

Lab Batch #: 876294

Sample: 432422-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/06/11 04:54	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021B						
Analytes						
1,4-Difluorobenzene		0.0277	0.0300	92	80-120	
4-Bromofluorobenzene		0.0263	0.0300	88	80-120	

Lab Batch #: 876229

Sample: 614942-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 12/02/11 22:54	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		77.3	100	77	70-135	
o-Terphenyl		36.5	50.0	73	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432422,

Project ID:

Lab Batch #: 876312

Sample: 614984-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 13:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 876294

Sample: 614976-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/11 04:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876229

Sample: 614942-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	38.5	50.0	77	70-135	

Lab Batch #: 876312

Sample: 614984-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 876294

Sample: 614976-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/11 03:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432422,

Project ID:

Lab Batch #: 876229

Sample: 614942-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	41.2	50.0	82	70-135	

Lab Batch #: 876312

Sample: 614984-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 876294

Sample: 614976-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/11 03:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876229

Sample: 432417-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 08:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	100	86	70-135	
o-Terphenyl	32.1	50.2	64	70-135	*

Lab Batch #: 876312

Sample: 432619-007 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 20:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432422,

Project ID:

Lab Batch #: 876294

Sample: 432422-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 08:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

Lab Batch #: 876229

Sample: 432417-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 09:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.1	100	98	70-135	
o-Terphenyl	43.2	50.1	86	70-135	

Lab Batch #: 876312

Sample: 432619-007 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 20:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

Lab Batch #: 876294

Sample: 432422-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 09:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432422

Analyst: ASA

Lab Batch ID: 876294

Sample: 614976-1-BKS

Date Prepared: 12/05/2011

Batch #: 1

Project ID:

Date Analyzed: 12/06/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0972	97	0.100	0.0966	97	1	70-130	35	
Toluene	<0.00200	0.100	0.0998	100	0.100	0.0990	99	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.106	106	0.100	0.106	106	0	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.207	104	0.200	0.206	103	0	70-135	35	
o-Xylene	<0.00100	0.100	0.105	105	0.100	0.105	105	0	71-133	35	

Analyst: ASA

Date Prepared: 12/05/2011

Date Analyzed: 12/05/2011

Lab Batch ID: 876312

Sample: 614984-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.101	101	0.100	0.0905	91	11	70-130	35	
Toluene	<0.00200	0.100	0.105	105	0.100	0.0934	93	12	70-130	35	
Ethylbenzene	<0.00100	0.100	0.111	111	0.100	0.0998	100	11	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.217	109	0.200	0.197	99	10	70-135	35	
o-Xylene	<0.00100	0.100	0.110	110	0.100	0.102	102	8	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: Southern Union Gas Landfarm

Work Order #: 432422

Analyst: BRB

Lab Batch ID: 876264

Sample: 876264-1-BKS

Date Prepared: 12/03/2011

Batch #: 1

Project ID:

Date Analyzed: 12/03/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.840	20.0	21.1	106	20.0	21.0	105	0	75-125	20	

Analyst: KTB

Date Prepared: 12/02/2011

Date Analyzed: 12/02/2011

Lab Batch ID: 876229

Sample: 614942-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	878	88	1000	869	87	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1040	104	1000	1080	108	4	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 - I MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432422

Project ID:

Lab Batch ID: 876294

QC- Sample ID: 432422-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/05/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00111	0.111	0.0815	73	0.111	0.0883	80	8	70-130	35	
Toluene	<0.00222	0.111	0.0830	75	0.111	0.0898	81	8	70-130	35	
Ethylbenzene	<0.00111	0.111	0.0871	78	0.111	0.0965	87	10	71-129	35	
m_p-Xylenes	<0.00222	0.222	0.170	77	0.222	0.187	84	10	70-135	35	
o-Xylene	<0.00111	0.111	0.0862	78	0.111	0.0957	86	10	71-133	35	

Lab Batch ID: 876312

QC- Sample ID: 432619-007 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00113	0.113	0.0913	81	0.113	0.0856	76	6	70-130	35	
Toluene	<0.00226	0.113	0.0934	83	0.113	0.0869	77	7	70-130	35	
Ethylbenzene	<0.00113	0.113	0.0968	86	0.113	0.0894	79	8	71-129	35	
m_p-Xylenes	<0.00226	0.226	0.189	84	0.226	0.174	77	8	70-135	35	
o-Xylene	<0.00113	0.113	0.0959	85	0.113	0.0900	80	6	71-133	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable, N = See Narrative, EQL = Estimated Quantitation Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432422

Project ID:

Lab Batch ID: 876229

QC- Sample ID: 432417-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: KTB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	757	76	1000	841	84	11	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	912	91	1000	1080	108	17	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable, N = See Narrative, EQL = Estimated Quantitation Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432422
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>20</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432423
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

06-DEC-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



06-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432423**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432423. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432423 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432423



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 12 G-1	S	11-29-11 11:05		432423-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:

Work Order Number: 432423

Report Date: 06-DEC-11

Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-876260 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876260, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 432619-001 S.



Certificate of Analysis Summary 432423
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 06-DEC-11

Project Manager: Brent Barron II

Analysis Requested	<i>Lab Id:</i>	432423-001				
	<i>Field Id:</i>	VZ Cell 12 G-1				
	<i>Depth:</i>					
	<i>Matrix:</i>	SOIL				
	<i>Sampled:</i>	Nov-29-11 11:05				
Anions by E300	<i>Extracted:</i>					
	<i>Analyzed:</i>	Dec-03-11 11:04				
	<i>Units/RL:</i>	mg/kg RL				
Chloride		ND	4.72			
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-05-11 18:00				
	<i>Analyzed:</i>	Dec-06-11 05:17				
	<i>Units/RL:</i>	mg/kg RL				
Benzene		ND	0.00112			
Toluene		ND	0.00225			
Ethylbenzene		ND	0.00112			
m_p-Xylenes		ND	0.00225			
o-Xylene		ND	0.00112			
Total Xylenes		ND	0.00112			
Total BTEX		ND	0.00112			
Percent Moisture	<i>Extracted:</i>					
	<i>Analyzed:</i>	Dec-02-11 12:25				
	<i>Units/RL:</i>	% RL				
Percent Moisture		11.1	1.00			
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-05-11 08:15				
	<i>Analyzed:</i>	Dec-05-11 21:29				
	<i>Units/RL:</i>	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND	16.9			
C12-C28 Diesel Range Hydrocarbons		ND	16.9			
C28-C35 Oil Range Hydrocarbons		ND	16.9			
Total TPH		ND	16.9			

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.

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Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
 - B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
 - D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
 - E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
 - F** RPD exceeded lab control limits.
 - J** The target analyte was positively identified below the quantitation limit and above the detection limit.
 - U** Analyte was not detected.
 - L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
 - H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
 - K** Sample analyzed outside of recommended hold time.
 - JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- * Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

^ NELAC or State program does not offer Accreditation at this time.

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(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432423,

Project ID:

Lab Batch #: 876294

Sample: 432423-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 21:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.6	100	83	70-135	
o-Terphenyl	36.5	50.0	73	70-135	

Lab Batch #: 876294

Sample: 432423-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 05:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0254	0.0300	85	80-120	

Lab Batch #: 876260

Sample: 614964-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:55

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.7	102	70-135	
o-Terphenyl	49.3	49.9	99	70-135	

Lab Batch #: 876294

Sample: 614976-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/11 04:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876260

Sample: 614964-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.6	101	70-135	
o-Terphenyl	43.2	49.8	87	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432423,

Project ID:

Lab Batch #: 876294

Sample: 614976-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/11 03:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 876260

Sample: 614964-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/11 12:31

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	62.1	50.0	124	70-135	

Lab Batch #: 876294

Sample: 614976-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/11 03:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876260

Sample: 432619-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 22:17

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.8	99.7	83	70-135	
o-Terphenyl	32.9	49.9	66	70-135	*

Lab Batch #: 876294

Sample: 432422-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 08:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432423,

Project ID:

Lab Batch #: 876260

Sample: 432619-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/11 22:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.7	99.7	91	70-135	
o-Terphenyl	36.1	49.9	72	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432423

Analyst: ASA

Lab Batch ID: 876294

Sample: 614976-1-BKS

Date Prepared: 12/05/2011

Batch #: 1

Project ID:

Date Analyzed: 12/06/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0972	97	0.100	0.0966	97	1	70-130	35	
Toluene	<0.00200	0.100	0.0998	100	0.100	0.0990	99	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.106	106	0.100	0.106	106	0	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.207	104	0.200	0.206	103	0	70-135	35	
o-Xylene	<0.00100	0.100	0.105	105	0.100	0.105	105	0	71-133	35	

Analyst: BRB

Date Prepared: 12/03/2011

Date Analyzed: 12/03/2011

Lab Batch ID: 876264

Sample: 876264-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.840	20.0	21.1	106	20.0	21.0	105	0	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432423

Analyst: BRB

Lab Batch ID: 876260

Sample: 614964-1-BKS

Date Prepared: 12/05/2011

Batch #: 1

Project ID:

Date Analyzed: 12/05/2011

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<14.9	996	901	90	1000	874	87	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<14.9	996	1050	105	1000	1080	108	3	70-135	35	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432423

Lab Batch #: 876294

Date Analyzed: 12/06/2011

Date Prepared: 12/05/2011

Project ID:

Analyst: ASA

QC- Sample ID: 432422-002 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Benzene	<0.00111	0.111	0.0815	73	70-130	
Toluene	<0.00222	0.111	0.0830	75	70-130	
Ethylbenzene	<0.00111	0.111	0.0871	78	71-129	
m_p-Xylenes	<0.00222	0.222	0.170	77	70-135	
o-Xylene	<0.00111	0.111	0.0862	78	71-133	

Matrix Spike Percent Recovery [D] = $100 \cdot (C-A)/B$
 Relative Percent Difference [E] = $200 \cdot (C-A)/(C+B)$
 All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432423

Project ID:

Lab Batch ID: 876260

QC- Sample ID: 432619-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/05/2011

Date Prepared: 12/05/2011

Analyst: BRB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<17.1	1140	860	75	1140	901	79	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	19.1	1140	946	81	1140	1010	87	7	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432423

Lab Batch #: 876264
Date Analyzed: 12/03/2011 11:04
QC- Sample ID: 432417-001 D
Reporting Units: mg/kg

Project ID:
Analyst: BRB
Date Prepared: 12/03/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	<4.57	<4.57	0	20	U

Lab Batch #: 876264
Date Analyzed: 12/03/2011 11:04
QC- Sample ID: 432421-001 D
Reporting Units: mg/kg

Analyst: BRB
Date Prepared: 12/03/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	132	135	2	20	

Lab Batch #: 876227
Date Analyzed: 12/02/2011 12:25
QC- Sample ID: 432417-001 D
Reporting Units: %

Analyst: BRB
Date Prepared: 12/02/2011
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	8.06	7.98	1	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432423
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432424
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

07-DEC-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



07-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432424**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432424. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432424 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432424



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 13 G-1	S	11-29-11 11:15		432424-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432424

Report Date: 07-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-876229 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876229, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 432417-001 S.

Batch: LBA-876264 Anions by E300

Samples with Results above 12 mg/kg have been confirmed by re-extraction and re-analysis



Certificate of Analysis Summary 432424
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 07-DEC-11

Project Manager: Brent Barron II

Analysis Requested	Lab Id: 432424-001 Field Id: VZ Cell 13 G-1 Depth: Matrix: SOIL Sampled: Nov-29-11 11:15					
Anions by E300	Extracted: Analyzed: Dec-03-11 11:04 Units/RL: mg/kg RL					
Chloride	32.4 4.44					
BTEX by EPA 8021B	Extracted: Dec-05-11 18:00 Analyzed: Dec-06-11 05:39 Units/RL: mg/kg RL					
Benzene	ND 0.00106					
Toluene	ND 0.00211					
Ethylbenzene	ND 0.00106					
m_p-Xylenes	ND 0.00211					
o-Xylene	ND 0.00106					
Total Xylenes	ND 0.00106					
Total BTEX	ND 0.00106					
Percent Moisture	Extracted: Analyzed: Dec-02-11 12:25 Units/RL: % RL					
Percent Moisture	5.40 1.00					
TPH By SW8015 Mod	Extracted: Dec-02-11 13:58 Analyzed: Dec-03-11 06:43 Units/RL: mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons	ND 15.8					
C12-C28 Diesel Range Hydrocarbons	ND 15.8					
C28-C35 Oil Range Hydrocarbons	ND 15.8					
Total TPH	ND 15.8					

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

Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- * Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432424,

Project ID:

Lab Batch #: 876229

Sample: 432424-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 12/03/11 06:43	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	82.3	99.5	83	70-135	
o-Terphenyl	39.6	49.8	80	70-135	

Lab Batch #: 876229

Sample: 432424-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 12/06/11 05:39	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

Lab Batch #: 876229

Sample: 614942-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 12/02/11 22:54	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	77.3	100	77	70-135	
o-Terphenyl	36.5	50.0	73	70-135	

Lab Batch #: 876229

Sample: 614976-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 12/06/11 04:32	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876229

Sample: 614942-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 12/02/11 22:00	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	38.5	50.0	77	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432424,

Project ID:

Lab Batch #: 876294

Sample: 614976-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/11 03:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 876229

Sample: 614942-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	41.2	50.0	82	70-135	

Lab Batch #: 876294

Sample: 614976-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/11 03:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876229

Sample: 432417-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 08:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	85.6	100	86	70-135	
o-Terphenyl	32.1	50.2	64	70-135	*

Lab Batch #: 876294

Sample: 432422-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 08:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432424,

Project ID:

Lab Batch #: 876229

Sample: 432417-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 09:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.1	100	98	70-135	
o-Terphenyl	43.2	50.1	86	70-135	

Lab Batch #: 876294

Sample: 432422-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 09:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432424

Analyst: ASA

Date Prepared: 12/05/2011

Project ID:

Date Analyzed: 12/06/2011

Lab Batch ID: 876294

Sample: 614976-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0972	97	0.100	0.0966	97	1	70-130	35	
Toluene	<0.00200	0.100	0.0998	100	0.100	0.0990	99	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.106	106	0.100	0.106	106	0	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.207	104	0.200	0.206	103	0	70-135	35	
o-Xylene	<0.00100	0.100	0.105	105	0.100	0.105	105	0	71-133	35	

Analyst: BRB

Date Prepared: 12/03/2011

Date Analyzed: 12/03/2011

Lab Batch ID: 876264

Sample: 876264-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.840	20.0	21.1	106	20.0	21.0	105	0	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432424

Analyst: KTB

Date Prepared: 12/02/2011

Project ID:

Date Analyzed: 12/02/2011

Lab Batch ID: 876229

Sample: 614942-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	878	88	1000	869	87	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1040	104	1000	1080	108	4	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: Southern Union Gas Landfarm

Work Order #: 432424

Project ID:

Lab Batch ID: 876294

QC- Sample ID: 432422-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/05/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00111	0.111	0.0815	73	0.111	0.0883	80	8	70-130	35	
Toluene	<0.00222	0.111	0.0830	75	0.111	0.0898	81	8	70-130	35	
Ethylbenzene	<0.00111	0.111	0.0871	78	0.111	0.0965	87	10	71-129	35	
m_p-Xylenes	<0.00222	0.222	0.170	77	0.222	0.187	84	10	70-135	35	
o-Xylene	<0.00111	0.111	0.0862	78	0.111	0.0957	86	10	71-133	35	

Lab Batch ID: 876229

QC- Sample ID: 432417-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: KTB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	757	76	1000	841	84	11	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	912	91	1000	1080	108	17	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable, N = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432424

Lab Batch #: 876264
Date Analyzed: 12/03/2011 11:04
QC- Sample ID: 432417-001 D

Date Prepared: 12/03/2011
Batch #: 1

Project ID:
Analyst: BRB
Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	<4.57	<4.57	0	20	U

Lab Batch #: 876264
Date Analyzed: 12/03/2011 11:04
QC- Sample ID: 432421-001 D

Date Prepared: 12/03/2011
Batch #: 1

Analyst: BRB
Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	132	135	2	20	

Lab Batch #: 876227
Date Analyzed: 12/02/2011 12:25
QC- Sample ID: 432417-001 D

Date Prepared: 12/02/2011
Batch #: 1

Analyst: BRB
Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	8.06	7.98	1	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432424
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 432425
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

07-DEC-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



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Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



07-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432425**
Southern Union Gas Landfarm
Project Address: Lea County, NN

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432425. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432425 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432425



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 14 G-1	S	11-29-11 11:25		432425-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432425

Report Date: 07-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-876229 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876229, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 432417-001 S.

Batch: LBA-876339 Anions by E300

Samples with Results above 12 mg/kg have been confirmed by re-extraction and re-analysis



Certificate of Analysis Summary 432425
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NN

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 07-DEC-11

Project Manager: Brent Barron II

Analysis Requested	Lab Id: 432425-001 Field Id: VZ Cell 14 G-1 Depth: Matrix: SOIL Sampled: Nov-29-11 11:25					
Anions by E300	Extracted: Analyzed: Dec-06-11 10:53 Units/RL: mg/kg RL					
Chloride	17.4 4.77					
BTEX by EPA 8021B	Extracted: Dec-05-11 18:00 Analyzed: Dec-06-11 06:02 Units/RL: mg/kg RL					
Benzene	ND 0.00114					
Toluene	ND 0.00227					
Ethylbenzene	ND 0.00114					
m_p-Xylenes	ND 0.00227					
o-Xylene	ND 0.00114					
Total Xylenes	ND 0.00114					
Total BTEX	ND 0.00114					
Percent Moisture	Extracted: Analyzed: Dec-02-11 12:25 Units/RL: % RL					
Percent Moisture	11.9 1.00					
TPH By SW8015 Mod	Extracted: Dec-02-11 13:58 Analyzed: Dec-03-11 07:09 Units/RL: mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons	ND 17.0					
C12-C28 Diesel Range Hydrocarbons	ND 17.0					
C28-C35 Oil Range Hydrocarbons	ND 17.0					
Total TPH	ND 17.0					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

^ NELAC or State program does not offer Accreditation at this time.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432425,

Project ID:

Lab Batch #: 876229

Sample: 432425-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 07:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.8	99.6	79	70-135	
o-Terphenyl	37.6	49.8	76	70-135	

Lab Batch #: 876229

Sample: 432425-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 06:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 876229

Sample: 614942-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.3	100	77	70-135	
o-Terphenyl	36.5	50.0	73	70-135	

Lab Batch #: 876229

Sample: 614976-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/11 04:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876229

Sample: 614942-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	38.5	50.0	77	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432425,

Project ID:

Lab Batch #: 876294

Sample: 614976-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/11 03:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 876229

Sample: 614942-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	41.2	50.0	82	70-135	

Lab Batch #: 876294

Sample: 614976-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/11 03:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876229

Sample: 432417-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 08:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	100	86	70-135	
o-Terphenyl	32.1	50.2	64	70-135	*

Lab Batch #: 876294

Sample: 432422-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 08:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432425,

Project ID:

Lab Batch #: 876229

Sample: 432417-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 09:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.1	100	98	70-135	
o-Terphenyl	43.2	50.1	86	70-135	

Lab Batch #: 876294

Sample: 432422-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 09:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432425

Analyst: ASA

Lab Batch ID: 876294

Sample: 614976-1-BKS

Batch #: 1

Project ID:

Date Analyzed: 12/06/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0972	97	0.100	0.0966	97	1	70-130	35	
Toluene	<0.00200	0.100	0.0998	100	0.100	0.0990	99	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.106	106	0.100	0.106	106	0	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.207	104	0.200	0.206	103	0	70-135	35	
o-Xylene	<0.00100	0.100	0.105	105	0.100	0.105	105	0	71-133	35	

Analyst: BRB

Date Prepared: 12/06/2011

Date Analyzed: 12/06/2011

Lab Batch ID: 876339

Sample: 876339-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.840	20.0	19.7	99	20.0	20.2	101	3	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432425

Analyst: KTB

Lab Batch ID: 876229

Sample: 614942-1-BKS

Date Prepared: 12/02/2011

Batch #: 1

Project ID:

Date Analyzed: 12/02/2011

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	878	88	1000	869	87	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1040	104	1000	1080	108	4	70-135	35	

Relative Percent Difference RPD = $200 * (C-F) / (C+F)$

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432425

Lab Batch #: 876339

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Project ID:

Analyst: BRB

QC- Sample ID: 432425-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	17.4	114	126	95	75-125	

Lab Batch #: 876339

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: BRB

QC- Sample ID: 432426-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	7.72	109	105	89	75-125	

Matrix Spike Percent Recovery [D] = $100 \cdot (C-A) / B$
 Relative Percent Difference [E] = $200 \cdot (C-A) / (C+B)$
 All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432425

Project ID:

Lab Batch ID: 876294

QC- Sample ID: 432422-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/05/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Benzene	<0.00111	0.111	0.0815	73	0.111	0.0883	80	8	70-130	35
Toluene	<0.00222	0.111	0.0830	75	0.111	0.0898	81	8	70-130	35	
Ethylbenzene	<0.00111	0.111	0.0871	78	0.111	0.0965	87	10	71-129	35	
m_p-Xylenes	<0.00222	0.222	0.170	77	0.222	0.187	84	10	70-135	35	
o-Xylene	<0.00111	0.111	0.0862	78	0.111	0.0957	86	10	71-133	35	

Lab Batch ID: 876229

QC- Sample ID: 432417-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: KTB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	757	76	1000	841	84	11	70-135	35
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	912	91	1000	1080	108	17	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable, N = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432425

Lab Batch #: 876339
Date Analyzed: 12/06/2011 10:53
QC- Sample ID: 432426-001 D
Reporting Units: mg/kg

Date Prepared: 12/06/2011
Batch #: 1

Project ID:
Analyst: BRB
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	7.72	7.18	7	20	

Lab Batch #: 876227
Date Analyzed: 12/02/2011 12:25
QC- Sample ID: 432417-001 D
Reporting Units: %

Date Prepared: 12/02/2011
Batch #: 1

Analyst: BRB
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	8.06	7.98	1	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11.30.11 14:37
 Lab ID #: 432425
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>20</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply: Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 Initial and Backup Temperature confirm out of temperature conditions
 Client understands and would like to proceed with analysis

Analytical Report 432426
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Southern Union Gas Landfarm

07-DEC-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

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Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



07-DEC-11

Project Manager: **Rose Slade**
Southern Union Gas Services- Monahans
1507 W. 15th Street
Monahans, TX 79756

Reference: XENCO Report No: **432426**
Southern Union Gas Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 432426. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 432426 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 432426



Southern Union Gas Services- Monahans, Monahans, TX
Southern Union Gas Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 15 G-1	S	11-29-11 12:10		432426-001



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: Southern Union Gas Landfarm



Project ID:
Work Order Number: 432426

Report Date: 07-DEC-11
Date Received: 11/30/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-876229 TPH By SW8015 Mod
SW8015MOD_NM

Batch 876229, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 432417-001 S.

Batch: LBA-876339 Anions by E300

Samples with Results above 12 mg/kg have been confirmed by re-extraction and re-analysis



Certificate of Analy. Summary 432426
Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Gas Landfarm

Date Received in Lab: Wed Nov-30-11 02:37 pm

Report Date: 07-DEC-11

Project Manager: Brent Barron II

Analysis Requested	<i>Lab Id:</i>	432426-001				
	<i>Field Id:</i>	VZ Cell 15 G-1				
	<i>Depth:</i>					
	<i>Matrix:</i>	SOIL				
	<i>Sampled:</i>	Nov-29-11 12:10				
Anions by E300	<i>Extracted:</i>					
	<i>Analyzed:</i>	Dec-06-11 10:53				
	<i>Units/RL:</i>	mg/kg RL				
Chloride		7.72 4.57				
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-05-11 18:00				
	<i>Analyzed:</i>	Dec-06-11 10:10				
	<i>Units/RL:</i>	mg/kg RL				
Benzene		ND 0.00109				
Toluene		ND 0.00217				
Ethylbenzene		ND 0.00109				
m_p-Xylenes		ND 0.00217				
o-Xylene		ND 0.00109				
Total Xylenes		ND 0.00109				
Total BTEX		ND 0.00109				
Percent Moisture	<i>Extracted:</i>					
	<i>Analyzed:</i>	Dec-02-11 12:25				
	<i>Units/RL:</i>	% RL				
Percent Moisture		8.00 1.00				
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-02-11 13:58				
	<i>Analyzed:</i>	Dec-03-11 07:35				
	<i>Units/RL:</i>	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 16.2				
C12-C28 Diesel Range Hydrocarbons		ND 16.2				
C28-C35 Oil Range Hydrocarbons		ND 16.2				
Total TPH		ND 16.2				

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

Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation. ^ NELAC or State program does not offer Accreditation at this time.

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(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432426,

Project ID:

Lab Batch #: 876229

Sample: 432426-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 07:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.4	99.5	73	70-135	
o-Terphenyl	37.2	49.8	75	70-135	

Lab Batch #: 876294

Sample: 432426-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 10:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 876229

Sample: 614942-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.3	100	77	70-135	
o-Terphenyl	36.5	50.0	73	70-135	

Lab Batch #: 876294

Sample: 614976-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/11 04:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876229

Sample: 614942-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/02/11 22:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	38.5	50.0	77	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432426,

Project ID:

Lab Batch #: 876294

Sample: 614976-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 12/06/11 03:03	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 876229

Sample: 614942-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 12/02/11 22:27	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	41.2	50.0	82	70-135	

Lab Batch #: 876294

Sample: 614976-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 12/06/11 03:25	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 876229

Sample: 432417-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 12/03/11 08:53	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	85.6	100	86	70-135	
o-Terphenyl	32.1	50.2	64	70-135	*

Lab Batch #: 876294

Sample: 432422-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 12/06/11 08:40	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Southern Union Gas Landfarm

Work Orders : 432426,

Project ID:

Lab Batch #: 876229

Sample: 432417-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/03/11 09:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.1	100	98	70-135	
o-Terphenyl	43.2	50.1	86	70-135	

Lab Batch #: 876294

Sample: 432422-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/11 09:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432426

Project ID:

Analyst: ASA

Date Prepared: 12/05/2011

Date Analyzed: 12/06/2011

Lab Batch ID: 876294

Sample: 614976-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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	0.0972	97	0.100	0.0966	97	1	70-130	35	
Toluene	<0.00200	0.100	0.0998	100	0.100	0.0990	99	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.106	106	0.100	0.106	106	0	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.207	104	0.200	0.206	103	0	70-135	35	
o-Xylene	<0.00100	0.100	0.105	105	0.100	0.105	105	0	71-133	35	

Analyst: BRB

Date Prepared: 12/06/2011

Date Analyzed: 12/06/2011

Lab Batch ID: 876339

Sample: 876339-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	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											
Chloride	<0.840	20.0	19.7	99	20.0	20.2	101	3	75-125	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432426

Analyst: KTB

Lab Batch ID: 876229

Sample: 614942-1-BKS

Date Prepared: 12/02/2011

Batch #: 1

Project ID:

Date Analyzed: 12/02/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	878	88	1000	869	87	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1040	104	1000	1080	108	4	70-135	35	

Relative Percent Difference RPD = $200 * (C - F) / (C + F)$

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432426

Lab Batch #: 876339

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Project ID:

Analyst: BRB

QC- Sample ID: 432425-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	17.4	114	126	95	75-125	

Lab Batch #: 876339

Date Analyzed: 12/06/2011

Date Prepared: 12/06/2011

Analyst: BRB

QC- Sample ID: 432426-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	7.72	109	105	89	75-125	

Matrix Spike Percent Recovery [D] = $100 \cdot (C-A)/B$
 Relative Percent Difference [E] = $200 \cdot (C-A)/(C+B)$
 All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - N MSD Recoveries



Project Name: Southern Union Gas Landfarm

Work Order #: 432426

Project ID:

Lab Batch ID: 876294

QC- Sample ID: 432422-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/06/2011

Date Prepared: 12/05/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00111	0.111	0.0815	73	0.111	0.0883	80	8	70-130	35	
Toluene	<0.00222	0.111	0.0830	75	0.111	0.0898	81	8	70-130	35	
Ethylbenzene	<0.00111	0.111	0.0871	78	0.111	0.0965	87	10	71-129	35	
m_p-Xylenes	<0.00222	0.222	0.170	77	0.222	0.187	84	10	70-135	35	
o-Xylene	<0.00111	0.111	0.0862	78	0.111	0.0957	86	10	71-133	35	

Lab Batch ID: 876229

QC- Sample ID: 432417-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/03/2011

Date Prepared: 12/02/2011

Analyst: KTB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	757	76	1000	841	84	11	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	912	91	1000	1080	108	17	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southern Union Gas Landfarm

Work Order #: 432426

Lab Batch #: 876339

Project ID:

Date Analyzed: 12/06/2011 10:53

Date Prepared: 12/06/2011

Analyst: BRB

QC- Sample ID: 432426-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	7.72	7.18	7	20	

Lab Batch #: 876227

Date Analyzed: 12/02/2011 12:25

Date Prepared: 12/02/2011

Analyst: BRB

QC- Sample ID: 432417-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	8.06	7.98	1	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Philadelphia
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
 Document No.: SYS-SRC
 Revision/Date: No. 01, 5/27/2010
 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / SUGS
 Date/Time: 11:30:11 14:37
 Lab ID #: 432426
 Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>20</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Photographs



Southern Union Landfarm Cell 1



Southern Union Landfarm Cell 2



Southern Union Landfarm Cell 3



Southern Union Landfarm Cell 4



Southern Union Landfarm Cell 5



Southern Union Landfarm Cell 6



Southern Union Landfarm Cell 7



Southern Union Landfarm Cell 8



Southern Union Landfarm Cell 9



Southern Union Landfarm Cell 10



Southern Union Landfarm Cell 11



Southern Union Landfarm Cell 12



Southern Union Landfarm Cell 13



Southern Union Landfarm Cell 14



Southern Union Landfarm Cell 15