RECEIVED
By JKeyes at 11:17 am, Oct 27, 2015

APPROVED
By JKeyes at 11:17 am, Oct 27, 2015

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Southern Union Gas Services	Contact: Rose Slade
Address: P.O. Box 1226 Jal, NM 88252	Telephone No.: 210-403-6525 or 432.940.5147
Facility Name: Lea County Field Dept.	Facility Type: Natural Gas Gathering

Surface Owner: Rubert Madera Trust	Mineral Owner: Federal	IRP No. 1116

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	3	24S	34E					Lea

Latitude: N32 15.154 **Longitude:** W103 27.139

NATURE OF RELEASE

Type of Release: Crude oil & Natural Gas	Volume of Release: 50 bbls	Volume Recovered: 0 recovered
Source of Release: 6 inch steel pipeline	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery 6/13/2011@11:30 AM
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom? Tony Savoie, Southern Union Gas Services	Date and Hour: Verbally reported to Larry Johnson @ 7:56 a.m. 8/22/06	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The 6" steel gathering pipeline, operating at 25 psi developed a leak, the line was excavated and the affected area was clamped on 8/19/06. The oil saturated area was blended onsite to prevent exposure to livestock and wildlife. Normal operating pressure on the line is 20 psi to 30 psi, with a potential H2s content of 4000 ppm.

Describe Area Affected and Cleanup Action Taken.*
Based upon the information reviewed, the extent of the affected soil was delineated vertically and horizontally, In addition, the affected soil has been removed from the site or no longer exhibits COC concentrations in exceedance of the NMOCD Remediation Action Levels. Apex issued a work Plan in April 2015, which was approved by the NMOCD pending documentation of final excavation backfill activities. On July 6, 2015, Trench 2 & 3 excavations were backfilled under the direction of Regency Personnel, and the surface soils were contoured with the surrounding grade.

Based upon the response actions and laboratory analytical results, no further action appears to be necessary at this time.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: *Rose L. Slade*	OIL CONSERVATION DIVISION	
Printed Name: Rose L. Slade	Approved by NMOCD:	
Title: Senior Environmental Specialist	Approval Date: 10/27/2015	Expiration Date:
E-mail Address: rose.slade@energytransfer.com	Conditions of Approval:	Attached ☐
Date:10/19/15 Phone: 210.403.6525		

* Attach Additional Sheets If Necessary

SITE CLOSURE REPORT

Property:

Regency Field Services LLC
A-14 6-Inch Pipeline Release Site
Unit Letter "A", Section 3, Township 24 South, Range 34 East
Lea County, New Mexico
NMOCD Job No. 1RP-1116

October 7, 2015
Apex Project No. 7250715006-001

Prepared for:

Regency Field Services LLC
800 E. Sonterra Blvd, Ste 400
San Antonio, Tx 78258
Attn: Ms. Rose Slade

Prepared by:

Laura B. Hamrick
Staff Scientist

Joseph W. Martinez
Branch Manager

TABLE OF CONTENTS

APPENDICES

EXECUTIVE SUMMARY

Apex TITAN, Inc. (Apex) has prepared this Site Closure Report for the Regency Field Services LLC (Regency) A-14 6-inch Pipeline Release Site, referred to hereinafter as the "Site" or "subject pipeline". This Site Closure Report is based upon the interpretation of the data collected by Southern Union Gas (SUG), NOVA Safety and Environmental (NOVA), and the corrective action activities performed by Apex.

On August 19, 2006, approximately 50 barrels (bbls) of crude oil was released from the subject pipeline. Approximately 348 cubic yards (cy) of affected soil was excavated and disposed of off-Site. SUG collected 11 soil samples from the affected or excavated portions of the Site. Nine (9) of the soil samples exhibited total petroleum hydrocarbon (TPH) concentrations in exceedance of the regulatory protection limit.

On May 31, 2013, NOVA initiated trenching and soil sampling activities at the Site. NOVA collected seven (7) soil samples at the pipeline excavation and 19 soil samples from the trench floors or stockpiled soils. Two (2) soil samples (Trench-2 Topsoil and Trench-3 Topsoil) exhibited TPH concentrations in exceedance of the regulatory protection limits.

On March 18, 2015, Apex collected two (2) composite soil samples from the Trench 2 and Trench 3 Topsoil stockpile. The soil samples did not exhibit TPH, benzene, toluene, ethylbenzene, xylenes (BTEX), or chloride concentrations in exceedance of the regulatory protection limits. On July 6, 2015, Trench 2 and 3 excavations were backfilled.

Based upon the response actions and laboratory analytical results, no further action appears to be necessary at this time. Apex recommends that the New Mexico Oil Conservation Division (NMOCD) review the Site for final closure.

1.0 INTRODUCTION

1.1 Site Description & Background

Apex TITAN, Inc. (Apex) has prepared this Site Closure Report for the Regency Field Services LLC (Regency) A-14 6-inch Pipeline located in Unit Letter A, Section 3, Township 24 South, Range 34 East, Lea County, New Mexico (32.252566N, 103.452315W), referred to hereinafter as the "Site" or "subject Site". A topographic map depicting the location of the Site is included as **Figure 1**, a site vicinity map is included as **Figure 2,** and a Site Plans are included as **Figures 3A, 3B,** and **3C** of **Appendix A**.

This Site Closure Report is based upon the interpretation of the data collected by Southern Union Gas (SUG), NOVA Safety and Environmental (NOVA), and the corrective action activities performed by Apex. The objective of this report is to provide documentation of restoration and closure activities performed at the Site in accordance with the work plan approved by the New Mexico Oil Conservation Division (NMOCD).

On August 19, 2006, approximately 50 barrels (bbls) of crude oil was released from the subject pipeline. The release was reported to the NMOCD on September 22, 2006. The NMOCD issued Job No. 1RP-1116 for the Site. Constituents of concern (COCs) associated with crude oil included total petroleum hydrocarbon (TPH), benzene, toluene, ethylbenzene, and total xylenes (BTEX). A copy of the NMOCD C-141 form is available in **Appendix E.**

2.0 *SITE RANKING*

The Site is subject to regulatory oversight by the NMOCD. To address activities related to releases, the NMOCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the NMOCD rules, specifically NMAC 19.15.29 *Release Notification*. These documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

In accordance with the NMOCD's *Guidelines for Remediation of Leaks, Spills and Releases*, Apex utilized general site characteristics to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the table below:

Ranking Criteria			**Ranking Score**
Depth to Groundwater	<50 feet	20	**20**
	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area, <1,000 feet from a water source, or; <200 feet from private domestic water source.	Yes	20	**0**
	No	0	
Distance to Surface Water Body	<200 feet	20	**0**
	200 to 1,000 feet	10	
	>1,000 feet	0	
Total Ranking Score			**20**

Based on Apex's evaluation of the scoring criteria, the Site would have a Total Ranking Score of 20. This ranking is based on the following:

- The depth to the initial groundwater-bearing zone may be less than 50 feet below ground surface (bgs).

Apex performed a search of the New Mexico Office of the State Engineers (OSE) water well records for Township 24S, Rage 34E. Four (4) water wells were identified, which were located between 1.2 and 6 miles from the Site. One (1) of the water wells reported depth to groundwater at 40 feet bgs. A site specific assessment of depth to groundwater was not performed. Based on the information reviewed and the absence of site-specific assessment information, a ranking score of 20 was assigned to the depth to groundwater ranking criteria. It should be noted that the site ranking score was previously characterized as zero (0). A copy of the water well search results and the point of diversion summary records are available in **Appendix F**.

The NMOCD Response Action Levels for sites with a Total Ranking Score of 20 include the following: 10 milligrams per kilogram (mg/Kg) for benzene, 50 mg/Kg for total benzene, toluene, ethylbenzene and xylene (BTEX), 100 mg/Kg for total petroleum hydrocarbons (TPH). It should be noted that the NMOCD has not officially promulgated a protection limit for chlorides in soils. However, in accordance with the New Mexico Administrative Code (NMAC) 19.15.36, a chloride limit of 500 mg/Kg has been established for other operational facilities where groundwater has been identified at less than 100 feet bgs.

3.0 CORRECTIVE ACTION ACTIVITIES

3.1 Initial Response

Subsequent to the release being identified, the subject pipeline was shut in and excavation activities were initiated to expose and repair the source of the leak. The crude oil flow path affected approximately 15,670 square feet (sq. ft.) of surface soil. Approximately 348 cubic yards (cy) of affected soil was excavated and transported to the Pitch Fork Landfarm located in Lea County, New Mexico. In addition, approximately 492 cubic yards of backfill material was delivered from the Pitch Fork Landfarm to the Site.

SUG collected 11 soil samples, including five (5) composite and six (6) discrete soil samples, from the affected or excavated portions of the Site. The soils samples were submitted for TPH and/or BTEX analysis. Based on the laboratory analytical results, nine (9) of the soil samples exhibited TPH concentrations in exceedance of the NMOCD Remediation Action Levels. The remaining soils samples did not exhibit TPH and/or BTEX concentrations in exceedance of the NMOCD Remediation Action Levels. Based on a review of field notes, it was inferred that the pipeline excavation remained open pending further corrective action.

A Site Plan which depicts the estimated crude oil flow path and SUG soil sampling locations is available as **Figure 3A** in **Appendix A**. A summary of laboratory analytical results for the soil samples collected by SUG is available in **Appendix C**. Copies of the Bill of Ladings and backfill check receipt form is available in **Appendix G**.

3.2 Site Investigation

On May 31, 2013, NOVA initiated trenching and soil sampling activities at the Site. NOVA collected seven (7) discrete excavation sidewall and floor samples at the pipeline release point. In addition, NOVA directed the advancement of 13 soil trenches within the footprint of the former crude oil flow path with depths ranging from two (2) to six (6) feet bgs. NOVA collected an additional 19 soil samples, including three (3) composite and 16 discrete soil samples, from the trench floors or stockpiled soils. Each of the soil samples were submitted for TPH, BTEX, and chloride analysis.

Based on the laboratory analytical results, two (2) of the soil samples (Trench-2 Topsoil and Trench-3 Topsoil) exhibited TPH concentrations in exceedance of the NMOCD Remediation Action Levels. The remaining soils samples did not exhibit TPH, BTEX, and/or chloride concentrations in exceedance of the NMOCD Remediation Action Levels. The excavation and stockpiled material for Trench 2 and Trench 3 remained open or in place. Based on a review of field notes, it was inferred that the remaining trenches and pipeline excavation was subsequently backfilled with the on-Site stockpile material.

A Site Plan which depicts the NOVA soil sampling locations is available as **Figure 3B** in **Appendix A**. A summary of laboratory analytical results for the soil samples collected by NOVA is available in **Appendix C**.

3.3 Final Site Closure Activities

On March 18, 2015, Apex collected two (2) composite soil samples including one (1) from the Trench 2 Topsoil stockpile and one (1) from the Trench 3 Topsoil stockpile. The soil samples were submitted for TPH, BTEX and chloride analysis. Based on the laboratory analytical results, the soil samples did not exhibit TPH, BTEX, or chloride concentrations in exceedance of the NMOCD Remediation Action Levels. Apex also performed a visual inspection of the former crude oil flow path, which confirmed vegetative regrowth had been established. On July 6, 2015, Trench 2 and 3 excavations were backfilled under the direction of Regency personnel, and the surface soils were contoured with the surrounding grade.

A Site Plan which depicts the Apex soil sampling locations is available as **Figure 3C** in **Appendix A**. Photographic documentation of the Site is available in **Appendix B**. A summary of laboratory analytical results for the soil samples collected by Apex is available in **Appendix C**.

4.0 LABORATORY ANALYTICAL PROGRAM

4.1 Laboratory Analytical Methods

The soil samples collected by Apex were analyzed for TPH GRO/DRO utilizing EPA method SW-846 8015 modified, BTEX utilizing EPA method SW-846 8021B and chlorides utilizing EPA method SW-846 300.1. The sample coolers and completed chain-of-custody forms were relinquished to Trace Analysis, Inc. in Midland, Texas for normal turn-around time. The analytical results for the soil sampling activities completed at the Site are summarized in **Table 1** of **Appendix B**. Copies of the laboratory analysis are provided in **Appendix D**.

4.2 Quality Assurance/Quality Control (QA/QC)

Sampling equipment was cleaned using an Alconox® wash and potable water rinse prior to the beginning of the project and before the collection of each sample. Samples were collected and placed in laboratory prepared glassware, sealed with custody tape and placed on ice in a cooler, which was secured with a custody seal. The sample coolers and completed chain-of-custody forms were relinquished to Trace Analysis (Trace) in Midland, Texas for standard turnaround.

Trace performed the analyses of samples under an adequate and documented quality assurance program to meet the project and data quality objectives. The laboratory's quality assurance program is generally consistent the quality standards outlined in the National Environmental Laboratory Accreditation Program, as amended. In addition, the data generated by Trace meets the intralaboratory performance standards for the selected analytical method and the performance standards are sufficient to meet the bias, precision, sensitivity, representativeness, comparability, and completeness, as specified in the project data quality objectives.

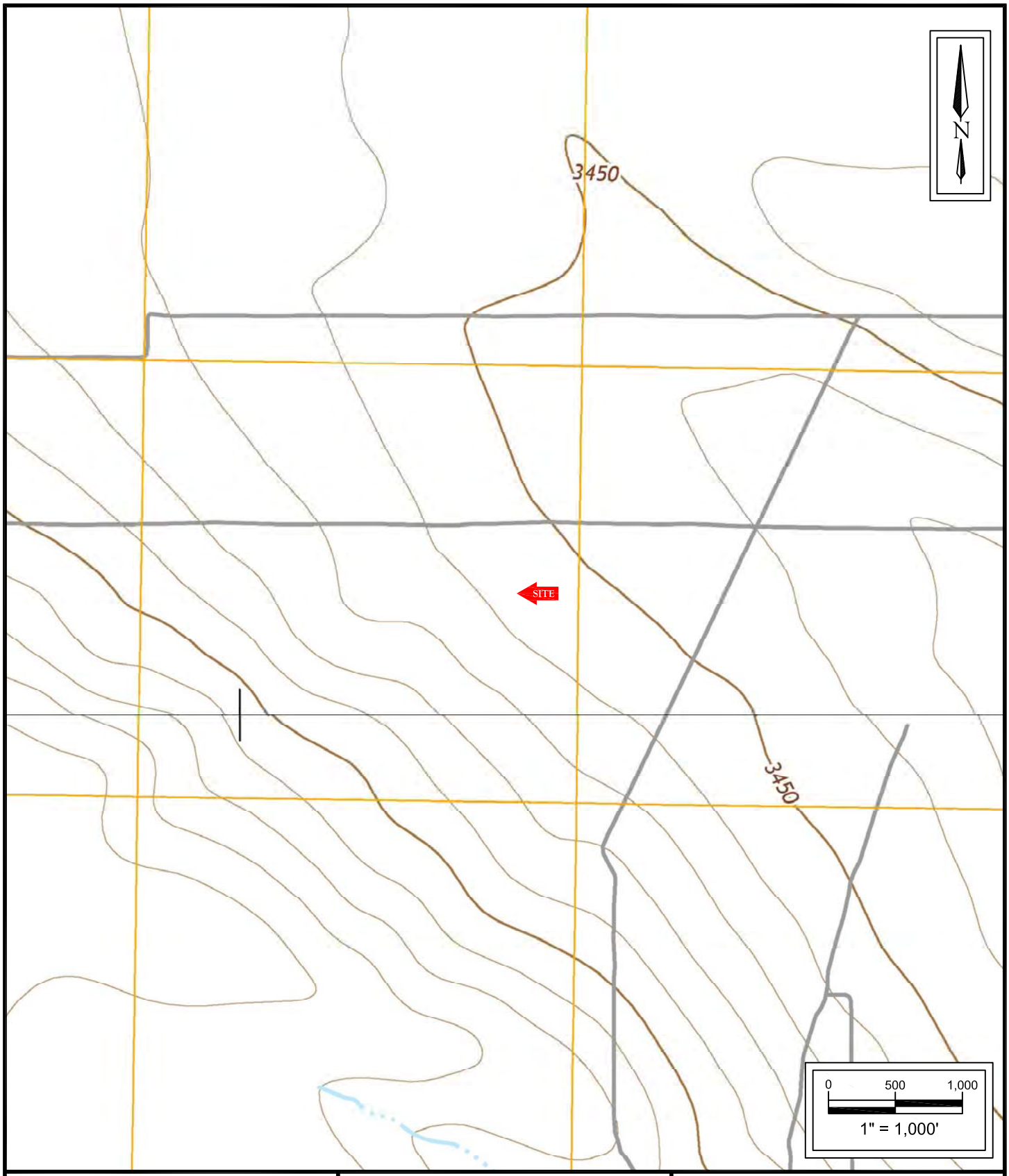
5.0 FINDINGS AND RECOMMENDATIONS

Based upon the information reviewed, the extent of the affected soil was delineated vertically and horizontally. In addition, the affected soil has been removed from the Site or no longer exhibits COC concentrations in exceedance of the NMOCD Remediation Action Levels. Apex issued a Work Plan in April 2015, which was approved by the NMOCD pending documentation of final excavation backfill activities. On July 6, 2015, Trench 2 and 3 excavations were backfilled under the direction of Regency personnel, and the surface soils were contoured with the surrounding grade.

Based upon the response actions and laboratory analytical results, no further action appears to be necessary at this time. Apex recommends that the NMOCD review the Site for final closure.

APPENDIX A

Figures



Site Closure Report
Regency Field Services LLC
A-14 6-Inch Pipeline Release Site
Unit Letter A, Section 3, Township 24 South, Range 34 East
Lea County, New Mexico
32.252566N; 103.452315W

Project No. 7250715006-001

Apex TITAN, Inc.
7979 Broadway Street, Suite 100
San Antonio, Texas 78209
Phone: (210) 804-9922
www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 1

Topographic Map
San Simon Sink and Woodley Flats NM Quadrangles
2013

Site Closure Report
Regency Field Services LLC
A-14 6-Inch Pipeline Release Site
Unit Letter A, Section 3, Township 24 South, Range 34 East
Lea County, New Mexico
32.252566N; 103.452315W

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FIGURE 2

Site Vicinity Map

Site Closure Report
Regency Field Services LLC
A-14 6-Inch Pipeline Release Site
Unit Letter A, Section 3, Township 24 South, Range 34 East
Lea County, New Mexico
32.252566N; 103.452315W

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FIGURE 3A

Site Plan
SUG 2006

Site Closure Report
Regency Field Services LLC
A-14 6-Inch Pipeline Release Site
Unit Letter A, Section 3, Township 24 South, Range 34 East
Lea County, New Mexico
32.252566N; 103.452315W

Project No. 7250715006-001

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FIGURE 3B

Site Plan
NOVA 2013

Site Closure Report
Regency Field Services LLC
A-14 6-Inch Pipeline Release Site
Unit Letter A, Section 3, Township 24 South, Range 34 East
Lea County, New Mexico
32.252566N; 103.452315W

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FIGURE 3C

Site Plan
Apex 2015

APPENDIX B

Photographic Documentation

Photograph 1 View of vegetative overgrowth on former crude oil flow path near Trench 3.	
Photograph 2 View of Trench 2 excavation prior to backfill activities.	
Photograph 3 View of Trench 3 excavation prior to backfill activities.	

Photograph 4 View of Trench 3 excavation subsequent to backfill activities.	

APPENDIX C

Tables

TABLE 1
REGENCY A-14 6-INCH PIPELINE RELEASE SITE
UNIT LETTER A, SECTION 3, TOWNSHIP 24 SOUTH, RANGE 34 EAST
LEA COUNTY, NEW MEXICO
ANALYTICAL RESULTS
SOIL CONFIRMATION SAMPLES

Sample ID	Date	Sample Depth (feet)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	Total BTEX (mg/Kg)	TPH (DRO) (mg/Kg)	TPH (GRO) (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)
NMOCD Remediation Action Levels			**10**	**NE**	**NE**	**NE**	**50**	**NE**		**100**	**500**
Samples Collected by Southern Union Gas Services (SUG)											
**Area #1 Surface Composite	8/21/2006	-	NS	NS	NS	NS	NS	24,600	7,560	**34,700**	NS
Area #1 6" B.G.S. @ Center	8/21/2006	0.5	NS	NS	NS	NS	NS	257	40.2	323	NS
**Area #2 Surface Composite	8/21/2006	-	NS	NS	NS	NS	NS	38,500	5,490	**47,100**	NS
Area #2 6" B.G.S. @ Center	8/21/2006	0.5	NS	NS	NS	NS	NS	916	221	**1,220**	NS
Area #2 6" B.G.S. @ West End	8/21/2006	0.5	<0.025	<0.025	<0.025	<0.025	<0.025	53.9	6.66 (J)	65.4	NS
**Area #3 Surface Composite	8/21/2006	-	NS	NS	NS	NS	NS	29,900	6,700	**39,300**	NS
Area #3 6" B.G.S. @ Center	8/21/2006	0.5	NS	NS	NS	NS	NS	1550	279	**1,970**	NS
**Area #4 Surface Composite	8/21/2006	-	<0.025	<0.025	<0.025	<0.025	<0.025	33,300	6,020	**42,300**	NS
Area #4 6" B.G.S. @ Center	8/21/2006	0.5	NS	NS	NS	NS	NS	135	16	**171**	NS
**Surface Composite	8/21/2006	0.1	NS	NS	NS	NS	NS	69,400	7,920	**85,800**	NS
**6" B.G.S. @ Center	8/21/2006	0.5	NS	NS	NS	NS	NS	5,600	3,290	**9,390**	NS
Samples Collected by NOVA											
RP Floor @ 11'	05/31/13	11	<0.00111	<0.00223	<0.00111	<0.00111	<0.00111	<15.0	<15.0	<15.0	492
RP East S/W @ 10'	05/31/13	10	<0.00106	<0.00213	<0.00106	<0.00106	<0.00106	<14.9	<14.9	<14.9	25.5
RP West S/W @ 10'	05/31/13	10	<0.00103	<0.00206	<0.00103	<0.00103	<0.00103	<15.0	<15.0	<15.0	8.01
RP South S/W @ 11'	06/07/13	11	<0.00103	<0.00205	<0.00103	<0.00103	<0.00103	<15.6	<15.6	<15.6	37.9
RP North S/W @ 11'	06/04/13	11	<0.000998	<0.00200	<0.000998	<0.000998	<0.000998	<15.6	<15.6	<15.6	214
**RP @ 12'	06/03/13	12	<0.00108	<0.00216	<0.00108	<0.00108	<0.00108	<16.4	<16.4	<16.4	97.5
**RP @ 18'	06/03/13	18	<0.00107	<0.00213	<0.00107	<0.00107	<0.00107	<16.1	<16.1	<16.1	49.9
Trench-1 Floor @ 2'	06/03/13	2	<0.000990	<0.00198	<0.000990	<0.00990	<0.00990	<14.9	<14.9	<14.9	18.5
Trench-1 Floor @ 6'	06/04/13	6	<0.000992	<0.00198	<0.000992	<0.000992	<0.000992	<15.4	<15.4	<15.4	17.8
Trench-2 Floor @ 2'	06/03/13	2	<0.000994	<0.00199	<0.000994	<0.000994	<0.000994	69.1	<14.9	69.1	63.8
*Trench-2 Topsoil	06/04/13	-	<0.000992	<0.00198	<0.000992	<0.000992	<0.000992	10,600	260	**12,900**	4.22
Trench-2 Floor @ 4'	06/04/13	4	<0.000994	<0.00199	<0.000994	<0.000994	<0.000994	<15.5	<15.5	<15.5	50.4
*Trench-3 Topsoil	06/04/13	-	<0.000998	<0.00200	<0.000998	<0.00200	<0.00200	5,970	99.2	**7,800**	2.84
Trench-3 Floor @ 2'	06/04/13	2	<0.00100	<0.00200	<0.00100	<0.00100	<0.00100	<15.5	<15.5	<15.5	2.66
Trench-4 Floor @ 2'	06/05/13	2	<0.000990	<0.00198	<0.000990	<0.000990	<0.000990	<15.5	<15.5	<15.5	<2.00
Trench-5 Floor @ 2'	06/05/13	2	<0.000990	<0.00198	<0.000990	<0.000990	<0.000990	<15.5	<15.5	<15.5	62.8
Trench-6 Floor @ 2'	06/05/13	2	<0.00100	<0.00200	<0.00100	<0.00100	<0.00100	<15.3	<15.3	<15.3	12.7
Trench-7 Floor @ 2'	06/05/13	2	<0.000994	<0.00199	<0.000994	<0.000994	<0.000994	<15.2	<15.2	<15.2	5.63
Trench-8 Floor @ 2'	06/05/13	2	<0.000994	<0.00199	<0.000994	<0.000994	<0.000994	<15.5	<15.5	<15.5	2.91
Trench-9 Floor @ 2'	06/05/13	2	<0.00100	<0.00200	<0.00100	<0.00100	<0.00100	<15.3	<15.3	<15.3	22.3
Trench-10 Floor @ 2'	06/05/13	2	<0.000996	<0.00199	<0.000996	<0.000996	<0.000996	<15.5	<15.5	<15.5	100
Trench-10 Floor @ 4'	06/05/13	4	<0.000998	<0.00200	<0.000998	<0.000998	<0.000998	<15.6	<15.6	<15.6	33.4
Trench-11 Floor @ 2'	06/05/13	2	<0.000994	<0.00199	<0.000994	<0.000994	<0.000994	<15.4	<15.4	<15.4	4.97
Trench-12 @ 2'	06/06/13	2	<0.00104	<0.00208	<0.00104	<0.00104	<0.00104	<15.6	<15.6	<15.6	5.97
Trench-13 @ 2'	06/06/13	2	<0.00103	<0.00207	<0.00103	<0.00103	<0.00103	43.7	<15.6	43.7	18.6
**SP-1	06/04/13	-	<0.000990	<0.00198	<0.000990	<0.000990	<0.000990	56.6	<15.2	56.6	54.9

TABLE 1

REGENCY A-14 6-INCH PIPELINE RELEASE SITE
UNIT LETTER A, SECTION 3, TOWNSHIP 24 SOUTH, RANGE 34 EAST
LEA COUNTY, NEW MEXICO
ANALYTICAL RESULTS
SOIL CONFIRMATION SAMPLES

Sample ID	Date	Sample Depth (feet)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	Total BTEX (mg/Kg)	TPH (DRO) (mg/Kg)	TPH (GRO) (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)
NMOCD Remediation Action Levels			**10**	**NE**	**NE**	**NE**	**50**	**NE**		**100**	**500**
Samples Collected by APEX											
Stockpile-1@Trench-2 Topsoil	03/18/15	-	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00	<50.0	<20.0
Stockpile-2@Trench-3 Topsoil	03/18/15	-	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00	<50.0	<20.0

* indicates area that was resampled by APEX in 2015

** Soil sample locations not identified or available for review by Apex

mg/Kg- milligrams per Kilograms

NE - Not Established

NS - Not Sampled

(J) Indicates detected, but below the Reporting Limit; therefore, result is an estimated concentration

Note: Concentrations in Bold and yellow exceed the NMOCD Remediation Action Levels

APPENDIX D

Laboratory Data Reports and Chain of Custody Documentation

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

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

Project: A-14 6" Lateral SExNW
Project Number: Leak Site #1
Location: Antelope Ridge

Lab Order Number: 6H22005

Report Date: 08/23/06

Southern Union Gas Services- Jal P.O. Box 1226 Jal NM, 88252	Project: A-14 6" Lateral SExNW Project Number: Leak Site #1 Project Manager: Tony Savoie	Fax: 505-395-2326

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Area #1 Surface Composite	6H22005-01	Soil	08/21/06 08:20	08-22-2006 10:16
Area #1 6" B.G.S@ Center	6H22005-02	Soil	08/21/06 08:22	08-22-2006 10:16
Area #4 Surface Composite	6H22005-03	Soil	08/21/06 08:48	08-22-2006 10:16
Area #4 6" B.G.S@ Center	6H22005-04	Soil	08/21/06 08:50	08-22-2006 10:16

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Area #1 Surface Composite (6H22005-01) Soil									
Carbon Ranges C6-C12	**7560**	100	mg/kg dry	10	EH62203	08/22/06	08/22/06	EPA 8015M	
Carbon Ranges C12-C28	**24600**	100	"	"	"	"	"	"	
Carbon Ranges C28-C35	**2510**	100	"	"	"	"	"	"	
Total Hydrocarbons	**34700**	100	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*25.2 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*9.22 %*	*70-130*		"	"	"	"	*S-06*
Area #1 6" B.G.S@ Center (6H22005-02) Soil									
Carbon Ranges C6-C12	**40.2**	10.0	mg/kg dry	1	EH62203	08/22/06	08/22/06	EPA 8015M	
Carbon Ranges C12-C28	**257**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**25.7**	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**323**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*129 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*127 %*	*70-130*		"	"	"	"	
Area #4 Surface Composite (6H22005-03) Soil									
Carbon Ranges C6-C12	**6020**	100	mg/kg dry	10	EH62203	08/22/06	08/22/06	EPA 8015M	
Carbon Ranges C12-C28	**33300**	100	"	"	"	"	"	"	
Carbon Ranges C28-C35	**2940**	100	"	"	"	"	"	"	
Total Hydrocarbons	**42300**	100	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*24.6 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*61.4 %*	*70-130*		"	"	"	"	*S-06*
Area #4 6" B.G.S@ Center (6H22005-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EH62213	08/22/06	08/22/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*89.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	**16.0**	10.0	mg/kg dry	1	EH62203	08/22/06	08/22/06	EPA 8015M	
Carbon Ranges C12-C28	**135**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**19.9**	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**171**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*127 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*128 %*	*70-130*		"	"	"	"	

Southern Union Gas Services- Jal P.O. Box 1226 Jal NM, 88252	Project: A-14 6" Lateral SExNW Project Number: Leak Site #1 Project Manager: Tony Savoie	Fax: 505-395-2326

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Area #1 Surface Composite (6H22005-01) Soil									
% Moisture	**15.1**	0.1	%	1	EH62307	08/22/06	08/23/06	% calculation	
Area #1 6" B.G.S@ Center (6H22005-02) Soil									
% Moisture	**13.2**	0.1	%	1	EH62307	08/22/06	08/23/06	% calculation	
Area #4 Surface Composite (6H22005-03) Soil									
% Moisture	**7.0**	0.1	%	1	EH62307	08/22/06	08/23/06	% calculation	
Area #4 6" B.G.S@ Center (6H22005-04) Soil									
% Moisture	**8.0**	0.1	%	1	EH62307	08/22/06	08/23/06	% calculation	

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62203 - Solvent Extraction (GC)										
Blank (EH62203-BLK1)			Prepared & Analyzed: 08/22/06							
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	*56.7*		*mg/kg*	*50.0*		*113*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.8*		*"*	*50.0*		*102*	*70-130*			
LCS (EH62203-BS1)			Prepared & Analyzed: 08/22/06							
Carbon Ranges C6-C12	493	10.0	mg/kg wet	500		98.6	75-125			
Carbon Ranges C12-C28	448	10.0	"	500		89.6	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	941	10.0	"	1000		94.1	75-125			
Surrogate: 1-Chlorooctane	*58.0*		*mg/kg*	*50.0*		*116*	*70-130*			
Surrogate: 1-Chlorooctadecane	*51.2*		*"*	*50.0*		*102*	*70-130*			
Calibration Check (EH62203-CCV1)			Prepared & Analyzed: 08/22/06							
Carbon Ranges C6-C12	202		mg/kg	250		80.8	80-120			
Carbon Ranges C12-C28	208		"	250		83.2	80-120			
Total Hydrocarbons	410		"	500		82.0	80-120			
Surrogate: 1-Chlorooctane	*64.7*		*"*	*50.0*		*129*	*70-130*			
Surrogate: 1-Chlorooctadecane	*64.6*		*"*	*50.0*		*129*	*70-130*			
Matrix Spike (EH62203-MS1)	**Source: 6H22005-04**		Prepared & Analyzed: 08/22/06							
Carbon Ranges C6-C12	634	10.0	mg/kg dry	543	16.0	114	75-125			
Carbon Ranges C12-C28	731	10.0	"	543	135	110	75-125			
Carbon Ranges C28-C35	19.0	10.0	"	0.00	19.9		75-125			
Total Hydrocarbons	1380	10.0	"	1090	171	111	75-125			
Surrogate: 1-Chlorooctane	*65.8*		*mg/kg*	*50.0*		*132*	*70-130*			*S-04*
Surrogate: 1-Chlorooctadecane	*60.4*		*"*	*50.0*		*121*	*70-130*			

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62203 - Solvent Extraction (GC)										
Matrix Spike Dup (EH62203-MSD1)	Source: 6H22005-04			Prepared & Analyzed: 08/22/06						
Carbon Ranges C6-C12	653	10.0	mg/kg dry	543	16.0	117	75-125	2.95	20	
Carbon Ranges C12-C28	716	10.0	"	543	135	107	75-125	2.07	20	
Carbon Ranges C28-C35	18.1	10.0	"	0.00	19.9		75-125	4.85	20	
Total Hydrocarbons	1380	10.0	"	1090	171	111	75-125	0.00	20	
Surrogate: 1-Chlorooctane	*68.7*		*mg/kg*	*50.0*		*137*	*70-130*			*S-04*
Surrogate: 1-Chlorooctadecane	*60.7*		*"*	*50.0*		*121*	*70-130*			
Batch EH62213 - EPA 5030C (GC)										
Blank (EH62213-BLK1)				Prepared & Analyzed: 08/22/06						
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	*37.1*		*ug/kg*	*40.0*		*92.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.1*		*"*	*40.0*		*100*	*80-120*			
LCS (EH62213-BS1)				Prepared & Analyzed: 08/22/06						
Benzene	1.16	0.0250	mg/kg wet	1.25		92.8	80-120			
Toluene	1.30	0.0250	"	1.25		104	80-120			
Ethylbenzene	1.21	0.0250	"	1.25		96.8	80-120			
Xylene (p/m)	2.94	0.0250	"	2.50		118	80-120			
Xylene (o)	1.41	0.0250	"	1.25		113	80-120			
Surrogate: a,a,a-Trifluorotoluene	*38.8*		*ug/kg*	*40.0*		*97.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*47.1*		*"*	*40.0*		*118*	*80-120*			

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62213 - EPA 5030C (GC)										
Calibration Check (EH62213-CCV1)				Prepared & Analyzed: 08/22/06						
Benzene	50.8		ug/kg	50.0		102	80-120			
Toluene	56.2		"	50.0		112	80-120			
Ethylbenzene	59.2		"	50.0		118	80-120			
Xylene (p/m)	119		"	100		119	80-120			
Xylene (o)	57.5		"	50.0		115	80-120			
Surrogate: a,a,a-Trifluorotoluene	*43.2*		"	*40.0*		*108*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.3*		"	*40.0*		*106*	*80-120*			
Matrix Spike (EH62213-MS1)		**Source: 6H22010-01**		Prepared & Analyzed: 08/22/06						
Benzene	1.27	0.0250	mg/kg dry	1.37	ND	92.7	80-120			
Toluene	1.47	0.0250	"	1.37	ND	107	80-120			
Ethylbenzene	1.40	0.0250	"	1.37	ND	102	80-120			
Xylene (p/m)	3.24	0.0250	"	2.74	ND	118	80-120			
Xylene (o)	1.55	0.0250	"	1.37	ND	113	80-120			
Surrogate: a,a,a-Trifluorotoluene	*43.9*		*ug/kg*	*40.0*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.9*		"	*40.0*		*110*	*80-120*			
Matrix Spike Dup (EH62213-MSD1)		**Source: 6H22010-01**		Prepared & Analyzed: 08/22/06						
Benzene	1.29	0.0250	mg/kg dry	1.37	ND	94.2	80-120	1.61	20	
Toluene	1.45	0.0250	"	1.37	ND	106	80-120	0.939	20	
Ethylbenzene	1.45	0.0250	"	1.37	ND	106	80-120	3.85	20	
Xylene (p/m)	3.24	0.0250	"	2.74	ND	118	80-120	0.00	20	
Xylene (o)	1.46	0.0250	"	1.37	ND	107	80-120	5.45	20	
Surrogate: a,a,a-Trifluorotoluene	*38.0*		*ug/kg*	*40.0*		*95.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.5*		"	*40.0*		*116*	*80-120*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62307 - General Preparation (Prep)										
Blank (EH62307-BLK1)				Prepared: 08/22/06 Analyzed: 08/23/06						
% Solids	100		%							
Duplicate (EH62307-DUP1)		**Source: 6H22004-01**		Prepared: 08/22/06 Analyzed: 08/23/06						
% Solids	91.8		%		92.0			0.218	20	

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 8-22-06

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Tony Savoie
Company Name: Southern Union Gas Services.
Company Address: 610 Commerce
City/State/Zip: JAL, N.M. 88252
Telephone No: 505-631-9376
Fax No:
Sampler Signature: Tony Savoie
e-mail:

Project Name: A-14 6" Lateral SExNW
Project #: Leak Site #1
Project Loc: Antelope Ridge
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 6H22005

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	No. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TOTAL: TPH: 418.1 (8015M) 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260 ✓	RCI	N.O.R.M.	RUSH TAT (Pre-Scheduled) (24, 48, 72 hrs)	Standard TAT
01	Area #1 Surface Composite	0"	1"	8/21/06	0820	1	✓								S	✓										✓	
02	Area #1 6" B.G.S. @ Center	6"	6"	"	0822	1	✓								S	✓										✓	
	Area #2 Surface Composite	0"	1"	"	0830	1	✓								S	✓											✓
	Area #2 6" B.G.S. @ Center	6"	6"	"	0832	1	✓								S	✓											✓
	Area #2 6" B.G.S. @ West End	6"	6"	"	0834	1	✓								S	✓							✓				✓
	Area #3 Surface Composite	0"	1"	"	0840	1	✓								S	✓											✓
	Area #3 6" B.G.S. @ Center	6"	6"	"	0842	1	✓								S	✓											✓
03	Area #4 Surface Composite	0"	1"	"	0848	1	✓								S	✓										✓	✓
04	Area #4 6" B.G.S @ Center	6"	6"	"	0850	1	✓								S	✓							✓			✓	
															X	X										X	

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Tony Savoie	8/22/06	10:16			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Carrie Kelly	Date 8/22/06	Time 10:16

Laboratory Comments:

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

by Courier? UPS DHL FedEx Lone Star

402 glass

Temperature Upon Receipt: 1.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: SWGS

Date/ Time: 8/22/06 10:15

Lab ID # : 160220

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	1.0 °C	
#2	Shipping container in good condition?	~~Yes~~	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	~~Not Present~~	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	~~Not Present~~	
#5	Chain of Custody present?	~~Yes~~	No		
#6	Sample instructions complete of Chain of Custody?	~~Yes~~	No		
#7	Chain of Custody signed when relinquished/ received?	~~Yes~~	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ (Lid)	
#9	Container label(s) legible and intact?	Yes	No	~~Not Applicable~~	
#10	Sample matrix/ properties agree with Chain of Custody?	~~Yes~~	No		
#11	Containers supplied by ELOT?	~~Yes~~	No		
#12	Samples in proper container/ bottle?	~~Yes~~	No	See Below	
#13	Samples properly preserved?	~~Yes~~	No	See Below	
#14	Sample bottles intact?	~~Yes~~	No		
#15	Preservations documented on Chain of Custody?	~~Yes~~	No		
#16	Containers documented on Chain of Custody?	~~Yes~~	No		
#17	Sufficient sample amount for indicated test(s)?	~~Yes~~	No	See Below	
#18	All samples received within sufficient hold time?	~~Yes~~	No	See Below	
#19	VOC samples have zero headspace?	~~Yes~~	No	Not Applicable	

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

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

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

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

Project: A-14 6" Lateral SExNW
Project Number: Leak Site #1
Location: Antelope Ridge

Lab Order Number: 6H22006

Report Date: 08/23/06

Southern Union Gas Services- Jal	Project: A-14 6" Lateral SExNW	Fax: 505-395-2326
P.O. Box 1226	Project Number: Leak Site #1	
Jal NM, 88252	Project Manager: Tony Savoie	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Area #2 Surface Composite	6H22006-01	Soil	08/21/06 08:30	08-22-2006 10:16
Area #2 6" B.G.S@ Center	6H22006-02	Soil	08/21/06 08:32	08-22-2006 10:16
Area #2 6" B.G.S@ West End	6H22006-03	Soil	08/21/06 08:34	08-22-2006 10:16
Area #3 Surface Composite	6H22006-04	Soil	08/21/06 08:40	08-22-2006 10:16
Area #3 6" B.G.S@ Center	6H22006-05	Soil	08/21/06 08:42	08-22-2006 10:16

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Area #2 Surface Composite (6H22006-01) Soil									
Carbon Ranges C6-C12	**5490**	100	mg/kg dry	10	EH62203	08/22/06	08/22/06	EPA 8015M	
Carbon Ranges C12-C28	**38500**	100	"	"	"	"	"	"	
Carbon Ranges C28-C35	**3120**	100	"	"	"	"	"	"	
Total Hydrocarbons	**47100**	100	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*22.8 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*18.6 %*	*70-130*		"	"	"	"	*S-06*
Area #2 6" B.G.S@ Center (6H22006-02) Soil									
Carbon Ranges C6-C12	**221**	10.0	mg/kg dry	1	EH62203	08/22/06	08/22/06	EPA 8015M	
Carbon Ranges C12-C28	**916**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**80.9**	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**1220**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*129 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*125 %*	*70-130*		"	"	"	"	
Area #2 6" B.G.S@ West End (6H22006-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EH62213	08/22/06	08/22/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*92.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*112 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	**J [6.66]**	10.0	mg/kg dry	1	EH62203	08/22/06	08/22/06	EPA 8015M	J
Carbon Ranges C12-C28	**53.9**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**11.5**	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**65.4**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*118 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*110 %*	*70-130*		"	"	"	"	

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Area #3 Surface Composite (6H22006-04) Soil									
Carbon Ranges C6-C12	**6700**	100	mg/kg dry	10	EH62203	08/22/06	08/22/06	EPA 8015M	
Carbon Ranges C12-C28	**29900**	100	"	"	"	"	"	"	
Carbon Ranges C28-C35	**2690**	100	"	"	"	"	"	"	
Total Hydrocarbons	**39300**	100	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*24.2 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*12.4 %*	*70-130*		"	"	"	"	*S-06*
Area #3 6" B.G.S@ Center (6H22006-05) Soil									
Carbon Ranges C6-C12	**279**	10.0	mg/kg dry	1	EH62203	08/22/06	08/22/06	EPA 8015M	
Carbon Ranges C12-C28	**1550**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**142**	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**1970**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*131 %*	*70-130*		"	"	"	"	*S-04*
Surrogate: 1-Chlorooctadecane		*138 %*	*70-130*		"	"	"	"	*S-04*

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Southern Union Gas Services- Jal	Project: A-14 6" Lateral SExNW	Fax: 505-395-2326
P.O. Box 1226	Project Number: Leak Site #1	
Jal NM, 88252	Project Manager: Tony Savoie	

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Area #2 Surface Composite (6H22006-01) Soil									
% Moisture	**11.6**	0.1	%	1	EH62307	08/22/06	08/23/06	% calculation	
Area #2 6" B.G.S@ Center (6H22006-02) Soil									
% Moisture	**11.2**	0.1	%	1	EH62307	08/22/06	08/23/06	% calculation	
Area #2 6" B.G.S@ West End (6H22006-03) Soil									
% Moisture	**14.2**	0.1	%	1	EH62307	08/22/06	08/23/06	% calculation	
Area #3 Surface Composite (6H22006-04) Soil									
% Moisture	**10.1**	0.1	%	1	EH62307	08/22/06	08/23/06	% calculation	
Area #3 6" B.G.S@ Center (6H22006-05) Soil									
% Moisture	**8.4**	0.1	%	1	EH62307	08/22/06	08/23/06	% calculation	

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

Project: A-14 6" Lateral SExNW
Project Number: Leak Site #1
Project Manager: Tony Savoie

Fax: 505-395-2326

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62203 - Solvent Extraction (GC)										
Blank (EH62203-BLK1)				Prepared & Analyzed: 08/22/06						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	*56.7*		*mg/kg*	*50.0*		*113*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.8*		"	*50.0*		*102*	*70-130*			
LCS (EH62203-BS1)				Prepared & Analyzed: 08/22/06						
Carbon Ranges C6-C12	493	10.0	mg/kg wet	500		98.6	75-125			
Carbon Ranges C12-C28	448	10.0	"	500		89.6	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	941	10.0	"	1000		94.1	75-125			
Surrogate: 1-Chlorooctane	*58.0*		*mg/kg*	*50.0*		*116*	*70-130*			
Surrogate: 1-Chlorooctadecane	*51.2*		"	*50.0*		*102*	*70-130*			
Calibration Check (EH62203-CCV1)				Prepared & Analyzed: 08/22/06						
Carbon Ranges C6-C12	202		mg/kg	250		80.8	80-120			
Carbon Ranges C12-C28	208		"	250		83.2	80-120			
Total Hydrocarbons	410		"	500		82.0	80-120			
Surrogate: 1-Chlorooctane	*64.7*		"	*50.0*		*129*	*70-130*			
Surrogate: 1-Chlorooctadecane	*64.6*		"	*50.0*		*129*	*70-130*			
Matrix Spike (EH62203-MS1)	**Source: 6H22005-04**			Prepared & Analyzed: 08/22/06						
Carbon Ranges C6-C12	634	10.0	mg/kg dry	543	16.0	114	75-125			
Carbon Ranges C12-C28	731	10.0	"	543	135	110	75-125			
Carbon Ranges C28-C35	19.0	10.0	"	0.00	19.9		75-125			
Total Hydrocarbons	1380	10.0	"	1090	171	111	75-125			
Surrogate: 1-Chlorooctane	*65.8*		*mg/kg*	*50.0*		*132*	*70-130*			*S-04*
Surrogate: 1-Chlorooctadecane	*60.4*		"	*50.0*		*121*	*70-130*			

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62203 - Solvent Extraction (GC)										
Matrix Spike Dup (EH62203-MSD1)	**Source: 6H22005-04**			Prepared & Analyzed: 08/22/06						
Carbon Ranges C6-C12	653	10.0	mg/kg dry	543	16.0	117	75-125	2.95	20	
Carbon Ranges C12-C28	716	10.0	"	543	135	107	75-125	2.07	20	
Carbon Ranges C28-C35	18.1	10.0	"	0.00	19.9		75-125	4.85	20	
Total Hydrocarbons	1380	10.0	"	1090	171	111	75-125	0.00	20	
Surrogate: 1-Chlorooctane	*68.7*		*mg/kg*	*50.0*		*137*	*70-130*			*S-04*
Surrogate: 1-Chlorooctadecane	*60.7*		*"*	*50.0*		*121*	*70-130*			
Batch EH62213 - EPA 5030C (GC)										
Blank (EH62213-BLK1)				Prepared & Analyzed: 08/22/06						
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	*37.1*		*ug/kg*	*40.0*		*92.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.1*		*"*	*40.0*		*100*	*80-120*			
LCS (EH62213-BS1)				Prepared & Analyzed: 08/22/06						
Benzene	1.16	0.0250	mg/kg wet	1.25		92.8	80-120			
Toluene	1.30	0.0250	"	1.25		104	80-120			
Ethylbenzene	1.21	0.0250	"	1.25		96.8	80-120			
Xylene (p/m)	2.94	0.0250	"	2.50		118	80-120			
Xylene (o)	1.41	0.0250	"	1.25		113	80-120			
Surrogate: a,a,a-Trifluorotoluene	*38.8*		*ug/kg*	*40.0*		*97.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*47.1*		*"*	*40.0*		*118*	*80-120*			

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62213 - EPA 5030C (GC)										
Calibration Check (EH62213-CCV1)				Prepared & Analyzed: 08/22/06						
Benzene	50.8		ug/kg	50.0		102	80-120			
Toluene	56.2		"	50.0		112	80-120			
Ethylbenzene	59.2		"	50.0		118	80-120			
Xylene (p/m)	119		"	100		119	80-120			
Xylene (o)	57.5		"	50.0		115	80-120			
Surrogate: a,a,a-Trifluorotoluene	*43.2*		"	*40.0*		*108*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.3*		"	*40.0*		*106*	*80-120*			
Matrix Spike (EH62213-MS1)		**Source: 6H22010-01**		Prepared & Analyzed: 08/22/06						
Benzene	1.27	0.0250	mg/kg dry	1.37	ND	92.7	80-120			
Toluene	1.47	0.0250	"	1.37	ND	107	80-120			
Ethylbenzene	1.40	0.0250	"	1.37	ND	102	80-120			
Xylene (p/m)	3.24	0.0250	"	2.74	ND	118	80-120			
Xylene (o)	1.55	0.0250	"	1.37	ND	113	80-120			
Surrogate: a,a,a-Trifluorotoluene	*43.9*		*ug/kg*	*40.0*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.9*		"	*40.0*		*110*	*80-120*			
Matrix Spike Dup (EH62213-MSD1)		**Source: 6H22010-01**		Prepared & Analyzed: 08/22/06						
Benzene	1.29	0.0250	mg/kg dry	1.37	ND	94.2	80-120	1.61	20	
Toluene	1.45	0.0250	"	1.37	ND	106	80-120	0.939	20	
Ethylbenzene	1.45	0.0250	"	1.37	ND	106	80-120	3.85	20	
Xylene (p/m)	3.24	0.0250	"	2.74	ND	118	80-120	0.00	20	
Xylene (o)	1.46	0.0250	"	1.37	ND	107	80-120	5.45	20	
Surrogate: a,a,a-Trifluorotoluene	*38.0*		*ug/kg*	*40.0*		*95.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.5*		"	*40.0*		*116*	*80-120*			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62307 - General Preparation (Prep)										
Blank (EH62307-BLK1)				Prepared: 08/22/06 Analyzed: 08/23/06						
% Solids	100		%							
Duplicate (EH62307-DUP1)		**Source: 6H22004-01**		Prepared: 08/22/06 Analyzed: 08/23/06						
% Solids	91.8		%		92.0			0.218	20	

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 8-24-06

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Manager: Tony Savoie
Company Name: Southern Union Gas Services.
Company Address: 610 Commerce
City/State/Zip: JAL, N.M. 88252
Telephone No: 505-631-9376 Fax No:
Sampler Signature: Tony Savoie e-mail:

Project Name: A-14 6" Lateral SE×NW
Project #: Leak Site #1
Project Loc: Antelope Ridge
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only) ORDER #: 6412006

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	No. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge	GW = Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
1	Area #1 Surface Composite	0"	1"	8/21/06	0820	1	✓									S		✓							✓				✓
	Area #1 6" B.G.S. @ Center	6"	6"	"	0822	1	✓									S		✓											✓	
-01	Area #2 Surface Composite	0"	1"	"	0830	1	✓									S		✓												✓
-02	Area #2 6" B.G.S. @ Center	6"	6"	"	0832	1	✓									S		✓												✓
-03	Area #2 6" B.G.S. @ West End	6"	6"	"	0834	1	✓									S		✓							✓					✓
-04	Area #3 Surface Composite	0"	1"	"	0840	1	✓									S		✓												✓
-05	Area #3 6" B.G.S. @ Center	6"	6"	"	0842	1	✓									S		✓												✓
	Area #4 Surface Composite	0"	1"	"	0848	1	✓									S		✓											✓	✓
	Area #4 6" B.G.S. @ Center	6"	6"	"	0850	1	✓									S		✓							✓				✓	
																X		X											X	

Special Instructions: COPY

Relinquished by:	Date	Time	Received by:	Date	Time
Tony Savoie	8/22/06	10:16			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Carrie Kelly	8/22/06	10:16

Laboratory Comments:

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

by Courier? UPS DHL FedEx Lone Star

402 glass

Temperature Upon Receipt: 1.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: SUGS

Date/ Time: 8/22/06 10:15

Lab ID # : 1cH22006

Initials: CL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	1.0 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

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

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

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

Project: A-14 6" Lateral SExNW
Project Number: Leak Site #2
Location: Antelope Ridge

Lab Order Number: 6H22007

Report Date: 08/23/06

Southern Union Gas Services- Jal	Project: A-14 6" Lateral SExNW	Fax: 505-395-2326
P.O. Box 1226	Project Number: Leak Site #2	
Jal NM, 88252	Project Manager: Tony Savoie	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Surface Composite	6H22007-01	Soil	08/21/06 10:02	08-22-2006 10:15
6" B.G.S@ Center	6H22007-02	Soil	08/21/06 10:04	08-22-2006 10:15

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surface Composite (6H22007-01) Soil									
Carbon Ranges C6-C12	**7920**	1000	mg/kg dry	100	EH62203	08/22/06	08/22/06	EPA 8015M	
Carbon Ranges C12-C28	**69400**	1000	"	"	"	"	"	"	
Carbon Ranges C28-C35	**8440**	1000	"	"	"	"	"	"	
Total Hydrocarbons	**85800**	1000	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*%*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*2.90 %*	*70-130*		"	"	"	"	*S-06*
6" B.G.S@ Center (6H22007-02) Soil									
Benzene	**14.5**	0.200	mg/kg dry	200	EH62213	08/22/06	08/23/06	EPA 8021B	
Toluene	**56.4**	0.200	"	"	"	"	"	"	
Ethylbenzene	**29.5**	0.200	"	"	"	"	"	"	
Xylene (p/m)	**58.1**	0.200	"	"	"	"	"	"	
Xylene (o)	**28.9**	0.200	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*958 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*174 %*	*80-120*		"	"	"	"	*S-04*
Carbon Ranges C6-C12	**3290**	100	mg/kg dry	10	EH62203	08/22/06	08/22/06	EPA 8015M	
Carbon Ranges C12-C28	**5600**	100	"	"	"	"	"	"	
Carbon Ranges C28-C35	**498**	100	"	"	"	"	"	"	
Total Hydrocarbons	**9390**	100	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*17.7 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*18.4 %*	*70-130*		"	"	"	"	*S-06*

Southern Union Gas Services- Jal P.O. Box 1226 Jal NM, 88252	Project: A-14 6" Lateral SExNW Project Number: Leak Site #2 Project Manager: Tony Savoie	Fax: 505-395-2326

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surface Composite (6H22007-01) Soil									
% Moisture	**13.3**	0.1	%	1	EH62307	08/22/06	08/23/06	% calculation	
6" B.G.S@ Center (6H22007-02) Soil									
% Moisture	**16.2**	0.1	%	1	EH62307	08/22/06	08/23/06	% calculation	

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62203 - Solvent Extraction (GC)										
Blank (EH62203-BLK1)				Prepared & Analyzed: 08/22/06						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	*56.7*		*mg/kg*	*50.0*		*113*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.8*		*"*	*50.0*		*102*	*70-130*			
LCS (EH62203-BS1)				Prepared & Analyzed: 08/22/06						
Carbon Ranges C6-C12	493	10.0	mg/kg wet	500		98.6	75-125			
Carbon Ranges C12-C28	448	10.0	"	500		89.6	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	941	10.0	"	1000		94.1	75-125			
Surrogate: 1-Chlorooctane	*58.0*		*mg/kg*	*50.0*		*116*	*70-130*			
Surrogate: 1-Chlorooctadecane	*51.2*		*"*	*50.0*		*102*	*70-130*			
Calibration Check (EH62203-CCV1)				Prepared & Analyzed: 08/22/06						
Carbon Ranges C6-C12	202		mg/kg	250		80.8	80-120			
Carbon Ranges C12-C28	208		"	250		83.2	80-120			
Total Hydrocarbons	410		"	500		82.0	80-120			
Surrogate: 1-Chlorooctane	*64.7*		*"*	*50.0*		*129*	*70-130*			
Surrogate: 1-Chlorooctadecane	*64.6*		*"*	*50.0*		*129*	*70-130*			
Matrix Spike (EH62203-MS1)	**Source: 6H22005-04**			Prepared & Analyzed: 08/22/06						
Carbon Ranges C6-C12	634	10.0	mg/kg dry	543	16.0	114	75-125			
Carbon Ranges C12-C28	731	10.0	"	543	135	110	75-125			
Carbon Ranges C28-C35	19.0	10.0	"	0.00	19.9		75-125			
Total Hydrocarbons	1380	10.0	"	1090	171	111	75-125			
Surrogate: 1-Chlorooctane	*65.8*		*mg/kg*	*50.0*		*132*	*70-130*			*S-04*
Surrogate: 1-Chlorooctadecane	*60.4*		*"*	*50.0*		*121*	*70-130*			

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62203 - Solvent Extraction (GC)										
Matrix Spike Dup (EH62203-MSD1)	**Source: 6H22005-04**			Prepared & Analyzed: 08/22/06						
Carbon Ranges C6-C12	653	10.0	mg/kg dry	543	16.0	117	75-125	2.95	20	
Carbon Ranges C12-C28	716	10.0	"	543	135	107	75-125	2.07	20	
Carbon Ranges C28-C35	18.1	10.0	"	0.00	19.9		75-125	4.85	20	
Total Hydrocarbons	1380	10.0	"	1090	171	111	75-125	0.00	20	
Surrogate: 1-Chlorooctane	*68.7*		*mg/kg*	*50.0*		*137*	*70-130*			*S-04*
Surrogate: 1-Chlorooctadecane	*60.7*		*"*	*50.0*		*121*	*70-130*			
Batch EH62213 - EPA 5030C (GC)										
Blank (EH62213-BLK1)				Prepared & Analyzed: 08/22/06						
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	*37.1*		*ug/kg*	*40.0*		*92.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.1*		*"*	*40.0*		*100*	*80-120*			
LCS (EH62213-BS1)				Prepared & Analyzed: 08/22/06						
Benzene	1.16	0.0250	mg/kg wet	1.25		92.8	80-120			
Toluene	1.30	0.0250	"	1.25		104	80-120			
Ethylbenzene	1.21	0.0250	"	1.25		96.8	80-120			
Xylene (p/m)	2.94	0.0250	"	2.50		118	80-120			
Xylene (o)	1.41	0.0250	"	1.25		113	80-120			
Surrogate: a,a,a-Trifluorotoluene	*38.8*		*ug/kg*	*40.0*		*97.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*47.1*		*"*	*40.0*		*118*	*80-120*			

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

Project: A-14 6" Lateral SExNW
Project Number: Leak Site #2
Project Manager: Tony Savoie

Fax: 505-395-2326

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62213 - EPA 5030C (GC)										
Calibration Check (EH62213-CCV1)				Prepared & Analyzed: 08/22/06						
Benzene	50.8		ug/kg	50.0		102	80-120			
Toluene	56.2		"	50.0		112	80-120			
Ethylbenzene	59.2		"	50.0		118	80-120			
Xylene (p/m)	119		"	100		119	80-120			
Xylene (o)	57.5		"	50.0		115	80-120			
Surrogate: a,a,a-Trifluorotoluene	*43.2*		*"*	*40.0*		*108*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.3*		*"*	*40.0*		*106*	*80-120*			
Matrix Spike (EH62213-MS1)		**Source: 6H22010-01**		Prepared & Analyzed: 08/22/06						
Benzene	1.27	0.0250	mg/kg dry	1.37	ND	92.7	80-120			
Toluene	1.47	0.0250	"	1.37	ND	107	80-120			
Ethylbenzene	1.40	0.0250	"	1.37	ND	102	80-120			
Xylene (p/m)	3.24	0.0250	"	2.74	ND	118	80-120			
Xylene (o)	1.55	0.0250	"	1.37	ND	113	80-120			
Surrogate: a,a,a-Trifluorotoluene	*43.9*		*ug/kg*	*40.0*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.9*		*"*	*40.0*		*110*	*80-120*			
Matrix Spike Dup (EH62213-MSD1)		**Source: 6H22010-01**		Prepared & Analyzed: 08/22/06						
Benzene	1.29	0.0250	mg/kg dry	1.37	ND	94.2	80-120	1.61	20	
Toluene	1.45	0.0250	"	1.37	ND	106	80-120	0.939	20	
Ethylbenzene	1.45	0.0250	"	1.37	ND	106	80-120	3.85	20	
Xylene (p/m)	3.24	0.0250	"	2.74	ND	118	80-120	0.00	20	
Xylene (o)	1.46	0.0250	"	1.37	ND	107	80-120	5.45	20	
Surrogate: a,a,a-Trifluorotoluene	*38.0*		*ug/kg*	*40.0*		*95.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.5*		*"*	*40.0*		*116*	*80-120*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62307 - General Preparation (Prep)										
Blank (EH62307-BLK1)				Prepared: 08/22/06 Analyzed: 08/23/06						
% Solids	100		%							
Duplicate (EH62307-DUP1)		**Source: 6H22004-01**		Prepared: 08/22/06 Analyzed: 08/23/06						
% Solids	91.8		%		92.0			0.218	20	

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K. Tuttle Date: 8-24-06

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Tony Savoie
Company Name: Southern Union Gas Services
Company Address: 610 Commerce
City/State/Zip: Jal, N.M. 88252
Telephone No: 505-631-9376 Fax No:
Sampler Signature: Tony Savoie e-mail:

Project Name: A-14 6" Lateral SExNW
Project #: Leak Site #2
Project Loc: Ante Lope Ridge
PO #:
Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 6411220071

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	No. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge	GW = Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	Surface Composite	0"	1"	8/21/06	10:02	1	✓								S			✓											✓
02	6" B.G.S. @ Center	6"	6"	"	10:04	1	✓								S			✓							✓					✓

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Tony Savoie	8/22/06	10:15			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Laura Walker	Date 8/22/06	Time 10:15

Laboratory Comments:

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

by Courier? UPS DHL FedEx Lone Star

4oz glass

Temperature Upon Receipt: 6.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: SUGS

Date/ Time: 8/22/06 10:15

Lab ID # : 16H22007

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	1.0 °C	
#2	Shipping container in good condition?	~~Yes~~	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	~~Not Present~~	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	~~Not Present~~	
#5	Chain of Custody present?	~~Yes~~	No		
#6	Sample instructions complete of Chain of Custody?	~~Yes~~	No		
#7	Chain of Custody signed when relinquished/ received?	~~Yes~~	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont. / (Lid)	
#9	Container label(s) legible and intact?	Yes	No	~~Not Applicable~~	
#10	Sample matrix/ properties agree with Chain of Custody?	~~Yes~~	No		
#11	Containers supplied by ELOT?	~~Yes~~	No		
#12	Samples in proper container/ bottle?	~~Yes~~	No	See Below	
#13	Samples properly preserved?	~~Yes~~	No	See Below	
#14	Sample bottles intact?	~~Yes~~	No		
#15	Preservations documented on Chain of Custody?	~~Yes~~	No		
#16	Containers documented on Chain of Custody?	~~Yes~~	No		
#17	Sufficient sample amount for indicated test(s)?	~~Yes~~	No	See Below	
#18	All samples received within sufficient hold time?	~~Yes~~	No	See Below	
#19	VOC samples have zero headspace?	~~Yes~~	No	Not Applicable	

Variance Documentation

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

Regarding: _____

Corrective Action Taken:

Check all that Apply:

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

A-14 6" Lateral Job #2006-038

Date Collected	Location	C6-C12	C12-C28	C28-C35	C6-C35	Chloride	Benzene	Toluene	Ethylbenzene	p/m-Xylene	o-Xlyene
		mg/kg	mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
8/21/2006	Area #1 Surface Comp.	7560	24600	2510	34700						
8/21/2006	Area #1 6" B.G.S. @ center	40.2	257	25.7	323						
8/21/2006	Area #2 Surface Comp.	5490	38500	3120	47100						
8/21/2006	Area #2 6" B.G.S. @ center	221	916	80.9	1220						
8/21/2006	Area #2 6" B.G.S. @ west end	J(6.66)	53.9	11.5	65.4		ND	ND	ND	ND	ND
8/21/2006	Area #3 Surface Comp.	6700	29900	2690	39300						
8/21/2006	Area #3 6" B.G.S. @ center	279	1550	142	1970						
8/21/2006	Area #4 Surface Comp.	6020	33300	2940	42300						
8/21/2006	Area #4 6" B.G.S. @ center	16.0	135	19.9	171		ND	ND	ND	ND	ND

Analytical summary

Analytical Report 464284

for

Southern Union Gas Services- Monahans

Project Manager: Camille Bryant

SUGS Historical A-14 6 Inch Line 1RP-1116

04-JUN-13

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

04-JUN-13

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

Reference: XENCO Report No(s): **464284**
SUGS Historical A-14 6 Inch Line 1RP-1116
Project Address: Lea County, New Mexico

Camille Bryant:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 464284. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 464284 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,

Kelsey Brooks
Project Manager

Sample Cross Reference 464284

Southern Union Gas Services- Monahans, Monahans, TX

SUGS Historical A-14 6 Inch Line 1RP-1116

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
RP Floor @ 11'	S	05-31-13 11:30		464284-001
RP East S/W @ 10'	S	05-31-13 12:00		464284-002
RP West S/W @ 10'	S	05-31-13 12:30		464284-003

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project ID:
Work Order Number(s): *464284*

Report Date: *04-JUN-13*
Date Received: *06/03/2013*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 464284

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project Id:
Contact: Camille Bryant
Project Location: Lea County, New Mexico

Date Received in Lab: Mon Jun-03-13 11:25 am
Report Date: 04-JUN-13
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	464284-001		464284-002		464284-003					
	Field Id:	RP Floor @ 11'		RP East S/W @ 10'		RP West S/W @ 10'					
	Depth:										
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	May-31-13 11:30		May-31-13 12:00		May-31-13 12:30					
BTEX by EPA 8021B	***Extracted:***	** ** ** **		** ** ** **		** ** ** **					
	Analyzed:	Jun-03-13 15:15		Jun-03-13 15:32		Jun-03-13 15:48					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		ND	0.00111	ND	0.00106	ND	0.00103				
Toluene		ND	0.00223	ND	0.00213	ND	0.00206				
Ethylbenzene		ND	0.00111	ND	0.00106	ND	0.00103				
m,p-Xylenes		ND	0.00223	ND	0.00213	ND	0.00206				
o-Xylene		ND	0.00111	ND	0.00106	ND	0.00103				
Total Xylenes		ND	0.00111	ND	0.00106	ND	0.00103				
Total BTEX		ND	0.00111	ND	0.00106	ND	0.00103				
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jun-03-13 12:00		Jun-03-13 12:00		Jun-03-13 12:00					
	Analyzed:	Jun-04-13 01:12		Jun-04-13 02:17		Jun-04-13 02:39					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		492	10.0	25.5	2.00	8.01	2.00				
Percent Moisture	***Extracted:***										
	Analyzed:	Jun-03-13 13:05		Jun-03-13 13:05		Jun-03-13 13:05					
	Units/RL:	%	RL	%	RL	%	RL				
Percent Moisture		10.3	1.00	6.27	1.00	3.38	1.00				
TPH By SW8015 Mod	***Extracted:***	Jun-03-13 16:00		Jun-03-13 16:00		Jun-03-13 16:00					
	Analyzed:	Jun-04-13 05:22		Jun-04-13 05:48		Jun-04-13 06:14					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		ND	15.0	ND	14.9	ND	15.0				
C12-C28 Diesel Range Hydrocarbons		ND	15.0	ND	14.9	ND	15.0				
C28-C35 Oil Range Hydrocarbons		ND	15.0	ND	14.9	ND	15.0				
Total TPH		ND	15.0	ND	14.9	ND	15.0				

Kelsey Brooks
Project Manager

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464284,

Project ID:

Lab Batch #: 915314 **Sample:** 464284-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/03/13 15:15

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0263	0.0300	88	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 915314 **Sample:** 464284-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/03/13 15:32

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	80-120	
4-Bromofluorobenzene	0.0327	0.0300	109	80-120	

Lab Batch #: 915314 **Sample:** 464284-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/03/13 15:48

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 915289 **Sample:** 464284-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/04/13 05:22

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	57.6	50.0	115	70-135	

Lab Batch #: 915289 **Sample:** 464284-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/04/13 05:48

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.6	102	70-135	
o-Terphenyl	56.7	49.8	114	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464284,

Project ID:

Lab Batch #: 915289 **Sample:** 464284-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/04/13 06:14

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.8	105	70-135	
o-Terphenyl	57.8	49.9	116	70-135	

Lab Batch #: 915314 **Sample:** 639110-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/03/13 14:59

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 915289 **Sample:** 639104-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/04/13 04:57

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.8	111	70-135	
o-Terphenyl	62.7	49.9	126	70-135	

Lab Batch #: 915314 **Sample:** 639110-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/03/13 14:10

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 915289 **Sample:** 639104-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/04/13 04:07

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	64.7	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464284,

Project ID:

Lab Batch #: 915314 **Sample:** 639110-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/03/13 14:26

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	0.0271	0.0300	90	80-120	

Lab Batch #: 915289 **Sample:** 639104-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/04/13 04:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.7	111	70-135	
o-Terphenyl	64.2	49.9	129	70-135	

Lab Batch #: 915314 **Sample:** 464286-005 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/03/13 21:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0347	0.0300	116	80-120	

Lab Batch #: 915289 **Sample:** 464284-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/04/13 06:40

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	64.0	49.8	129	70-135	

Lab Batch #: 915314 **Sample:** 464286-005 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/03/13 21:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0340	0.0300	113	80-120	
4-Bromofluorobenzene	0.0319	0.0300	106	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464284,

Project ID:

Lab Batch #: 915289 **Sample:** 464284-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/04/13 07:05

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.9	112	70-135	
o-Terphenyl	64.9	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.

BS / BSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464284 **Project ID:**

Analyst: DYV **Date Prepared:** 06/03/2013 **Date Analyzed:** 06/03/2013

Lab Batch ID: 915314 **Sample:** 639110-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000990	0.0990	0.100	101	0.0996	0.0825	83	19	70-130	35	
Toluene	<0.00198	0.0990	0.101	102	0.0996	0.0882	89	14	70-130	35	
Ethylbenzene	<0.000990	0.0990	0.103	104	0.0996	0.0874	88	16	71-129	35	
m,p-Xylenes	<0.00198	0.198	0.197	99	0.199	0.165	83	18	70-135	35	
o-Xylene	<0.000990	0.0990	0.0986	100	0.0996	0.0823	83	18	71-133	35	

Analyst: AMB **Date Prepared:** 06/03/2013 **Date Analyzed:** 06/04/2013

Lab Batch ID: 915357 **Sample:** 639154-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<2.00	50.0	47.8	96	50.0	47.7	95	0	80-120	20	

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

BS / BSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464284 **Project ID:**

Analyst: DYV **Date Prepared:** 06/03/2013 **Date Analyzed:** 06/04/2013

Lab Batch ID: 915289 **Sample:** 639104-1-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	1070	107	997	1090	109	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1110	111	997	1140	114	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464284
Lab Batch #: 915357
Project ID:
Date Analyzed: 06/03/2013
Date Prepared: 06/03/2013
Analyst: AMB
QC- Sample ID: 464286-001 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	5.45	50.0	53.0	95	80-120	

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

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order # : 464284 **Project ID:**

Lab Batch ID: 915314 **QC- Sample ID:** 464286-005 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/03/2013 **Date Prepared:** 06/03/2013 **Analyst:** DYV

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	<0.00104	0.104	0.0969	93	0.104	0.102	98	5	70-130	35	
Toluene	<0.00209	0.104	0.117	113	0.104	0.102	98	14	70-130	35	
Ethylbenzene	<0.00104	0.104	0.112	108	0.104	0.110	106	2	71-129	35	
m,p-Xylenes	<0.00209	0.209	0.207	99	0.208	0.207	100	0	70-135	35	
o-Xylene	<0.00104	0.104	0.108	104	0.104	0.0988	95	9	71-133	35	

Lab Batch ID: 915289 **QC- Sample ID:** 464284-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/04/2013 **Date Prepared:** 06/03/2013 **Analyst:** DYV

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	<14.9	996	1050	105	999	1070	107	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<14.9	996	1100	110	999	1120	112	2	70-135	35	

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464284

Lab Batch #: 915294 **Project ID:**

Date Analyzed: 06/03/2013 13:05 **Date Prepared:** 06/03/2013 **Analyst:** WRU

QC- Sample ID: 464284-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

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

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Camille Bryant

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Company Name: Nova Safety and Environmental

Project #:

Company Address: 2057 Commerce

Project Loc: Lea County, New Mexico

City/State/Zip: Midland, TX 79703

PO #:

Telephone No: 432.520.7720 Fax No: 432.520.7701

Report Format: [X] Standard [ ] TRRP [ ] NPI

Sampler Signature: Camille Bryant e-mail: cbryant@novatraining.cc

(lab use only) ORDER #: 464284

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 8015M 8015B	TPH: 418.1	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride E 300.0			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	RP Floor @ 11'			5/31/2013	11:30		1	X								Soil	X									X			X			X	
02	RP East S/W @ 10'			5/31/2013	12:00		1	X								Soil	X									X			X			X	
03	RP West S/W @ 10'			5/31/2013	12:30		1	X								Soil	X									X			X			X	

Special Instructions:

	Date	Time		Date	Time
Relinquished by: Camille Bryant	6/3/13	10:30	Received by: Jonathan Rapue	6/3/13	10:30
Relinquished by: Jonathan Rapue	6/3/13	11:25	Received by:		
Relinquished by:			Received by ELOT: Shawn Smith	6-3-13	11:25

Laboratory Comments:

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

Temperature Upon Receipt: 3.0 °C

Final 1.000

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Southern Union Gas Services- Monahan

Date/ Time Received: 06/03/2013 11:25:00 AM

Work Order #: 464284

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

Temperature Measuring device used :

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

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

Analyst:	PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 06/04/2013

Checklist reviewed by: Kelsey Brooks Date: 06/04/2013

Analytical Report 464486

for

Southern Union Gas Services- Monahans

Project Manager: Camille Bryant

SUGS Historical A-14 6 Inch Line 1RP-1116

06-JUN-13

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

06-JUN-13

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

Reference: XENCO Report No(s): **464486**
SUGS Historical A-14 6 Inch Line 1RP-1116
Project Address: Lea County, New Mexico

Camille Bryant:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 464486. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 464486 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,

Kelsey Brooks
Project Manager

Sample Cross Reference 464486

Southern Union Gas Services- Monahans, Monahans, TX

SUGS Historical A-14 6 Inch Line 1RP-1116

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Trench-1 Floor @ 2'	S	06-03-13 13:30		464486-001
Trench-2 Floor @ 2'	S	06-03-13 14:30		464486-002

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans
Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project ID:
Work Order Number(s): *464486*

Report Date: *06-JUN-13*
Date Received: *06/05/2013*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:
Batch: LBA-915597 Inorganic Anions by EPA 300/300.1
E300

Batch 915597, Chloride recovered below QC limits in the Matrix Spike.
Samples affected are: 464486-001, -002.
The Laboratory Control Sample for Chloride is within laboratory Control Limits

Certificate of Analysis Summary 464486

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project Id:
Contact: Camille Bryant
Project Location: Lea County, New Mexico

Date Received in Lab: Wed Jun-05-13 03:27 pm
Report Date: 06-JUN-13
Project Manager: Kelsey Brooks

Analysis Requested									
	Lab Id:	464486-001		464486-002					
	Field Id:	Trench-1 Floor @ 2'		Trench-2 Floor @ 2'					
	Depth:								
	Matrix:	SOIL		SOIL					
	Sampled:	Jun-03-13 13:30		Jun-03-13 14:30					
BTEX by EPA 8021B	***Extracted:***	Jun-05-13 16:45		Jun-05-13 16:45					
	Analyzed:	Jun-05-13 22:39		Jun-05-13 22:55					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		ND	0.000990	ND	0.000994				
Toluene		ND	0.00198	ND	0.00199				
Ethylbenzene		ND	0.000990	ND	0.000994				
m,p-Xylenes		ND	0.00198	ND	0.00199				
o-Xylene		ND	0.000990	ND	0.000994				
Total Xylenes		ND	0.000990	ND	0.000994				
Total BTEX		ND	0.000990	ND	0.000994				
Inorganic Anions by EPA 300/300.1 SUB: TX104704215	***Extracted:***	Jun-06-13 08:00		Jun-06-13 08:00					
	Analyzed:	Jun-06-13 16:36		Jun-06-13 16:53					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		18.5	2.00	63.8	2.00				
Percent Moisture	***Extracted:***								
	Analyzed:	Jun-05-13 17:15		Jun-05-13 17:15					
	Units/RL:	%	RL	%	RL				
Percent Moisture		3.59	1.00	3.53	1.00				
TPH By SW8015 Mod	***Extracted:***	Jun-05-13 16:30		Jun-05-13 16:30					
	Analyzed:	Jun-06-13 01:42		Jun-06-13 02:08					
	Units/RL:	mg/kg	RL	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		ND	14.9	ND	14.9				
C12-C28 Diesel Range Hydrocarbons		ND	14.9	69.1	14.9				
C28-C35 Oil Range Hydrocarbons		ND	14.9	ND	14.9				
Total TPH		ND	14.9	69.1	14.9				

Kelsey Brooks
Project Manager

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

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

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

Certified and approved by numerous States and Agencies.

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

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

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

Form 2 - Surrogate Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464486, 464486 **Project ID:**

Lab Batch #: 915497 **Sample:** 464486-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/05/13 22:39

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,4-Difluorobenzene	0.0264	0.0300	88	80-120	
4-Bromofluorobenzene	0.0242	0.0300	81	80-120	

Lab Batch #: 915497 **Sample:** 464486-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/05/13 22:55

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,4-Difluorobenzene	0.0323	0.0300	108	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 915496 **Sample:** 464486-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/06/13 01:42

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1-Chlorooctane	102	99.5	103	70-135	
o-Terphenyl	55.6	49.8	112	70-135	

Lab Batch #: 915496 **Sample:** 464486-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/06/13 02:08

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1-Chlorooctane	95.9	99.6	96	70-135	
o-Terphenyl	52.2	49.8	105	70-135	

Lab Batch #: 915497 **Sample:** 639240-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/05/13 17:59

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0289	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464486, 464486 **Project ID:**

Lab Batch #: 915496 **Sample:** 639238-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/06/13 01:15

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.8	101	70-135	
o-Terphenyl	55.0	49.9	110	70-135	

Lab Batch #: 915497 **Sample:** 639240-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/05/13 17:26

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0347	0.0300	116	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

Lab Batch #: 915496 **Sample:** 639238-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/06/13 00:23

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.1	99.9	99	70-135	
o-Terphenyl	61.3	50.0	123	70-135	

Lab Batch #: 915497 **Sample:** 639240-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/05/13 17:43

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0317	0.0300	106	80-120	
4-Bromofluorobenzene	0.0255	0.0300	85	80-120	

Lab Batch #: 915496 **Sample:** 639238-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/06/13 00:49

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	61.6	50.1	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464486, 464486 **Project ID:**

Lab Batch #: 915497 **Sample:** 464484-003 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/05/13 23:11

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0257	0.0300	86	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 915496 **Sample:** 464484-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/06/13 03:25

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	100	100	70-135	
o-Terphenyl	58.2	50.1	116	70-135	

Lab Batch #: 915497 **Sample:** 464484-003 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/05/13 23:27

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0355	0.0300	118	80-120	
4-Bromofluorobenzene	0.0321	0.0300	107	80-120	

Lab Batch #: 915496 **Sample:** 464484-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/06/13 03:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.2	99.7	99	70-135	
o-Terphenyl	60.0	49.9	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.

Blank Spike Recovery

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464486 **Project ID:**

Lab Batch #: 915597 **Sample:** 639259-1-BKS **Matrix:** Solid

Date Analyzed: 06/06/2013 **Date Prepared:** 06/06/2013 **Analyst:** RKO

Reporting Units: mg/kg **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<2.00	100	101	101	80-120	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464486, 464486 **Project ID:**

Analyst: DYV **Date Prepared:** 06/05/2013 **Date Analyzed:** 06/05/2013

Lab Batch ID: 915497 **Sample:** 639240-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0903	90	0.0994	0.0827	83	9	70-130	35	
Toluene	<0.00200	0.100	0.0986	99	0.0994	0.0932	94	6	70-130	35	
Ethylbenzene	<0.00100	0.100	0.109	109	0.0994	0.0986	99	10	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.203	102	0.199	0.180	90	12	70-135	35	
o-Xylene	<0.00100	0.100	0.111	111	0.0994	0.0937	94	17	71-133	35	

Analyst: DYV **Date Prepared:** 06/05/2013 **Date Analyzed:** 06/06/2013

Lab Batch ID: 915496 **Sample:** 639238-1-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	999	1100	110	1000	1120	112	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	999	1160	116	1000	1170	117	1	70-135	35	

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

Form 3 - MS / MSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order # : 464486 **Project ID:**

Lab Batch ID: 915497 **QC- Sample ID:** 464484-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/05/2013 **Date Prepared:** 06/05/2013 **Analyst:** DYV

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	<0.000990	0.0990	0.0806	81	0.100	0.0815	82	1	70-130	35	
Toluene	<0.00198	0.0990	0.0850	86	0.100	0.0828	83	3	70-130	35	
Ethylbenzene	<0.000990	0.0990	0.0887	90	0.100	0.0906	91	2	71-129	35	
m,p-Xylenes	<0.00198	0.198	0.165	83	0.200	0.165	83	0	70-135	35	
o-Xylene	<0.000990	0.0990	0.0889	90	0.100	0.0821	82	8	71-133	35	

Lab Batch ID: 915597 **QC- Sample ID:** 464484-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/06/2013 **Date Prepared:** 06/06/2013 **Analyst:** RKO

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	106	100	187	81	100	188	82	1	80-120	20	

Lab Batch ID: 915597 **QC- Sample ID:** 464486-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/06/2013 **Date Prepared:** 06/06/2013 **Analyst:** RKO

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	63.8	100	197	133	100	197	133	0	80-120	20	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, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order # : 464486 **Project ID:**

Lab Batch ID: 915496 **QC- Sample ID:** 464484-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/06/2013 **Date Prepared:** 06/05/2013 **Analyst:** DYV

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	<15.4	1030	1090	106	1020	1070	105	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.4	1030	1190	116	1020	1140	112	4	70-135	35	

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

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

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

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, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464486

Lab Batch #: 915509 **Project ID:**

Date Analyzed: 06/05/2013 17:15 **Date Prepared:** 06/05/2013 **Analyst:** WRU

QC- Sample ID: 464484-011 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	3.42	3.52	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

Analytical Report 464683

for

Southern Union Gas Services- Monahans

Project Manager: Camille Bryant

SUGS Historical A-14 6 Inch Line 1RP-1116

13-JUN-13

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

13-JUN-13

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

Reference: XENCO Report No(s): **464683**
SUGS Historical A-14 6 Inch Line 1RP-1116
Project Address: Lea County, New Mexico

Camille Bryant:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 464683. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 464683 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,

Kelsey Brooks
Project Manager

Sample Cross Reference 464683

Southern Union Gas Services- Monahans, Monahans, TX

SUGS Historical A-14 6 Inch Line 1RP-1116

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
RP North S/W @ 11'	S	06-04-13 12:30		464683-001
Trench-1 Floor @ 6'	S	06-04-13 13:00		464683-002
Trench-2 Topsoil	S	06-04-13 13:10		464683-003
Trench-2 Floor @ 4'	S	06-04-13 13:20		464683-004
Trench-3 Topsoil	S	06-04-13 13:40		464683-005
Trench-3 Floor @ 2'	S	06-04-13 13:50		464683-006
SP-1	S	06-04-13 14:30		464683-007
Trench-4 Floor @ 2'	S	06-05-13 09:00		464683-008
Trench-5 Floor @ 2'	S	06-05-13 09:10		464683-009
Trench-6 Floor @ 2'	S	06-05-13 09:40		464683-010
Trench- 7 Floor @ 2'	S	06-05-13 10:10		464683-011
Trench-8 Floor @ 2'	S	06-05-13 10:40		464683-012
Trench-9 Floor @ 2'	S	06-05-13 11:00		464683-013
Trench-10 Floor @ 2'	S	06-05-13 12:30		464683-014
Trench-10 Floor @ 4'	S	06-05-13 13:15		464683-015
Trench-11 Floor @ 2'	S	06-05-13 14:00		464683-016

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project ID:
Work Order Number(s): *464683*

Report Date: *13-JUN-13*
Date Received: *06/07/2013*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-916025 Inorganic Anions by EPA 300/300.1
E300

Batch 916025, Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 464683-007, -008, -011, -001, -002, -004, -006, -003, -012, -010, -013, -005, -009.
The Laboratory Control Sample for Chloride is within laboratory Control Limits

Certificate of Analysis Summary 464683

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project Id:
Contact: Camille Bryant
Project Location: Lea County, New Mexico

Date Received in Lab: Fri Jun-07-13 02:18 pm
Report Date: 13-JUN-13
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	464683-001		464683-002		464683-003		464683-004		464683-005		464683-006	
	Field Id:	RP North S/W @ 11'		Trench-1 Floor @ 6'		Trench-2 Topsoil		Trench-2 Floor @ 4'		Trench-3 Topsoil		Trench-3 Floor @ 2'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-04-13 12:30		Jun-04-13 13:00		Jun-04-13 13:10		Jun-04-13 13:20		Jun-04-13 13:40		Jun-04-13 13:50	
BTEX by EPA 8021B	***Extracted:***	Jun-10-13 08:00		Jun-10-13 08:00		Jun-10-13 08:00		Jun-10-13 08:00		Jun-10-13 08:00		Jun-10-13 08:00	
	Analyzed:	Jun-10-13 11:22		Jun-10-13 11:39		Jun-10-13 11:55		Jun-10-13 17:10		Jun-10-13 17:27		Jun-10-13 13:34	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.000998	ND	0.000992	ND	0.000992	ND	0.000994	ND	0.000998	ND	0.00100
Toluene		ND	0.00200	ND	0.00198	ND	0.00198	ND	0.00199	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.000998	ND	0.000992	ND	0.000992	ND	0.000994	ND	0.000998	ND	0.00100
m,p-Xylenes		ND	0.00200	ND	0.00198	ND	0.00198	ND	0.00199	ND	0.00200	ND	0.00200
o-Xylene		ND	0.000998	ND	0.000992	ND	0.000992	ND	0.000994	ND	0.000998	ND	0.00100
Total Xylenes		ND	0.000998	ND	0.000992	ND	0.000992	ND	0.000994	ND	0.000998	ND	0.00100
Total BTEX		ND	0.000998	ND	0.000992	ND	0.000992	ND	0.000994	ND	0.000998	ND	0.00100
Inorganic Anions by EPA 300/300.1 SUB: TX104704215	***Extracted:***	Jun-11-13 11:27		Jun-11-13 11:27		Jun-11-13 11:27		Jun-11-13 11:27		Jun-11-13 11:27		Jun-11-13 11:27	
	Analyzed:	Jun-12-13 00:51		Jun-12-13 01:10		Jun-12-13 01:28		Jun-12-13 02:23		Jun-12-13 02:42		Jun-12-13 03:00	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		214	2.00	17.8	2.00	4.22	2.00	50.4	2.00	2.84	2.00	2.66	2.00
Percent Moisture	***Extracted:***												
	Analyzed:	Jun-10-13 14:20		Jun-10-13 14:20		Jun-10-13 14:20		Jun-10-13 14:20		Jun-10-13 14:20		Jun-10-13 14:20	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		4.38	1.00	3.08	1.00	1.81	1.00	2.98	1.00	ND	1.00	2.86	1.00
TPH By SW8015 Mod	***Extracted:***	Jun-12-13 13:00		Jun-12-13 13:00		Jun-12-13 13:00		Jun-12-13 13:00		Jun-12-13 13:00		Jun-12-13 13:00	
	Analyzed:	Jun-13-13 03:58		Jun-13-13 05:13		Jun-13-13 05:37		Jun-13-13 06:02		Jun-13-13 13:03		Jun-13-13 06:52	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.6	ND	15.4	260	76.4	ND	15.5	99.2	75.1	ND	15.5
C12-C28 Diesel Range Hydrocarbons		ND	15.6	ND	15.4	10600	76.4	ND	15.5	5970	75.1	ND	15.5
C28-C35 Oil Range Hydrocarbons		ND	15.6	ND	15.4	2050	76.4	ND	15.5	1730	75.1	ND	15.5
Total TPH		ND	15.6	ND	15.4	12900	76.4	ND	15.5	7800	75.1	ND	15.5

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 464683

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project Id:
Contact: Camille Bryant
Project Location: Lea County, New Mexico

Date Received in Lab: Fri Jun-07-13 02:18 pm
Report Date: 13-JUN-13
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	464683-007		464683-008		464683-009		464683-010		464683-011		464683-012	
	Field Id:	SP-1		Trench-4 Floor @ 2'		Trench-5 Floor @ 2'		Trench-6 Floor @ 2'		Trench- 7 Floor @ 2'		Trench-8 Floor @ 2'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-04-13 14:30		Jun-05-13 09:00		Jun-05-13 09:10		Jun-05-13 09:40		Jun-05-13 10:10		Jun-05-13 10:40	
BTEX by EPA 8021B	***Extracted:***	Jun-10-13 08:00		Jun-10-13 08:00		Jun-10-13 08:00		Jun-10-13 08:00		Jun-10-13 08:00		Jun-10-13 08:00	
	Analyzed:	Jun-10-13 13:50		Jun-10-13 09:36		Jun-10-13 14:06		Jun-10-13 14:23		Jun-10-13 14:39		Jun-10-13 14:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.000990	ND	0.000990	ND	0.000990	ND	0.00100	ND	0.000994	ND	0.000994
Toluene		ND	0.00198	ND	0.00198	ND	0.00198	ND	0.00200	ND	0.00199	ND	0.00199
Ethylbenzene		ND	0.000990	ND	0.000990	ND	0.000990	ND	0.00100	ND	0.000994	ND	0.000994
m,p-Xylenes		ND	0.00198	ND	0.00198	ND	0.00198	ND	0.00200	ND	0.00199	ND	0.00199
o-Xylene		ND	0.000990	ND	0.000990	ND	0.000990	ND	0.00100	ND	0.000994	ND	0.000994
Total Xylenes		ND	0.000990	ND	0.000990	ND	0.000990	ND	0.00100	ND	0.000994	ND	0.000994
Total BTEX		ND	0.000990	ND	0.000990	ND	0.000990	ND	0.00100	ND	0.000994	ND	0.000994
Inorganic Anions by EPA 300/300.1 SUB: TX104704215	***Extracted:***	Jun-11-13 11:27		Jun-11-13 11:27		Jun-11-13 11:27		Jun-11-13 11:27		Jun-11-13 11:27		Jun-11-13 11:27	
	Analyzed:	Jun-12-13 03:18		Jun-12-13 04:14		Jun-12-13 04:32		Jun-12-13 04:51		Jun-12-13 05:09		Jun-12-13 05:27	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		54.9	2.00	ND	2.00	62.8	2.00	12.7	2.00	5.63	2.00	2.91	2.00
Percent Moisture	***Extracted:***												
	Analyzed:	Jun-10-13 14:20		Jun-10-13 14:20		Jun-10-13 14:50		Jun-10-13 14:50		Jun-10-13 14:50		Jun-10-13 14:50	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		1.59	1.00	2.97	1.00	2.86	1.00	2.02	1.00	1.49	1.00	3.09	1.00
TPH By SW8015 Mod	***Extracted:***	Jun-12-13 13:00		Jun-12-13 13:00		Jun-12-13 13:00		Jun-12-13 13:00		Jun-12-13 13:00		Jun-12-13 13:00	
	Analyzed:	Jun-13-13 07:17		Jun-13-13 08:08		Jun-13-13 08:33		Jun-13-13 08:58		Jun-13-13 09:50		Jun-13-13 10:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.2	ND	15.5	ND	15.5	ND	15.3	ND	15.2	ND	15.5
C12-C28 Diesel Range Hydrocarbons		56.6	15.2	ND	15.5	ND	15.5	ND	15.3	ND	15.2	ND	15.5
C28-C35 Oil Range Hydrocarbons		ND	15.2	ND	15.5	ND	15.5	ND	15.3	ND	15.2	ND	15.5
Total TPH		56.6	15.2	ND	15.5	ND	15.5	ND	15.3	ND	15.2	ND	15.5

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 464683

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project Id:
Contact: Camille Bryant
Project Location: Lea County, New Mexico

Date Received in Lab: Fri Jun-07-13 02:18 pm
Report Date: 13-JUN-13
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	464683-013		464683-014		464683-015		464683-016					
	Field Id:	Trench-9 Floor @ 2'		Trench-10 Floor @ 2'		Trench-10 Floor @ 4'		Trench-11 Floor @ 2'					
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Jun-05-13 11:00		Jun-05-13 12:30		Jun-05-13 13:15		Jun-05-13 14:00					
BTEX by EPA 8021B	***Extracted:***	Jun-10-13 08:00		Jun-10-13 08:00		Jun-10-13 08:00		Jun-10-13 16:00					
	Analyzed:	Jun-10-13 15:12		Jun-10-13 15:29		Jun-10-13 15:47		Jun-10-13 19:23					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		ND	0.00100	ND	0.000996	ND	0.000998	ND	0.000994				
Toluene		ND	0.00200	ND	0.00199	ND	0.00200	ND	0.00199				
Ethylbenzene		ND	0.00100	ND	0.000996	ND	0.000998	ND	0.000994				
m,p-Xylenes		ND	0.00200	ND	0.00199	ND	0.00200	ND	0.00199				
o-Xylene		ND	0.00100	ND	0.000996	ND	0.000998	ND	0.000994				
Total Xylenes		ND	0.00100	ND	0.000996	ND	0.000998	ND	0.000994				
Total BTEX		ND	0.00100	ND	0.000996	ND	0.000998	ND	0.000994				
Inorganic Anions by EPA 300/300.1 SUB: TX104704215	***Extracted:***	Jun-11-13 11:27		Jun-11-13 11:30		Jun-11-13 11:30		Jun-11-13 11:30					
	Analyzed:	Jun-12-13 05:46		Jun-12-13 07:18		Jun-12-13 08:13		Jun-12-13 08:31					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		22.3	2.00	100	2.00	33.4	2.00	4.97	2.00				
Percent Moisture	***Extracted:***												
	Analyzed:	Jun-10-13 14:50		Jun-10-13 15:38		Jun-10-13 15:38		Jun-10-13 15:38					
	Units/RL:	%	RL	%	RL	%	RL	%	RL				
Percent Moisture		2.31	1.00	3.56	1.00	4.12	1.00	3.18	1.00				
TPH By SW8015 Mod	***Extracted:***	Jun-12-13 13:00		Jun-12-13 13:00		Jun-12-13 13:00		Jun-12-13 13:00					
	Analyzed:	Jun-13-13 10:44		Jun-13-13 11:11		Jun-13-13 11:39		Jun-13-13 12:06					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		ND	15.3	ND	15.5	ND	15.6	ND	15.4				
C12-C28 Diesel Range Hydrocarbons		ND	15.3	ND	15.5	ND	15.6	ND	15.4				
C28-C35 Oil Range Hydrocarbons		ND	15.3	ND	15.5	ND	15.6	ND	15.4				
Total TPH		ND	15.3	ND	15.5	ND	15.6	ND	15.4				

Kelsey Brooks
Project Manager

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464683,

Project ID:

Lab Batch #: 915856 **Sample:** 464683-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 09:36

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0247	0.0300	82	80-120	
4-Bromofluorobenzene	0.0251	0.0300	84	80-120	

Lab Batch #: 915856 **Sample:** 464683-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 11:22

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 915856 **Sample:** 464683-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 11:39

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	80-120	

Lab Batch #: 915856 **Sample:** 464683-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 11:55

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0336	0.0300	112	80-120	

Lab Batch #: 915856 **Sample:** 464683-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 13:34

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0247	0.0300	82	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464683,

Project ID:

Lab Batch #: 915856 **Sample:** 464683-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 13:50

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0310	0.0300	103	80-120	
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

Lab Batch #: 915856 **Sample:** 464683-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 14:06

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0343	0.0300	114	80-120	
4-Bromofluorobenzene	0.0246	0.0300	82	80-120	

Lab Batch #: 915856 **Sample:** 464683-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 14:23

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0317	0.0300	106	80-120	
4-Bromofluorobenzene	0.0341	0.0300	114	80-120	

Lab Batch #: 915856 **Sample:** 464683-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 14:39

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 915856 **Sample:** 464683-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 14:55

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	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.

Form 2 - Surrogate Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464683,

Project ID:

Lab Batch #: 915856 **Sample:** 464683-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 15:12

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0286	0.0300	95	80-120	

Lab Batch #: 915856 **Sample:** 464683-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 15:29

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0334	0.0300	111	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

Lab Batch #: 915856 **Sample:** 464683-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 15:47

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0242	0.0300	81	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 915856 **Sample:** 464683-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 17:10

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

Lab Batch #: 915856 **Sample:** 464683-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 17:27

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0247	0.0300	82	80-120	
4-Bromofluorobenzene	0.0242	0.0300	81	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464683,

Project ID:

Lab Batch #: 915863 **Sample:** 464683-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 19:23

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0262	0.0300	87	80-120	
4-Bromofluorobenzene	0.0252	0.0300	84	80-120	

Lab Batch #: 916148 **Sample:** 464683-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 03:58

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.0	99.5	97	70-135	
o-Terphenyl	52.2	49.8	105	70-135	

Lab Batch #: 916148 **Sample:** 464683-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 05:13

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.8	99.5	97	70-135	
o-Terphenyl	51.2	49.8	103	70-135	

Lab Batch #: 916148 **Sample:** 464683-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 05:37

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.7	100	97	70-135	
o-Terphenyl	54.0	50.0	108	70-135	

Lab Batch #: 916148 **Sample:** 464683-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 06:02

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.8	100	100	70-135	
o-Terphenyl	53.0	50.2	106	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464683,

Project ID:

Lab Batch #: 916148 **Sample:** 464683-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 06:52

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.0	100	91	70-135	
o-Terphenyl	47.6	50.1	95	70-135	

Lab Batch #: 916148 **Sample:** 464683-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 07:17

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.1	99.5	94	70-135	
o-Terphenyl	49.0	49.8	98	70-135	

Lab Batch #: 916148 **Sample:** 464683-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 08:08

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.1	100	81	70-135	
o-Terphenyl	42.1	50.1	84	70-135	

Lab Batch #: 916148 **Sample:** 464683-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 08:33

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.0	100	91	70-135	
o-Terphenyl	48.0	50.1	96	70-135	

Lab Batch #: 916148 **Sample:** 464683-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 08:58

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.5	99.9	92	70-135	
o-Terphenyl	47.7	50.0	95	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464683,

Project ID:

Lab Batch #: 916148 **Sample:** 464683-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 09:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.0	99.9	81	70-135	
o-Terphenyl	41.5	50.0	83	70-135	

Lab Batch #: 916148 **Sample:** 464683-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 10:17

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.6	99.9	88	70-135	
o-Terphenyl	46.4	50.0	93	70-135	

Lab Batch #: 916148 **Sample:** 464683-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 10:44

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.7	99.8	91	70-135	
o-Terphenyl	46.9	49.9	94	70-135	

Lab Batch #: 916148 **Sample:** 464683-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 11:11

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	99.5	86	70-135	
o-Terphenyl	45.1	49.8	91	70-135	

Lab Batch #: 916148 **Sample:** 464683-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 11:39

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.9	99.5	92	70-135	
o-Terphenyl	48.5	49.8	97	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464683,

Project ID:

Lab Batch #: 916148 **Sample:** 464683-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 12:06

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.7	99.6	87	70-135	
o-Terphenyl	45.5	49.8	91	70-135	

Lab Batch #: 916148 **Sample:** 464683-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 13:03

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.5	103	70-135	
o-Terphenyl	54.7	49.8	110	70-135	

Lab Batch #: 915856 **Sample:** 639463-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/10/13 09:10

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0353	0.0300	118	80-120	
4-Bromofluorobenzene	0.0257	0.0300	86	80-120	

Lab Batch #: 915863 **Sample:** 639469-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/10/13 19:06

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 916148 **Sample:** 639552-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/13 03:33

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.7	112	70-135	
o-Terphenyl	59.3	49.9	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.

Form 2 - Surrogate Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464683,

Project ID:

Lab Batch #: 915856 **Sample:** 639463-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/10/13 08:21

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0334	0.0300	111	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

Lab Batch #: 915863 **Sample:** 639469-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/10/13 18:33

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0360	0.0300	120	80-120	
4-Bromofluorobenzene	0.0321	0.0300	107	80-120	

Lab Batch #: 916148 **Sample:** 639552-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/13 02:44

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	100	100	70-135	
o-Terphenyl	55.4	50.1	111	70-135	

Lab Batch #: 915856 **Sample:** 639463-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/10/13 08:37

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 915863 **Sample:** 639469-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/10/13 18:49

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464683,

Project ID:

Lab Batch #: 916148 **Sample:** 639552-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/13 03:08

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.1	100	88	70-135	
o-Terphenyl	54.1	50.1	108	70-135	

Lab Batch #: 915856 **Sample:** 464683-004 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 12:28

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 915863 **Sample:** 464685-004 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 20:45

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0348	0.0300	116	80-120	

Lab Batch #: 916148 **Sample:** 464683-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 04:23

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.6	99.6	100	70-135	
o-Terphenyl	56.6	49.8	114	70-135	

Lab Batch #: 915856 **Sample:** 464683-004 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 12:44

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464683,

Project ID:

Lab Batch #: 915863 **Sample:** 464685-004 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 21:01

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0349	0.0300	116	80-120	
4-Bromofluorobenzene	0.0312	0.0300	104	80-120	

Lab Batch #: 916148 **Sample:** 464683-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 04:48

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.9	105	70-135	
o-Terphenyl	61.9	50.0	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.

Blank Spike Recovery

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464683 **Project ID:**

Lab Batch #: 916025 **Sample:** 639472-1-BKS **Matrix:** Solid
Date Analyzed: 06/11/2013 **Date Prepared:** 06/11/2013 **Analyst:** RKO
Reporting Units: mg/kg **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<2.00	100	102	102	80-120	

Lab Batch #: 916039 **Sample:** 639474-1-BKS **Matrix:** Solid
Date Analyzed: 06/12/2013 **Date Prepared:** 06/11/2013 **Analyst:** RKO
Reporting Units: mg/kg **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<2.00	100	102	102	80-120	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464683 **Project ID:**

Analyst: DYV **Date Prepared:** 06/10/2013 **Date Analyzed:** 06/10/2013

Lab Batch ID: 915856 **Sample:** 639463-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0920	92	0.0998	0.0872	87	5	70-130	35	
Toluene	<0.00200	0.100	0.0949	95	0.0998	0.0928	93	2	70-130	35	
Ethylbenzene	<0.00100	0.100	0.106	106	0.0998	0.105	105	1	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.193	97	0.200	0.191	96	1	70-135	35	
o-Xylene	<0.00100	0.100	0.102	102	0.0998	0.0995	100	2	71-133	35	

Analyst: DYV **Date Prepared:** 06/10/2013 **Date Analyzed:** 06/10/2013

Lab Batch ID: 915863 **Sample:** 639469-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000998	0.0998	0.0851	85	0.0996	0.0824	83	3	70-130	35	
Toluene	<0.00200	0.0998	0.0838	84	0.0996	0.0905	91	8	70-130	35	
Ethylbenzene	<0.000998	0.0998	0.0954	96	0.0996	0.0932	94	2	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.180	90	0.199	0.174	87	3	70-135	35	
o-Xylene	<0.000998	0.0998	0.0919	92	0.0996	0.0833	84	10	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464683 **Project ID:**

Analyst: DYV **Date Prepared:** 06/12/2013 **Date Analyzed:** 06/13/2013

Lab Batch ID: 916148 **Sample:** 639552-1-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	1020	102	1000	947	95	7	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1070	107	1000	995	100	7	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order # : 464683 **Project ID:**

Lab Batch ID: 915856 **QC- Sample ID:** 464683-004 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/10/2013 **Date Prepared:** 06/10/2013 **Analyst:** DYV

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	<0.000996	0.0996	0.0821	82	0.100	0.0824	82	0	70-130	35	
Toluene	<0.00199	0.0996	0.0869	87	0.100	0.0861	86	1	70-130	35	
Ethylbenzene	<0.000996	0.0996	0.0996	100	0.100	0.0881	88	12	71-129	35	
m,p-Xylenes	<0.00199	0.199	0.183	92	0.200	0.165	83	10	70-135	35	
o-Xylene	<0.000996	0.0996	0.0874	88	0.100	0.0850	85	3	71-133	35	

Lab Batch ID: 915863 **QC- Sample ID:** 464685-004 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/10/2013 **Date Prepared:** 06/10/2013 **Analyst:** DYV

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	<0.000998	0.0998	0.0953	95	0.0996	0.0875	88	9	70-130	35	
Toluene	<0.00200	0.0998	0.104	104	0.0996	0.0912	92	13	70-130	35	
Ethylbenzene	<0.000998	0.0998	0.107	107	0.0996	0.0998	100	7	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.200	100	0.199	0.185	93	8	70-135	35	
o-Xylene	<0.000998	0.0998	0.108	108	0.0996	0.0920	92	16	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, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order # : 464683 **Project ID:**

Lab Batch ID: 916025 **QC- Sample ID:** 464552-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/11/2013 **Date Prepared:** 06/11/2013 **Analyst:** RKO

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	24200	200	24200	0	200	23900	0	1	80-120	20	X

Lab Batch ID: 916025 **QC- Sample ID:** 464683-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/12/2013 **Date Prepared:** 06/11/2013 **Analyst:** RKO

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	4.22	100	106	102	100	107	103	1	80-120	20	

Lab Batch ID: 916039 **QC- Sample ID:** 464683-014 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/12/2013 **Date Prepared:** 06/11/2013 **Analyst:** RKO

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	100	100	182	82	100	183	83	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, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order # : 464683 **Project ID:**

Lab Batch ID: 916148 **QC- Sample ID:** 464683-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/13/2013 **Date Prepared:** 06/12/2013 **Analyst:** DYV

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	<15.6	1040	1020	98	1040	1050	101	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.6	1040	1090	105	1040	1120	108	3	70-135	35	

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

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

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

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, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464683

Lab Batch #: 915867 **Project ID:**

Date Analyzed: 06/10/2013 14:20 **Date Prepared:** 06/10/2013 **Analyst:** WRU

QC- Sample ID: 464673-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	1.63	1.57	4	20	

Lab Batch #: 915869

Date Analyzed: 06/10/2013 15:38 **Date Prepared:** 06/10/2013 **Analyst:** WRU

QC- Sample ID: 464683-014 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	3.56	3.41	4	20	

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

BRL - Below Reporting Limit

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Camille Bryant

Company Name: Nova Safety and Environmental

Company Address: 2057 Commerce

City/State/Zip: Midland, TX 79703

Telephone No: 432.520.7720 Fax No: 432.520.7701

Sampler Signature: Camille Bryant e-mail: cbryant@novatraining.cc

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project #:

Project Loc: Lea County, New Mexico

PO #:

Report Format: [X] Standard [ ] TRRP [ ] NPI

(lab use only)
ORDER #: 464683

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride E 300.0			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	RP North S/W @ 11'			6/4/2013	12:30		1	X								Soil	X								X			X				X
02	Trench-1 Floor @ 6'			6/4/2013	1:00		1	X								Soil	X								X			X				X
03	Trench-2 Topsoil			6/4/2013	1:10		1	X								Soil	X								X			X				X
04	Trench-2 Floor @ 4'			6/4/2013	1:20		1	X								Soil	X								X			X				X
05	Trench-3 Topsoil			6/4/2013	1:40		1	X								Soil	X								X			X				X
06	Trench-3 Floor @ 2'			6/4/2013	1:50		1	X								Soil	X								X			X				X
07	SP-1			6/4/2013	2:30		1	X								Soil	X								X			X				X
08	Trench-4 Floor @ 2'			6/5/2013	9:00		1	X								Soil	X								X			X				X
09	Trench-5 Floor @ 2'			6/5/2013	9:10		1	X								Soil	X								X			X				X
10	Trench-6 Floor @ 2'			6/5/2013	9:40		1	X								Soil	X								X			X				X

Special Instructions:

	Date	Time		Date	Time
Relinquished by: Camille Bryant	6/7/13	11:42	Received by: Heather Reyna	6/7/13	1142
Relinquished by: Heather Reyna	6/7/13	14:18	Received by:		
Relinquished by:			Received by ELOT: Shawnee Smith	6-7-13	14:18

Laboratory Comments:

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

Temperature Upon Receipt: 1.5 °C

Final 1.000

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

2062

Project Manager: Camille Bryant

Company Name: Nova Safety and Environmental

Company Address: 2057 Commerce

City/State/Zip: Midland, TX 79703

Telephone No: 432.520.7720 Fax No: 432.520.7701

Sampler Signature: Camille Bryant e-mail: cbryant@novatraining.cc

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project #:

Project Loc: Lea County, New Mexico

PO #:

Report Format: [X] Standard [ ] TRRP [ ] NPI

(lab use only)
ORDER #: 464683

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1	8015M	8015B TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride E 300.0			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
11	Trench-7 Floor @ 2'			6/5/2013	10:10		1	X								Soil	X										X			X				X
12	Trench-8 Floor @ 2'			6/5/2013	10:40		1	X								Soil	X										X			X				X
13	Trench-9 Floor @ 2'			6/5/2013	11:00		1	X								Soil	X										X			X				X
14	Trench-10 Floor @ 2'			6/5/2013	12:30		1	X								Soil	X										X			X				X
15	Trench-10 Floor @ 4'			6/5/2013	1:15		1	X								Soil	X										X			X				X
16	Trench-11 Floor @ 2'			6/5/2013	2:00		1	X								Soil	X										X			X				X

Special Instructions:

	Date	Time		Date	Time
Relinquished by: Camille Bryant	6/7/13	11:42	Received by: Jonathan Reyna	6/7/13	11:42
Relinquished by: Jonathan Reyna	6/7/13	14:18	Received by:		
Relinquished by:			Received by ELOT: Maricela Montes	6-7-13	14:18

Laboratory Comments:

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

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: 1.5 °C

Final 1.000

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Southern Union Gas Services- Monahan

Date/ Time Received: 06/07/2013 02:18:00 PM

Work Order #: 464683

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

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6 *Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**Yes**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**Yes**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**Yes**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**Yes**

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

Analyst:	PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 06/07/2013

Checklist reviewed by: Kelsey Brooks Date: 06/07/2013

Analytical Report 464554

for

Southern Union Gas Services- Monahans

Project Manager: Camille Bryant

SUGS Historical A-14 6 Inch Line 1RP-1116

13-JUN-13

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

13-JUN-13

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

Reference: XENCO Report No(s): **464554**
SUGS Historical A-14 6 Inch Line 1RP-1116
Project Address: Lea County, New Mexico

Camille Bryant:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 464554. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 464554 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,

Kelsey Brooks
Project Manager

Sample Cross Reference 464554

Southern Union Gas Services- Monahans, Monahans, TX

SUGS Historical A-14 6 Inch Line 1RP-1116

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
RP @ 12'	S	06-03-13 12:50		464554-001
RP @ 18'	S	06-03-13 15:15		464554-002

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 464554

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project Id:
Contact: Camille Bryant
Project Location: Lea County, New Mexico

Date Received in Lab: Thu Jun-06-13 10:51 am
Report Date: 13-JUN-13
Project Manager: Kelsey Brooks

Analysis Requested									
	Lab Id:	464554-001		464554-002					
	Field Id:	RP @ 12'		RP @ 18'					
	Depth:								
	Matrix:	SOIL		SOIL					
	Sampled:	Jun-03-13 12:50		Jun-03-13 15:15					
BTEX by EPA 8021B	***Extracted:***	Jun-10-13 08:00		Jun-10-13 08:00					
	Analyzed:	Jun-10-13 10:49		Jun-10-13 11:06					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		ND	0.00108	ND	0.00107				
Toluene		ND	0.00216	ND	0.00213				
Ethylbenzene		ND	0.00108	ND	0.00107				
m,p-Xylenes		ND	0.00216	ND	0.00213				
o-Xylene		ND	0.00108	ND	0.00107				
Total Xylenes		ND	0.00108	ND	0.00107				
Total BTEX		ND	0.00108	ND	0.00107				
Inorganic Anions by EPA 300/300.1 SUB: TX104704215	***Extracted:***	Jun-11-13 11:31		Jun-11-13 11:31					
	Analyzed:	Jun-13-13 03:35		Jun-13-13 04:30					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		97.5	2.00	49.9	2.00				
Percent Moisture	***Extracted:***								
	Analyzed:	Jun-06-13 16:35		Jun-06-13 16:35					
	Units/RL:	%	RL	%	RL				
Percent Moisture		8.32	1.00	6.84	1.00				
TPH By SW8015 Mod SUB: TX104704215	***Extracted:***	Jun-07-13 17:00		Jun-07-13 17:00					
	Analyzed:	Jun-11-13 03:23		Jun-11-13 11:05					
	Units/RL:	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				

Kelsey Brooks
Project Manager

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464554,

Project ID:

Lab Batch #: 915856 **Sample:** 464554-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 10:49

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0244	0.0300	81	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

Lab Batch #: 915856 **Sample:** 464554-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 11:06

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0245	0.0300	82	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 915871 **Sample:** 464554-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/11/13 03:23

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.8	100	91	70-135	
o-Terphenyl	48.6	50.0	97	70-135	

Lab Batch #: 915871 **Sample:** 464554-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/11/13 11:05

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.5	99.8	94	70-135	
o-Terphenyl	50.5	49.9	101	70-135	

Lab Batch #: 915856 **Sample:** 639463-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/10/13 09:10

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0353	0.0300	118	80-120	
4-Bromofluorobenzene	0.0257	0.0300	86	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464554,

Project ID:

Lab Batch #: 915871 **Sample:** 639417-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/11/13 02:58

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.1	99.7	95	70-135	
o-Terphenyl	51.9	49.9	104	70-135	

Lab Batch #: 915856 **Sample:** 639463-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/10/13 08:21

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0334	0.0300	111	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

Lab Batch #: 915871 **Sample:** 639417-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/11/13 02:08

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.9	99.9	97	70-135	
o-Terphenyl	59.3	50.0	119	70-135	

Lab Batch #: 915856 **Sample:** 639463-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/10/13 08:37

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 915871 **Sample:** 639417-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/11/13 02:33

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	61.5	50.1	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464554,

Project ID:

Lab Batch #: 915856 **Sample:** 464683-004 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 12:28

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 915871 **Sample:** 464554-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/11/13 04:13

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.8	100	90	70-135	
o-Terphenyl	56.3	50.1	112	70-135	

Lab Batch #: 915856 **Sample:** 464683-004 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/13 12:44

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

Lab Batch #: 915871 **Sample:** 464554-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/11/13 04:38

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	59.6	50.1	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.

Blank Spike Recovery

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464554 **Project ID:**

Lab Batch #: 916083 **Sample:** 639475-1-BKS **Matrix:** Solid

Date Analyzed: 06/13/2013 **Date Prepared:** 06/11/2013 **Analyst:** RKO

Reporting Units: mg/kg **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<10.0	500	511	102	80-120	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464554 **Project ID:**

Analyst: DYV **Date Prepared:** 06/10/2013 **Date Analyzed:** 06/10/2013

Lab Batch ID: 915856 **Sample:** 639463-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0920	92	0.0998	0.0872	87	5	70-130	35	
Toluene	<0.00200	0.100	0.0949	95	0.0998	0.0928	93	2	70-130	35	
Ethylbenzene	<0.00100	0.100	0.106	106	0.0998	0.105	105	1	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.193	97	0.200	0.191	96	1	70-135	35	
o-Xylene	<0.00100	0.100	0.102	102	0.0998	0.0995	100	2	71-133	35	

Analyst: DYV **Date Prepared:** 06/07/2013 **Date Analyzed:** 06/11/2013

Lab Batch ID: 915871 **Sample:** 639417-1-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	999	1030	103	1000	1030	103	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	999	1100	110	1000	1080	108	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 / MSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order # : 464554 **Project ID:**

Lab Batch ID: 915856 **QC- Sample ID:** 464683-004 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/10/2013 **Date Prepared:** 06/10/2013 **Analyst:** DYV

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	<0.000996	0.0996	0.0821	82	0.100	0.0824	82	0	70-130	35	
Toluene	<0.00199	0.0996	0.0869	87	0.100	0.0861	86	1	70-130	35	
Ethylbenzene	<0.000996	0.0996	0.0996	100	0.100	0.0881	88	12	71-129	35	
m,p-Xylenes	<0.00199	0.199	0.183	92	0.200	0.165	83	10	70-135	35	
o-Xylene	<0.000996	0.0996	0.0874	88	0.100	0.0850	85	3	71-133	35	

Lab Batch ID: 916083 **QC- Sample ID:** 464554-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/13/2013 **Date Prepared:** 06/11/2013 **Analyst:** RKO

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	97.5	100	182	85	100	183	86	1	80-120	20	

Lab Batch ID: 915871 **QC- Sample ID:** 464554-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/11/2013 **Date Prepared:** 06/07/2013 **Analyst:** DYV

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	<16.1	1080	1080	100	1080	1070	99	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<16.1	1080	1140	106	1080	1150	106	1	70-135	35	

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464554

Lab Batch #: 915637 **Project ID:**

Date Analyzed: 06/06/2013 16:35 **Date Prepared:** 06/06/2013 **Analyst:** WRU

QC- Sample ID: 464554-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	8.32	8.20	1	20	

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

BRL - Below Reporting Limit

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Camille Bryant

Company Name: Nova Safety and Environmental

Company Address: 2057 Commerce

City/State/Zip: Midland, TX 79703

Telephone No: 432.520.7720 Fax No: 432.520.7701

Sampler Signature: Camille Bryant e-mail: cbryant@novatraining.cc

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project #:

Project Loc: Lea County, New Mexico

PO #:

Report Format: [X] Standard [ ] TRRP [ ] NPI

(lab use only) ORDER #: 464554

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 / 8015M / 8015B	TPH: TX 1005 / TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride E 300.0			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
	RP @ 12'			6/3/2013	12:50		1	X								Soil	X								X			X				X
	RP @ 18'			6/3/2013	3:15		1	X								Soil	X								X			X				X

Special Instructions:

	Date	Time		Date	Time
Relinquished by: Camille Bryant	6/6/13	10:20	Received by: Natalie Green	6/6/13	1020
Relinquished by: Natalie Green	6/6/13	1051	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Shawnee Smith	6/6/13	10:51

Laboratory Comments:

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

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: 3.0 °C

Final 1.000

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Southern Union Gas Services- Monahan

Date/ Time Received: 06/06/2013 10:51:00 AM

Work Order #: 464554

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

Temperature Measuring device used :

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

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

Analyst:	PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 06/06/2013

Checklist reviewed by: Kelsey Brooks Date: 06/06/2013

Analytical Report 464805

for

Southern Union Gas Services- Monahans

Project Manager: Camille Bryant

SUGS Historical A-14 6 Inch Line 1RP-1116

18-JUN-13

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

18-JUN-13

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

Reference: XENCO Report No(s): **464805**
SUGS Historical A-14 6 Inch Line 1RP-1116
Project Address: Lea County, New Mexico

Camille Bryant:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 464805. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 464805 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,

Kelsey Brooks
Project Manager

Sample Cross Reference 464805

Southern Union Gas Services- Monahans, Monahans, TX

SUGS Historical A-14 6 Inch Line 1RP-1116

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Trench 12 @ 2'	S	06-06-13 10:00		464805-001
Trench 13 @ 2'	S	06-06-13 11:00		464805-002
RP South S/W @ 11'	S	06-07-13 09:00		464805-003

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 464805

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project Id:
Contact: Camille Bryant
Project Location: Lea County, New Mexico

Date Received in Lab: Tue Jun-11-13 11:20 am
Report Date: 18-JUN-13
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	464805-001		464805-002		464805-003					
	Field Id:	Trench 12 @ 2'		Trench 13 @ 2'		RP South S/W @ 11'					
	Depth:										
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	Jun-06-13 10:00		Jun-06-13 11:00		Jun-07-13 09:00					
BTEX by EPA 8021B	***Extracted:***	Jun-12-13 10:00		Jun-12-13 10:00		Jun-12-13 10:00					
	Analyzed:	Jun-12-13 11:53		Jun-12-13 12:10		Jun-12-13 12:26					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		ND	0.00104	ND	0.00103	ND	0.00103				
Toluene		ND	0.00208	ND	0.00207	ND	0.00205				
Ethylbenzene		ND	0.00104	ND	0.00103	ND	0.00103				
m,p-Xylenes		ND	0.00208	ND	0.00207	ND	0.00205				
o-Xylene		ND	0.00104	ND	0.00103	ND	0.00103				
Total Xylenes		ND	0.00104	ND	0.00103	ND	0.00103				
Total BTEX		ND	0.00104	ND	0.00103	ND	0.00103				
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jun-14-13 10:00		Jun-14-13 10:00		Jun-14-13 10:00					
	Analyzed:	Jun-15-13 04:24		Jun-15-13 05:08		Jun-15-13 05:29					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		5.97	2.00	18.6	2.00	37.9	2.00				
Percent Moisture	***Extracted:***										
	Analyzed:	Jun-11-13 13:00		Jun-11-13 13:00		Jun-11-13 13:00					
	Units/RL:	%	RL	%	RL	%	RL				
Percent Moisture		3.39	1.00	3.94	1.00	3.57	1.00				
TPH By SW8015 Mod	***Extracted:***	Jun-13-13 12:30		Jun-13-13 12:30		Jun-13-13 12:30					
	Analyzed:	Jun-13-13 21:43		Jun-13-13 22:07		Jun-13-13 22:32					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		ND	15.6	ND	15.6	ND	15.6				
C12-C28 Diesel Range Hydrocarbons		ND	15.6	43.7	15.6	ND	15.6				
C28-C35 Oil Range Hydrocarbons		ND	15.6	ND	15.6	ND	15.6				
Total TPH		ND	15.6	43.7	15.6	ND	15.6				

Kelsey Brooks
Project Manager

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464805,

Project ID:

Lab Batch #: 916079 **Sample:** 464805-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/12/13 11:53

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0241	0.0300	80	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

Lab Batch #: 916079 **Sample:** 464805-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/12/13 12:10

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0244	0.0300	81	80-120	

Lab Batch #: 916079 **Sample:** 464805-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/12/13 12:26

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0337	0.0300	112	80-120	

Lab Batch #: 916300 **Sample:** 464805-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 21:43

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.1	100	86	70-135	
o-Terphenyl	47.6	50.2	95	70-135	

Lab Batch #: 916300 **Sample:** 464805-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 22:07

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.3	100	85	70-135	
o-Terphenyl	46.8	50.1	93	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464805,

Project ID:

Lab Batch #: 916300 **Sample:** 464805-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 22:32

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.5	100	96	70-135	
o-Terphenyl	52.2	50.2	104	70-135	

Lab Batch #: 916079 **Sample:** 639597-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/12/13 11:37

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 916300 **Sample:** 639745-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/13 19:10

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.5	100	100	70-135	
o-Terphenyl	54.8	50.2	109	70-135	

Lab Batch #: 916079 **Sample:** 639597-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/12/13 11:04

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0335	0.0300	112	80-120	
4-Bromofluorobenzene	0.0321	0.0300	107	80-120	

Lab Batch #: 916300 **Sample:** 639745-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/13 18:17

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.1	99.9	99	70-135	
o-Terphenyl	57.7	50.0	115	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464805,

Project ID:

Lab Batch #: 916079 **Sample:** 639597-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/12/13 11:20

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,4-Difluorobenzene	0.0255	0.0300	85	80-120	
4-Bromofluorobenzene	0.0343	0.0300	114	80-120	

Lab Batch #: 916300 **Sample:** 639745-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/13 18:44

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1-Chlorooctane	98.8	99.5	99	70-135	
o-Terphenyl	57.9	49.8	116	70-135	

Lab Batch #: 916079 **Sample:** 464773-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/12/13 13:16

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,4-Difluorobenzene	0.0359	0.0300	120	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 916300 **Sample:** 464805-003 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/13 22:58

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1-Chlorooctane	94.9	99.9	95	70-135	
o-Terphenyl	56.6	50.0	113	70-135	

Lab Batch #: 916079 **Sample:** 464773-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/12/13 13:32

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,4-Difluorobenzene	0.0351	0.0300	117	80-120	
4-Bromofluorobenzene	0.0342	0.0300	114	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: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Orders : 464805,

Project ID:

Lab Batch #: 916300 **Sample:** 464805-003 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/13 07:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.6	100	92	70-135	
o-Terphenyl	60.6	50.0	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 / BSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464805 **Project ID:**

Analyst: DYV **Date Prepared:** 06/12/2013 **Date Analyzed:** 06/12/2013

Lab Batch ID: 916079 **Sample:** 639597-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000994	0.0994	0.0869	87	0.0996	0.0828	83	5	70-130	35	
Toluene	<0.00199	0.0994	0.0942	95	0.0996	0.0891	89	6	70-130	35	
Ethylbenzene	<0.000994	0.0994	0.108	109	0.0996	0.103	103	5	71-129	35	
m,p-Xylenes	<0.00199	0.199	0.198	99	0.199	0.190	95	4	70-135	35	
o-Xylene	<0.000994	0.0994	0.0951	96	0.0996	0.0975	98	2	71-133	35	

Analyst: AMB **Date Prepared:** 06/14/2013 **Date Analyzed:** 06/14/2013

Lab Batch ID: 916443 **Sample:** 639704-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<2.00	50.0	47.7	95	50.0	47.6	95	0	80-120	20	

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

BS / BSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464805 **Project ID:**

Analyst: AMB **Date Prepared:** 06/14/2013 **Date Analyzed:** 06/14/2013

Lab Batch ID: 916249 **Sample:** 639704-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<2.00	50.0	47.8	96	50.0	47.6	95	0	80-120	20	

Analyst: DYV **Date Prepared:** 06/13/2013 **Date Analyzed:** 06/13/2013

Lab Batch ID: 916300 **Sample:** 639745-1-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	999	1020	102	995	1020	103	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	999	1060	106	995	1050	106	1	70-135	35	

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

Form 3 - MS Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464805
Lab Batch #: 916443
Project ID:
Date Analyzed: 06/15/2013
Date Prepared: 06/14/2013
Analyst: AMB
QC- Sample ID: 464805-001 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	5.97	50.0	51.8	92	80-120	

Lab Batch #: 916443
Date Analyzed: 06/15/2013
Date Prepared: 06/14/2013
Analyst: AMB
QC- Sample ID: 464827-008 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	2750	1070	3920	109	80-120	

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

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order # : 464805 **Project ID:**

Lab Batch ID: 916079 **QC- Sample ID:** 464773-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/12/2013 **Date Prepared:** 06/12/2013 **Analyst:** DYV

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	0.0902	80	0.113	0.0926	82	3	70-130	35	
Toluene	<0.00225	0.113	0.104	92	0.113	0.112	99	7	70-130	35	
Ethylbenzene	<0.00113	0.113	0.114	101	0.113	0.127	112	11	71-129	35	
m,p-Xylenes	<0.00225	0.225	0.210	93	0.226	0.217	96	3	70-135	35	
o-Xylene	<0.00113	0.113	0.101	89	0.113	0.108	96	7	71-133	35	

Lab Batch ID: 916300 **QC- Sample ID:** 464805-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/13/2013 **Date Prepared:** 06/13/2013 **Analyst:** DYV

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	1040	1050	101	1040	1010	97	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.5	1040	1120	108	1040	1130	109	1	70-135	35	

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464805

Lab Batch #: 915976 **Project ID:**

Date Analyzed: 06/11/2013 13:00 **Date Prepared:** 06/11/2013 **Analyst:** WRU

QC- Sample ID: 464805-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	3.39	3.34	1	20	

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

BRL - Below Reporting Limit

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Camille Bryant

Company Name: Nova Safety and Environmental

Company Address: 2057 Commerce

City/State/Zip: Midland, TX 79703

Telephone No: 432.520.7720 Fax No: 432.520.7701

Sampler Signature: Camille Bryant e-mail: cbryant@novatraining.cc

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project #:

Project Loc: Lea County, New Mexico

PO #:

Report Format: [X] Standard [ ] TRRP [ ] NPI

(lab use only) **ORDER #:** 464805

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 / 8015M / 8015B	TPH: TX 1005 / TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride E 300.0			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
	Trench 12 @ 2'			6/6/2013	10:00		1	X								Soil	X								X			X			X	X
	Trench 13 @ 2'			6/6/2013	11:00		1	X								Soil	X								X			X			X	X
	RP South S/W @ 11'			6/7/2013	9:00		1	X								Soil	X								X			X			X	X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Camille Bryant	6/11/13	10:20	Jonathan Reyna	6/11/13	10:20
Jonathan Reyna	6/11/13	11:20			
			Received by ELOT:	6-11-13	11:20

Laboratory Comments:

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

Temperature Upon Receipt: 6.0 °C

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Southern Union Gas Services- Monahan

Date/ Time Received: 06/11/2013 11:20:00 AM

Work Order #: 464805

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

Temperature Measuring device used :

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

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

Analyst:	PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 06/11/2013

Checklist reviewed by: Kelsey Brooks Date: 06/11/2013

Summary Report

Thomas Franklin
APEX/Titan
2351 W. Northwest Hwy.
Suite 3321
Dallas, Tx 75220

Report Date: March 24, 2015

Work Order: 15031904

Project Location: Lea Co, NM
Project Name: Regency -A-14 6" Line
Project Number: 7250715006.001

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
389081	Stockpile-1@Trench-2 Topsoil	soil	2015-03-18	14:40	2015-03-19
389082	Stockpile-2@Trench-3 Topsoil	soil	2015-03-18	14:46	2015-03-19

Sample - Field Code	BTEX Benzene (mg/Kg)	BTEX Toluene (mg/Kg)	BTEX Ethylbenzene (mg/Kg)	BTEX Xylene (mg/Kg)	TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
389081 - Stockpile-1@Trench-2 Topsoil	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00 Qs
389082 - Stockpile-2@Trench-3 Topsoil	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00 Qs

Sample: 389081 - Stockpile-1@Trench-2 Topsoil

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 389082 - Stockpile-2@Trench-3 Topsoil

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Thomas Franklin
APEX/Titan
2351 W. Northwest Hwy.
Suite 3321
Dallas, Tx, 75220

Report Date: March 24, 2015

Work Order: 15031904

Project Location: Lea Co, NM
Project Name: Regency -A-14 6" Line
Project Number: 7250715006.001

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
389081	Stockpile-1@Trench-2 Topsoil	soil	2015-03-18	14:40	2015-03-19
389082	Stockpile-2@Trench-3 Topsoil	soil	2015-03-18	14:46	2015-03-19

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

Report Contents

Case Narrative

Samples for project Regency -A-14 6" Line were received by TraceAnalysis, Inc. on 2015-03-19 and assigned to work order 15031904. Samples for work order 15031904 were received intact at a temperature of 4.1 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	101644	2015-03-20 at 07:53	120168	2015-03-23 at 07:26
Chloride (Titration)	SM 4500-Cl B	101653	2015-03-20 at 11:50	120142	2015-03-20 at 11:51
TPH DRO - NEW	S 8015 D	101652	2015-03-19 at 17:00	120148	2015-03-20 at 12:52
TPH GRO	S 8015 D	101644	2015-03-20 at 07:53	120169	2015-03-23 at 07:31

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15031904 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 389081 - Stockpile-1@Trench-2 Topsoil

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	120168	Date Analyzed:	2015-03-23	Analyzed By:	AK
Prep Batch:	101644	Sample Preparation:	2015-03-20	Prepared By:	AK

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.65	mg/Kg	1	2.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	1	2.00	105	70 - 130

Sample: 389081 - Stockpile-1@Trench-2 Topsoil

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	120142	Date Analyzed:	2015-03-20	Analyzed By:	EM
Prep Batch:	101653	Sample Preparation:	2015-03-20	Prepared By:	EM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 389081 - Stockpile-1@Trench-2 Topsoil

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	120148	Date Analyzed:	2015-03-20	Analyzed By:	SC
Prep Batch:	101652	Sample Preparation:	2015-03-19	Prepared By:	SC

Parameter	Flag	Cert	Result	Units	Dilution	RL
DRO	U	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			105	mg/Kg	1	100	105	70 - 130

Sample: 389081 - Stockpile-1@Trench-2 Topsoil

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	120169	Date Analyzed:	2015-03-23	Analyzed By:	AK
Prep Batch:	101644	Sample Preparation:	2015-03-20	Prepared By:	AK

Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO	Qs,U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.74	mg/Kg	1	2.00	87	70 - 130
4-Bromofluorobenzene (4-BFB)			1.91	mg/Kg	1	2.00	96	70 - 130

Sample: 389082 - Stockpile-2@Trench-3 Topsoil

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	120168	Date Analyzed:	2015-03-23	Analyzed By:	AK
Prep Batch:	101644	Sample Preparation:	2015-03-20	Prepared By:	AK

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.72	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			2.04	mg/Kg	1	2.00	102	70 - 130

Sample: 389082 - Stockpile-2@Trench-3 Topsoil

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	120142	Date Analyzed:	2015-03-20	Analyzed By:	EM
Prep Batch:	101653	Sample Preparation:	2015-03-20	Prepared By:	EM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 389082 - Stockpile-2@Trench-3 Topsoil

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	120148	Date Analyzed:	2015-03-20	Analyzed By:	SC
Prep Batch:	101652	Sample Preparation:	2015-03-19	Prepared By:	SC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	U	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			114	mg/Kg	1	100	114	70 - 130

Sample: 389082 - Stockpile-2@Trench-3 Topsoil

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	120169	Date Analyzed:	2015-03-23	Analyzed By:	AK
Prep Batch:	101644	Sample Preparation:	2015-03-20	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	Qs,U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.75	mg/Kg	1	2.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)			1.88	mg/Kg	1	2.00	94	70 - 130

Method Blanks

Method Blank (1) QC Batch: 120142

QC Batch:	120142	Date Analyzed:	2015-03-20	Analyzed By:	EM
Prep Batch:	101653	QC Preparation:	2015-03-20	Prepared By:	EM

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 120148

QC Batch:	120148	Date Analyzed:	2015-03-20	Analyzed By:	SC
Prep Batch:	101652	QC Preparation:	2015-03-19	Prepared By:	SC

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		[1]	<7.41	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	147	mg/Kg	1	100	147	70 - 130

Method Blank (1) QC Batch: 120168

QC Batch:	120168	Date Analyzed:	2015-03-23	Analyzed By:	AK
Prep Batch:	101644	QC Preparation:	2015-03-20	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		[1]	<0.00533	mg/Kg	0.02
Toluene		[1]	<0.00645	mg/Kg	0.02
Ethylbenzene		[1]	<0.0116	mg/Kg	0.02
Xylene		[1]	<0.00874	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	70 - 130

continued ...

method blank continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			2.01	mg/Kg	1	2.00	100	70 - 130

Method Blank (1) QC Batch: 120169

QC Batch:	120169	Date Analyzed:	2015-03-23	Analyzed By:	AK
Prep Batch:	101644	QC Preparation:	2015-03-20	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<2.32	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.84	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.87	mg/Kg	1	2.00	94	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 120142 | Date Analyzed: 2015-03-20 | Analyzed By: EM
Prep Batch: 101653 | QC Preparation: 2015-03-20 | Prepared By: EM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2540	mg/Kg	5	2500	<19.2	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2540	mg/Kg	5	2500	<19.2	101	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 120148 | Date Analyzed: 2015-03-20 | Analyzed By: SC
Prep Batch: 101652 | QC Preparation: 2015-03-19 | Prepared By: SC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	259	mg/Kg	1	250	<7.41	104	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	221	mg/Kg	1	250	<7.41	88	70 - 130	16	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate			LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	Qsr	Qsr	132	129	mg/Kg	1	100	132	129	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 120168 | Date Analyzed: 2015-03-23 | Analyzed By: AK
Prep Batch: 101644 | QC Preparation: 2015-03-20 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.02	mg/Kg	1	2.00	<0.00533	101	70 - 130
Toluene		1	1.96	mg/Kg	1	2.00	<0.00645	98	70 - 130
Ethylbenzene		1	1.98	mg/Kg	1	2.00	<0.0116	99	70 - 130
Xylene		1	5.97	mg/Kg	1	6.00	<0.00874	100	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	2.03	mg/Kg	1	2.00	<0.00533	102	70 - 130	0	20
Toluene		1	1.94	mg/Kg	1	2.00	<0.00645	97	70 - 130	1	20
Ethylbenzene		1	1.94	mg/Kg	1	2.00	<0.0116	97	70 - 130	2	20
Xylene		1	5.88	mg/Kg	1	6.00	<0.00874	98	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.69	1.62	mg/Kg	1	2.00	84	81	70 - 130
4-Bromofluorobenzene (4-BFB)	2.00	1.92	mg/Kg	1	2.00	100	96	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 120169 | Date Analyzed: 2015-03-23 | Analyzed By: AK
Prep Batch: 101644 | QC Preparation: 2015-03-20 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	21.9	mg/Kg	1	20.0	<2.32	110	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	23.0	mg/Kg	1	20.0	<2.32	115	70 - 130	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.84	1.85	mg/Kg	1	2.00	92	92	70 - 130
4-Bromofluorobenzene (4-BFB)	1.89	1.91	mg/Kg	1	2.00	94	96	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 389003

QC Batch: 120142 | Date Analyzed: 2015-03-20 | Analyzed By: EM
Prep Batch: 101653 | QC Preparation: 2015-03-20 | Prepared By: EM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2820	mg/Kg	5	2500	<19.2	113	78.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			3000	mg/Kg	5	2500	<19.2	120	78.9 - 121	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 389081

QC Batch: 120148 | Date Analyzed: 2015-03-20 | Analyzed By: SC
Prep Batch: 101652 | QC Preparation: 2015-03-19 | Prepared By: SC

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		[1]	198	mg/Kg	1	250	<7.41	79	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		[1]	192	mg/Kg	1	250	<7.41	77	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	113	105	mg/Kg	1	100	113	105	70 - 130

Matrix Spike (MS-1) Spiked Sample: 389081

QC Batch: 120168 | Date Analyzed: 2015-03-23 | Analyzed By: AK
Prep Batch: 101644 | QC Preparation: 2015-03-20 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.65	mg/Kg	1	2.00	<0.00533	82	70 - 130
Toluene		1	1.67	mg/Kg	1	2.00	<0.00645	84	70 - 130
Ethylbenzene		1	1.77	mg/Kg	1	2.00	<0.0116	88	70 - 130
Xylene		1	5.42	mg/Kg	1	6.00	<0.00874	90	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.68	mg/Kg	1	2.00	<0.00533	84	70 - 130	2	20
Toluene		1	1.72	mg/Kg	1	2.00	<0.00645	86	70 - 130	3	20
Ethylbenzene		1	1.83	mg/Kg	1	2.00	<0.0116	92	70 - 130	3	20
Xylene		1	5.56	mg/Kg	1	6.00	<0.00874	93	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.65	1.55	mg/Kg	1	2	82	78	70 - 130
4-Bromofluorobenzene (4-BFB)	2.04	1.98	mg/Kg	1	2	102	99	70 - 130

Matrix Spike (MS-1) Spiked Sample: 389081

QC Batch: 120169 | Date Analyzed: 2015-03-23 | Analyzed By: AK
Prep Batch: 101644 | QC Preparation: 2015-03-20 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	Qs	Qs 1	12.6	mg/Kg	1	20.0	<2.32	63	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	14.8	mg/Kg	1	20.0	<2.32	74	70 - 130	16	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.75	1.77	mg/Kg	1	2	88	88	70 - 130
4-Bromofluorobenzene (4-BFB)	1.95	1.99	mg/Kg	1	2	98	100	70 - 130

Calibration Standards

Standard (ICV-1)

QC Batch: 120142 | Date Analyzed: 2015-03-20 | Analyzed By: EM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2015-03-20

Standard (CCV-1)

QC Batch: 120142 | Date Analyzed: 2015-03-20 | Analyzed By: EM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.0	99	85 - 115	2015-03-20

Standard (CCV-1)

QC Batch: 120148 | Date Analyzed: 2015-03-20 | Analyzed By: SC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	251	100	80 - 120	2015-03-20

Standard (CCV-2)

QC Batch: 120148 | Date Analyzed: 2015-03-20 | Analyzed By: SC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	299	120	80 - 120	2015-03-20

Standard (CCV-1)

QC Batch: 120168 Date Analyzed: 2015-03-23 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0967	97	80 - 120	2015-03-23
Toluene		1	mg/kg	0.100	0.0937	94	80 - 120	2015-03-23
Ethylbenzene		1	mg/kg	0.100	0.0933	93	80 - 120	2015-03-23
Xylene		1	mg/kg	0.300	0.285	95	80 - 120	2015-03-23

Standard (CCV-2)

QC Batch: 120168 Date Analyzed: 2015-03-23 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0985	98	80 - 120	2015-03-23
Toluene		1	mg/kg	0.100	0.0963	96	80 - 120	2015-03-23
Ethylbenzene		1	mg/kg	0.100	0.0957	96	80 - 120	2015-03-23
Xylene		1	mg/kg	0.300	0.287	96	80 - 120	2015-03-23

Standard (CCV-1)

QC Batch: 120169 Date Analyzed: 2015-03-23 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.15	115	80 - 120	2015-03-23

Standard (CCV-2)

QC Batch: 120169 Date Analyzed: 2015-03-23 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.07	107	80 - 120	2015-03-23

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-14-8	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

WO# 15031904

CHAIN OF CUSTODY RECORD

APEX

Office Location Midland TX

Project Manager Thomas Franklin

Laboratory: Trace Analysis

Address: Midland TX

Contact:

Phone:

PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 4.1

1	2	3	4	5

Page 1 of 1

Sampler's Name: Thomas K Franklin

Sampler's Signature:

Proj. No.: 72507150006.001

Project Name: Lea Co NM Regency - A-14 6" Line

No/Type of Containers: 2 Glass

ANALYSIS REQUESTED

Matrix	Date 2015	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O 1/2	BTEX 8021B	TPH 8015M DRO/GRO	Chloride	Lab Sample ID (Lab Use Only)
S	3/18	14:40	X		Stockpile - 1 @ Trench-2 Topsoil						X	X	X	X	X	389081 -
S	3/18	14:46	X		Stockpile - 2 @ Trench-3 Topsoil						X	X	X	X	X	389082

Turn around time ❑ Normal ❑ 25% Rush ❑ 50% Rush ❑ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3/19/15	9:00		3/19/15	9:00
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: Direct Bill to Regency

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil

Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

APPENDIX E

Form C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Southern Union Gas Services, Ltd.	Contact	Tony Savoie
Address	P.O. Box 1226 Jal, N.M. 88252	Telephone No.	505-395-2116
Facility Name	Lea County Field Dept.	Facility Type	Natural Gas Gathering

Surface Owner: Rubert Madera Trust	Mineral Owner: Federal	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	3	24S	34E					Lea

Latitude N32 15.154 Longitude W103 27.139

NATURE OF RELEASE

Type of Release : Crude oil and natural gas	Volume of Release 83 mcf gas, 50 bbls oil	Volume Recovered 0 bbls
Source of Release Pipeline	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 8/19/06 Time unknown.
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom? Tony Savoie, Southern Union Gas Services	Date and Hour: Verbally reported to Larry Johnson @ 7:56 a.m. 8/22/06	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
The 6" steel gathering pipeline, operating at 25 psi developed a leak, the line was excavated and the affected area was clamped on 8/19/06. The oil saturated area was blended on site to prevent exposure to livestock and wildlife. Normal operating pressure on the line is 20 psi to 30 psi, with a potential H2S content of 4000 ppm.

Describe Area Affected and Cleanup Action Taken. The affected area is pasture. An area covering approximately 15,670 sq. ft. was affected by the release and response activities. A site assessment and sampling event was conducted on 8/21/06 to determine the area affected and estimate the liquid volume loss. The landowner was contacted on 8/21/06 regarding livestock exposure and discuss remediation options. Remediation activities will start after a section of the pipeline has been replaced. All remediation activities will follow the NMOCD Recommended Guidelines For The Remediation of Leaks and Spills.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: *Tony Savoie*	OIL CONSERVATION DIVISION
Printed Name: John A. Savoie	Approved by District Supervisor: ENVIRO ENGR
Title: EH&S Comp. Coord.	Approval Date: 11.1.06 Expiration Date: 12.1.06
E-mail Address: jasavoie@sidrichgas.com	Conditions of Approval: SUBMITTAL OF ANALYSIS Attached ☐
Date: 8/24/06 Phone: 505-395-2116	

* Attach Additional Sheets If Necessary

Incident - nPAC0631348631
application - pPAC06

RP# 1116

APPENDIX F

Well Records

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 02373	C	LE		4	1	32	24S	34E	641979	3560916*	600		
C 02386		LE	4	1	2	04	24S	34E	643962	3569290*	575	475	100
C 02387		LE			1	11	24S	34E	646513	3567613*	62	40	22
C 02397		LE	4	1	2	04	24S	34E	643962	3569290*	575	475	100

Average Depth to Water: **330 feet**

Minimum Depth: **40 feet**

Maximum Depth: **475 feet**

Record Count: 4

PLSS Search:

Township: 24S **Range:** 34E

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C 02373		4	1	32	24S	34E	641979	3560916*

Driller License:
Driller Name: ENRON OIL AND GAS

Drill Start Date:		**Drill Finish Date:**	12/31/1982	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	6.00	**Depth Well:**	600 feet	**Depth Water:**	

Meter Number:	5957	**Meter Make:**	MASTER METER
Meter Serial Number:	6866773	**Meter Multiplier:**	100.0000
Number of Dials:	5	**Meter Type:**	Diversion
Unit of Measure:	Gallons	**Return Flow Percent:**	
Usage Multiplier:		**Reading Frequency:**	Quarterly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount
09/13/2002	2002	0	A	RPT		0
12/31/2002	2002	16997	A	RPT		5.216
03/31/2003	2003	17909	A	RPT		0.280
06/30/2003	2003	42235	A	RPT		7.465
09/30/2003	2003	55200	A	ab		3.979
12/31/2003	2003	64421	A	ab		2.830
04/05/2004	2004	64421	A	RPT		0
01/01/2005	2004	64421	A	RPT		0
04/01/2005	2005	64421	A	RPT		0
07/01/2005	2005	64421	A	RPT		0
10/10/2005	2005	64421	A	RPT		0
01/01/2006	2005	64421	A	RPT		0
03/31/2006	2006	64601	A	RPT		0.055
06/30/2006	2006	64602	A	tw		0
12/31/2006	2006	0	A	tw		0
04/03/2007	2007	24	A	tw		0.007
07/01/2007	2007	41	A	RPT		0.005
10/01/2007	2007	116	A	RPT		0.023
12/03/2007	2007	131	A	RPT		0.005
03/30/2008	2008	157	A	RPT		0.008

***UTM location was derived from PLSS - see Help**

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount
06/30/2008	2008	197	A	RPT		0.012
09/30/2008	2008	238	A	RPT		0.013
12/30/2008	2008	283	A	RPT		0.014
03/31/2010	2010	24989	A	RPT		7.582
06/30/2010	2010	39689	A	tw		4.511
09/30/2010	2010	43062	A	RPT		1.035
10/01/2010	2010	0	A	RPT		0
12/31/2010	2010	1200	A	RPT		0.368
04/01/2011	2011	1356	A	RPT		0.048
04/02/2011	2011	0	A	RPT		0

**YTD Meter Amounts:	Year	Amount
	2002	5.216
	2003	14.554
	2004	0
	2005	0
	2006	0.055
	2007	0.040
	2008	0.047
	2010	13.496
	2011	0.048

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C 02386	4	1	2	04	24S	34E	643962	3569290*

Driller License:
Driller Name: SHELL OIL

Drill Start Date:		**Drill Finish Date:**	01/31/1960	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	30 GPM
Casing Size:	5.00	**Depth Well:**	575 feet	**Depth Water:**	475 feet

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C 02387			1	11	24S	34E	646513	3567613*

Driller License:
Driller Name: UNKNOWN

Drill Start Date:		**Drill Finish Date:**	12/31/1916	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	3 GPM
Casing Size:	6.00	**Depth Well:**	62 feet	**Depth Water:**	40 feet

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C 02397	4	1	2	04	24S	34E	643962	3569290*

Driller License:
Driller Name: SHELL OIL

Drill Start Date:	01/01/1960	**Drill Finish Date:**	01/31/1960	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:	ELECTR	**Pipe Discharge Size:**		**Estimated Yield:**	30 GPM
Casing Size:	5.00	**Depth Well:**	575 feet	**Depth Water:**	475 feet

Meter Number:	525	**Meter Make:**	MASTER
Meter Serial Number:	13485213	**Meter Multiplier:**	10.0000
Number of Dials:	6	**Meter Type:**	Diversion
Unit of Measure:	Gallons	**Return Flow Percent:**	
Usage Multiplier:		**Reading Frequency:**	Quarterly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount
02/15/1999	1999	472959	A	ms		0
12/07/1999	1999	560576	A	ms		2.689
01/06/2000	1999	565151	A	ms		0.140
05/05/2000	2000	612343	A	MB		1.448
04/14/2004	2004	0	A	RPT		0
11/11/2004	2004	189248	A	RPT		5.808
12/31/2004	2004	220399	A	RPT		0.956
04/06/2005	2005	372336	A	RPT		4.663
09/15/2005	2005	495401	A	RPT		3.777
09/16/2005	2005	495401	A	RPT		0
12/31/2005	2005	625522	A	RPT		3.993
09/01/2012	2012	0	A	RPT		0
09/30/2012	2012	300206	A	RPT		9.213
10/01/2012	2012	0	A	tw		0
10/31/2012	2012	133860	A	RPT		4.108
09/30/2013	2013	300206	A	tw		5.105

**YTD Meter Amounts:	Year	Amount
	1999	2.829
	2000	3.289

***UTM location was derived from PLSS - see Help**

**YTD Meter Amounts:	Year	Amount
	2004	6.764
	2005	12.433
	2012	13.321
	2013	5.105

APPENDIX E

Bill of Lading and Backfill Check Receipt Form

S.U.G.S.
A-14, 6th LAT. – SITE #1
2006-038
2-11-08

7- Loads Topsoil From Pitchfork pit

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER O. Tipton 12 YD. DUMP TRUCK #1105 DATE 2-11-08

ADDRESS _____

COMPANY S.U.G.S.

PIT OWNER Pitchfork Ranch TOTAL YDS. 84 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X	X	X																									7	84

SUGS.
A-14, 6" LAT. SITE #1
2006-038
2-11-08
7-LOADS TOPSOIL FROM PITCHFORK PIT

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER L. Combs 12 YD. DUMP TRUCK # 1102 DATE 2-11-08

ADDRESS _____

COMPANY SUGS.

PIT OWNER PITCHFORK RANCH TOTAL YDS. 84 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X	X	X																									7	84

J.4.6.2.
A-14, 6th LAT. - SITE #1
2006-038
2-12-08
7-Loads From Pitchfork Pit (Topsoil)

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER L. Combs 12 YD. DUMP TRUCK # 1102 DATE 2-12-08

ADDRESS _____

COMPANY S.U.G.S.

PIT OWNER Pitchfork Ranch TOTAL YDS. 84 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	Y	X	X	X	X	X																									7	64

S.U.G.S.
A-14,16 4 LAT. - SITE #1
2006-038
2-12-08
7-Loads From P. Tolfork Pit (Topsoil)

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER 0-Tip Ton 12 YD. DUMP TRUCK # 1105 DATE 2-12-08

ADDRESS _____

COMPANY S.U.G.S.

PIT OWNER P. Tolfork Ranch TOTAL YDS. 84 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X	X																										7	84

S.U.G.S.
A-14, 6 LIFTS - SITE #1
2006-038
2-13-08
7-Loads Topsoil From Pitchfork Pit

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER O. Tipton 12 YD. DUMP TRUCK # 1105 DATE 2-13-08

ADDRESS _____

COMPANY S.U.G.S.

PIT OWNER Pitchfork Ranch TOTAL YDS. 84 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X	X	X																								>	84

S.J.G.S.
D-14, 6th LAT. - SITE #1
2006-038
2-13-08

6-Loads Topsoil From P. Tebb Fork Pit

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER L. Combs 12 YD. DUMP TRUCK # 1102 DATE 2-13-08

ADDRESS _____

COMPANY S.J.G.S.

PIT OWNER P. Tebb Fork Ranch TOTAL YDS. 72 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	V	X	X	X	X																										6	72

A-14, 6" LAT. #2 - SITE #
2006-038
1-22-08
7-Loads To PF. Land Farm (Contaminated)

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER L. Combs 12YD. DUMP TRUCK # 1102 DATE 1-22-08

ADDRESS _____

COMPANY S.U.G.S.

PIT OWNER Pitchfork Land Farm TOTAL YDS. 84 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X	X	X																									7	

SWD Pit #1 - SITE #1
A-14,6" LAT #1 - SITE #1
2006-038
1-22-08
7-Loads To P.F. LAND FARM (CONTAMINATED)

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER O. TipToe 12 YD. DUMP TRUCK # 1105 DATE 1-22-08

ADDRESS _____

COMPANY S.W.D.S.

PIT OWNER Pitch Fork Land Farm TOTAL YDS. 84 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X	X	X																									7	

3402.
A-14, 6" LAT. #1 - SITE #1
2006-038
1-23-08
7-Loads To BF. LANDFARM (CONTAMINATED)

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER L. Combs 12YD. DUMP TRUCK #1102 DATE 1-23-08

ADDRESS _____

COMPANY SUGS

PIT OWNER R Tebbetts Land Farm TOTAL YDS. 84 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X	X	X																								7	84

A-14, 6" LAT. #1 - SITE #1
2006-038
1-23-08
8-LOADS TO KF LANDFARM (CONTAMINATED)

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER D. Tipton 12YD. DUMP TRUCK # 1105 DATE 1-23-08

ADDRESS _____

COMPANY S.U.G.S.

PIT OWNER Pitchfork Land Farm TOTAL YDS. 96 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X	X	X	X																								8	96

Southern Union Gas Services

CHECK REQUEST FORM

Payable to	Rubert & Loys Madera Trust B
Address	524 Antelope Jal, New Mexico 88252
A/P Supplier No.	52659
Date Check REQUIRED	4/15/2008
Total Amount	$7,128

Additional Instructions	
Return Check to	
Special Handling	
Requested by	J.A. Savoie
Date Requested	4/7/2008
Approved By	
Additional Approval	
Additional Approval	

Description	348 c.y @$12 & 492 cy @ $6 For Remediation Site 2006-038 "A" Sec.3,Twns 24S, 34E

Amount	Company	FERC / Acct / Gen	Expenditure / E type/Sub	Home / Project Cost Center	Location
$7,128	7100	2320261		SUG-0004	Lea County

skw 12/6/2007