

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

RECEIVED

OCT 21 2010

HOBBSD

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	Rose Slade
Address	P.O. Box 1226 Jal, N.M. 88252	Telephone No.	432-940-5147
Facility Name	Shepard #2	Facility Type	Natural Gas Gathering

Surface Owner: Jay Anthony	Mineral Owner: State of New Mexico	API No. 30-025-22033
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LOCATION OF RELEASE

38822

Unit Letter P	Section 36	Township 25S	Range 36E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
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Latitude N32 4.987 Longitude W103 12.659

NATURE OF RELEASE

Type of Release : Natural Gas	Volume of Release: Unknown	Volume Recovered None
Source of Release : 4" Natural Gas Pipeline	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 7/22/04 Time: 8:10 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

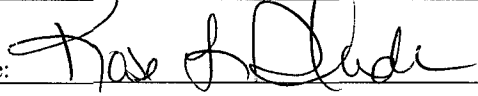

Describe Cause of Problem and Remedial Action Taken.\*

A 4-inch natural gas pipeline had a release prior to Southern Union Gas Services acquisition. The pipeline has been idle for approximately 5 years, the areas were impacted several years prior to placing the line out of service.

The impacted areas were identified by the landowner and the worse case site was photographed and sampled in July 2004.

Describe Area Affected and Cleanup Action Taken. An area measuring approximately 450 square feet has a dry grey to white discoloration. The discolored soil was excavated to a depth sufficient to restore a root bearing zone. Please reference closure request dated October 13, 2010 for remediation details.

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: 	OIL CONSERVATION DIVISION	
Printed Name: Rose L. Slade	Approved by District Supervisor: 	
Title: EHS Compliance Specialist	ENVIRONMENTAL ENGINEER	
E-mail Address: rose.slade@sug.com	Approval Date: 10-21-10	Expiration Date: —
Date: 10/13/2010 Phone: 432-940-5147	Conditions of Approval:	Attached <input type="checkbox"/>

\* Attach Additional Sheets If Necessary

PC0110 813642587

1 RP-1862



1507 W. 15th  
Monahans, Texas 79756  
432.943.1100 Fax: 432.943.1101

October 13, 2010

Mr. Larry Johnson  
New Mexico Oil Conservation Division  
Hobbs District Office  
1625 N. French Drive  
Hobbs, New Mexico 88240

RECEIVED

OCT 21 2010

HOBBS, NM

Re: Shepard #2 (1RP-1862)

Mr. Johnson,

On May 21, 2008, Ocotillo Environmental, LLC (Ocotillo), on behalf of Southern Union Gas Services (SUG) completed the delineation and remediation of a historical release occurring on a four (4) inch natural gas pipeline. The release was located in Unit Letter "P", Section 36, Township 25 South and Range 36 East in rural Lea County, New Mexico. The release GPS coordinates were 32° 04.987' N, 103° 12.659' W and the property is owned by Mr. Jay Anthony. A site location map is attached for your reference. The release was discovered by the landowner on July 22, 2004, occurring on a natural gas pipeline which had been idle for several years prior to the discovery of the release. The volume of the release is unknown, with no recovery. On May 14, 2008, an initial C-141 was prepared and submitted to the New Mexico Oil Conservation Division (NMOCD) for approval. The initial C-141 is attached for your reference.

A water well is located approximately 2,845 feet north (up gradient) of the release. Available data indicates groundwater was encountered at approximately 186 feet below ground surface (bgs). The nearest water course is approximately 3.48 miles to the west of the release. Based on the NMOCD ranking classification, the release site score is zero (0). A release site with a ranking score of zero (0) requires the following NMOCD cleanup levels:

Benzene: 10 mg/Kg  
BTEX : 50 mg/Kg  
TPH: 5,000 mg/Kg  
Chloride: 250 mg/Kg

On May 13, 2008, excavation of the release began; impacted soil was stockpiled adjacent to the release, pending transportation to the SUG Landfarm (NM2-19-0). The final dimensions of excavation were approximately twenty (20) feet in width by twenty-five (25) feet in length

and eight (8) feet bgs. On May 15, 2008, following the excavation activities, two (2) soil samples (P.R. @ 8' and B-Comp) were collected and submitted to the laboratory. A site map is attached and depicts the locations of the collected soil samples. The soil samples were analyzed for concentrations of total petroleum hydrocarbons (TPH) using EPA Method SW-846 8015M and chloride using EPA 300.1. The analytical results indicated chloride concentrations were less than laboratory method detection limit (MDL) for both soil samples. Total petroleum hydrocarbons were less than the laboratory MDL for both soil samples. Soil sample P.R. @ 8' was analyzed for concentrations of benzene, toluene, ethyl benzene and xylene (BTEX) using EPA Method 8021b. The analytical results indicate benzene and BTEX concentrations were less than the appropriate laboratory MDL. Concentrations of Benzene, BTEX, TPH and Chloride are summarized on the attached table. The laboratory analytical reports are attached for your reference.

Following the collection of the soil samples, the excavation was backfilled with non-impacted soil purchased from the landowner. The backfilled soil was contoured to fit the surrounding topography. Approximately eighty-four (84) cubic yards (cy) of excavated soil was transported to the SUG Landfarm.

Based on the analytical results, Southern Union Gas Services requests NMOCD Site Closure for the Shepard #2 release. Attached to this letter are: photographs, laboratory analytical reports, a site location map, a site map and the Initial and Final C-141.

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL  
SOUTHERN UNION GAS SERVICES  
SHEPARD #2  
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030						METHOD: 8015M				METHOD: E300
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M.P. - XYLENES (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TOTAL TPH C6-C35 (mg/Kg)	CHLORIDE (mg/Kg)
P.R. @ 8'	8 ft bgs	05/15/08	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<16.9	<16.9	<16.9	<16.9	<20.0
B-Comp	2 - 8 ft bgs	05/15/08	In-Situ	-	-	-	-	-	-	<15.8	<15.8	<15.8	<15.8	<10.0



Photo 1



Photo 2

Southern Union Gas Services Site: Sheperd #2  
Job # 2008-010  
Site Assessment 5/5/08

# **Analytical Report 303938**

**for**

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

**Project Manager: Tony Savoie**

**Sheperd # 2**

**2008-010**

**20-MAY-08**



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

Texas certification numbers:  
Houston, TX T104704215

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

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

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

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



20-MAY-08

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

Reference: XENCO Report No: **303938**  
**Sheperd # 2**  
Project Address: J. Anthony Ranch

**Tony Savoie:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 303938. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 303938 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

---

**Brent Barron, II**

Odessa Laboratory Manager

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*Certified and approved by numerous States and Agencies.*

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## Sample Cross Reference 303938



Southern Union Gas Services-Jal, Jal, NM

Sheperd # 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
P.R. @ 8'	S	May-15-08 11:30	0 - 8 ft	303938-001
B-Comp.	S	May-15-08 11:30	2 - 8 ft	303938-002





# Certificate of Analysis Summary 303938

Southern Union Gas Services-Jal, Jal, NM

Project Name: Sheperd # 2

Project Id: 2008-010

Contact: Tony Savoie

Project Location: J. Anthony Ranch

Date Received in Lab: Thu May-15-08 02:30 pm


Report Date: 20-MAY-08

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b>	303938-001	303938-002				
	<b>Field Id:</b>	P.R. @ 8'	B-Comp.				
	<b>Depth:</b>	0-8 ft	2-8 ft				
	<b>Matrix:</b>	SOIL	SOIL				
	<b>Sampled:</b>	May-15-08 11:30	May-15-08 11:30				
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	May-16-08 14:30					
	<b>Analyzed:</b>	May-16-08 19:11					
	<b>Units/RL:</b>	mg/kg RL					
Benzene		ND 0.0011					
Toluene		ND 0.0023					
Ethylbenzene		ND 0.0011					
m,p-Xylenes		ND 0.0023					
o-Xylene		ND 0.0011					
Total Xylenes		ND					
Total BTEX		ND					
<b>Inorganic Anions by EPA 300</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	May-16-08 09:05	May-16-08 09:05				
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL				
Chloride		ND 20.0	ND 10.0				
<b>Percent Moisture</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	May-15-08 15:40	May-15-08 15:40				
	<b>Units/RL:</b>	% RL	% RL				
Percent Moisture		11.3	4.82				
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b>	May-16-08 09:50	May-16-08 09:50				
	<b>Analyzed:</b>	May-17-08 11:12	May-17-08 11:39				
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 16.9	ND 15.8				
C12-C28 Diesel Range Hydrocarbons		ND 16.9	ND 15.8				
C28-C35 Oil Range Hydrocarbons		ND 16.9	ND 15.8				
Total TPH		ND	ND				

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

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Brent Barron  
Odessa Laboratory Director



## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
  - B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
  - D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
  - E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
  - F** RPD exceeded lab control limits.
  - J** The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
  - U** Analyte was not detected.
  - L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
  - H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
  - K** Sample analyzed outside of recommended hold time.
- \* Outside XENCO'S scope of NELAC Accreditation

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(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477



## Form 2 - Surrogate Recoveries



Project Name: Sheperd # 2

Work Order #: 303938

Project ID: 2008-010

Lab Batch #: 722988

Sample: 303938-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0336	0.0300	112	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 722988

Sample: 303973-020 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0325	0.0300	108	80-120	
4-Bromofluorobenzene	0.0427	0.0300	142	80-120	**

Lab Batch #: 722988

Sample: 303973-020 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0326	0.0300	109	80-120	
4-Bromofluorobenzene	0.0503	0.0300	168	80-120	**

Lab Batch #: 722988

Sample: 509231-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0325	0.0300	108	80-120	

Lab Batch #: 722988

Sample: 509231-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0346	0.0300	115	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

\*\* 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: Sheperd # 2

Work Order #: 303938

Project ID: 2008-010

Lab Batch #: 722988

Sample: 509231-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

Lab Batch #: 722980

Sample: 303938-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	85.4	100	85	70-135	
o-Terphenyl	46.0	50.0	92	70-135	

Lab Batch #: 722980

Sample: 303938-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	83.3	100	83	70-135	
o-Terphenyl	45.0	50.0	90	70-135	

Lab Batch #: 722980

Sample: 303938-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	88.3	100	88	70-135	
o-Terphenyl	47.0	50.0	94	70-135	

Lab Batch #: 722980

Sample: 303938-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	84.3	100	84	70-135	
o-Terphenyl	45.5	50.0	91	70-135	

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

\*\*\* Poor recoveries due to dilution

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

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



## Form 2 - Surrogate Recoveries



Project Name: Sheperd # 2

Work Order #: 303938

Project ID: 2008-010

Lab Batch #: 722980

Sample: 509228-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	98.1	100	98	70-135	
o-Terphenyl	53.5	50.0	107	70-135	

Lab Batch #: 722980

Sample: 509228-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	87.0	100	87	70-135	
o-Terphenyl	47.3	50.0	95	70-135	

Lab Batch #: 722980

Sample: 509228-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	54.0	50.0	108	70-135	

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

\*\*\* Poor recoveries due to dilution

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

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



## Blank Spike Recovery



Project Name: Sheperd # 2

Work Order #: 303938

Project ID:

2008-010

Lab Batch #: 722874

Sample: 722874-1-BKS

Matrix: Solid

Date Analyzed: 05/16/2008

Date Prepared: 05/16/2008

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

### BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	8.94	89	75-125	

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

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



## BS / BSD Recoveries



Project Name: Sheperd # 2

Work Order #: 303938

Analyst: SHE

Date Prepared: 05/16/2008

Project ID: 2008-010

Date Analyzed: 05/16/2008

Lab Batch ID: 722988

Sample: 509231-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

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

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	ND	0.1000	0.0974	97	0.1	0.0977	98	0	70-130	35	
Toluene	ND	0.1000	0.0989	99	0.1	0.0994	99	1	70-130	35	
Ethylbenzene	ND	0.1000	0.1080	108	0.1	0.1082	108	0	71-129	35	
m,p-Xylenes	ND	0.2000	0.2200	110	0.2	0.2202	110	0	70-135	35	
o-Xylene	ND	0.1000	0.1084	108	0.1	0.1091	109	1	71-133	35	

Analyst: ASA

Date Prepared: 05/16/2008

Date Analyzed: 05/17/2008

Lab Batch ID: 722980

Sample: 509228-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

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

TPH by SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1000	100	1000	1020	102	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	993	99	1000	1010	101	2	70-135	35	

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

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

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

All results are based on MDL and Validated for QC Purposes



## Form 3 - MS Recoveries



Project Name: Sheperd # 2

Work Order #: 303938

Lab Batch #: 722874

Date Analyzed: 05/16/2008

Date Prepared: 05/16/2008

Project ID: 2008-010

Analyst: LATCOR

QC- Sample ID: 303967-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	185	400	512	82	75-125	

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





## Form 3 - MS / MSD Recoveries



Project Name: Sheperd # 2

Work Order #: 303938

Project ID: 2008-010

Lab Batch ID: 722988

QC- Sample ID: 303973-020 S

Batch #: 1 Matrix: Soil

Date Analyzed: 05/17/2008

Date Prepared: 05/16/2008

Analyst: SHE

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	ND	0.1038	0.0685	66	0.1038	0.0776	75	13	70-130	35	X
Toluene	0.0054	0.1038	0.0593	52	0.1038	0.0657	58	11	70-130	35	X
Ethylbenzene	0.0093	0.1038	0.0484	38	0.1038	0.0535	43	12	71-129	35	X
m,p-Xylenes	0.0331	0.2076	0.1068	36	0.2076	0.1186	41	13	70-135	35	X
o-Xylene	0.0091	0.1038	0.0448	34	0.1038	0.0509	40	16	71-133	35	X

Lab Batch ID: 722980

QC- Sample ID: 303938-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 05/17/2008

Date Prepared: 05/16/2008

Analyst: ASA

Reporting Units: mg/kg

### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1130	957	85	1130	1010	89	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1130	947	84	1130	999	88	5	70-135	35	

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

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

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



## Sample Duplicate Recovery



Project Name: Sheperd # 2

Work Order #: 303938

Lab Batch #: 722874

Date Analyzed: 05/16/2008

QC- Sample ID: 303967-001 D

Reporting Units: mg/kg

Project ID: 2008-010

Analyst: LATCOR

Batch #: 1

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions by EPA 300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	185	185	0	20	

Lab Batch #: 722892

Date Analyzed: 05/15/2008

QC- Sample ID: 303929-001 D

Reporting Units: %

Date Prepared: 05/15/2008

Analyst: WRU

Batch #: 1

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	15.7	16.7	6	20	

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

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

**A Xenco Laboratories Company**

12600 West I-20 East  
Odessa, Texas 79765

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

Company Name SU. 65

Company Address: 610 COMMERCE P.O. Box 1226

City/State/Zip: JAL NM 88252

Telephone No: 575-395-2116

**Fax No:**

Sampler Signature: *Don Green*

**e-mail:**

Project #: 2008-010

Project Loc: J. Anthony Ranch

PO #:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

LAB # (lab use only)		FIELD CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Use	Preservation & # of Containers				Matrix	TCLP		TOTAL		Analyze For:		RUSH TAT (Per-Event)	
01	2A @ 8'	02	2' @ 8'	5/15/08	11:30	1	1	1	1	1	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> SO <sub>4</sub>	None	Other (Specify)	01/18/08	01/18/08	TX 1005	TX 1006	01/18/08	01/18/08
01	2A @ 8'	02	2' @ 8'	5/15/08	11:30	1	1	1	1	1	✓						5	✓	✓	✓	✓	✓	✓
02	B-Comp.										✓						5	✓					

**Special Instructions:**

Requisitioned by:	Date:	Time:	Received by:	Date:	Time:
<i>[Signature]</i>	5/15/08	14:30			
Requisitioned by:	Date:	Time:	Received by:	Date:	Time:
Requisitioned by:	Date:	Time:	Received by: ELOT:	Date:	Time:
			<i>[Signature]</i>	5/15/08	14:30

**Laboratory Comments:**

Sample Containers: ☒ VOCs Free of HeadSpace? ☒ N

Labels on Containers: ☒ Custody seals on container(s): ☒ N

Custody seals on container(s): ☒ N

Sample Hand Delivered: ☒ N

by Sample/Client Rep: ☒ N

by Courier: ☒ DHL FedEx Lone Star

Temperature Upon Receipt: 1.0 °C

# Environmental Lab of Texas

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

Client: S.U.G.S  
 Date/ Time: 9:15 08 14:30  
 Lab ID #: 303938  
 Initials: AL

### Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	Yes	No	10 °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 ELDT?	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	Subcontract of sample(s)?	Yes	No	Not Applicable
#20	VOC samples have zero headspace?	Yes	No	Not Applicable

### Variance Documentation

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

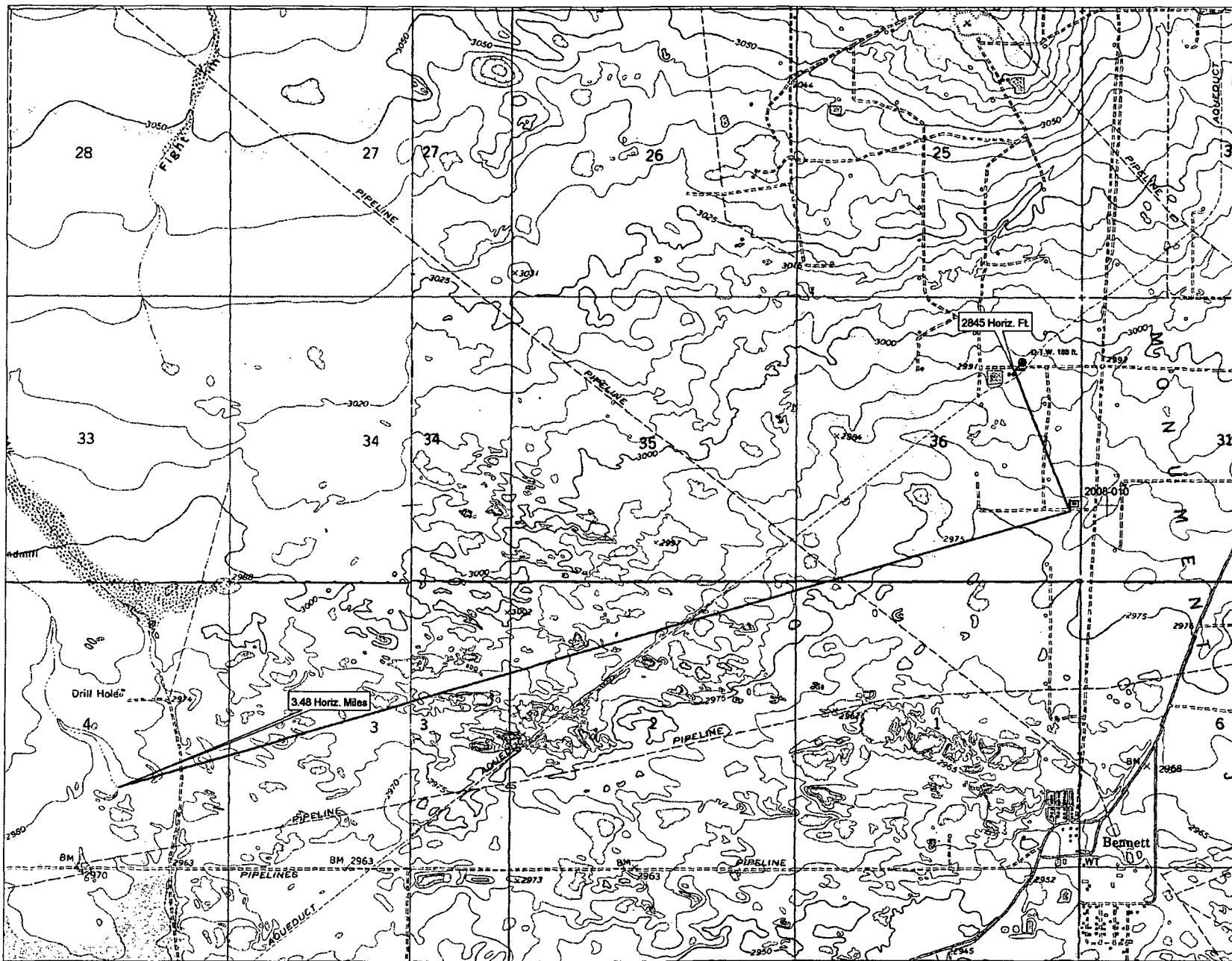
Regarding: \_\_\_\_\_

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

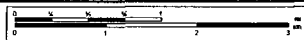
\_\_\_\_\_

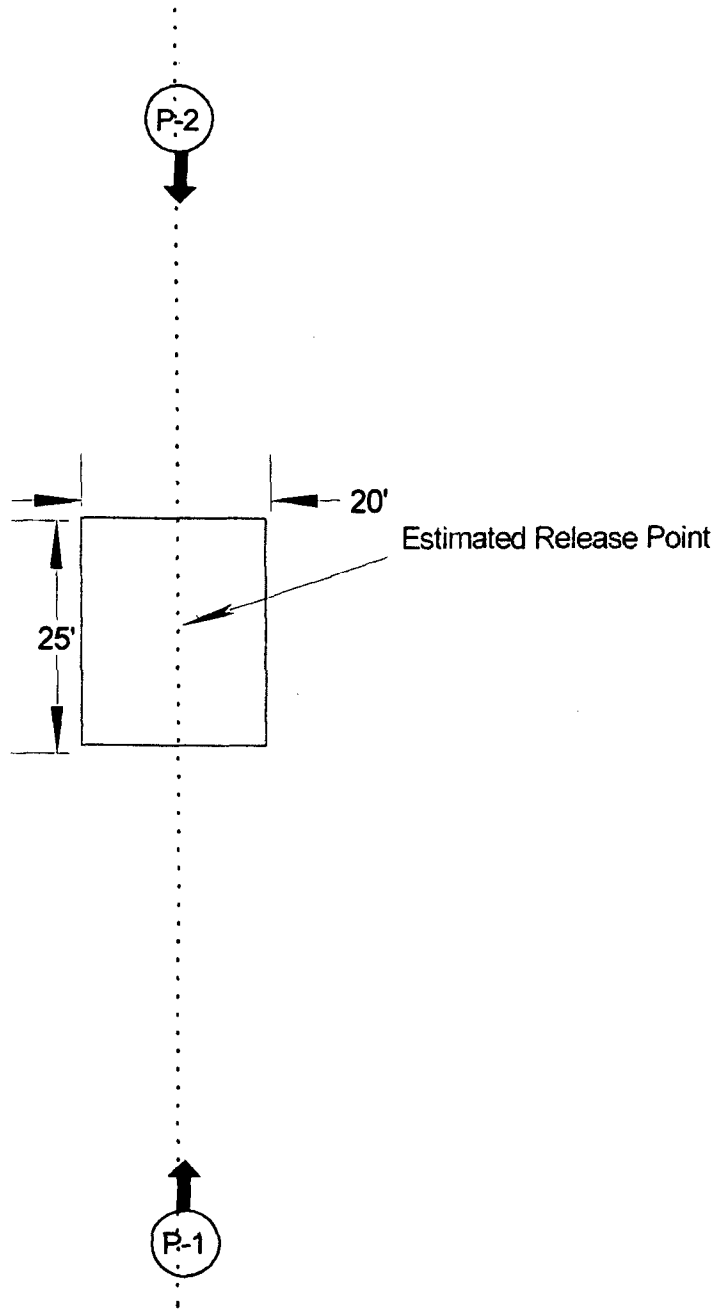
\_\_\_\_\_

- 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



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Approximate  
Scale 1"= 20'



Unit ltr. "P"  
Section 36  
Twms.-25 S  
Range 36E  
County-Lea, N.M.  
GPS  
Lat- 32-04.987N  
Long-103-12.659W

Southern Union  
Gas Services

# Site Plan-Sheperd #2

Lea County Area Jal, N.M.

2008-010

Figure 1

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

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

Surface Owner: Jay Anthony	Mineral Owner: State of New Mexico	Lease No.
----------------------------	------------------------------------	-----------

LOCATION OF RELEASE

Unit Letter P	Section 36	Township 25S	Range 36E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	---------------

Latitude N32 4.987 Longitude W103 12.659

NATURE OF RELEASE

30025-22033

Type of Release : Natural Gas	Volume of Release: Unknown	Volume Recovered None
Source of Release : 4" Natural Gas Pipeline	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 7/22/04 Time: 8:10 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

A 4" Natural gas pipeline leaked prior to Southern Union Gas Services operations. The pipeline has been idle for approximately 5 years, and the leak areas were there several years prior to taking the line out of service.

The leak areas were identified by the landowner and the worse case site was photographed and sampled in July 2004.

Describe Area Affected and Cleanup Action Taken. An area measuring approximately 450 sq. ft. has a dry grey to white discoloration. The discolored soil will be removed to a depth sufficient to restore a root bearing zone. All remediation activities will follow the NMOCD guidelines.

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

Signature: <u>Tony Savoie</u>	OIL CONSERVATION DIVISION	
Printed Name: John A. Savoie	Approved by District Supervisor: <u>Johnson</u> ENVIRONMENTAL ENGINEER	
Title: Remediation Supervisor	Approval Date: 5.14.08	Expiration Date: 7.14.08
E-mail Address: tony.savoie@sug.com	Conditions of Approval:	
Date: 5/13/08 Phone: 575-395-2116	Submitted Final C-141 w/Documentation BY <u>1 RP# 1862</u>	

\* Attach Additional Sheets If Necessary

P COHO 81340593