

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**

Form C-141  
Revised October 10, 2003

OCT 21 2010

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

**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	Sheperd #3	Facility Type	Natural Gas Gathering

Surface Owner: Jay Anthony	Mineral Owner: State of New Mexico	Lease No. API #
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**LOCATION OF RELEASE**

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

Latitude N32 4.969 Longitude W103 12.658

**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: 8:20 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 the 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 600 sq. ft. 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 18, 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 NMOCDC 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 NMOCDC 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, NMOCDC 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: <i>Rose L Slade</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Rose L. Slade	Approved by District Supervisor: <i>[Signature]</i>	
Title: EHS Compliance Specialist	<b>ENVIRONMENTAL ENGINEER</b>	
E-mail Address: rose.slade@sug.com	Approval Date: 10-21-10	Expiration Date: —
Date: 10/18/2010 Phone: 432-940-5147	Conditions of Approval:	Attached <input type="checkbox"/>

\* Attach Additional Sheets If Necessary

*PCO H0814134185*

*IRP-1864*



1507 W. 15th  
Monahans, Texas 79756

432.943.1100 Fax: 432.943.1101

October 18, 2010

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

**RECEIVED**  
OCT 21 2010  
HOBBSOCD

Re: Sheperd #3 (1RP-1864)

Mr. Johnson,

On May 29, 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° 04.969' N, 103° 12.658' 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 20, 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 2,949 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 21, 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 thirty (30) feet in length and

five (5) feet bgs. On May 21, 2008, following the excavation activities, two (2) soil samples (P.R. @ 5' 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. The analytical results indicated TPH concentrations 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. The chloride concentration was 18.5 mg/Kg. 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 #3 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 #3  
 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. @ 5'	5 ft bgs	05/21/08	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.2	<15.2	<15.2	<15.2	18.5
B-Comp	3 - 5 ft bgs	05/21/08	In-Situ	-	-	-	-	-	-	<15.7	<15.7	<15.7	<15.7	-

# **Analytical Report 304288**

**for**

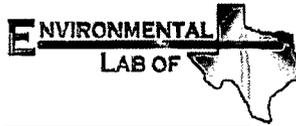
## **Southern Union Gas Services-Jal**

**Project Manager: Tony Savoie**

**Sheperd # 3**

**2008-010**

**27-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



27-MAY-08

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

Reference: XENCO Report No: **304288**  
**Sheperd # 3**  
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 304288. 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. 304288 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

**Brent Barron, II**

Odessa Laboratory Manager

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**Sample Cross Reference 304288**



**Southern Union Gas Services-Jal, Jal, NM**

Sheperd # 3

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
P.R. @ 5'	S	May-21-08 12:00	5 ft	304288-001
B-Comp.	S	May-21-08 12:00	3 - 5 ft	304288-002



# Certificate of Analysis Summary 304288

Southern Union Gas Services-Jal, Jal, NM

Project Name: Sheperd # 3

Project Id: 2008-010

Contact: Tony Savoie

Project Location: J. Anthony Ranch

Date Received in Lab: Wed May-21-08 02:19 pm

Report Date: 27-MAY-08

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	304288-001	<i>Field Id:</i>	304288-002				
	<i>Depth:</i>	5 ft	<i>Matrix:</i>	SOIL	B-Comp.			
	<i>Sampled:</i>	May-21-08 12:00	<i>Units/RL:</i>	mg/kg    RL	3-5 ft			
	<i>Sampled:</i>	May-21-08 12:00	SOIL	SOIL				
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	May-21-08 16:36						
	<i>Analyzed:</i>	May-21-08 20:48						
	<i>Units/RL:</i>	mg/kg    RL						
Benzene		ND	0.0010					
Toluene		ND	0.0020					
Ethylbenzene		ND	0.0010					
m,p-Xylenes		ND	0.0020					
o-Xylene		ND	0.0010					
Total Xylenes		ND						
Total BTEX		ND						
<b>Inorganic Anions by EPA 300</b>	<i>Extracted:</i>	May-22-08 19:04						
	<i>Analyzed:</i>	May-22-08 19:04						
	<i>Units/RL:</i>	mg/kg    RL						
Chloride		18.5	10.1					
<b>Percent Moisture</b>	<i>Extracted:</i>	May-22-08 08:30	May-22-08 08:30					
	<i>Analyzed:</i>	May-22-08 08:30	May-22-08 08:30					
	<i>Units/RL:</i>	%    RL	%    RL					
Percent Moisture		1.21	1.00	4.25	1.00			
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	May-22-08 15:25	May-22-08 15:25					
	<i>Analyzed:</i>	May-22-08 19:22	May-22-08 19:49					
	<i>Units/RL:</i>	mg/kg    RL	mg/kg    RL					
C6-C12 Gasoline Range Hydrocarbons		ND	15.2	ND	15.7			
C12-C28 Diesel Range Hydrocarbons		ND	15.2	ND	15.7			
C28-C35 Oil Range Hydrocarbons		ND	15.2	ND	15.7			
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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(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477



# Form 2 - Surrogate Recoveries



Project Name: Sheperd # 3

Work Order #: 304288

Project ID: 2008-010

Lab Batch #: 723326

Sample: 304288-001 / 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	0.0358	0.0300	119	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 723326

Sample: 509410-1-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	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

Lab Batch #: 723326

Sample: 509410-1-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	0.0341	0.0300	114	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 723326

Sample: 509410-1-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	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0335	0.0300	112	80-120	

Lab Batch #: 723595

Sample: 304288-001 / 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	94.0	100	94	70-135	
o-Terphenyl	50.9	50.0	102	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 # 3

Work Order #: 304288

Project ID: 2008-010

Lab Batch #: 723595

Sample: 304288-001 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	113	100	113	70-135	
o-Terphenyl	53.9	50.0	108	70-135	

Lab Batch #: 723595

Sample: 304288-001 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	103	100	103	70-135	
o-Terphenyl	49.1	50.0	98	70-135	

Lab Batch #: 723595

Sample: 304288-002 / 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	108	100	108	70-135	
o-Terphenyl	59.6	50.0	119	70-135	

Lab Batch #: 723595

Sample: 509575-1-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	114	100	114	70-135	
o-Terphenyl	56.8	50.0	114	70-135	

Lab Batch #: 723595

Sample: 509575-1-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	119	100	119	70-135	
o-Terphenyl	67.3	50.0	135	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 # 3

Work Order #: 304288

Project ID: 2008-010

Lab Batch #: 723595

Sample: 509575-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

## SURROGATE RECOVERY STUDY

TPH by SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	62.1	50.0	124	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 # 3

Work Order #: 304288

Project ID:

2008-010

Lab Batch #: 723438

Sample: 723438-1-BKS

Matrix: Solid

Date Analyzed: 05/22/2008

Date Prepared: 05/22/2008

Analyst: IRO

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	10.3	103	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 # 3

Work Order #: 304288

Project ID: 2008-010

Analyst: SHE

Date Prepared: 05/21/2008

Date Analyzed: 05/21/2008

Lab Batch ID: 723326

Sample: 509410-1-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
<b>Analytes</b>											
Benzene	ND	0.1000	0.0924	92	0.1	0.0890	89	4	70-130	35	
Toluene	ND	0.1000	0.0932	93	0.1	0.0912	91	2	70-130	35	
Ethylbenzene	ND	0.1000	0.1020	102	0.1	0.0998	100	2	71-129	35	
m,p-Xylenes	ND	0.2000	0.2075	104	0.2	0.2028	101	2	70-135	35	
o-Xylene	ND	0.1000	0.1060	106	0.1	0.1042	104	2	71-133	35	

Analyst: ASA

Date Prepared: 05/22/2008

Date Analyzed: 05/22/2008

Lab Batch ID: 723595

Sample: 509575-1-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
<b>Analytes</b>											
C6-C12 Gasoline Range Hydrocarbons	21.3	1000	1060	106	1000	1170	117	10	70-135	35	
C12-C28 Diesel Range Hydrocarbons	39.5	1000	1040	104	1000	1160	116	11	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 # 3

Work Order #: 304288

Lab Batch #: 723438

Date Analyzed: 05/22/2008

Date Prepared: 05/22/2008

Project ID: 2008-010

Analyst: IRO

QC- Sample ID: 304288-001 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	18.5	202	215	97	75-125

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



# Form 3 - MS / MSD Recoveries



Project Name: Sheperd # 3

Work Order #: 304288

Project ID: 2008-010

Lab Batch ID: 723595

QC- Sample ID: 304288-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 05/23/2008

Date Prepared: 05/22/2008

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	1010	1120	111	1010	1060	105	6	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1010	1150	114	1010	1070	106	7	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 # 3

Work Order #: 304288

Lab Batch #: 723438

Project ID: 2008-010

Date Analyzed: 05/22/2008

Date Prepared: 05/22/2008

Analyst: IRO

QC- Sample ID: 304288-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

## SAMPLE / SAMPLE DUPLICATE RECOVERY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	18.5	22.5	20	20	

Lab Batch #: 723320

Date Prepared: 05/22/2008

Analyst: IRO

Date Analyzed: 05/22/2008

QC- Sample ID: 304289-003 D

Batch #: 1

Matrix: Soil

Reporting Units: %

## SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	1.15	0.792	37	20	F

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



**Environmental Lab of Texas**  
 Variance/ Corrective Action Report- Sample Log-In

Client: S.U.G.S.  
 Date/ Time: 5-21-08 14:19  
 Lab ID #: 304288  
 Initials: AL

**Sample Receipt Checklist**

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

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	Rose Slade
Address	P.O. Box 1226 Jal, N.M. 88252	Telephone No.	432-940-5147
Facility Name	Sheperd #3	Facility Type	Natural Gas Gathering

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

**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 4.969 Longitude W103 12.658

**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: 8:20 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 the 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 600 square feet had 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.

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

\* Attach Additional Sheets If Necessary



Photo 1

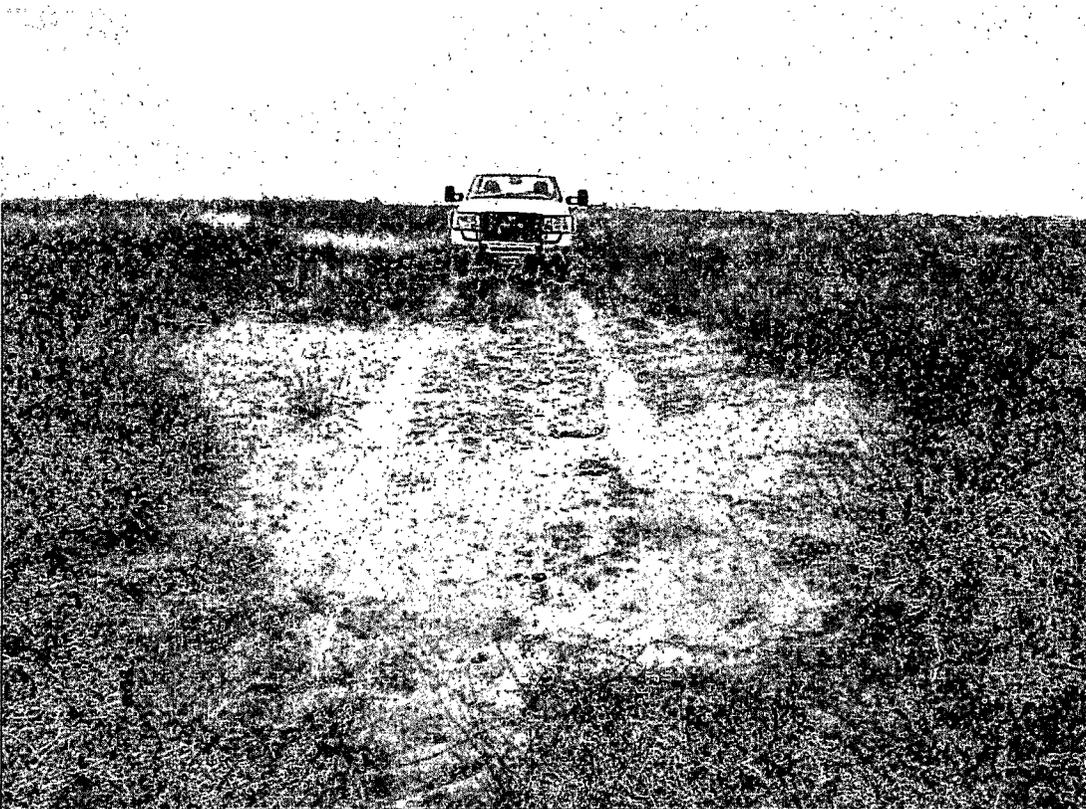
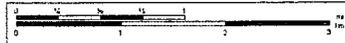
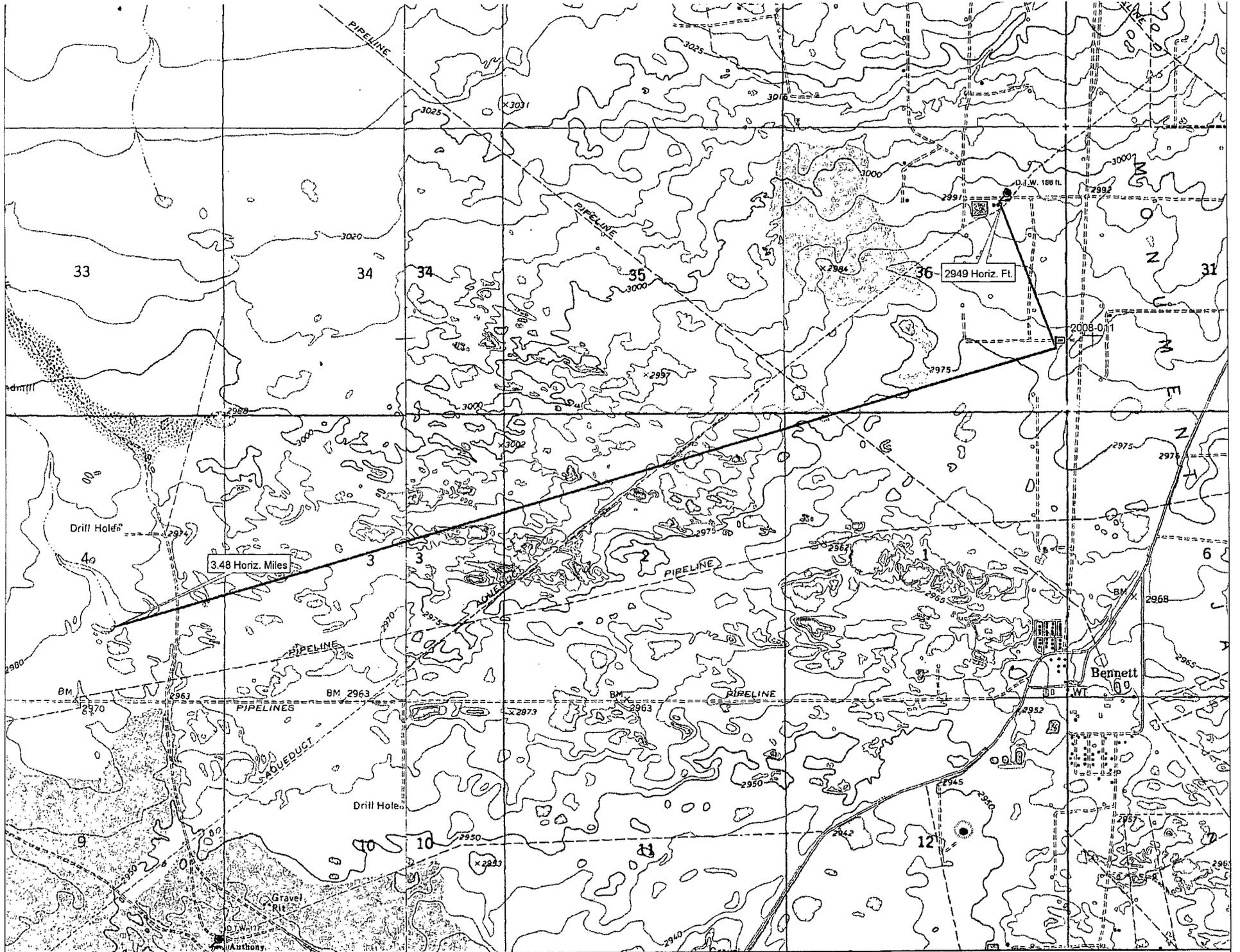
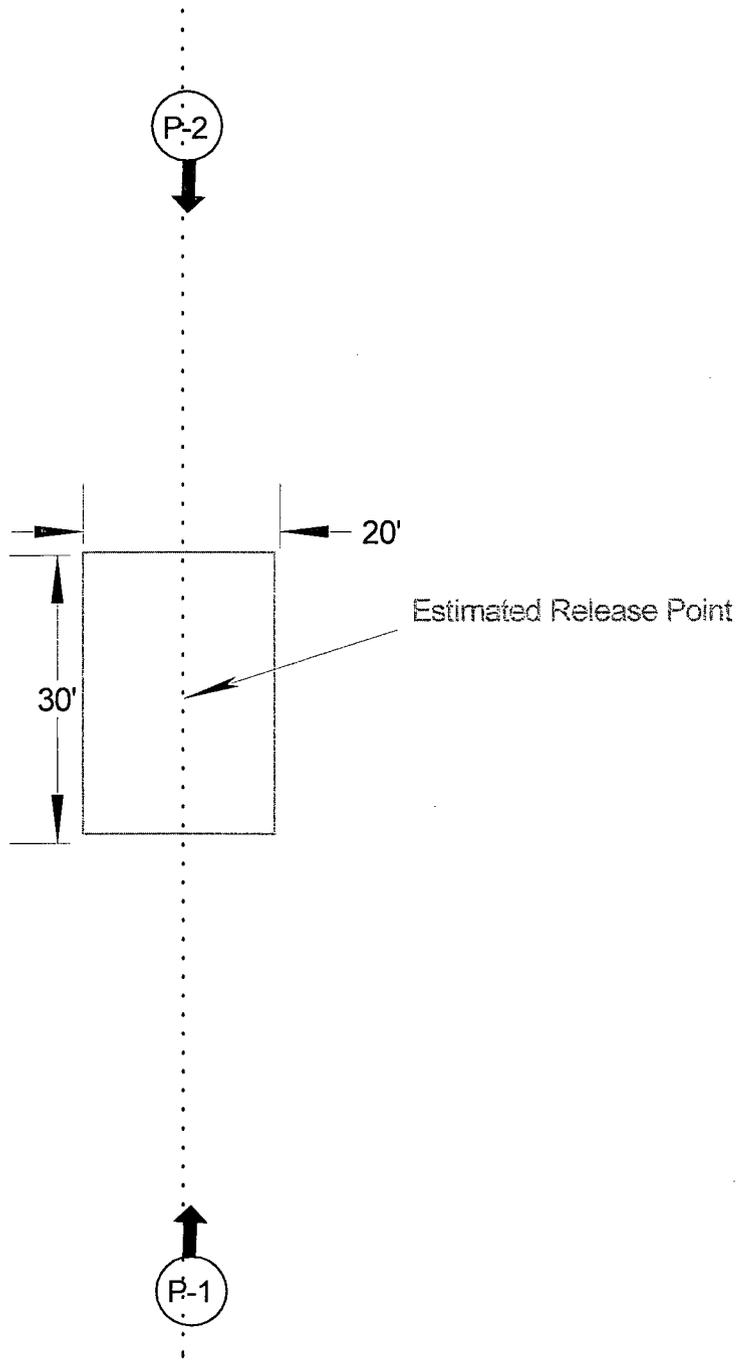


Photo 2

Southern Union Gas Services Site: Sheperd #3  
Job # 2008-011  
Site Assessment 5/5/08





Approximate  
Scale 1"= 20'



Unit ltr."P"  
Section 36  
Twns.-25 S  
Range 36E  
County-Lea, N.M.  
GPS  
Lat- 32-04.969N  
Long-103-12.658W



**Site Plan-Sheperd #3**  
Lea County Area Jal, N.M.

2008-011  
Figure 1

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
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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	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	36	25S	36E					Lea

Latitude N32 4.969 Longitude W103 12.658

**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: 8:20 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.	

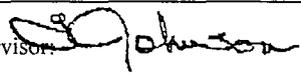
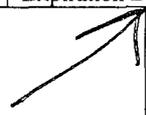
If a Watercourse was Impacted, Describe Fully.\*

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 600 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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: John A. Savoie	Approved by District Supervisor 	
Title: Remediation Supervisor	<b>ENVIRONMENTAL ENGINEER</b>	
E-mail Address: tony.savoie@sug.com	Approval Date: 5-20-08	Expiration Date: 7-21-08
Date: 5/20/08 Phone: 575-395-2116	Conditions of Approval: <b>SUBMIT FINAL TX</b> 	
	Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

Shepard # 3  
2008-011

**RECEIVED**

MAY 20 2008

**HOBBS OCD**