

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	Shepard #5	Facility Type	Natural Gas Gathering

Surface Owner: Jay Anthony Mineral Owner: State of New Mexico Lease No. API No. 30-025-38822

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 4.886 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: 8:30 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.\*


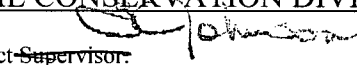
Describe Cause of Problem and Remedial Action Taken.\*

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 release 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 225 sq. ft. has a dry grey to white discoloration. The discolored soil will be 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:  ENVIRONMENTAL ENGINEER	
Title: EHS Compliance Specialist	Approval Date: 10-21-10	Expiration Date: —
E-mail Address: rose.slade@sug.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 10/13/2010 Phone: 432-940-5157		

\* Attach Additional Sheets If Necessary

PCO H0814438188

IRP-1865



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

October 13, 2010

**RECEIVED**

OCT 21 2010

**HOBBSOCD**

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

Re: Shepard #5 (1RP-1865)

Mr. Johnson,

On June 10, 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° 04.886' 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 23, 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 3,424 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 3.46 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 30, 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 fifteen (15) feet in width by fifteen (15) feet in length and

five (5) feet bgs. On May 30, 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 and chloride using EPA 300.1. The analytical results indicated chloride concentrations ranged from less than 10.8 mg/Kg in soil sample B-Comp to 16.3 mg/Kg in soil sample P.R. @ 5'. Total petroleum hydrocarbons were less than the laboratory method detection limit (MDL) for both soil samples. Soil sample P.R. @ 5' 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 seventy-two (72) 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 #5 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 #5  
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 C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
P.R. @ 5'	5 ft bgs	05/30/08	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.9	<15.9	<15.9	<15.9	16.3
B-Comp	3 - 5 ft bgs	05/30/08	In-Situ	-	-	-	-	-	-	<16.2	<16.2	<16.2	<16.2	<10.8



Photo 1



Photo 2

Southern Union Gas Services Site: Sheperd #5  
Job # 2008-013  
Site Assessment 5/5/08

# **Analytical Report 304888**

**for**

**Southern Union Gas Services-Jal**

**Project Manager: Tony Savoie**

**Sheperd # 5 - 4"**

**2008-013**

**03-JUN-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  
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03-JUN-08

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

Reference: XENCO Report No: **304888**  
**Sheperd # 5 - 4"**  
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 304888. 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. 304888 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 304888



Southern Union Gas Services-Jal, Jal, NM

Sheperd # 5 - 4"

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
P.R. @ 5'	S	May-30-08 11:15	5 ft	304888-001
B-Comp.	S	May-30-08 11:15	3 - 5 ft	304888-002



# Certificate of Analysis Summary 304888

Southern Union Gas Services-Jal, Jal, NM

Project Name: Sheperd # 5 - 4"

Project Id: 2008-013

Contact: Tony Savoie

Project Location: J. Anthony Ranch

Date Received in Lab: Fri May-30-08 02:37 pm


Report Date: 03-JUN-08

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b>	304888-001	304888-002				
	<b>Field Id:</b>	P.R. @ 5'	B-Comp.				
	<b>Depth:</b>	5 ft	3-5 ft				
	<b>Matrix:</b>	SOIL	SOIL				
	<b>Sampled:</b>	May-30-08 11:15	May-30-08 11:15				
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	Jun-02-08 10:18					
	<b>Analyzed:</b>	Jun-02-08 18:02					
	<b>Units/RL:</b>	mg/kg RL					
	Benzene	ND 0.0011					
	Toluene	ND 0.0021					
	Ethylbenzene	ND 0.0011					
	m,p-Xylenes	ND 0.0021					
	o-Xylene	ND 0.0011					
	Total Xylenes	ND					
	Total BTEX	ND					
<b>Inorganic Anions by EPA 300</b>	<b>Extracted:</b>	Jun-03-08 16:51	Jun-03-08 16:51				
	<b>Analyzed:</b>						
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL				
	Chloride	16.3 10.6	ND 10.8				
<b>Percent Moisture</b>	<b>Extracted:</b>	May-30-08 17:00	May-30-08 17:00				
	<b>Analyzed:</b>						
	<b>Units/RL:</b>	% RL	% RL				
	Percent Moisture	5.45	7.25				
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b>	Jun-02-08 13:13	Jun-02-08 13:13				
	<b>Analyzed:</b>	Jun-02-08 17:44	Jun-02-08 18:37				
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL				
	C6-C12 Gasoline Range Hydrocarbons	ND 15.9	ND 16.2				
	C12-C28 Diesel Range Hydrocarbons	ND 15.9	ND 16.2				
	C28-C35 Oil Range Hydrocarbons	ND 15.9	ND 16.2				
	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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(210) 509-3334	(210) 509-3335
(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 # 5 - 4"



Work Order #: 304888

Project ID: 2008-013

Lab Batch #: 724258

Sample: 304888-001 / 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	0.0357	0.0300	119	80-120	
4-Bromofluorobenzene	0.0327	0.0300	109	80-120	

Lab Batch #: 724258

Sample: 509968-1-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	0.0254	0.0300	85	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 724258

Sample: 509968-1-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	0.0353	0.0300	118	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 724258

Sample: 509968-1-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	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0316	0.0300	105	80-120	

Lab Batch #: 724249

Sample: 304885-002 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	109	100	109	70-135	
o-Terphenyl	53.1	50.0	106	70-135	

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 \times A / B$

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



## Form 2 - Surrogate Recoveries



Project Name: Sheperd # 5 - 4"

Work Order #: 304888

Project ID: 2008-013

Lab Batch #: 724249

Sample: 304885-002 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	108	100	108	70-135	
o-Terphenyl	52.7	50.0	105	70-135	

Lab Batch #: 724249

Sample: 304888-001 / 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	108	100	108	70-135	
o-Terphenyl	60.8	50.0	122	70-135	

Lab Batch #: 724249

Sample: 304888-002 / 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	104	100	104	70-135	
o-Terphenyl	58.6	50.0	117	70-135	

Lab Batch #: 724249

Sample: 509959-1-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	101	100	101	70-135	
o-Terphenyl	52.2	50.0	104	70-135	

Lab Batch #: 724249

Sample: 509959-1-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	93.7	100	94	70-135	
o-Terphenyl	55.5	50.0	111	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 # 5 - 4"



Work Order #: 304888

Project ID: 2008-013

Lab Batch #: 724249

Sample: 509959-1-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	101	100	101	70-135	
o-Terphenyl	52.3	50.0	105	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 # 5 - 4"

Work Order #: 304888

Project ID:

2008-013

Lab Batch #: 724234

Sample: 724234-1-BKS

Matrix: Solid

Date Analyzed: 06/03/2008

Date Prepared: 06/03/2008

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	9.85	99	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 # 5 - 4"

Work Order #: 304888

Analyst: SHE

Date Prepared: 06/02/2008

Project ID: 2008-013

Date Analyzed: 06/02/2008

Lab Batch ID: 724258

Sample: 509968-1-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	0.1032	103	0.1	0.1015	102	2	70-130	35	
Toluene	ND	0.1000	0.1044	104	0.1	0.1028	103	2	70-130	35	
Ethylbenzene	ND	0.1000	0.1129	113	0.1	0.1114	111	1	71-129	35	
m,p-Xylenes	ND	0.2000	0.2302	115	0.2	0.2273	114	1	70-135	35	
o-Xylene	ND	0.1000	0.1135	114	0.1	0.1124	112	1	71-133	35	

Analyst: ASA

Date Prepared: 06/02/2008

Date Analyzed: 06/02/2008

Lab Batch ID: 724249

Sample: 509959-1-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	1020	102	1000	1020	102	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	985	99	1000	990	99	1	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 # 5 - 4"



Work Order #: 304888

Lab Batch #: 724234

Date Analyzed: 06/03/2008

Date Prepared: 06/03/2008

Project ID: 2008-013

Analyst: LATCOR

QC- Sample ID: 304822-001 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	1390	422	1720	78	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 # 5 - 4"

Work Order #: 304888

Project ID: 2008-013

Lab Batch ID: 724249

QC- Sample ID: 304885-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/02/2008

Date Prepared: 06/02/2008

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	1030	1050	102	1030	1060	103	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1030	1050	102	1030	1060	103	1	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 # 5 - 4"

Work Order #: 304888

Lab Batch #: 724234

Date Analyzed: 06/03/2008

QC- Sample ID: 304822-001 D

Reporting Units: mg/kg

Project ID: 2008-013

Date Prepared: 06/03/2008

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	1390	1330	4	20	

Lab Batch #: 724065

Date Analyzed: 05/30/2008

QC- Sample ID: 304811-001 D

Reporting Units: %

Date Prepared: 05/30/2008

Analyst: JLG

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	1.83	2.17	17	20	

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

### 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: S.H.G.S.  
Company Address: 610 COMMERCE P.O. Box 1226  
City/State/Zip: JAL, N.M. 88252  
Telephone No. 575-395-2116 Fax No: \_\_\_\_\_  
Sampler Signature: D. Green e-mail: \_\_\_\_\_

Project Name: SHEPARD #5 - 48  
Project #: 2008-013  
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	Preservation & # of Containers					Matrix		TCLP TOTAL		Analyze For																																																																																																																																																																																																																																																																																																																																																			
LAB #	LAB #									Ice	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	HClO <sub>4</sub>	NaOH	Na <sub>2</sub> SO <sub>4</sub>	None	Other (Specify)	Dive/Corrosion Water % volume (CW = Circumference, SW = Surface Water, NW = Non-Floating, Specify Other)	418.1	418.2	418.3	418.4	418.5	418.6	418.7	418.8	418.9	419.0	419.1	419.2	419.3	419.4	419.5	419.6	419.7	419.8	419.9	420.0	420.1	420.2	420.3	420.4	420.5	420.6	420.7	420.8	420.9	421.0	421.1	421.2	421.3	421.4	421.5	421.6	421.7	421.8	421.9	422.0	422.1	422.2	422.3	422.4	422.5	422.6	422.7	422.8	422.9	423.0	423.1	423.2	423.3	423.4	423.5	423.6	423.7	423.8	423.9	424.0	424.1	424.2	424.3	424.4	424.5	424.6	424.7	424.8	424.9	425.0	425.1	425.2	425.3	425.4	425.5	425.6	425.7	425.8	425.9	426.0	426.1	426.2	426.3	426.4	426.5	426.6	426.7	426.8	426.9	427.0	427.1	427.2	427.3	427.4	427.5	427.6	427.7	427.8	427.9	428.0	428.1	428.2	428.3	428.4	428.5	428.6	428.7	428.8	428.9	429.0	429.1	429.2	429.3	429.4	429.5	429.6	429.7	429.8	429.9	430.0	430.1	430.2	430.3	430.4	430.5	430.6	430.7	430.8	430.9	431.0	431.1	431.2	431.3	431.4	431.5	431.6	431.7	431.8	431.9	432.0	432.1	432.2	432.3	432.4	432.5	432.6	432.7	432.8	432.9	433.0	433.1	433.2	433.3	433.4	433.5	433.6	433.7	433.8	433.9	434.0	434.1	434.2	434.3	434.4	434.5	434.6	434.7	434.8	434.9	435.0	435.1	435.2	435.3	435.4	435.5	435.6	435.7	435.8	435.9	436.0	436.1	436.2	436.3	436.4	436.5	436.6	436.7	436.8	436.9	437.0	437.1	437.2	437.3	437.4	437.5	437.6	437.7	437.8	437.9	438.0	438.1	438.2	438.3	438.4	438.5	438.6	438.7	438.8	438.9	439.0	439.1	439.2	439.3	439.4	439.5	439.6	439.7	439.8	439.9	440.0	440.1	440.2	440.3	440.4	440.5	440.6	440.7	440.8	440.9	441.0	441.1	441.2	441.3	441.4	441.5	441.6	441.7	441.8	441.9	442.0	442.1	442.2	442.3	442.4	442.5	442.6	442.7	442.8	442.9	443.0	443.1	443.2	443.3	443.4	443.5	443.6	443.7	443.8	443.9	444.0	444.1	444.2	444.3	444.4	444.5	444.6	444.7	444.8	444.9	445.0	445.1	445.2	445.3	445.4	445.5	445.6	445.7	445.8	445.9	446.0	446.1	446.2	446.3	446.4	446.5	446.6	446.7	446.8	446.9	447.0	447.1	447.2	447.3	447.4	447.5	447.6	447.7	447.8	447.9	448.0	448.1	448.2	448.3	448.4	448.5	448.6	448.7	448.8	448.9	449.0	449.1	449.2	449.3	449.4	449.5	449.6	449.7	449.8	449.9	450.0	450.1	450.2	450.3	450.4	450.5	450.6	450.7	450.8	450.9	451.0	451.1	451.2	451.3	451.4	451.5	451.6	451.7	451.8	451.9	45

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

Client: SUGS  
Date/ Time: 5:30:08 14:37  
Lab ID #: 304888  
Initials: AL

**Sample Receipt Checklist**

				Client Initials	
#1	Temperature of container/ cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<u>.0</u>	° 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 ELDT?	<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**

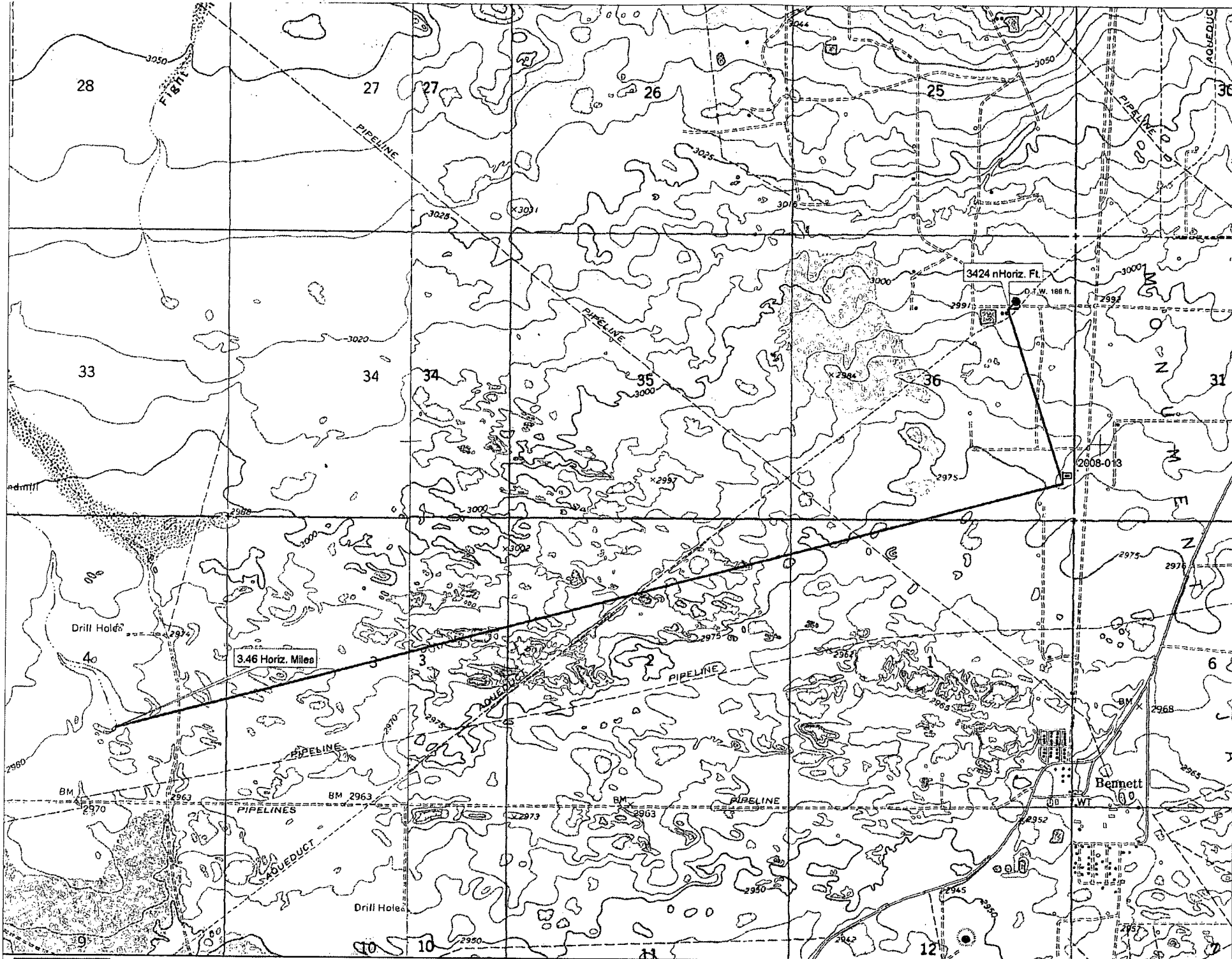
Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

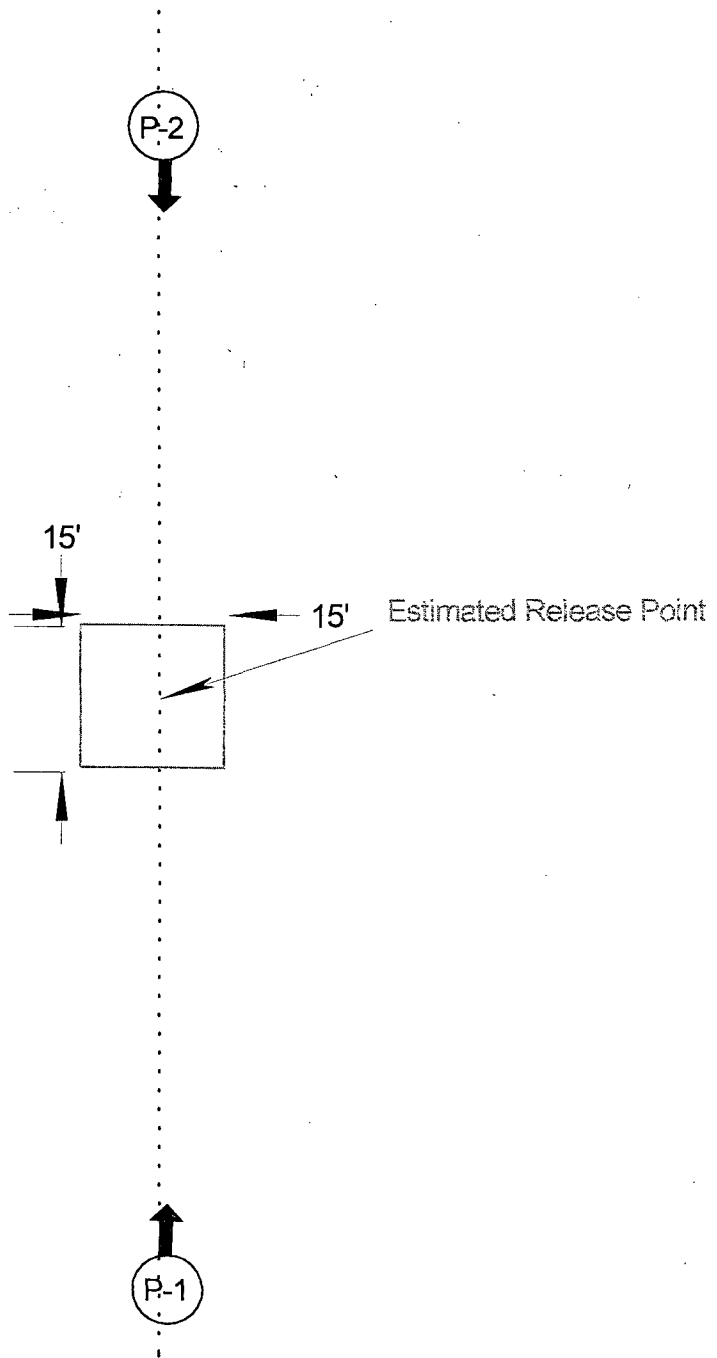
Regarding: \_\_\_\_\_

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





Approximate  
Scale 1"= 20'



Unit ltr."P"  
Section 36  
Twns.-25 S  
Range 36E  
County-Lea, N.M.  
GPS  
Lat- 32-04.886N  
Long-103-12.659W

**Southern Union**  
Gas Services

# Site Plan-Sheperd #5

Lea County Area Jal, N.M.

2008-013

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.
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**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
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Latitude N32 4.886 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: 8:30 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 225 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: <i>Tony Savoie</i>	<b>OIL CONSERVATION DIVISION</b> <i>[Signature]</i>	
Printed Name: John A. Savoie	Approved by District Supervisor: <b>ENVIRONMENTAL ENGINEER</b>	
Title: Remediation Supervisor	Approval Date: 5-23-08	Expiration Date: 7-22-08
E-mail Address: tony.savoie@sug.com	Conditions of Approval:	Attached <input type="checkbox"/> 1RP# 1865
Date: 5/22/08	Phone: 575-395-2116	

\* Attach Additional Sheets If Necessary

**RECEIVED**

MAY 23 2008

**HOBBS OCD**