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

							RATOR		Initia	al Report	
Name of Co				n Gas Services,		Contact					Rose Slade
Address				nahans, TX, 797		Telephone					432-940-5147
Facility Na	ne: L-5 Li	ne (RP-2086) Lea Co	unty Field Dept		Facility Ty	rpe			Natu	ral Gas Gathering
Surface Ow	ner Milla	ard Deck		Mineral C)wner:	State			Lease N	No.	
				LOCA	ATIO	N OF RE	LEASE				
Unit Letter F	Section 22	Township 21S	Range 37E	Feet from the	North	South Line	Feet from the	East/	West Line	County	ea
				Latitude N	32 27.9	960 Lo	ngitude W103	09.080			
				NAT	URE	OF REL	EASE				
Type of Rele	ase Crude	Oil, Produced	d water and			Volume of	Release 60 mcf		Volume I	Recovered () bbls
							& 5 bbls crude o	oil &			
Source of Re	lease 16"	Natural Gas P	ineline			Date and H	vater Hour of Occurrence	ne .	Date and	Hour of Dis	covery 2/11/09
Source of Ite	1000 10	uturur Gas I	.perme			Unknown	iour or occurrent		9:00 a.m.		20101
Was Immedi	ate Notice (Yes 🗌	No Not Re	equired	If YES, To M. Whitak					
By Whom?	Tony Savo	ie				Date and I	Hour: 2/11/09 9:00	6 a.m.			
Was a Water		ched?		_		If YES, Vo	olume Impacting	the Wat	ercourse.		
			Yes	⊠ No							
If a Waterco	urse was Im	pacted, Descr	ibe Fully.	k							
Describe Cause of Problem and Remedial Action Taken: The 10" Pipeline operating at approximately 30 p.s.i. developed a leak; a repair crew dispatched to the facility to shut in the line segment. H2S read approximately 40 ft down-wind measured 1.1 p.p.m. The was not enough fluid standing to obtain a sample for and API gravity test. A temporary clawas installed on the line at approximately 11:30 a.m. Permanent repairs were made 2/16/09, approximately 400 ft. of 10" Poly-pipe was installed.								A temporary clamp installed.			
affected rele	ase area wil	l be remediate	ed in accor	dance to the NMO	OCD Gu	idelines for l	eaks and spills.				e release. All of th
affiliated wi	th the site. ons above l	On Septemb	er 28, 201 ulatory st	2, the site was re	evisited ed in-si	in an effort tu and collec	to determine if s t confirmation s	oil exhi	biting benz ples. Labo	ene, BTEX,	TPH and chlorid ytical reports from
		ed Basin Env	ironment	al Services Tecl	hnologi	es Remediati	ion Summary an	nd Site	Closure R	equest for o	details of remedia
regulations a public health should their or the enviro	or the envious operations on the Incomment.	s are required rironment. The have failed to	to report ne accepta adequatel MOCD acc	and/or file certain nce of a C-141 re y investigate and	n releas eport by remedia	the NMOCE ate contamina	s and perform co o marked as "Fination that pose a t elieve the operate	al Repo hreat to or of re	e actions fo rt" does no ground wa esponsibility	or releases, we t relieve the ster, surface of for complia	NMOCD rules and which may endange operator of liability water, human health ance with any othe
Signature:	Hose	1,0)ad	1			OIL CON	tua	SUL	DIVISIO	KWY
Printed Nam	e: Rose L.	Slade				Approved by	District Supervis	En	renme	tal Speci	alist V
Title: EHS	Compliance	Specialist				Approval Da	te: 11 14 12		Expiration	Date:	
		ade@sug.com				Conditions o	f Approval:	_			- 01
Date:	-14-20	1 016	Phone: 437	2-940-5147(cell)						IRP-	2086

PGRL Ø9 \$5637\$54

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 874FEB 1 8 2009
District IV

State of New Mexico
District III
Oil Conservation Division
1220 South St. Francis Dr.

Form C-141 Revised October 10, 2003

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87508BSOCD

Santa Fe, NM 87505

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

			Rel	ease Notific	atio	on and Co OPERA		ction		In	□ F:I P
Name of Co	mnany	South	orn Unio	n Gas Services, I	td	Contact	IUK	(Initia	al Report	Tony Savoie
Address	mpany						To				575-395-211
Facility Na		r.\		226 Jal, N.M. 88 a County Field D		Telephone ! Facility Typ				Matri	ral Gas Gatherin
			Lea				<u> </u>				rai Gas Gatherin
Surface Ow	ner: Milla	rd Deck		Mineral O	wner	: State			Lease N	lo.	
				LOCA	TIC	N OF RE	LEASE NEAR	BY WE	LL API #	30.025	34803.00.00
Unit Letter F	Section 22	Township 21S	Range 37E	Feet from the	Nort	h/South Line	Feet from the	East/\	West Line	County	Lea
				Latitude N32		O Longitud		0	b	JTR 60	C
Type of Rele	ase : Crude	Oil Produced	l water and	i Natural Gas		Volume of	Release: 60 mcf & 5 bbls crude of		Volume F	Recovered	0 bbls
		Natural Gas I	Pipeline				Jour of Occurrence	ce	Date and 9:00 a.m.	Hour of Disc	covery 2/11/09
Was Immedi	ate Notice (Yes [No □ Not Re	quire	If YES, To M. Whitak					6.7
By Whom? T	ony Savoie					Date and H	Iour: 2/11/09 9:0	6 a.m.			The state of the s
Was a Water		ched?					olume Impacting		ercourse.		
			Yes 🗵	No							
The 10" Pipsegment. Had and API graph approximate Describe Are affected release hereby certifications all public health should their of	eline operations of the eline operations of the environment operations of the eline operations operations of the eline operations opera	ating at approximate a temporary of 10" Polyand Cleanup be remediate information gare required to ave failed to	roximatel ately 40 ft clamp was pipe was Action Taled in accordiven above to report atel acceptance adequately	Action Taken.* y 30 p.s.i. develor down-wind mea as installed on the installed. ken. An area measurdance to the NMO e is true and comple ind/or file certain re ce of a C-141 report proper investigate and re otance of a C-141 re	uring a DCD go ete to elease rt by temedia	at approximately uidelines for let the best of my notifications a he NMOCD mate contamination.	here was not en ately 11:30 a.m. 1050 sq. ft. of pa- aks and spills. knowledge and und perform corre- arked as "Final Ron that pose a thr	sture landerstar	d was affect and that pursions for relates not relates round water	ng to obtain rs were man eted by the re- suant to NMO eases which ieve the oper r, surface war	a a sample for de 2/16/09, clease. All of the DCD rules and may endanger ator of liability ter, human health
ederal, state,	or local lav	ws and/or reg	ulations.	3			OIL CON		17	7 4 11 12	1 1 1 1 1 1 1 1 1 1 1 1
Signature:	1 1 1	Ory (Oau	uus		Approved by	District Supervis		Dhus	-	
Printed Name		A. Savoie ent and Reme	diation Sp	ecialist		Approval Da		_		Date: 4. (
	ess: tony.sa	voie@sug.co	m	575-395-2116		Conditions of				Attached	, 5 ¹

* Attach Additional Sheets If Necessary

Basin Environmental Service Technologies, LLC

3100 Plains Highway P. O. Box 301 Lovington, New Mexico 88260 jwlowry@basinenv.com

Office: (575) 396-2378

Fax: (575) 396-1429



REMEDIATION SUMMARY & SITE CLOSURE REQUEST

SOUTHERN UNION GAS SERVICES L-5 LINE (1RP-2086) HISTORICAL RELEASE SITE Lea County, New Mexico Unit Letter "F" (SE/NW), Section 22, Township 21 South, Range 37 East Latitude 32° 27.960' North, Longitude 103° 09.080' West NMOCD Reference # 1RP-2086

Prepared For:

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

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

November 2012

HOBBS OCD NOV 1 4 2012 RECEIVED

1.0 INTRODUCTION & BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of Southern Union Gas Services (Southern Union), has prepared this *Remediation Summary & Site Closure Request* for the L-5 Line Historical Release Site (1RP-2086). The legal description of the release site is Unit Letter "F" (SE/NW), Section 22, Township 21 South, Range 37 East, in Lea County, New Mexico. The geographic coordinates of the release site are 32° 27.960' North latitude and 103° 09.080' West longitude. The property affected by the release is owned by the Millard Deck Estate. Please reference Figure 1 for a "Site Location Map".

On February 11, 2009, Southern Union discovered a release had occurred on the L-5 Pipeline. The "Release Notification and Corrective Action Form" (Form C-141) indicated failure of a section of ten-inch (10") low-pressure pipeline resulted in the release of approximately five barrels (5 bbls) of a crude oil and produced water mixture and sixty (60) Mcf of natural gas. The release was reported to the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office on February 11, 2009. The Form C-141 indicated the release affected approximately one thousand, fifty square feet (1,050 ft²) of pasture land. General photographs of the release site are provided as Appendix A. The Form C-141 is provided as Appendix C.

Previous remediation activities were conducted at the L-5 Line Release Site by an environmental contractor that is no longer affiliated with the site. The nature and extent of the aforementioned activities remains unclear, as environmental reports and work records are incomplete.

On June 22, 2012, at the request of Southern Union, Basin assumed remediation responsibilities at the L-5 Line Historical Release Site.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 22, Township 21 South, Range 37 East. An NMOCD representative indicated the depth to groundwater is approximately sixty feet (60') below ground surface (bgs) on the initial Form C-141. Based on the NMOCD ranking system, ten (10) points will be assigned to the site as a result of this criterion.

A search of the NMWRRS database indicated there are no water wells within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

There are no surface water bodies within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

NMOCD guidelines indicate the L-5 Line Historical Release Site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

Benzene – 10 mg/Kg (ppm)

- Benzene, toluene, ethylbenzene and xylene (BTEX) 50 mg/Kg (ppm)
- Total petroleum hydrocarbons (TPH) 1,000 mg/Kg (ppm)

The New Mexico Administrative Code (NMAC) does not currently specify a remediation level for chloride concentrations in soil. Chloride remediation levels are set by the NMOCD on a site-specific basis.

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

Beginning February 20, 2009, remediation activities were conducted on the L-5 Release Site by an environmental contractor that is no longer affiliated with the site. Work records indicated approximately one hundred cubic yards (100 yd³) of impacted soil was transported to Southern Union Gas Services Landfarm (Permit # NM-02-0019) for treatment.

On February 23, 2009, seven (7) soil samples (PR @ 8', B-Comp., S1-Comp., S2-Comp., NW-Comp., WW-Comp. and SW-Comp.) were collected from the excavation floor and sidewalls and submitted to Cardinal Laboratories, of Hobbs, New Mexico, for determination of BTEX, TPH and chloride concentrations in accordance with EPA Methods SW 846-8021B, SW 846-8015M and SM 4500 Cl-B, respectively. Laboratory analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory method detection limit (MDL) for each of the soil samples submitted. Analytical results indicated TPH concentrations ranged from less than the laboratory MDL for soil samples B-Comp., S-1 Comp., S-2 Comp., WW-Comp. and SW-Comp. to 26.9 mg/Kg for soil sample NW-Comp. Chloride concentrations ranged from less than the laboratory MDL for soil sample PR @ 8', B-Comp., and S1-Comp. to 448 mg/Kg for soil sample NW-Comp. Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil". Soil sample locations are depicted in Figure 2, "Site & Sample Location Map". Laboratory analytical reports are provided as Appendix B. Based on laboratory analytical reports from confirmation soil samples, further delineation would be required in the area represented by soil sample NW-Comp.

In addition, six (6) composite soil samples (SP1-Comp., SP2-1-Comp., SP2-2-Comp., SP2-3-Comp., SP2-4-Comp. and SP2-5-Comp.) were collected from the stockpiled material and submitted to the laboratory for analysis of benzene, BTEX, TPH and chloride concentrations. Laboratory analytical results indicated benzene concentration were less than the laboratory MDL for each of the submitted soil samples. Analytical results indicated BTEX concentrations ranged from less than the laboratory MDL for soil samples SP2-1-Comp., SP2-2-Comp. and SP2-3-Comp to 2.332 mg/Kg for soil sample SP1-Comp. Analytical results indicated TPH concentrations ranged from 490 mg/Kg for soil sample SP2-1-Comp. to 3,037 mg/Kg for soil sample SP1-Comp. Chloride concentrations ranged from 96 mg/Kg for soil samples SP-2-1 Comp. and SP2-2 Comp. to 656 mg/Kg for soil sample SP-1 Comp. Historical work records indicate approximately one hundred cubic yards (100 yd³) of impacted material was hauled to Southern Union Gas Services' Landfarm (Discharge Permit # NM-02-0019) for treatment.

On March 2, 2009, the excavation was backfilled with locally purchased, non-impacted soil. Prior to backfilling, the final dimensions of the excavation were approximately thirty-five feet (35') in length, thirty feet (30') in width and (8') or less in depth.

On September 28, 2012, Basin responded to the L-5 Line Historical Release Site. During the initial investigation, no impact was visible, and revegetation was noted. One (1) soil sample (North Sidewall @ 3' bgs) was collected near the northern margin of the disturbed area in an effort to achieve horizontal delineation. The soil sample was submitted to Xenco Laboratories, Inc., of Odessa, Texas, for determination of chloride concentrations in accordance with EPA Method 300/300.1. Laboratory analytical results indicated the chloride concentration was 8.15 mg/Kg. Based on these laboratory analytical results, the northern extent of soil impact had been delineated.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil samples were delivered to Xenco Laboratories, Inc., of Odessa, Texas, and/or Cardinal Laboratories, of Hobbs, New Mexico, for BTEX, TPH, and/or chloride analyses using the methods described below:

- BTEX concentrations in accordance with EPA Method SW-846 8021b
- TPH concentrations in accordance with modified EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Methods 300/300.1 and/or SM 4500-Cl
 B

4.2 Decontamination of Equipment

Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

4.3 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody form(s). These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

5.0 SITE CLOSURE REQUEST

Confirmation soil samples collected from the excavation floor and sidewalls during the February 23, 2009, sampling event indicated concentrations of benzene, BTEX, TPH and chloride were below NMOCD regulatory remediation action levels in each of the submitted soil samples. Laboratory analytical results from the soil sample collected on September 28, 2012, indicated horizontal delineation had been achieved. Based on these laboratory analytical results, Basin recommends Southern Union provide the NMOCD Hobbs District Office a copy of this *Remediation Summary & Site Closure Request* and request the NMOCD grant site closure to the L-5 Line Historical Release Site.

6.0 LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary & Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin has not conducted an independent examination of the facts contained in referenced materials and statements. Basin has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Southern Union Gas Services. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or Southern Union Gas Services.

7.0 DISTRIBUTION

Copy 1: Geoffrey Leking

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division (District 1)

1625 French Drive Hobbs, NM 88240

GeoffreyR.Leking@state.nm.us

Copy 2: Rose Slade

Southern Union Gas Services

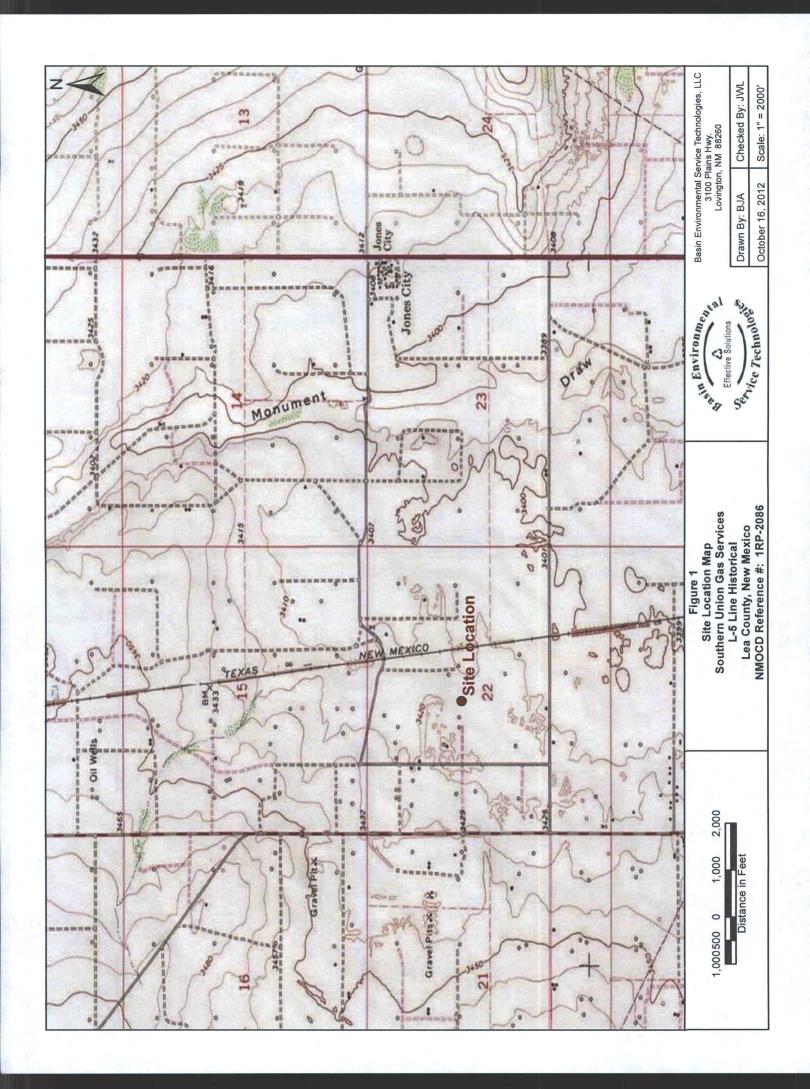
801 S. Loop 464

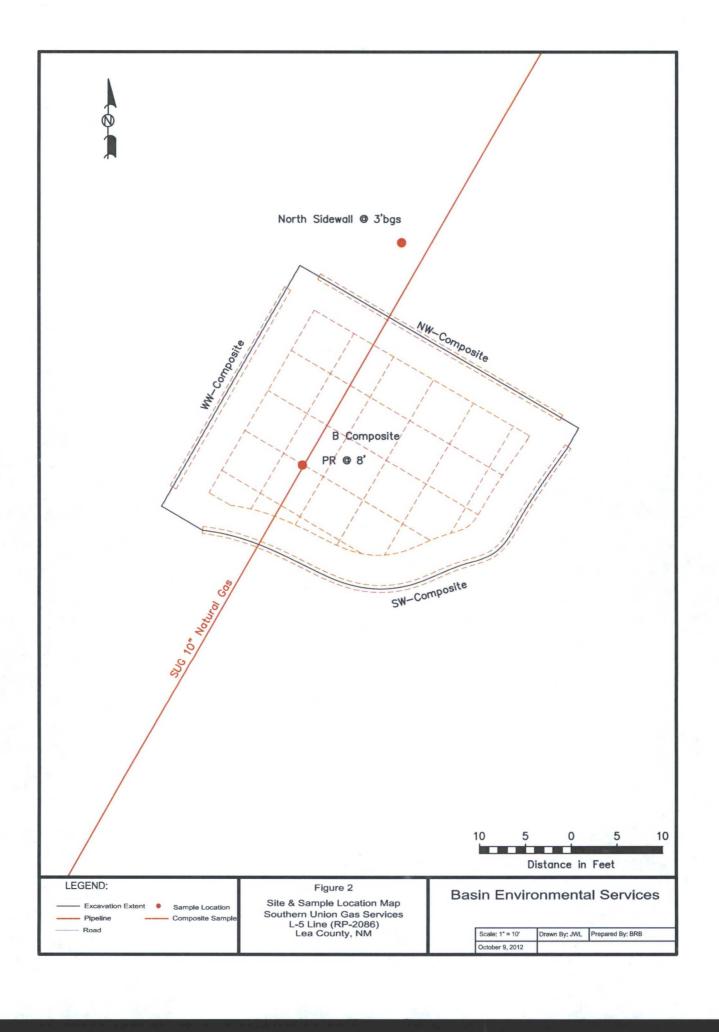
Monahans, Texas 79756 rose.slade@sug.com

Copy 3: Basin Environmental Service Technologies, LLC

P.O. Box 301

Lovington, New Mexico 88260





CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES L-5 LINE
HISTORICAL RELEASE SITE
LEA COUNTY, NEW MEXICO
NMOCD REF# 1RP-2086

					METHOD: EF	METHOD: EPA SW 846-8021B, 5030	21B, 5030		ME	METHOD: 8015M	M	TOTAL	SM 4500-CI B
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE	SOIL	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	C ₆ -C ₂₈ (mg/Kg)	CHLORIDE (mg/Kg)
PR @ 8'	-80	2/23/2009	In-Situ	<0.050	<0.050	<0.050	<0.300	<0.100	<10.0	17.0		17.0	<16
B-Comp.	N/A	2/23/2009	In-Situ	<0.050	<0.050	<0.050	<0.300	<0.0200	<10.0	<10.0		<10.0	<16
S1-Comp.	N/A	2/23/2009	In-Situ	<0.050	<0.050	<0.050	<0.300	<0.0200	<10.0	<10.0		<10.0	<16
S2-Comp.	N/A	2/23/2009	In-Situ	<0.050	<0.050	<0.050	<0.300	<0.0200	<10.0	<10.0	,	<10.0	32
NW-Comp.	N/A	2/23/2009	In-Situ	<0.050	<0.050	<0.050	<0.300	<0.0200	<10.0	26.9		26.9	448
WW-Comp.	N/A	2/23/2009	In-Situ	<0.050	<0.050	<0.050	<0.300	0.0297	<10.0	<10.0		<10.0	128
SW-Comp.	N/A	2/23/2009	In-Situ	<0.050	<0.050	<0.050	<0.300	<0.0200	<10.0	<10.0	,	<10.0	32
SP1-Comp.	N/A	2/23/2009	Disposed	<0.050	0.082	0.160	2.09	2.332	107.0	2,930		3,037	656
SP2-1-Comp.	N/A	2/23/2009	Disposed	<0.050	<0.0200	<0.050	<0.300	<0.0200	<10.0	490	,	490	96
SP2-2-Comp.	N/A	2/23/2009	Disposed	<0.050	<0.0200	<0.050	<0.300	<0.0200	<10.0	613	,	613	96
SP2-3-Comp.	N/A	2/23/2009	Disposed	<0.050	<0.0200	<0.050	<0.300	<0.0200	<10.0	260	,	260	128
SP2-4-Comp.	N/A	2/23/2009	Disposed	<0.050	<0.0200	0.051	0.737	0.788	92.1	2,360	,	2,452.1	288
SP2-5-Comp.	N/A	2/23/2009	Disposed	<0.050	<0.0200	<0.050	0.634	<0.0200	28.6	1,520	,	1,548.6	304
North Sidewall @ 3' bgs	3,	9/28/2012	In-Situ	1			-			,		,	8.15
NMOCD Standard				10				20				1,000	200



Photograph of the initial release at the L-5 Line Historical Release Site.



Photograph of the initial release at the L-5 Line Historical Release Site.



Photograph of the initial excavation at the L-5 Line Historical Release Site.



Photograph of the initial excavation at the L-5 Line Historical Release Site.



Photograph of the L-5 Line Historical Release Site during the site investigation.



Photograph of the L-5 Line Historical Release Site during the site investigation.



Photograph of the advancement of the soil boring at the L-5 Line Historical Release Site.



Photograph of soil sample "North Wall @ 3' bgs" collected from the L-5 Line Historical Release Site.



ANALYTICAL RESULTS FOR ANALYTICAL RESULTS FOR SOUTHERN UNION GAS SERVICES ATTN: TONY SAVOIE

P.O. BOX 1226 JAL, NM 88252

Receiving Date: 02/23/09 Reporting Date: 02/26/09

Project Number: 2009-007 Project Name: L5-10"

Project Location: NE OF EUNICE, NM DECK RANCH

Sampling Date: 02/23/09

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: AB Analyzed By: AB/ZL/HM

LAB NO. SAMPLE ID	GRO (C_6-C_{10}) (mg/kg)	DRO $(>C_{10}-C_{28})$ (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)	CI* (mg/kg)
ANALYSIS DATE:	02/25/09	02/25/09	02/25/09	02/25/09	02/25/09	02/25/09	02/25/09
H16951-1 PR @ 8'	<10.0	17.0	< 0.050	< 0.050	< 0.050	< 0.300	< 16
H16951-2 B-COMP.	<10.0	<10.0	< 0.050	< 0.050	< 0.050	< 0.300	< 16
H16951-3 S1-COMP.	<10.0	<10.0	< 0.050	< 0.050	< 0.050	< 0.300	< 16
H16951-4 S2-COMP.	<10.0	<10.0	< 0.050	< 0.050	< 0.050	< 0.300	32
H16951-5 NW-COMP.	<10.0	26.9	< 0.050	< 0.050	< 0.050	< 0.300	448
H16951-6 WW-COMP.	<10.0	<10.0	< 0.050	< 0.050	< 0.050	< 0.300	128
H16951-7 SW-COMP.	<10.0	<10.0	< 0.050	< 0.050	< 0.050	< 0.300	32
H16951-8 SP1-COMP -	107	2,930	< 0.050	0.082	0.160	2.09	656
H16951-9 SP2-1-COMP.	<10.0	490	< 0.050	< 0.050	< 0.050	< 0.300	96
H16951-10 SP2-2-COMP.	<10.0	613	< 0.050	< 0.050	< 0.050	< 0.300	96
H16951-11 SP2-3-COMP.	<10.0	560	< 0.050	< 0.050	< 0.050	< 0.300	128
H16951-12 SP2-4-COMP.	91.2	2,360	< 0.050	< 0.050	0.051	0.737	288
H16951-13 SP2-5-COMP.	28.6	1,520	<0.050	<0.050	<0.050	0.634	304
Quality Control	514	584	0.055	0.055	0.054	0.162	500
True Value QC	500	500	0.050	0.050	0.050	0.150	500
% Recovery	103	117	110	110	108	108	100
Relative Percent Difference	3.1	2.4	6.2	7.2	7.2	8.7	< 0.1

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8021B; CI-: Std. Methods 4500-CI-B *Analyses performed on 1:4 w:v aqueous extracts.

TEXAS NELAP CERTIFICATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE,

AND TOTAL XYLENES.

Lab Director

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 (575) 393-2326 Fax (575) 393-2476

Company Name: S.4.6.5.		BILL TO	ANALYSIS REQUEST
Project Manager: Tony Savois		P.O. #:	
	PO.Box 1226	Company:	
City: JAL Stat	State: NM Zip: 88252	Attn:	
Phone #: 575-395-21/6 Fax#:	#:	Address:	
Project #: 2009-007 Proje	Project Owner:	City:	
Project Name: 25 - 10"		State: Zip:	
Project Location: NE of Eunica	DECK RANGH	Phone #:	
Sampler Name: Son Boon		Fax #:	
FOR LAST USE ONLY	MATRIX	PRESERV. SAMPLING	
	8		>
Lab I.D. Sample I.D.	BABNI		2
	ATNOO ATNOO POUND WATEA JIC L	THER:	128
-	10 08 7M 19	DA 	
4/695/-1 Mgs	- 0	12-23-09 11:00	
-2 B-Comp.	7	" "	
-3 St - comp.	1 10	2	
-4 52- Comp.	0110	2	
-S NW - COMP	611	23	,
_	011	: :	5
	7	2 2	7
1	210	" "	,
-	1 10	4 2 10	
-10 502-2-comp	611	10 11	

analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waked unless made in writing and monwed by Cardinal within 30 days after completion of the applicable service. In ne event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries. PLEASE NOTE: Liability and Damages. Cardmai's liability and definit's erclusive remedy for any daim anidog whether based in confusct or foot, shall be limited to the amount paid by the client for the

Add'I Phone #: Add'I Fax #: CHECKED BY: (Initials) Sample Condition Cool Intact

N Yes 12 Yes Received By: Temp. Time: Date: affiliates or successors arising out of or related to the performance Sampler Relinquished: Sampler - UPS - Bus - Other: Delivered By: (Circle One) Hon Leen Relinquished By:

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

ARDINAL LABORATORIES

(575) 393-2326 Fax (575) 393-2476 101 East Marland, Hobbs, NM 88240

Page 2 of 2

3.4.6.5.	BILL TO	ANALYSIS REQUEST
Project Manager: Tony SAWIE	P.O. #:	
Address: 610 Commerce Robox 1226	Company:	
City: JA C State: NAM Zip: 88252	Attn:	
Phone #: 575-395-21/6 Fax#:	Address:	
Project #: 2009-007 Project Owner:	City:	
	State: Zip:	
Project Location: NE of Eurice DECK RANCH	Phone #:	
Sampler Name: Son Lean	Fax #:	
FOR LAS USE CALLY MATRIX	SERV. SAMPLING	
Cambon Control	OTHER: OTHER: OTHER: Time	
,	1 2-23-9/4	
-12 502-4-comp.	2 = 7	
-13 SP2-5-comp CI	2 2	

PLEASE NOTE: Lability and Damages. Cardinatis liability and clients exclusive remedy for any cleim arising whether besed in contract or fort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waked unless made in willing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries.

Add'I Phone #: Add'I Fax #: o o CHECKED BY: (Initials) Sample Condition
Cool Intact
X Yes X Yes Temp. Time: affiliates or successors arising out of or related to the perl Sampler Relinquished: Sampler - UPS - Bus - Other: Delivered By: (Circle One) How Sheen Relinquished By:

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

Analytical Report 450010

for Southern Union Gas Services- Monahans

Project Manager: Ben Arguijo
L-5 Line (RP-2086)
SUG Historical Releases
05-OCT-12

Collected By: Client





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)

Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)

New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)

Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

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

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





05-OCT-12

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

Reference: XENCO Report No: 450010

L-5 Line (RP-2086)

Project Address: Lea County, New Mexico

Ben Arguijo:

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 450010. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 450010 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.

Nicholas Straccione

Project Manager

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Sample Cross Reference 450010



Southern Union Gas Services- Monahans, Monahans, TX

L-5 Line (RP-2086)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
North Wall @ 3' bgs	S	09-28-12 10:00		450010-001

XENCO Laboratories

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: L-5 Line (RP-2086)



Project ID:

SUG Historical Releases

Work Order Number: 450010

Report Date: 05-OCT-12 Date Received: 10/02/2012

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Project Location: Lea County, New Mexico

Contact: Ben Arguijo

Project Id: SUG Historical Releases

Certificate of Analysis Summary 450010

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: L-5 Line (RP-2086)

Date Received in Lab: Tue Oct-02-12 10:35 am

Project Manager: Nicholas Straccione

Report Date: 05-0CT-12

	Lab Id:	450010-001	
Aunthois Dogwood	Field Id:	North Wall @ 3' bgs	
Amulysis nequesieu	Depth:		
	Matrix:	TIOS	
	Sampled:		
Inorganic Anions by EPA 300/300.1	Extracted:	Oct-03-12 18:42	
SUB: TX104704215	Analyzed:		
	Units/RL:	mg/kg RL	
Chloride		8.15 0.920	
Percent Moisture	Extracted:		
	Analyzed:	Oct-03-12 14:30	
	Units/RL:	% RL	
Percent Moisture		1.18 1.00	

Mul Ch

Nicholas Straccione

Project Manager

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

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpertations and results expersessed 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.



Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantiation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- * Surrogate recovered outside laboratory control limit.
- BRL Below Reporting Limit.
- **RL** Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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



BS / BSD Recoveries



Project Name: L-5 Line (RP-2086)

Work Order #: 450010

Analyst: TTE

Lab Batch ID: 898007

Date Prepared: 10/03/2012

Project ID: SUG Historical Releases Date Analyzed: 10/03/2012

Matrix: Solid

Lab Batch ID: 898007	Sample: 628121-1-BKS	KS .	Batch #:	1 #: 1					Matrix: S	Solid		
Units: mg/kg			BLAN	K/BLANKS	PIKE / F	SLANK S	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	ICATE	RECOVE	RY STUD	Y	
Inorganic Anions by EPA 300/300.1	CPA 300/300.1	Blank Sample Result	Spike Added	Blank Spike	Blank	Spike Added	Blank Spike	Blk. Spk Dup.	RPD	Control	Control	Flag
Analytes		[A]	[B]	Kesult [C]	%R [D]	[E]	Duplicate Result [F]	%R [G]		%R	%RPD	
Chloride		<1.00	100	100	100	100	6.66	100	0	80-120	20	

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



Form 3 - MS Recoveries

Project Name: L-5 Line (RP-2086)



Work Order #: 450010

Lab Batch #: 898007

Project ID: SUG Historical Releases

Date Analyzed: 10/03/2012

Date Prepared: 10/03/2012

Analyst: TTE

QC- Sample ID: 450010-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	MATI	RIX / MA	TRIX SPIKE	RECO	VERY STU	DY
Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	8.15	92.0	100	100	80-120	



Sample Duplicate Recovery



Project Name: L-5 Line (RP-2086)

Work Order #: 450010

Lab Batch #: 897944

Project ID: SUG Historical Releases

Date Analyzed: 10/03/2012 14:30

Percent Moisture

Analyte

Date Prepared: 10/03/2012

Analyst: WRU

QC- Sample ID: 450011-001 D

Batch #:

Matrix: Soil

Reporting Units: %

Percent Moisture

SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
16.2	16.2	0	15	

Final 1.000



XENCO Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: Southern Union Gas Services- Monahan

Date/ Time Received: 10/02/2012 10:35:00 AM

Work Order #: 450010

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

Temperature Measuring device used :

\$	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		0	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contain	ner/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?		Yes	
#6 *Custody Seals Signed and dated?		Yes	
#7 *Chain of Custody present?		Yes	
#8 Sample instructions complete on Chain of	of Custody?	Yes	
#9 Any missing/extra samples?		No	
#10 Chain of Custody signed when relinquis	shed/ received?	Yes	
#11 Chain of Custody agrees with sample la	abel(s)?	Yes	
#12 Container label(s) legible and intact?		Yes	
#13 Sample matrix/ properties agree with Cl	nain of Custody?	Yes	
#14 Samples in proper container/ bottle?		Yes	
#15 Samples properly preserved?		Yes	
#16 Sample container(s) intact?		Yes	
#17 Sufficient sample amount for indicated	test(s)?	Yes	
#18 All samples received within hold time?		Yes	
#19 Subcontract of sample(s)?		Yes	
#20 VOC samples have zero headspace (le	ss than 1/4 inch bubble)?	Yes	
#21 <2 for all samples preserved with HNO3	3,HCL, H2SO4?	Yes	
#22 >10 for all samples preserved with NaA	sO2+NaOH, ZnAc+NaOH?	Yes	

Analyst:	PH Device/Lot#:	
Checklist	completed by:	Date: 10/02/2012
Checklis	reviewed by:	Date: 10/02/2012