District I 1625 N. French Dr., Hobbs, NM 88240 District III
District III
District III
District III
District III
District III
DOG Rio Brazos Road, Aztec, NM 87510
Strict IV
220 S. St. Francis Dr., Santa Fe. NM 87505

State of New Mexico Energy Minerals and Natural Resources

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

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

side of form

Revised October 10, 2003

Form C-141

CAO NAB 1527437 Release Notification	on and Corrective Action	
+HB1500951245 34951	OPERATOR 🗵	nitial Report Final Report
Name of Company Southern Union Gas Services	Contact Rose Slade	
Address 801 S. Loop 464 Monahans, Texas 79756	Telephone No. 432-940-5147	
Facility Name Tunstil #1286	Facility Type Natural Gas Pipeline	
Surface Owner Bureau of Land Management Mineral Owner	API	No 30-025-28822
LOCATIO	ON OF RELEASE	
L 24 26S 30B	h/South Line Peet from the East/West Li	ne County Eddy
Latitude 32 degrees 01.47	6' Longitude 103 degrees 50.429'	
	E OF RELEASE	
Type of Release Natural Gas, Crude Oil and Produced Water		me Recovered None and Hour of Discovery
Source of Release 6-Inch Steel Pipeline (Low Pressure)		and Flodi of Discovery lary 22, 2011 – 1322 hours
Was Immediate Notice Given? Yes No Not Required	If YES, To Whom?	
By Whom? Curt Stanley	Date and Hour March 11, 2011 - 0830 hou	112
Was a Watercourse Reached? ☐ Yes ☑ No	If YES, Volume Impacting the Watercours	e.
'f a Watercourse was Impacted, Describs Fully.*		
Describe Cause of Problem and Remedial Action Taken.* Failure of a segment of the six (6) low pressure steel pipeline resulted in produced water. Following the discovery of the release the pipeline was		
Describe Area Affected and Cleanup Action Taken.* An area of range land measuring approximately 5,560 square feet was af guidelines.	fected by the release. The release will be reme	diated to NMOCD regulatory
Thereby certify that the information given above is true and complete to regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report by t should their operations have failed to adequately investigate and remedic or the environment. In addition, NMOCD acceptance of a C-141 report federal, state, or local laws and/or regulations.	notifications and perform corrective actions for he NMOCD marked as "Final Report" does not the contamination that pose a threat to ground ver- does not relieve the operator of responsibility to	r releases which may endanger t relieve the operator of liability vater, surface water, human health for compliance with any other
	OIL CONSERVATION	NOISIVI <u>D NC</u>
Signature:	1/	
Printed Name:	Approved by District Supervisor:	fr-
Tide:	Approval Date: Lole/15 Expirat	ion Date: NA
E-mail Address:	Conditions of Approval:	Attached []
ate: Phone:		

* Attach Additional Sheets If Necessary

2RP-3307

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



RECEIVED
AUG 1 0 2012
NMOCD ARTESIA

REMEDIATION SUMMARY & RISK-BASED SITE CLOSURE REQUEST

SOUTHERN UNION GAS SERVICES TUNSTIL #1286

Eddy County, New Mexico
Unit Letter "L" (NW/SW), Section 24, Township 26 South, Range 30 East
Latitude 32° 01.476' North, Longitude 103° 50.429' West
NMOCD Reference #2RP-

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

July 2012

Project Manager

TABLE OF CONTENTS

1.0	INTRODUCTION & BACKGROUND INFORMATION	l
2.0	NMOCD SITE CLASSIFICATION	1
3.0	SUMMARY OF SOIL REMEDIATION ACTIVITIES	2
4.0	QA/QC PROCEDURES	4
	4.1 Soil Sampling	4
	4.2 Decontamination of Equipment	
	4.3 Laboratory Protocol.	5
5.0	SOIL CLOSURE REQUEST	5
6.0	LIMITATIONS	5
7.0	DISTRIBUTION	6

FIGURES

Figure 1 – Site Location Map

Figure 2 – Site & Sample Location Map (Main Excavation)

Figure 3 – Site & Sample Location Map (Ephemeral Wash)

TABLES

Table 1 - Concentrations of Benzene, BTEX, TPH & Chloride in Soil

APPENDICES

Appendix A – General Site Photographs

Appendix B – Major Undesirable Event (BLM Form MUE)

Appendix C – Archaeological Survey (NMCRIS Investigation Abstract Form)

Appendix D – Laboratory Analytical Reports

Appendix E – Release Notification and Corrective Action (Form C-141)

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 & Risk-Based Site Closure Request* for the release site known as Tunstil #1286. The legal description of the release site is Unit Letter "L" (NW/SW), Section 24, Township 26 South, Range 30 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32° 01.476' North latitude and 103° 50.429' West longitude. The property affected by the release is owned by The United States Department of the Interior - Bureau of Land Management (BLM). Please reference Figure 1 for a "Site Location Map".

On February 22, 2011, Southern Union discovered a release had occurred on the Tunstil #1286 pipeline. Failure of a section of the 6-inch (6") low-pressure steel pipeline resulted in the release of an unknown volume of natural gas, crude oil, and produced water mixture. During initial response activities, the pipeline was fitted with a temporary pipeline clamp to mitigate the release. Following initial response activities, the affected pipeline segment was replaced.

On March 11, 2011, the release was reported to the New Mexico Oil Conservation Division (NMOCD) Artesia District Office. The "Release Notification and Corrective Action" (Form C-141) indicated the release affected approximately five thousand, five hundred sixty square feet (5,560 ft²) of rangeland. General photographs of the release site are provided as Appendix A. The Form C-141 is provided as Appendix E.

On March 11, 2011, a Southern Union representative met with a representative from the BLM Carlsbad Field Office regarding the Tunstil #1286 release site. The BLM representative requested that a "Major Undesirable Event" (Form MUE) be prepared and submitted to the BLM. The MUE indicated the release affected approximately nine hundred linear feet (900') of an ephemeral wash located southwest of the release site. The BLM requested that the impacted area at the release point be excavated and remediated to NMOCD standards and the affected ephemeral wash be remediated utilizing a freshwater "washing" technique designed to limit the disturbance of existing natural rangeland. The Form MUE is provided in Appendix B.

On June 20, 2011, an archaeological survey was conducted by Boone Archaeological Services of Carlsbad, New Mexico. The report indicated that an existing archaeological site (LA 108946) was located approximately sixty-five feet (65') west of the impacted ephemeral wash. The site was flagged and a "no impact zone" was established to ensure that remediation activities did not disturb any cultural resources. A copy of the Archaeological Survey (NMCRIS Investigation Abstract Form) is provided as Appendix C.

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 24, Township 26 South, Range 30 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately two hundred feet (200') below ground surface (bgs). Based on the NMOCD ranking system, zero (0) 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 1,000 feet 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 1,000 feet 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 Tunstil #1286 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)
- BTEX 50 mg/Kg (ppm)
- TPH 5,000 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

On June 14, 2011, four (4) soil samples (Draw #1, Draw #2, Draw #3 and Draw #4) were collected from the ephemeral wash located southwest of the release point. Soil samples were submitted to Xenco Laboratories, Inc., in Odessa, Texas, for analysis of chloride and total petroleum hydrocarbons (TPH) concentrations in accordance with EPA Methods 300.1 and SW 846-8015M, respectively. Laboratory analytical results indicate chloride concentrations ranged from 1,100 mg/Kg for soil sample Draw #4 to 8,450 mg/Kg for soil sample Draw #1. Laboratory analytical results indicated TPH concentrations ranged from 771 mg/Kg for soil sample Draw #4 to 3,960 mg/Kg for soil sample Draw #2. Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil". Soil sample locations are depicted on Figure 2 "Site & Sample Location Map (Main Excavation)" and Figure 3 "Site & Sample Location Map (Ephemeral Wash)". Laboratory analytical reports are provided as Appendix D.

On June 22, 2011, six (6) soil samples (North Release Point @ 2', North Release Point @ 6', South Release Point @ 2', South Release Point @ 6', South Flow Path @ 2' and South Flow Path @ 6') were collected at the site to investigate the vertical and horizontal extent of impacted soil. Collected soil samples were submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the appropriate laboratory method detection limit (MDL) for soil samples North Release Point @ 2' and South Flow Path @ 2' to 30.9 mg/Kg for soil sample South Release Point @ 2'. Laboratory analytical results indicated chloride concentrations ranged from 2,460 mg/Kg for soil sample North Release Point @ 6' to 4,270mg/Kg for soil sample South Release Point @ 2'.

On June 23, 2011, remediation of the ephemeral wash commenced at the location. This was achieved by releasing fresh water into the wash at a rate sufficient to transport impacted medium without disrupting the natural hydraulic characteristics of the wash. A lined temporary catchment was installed down-gradient beyond the impacted section of the wash to collect the water and contaminant solution. A two inch (2") sump pump located within the lined temporary catchment transferred the impacted solution into a vacuum truck located on the caliche road. The solution was disposed of at an NMOCD approved disposal.

On July 12, 2011, four (4) soil samples (Draw 1A, Draw 2A, Draw 3A and Draw 4A) were collected from the ephemeral wash and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 886 mg/Kg for soil sample Draw 3A to 2,260 mg/Kg for soil sample Draw 4A.

On October 3, 2011, four (4) soil samples (Draw 1B, Draw 2B, Draw 3B and Draw 4B) were collected from the ephemeral wash and submitted to the laboratory for analysis of BTEX constituents in accordance with EPA Method SW 846-8021b, TPH and chloride concentrations. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory MDL for each constituent in each of the submitted soil samples. Laboratory analytical results indicated TPH concentrations ranged from 71.8 mg/Kg for soil sample Draw 1B to 983 mg/Kg for soil sample Draw 2B. Laboratory analytical results indicated chloride concentrations ranged from 41.6 mg/Kg for soil sample Draw 4B to 126 mg/Kg for soil sample Draw 2B. Benzene, BTEX, TPH and chloride concentrations were below the NMOCD regulatory remediation action levels established for this site.

On November 2, 2011, a delineation trench was advanced to investigate the vertical extent of soil impact at the release site. During the advancement of the trench, six (6) soil samples (11/2 Trench @ Surface, 11/2 Trench @ 5', 11/2 Trench @ 10', 11/2 Trench @ 12', 11/2 Trench @ 13', and 11/2 Trench @ 14') were collected and submitted to the laboratory for analysis of concentrations of BTEX constituents, TPH and chloride. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory MDL for each constituent in each of the submitted soil samples. Laboratory analytical results indicated TPH concentrations ranged from less than the appropriate laboratory MDL for soil samples 11/2 Trench @ 5', 11/2 Trench @ 10', 11/2 Trench @ 12', 11/2 Trench @ 13', and 11/2 Trench @ 14' to 851 mg/Kg for soil sample 11/2 Trench @ 219 mg/Kg for soil sample 11/2 Trench @ 14' to 16,000 mg/Kg for soil sample 11/2 Trench @ Surface.

On April 9, 2012, Basin began excavation activities at the release site. A photo-ionization detector (PID) and chloride field test kits were used to field-screen the horizontal extent of impacted soil and to guide the excavation. The excavation floor was advanced and leveled at approximately three feet (3') bgs, pending the installation of an NMOCD-approved twenty (20) mil polyurethane liner. The excavation sidewalls were advanced until laboratory analytical results from confirmation soil samples indicated benzene, BTEX, TPH and/or chloride concentrations were below the NMOCD regulatory remediation action levels established for this site. Excavated material was stockpiled onsite, pending final disposition.

On April 11, 2011, three (3) confirmation soil samples (W Wall #1 @ 3', W Wall #2 @ 3' and N Wall @ 3') were collected from the excavation sidewalls and submitted to the laboratory for analysis of BTEX constituent, TPH and chloride concentrations. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory MDL for each constituent in each of the submitted soil samples. Laboratory analytical results indicated TPH concentrations ranged from 20.7 mg/Kg for soil sample N Wall @ 3' to 40.4 mg/Kg for soil sample W Wall #2 @ 3'. Laboratory analytical results indicated chloride concentrations ranged from 111 mg/Kg for soil sample N Wall #2 @ 3' to 284 mg/Kg for soil sample W Wall #1 @ 3'. Benzene, BTEX, TPH and chloride concentrations were below the NMOCD regulatory standards remediation action levels for this site.

On April 17, 2011, a delineation trench was advanced to further investigate the vertical extend of soil impact at the release site. During the advancement of the trench, three (3) soil samples (Trench @

10', Trench @ 14' and Trench @ 17') were collected and submitted to the laboratory for analysis of BTEX constituent, TPH and chloride concentrations. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory MDL for each constituent in each of the submitted soil samples. Laboratory analytical results indicated TPH concentrations ranged from less than the appropriate laboratory MDL for soil samples Trench @ 14' and Trench @ 17' to 69.2 mg/Kg for soil sample Trench @ 10'. Laboratory analytical results indicated chloride concentrations ranged from 135 mg/Kg for soil sample Trench @ 14' to 1,380 mg/Kg for soil sample Trench @ 10'.

On April 17, 2011, three (3) confirmation soil samples (E Wall #1 @ 3', E Wall #2 @ 3' and E Wall #3 @ 3') were collected from the excavation sidewalls and submitted to the laboratory for analysis of BTEX constituent, TPH and chloride concentrations. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory MDL for each constituent in each of the submitted soil samples. Laboratory analytical results indicated TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. Laboratory analytical results indicated chloride concentrations ranged from 87.3 mg/Kg for soil sample E Wall #3 @ 3' to 934 mg/Kg for soil sample E Wall #1 @ 3'. Benzene, BTEX, TPH and chloride concentrations were below the NMOCD regulatory remediation action levels established for this site.

On April 17, 2011, two (2) soil samples (East Side of Road #1 @ 3' and East Side of Road #2 @ 3') were collected from the east side of the oilfield access road and submitted to the laboratory for analysis of BTEX constituent, TPH and chloride concentrations. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory MDL for each constituent in each of the submitted soil samples. Laboratory analytical results indicated TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. Laboratory analytical results indicated chloride concentrations ranged from 6.10 mg/Kg for soil sample East Side of Road #1 @ 3' to 7.26 mg/Kg for soil sample East Side of Road #2 @ 3'.

Between April 20 and April 23, 2012, approximately three hundred eighty cubic yards (380 cy³) of impacted material was transported to Lea Land, LLC (NMOCD Permit #WM-01-035), for disposal. The final dimensions of the excavation prior to backfilling were approximately one hundred feet (100') in length, ranged in width from approximately fifteen feet (15') to approximately thirty feet (30'), and approximately three feet (3') in depth.

On April 20, 2012, a twenty (20) mil polyurethane liner was installed on the floor of the excavation at approximately three feet (3') bgs. Approximately one foot (1') of non-impacted pad sand was installed both above and below the liner to protect the liner from damage during installation and backfilling activities. Upon receiving laboratory analytical results from confirmation soil samples, the excavation was backfilled with locally purchased, non-impacted material. Backfill was compacted in eighteen inch (18") lifts and contoured to fit the surrounding topography. The site will be reseeded with a BLM approved seed mixture prior to the close of the 2012 calendar year.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil Samples were delivered to Xenco Laboratories, Inc., in Odessa, Texas, for analysis of BTEX constituent, TPH, and/or chloride concentrations using the methods described below. Soil samples were analyzed for BTEX constituent, TPH, and/or chloride concentrations within fourteen (14) days following the collection date.

The soil samples were analyzed as follows:

- 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 Method 300.1

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 analytical reports or are on file at the laboratory.

5.0 SOIL CLOSURE REQUEST

Remediation activities conducted at the Tunstil #1286 release site met the objectives set forth by the NMOCD and BLM Carlsbad Field Office. Soil samples collected from the excavation were analyzed by an NMOCD-approved laboratory, and concentrations of BTEX, TPH, and chloride were below the applicable regulatory remediation action levels established for the site. Based on these analytical results, Basin recommends Southern Union provide the NMOCD Artesia District Office and the BLM Carlsbad Field Office a copy of this *Remediation Summary & Risk-Based Soil Closure Request* and request the NMOCD grant closure to the Tunstil #1286 release site.

6.0 LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this Remediation Summary & Risk-Based 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: Mike Bratcher

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division (District 2)

1301 E. Grand Avenue Artesia, NM 88240

Copy 2: James Amos

Bureau of Land Management

602 E. Greene Street Carlsbad, NM 88220

Copy 3: Rose Slade & Curt Stanley

Southern Union Gas Services

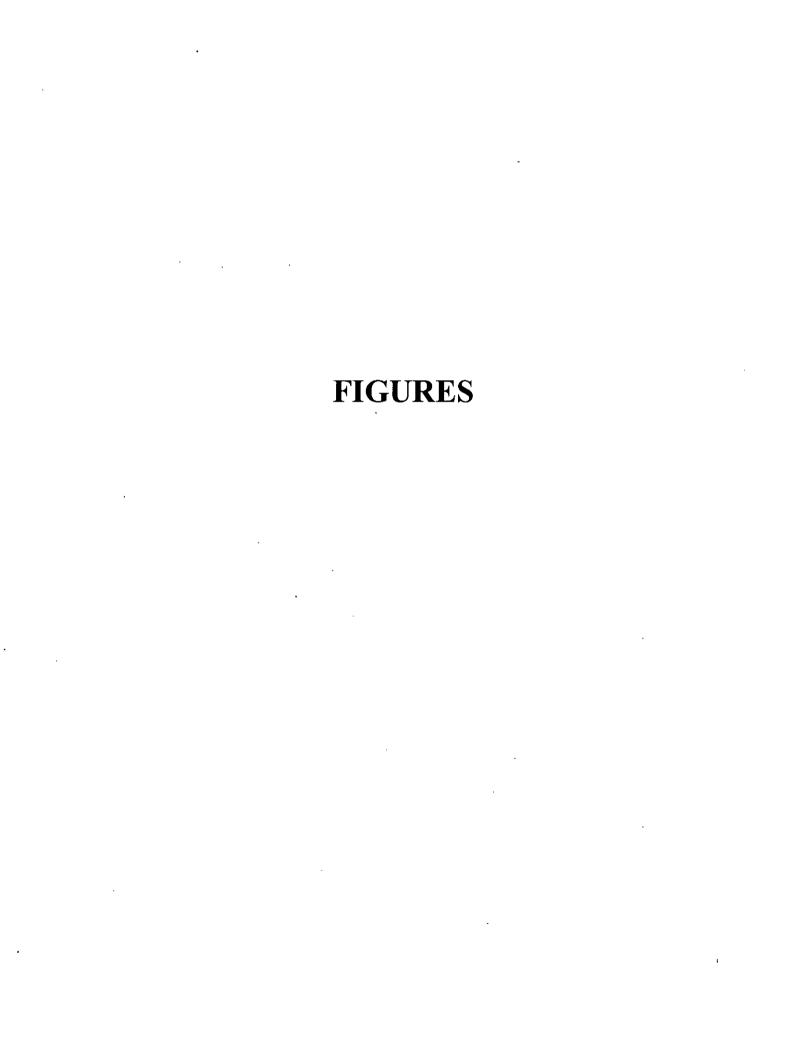
801 S. Loop 464

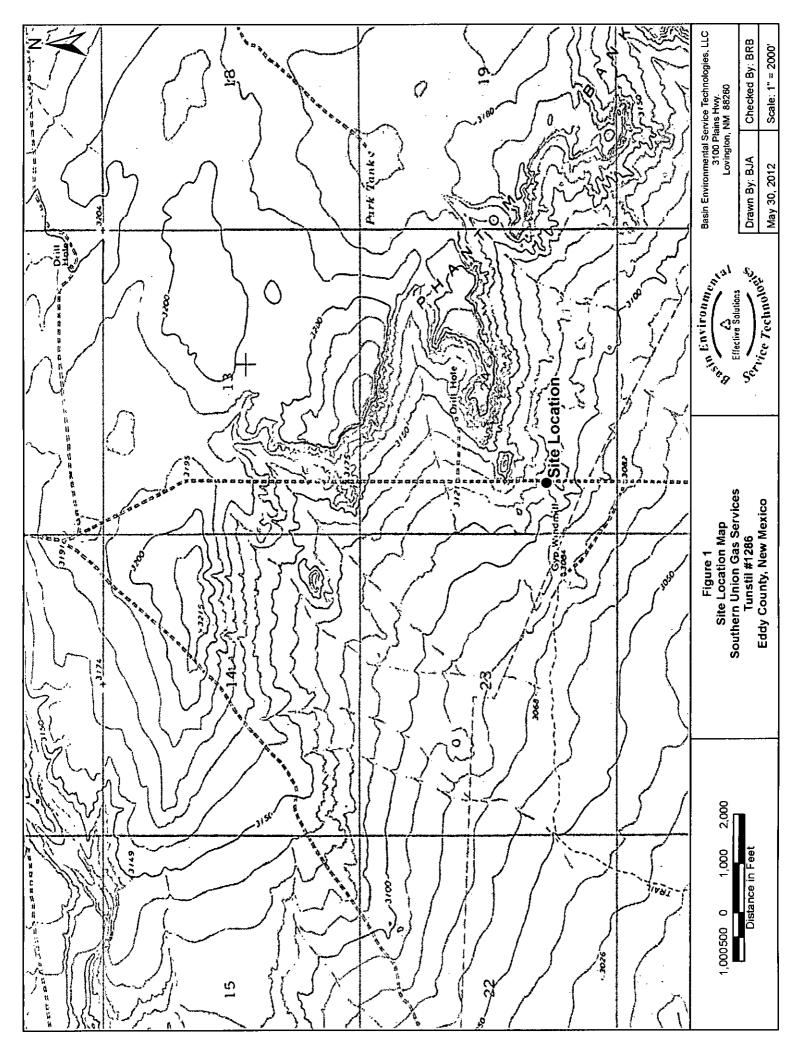
Monahans, Texas 79756 rose.slade@sug.com curt.stanley@sug.com

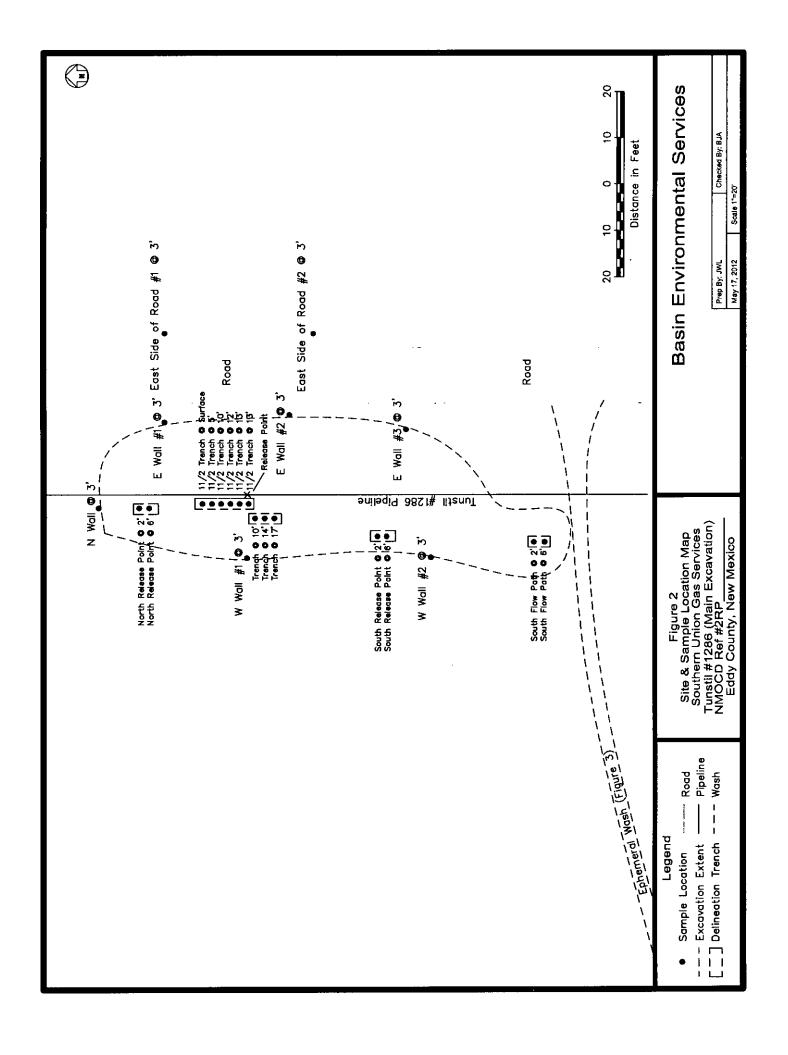
Copy 4: Basin Environmental Service Technologies, LLC

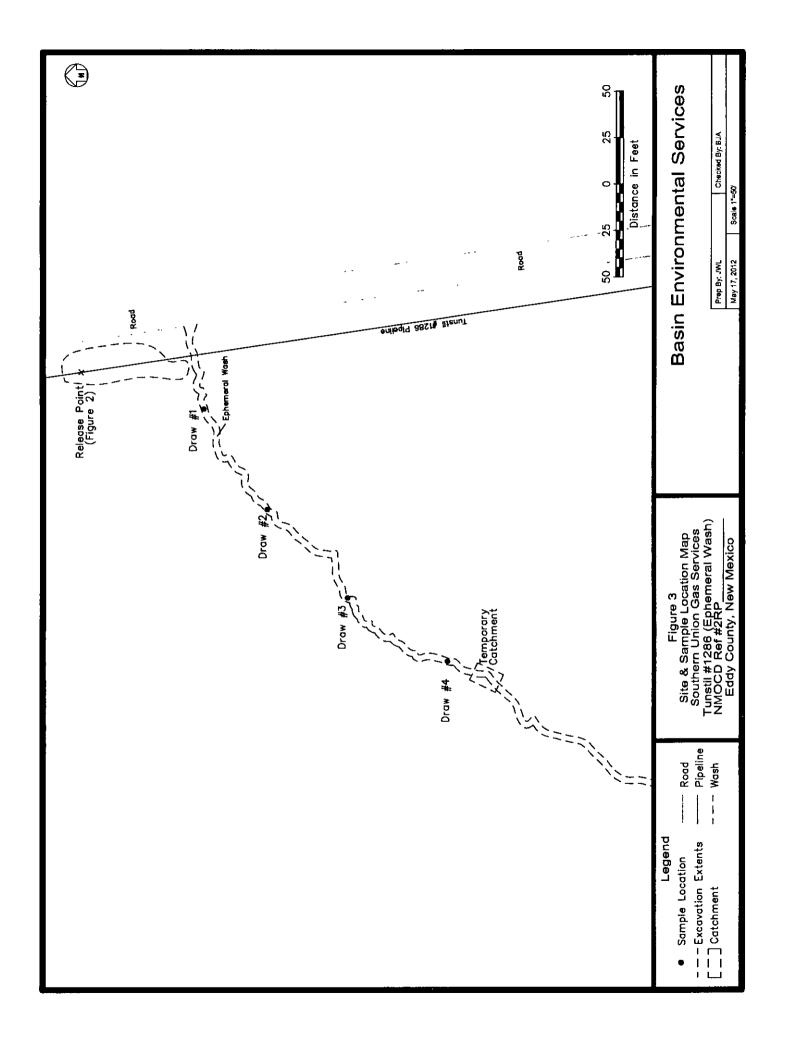
P.O. Box 301

Lovington, New Mexico 88260









	TABLES	

.

.

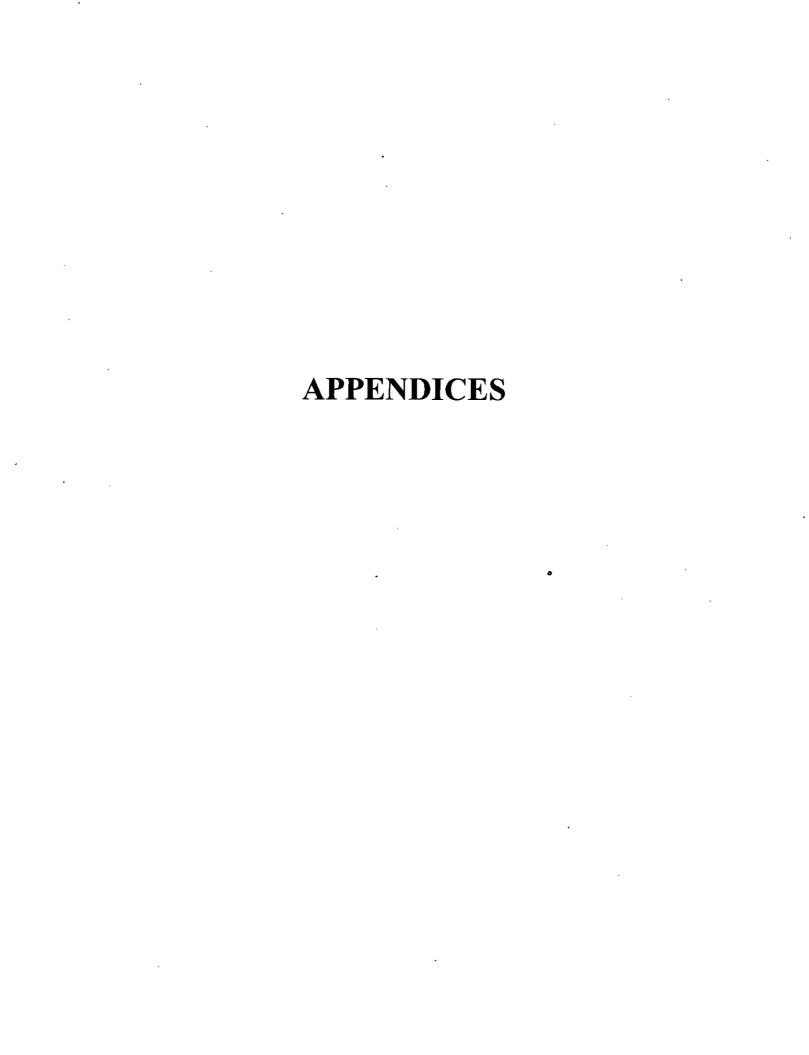
e e

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES TUNSTIL #1286 EDDY COUNTY, NEW MEXICO NMOCD REFERENCE NO: 2RP

	1				METHC	METHOD: EPA SW 846-8021B, 5030	46-8021B, 50	30		MET	METHOD: 8015M	5M	TOTAL	E 300
	SAMPLE	SAMPLE	SOIL	!		ETHYL-	M.P.	ó	TOTAL	GRO	DRO	OKO	TPH	
SAMPLE LOCATION	DEPTH (BGS)	DATE	STATUS	BENZENE	TOLUENE	BENZENE	XYLENES	XYLENE	BTEX	د د	C ₁₂ -C ₂₈	C28-C35	C. C. 33	CHLORIDE
	(555)			(By/Bill)	(Bugin)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Draw #1	N/A	6/14/2011	Washed	•	1	•	1	•		<15.0	2,300	21.5	2,320	8,450
Draw #2	N/A	6/14/2011	Washed	,	-	•	•	-	1	111	3,820	26.4	3,960	1,990
Draw #3	N/A	6/14/2011	Washed				ŀ	-		<15.2	1,520	37.1	1,560	5,330
Draw #4	N/A	6/14/2011	Washed			1	ı		-	<15.0	732	39.3	771	1,100
	* 1					·	7,	*		·		,	, 4r	
North Release Point @ 2	7.	6/22/2011	In-Situ				•	•	_	<16.0	<16.0	<16.0	<16.0	3,740
North Release Point @ 6	6	6/22/2011	In-Situ	-	-	-	-		-				,	2,460
South Release Point @ 2	Z	6/22/2011	In-Situ			1			,	<16.2	30.9	<16.2	90.6	4,270
South Release Point @ 6	ē.	6/22/2011	In-Situ		[-		[,			,			,	3,280
South Flow Path @ 2'	2	6/22/2011	In-Situ		_					<15.9	<15.9	<15.9	<15.9	3,480
South Flow Path @ 6'	و	6/22/2011	In-Situ		-									2,650
														,
Draw 1A	W/W	7/12/2011	In-Situ	-	-	•		,	,				-	944
Draw 2A	N/A	7/12/2011	In-Situ	-	-		_	-	-	-	-	-	-	1,040
Draw 3A	N/A	7/12/2011	In-Situ	-	-	•	-	-	-	-	-	-	-	986
Draw 4A	N/A	7/12/2011	In-Situ	•	1	t		•	,	,	,			2,260
	4.													
Draw 1	V/A	10/3/2011	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.2	75.8	17.5	93.3	133
Draw 2	N/A	10/3/2011	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.0	15.1	<15.0	15.1	6.78
Draw 1B	N/A	10/3/2011	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.1	56.1	15.7	71.8	115
Draw 2B	N/A	10/3/2011	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.0	945	38.2	983	126
Draw 3B	N/A	10/3/2011	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.1	516	28.6	545	68.1
Draw 4B	N/A	10/3/2011	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.2	212	28.2	240	41.6
			1		• • •			,				S 11 1 1 1	<u>``</u>	٠.
11/2 Trench @ Surface	Surface	11/2/2011	In-Situ	<0.0010	<0.0021	<0.0010	<0.0021	<0.0021	<0.0021	17.0	814	19.9	851	16,000
11/2 Trench @ 5'	5.	11/2/2011	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0021	<0.0021	<15.6	<15.6	<15.6	<15.6	1,430
11/2 Trench @ 10'	10.	11/2/2011	In-Situ	<0.0010	<0.0021	<0.0010	<0.0021	<0.0021	<0.0021	<15,5	<15.5	<15.5	<15.5	355
11/2 Trench @ 12'	12	11/2/2011	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0022	<0.0022	<16.7	<16.7	<16.7	<16.7	1,060
[11/2 Trench @ 13'	13	11/2/2011	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0022	<0.0022	<16.7	<16.7	<16.7	<16.7	511
11/2 Trench @ 14'	14.	11/2/2011	In-Situ	<0.0011	<0.0021	¢0.0011	<0.0021	<0.0021	<0.0021	<15.7	<15.7	<15.7	<15.7	219
				,									,,	,
W Wall #1 @ 3	5 C	4/11/2012	n-Situ	<0.0010	<0.0020	00000	<0.0020 -0.0020	<0.0010	02000	515.3	23.4	212.3 12.3	23.4	787
vv wall #2 (@ 3	ۍ د د	4/11/2012	DIS-UL	40.0010	<0.0020	01000	02000	20.0010	02000	7.612	24.5	9.0	40.4	111
is wall (2)	ر.	4/11/2012	2100	\$0.0010	20.0020	0.00	SU.UZU	20.0010	0700.0>	7:015	ZO.7	7.012	/77	677
Trench @ 10'	10	4/17/2012	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0021	<0.0021	17.9	51.3	<15.9	692	1 380
Trench @ 14'	14.	4/17/2012	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0021	<0.0021	<15.5	<15.5	<15.5	<15.5	135
Trench @ 17'	17	4/17/2012	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0022	<0.0022	<16.6	<16.6	<16.6	<16.6	144
E Wall #1 @ 3'	3	4/17/2012	In-Situ	<0.0010	<0.0021	0.00120	0.00637	0.00173	0:000:0	<15.6	<15.6	<15.6	<15.6	934
E Wall #2 @ 3	3	4/17/2012	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0021	<0.0021	<15.8	<15.8	<15.8	<15.8	669
	3;	4/17/2012	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.3	<15.3	<15.3	<15.3	87.3
East Side of Road #1 @ 3	3	4/17/2012	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.3	<15.3	<15.3	<15.3	6.10
East Side of Road #2 @ 3	ë	4/17/2012	In-Situ	<0.0010	<0,0021	<0.0010	<0.0021	<0.0010	<0.0021	<15.4	<15.4	<15.4	<15.4	7.26
							·						<i>x</i>	
NMOCD Standard				10					S S				2,000	



Appendix A General Site Photographs



Figure 1. Photograph of surface staining from the initial release at the Tunstil #1286 Release Site (Looking East)

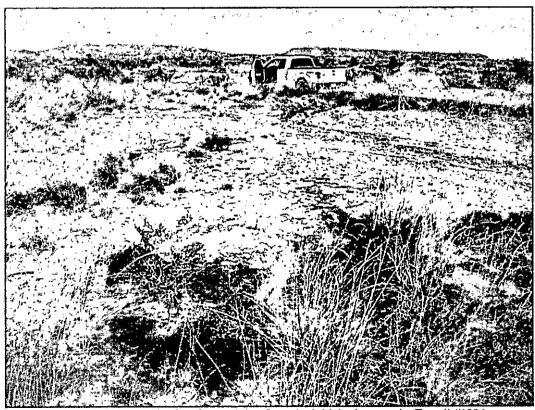


Figure 2. Photograph of surface staining from the initial release at the Tunstil #1286 Release Site (Looking Northeast)

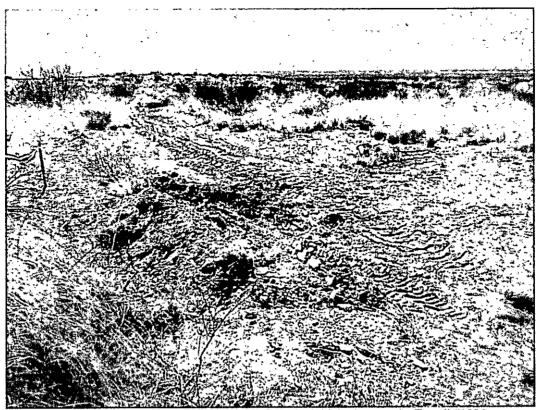


Figure 3. Photograph of surface staining from the initial release at the Tunstil #1286 Release Site (Looking South)

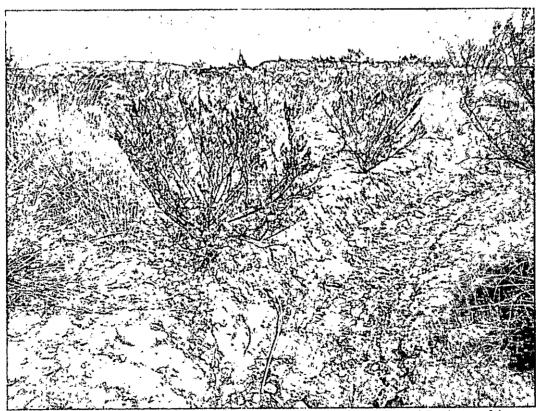


Figure 4. Photograph of the impacted portion of the ephemeral wash located Southwest of the Tunstil #1286 Release Site (Looking South)



Figure 5. Photograph of the freshwater "Washing" technique utilized to remediate the impacted portion of the ephemeral wash at the Tunstil #1286 Release Site (Looking Northeast)

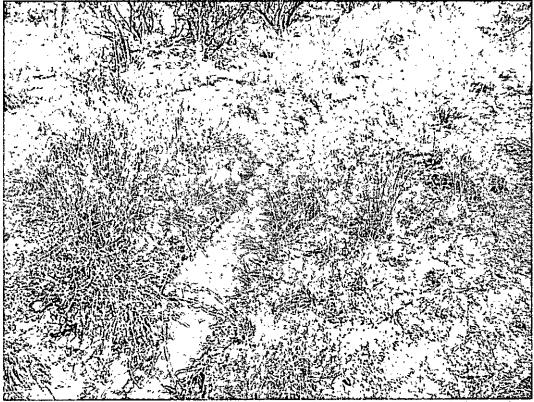


Figure 6. Photograph of the freshwater "Washing" technique utilized to remediate the impacted portion of the ephemeral wash at the Tunstil #1286 Release Site (Looking North)

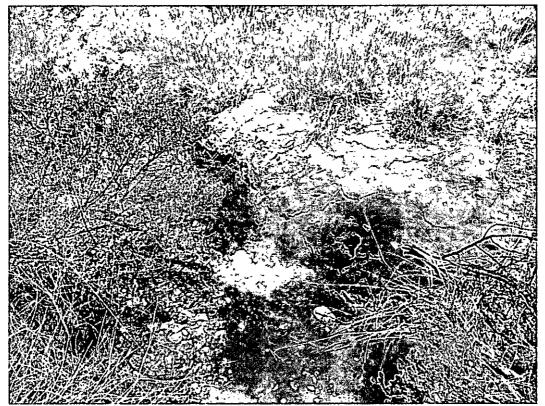


Figure 7. Photograph of the freshwater "Washing" technique utilized to remediate the ephemeral wash at the Tunstil #1286 Release Site (Looking West)



Figure 8. Photograph of the lined temporary catchment installed down gradient from the impacted portion of the ephemeral wash at the Tunstil #1286 Release Site (Looking South)

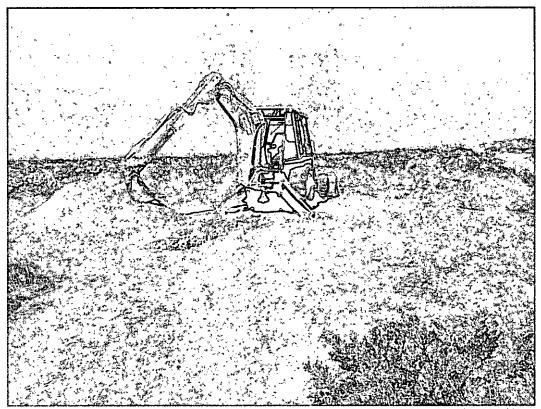
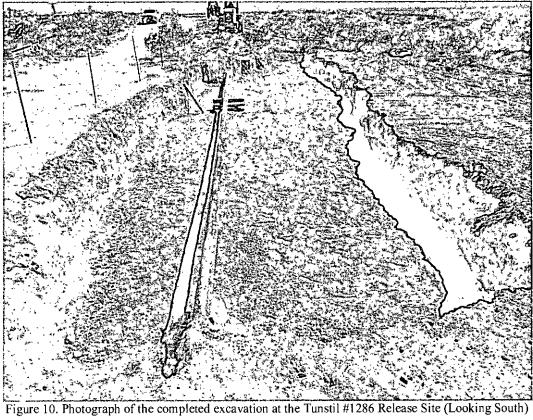


Figure 9. Photograph of delineation activities at the Tunstil #1286 Release Site (Looking North)



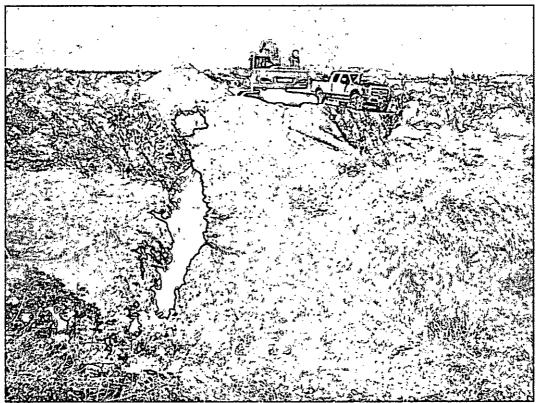


Figure 11. Photograph of the installation of pad sand below the polyurethane liner at the Tunstil #1286 Release Site (Looking Northeast)

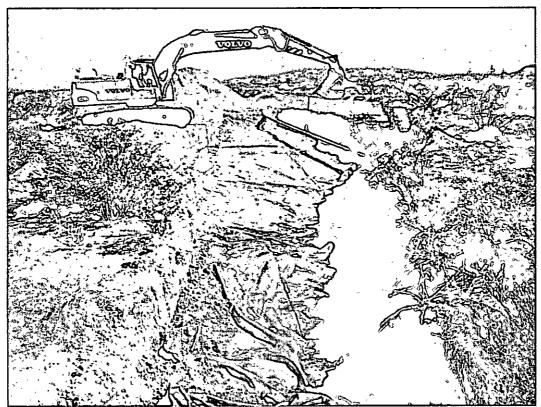


Figure 12. Photograph of the liner installation at the Tunstil #1286 Remediation Site (Looking Northeast)

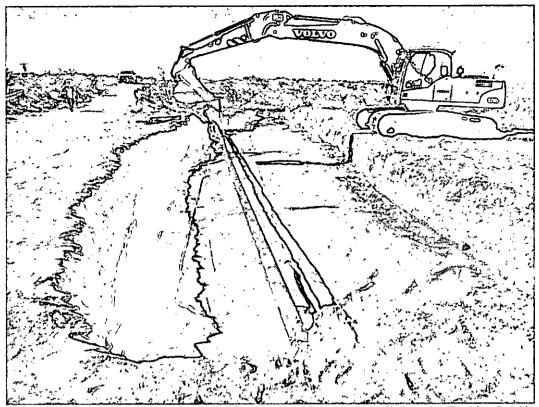


Figure 13. Photograph of the liner installation at the Tunstil #1286 Remediation Site (Looking South)

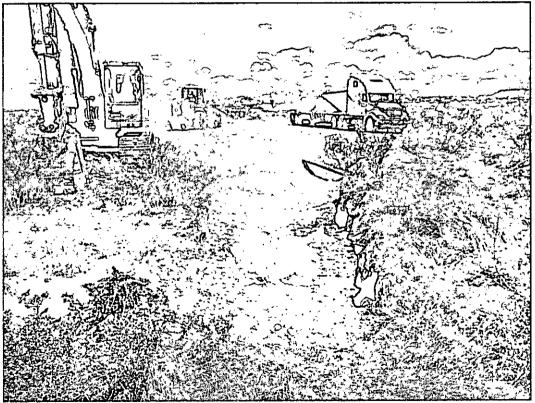


Figure 14 Photograph of the installation of pad sand atop the polyurethane liner at the Tunstil #1286 Remediation Site (Looking Northeast)

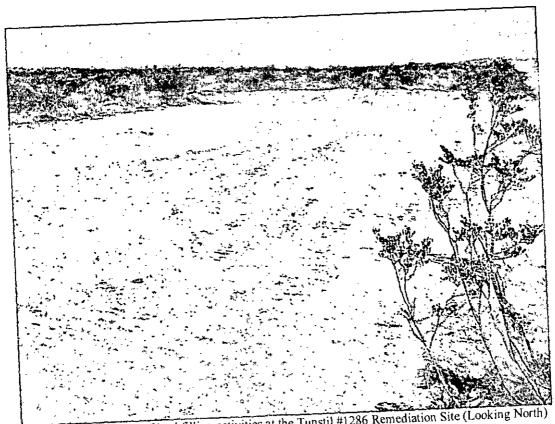


Figure 15. Photograph of backfilling activities at the Tunstil #1286 Remediation Site (Looking North)

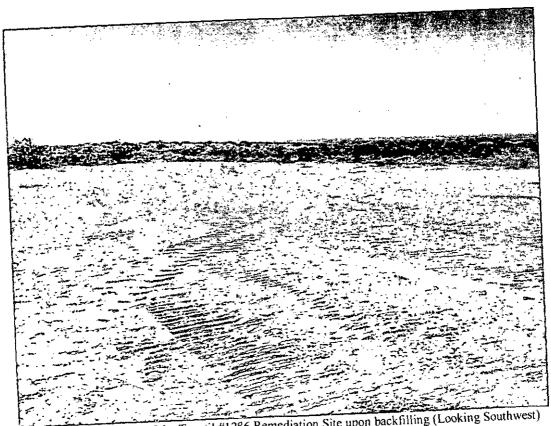


Figure 16. Photograph of the Tunstil #1286 Remediation Site upon backfilling (Looking Southwest)

Appendix B Major Undesirable Event (BLM Form MUE)

BUREAU OF LAND MANAGEMENT WO MAJOR UNDESIRABLE EVENT (MUE) REPORTING FORMAT

BLM Office Reporting	: By	M- CAVE	٠.ر	SBAD IUW	FIE	ره (PFICE		l.
BLM Employee:		mos					· · ·		
Company Official Repo	orting to	BLM: ('	ليا	IRT STAT	rich				
Operator: SOUTHE	ENI	MINON (2	A	SPRVICE	= 5	1-1	. 	V- 2 ·	
Date/Time of Occurren	,			Date/Time BLM			1111-6	33000	is.
		Econt (2) This				- 74	105 0	10.01	1-11
State: N/M County: Surface Ownership: (ci			n:	Z(ら Rng: ろ(Indian	State	c: 2-7	Qtr: [m IT	lsu/4
Surface Ownership. (Cr	7	Treuerar)				SIANGGOIGH.	FEE	Feelands	
Type of Event: (circle o		Oil Spill (Oil/Water Spill	Gas Ve		Toxic Flu		
		Saltwater Spill		Other Spill (Specify)	Blowou	ıt	Fire		
		Injury		Fatality	Propert Damag	-	Explosion	n	
Nature and Cause of Ev P. peline-Cou Crude Oil + ephermal u Environmental Impact:	lure Hroc Jest	•							SOS
Time Required to Contr	ol Event	(Hours):	ı †						. 1.
Volumes Discharged or	Consum	ied:	_	Hourral	15+1	2XQ(it volu	<u>na</u>	JUK VOG
Volumes Recovered:	1 73		igspace	1000 V					
Action Taken to Contro	l Event:			e was a			SACC.		
Resultant Damage:	BRS	xingted IVNPA	4	gooline	iart.	eato	of wa	rsh	•
Clean-Up Procedures;	Celi	= AS POIL	女	will be ex		ted.	attec	ted	_
washwill b	وسر	ishedu	ن	ith-tres					_
Cause/Extent of Person	al Injury	NA.							
Agency Notification	Age	ncy Name	_	Contact Nan	ne l		Pate/Time		
List:	BU	$\sqrt{}$		Sin An	20	3111	11-8	30h	(5.
(Federal/State/Local):									
			L						
	<u> </u>		_						•
							·		
Remarks:								1	
]	
									•
<u></u>		<u>-</u>							

Appendix C Archaeological Survey (NMCRIS Investigation Abstract Form)

Satisfaction of Acade

NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.: 121046	2a. Lead Agency: US Bureau of Land Management Carlsbad Field Office	2b. Other Agency(les):	3. Lead Agency Report No.:
4. Title of Report:	1		5. Type of Report
	gical survey required for Southern U	nion Gas Services	Negative
			↓ Positive
Author(s)			
Jowanna Westfall			
6. Investigation Ty	/pe		
Research Design	n Archaeological Survey/Invent	ory Architectural Survey/Inven	tory Test Excavation Excavation
Collections/Non-	Field Study Compliance Decision	on Based on Previous Inventory	Overview/Lit Review Monitoring
Ethnographic Str	udy Site/Property Specific Visit	Historic Structures Report	Other
the Southern Union to BLM guidelines fill norder to avoid LA area was placed (6. "no impact zone". A activities adhere to the recommended "LA 108946. If these of access. A monitochanges in methodicases will require at Additional Archaeol	Gas spill approx. 65' from the surve or LA 108946 and LA 131223 (in-eligible LA 108946 it is required that the spill of /21/2011) on the north side of the success is recommended from the so the fore mentioned recommendation in impact zone" on the north side of precautions cannot be met, it is recommended as long as	eyed arroyo containing the spill. A gible). slean-up activity take place from the survey area. The north side of the auth side of the survey line. A month side of the survey line. A month side of the survey (past blue flagging) who is activities adhere to the fore managed the recommended the inpacting the recommended.	is clean-up that will require impacting iff be damaging the southeast portion of seological monitor and a re-evaluation entioned recommendations. Any mpact zone" are prohibited and in such
Dates of Investigat	ion:from: 20-Jun-2011 to: 20-Jun	-2011 9. Report Date: 20	Jun-2011
Performing Agend	cy/Consultant: Boone Arch Svcs of	NM	
rincipal Investigate			
eld Supervisor: Jo	wanna Westfall es: Jowanna Westfall		
AND I CISOMICI HEAD	es. Junamia vresnam		
11. Performing Age	ency/Consultant Report No.: BAS	NM 06-11-21	

Contact: Curt Stanley			
Address:		Phone:	575-390-7595
14. Client/Customer Project No.:			
			
15. Land Ownership Status (must be indicated	on project map):		
Land Owner (By Agency)			yed Acres in
US Bureau of Land Management Carlsbad Field (0.96	0.30
	TÖTA	LS 0.96	0.30
16. Records Search(es):			
Date(s) of HPD/ARMS File Review: 6/15/2011	Name of Reviewer(s): Jowanna Wes	stfall	
Date(s) of Other Agency File Review: 6/15/2011	Name of Reviewer(s): Jowanna Westfall	Agency: BL	M-CFO
	<u> </u>		
17. Survey Data:			
•] NAD 83 Note: NAD 83 is t	the NMCRIS star	ndard.
•	•	the NMCRIS star	ndard.
. Source Graphics [] NAD 27 [x	po map, Scale:		ndard. Photo(s)
i. Source Graphics [] NAD 27 [x	po map, Scale:		
. Source Graphics [] NAD 27 [x	po map, Scale:		Photo(s)
a. Source Graphics [] NAD 27 [x	po map, Scale:	Aerial	Photo(s)
i. Source Graphics [] NAD 27 [x	po map, Scale:	Aerial USGS Qua	Photo(s)
. Source Graphics [] NAD 27 [x	po map, Scale:	Aerial USGS Qua	Photo(s)
. Source Graphics [] NAD 27 [x	po map, Scale:	Aerial USGS Qua	Photo(s)
a. Source Graphics [] NAD 27 [x	po map, Scale:	Aerial USGS Qua	Photo(s)
a. Source Graphics [] NAD 27 [x	po map, Scale: 10-100m >100m	Aerial USGS Qua	Photo(s)
. Source Graphics [] NAD 27 [x	po map, Scale: 10-100m >100m	Aerial USGS Qua	Photo(s)
a. Source Graphics [] NAD 27 [x	w) Section 24	USGS Qua	Photo(s)
a. Source Graphics [] NAD 27 [x USGS 7.5' (1:24,000) topo map Other toGPS Unit Accuracy <1.0m	w) Section [] No []	USGS Qua	Photo(s)
a. Source Graphics [] NAD 27 [xUSGS 7.5' (1:24,000) topo map Other toGPS Unit Accuracy <1.0m	w) Section [] No []	USGS Qua	Photo(s)
USGS 7.5' (1:24,000) topo map Other to GPS Unit Accuracy <1.0m 1-10m Other Source Graphic(s): b. USGS 7.5' Topographic Map Name Phantom Banks, NM c. County(les): Eddy d. Nearest City or Town: Orla, TX e. Legal Description: Township (N/S) Range (E/S) 26S 30E	w) Section [] No []	USGS Qua	Photo(s)
a. Source Graphics [] NAD 27 [xUSGS 7.5' (1:24,000) topo map Other toGPS Unit Accuracy <1.0m1-10m Other Source Graphic(s): b. USGS 7.5' Topographic Map Name Phantom Banks, NM c. County(les): Eddy d. Nearest City or Town: Orla, TX e. Legal Description: Township (N/S) Range (E/C) 26S 30E Projected legal description? [x] Yes	w) Section [] No []	USGS Qua	Photo(s)

HELIER NO. 1914

Configuration:

aller Maria Maria Colonia de Carlos de C			
other survey units (specify):			
Scope:	recorded) selective/thematic (selected siles/proper	erties recor	ded)
Coverage Method: systematic pedestrian of	coverage		
other method (describe):			
Survey Interval (m): 15 Crew Size: 1	Fieldwork Dates: from: 20-Jun-2011	to: 20-Jui	1-2011
Survey Person Hours: 1.00 Rec	cording Person Hours: 3.90 Total Hou	irs: 4.00	
Additional Narrative: Strict access has been given for the Southerr required if recommendations cannot be met.	n Union Gas spill clean-up because of LA 108946.	A monitor	will be
		(] Continuation
19. Environmental Setting (NRCS soil designa	ation; vegetative community; elevation; etc.):		
		Į	J Continuation
20.a. Percent Ground Visibility: 79%-99%	b. Condition of Survey Area (grazed, biaded,	undistropy	lea, etc.j:
		Į.] Continuation
21, CULTURAL RESOURCE FINDINGS	Yes, see next report section	No,	discuss why:
	•	ſ	1 Continuation
22 Attachments (short all sourcesists boyen	31.	·	7 0011111111111111111111111111111111111
22. Attachments (check all appropriate boxes		,	
· ·	, isolates, and survey area clearly drawn (required)	,	
[x] Copy of NMCRIS Map Check (required	,		
[1LA Site Forms - new sites (with sketch		1	
•	corded & un-relocated sites (first 2 pages minimus	n)	
[] Historic Cultural Property Inventory Fo	,		
 List and Description of Isolates, if appl 	licable		
List and Description of Collections, if a			

] Photographs and Log

24. I certify the information provided above is correct and accurate and meets all applicable agency standards. Principal Investigator/Qualified Supervisor: Printed Name: Rebecca L. Hill Date: 6/21/11 Title: Field Supervisor Signature: 25. Reviewing Agency Reviewer's Name/Date: Reviewer's Name/Date: HPD Log #: Accepted [1 Rejected (Date sent to ARMS: CULTURAL RESOURCE FINDINGS [fill in appropriate section(s)] SURVEY RESULTS: Archaeological Sites discovered and registered: 0 Archaeological Sites discovered and NOT registered: 0 Previously recorded archaeological sites revisited (site update form required): 1 Previously recorded archaeological sites not relocated (site update form required): 0 TOTAL ARCHAEOLOGICAL SITES (visited & recorded): 1 Total isolates recorded: 0 Non-selective isolate recording? HCPI properties discovered and registered: 0 HCPI properties discovered and NOT registered: 0 Previously recorded HCPI properties revisited: 0 Previously recorded HCPI properties not relocated: 0 TOTAL HCPI PROPERTIES (visited & recorded, including acequias): 0 MANAGEMENT SUMMARY: A class III archaeological survey was requested by Southern Union Gas Services because of a hydrocarbon and produced water leak from a pipeline. The hazardous material release is located in Sec. 24 T 26S R 30E alongside a caliche capped road and runs south down a small arroyo 420'. A pedestrian survey was conducted along the flagged spill area using 15 meter interval transects within 100' corridors on both sides. Archaeological resources are present within the project area... In order to avoid LA 108948 it is required that the spill clean-up activity take place from the south side of the arroyo. A flagged area was placed (6/21/2011) on the north side of the survey area. The north side of the arroyo past the flagging is considered a "no impact zone". Access is recommended from the south side of the survey line. A monitor is not recommended as long as activities adhere to the fore mentioned recommendations. Any changes in methods for this clean-up that will require impacting the recommended "no impact zone" on the north side of the survey (past blue flagging) will be damaging the southeast portion of LA 108946. If these precautions cannot be met, it is recommended that there be an archaeological monitor and a re-evaluation of access IF REPORT IS NEGATIVE, YOU ARE DONE AT THIS POINT. SURVEY LA/HCPI NUMBER LOG Sites/Properties Discovered:

Eligible? (Y/N/U, applicable criteria)

Saftia Service and Control of the

LA/HCPI No.

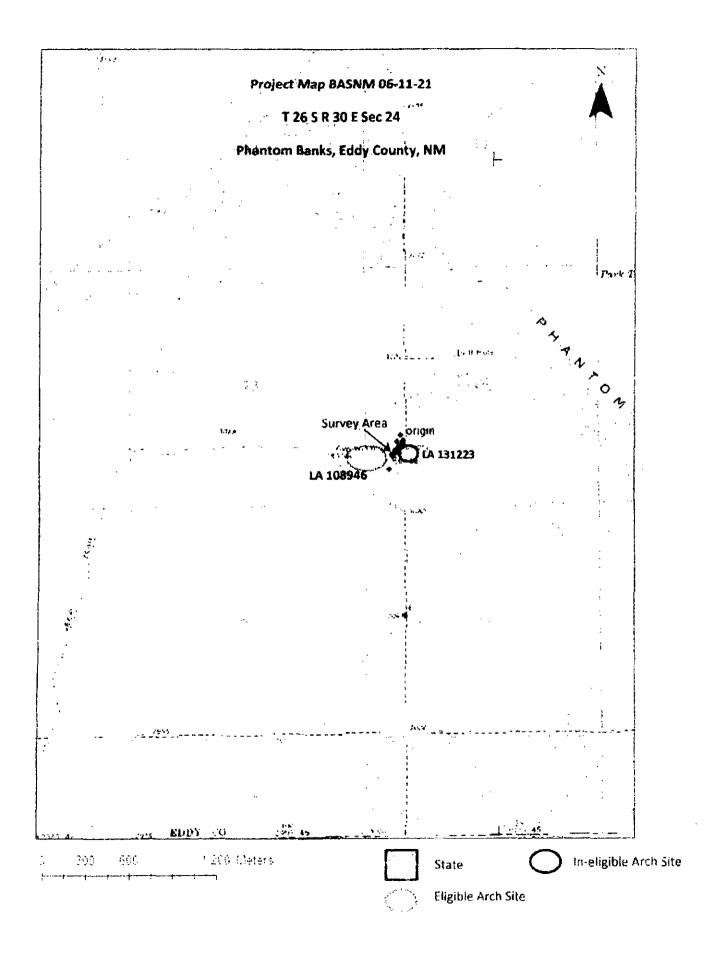
Field/Agency No.

Subject to the first of the subject to the subject Previously recorded revisited sites/HCPI properties: Eligible? (Y/N/U, applicable criteria) LA/HCPI No. Field/Agency No. Yes D LA 108946 LA 131223 No MONITORING LA NUMBER LOG (site form required) Previously recorded sites (site update form required): Sites Discovered (site form required): LA No. Field/Agency No. LA No. Field/Agency No.] Yes [x] No, Explain Areas outside known nearby site boundaries monitored? In 'a good faith effort'-area of impact concern has been flagged and deemed as inaccessible for project activities past flagging.

Excavated LA number(s)

TESTING & EXCAVATION LA NUMBER LOG (site form regulred)

Tested LA number(s)



Appendix D Laboratory Analytical Reports

Analytical Report 419997

for Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Tunstil #1286

20-JUN-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0738), 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)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALII), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240), South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):
Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)





20-JUN-11

Project Manager: Rose Slade

Southern Union Gas Services- Monahans

1507 W. 15th Street Monahans, TX 79756

Reference: XENCO Report No: 419997

Tunstil #1286

Project Address: SE of Loving, NM

Rose Slade:

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 41997. 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. 419997 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

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 419997



Southern Union Gas Services- Monahans, Monahans, TX

Tunstil #1286

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Draw #1	S	Jun-14-11 10:00		419997-001
Draw #2	S	Jun-14-11 10:05		419997-002
Draw #3	S	Jun-14-11 10:10		419997-003
Draw #4	S	Jun-14-11 10:15		419997-004



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Tunstil #1286



Project ID:

Work Order Number: 419997

Report Date: 20-JUN-11 Date Received: 06/15/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-860225 TPH By SW8015 Mod

SW8015MOD NM

Batch 860225, 1-Chlorooctane recovered above QC limits . Matrix interferences is suspected;

data not confirmed by re-analysis

Samples affected are: 419993-001 D,419997-001,419997-002.

o-Terphenyl recovered above QC limits Data not confirmed by re-analysis. Samples affected

are: 605233-1-BLK,419993-001 D,419997-004,419997-003.

RPD is outside QC limist in the range C28-C35 between the sample and sample duplicate.

Samples affected are: 419997-001, -002, -003, -004



Contact: Rose Slade Project Location: SE of Loving, NM

Project Id:

Certificate of Analysis Summary 419997

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Tunstil #1286

Date Received in Lab: Wed Jun-15-11 02:44 pm

Report Date: 20-JUN-11
Project Manager: Brent Barron, II

	Lab Id:	419997-001	419997-002	419997-003	419997-004
Analysis Ronnostod	Field Id:	Draw #1	Draw #2	Draw #3	Draw #4
naisanhay sistimit	Depth:				
	Matrix:	SOIL	SOIL	SOIL	SOIL
	Sampled:	Jun-14-11 10:00	Jun-14-11 10:05	Jun-14-11 10:10	Jun-14-11 10:15
Anions by E300	Extracted:				
	Analyzed:	Jun-15-11 15:50	Jun-15-11 15:50	Jun-15-11 15:50	Jun-15-11 15:50
!	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		8450 422	1990 42.4	5330 169	1100 16.8
Percent Moisture	Extracted:				
	Analyzed:	Jun-15-11 17:00	Jun-15-11 17:00	Jun-15-11 17:00	Jun-15-11 17:00
	Units/RL:	% RL	% RL	% RL	% RL
Percent Moisture		ND 1.00	ND 1.00	ND 1.00	ND 1.00
TPH By SW8015 Mod	Extracted:	Jun-15-11 15:45	Jun-15-11 15:45	Jun-15-11 15:45	Jun-15-11 15:45
	Analyzed:	Jun-15-11 21:54	Jun-15-11 22:22	Jun-15-11 22:51	Jun-15-11 23:19
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		ND 15.0	111 15.2	ND 15.2	ND 15.0
C12-C28 Diesel Range Hydrocarbons		2300 15.0	3820 15.2	1520 15.2	732 15.0
C28-C35 Oil Range Hydrocarbons		21.5 15.0	26.4 15.2	37.1 15.2	39.3 15.0
Total TPH		2320 15.0	3960 15.2	1560 15.2	771 15.0

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

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

Brent Barron, II Odessa Laboratory Manager

Page 5 of 13



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 MQL and above the SQL.
- 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 OA 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.
- **BRL** Below Reporting Limit.
- **RL** Reporting Limit
- MDL Method Detection Limit
- **PQL** Practical Quantitation Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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

Certified and approved by numerous States and Agencies.

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

Houston - Dallas - San Antonio - Corpus Christi - Midland/Odessa - Tampa/Lakeland - Miami - Phoenix - Latin America

	Phone	Fax
4143 Greenbriar Dr., Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116
3725 E. Atlanta Ave. Phoenix, AZ 85040	(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Tunstil #1286

Work Orders: 419997, Lab Batch #: 860225

Project ID:

Matrix: Solid Sample: 605233-1-BKS / BKS Batch:

Units: mg/kg Date Analyzed: 06/15/11 20:28	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	126	100	126	70-135	
o-Terphenyl	65.1	50.2	130	70-135	

Lab Batch #: 860225

Sample: 605233-1-BSD / BSD

Batch: 1

Matrix: Solid

Units: mg/kg	Date Analyzed: 06/15/11 20:57	SU	RROGATE R	ECOVERY	STUDY	
ТРН І	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		118	99.9	118	70-135	
o-Terphenyl		60.9	50.0	122	70-135	

Lab Batch #: 860225

Sample: 605233-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 06/15/11 21:25	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		1	IDI	ĺ	
I-Chlorooctane	130	99.7	130	70-135	
o-Terphenyl	73.2	49.9	147	70-135	*

Lab Batch #: 860225

Sample: 419997-001 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 06/15/11 21:54	su	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			D		
I-Chlorooctane	136	99.6	137	70-135	•
o-Terphenyl	37.9	49.8	76	70-135	

Lab Batch #: 860225

Sample: 419997-002 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 06/15/11 22:22	SL	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R D	Control Limits %R	Flags
1-Chlorooctane	146	100	146	70-135	*
o-Terphenyl	36.2	50.1	72	70-135	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

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

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Form 2 - Surrogate Recoveries

Project Name: Tunstil #1286

Work Orders: 419997.

Project ID:

Lab Batch #: 860225

Sample: 419997-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/15/11 22:51	su	RROGATE R	RECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	118	101	117	70-135	
o-Terphenyl	68.6	50.3	136	70-135	*

Lab Batch #: 860225

Sample: 419997-004 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 06/15/11 23:19	SU	RROGATE R	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		134	99.6	135	70-135	
o-Terphenyl		77.3	49.8	155	70-135	*

Lab Batch #: 860225

Sample: 419993-001 D/MD

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 06/16/11 04:05	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	161	100	161	70-135	*
o-Terphenyl	73.4	50.1	147	70-135	*

Surrogate Recovery [D] = 100 * A / B

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

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



Project Name: Tunstil #1286

Work Order #: 419997

Analyst: LATCOR

Date Prepared: 06/15/2011

Project ID: Date Analyzed: 06/15/2011

Sample: 860610-1-BKS Lab Batch ID: 860610

Batch #: 1

Matrix: Solid

Units: mg/kg		BLAN	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUD	PIKE / B	LANKS	PIKE DUPL	CATE !	RECOVE	RY STUD	λ	
Anions by E300	Blank Sample Result [A]	Spike Added	Btank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duolicate	Bik. Spk Dup. %R	RPD %	Control Limits	Control Limits	Flag
Analytes		(B)	lcl	[D]	E	Result [F]	[6]				
Chloride	<0.420	10.0	9.14	16	0'01	00.6	06	2	75-125	20	

Analyst: BEV

Lab Batch ID: 860225

Date Prepared: 06/15/2011 Batch #: 1 Sample: 605233-1-BKS

Matrix: Solid

Date Analyzed: 06/15/2011

Units: mg/kg		BLAN	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	PIKE / B	LANK S	PIKE DUPL	CATE F	RECOVE	CRY STUD	Y	
TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Dublicate	BIK. Spk Dup. %R	RPD %	Control Limits	Control Limits %RPD	Flag
Analytes	[<u>B</u>	<u></u>	<u>a</u>	(E)	Result F	ত				
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	743	74	666	712	11	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	833	83	666	737	74	12	70-135	35	

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

Final 1,000



Form 3 - MS Recoveries

Project Name: Tunstil #1286



Work Order #: 419997

Lab Batch #: 860610

Date Analyzed: 06/15/2011 **QC- Sample ID:** 419997-001 S

Project ID:

Date Prepared: 06/15/2011

Analyst: LATCOR

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	8450	10000	19400	110	75-125	

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

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Tunstil #1286

Work Order #: 419997

Lab Batch #: 860610 Date Analyzed: 06/15/2011 15:50

Date Prepared: 06/15/2011

Project ID: Analyst: LATCOR

Matrix: Soil

QC- Sample ID: 419997-001 D

Batch #: 1

Reporting Units: mg/kg	SAMPLE	SAMPLE	DUPLIC	ALE REC	OVERY
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		{B}	1	İ	}
Chloride	8450	8250	2	20	

Lab Batch #: 860189

Date Analyzed: 06/15/2011 17:00

Date Prepared: 06/15/2011

Analyst: LATCOR

QC- Sample ID: 419926-001 D

Batch #: 1

Matrix: Soil

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

Lab Batch #: 860225

Percent Moisture

Date Analyzed: 06/16/2011 04:05

Date Prepared: 06/15/2011

8.31

Analyst: BEV

QC-Sample ID: 419993-001 D

Batch #: 1

Matrix: Soil

8.43

Reporting Units: mg/kg	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
TPH By SW8015 Mod Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	3620	3960	9	35	
C12-C28 Diesel Range Hydrocarbons	8970	9300	4	35	
C28-C35 Oil Range Hydrocarbons	230	153	40	35	F

TAT Insbrist ☐ NPDES TAT HRUS schedule) 24, 48, 12 hrs Phone: 432-563-1600 Fax: 432-563-1713 TRRP MSON CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST VOCs Free of Headspace?
Labels on conteliner(e)
Custody seels on conteliner(s)
Custody seels on cooler(s) ЮЯ Temperature Upon Receipt STEX 80218/5030 or BTEX 8260 Sample Containers Intect? Sample Hand Defivered by Sampler/Client Rep. by Courter? UPS Laboratory Comments Standard Standard Project Loc: Of TCLP: TOTAL: (Virusianity, ADS, D) snoint Project Name: 90 # Project #: Cetions (Ca, Mg, Na, K) Report Format: hh:h| 2001 XT Hall 11919 Date Oguer (Specify) 12600 West I-20 East Odessa, Texas 79766 °O^zS^zen HOBN *OS*H ЮН HMO 60[Total #. of Containers bensatir-1 bies Fax No: e-mail: 500 5 N 101 SUC Time Sampled Date Sampled 00 る記 Ending Depth Time Beginning Depth D FIOL Date Xenco Laboratories のなりませ FIELD CODE でなった 事つな The Environmental Lab of Texas Sampler Signature: 7 419997 Company Address: Project Manager: Company Name Telephone No: City/State/Zip: Spacial Instructions: Refinquished by ORDER #: (lath use only) 3 DOC! S Ŕ LAB # (lab use only)



XENCO Laboratories

Attanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 | Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

					•	,	
Client Sout	hern Union	n Gas			-		
Date/Time:	6-15-11 14:4	14					
Lab ID#:	419997						
Initials:	LM					1	
		Sample Receipt	Checkil	st			· ,
1. Samples on ice?				Blue	Water	No	
2. Shipping container in	n good condition?	······································	T	Yes	No	None	
3. Custody seals intact		(cooler) and bottles?		Yes	No	NIA	
4. Chain of Custody pre				(P)	No		
5. Sample instructions		custody?		Yes	No	<u> </u>	
6. Any missing / extra s				Yes	Ng	!	
7. Chain of custody sig	med when relinquishe	d / received?	1	Yes	No		
8. Chain of custody ag	rees with sample label	(s)?		Yes	No		
9. Container labels leg	ible and intact?			Yes	No		
10. Sample matrix / pro	perties agree with cha	ain of custody?		Yes	No -		
11. Samples in proper	container / bottle?			Yes	No		
12. Samples property ;	preserved?			Yes	No	N/A	
13. Sample container i	ntact?			(Yes	No		
14. Sufficient sample s	unount for indicated to	≆st(s)?		Yes	No		
15. All samples receive			•	Nes	No		
16. Subcontract of san				Yes	(Ng)	N/A	
17. VOC sample have:				Yes	No	OVA	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.		Cooler 4 No		Cooler 5 N	lo.
ibs 2.1	°C lbs	°C lbs	°c		1	ı.	es °C
					<u>_</u>		
. .	IN	onconformance D	ocume	ntation			
Contact:	Contacts	ed by:			Date/Time:		
Regarding:							
		•		,			1
Compating that I is						,	1
Corrective Action Tak	en:						
	<u> </u>						
·				·-·-			
							
Check all that apply:	condition acc	as begun shortly after ceptable by NELAC 5.5 Temperature confirm of a and would like to pro	i.8.3.1.a.1. out of tem	:perature co		rature	
83	• .						!

Analytical Report 421101

for Southern Union Gas Services- Monahans

Project Manager: Rose Slade Tunstil #1286

28-JUN-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



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)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240), South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)





28-JUN-11

Project Manager: Rose Slade

Southern Union Gas Services- Monahans

1507 W. 15th Street Monahans, TX 79756

Reference: XENCO Report No: 421101

Tunstil #1286

Project Address: Lea County, NM

Rose Slade:

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 421101. 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. 421101 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

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 421101



Southern Union Gas Services- Monahans, Monahans, TX

Tunstil #1286

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
South Release Point @2'	S	Jun-22-11 12:45	2 ft	421101-001
South Release Point @6	S	Jun-22-11 13:15	6 ft	421101-002
South Flow Path @2'	S	Jun-22-11 13:45	2 ft	421101-003
South Flow Path @6'	S	Jun-22-11 14:15	6 ft	421101-004
North Release Point @2'	S	Jun-22-11 14:45	2 ft	421101-005
North Release Point @6'	S	Jun-22-11 15:15	6 ft	421101-006

XENCO Laboratorics

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Tunstil #1286



Project ID:

Work Order Number: 421101

Report Date: 28-JUN-11 Date Received: 06/24/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Project Location: Lea County, NM Contact: Rose Slade

Project Id:

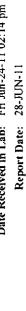
Certificate of Analysis Summary 421101

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Tunstil #1286

Date Received in Lab: Fri Jun-24-11 02:14 pm

Project Manager: Brent Barron, II



	Lab Id:	421101-001	421101-002	421101-003	421101-004	421101-005	421101-006
Amelian Decision	Field Id:	South Release Point @2'	South Release Point @6	South Flow Path @2'	South Flow Path @6'	North Release Point @2'	North Release Point (266)
Amaiysis nequesieu	Depth:	2 ft	6 ft	2 ft	6 ft	2 ft	6 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Jun-22-11 12:45	Jun-22-11 13:15	Jun-22-11 13:45	Jun-22-11 14:15	Jun-22-11 14:45	Jun-22-11 15:15
Anions by E300	Extracted:						
	Analyzed:	Jun-27-11 17:26	Jun-27-11 17:26	Jun-27-11 17:26	Jun-27-11 17:26	Jun-27-11 17:26	Jun-27-11 17:26
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		4270 43.1	3280 21.2	3480 21.2	2650 21.2	3740 42.6	2460 21.1
Percent Moisture	Extracted:						
	Analyzed:	香香 茶袋 养华 黄青	** ** **	景景 長骨 美势 等等	** ** **	** ** **	** ** **
	Units/RL:	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		7.26 1.00	5,66 1.00	5.60 1.00	5.75 1.00	6.08 1.00	5.09 1.00
TPH By SW8015 Mod	Extracted:	Jun-24-11 15:30		Jun-24-11 15:30		Jun-24-11 15:30	
	Analyzed:	Jun-25-11 19:48		Jun-25-11 20:17		Jun-25-11 20:46	•
	Units/RL:	mg/kg RL		mg/kg RL		mg/kg RL	
C6-C12 Gasoline Range Hydrocarbons		ND 16.2		ND 15.9		ND 16.0	
C12-C28 Diesel Range Hydrocarbons		30.9 16.2		ND 15.9		ND 16.0	
C28-C35 Oil Range Hydrocarbons		ND 16.2		ND 15.9		ND 16.0	
Total TPH		30.9 16.2		ND 15.9		ND 16.0	

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

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

Odessa Laboratory Manager

Page 5 of 14

Final 1,000



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 MQL and above the SQL.
- 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.
- **BRL** Below Reporting Limit.
- **RL** Reporting Limit
- MDL Method Detection Limit
- PQL Practical Quantitation Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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

Certified and approved by numerous States and Agencies.

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

Houston - Dallas - San Antonio - Corpus Christi - Midland/Odessa - Tampa/Lakeland - Miami - Phoenix - Latin America

Phone	rax
(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116
(602) 437-0330	
	(214) 902 0300 (210) 509-3334 (813) 620-2000 (305) 823-8500 (432) 563-1800 (361) 884-0371



Form 2 - Surrogate Recoveries

Project Name: Tunstil #1286

Work Orders: 421101,

Project ID:

Lab Batch #: 861541

Sample: 606008-1-BKS / BKS

Matrix: Solid Batch:

Units: mg/kg Date Analyzed: 06/25/11 12:23	su Su	IRROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	62.2	50.1	124	70-135	

Lab Batch #: 861541

Sample: 606008-1-BSD / BSD

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 06/25/11 12:53	SU	RROGATE R	ECOVERY:	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			IDI		
1-Chlorooctane	128	100	128	70-135	
o-Terphenyl	58.7	50.2	117	70-135	

Lab Batch #: 861541

Sample: 606008-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 06/25/11 13:23	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes]	D		
1-Chlorooctane	117	101	116	70-135	
o-Terphenyl	63.0	50.3	125	70-135	

Lab Batch #: 861541

Sample: 421101-001 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 06/25/11 19:48	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
I-Chlorooctane	116	100	116	70-135	
o-Terphenyl	62.4	50.1	125	70-135	

Lab Batch #: 861541

Sample: 421101-003 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 06/25/11 20:17	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	58.9	50.0	118	70-135	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

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

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Form 2 - Surrogate Recoveries

Project Name: Tunstil #1286

Work Orders: 421101,

Project ID:

Lab Batch #: 861541

Sample: 421101-005 / SMP

Matrix: Soil Batch:

Units: mg/kg	Su	RROGATE R	ECOVERY	STUDY		
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
I-Chlorooctane		114	99,9	114	70-135	
o-Terphenyl		62.6	50.0	125	70-135	

Lab Batch #: 861541

Sample: 421099-004 S / MS

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 06/25/11 21	:43 SU	RROGATE F	RECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount B	Recovery %R	Control Limits %R	Flags
Analytes			{D}		
1-Chlorooctane	121	99.8	121	70-135	
o-Terphenyl	59.8	49.9	120	70-135	

Lab Batch #: 861541

Sample: 421099-004 SD / MSD

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 06/25/11	22:12 SU	RROGATE R	ECOVERY:	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			IDI		
1-Chlorooctane	122	100	122	70-135	
o-Terphenyl	61.2	50.2	122	70-135	

Surrogate Recovery [D] = 100 * A / B

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

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



Project Name: Tunstil #1286

Work Order #: 421101

Analyst: BRB

Anions by E300

Date Prepared: 06/27/2011

Date Analyzed: 06/27/2011 Project ID:

Matrix: Solid

Batch #: 1 Sample: 861710-1-BKS Lab Batch ID: 861710 Units: mg/kg

Flag Control Limits %RPD 20 BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Control Limits %R 75-125 RPD % BIK. Spk 04. ⊡ 103 Blank Spike Duplicate Result [F] 20.5 Spike Added 20,0 ⊡ Blank Spike %R [D] 102 Blank Spike Result [C] 20.4 Spike Added 20.0 <u>B</u> Sample Result <0.840 Blank ₹

Date Prepared: 06/24/2011

Batch #: 1

Sample: 606008-1-BKS

Lab Batch ID: 861541

Analyst: BEV

Analytes Chloride Matrix: Solid

Date Analyzed: 06/25/2011

U nits : mg/kg		BLAN	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	PIKE / B	LANKS	PIKE DUPL	CATE 1	RECOVE	RY STUD	Y	
TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	BIK. Spk Dup. %R	RPD %	Control Limits	Control Limits %RPD	Flag
Analytes		<u>8</u>	(c)	igi	E	Result (F)	<u>[G</u>				
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1020	102	0001	935	94	6	70-135	38	
C12-C28 Diesel Range Hydrocarbons	<15.0	0001	1030	٤01	1000	126	- 6	9	70-135	SE	

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

Final 1,000



Form 3 - MS Recoveries

Project Name: Tunstil #1286



Work Order #: 421101

Lab Batch #: 861710

Date Analyzed: 06/27/2011 **QC- Sample ID:** 421096-001 S

Toject Name. Tunstn #1200

Date Prepared: 06/27/2011

Project ID: Analyst: BRB

. ..

Analyst: DND

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	MATI	RIX / MA	TRIX SPIKE	RECO	VERY STU	ĐΥ
Inorganic Anions by EPA 300 Analytes	Parent Sample Result A	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	10200	11800	22700	106	75-125	

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: Tunstil #1286

QC- Sample ID: 421099-004 S

Lab Batch ID: 861541 Work Order #: 421101

Matrix: Soil

BEV Analyst: Batch #:

Project ID:

Date Prepared: 06/24/2011 Date Analyzed: 06/25/2011

eporting Units: mg/kg		M	ATRIX SPIKI	/ MATI	RIX SPII	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY	FE REC	OVERY S	STUDY		
TPH By SW8015 Mod	Parent Sample		Spiked Sample Spiked Result Sample	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Kesult V	Added [B]	<u>5</u>	[D]	vdded [E]	Kesuft F		,	%K	%KPD	<u>`</u>
C6-C12 Gasoline Range Hydrocarbons	<15.4	1030	926	63	1030	696	94	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	32.6	1030	026	16	1030	866	94	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	32.6	1030	970	16	1030	866	94		3	3 70-135	3 70-135 35

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

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



Sample Duplicate Recovery



Project Name: Tunstil #1286

Work Order #: 421101

Lab Batch #: 861710 Date Analyzed: 06/27/2011 17:26

Date Prepared: 06/27/2011

Project ID: Analyst: BRB

Matrix: Soil

QC- Sample ID: 421096-001 D

Batch #: 1

Reporting Units: mg/kg	SAMPI	LE / SAMPLE	DUPLIC	CATE REC	OVERY
Anions by E3	Parent San Result	ple Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
Chloride	10200	10200	0	20	

Lab Batch #: 861551

Date Analyzed: 06/24/2011 13:50

Date Prepared: 06/24/2011

Analyst: WRU

QC- Sample 1D: 421098-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
Percent Moisture	7.88	8.41	7	20	

Xenco Laboratories

on seeming weather or other the house the house the house the house the seeming the seeming the contract of th

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa, Texas 79765

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

□ NPDES RUSH TAT (Pre-Schedule) 24, 48, 12 hrs O сиговірев × × × × TRRP M.H O. D) Custody seals on container(s Custody seals on cooler(s) Sample Containers Intact? VOCs Free of Headspace? STEX 80218/5030 or BTEX 8260 Labels on container(s) Project Name: Tunstil #1286 Project Loc: Lea County, NM X Standard letats: As Ag Ba Cd Cr Pb Hg Se 집 DTAI mions (Cl, SO4, Alkalmity) Project #: ₽0 # (Ca. Mg. Na, K) Report Format: 9001 XI TX 1005 HdI × 89108 METOS 1811 SOIL SOIL SOIL SOIL SOIL Soll 11-27:01 Other (Specify) auon Va₂S₂O₃ HOPN pm@basinenv.com 'os^zh (575) 396-1429 ЮH CONH × × × aai otal #. of Containers benatiti bla Fax No: e-mail 1315 1345 1445 1245 1415 1515 こうらつ つきもよう Time Sampled 6/22/2011 6/22/2011 6/22/2011 6/22/2011 6/22/2011 6/22/2011 Basin Environmental Service Technologies, LLC Date Sampled Ending Depth يرمدوا والمحاويف الدووي Beginning Depth 11/00/5 Lovington, NM 88260 North Release Point @ 6' South Release Point @ 2' South Release Point @ 6 North Release Point @ 2' `; (575) 396-2378 South Flow Path @ 6 Ben J. Arguijo South Flow Path @ 2' Company Address: P.O. Box 301 FIELD CODE Sampler Signature: Checkens. 421101 Project Manager: Company Name Telephone No: City/State/Zip: Special Instructions elinquished by (lab use only) ORDER #: 366 200 50 200 X 3 (kino esu dal) # 8A.

YAG 4 TAT bisbrist2

×

ņ

Temperature Upon Receipt

21:61

11-62.9

レオ

6:24

11-629

by Sampler/Client Rep. 3 by Courier? UPS

Sample Hand Delivered



XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

client: Southern Union Gras				
Date/Time: 6-24-11 14:12				
Lab ID#: 421101				
Initials:				
<u> </u>			-	
Sample Receipt Check	ISL			
1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Mea)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>(18)</u>	No	N/A	
4. Chain of Custody present?	(Yes	No		
5. Sample instructions complete on chain of custody?	(fes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(1960 <u>-</u>	No		
8. Chain of custody agrees with sample label(s)?	(Yes	No		
9. Container labels legible and intact?	Yes	No		
10. Sample matrix / properties agree with chain of custody?	Ye	No		
11. Samples in proper container / bottle?	(Yes	No		
12. Samples property preserved?	(G)	No	N/A	
13. Sample container intact?	(Yes)	_No		
14. Sufficient sample amount for indicated test(s)?		No		
15. All samples received within sufficient hold time?	∕ (Se)	No		
16. Subcontract of sample(s)?	Yes	(No)	N/A	
17. VOC sample have zero head space?	Yes	No	(N/A)	
18. Cooler 1 No. Cooler 2 No. Cooler 3 No.	Cooler 4 No),	Cooler 5 No.	
ibs 3. °C lbs °C ibs °C	[bs	°¢	[bs	°c
Nonconformance Docume	ntation			
		Date/Time:_		
Contact: Contacted by:		Date/Title		
Regarding:				
Corrective Action Taken:				
CONTECUTE ACCOUNT TERON.			<u>. – </u>	
				

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.

□ Initial and Backup Temperature confirm out of temperature conditions

☐ Client understands and would like to proceed with analysis

Analytical Report 422800

for Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Tunstil # 1286

14-JUL-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



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)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALII), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL01273):
Florida(E86240). South Carolina(96031001). Louisiana(04154). Georgia(917)

Florida(E86240), South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

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)





14-JUL-11

Project Manager: Rose Slade

Southern Union Gas Services- Monahans

1507 W. 15th Street Monahans, TX 79756

Reference: XENCO Report No: 422800

Tunstil # 1286

Project Address: Eddy County, NM

Rose Slade:

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 422800. 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. 422800 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

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 422800



Southern Union Gas Services- Monahans, Monahans, TX

Tunstil # 1286

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Draw 1 A	S	Jul-12-11 13:30		422800-001
Draw 2 A	S	Jul-12-11 13:35		422800-002
Draw 3 A	S	Jul-12-11 13:40		422800-003
Draw 4 A	S	Jul-12-11 13:45		422800-004

XENCO Laboratories

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Tunstil # 1286



Project ID:

Work Order Number: 422800

Report Date: 14-JUL-11

Date Received: 07/12/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Contact: Rose Slade Project Location: Eddy County, NM

Project Id:

Certificate of Analysis Summary 422800

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Tunstil # 1286

Date Received in Lab: Tue Jul-12-11 04:37 pm

Report Date: 14-JUL-11
Project Manager: Brent Barron, II

	Lab Id:	422800-001	422800-002	422800-003	422800-004	
Labour Dan Sont	Field fd:	Draw f A	Draw 2 A	Draw 3 A	Draw 4 A	
naisanhay sistinuv	Depth:					
	Matrix:	SOIL	SOIL	SOIL	TIOS	
	Sampled:	Jul-12-11 13:30	Jul-12-11 13:35	Jul-12-11 13:40	Jul-12-11 13:45	
Anions by E300	Extracted:					
	Analyzed:	Jul-13-11 14:09	Jul-13-11 14:09	Jul-13-11 14:09	Jul-13-11 14:09	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		944 42.0	1040 42.3	886 21.1	2260 42.1	
Percent Moisture	Extracted:					
	Analyzed:	Jul-13-11 11:05	Jul-13-11 11:05	Jul-13-11 11:05	Jul-13-11 11:05	
	Units/RL:	% RL	% RL	% RL	% RL	•
Percent Moisture		00'1 GN	ND 1.00	ND 1.00	00.1 UN	

This enalytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expensionally that analytical report represents the best judgmen of XENCO Laboratories. XENCO Laboratories assumes no responsibility and make 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.

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

Version: 1.%

Shefit Barron, II Odessa Laboratory Manager

Page 5 of 11

Final 1,000



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.
- 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

+ Outside XENCO's scope of NELAC Accreditation.

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

Certified and approved by numerous States and Agencies.

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

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

	Phone	Fax
4143 Greenbriar Dr. Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St. Minmi Lakes, FL 33014	(305) 823-8500	(305) 823-8555
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: Tunstil # 1286

Work Order #: 422800

Project ID: Date Analyzed: 07/13/2011

Matrix: Solid Date Prepared: 07/13/2011 Batch #: 1 Sample: 863786-1-BKS Lab Batch ID: 863786 Analyst: BRB

Units: mg/kg		BLAN	K/BLANKS	PIKE / B	LANKS	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	CATE I	RECOVE	RY STUD	Ÿ	
Anions by E300	Blank Sample Result	Spike Added	Blank Spike Result	Blank Spike	Spike Added	Blank Spike Dunlicate	Bik. Spk Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	<u> </u>	IBI		<u>[0]</u>	<u>a</u>	Result [F]	<u>5</u>				
Chloride	<0.840	20.0	20.5	103	20.0	20.4	102	0	75-125	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: Tunstil # 1286



Work Order #: 422800

Lab Batch #: 863786

Date Analyzed: 07/13/2011 **QC- Sample ID:** 422512-001 §

Project ID:

Date Prepared: 07/13/2011

Analyst: BRB

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	23.6	218	225	92	75-125			

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

BRL - Below Reporting Limit

Version: 1,%



Sample Duplicate Recovery



Project Name: Tunstil # 1286

Work Order #: 422800

Lab Batch #: 863786

Project ID:

Date Prepared: 07/13/2011

Analyst: BRB

Date Analyzed: 07/13/2011 14:09 QC- Sample ID: 422512-001 D

Batch #:

Matrix: Soil

Reporting Units: mg/kg	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Anions by E300 Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPI)	Control Limits %RPD	Flag
Chloride	23.6	20.8	13	20	

Lab Batch #: 863745

Date Analyzed: 07/13/2011 11:05

Date Prepared: 07/13/2011

Analyst: WRU

QC- Sample 1D: 422841-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
			<u> </u>		
Percent Moisture	14.0	14,1	1	20	

Spike Relative Difference RPD 200 * [(B-A)/(B+A)] All Results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit

Version: 1.%

TAT Suspries ☐ NPDE8 드 (영 기 의 파) 전 (영 기 기 파) 井门 VIOLIOI VI **005** Phone: 432-863-1800 Fax: 432-863-1713 THRP **MESON** CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST 133 Labels on container(s) Custody seals on container() Custody seals on coder(s) Temperature Upon Receipt: VOCs Free of Headspace? RIEX 80513/2020 OF 515X 8550 Sample Containers Intact? by Sampler/Client Rep. by Courler? UPS Laboratory Comments: Sample Hand Delivere Report Format: X Standard 62 2H 6F 12 b3 58 gA 2A. 232 / dsa / 8VS Project Loc: Project Name: Project #: rose. Skylensya. Com 9001 XL 2001 XI Ê M9109 7.12.1 Date Date Other (Specify) SOOM 12600 West I-20 East Odessa, Texas 79765 OSTON HOEN 'OS"H ЮН FONH! 901 betetir- bier e-mall: Fax No: 1330 のけの ω (V) belopnis2 emiT Mara Received by: Received by: balqriss atsQ Ending Depth Ē ritqaQ painniga Date 0 Xenco Laboratories PIELD CODE The Environmental Lab of Texas Sampler Signature: Company Address: Project Manager: Company Name Telephone No: Clty/State/Zip: Special instructions: Relinquished by: (tab use only) ORDER #: ·{Auo est del} # E#



XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: U(7)				
Date/Time: 7.12.11 16.37				
Lab ID#: 422800				
Initials:				
Sample Receipt Chec	klist			
1. Samples on ice?	Blue _	Water	(No)	
2. Shipping container in good condition?	Yes	No	None	
3. Custody seals intact on shipping container (cooler) and bottles	Yes	No	N/A	
4. Chain of Custody present?	Yes	No		
5. Sample instructions complete on chain of custody?	Yes	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	Yes	No		
8. Chain of custody agrees with sample label(s)?	Yes	No		
9. Container labels legible and intact?	Yes	No		
10. Sample matrix / properties agree with chain of custody?	Yes	No -		
11. Samples in proper container / bottle?	Yes	No		
12. Samples properly preserved?	(Yes	No	N/A	
13. Sample container intact?	Yes	No	1	
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	Yes	No		
16. Subcontract of sample(s)?	Yes	No	(N/A)	
17. VOC sample have zero head space?	Yes	No	(N/A)	
18. Cooler 1 No. Cooler 2 No. Cooler 3 No.	Cooler 4 No		Cooler 5 No.	
lbs 38./°c lbs °c lbs	C lbs	<u>°c</u>	lbs	°c
Nonconformance Docum	entation			
Contact:Contacted by:	<u> </u>	Date/Time:_		
Regarding:	<u></u>			
Corrective Action Taken:				
Check all that apply: □Cooling process has begun shortly after sampling	ng event and o	ut of tempe	rature	
condition acceptable by NELAC 5.5.8.3.1.a □ Initial and Backup Temperature confirm out of te	.1. mperature cor	ditions		

☐ Client understands and would like to proceed with analysis

Analytical Report 428845

for Southern Union Gas Services- Monahans

Project Manager: Rose Slade Tunstil # 1286

17-OCT-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



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)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALII), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
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)





17-OCT-11

Project Manager: Rose Slade

Southern Union Gas Services- Monahans

1507 W. 15th Street Monahans, TX 79756

Reference: XENCO Report No: 428845

Tunstil # 1286

Project Address: Eddy County, New Mexico

Rose Slade:

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 428845. 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. 428845 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

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 428845



Southern Union Gas Services- Monahans, Monahans, TX

Tunstil # 1286

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Draw 1 B	S	10-03-11 10:00		428845-001
Draw 2 B	S	10-03-11 10:05		428845-002
Draw 3 B	S	10-03-11 10:10		428845-003
Draw 4 B	S	10-03-11 10:15		428845-004



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Tunstil # 1286



Project ID:

Work Order Number: 428845

Report Date: 17-OCT-11 Date Received: 10/04/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-872379 TPH By SW8015 Mod

SW8015MOD_NM

Batch 872379, 1-Chlorooctane recovered below QC limits . Matrix interferences is suspected;

data confirmed by re-analysis

Samples affected are: 428845-003.

SW8015MOD NM

Batch 872379, C6-C12 Gasoline Range Hydrocarbons recovered below QC limits in the Matrix Spike. C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 428845-003, -002, -001, -004.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons, C6-C12 Gasoline

Range Hydrocarbons is within laboratory Control Limits



Project Location: Eddy County, New Mexico Contact: Rose Slade

Project Id:

Certificate of Analysis Summary 428845

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Tunstil # 1286

Date Received in Lab: Tue Oct-04-11 08:22 am

Project Manager: Brent Barron II

Report Date: 17-OCT-11

	1 - 1 54.					
	7'a0 ta:	428845-001	428845-002	428845-003	428845-004	
Analysis Donnostod	Field Id:	Draw 1 B	Draw 2 B	Draw 3 B	Draw 4 B	
naisan walnus	Depth:					
	Matrix:	SOIL	SOIL,	SOIL	SOIL	
	Sampled:	Oct-03-11 10:00	Oct-03-11 10:05	Oct-03-11 10:10	Oct-03-11 10:15	
Anions by E300	Extracted:					
	Analyzed:	Oct-05-11 16:14	Oct-05-11 16:14	Oct-05-11 16:14	Oct-05-11 16:14	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chlonde		115 4.25	126 8.46	68.1 4.23	41.6 4.26	
BTEX by EPA 8021B	Extracted:	Oct-05-11 15:25	Oct-05-11 15:25	Oct-05-11 15:25	Oct-05-11 15:25	
	Analyzed:	Oct-05-11 18:18	Oct-05-11 18:41	Oct-05-11 19:04	Oct-05-11 20:59	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene	 : :	ND 0.00102	ND 0.00101	ND 0.00100	ND 0.00100	
Toluene		ND 0.00203	ND 0.00203	ND 0.00201	ND 0.00201	
Еthylbenzene		ND 0:00102	ND 0.00101	ND 0.00100	ND 0.00100	
m_p-Xylenes		ı	l l	ND 0.00201	ND 0.00201	
o-Xylene		ND 0.00102	ND 0.00101	ND 0.00100	ND 0.00100	
Total Xylenes		ND 0.00102	10100:0 QN	001000 QN	ND 0.00100	
Total BTEX		ND 0.00102	ND 0.00101	ND 0.00100	ND 0.00100	
Percent Moisture	Extracted:					
	Analyzed:	Oct-04-11 12:30	Oct-04-11 12:30	Oct-04-11 12:30	Oct-04-11 12:30	
	Units/RL:	% RL	% RL	% RL	% RL	
Percent Moisture		1,29 1.00	00'I QN	00'I QN	1.38 1.00	
TPH By SW8015 Mod	Extracted:	Oct-13-11 16:40	Oct-13-11 16:40	Oct-13-11 16:40	Oct-13-11 16:40	
	Analyzed:	Oct-14-11 19:16	Oct-14-11 19:40	Oct-14-11 20:04	Oct-14-11 20:29	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
C6-C12 Gasoline Range Hydrocarbons		ND 15.1	ND 15.0	ND 15.1	ND 15.2	
C12-C28 Diesel Range Hydrocarbons		1.51 15.1	945 15.0	516 15.1	212 15.2	
C28-C35 Oil Range Hydrocarbons		15.7 15.1	38.2 15.0	28.6 15.1	28.2 15.2	
Total TPH		1.21 8.17	983 15.0	545 15.1	240 15.2	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interportations and results expensed throughout that analytical report represents the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warmany 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.

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

Final 1.000

Odessa Laboratory Manager

Brent Barron II

Page 5 of 17



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 OA 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.
- **BRL** Below Reporting Limit.
- **RL** Reporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

POL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

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

Certified and approved by numerous States and Agencies.

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

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

	Phone	Fax
4143 Greenbriar Dr. Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
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	



Project Name: Tunstil # 1286

Work Orders: 428845, Lab Batch #: 871731

Sample: 428845-001 / SMP

Project ID:

Units: mg/kg Date Analyzed: 10/05/11 18:18	SU	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount B	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0262	0.0300	87	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 871731

Sample: 428845-002 / SMP

Batch:

Batch:

Matrix: Soil

Matrix: Soil

Units: mg/kg	l su	RROGATE R	RECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 871731

Sample: 428845-003 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 10/05/11 19:04	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluorobenzene	0.0262	0.0300	87	80-120			
4-Bromofluorobenzene	0.0264	0,0300	88	80-120			

Lab Batch #: 871731

Sample: 428845-004 / SMP

Batch:

Matrix: Soil

Units: mg/kg	Date Analyzed: 10/05/11 20:59	su	RROGATE RI	ECOVERY :	STUDY	
втех	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			D		
1,4-Difluorobenzene		0.0267	0.0300	89	80-120	
4-Bromofluorobenzene		0.0288	0.0300	96	80-120	

Lab Batch #: 872379

Sample: 428845-001 / SMP

Batch:

1

Matrix: Soil

Units: mg/kg Date Analyzed: 10/14/11 19:16	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R D	Control Limits %R	Flags		
1-Chlorooctane	79.2	99,6	80	70-135			
o-Terphenyl	49.3	49.8	99	70-135			

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 428845,

Lab Batch #: 872379

Sample: 428845-002 / SMP

Project ID:

Matrix: Soil Batch:

Units: mg/kg Date Analyzed: 10/14/11 19:40	SU	RROGATE RI	ECOVERY :	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.6	99,5	77	70-135	
o-Terphenyl	45.7	49.8	92	70-135	

Lab Batch #: 872379

Sample: 428845-003 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 10/14/11 20:04	Su	RROGATE	RECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	65.8	100	66	70-135	**
o-Terphenyl	39.5	50.1	79	70-135	

Lab Batch #: 872379

Sample: 428845-004 / SMP

Batch: |

Matrix: Soil

Units: mg/kg Date Analyzed: 10/14/11 20:29	SU	RROGATE R	ECOVERY	STUDY	_
TPH By SW8015 Mod	Amount Found A	True Amount B	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	73.7	99,9	74	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

Lab Batch #: 871731

Sample: 612312-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 10/05/11 13:51	SU	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount B	Recovery %R D	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0,0300	96	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 872379

Sample: 612728-1-BLK / BLK

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 10/14/11 04	4:56 SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount B	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.9	99.7	83	70-135	
o-Terphenyl	54.8	49.9	110	70-135	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 428845,

Lab Batch #: 871731

Project ID:

Sample: 612312-1-BKS / BKS Batch: Matrix: Solid

Units: mg/kg	Date Analyzed: 10/05/11 12:19	SU	RROGATE R	ECOVERY	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0283	0.0300	94	80-120	
4-Bromofluorobenzene		0.0290	0.0300	97	80-120	

Lab Batch #: 872379

Sample: 612728-1-BKS / BKS

Batch:

Matrix: Solid

Units: mg/kg	Date Analyzed: 10/14/11 04:03	SU	RROGATE R	ECOVERY :	STUDY	
ТРН Ву	SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
An	alytes			[D]		
I-Chlorooctane		85.8	100	86	70-135	-
o-Terphenyl		44.7	50.2	89	70-135	

Lab Batch #: 871731

Sample: 612312-1-BSD / BSD

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 10/05/11 12:42	SU	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		1	[0]		
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 872379

Sample: 612728-1-BSD / BSD

Batch:

Matrix: Solid

Units: mg/k	g Date Analyzed: 10/14/11 04:30	SU	RROGATE R	ECOVERY	STUDY	
	ГРН By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes		ļ	[D]		
1-Chlorooctane		105	99.6	105	70-135	
o-Terphenyl		59.0	49.8	118	70-135	

Lab Batch #: 871731

Sample: 428841-001 S / MS

Batch:

Matrix: Soil

SU	RROGATE R	ECOVERY	STUDY	
Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
0.0272	0.0700	ļ	90.170	
0.0272	0.0300	98	80-120	
	Amount Found [A]	Amount Found Amount B 0.0272 0.0300	Amount True Recovery	Found Amount Recovery Limits %R [D]

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 428845.

Lab Batch #: 872379

Project ID: Matrix: Soil

Sample: 428873-001 S/MS Batch:

Units: mg/kg	Date Analyzed: 10/14/11 21:20	SU	RROGATE RI	ECOVERY:	STUDY	
	y SW8015 Mod	Amount Found A	True Amount B	Recovery %R	Control Limits %R	Flags
Analytes				[D]		
1-Chlorooctane		90.3	100	90	70-135	
o-Terphenyl		41.8	50.2	83	70-135	

Lab Batch #: 871731

Sample: 428841-001 SD / MSD

Batch:

Matrix: Soil

Units: mg/kg	Date Analyzed: 10/05/11 19:50	SU	RROGATE R	RECOVERY	STUDY	
ВТЕ	K by EPA 8021B	Amount Found A	True Amount B	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0277	0.0300	92	80-120	
4-Bromofluorobenzene		0.0307	0.0300	102	80-120	

Lab Batch #: 872379

Sample: 428873-001 SD / MSD

Batch:

Matrix: Soil

Units: mg/kg	Date Analyzed: 10/14/11 21:44	SURROGATE RECOVERY STUDY						
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
	Analytes			[D]				
I-Chlorooctane		109	99.5	110	70-135			
o-Terphenyl		55.3	49.8	111	70-135			

Surrogate Recovery [D] = 100 * A / B

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



Project Name: Tunstil # 1286

Work Order #: 428845

Analyst: ASA

Date Prepared: 10/05/2011

Batch #:

Project ID:

Date Analyzed: 10/05/2011

Sample: 612312-1-BKS Lab Batch ID: 871731

Matrix: Solid

Flag Limits %RPD Control 35 35 35 35 35 BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Control Limits %R 70-130 71-129 70-135 70-130 71-133 RPD И 'n Dup G 88 G 102 107 801 106 66 Duplicate Result [F] Blank Spike 0.0992 0.216 0.102 0.107 901.0 Spike Added 0.100 0.100 0.100 0.200 0.100 Ξ Blank Spike %R (D) 110 ᅙ 12 109 102 Blank Spike Result 0.110 0.109 0.104 0.223 0.102 Ç Spike Added 0.100 0.100 0.100 0.200 0.100 B Sample Result <0.00100 <0.00100 <0.00200 001000 ⊄0,00200 Blank ₹. BTEX by EPA 8021B Units: mg/kg Analytes Ethylbenzene m_p-Xylenes o-Xylene Benzene Toluene

Analyst: BRB

Lab Batch ID: 871709

Date Prepared: 10/05/2011

Batch #: 1

Sample: 871709-1-BKS

Matrix: Solid

Date Analyzed: 10/05/2011

139 Limits %RPD Control 20 BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Control Limits %R 75-125 RPD 2 Blk. Spk Dup. G **R** D 103 Duplicate Result [F] Blank Spike 20.6 Spike Added 20.0 <u>.</u> Blank Spike %R [D] 116 Blank Spike Result [C] 23.2 Spike Added 20.0 <u>~</u> Blank Sample Result <0.840 ¥ Anions by E300 Units: mg/kg Analytes Chloride

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

Final 1.000



BS / BSD Recoveries



Project Name: Tunstil # 1286

Work Order #: 428845

Analyst: BBH

Lab Batch ID: 872379

Sample: 612728-1-BKS

Date Prepared: 10/13/2011

Batch #: 1

Project ID: Date Analyzed: 10/14/2011

Matrix: Solid

Units: mg/kg		BLAN	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	PIKE / B	LANKS	PIKE DUPI	CATE F	ECOVE	RY STUD	\ \ \	
TPH By SW8015 Mod	Blank	Spike	Blank	Blank	Spike	Blank	Blk. Spk		Control	Control	
	Sample Kesult	Added	Spike	Spike	Added	Spike	Oup.	KPD	Limits	Limits	Hag
	₹		Result	%R		Duplicate	%В		%R	%RPD	
Analytes		[8]	[5]	lat	<u> </u>	Result [F]					
C6-C12 Gasoline Range Hydrocarbons	<15.1	0001	763	9/	966	883	68	51	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	0001	920	92	966	1130	113	20	70-135	35	

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

Final 1.000



Form 3 - MS Recoveries

Project Name: Tunstil # 1286



Work Order #: 428845

Lab Batch #: 871709

Date Analyzed: 10/05/2011 QC- Sample ID: 428925-001 S

Date Prepared: 10/05/2011

Project ID: Analyst: BRB

Batch #:

Matrix: Soil

Reporting Units: mg/kg	MATI	RIX / MA	TRIX SPIKE	RECO	VERY STU	IDY
Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	24,6	100	128	103	75-125	

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: Tunstil # 1286

Work Order #: 428845

Lab Batch ID: 871731

Date Analyzed: 10/05/2011

Reporting Units:

Project ID:

Matrix: Soil Batch #:

QC-Sample ID: 428841-001 S

Date Prepared: 10/05/2011

ASA Analyst:

Keporting Units: mg/kg		M	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY	/ MATI	SIX SPIF	KE DUPLICA'	TE REC	OVERY S	TUDY		
BTEX by EPA 8021B	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	ike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C] %R Add	%R [D]	ded [5	Result [F]	- % <u>D</u>	%	%R	%RPD	1
Benzene	<0.00108	0.108	0.0884	82	0.108	0.0920	85	4	70-130	35	
Toluene	<0,00216	801.0	2160'0	85	0.108	0.0936	87	2	70-130	35	
Ethylbenzene	<0.00108	0.108	0.0974	06	0.108	8860'0	16	1	71-129	35	
m_p-Xylenes	<0.00216	0.216	961'0	16	0,215	0.200	93	2	70-135	35	
o-Xylene	<0.00108	0.108	6960'0	06	0.108	0.0976	06	-	71-133	35	

Lab Batch ID: 872379

Date Analyzed: 10/14/2011

QC- Sample ID: 428873-001 S Date Prepared: 10/13/2011

BBH Batch #: Analyst:

Matrix: Soil

Reporting Units: mg/kg		W	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY	LVM/E	SIX SPII	CE DUPLICAT	FE REC	VERY S	STUDY		
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	92	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C] %R A	D. R.	dded	Result [F]		%	%R	%RPD	1
C6-C12 Gasoline Range Hydrocarbons	316	1030	982	99	1030	1130	62	14	70-135	35	×
C12-C28 Diesel Range Hydrocarbons	4460	0001	4140	0	1030	4790	32	15	70-135	35	×

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable N = Not Requested, N = Not Applicable N = Not Requested, N = Not Requested, N = Not Applicable N = Not Requested, N = Not Requested, N = Not Requested, N = Not Requested, N = Not Reputable N = Not Requested, N = Not Reputable N = Not Requested N = Not Reputable N = Not



Sample Duplicate Recovery



Project Name: Tunstil # 1286

Work Order #: 428845

Lab Batch #: 871709

Date Analyzed: 10/05/2011 16:14

Date Prepared: 10/05/2011

Analyst: BRB

QC- Sample 1D: 428845-004 D

Batch #: 1

Matrix: Soil

Project ID:

Reporting Units: mg/kg	SAMPLE	SAMPLE	DUPLIC	ALE REC	OVERY
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte	'	[B]			
Chloride	41.6	43.9	5	20	

Lab Batch #: 871709

 Date Analyzed:
 10/05/2011 16:14
 Date Prepared:
 10/05/2011
 Analyst:
 BRB

 QC- Sample ID:
 428925-001 D
 Batch #:
 1
 Matrix:
 Soil

Reporting Units: mg/kg	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		B			
Chloride	24.6	25.5	4	20	

Lab Batch #: 871639

 Date Analyzed:
 10/04/2011 12:30
 Date Prepared:
 10/04/2011
 Analyst:
 BRB

 QC- Sample ID:
 428841-001 D
 Batch #:
 1
 Matrix:
 Soil

Reporting Units: % SAMPLE / SAMPLE DUPLICATE RECOVERY Sample Control **Percent Moisture** Parent Sample Duplicate RPD Limits Result Flag Result %RPD [A] $|\mathbf{B}|$ Analyte 7.00 Percent Moisture 7.32 20

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

					NPDES	F	Ē	ed 57 ,84	GLOH F. (Pre-Schedule) A. TAT HEUR TAT brebnisi?	×	×	×	×			z z :	zzz *{&*	FedEx Lone Ster	0.5.0
CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST 11-20 East xxs 79766 Fax: 432-563-1713	Project Name: Tunstil #1286	**	Project Loc: Eddy County, New Mexico	PO #:	: X Standard TRRP		Analyze For	0	Cations (Cs, Mg, Ns, K) Aujons (Cl, SO4, Alkelinity) Ano.R.M. Ref (Cl, SO4, Alkelinity) Rec (Cl, SO4, Alkelinity) Rec (Cl, SO4, Alkelinity)		×	×	×			Laboratory Comments: Sample Containers Intact? VOCs Free of Headspace?	Labels on container(s) Custody seals on container(s) Custody seals on cooler(s)	PA	ij
/ RECORD	Project Nar	Project #:	Project L	ğ	Report Format:		<u> </u>		W=Non-Polable Specify Other 1PH: 418 (8015M 8019 1PH: ∓X 1006		×	ii X	×				emi.	FIITIÐ	Time 0322
custob		j			8			iers Matrix	Mone (Specify) Weicher (Specify) Weich Stadge Weich Seculoped	, 0	Soil	Soil	Soil				Date	Date	10/4/11
CHAIN OF 12600 West I-20 East Odessa, Toxas 79766						rose.slade@sug.com		Preservation & # of Containers	otal #. of Containers Ico Hydo, Halo, NaOH NaOH NaOH	×	×	1 x	1 X						
					Fax No:	e-mail:			Time Sampled	1000	1005	1010	1015						2
									Date Sampled	10/3/2011	10/3/2011	10/3/2011	10/3/2011				Received by:	Received by:	Receiped by ELOT
ses	Page 1 of 1						/		seginning Depth	}				_	-			e	Time
Environmental Lab of Texas	Project Manager: Rose Slade Par	Company Name Southern Union Gas Services	Company Address: 801 Loop 464	City/State/Zip: Monahans, Texas 79756	Telephone No: 432-940-5147	Sampler Signature	1	# 476845	o O M M		Draw 2B	Draw 3B	Draw 4B			Special Instructions:	Date Date		d by:
Env A Xenco				~	•	-,	(Man ear del)	ORDER #:	(Vino seu dsi) * 8A.	5	3	\mathcal{Z}	ਨ			Special In	To the transfer of the transfe	Relinquished (b)	Relinquished by:

Final 1.000



XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Data/Time: Lab ID #: Initials: Sample Receipt Checklist 1. Samples on ice? 2. Shipping container in good condition? 3. Custody seals intact on shipping container (cooler) and bottles? 4. Chain of Custody present? 5. Sample instructions complete on chain of custody? 6. Any missing / extra samples? 7. Chain of custody signed when relinquished / received? 8. Chain of custody agrees with sample label(s)? 9. Container labels legible and intact? 10. Sample matrix / properties agree with chain of custody? 11. Samples in proper container / bottle? 12. Samples properly preserved? 13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 7 Yes No N
Lab ID#: Initials: Sample Receipt Checklist 1. Samples on ice? 2. Shipping container in good condition? 3. Custody seals intact on shipping container (cooler) and bottles? 4. Chain of Custody present? 5. Sample instructions complete on chain of custody? 6. Any missing / extra samples? 7. Chain of custody agrees with sample label(s)? 9. Container labels legible and intact? 10. Sample matrix / properties agree with chain of custody? 11. Samples in proper container / bottle? 12. Samples properly preserved? 13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. Nonconformance Documentation
Sample Receipt Checklist 1. Samples on ice? 2. Shipping container in good condition? 3. Custody seals intact on shipping container (cooler) and bottles? 4. Chain of Custody present? 5. Sample instructions complete on chain of custody? 6. Any missing / extra samples? 7. Chain of custody signed when rellinquished / received? 8. Chain of custody agrees with sample label(s)? 9. Container labels legible and intact? 10. Sample matrix / properties agree with chain of custody? 11. Samples in proper container / bottle? 12. Samples property preserved? 13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. Ibs C. Ibs C
1. Samples on ice? 2. Shipping container in good condition? 3. Custody seals intact on shipping container (cooler) and bottles? 4. Chain of Custody present? 5. Sample instructions complete on chain of custody? 6. Any missing / extra samples? 7. Chain of custody signed when relinquished / received? 7. Chain of custody agrees with sample label(s)? 7. Chain of custody agrees with chain of custody? 7. Chain of custody agrees with sample label(s)? 7. Chain of custody agrees with sample label(s)? 7. Chain of custody agrees with chain of custody? 7. Chain of custody agrees with sample label(s)? 7. Chain of custody? 7. Chain of custody? 7. Chain of custody? 7. Chain of custody agrees with sample label(s)? 7. No N/A 7. Samples received within sufficient hold time? 7. Chain of custody agrees with sample amount for indicated test(s)? 7. Chain of custody agrees with sample label(s)? 7. Chain of custody agrees with sample label(s)? 7. No N/A 7. Samples properties agree with chain of custody? 7. VOC sample have zero head space? 7. Chain of custody? 8. No N/A 8. Chain of custody agrees with sample amount for indicated test(s)? 8. No N/A 8. Chain of custody agrees with sample amount for indicated test(s)? 9. No N/A 9. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. Ibs °C Ib
2. Shipping container in good condition? 3. Custody seats intact on shipping container (cooler) and bottles? 4. Chain of Custody present? 5. Sample instructions complete on chain of custody? 6. Any missing / extra samples? 7. Chain of custody signed when relinquished / received? 7. Chain of custody signed when relinquished / received? 7. Chain of custody agrees with sample label(s)? 7. Container labels legible and intact? 7. Chain of custody agrees with sample label(s)? 7. Container labels legible and intact? 7. Container labels legible and
3. Custody seats intact on shipping container (cooler) and bottles? 4. Chain of Custody present? 5. Sample instructions complete on chain of custody? 6. Any missing / extra samples? 7. Chain of custody signed when relinquished / received? 8. Chain of custody agrees with sample label(s)? 9. Container labels legible and intact? 10. Sample matrix / properties agree with chain of custody? 11. Samples in proper container / bottle? 12. Samples properly preserved? 13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. Nonconformance Documentation
4. Chain of Custody present? 5. Sample instructions complete on chain of custody? 6. Any missing / extra samples? 7. Chain of custody signed when relinquished / received? 8. Chain of custody agrees with sample label(s)? 9. Container labels legible and intact? 10. Sample matrix / properties agree with chain of custody? 11. Samples in proper container / bottle? 12. Samples properly preserved? 13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. 19. Cooler 2 No. 19. Cooler 3 No. 19. Cooler 4 No. 19. Cooler 5 No. 19. Cooler 5 No. 10. Cooler 5 No. 10. Cooler 5 No. 10. Cooler 5 No. 11. Sample container intact? 12. Sample container intact? 13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. 19. Cooler 2 No. 19. Cooler 3 No. 19. Cooler 4 No. 19. Cooler 5 No.
5. Sample instructions complete on chain of custody? 6. Any missing / extra samples? 7. Chain of custody signed when relinquished / received? 8. Chain of custody agrees with sample label(s)? 9. Container labels legible and intact? 10. Sample matrix / properties agree with chain of custody? 11. Samples in proper container / bottle? 12. Samples properly preserved? 13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. Nonconformance Documentation
6. Any missing / extra samples? 7. Chain of custody signed when relinquished / received? 8. Chain of custody agrees with sample label(s)? 9. Container labels legible and intact? 10. Sample matrix / properties agree with chain of custody? 11. Samples in proper container / bottle? 12. Samples properly preserved? 13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. Nonconformance Documentation
7. Chain of custody signed when relinquished / received? 8. Chain of custody agrees with sample label(s)? 9. Container labels legible and intact? 10. Sample matrix / properties agree with chain of custody? 11. Samples in proper container / bottle? 12. Samples properly preserved? 13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. 19. Cooler 2 No. 19. Cooler 3 No. 19. Cooler 4 No. 19. Cooler 5 No. 19. C
8. Chain of custody agrees with sample label(s)? 9. Container labels legible and intact? 10. Sample matrix / properties agree with chain of custody? 11. Samples in proper container / bottle? 12. Samples properly preserved? 13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. 19. Cooler 2 No. 19. Cooler 3 No. 19. Cooler 4 No. 19. Cooler 5 No. 19. Cooler 5 No. 19. Cooler 6 No. 19. Cooler 1 No. 19. Cooler 1 No. 19. Cooler 1 No. 19. Cooler 2 No. 19. Cooler 1 No. 19. Cooler 2 No. 19. Cooler 3 No. 19. Cooler 4 No. 19. Cooler 5 No. 19. Cooler 5 No. 19. Cooler 6 No. 19. Cooler 6 No. 19. Cooler 7 No. 19. Cooler 1 No. 19. Cooler 2 No. 19. Cooler 3 No. 19. Cooler 4 No. 19. Cooler 5 No. 19. Cooler 5 No. 19. Cooler 5 No. 19. Cooler 5 No. 19. Cooler 1 No. 19. Cooler 2 No. 19. Cooler 1 No. 19. Cooler 1 No. 19. Cooler 2 No. 19. Cooler 3 No. 19. Cooler 4 No. 19. Cooler 5 No. 19. Co
9. Container labels legible and intact? 10. Sample matrix / properties agree with chain of custody? 11. Samples in proper container / bottle? 12. Samples properly preserved? 13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. No. Cooler 5 No. Co
10. Sample matrix / properties agree with chain of custody? 11. Samples in proper container / bottle? 12. Samples properly preserved? 13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. Ibs O. Cooler 5 No. Nonconformance Documentation
11. Samples in proper container / bottle? 12. Samples properly preserved? 13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. Ibs Cooler 5 No. Nonconformance Documentation
12. Samples properly preserved? 13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No.
13. Sample container intact? 14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. Ibs C. 5°C Ibs °C Ib
14. Sufficient sample amount for indicated test(s)? 15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No.
15. All samples received within sufficient hold time? 16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. lbs 0.5°C lbs °C lbs °C lbs °C lbs °C Nonconformance Documentation
16. Subcontract of sample(s)? 17. VOC sample have zero head space? 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. 18. Cooler 1 No. Cooler 2 No. Cooler 5 No. 18. Cooler 1 No. Cooler 5 No. 18. Cooler 2 No. Cooler 5 No. 18. Cooler 5 No. Nonconformance Documentation
17. VOC sample have zero head space? 18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. lbs C. 5 °C lbs °C lbs °C lbs °C lbs °C Nonconformance Documentation
18. Cooler 1 No. Cooler 2 No. Cooler 3 No. Cooler 4 No. Cooler 5 No. Ibs O, 5 °C Ibs °C
Ibs C, 5 °C Ibs
Nonconformance Documentation
Contact: Contacted by: Date/Time:
Regarding:
Corrective Action Taken:

- Check all that apply:

 □ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - □ Initial and Backup Temperature confirm out of temperature conditions
 - ☐ Client understands and would like to proceed with analysis

Analytical Report 430803

for Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Tunstil # 1286

08-NOV-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



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)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
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)





08-NOV-11

Project Manager: Rose Slade

Southern Union Gas Services- Monahans

1507 W. 15th Street Monahans, TX 79756

Reference: XENCO Report No: 430803

Tunstil # 1286

Project Address: Eddy County, New Mexico

Rose Slade:

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 430803. 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. 430803 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

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 430803



Southern Union Gas Services- Monahans, Monahans, TX

Tunstil # 1286

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
11/2 Trench @ Surface	S	11-02-11 11:30		430803-001
11/2 Trench @ 5'	S	11-02-11 12:00		430803-002
11/2 Trench @ 10'	S	11-02-11 12:30		430803-003
11/2 Trench @ 12'	S	11-02-11 13:00		430803-004
11/2 Trench @ 13'	S	11-02-11 13:15		430803-005
11/2 Trench @ 14'	S	11-02-11 14:00		430803-006

XENCO Laboratories

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Tunstil # 1286



Project ID:

Work Order Number: 430803

Report Date: 08-NOV-11

Date Received: 11/03/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-874014 BTEX by EPA 8021B

SW8021BM

Batch 874014, Ethylbenzene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene, Toluene recovered below QC limits in the Matrix Spike Duplicate.

Samples affected are: 430803-005, -004, -003, -006, -001, -002.

The Laboratory Control Sample for Toluene, Benzene, Ethylbenzene, m_p-Xylenes , o-Xylene is

within laboratory Control Limits

Batch: LBA-874134 TPH By SW8015 Mod

SW8015MOD_NM

Batch 874134, C6-C12 Gasoline Range Hydrocarbons recovered below QC limits in the Matrix Spike. C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 430803-005, -004, -003, -006, -001, -002.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons, C6-C12 Gasoline Range Hydrocarbons is within laboratory Control Limits

SW8015MOD_NM

Batch 874134, o-Terphenyl recovered below QC limits Data not confirmed by re-analysis. Samples affected are: 613742-1-BSD,430803-002.



Project Location: Eddy County, New Mexico Contact: Rose Slade

Project Id:

Certificate of Analysis Summary 430803

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Tunstil # 1286

Date Received in Lab: Thu Nov-03-11 08:30 am

Report Date: 08-NOV-11

					Project Manager: E	Brent Barron II	
	Lab Id:	430803-001	430803-002	430803-003	430803-004	430803-005	430803-006
Andreis Danneted	Field Id:	11/2 Trench @ Surface	11/2 Trench @ 5'	11/2 Trench @ 10'	11/2 Trench @ 12'	11/2 Trench @ 13'	11/2 Trench @ 14'
naicanhay cichinus	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Nov-02-11 11:30	Nov-02-11 12:00	Nov-02-11 12:30	Nov-02-11 13:00	Nov-02-11 13:15	Nov-02-11 14:00
Anions by E300	Extracted:						
	Analyzed:	Nov-07-11 12:16	Nov-07-11 12:16	Nov-07-11 12:16	Nov-07-11 12:16	Nov-07-11 12:16	Nov-07-11 12:16
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	_	16000 176	1430 17.6	355 8.72	1060 18.7	511 9.33	219 8.83
BTEX by EPA 8021B	Extracted:	Nov-03-11 14:00	Nov-03-11 14:00	Nov-03-11 14:00	Nov-03-11 14:00	Nov-03-11 14:00	Nov-03-11 14:00
	Analyzed:	Nov-03-11 17:58	Nov-03-11 18:21	Nov-03-11 18:44	Nov-03-11 19:07	Nov-03-11 19:30	Nov-03-11 19:53
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		ND 0.00104	ND 0.00105	ND 0.00103	ND 0.00110	ND 0.00110	ND 0.00105
Toluene		ND 0.00208	ND 0.00209	ND 0.00207	ND 0.00220	ND 0.00220	ND 0.00209
Ethylbenzene		ND 0.00104	ND 0.00105	ND 0.00103	ND 0.00110	01100 0 GN	ND 0 00105
m_p-Xylenes		ND 0.00208	ND 0.00209	ND 0.00207	ND 0.00220	ND 0.00220	ND 0 0000
o-Xylene		ND 0.00104	S0100:0 QN	ND 0.00103	ND 0.00110	01100.0 GN	ND 0.00105
Total Xylenes	-	ND 0.00104	ND 0.00105	ND 0.00103	01100'0 QN	01100.0 GN	ND 0.00105
Total BTEX		ND 0.00104	ND 0.00105	ND 0.00103	01100'0 QN	01100.0 CJN	ND 0.00105
Percent Moisture	Extracted:						
	Analyzed:	Nov-03-11 12:30	Nov-03-11 12:30	Nov-03-11 12:30	Nov-03-11 12:30	Nov-03-11 12:30	Nov-03-11 12:30
	Units/RL:	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		4.76 1.00	4,44 1.00	3,63 1,00	00'1 96'6	00'1 \$6'6	4.83 1.00
TPH By SW8015 Mod	Extracted:	Nov-04-11 14:35	Nov-04-11 14:35	Nov-04-11 14:35	Nov-04-11 14:35	Nov-04-11 14:35	Nov-04-11 14:35
	Analyzed:	Nov-04-11 22:06	Nov-04-11 22:43	Nov-04-11 23:20	Nov-04-11 23:56	Nov-05-11 00:31	Nov-05-11 01:06
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		17.0 15.7	ND 15.6	ND 15.5	7.91 QN	L'91 QN	ND 15.7
C12-C28 Diesel Range Hydrocarbons		814 15.7	9'51 QN	ND 15.5	ND 16.7	ND 16.7	7.21 ON
C28-C35 Oil Range Hydrocarbons		19.9 15.7	9'S1 QN	ND 15.5	ND 16.7	VD 16.7	ND 15.7
Total TPH		851 15.7	ND 15.6	ND 15.5	ND 16.7	ND 16.7	ND 15.7

This analytical report, and the entire data package it represents, has been made for your exclusive and contidential 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 breety presented. Our bibility is limited to the amount invoked for tits work order unless otherwise agreed to in whiting.

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

Brent Barron II Odessa Laboratory Manager



Flagging Criteria

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

MDL Method Detection Limit SDL Sample Detection Limit

LOD Limit of Detection

POL Practical Quantitation Limit M

MQL Method Quantitation Limit

LOO Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

^ NELAC or State program does not offer Accreditation at this time.

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

Certified and approved by numerous States and Agencies.

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

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

	Phone	Fax
4143 Greenbriar Dr., Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
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	



Project Name: Tunstil # 1286

Work Orders: 430803,

Lab Batch #: 874014

Project ID:

Sample: 430803-001 / SMP Matrix: Soil Batch:

Units: mg/kg	Date Analyzed: 11/03/11 17:58	50	RROGATE R	ECOVERY	STUDY	
вте	X by EPA 8021B	Amount Found [A]	True Amount B	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0279	0.0300	93	80-120	
4-Bromofluorobenzene		0.0272	0.0300	91	80-120	

Lab Batch #: 874014

Sample: 430803-002 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 11/03/11 18:21	l st	RROGATE R	ECOVERY	STUDY	
вте	X by EPA 8021B	Amount Found [A]	True Amount {B}	Recovery %R	Control Limits %R	Flags
1	Analytes			[D]		
1,4-Difluorobenzene		0.0273	0.0300	91	80-120	
4-Bromofluorobenzene		0.0274	0.0300	91	80-120	

Lab Batch #: 874014

Sample: 430803-003 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 11/03/11 18:44	SU	RROGATER	ECOVERY	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R D	Control Limits %R	Flags
	0.00=1	0.0200		20.100	
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0267	0,0300	89	80-120	

Lab Batch #: 874014

Sample: 430803-004 / SMP

Batch:

Matrix: Soil

Units: mg/kg	Date Analyzed: 11/03/11 19:07	SU	RROGATE R	ECOVERY	STUDY	
	by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R D	Control Limits %R	Flags
	Marytes			ļ		
1,4-Difluorobenzene		0.0268	0,0300	89	80-120	
4-Bromofluorobenzene		0.0276	0.0300	92	80-120	

Lab Batch #: 874014

Sample: 430803-005 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 11/03/11 19:30	SU	RROGATE R	ECOVERY	STUDY	_
втех	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzenc		0.0276	0.0300	92	80-120	
4-Bromofluorobenzene		0.0272	0.0300	91	80-120	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 430803,

Lab Batch #: 874014

Sample: 430803-006 / SMP

Project ID:

Batch: | Matrix: Soil

Units: mg/kg Date Analyzed: 11/03/11 19:53		RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		'.	[D]		
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0284	0,0300	95	80-120	

Lab Batch #: 874134

Sample: 430803-001 / SMP

Batch:

Matrix: Soil

Units: mg/kg	Date Analyzed: 11/04/11 22:06	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	Truc Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			D		
1-Chlorooctane		83,4	99,8	84	70-135	
o-Ternhenyl		42.0	40 Q	86	70-135	

Lab Batch #: 874134

Sample: 430803-002 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 11/04/11 22:43	SU	RROGATE R	ECOVERY:	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes			1171		
1-Chlorooctane	70.8	99.5	71	70-135	
o-Terphenyl	34,6	49.8	69	70-135	*

Lab Batch #: 874134

Sample: 430803-003 / SMP

Batch:

Matrix: Soil

Units: mg/kg	Date Analyzed: 11/04/11 23:20	SU	RROGATE R	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	Analytes			IDI		
1-Chlorooctane		72.4	99.9	72	70-135	
o-Temberryl		36.1	50.0	72	70-135	

Lab Batch #: 874134

Sample: 430803-004 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 11/04/11 23:56	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	200	100	7.	70.125	
1-Chlorooctane	76.2	100	76	70-135	
o-Terphenyl	37.8	50.0	76	70-135	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 430803.

Project ID:

Lab Batch #: 874134 Sample: 430803-005 / SMP

Batch: Matrix: Soil

Units: mg/kg Date Analyzed: 11/05/11 00:31 SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	85.3	100	85	70-135	
o-Terphenyl	41.7	50.0	83	70-135	

Lab Batch #: 874134

Sample: 430803-006 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 11/05/11 01:06	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount B	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	78.5	99.6	79	70-135	
o-Terphenyl	37.7	49.8	76	70-135	

Lab Batch #: 874014

Sample: 613677-1-BLK / BLK

Batch: 1

Matrix: Solid

Units: mg/kg	Date Analyzed: 11/03/11 17:35	SU	RROGATE R	ECOVERY	STUDY	
втех	by EPA 8021B	Amount Found [A]	True Amount B	Recovery %R	Control Limits %R	Flags
Æ	Analytes			[D]		
1,4-Difluorobenzene		0.0272	0.0300	91	80-120	
4-Bromofluorobenzene		0.0272	0.0300	91	80-120	

Lab Batch #: 874134

Sample: 613742-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg	its: mg/kg Date Analyzed: 11/04/11 19:05 SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	53.2	50.0	106	70-135	

Lab Batch #: 874014

Sample: 613677-1-BKS / BKS

Batch: 1

Matrix: Solid

Units: mg/kg D	Oate Analyzed: 11/03/11 16:05	SU	RROGATE R	ECOVERY:	STUDY	
·	EPA 8021B	Amount Found [A]	True Amount B	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	2, 440	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	<u></u>	0.0280	0.0300	93	80-120	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 430803,

Lab Batch #: 874134

Project ID:

Sample: 613742-1-BKS / BKS

Matrix: Solid Batch:

Units: mg/kg Date Analyzed: 11/04/11 17:57	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	44.7	50.0	89	70-135	

Lab Batch #: 874014

Sample: 613677-1-BSD / BSD

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 11/03/11 16:27	l su	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		'	[D]		
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 874134

Sample: 613742-1-BSD / BSD

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 11/04/11 18:29	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount B	Recovery %R]D]	Control Limits %R	Flags
Analytes			1		
I-Chlorooctane	93.0	100	93	70-135	
o-Terphenyl	30.5	50.0	61	70-135	*

Lab Batch #: 874014

Sample: 430803-001 S / MS

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 11/03/11 21:23	SU	RROGATE R	ECOVERY :	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0,0283	0.0300	94	80-120	

Lab Batch #: 874134

Sample: 430803-001 S / MS

Batch:

Matrix: Soil

Units: mg/kg Date Ana	ı lyzed: 11/05/11 09:02	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Analytes	Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		87.8	99.5	88	70-135	
o-Terphenyl		38.1	49.8	77	70-135	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 430803,

Project ID:

Lab Batch #: 874014

Sample: 430803-001 SD / MSD

Batch: Matrix: Soil

Units: mg/kg Date Analyzed: 11/03/11 21:46	SU	RROGATE R	ECOVERY:	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0,0282	0,0300	94	80-120	

Lab Batch #: 874134

Sample: 430803-001 SD / MSD

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 11/05/11 09:37	SU	RROGATE R	ECOVERY:	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			lDl		
1-Chlorooctane	98.9	99.8	99	70-135	
o-Terphenyl	42.6	49.9	85	70-135	

Surrogate Recovery [D] = 100 * A / B

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



Project Name: Tunstil # 1286

Work Order #: 430803

Analyst: ASA

Lab Batch ID: 874014

Sample: 613677-1-BKS

Date Prepared: 11/03/2011

Project ID: Date Analyzed: 11/03/2011

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Units: mg/kg

Batch #: 1

BTEX by EPA 8021B	Blank Sampte Result [A]	Spike Added	Blank Spike Result	Blank Spike	Spike Added	Blank Spike Dublicate	Bik. Spk Dup. %R	RPD	Control Limits	Control Limits %RPD	Flag
Analytes		[B]	[C]	<u>a</u>	[3]	Result F	<u>5</u>				
Benzene	<0.00100	0.100	0.104	104	0.100	0.104	104	0	70-130	35	:
Toluene	<0.00200	0.100	0.107	107	0.100	0.107	101	0	70-130	35	
Ethylbenzene	<0.00100	0.100	0.111	111	0.100	0.111	111	0	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.221	111	0.200	0.222	111	0	70-135	35	
o-Xylene	<0.00100	0.100	0.110	110	0.100	0.112	112	2	71-133	35	

Sample: 874166-1-BKS Lab Batch ID: 874166 Analyst: BRB

Date Prepared: 11/07/2011 Batch #: 1

Date Analyzed: 11/07/2011 Matrix: Solid

Units: mg/kg		BLAN	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	PIKE / B	LANKS	PIKE DUPL	CATE F	RECOVE	RY STUD	Y	
Anions by E300	Blank Sample Result	Spike Added	Blank Spike Result	Blank Spike	Spike Added	Blank Spike Duplicate	Bik. Spk Dup. %R	RPD	Control Limits	Control Limits	Flag
Analytes	<u>c</u>	B	[C]		[E]	Result [F]	<u>[</u> 5]		10		
Chloride	<0.840	20.0	23.4	<i>L</i> 11	20.0	23.1	116	-	75-125	20	

Chloride

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



BS / BSD Recoveries



Project Name: Tunstil # 1286

Work Order #: 430803

Analyst: ASA

Date Prepared: 11/04/2011

Project ID: Date Analyzed: 11/04/2011 Matrix: Solid

Lab Batch ID: 874134	Sample: 613742-1-BKS	KS	Batch #:	1#: 1					Matrix: Solid	pilo		
Units: mg/kg			BLAN	BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	PIKE / B	LANKS	PIKE DUPL	ICATE]	RECOVE	RY STUD	Ϋ́	
TPH By SW8015 Mod	15 Mod	Blank Sample Result	Spike Added	Blank Spike	Blank Spike	Spike Added	Blank Spike	Blk. Spk Dup.	RPD	Control Limits	Control Limits	Flag
Analytes		₹	<u>s</u>	Result [C]	% [0]	<u> </u>	Duplicate Result [F]	% <u>5</u>	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	arbons	<15.0	1000	831	83	0001	885	68	9	70-135	35	
C12-C28 Diesel Range Hydrocarbons	rbons	<15.0	1000	940	94	0001	116	16	3	561-07	35	

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

Final 1.000



Form 3 - MS Recoveries

Project Name: Tunstil # 1286



Work Order #: 430803

Lab Batch #: 874166

QC- Sample 1D: 430881-014 S

Date Analyzed: 11/07/2011

Project ID:

Date Prepared: 11/07/2011

Analyst: BRB

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	MATE	ux / 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	1660	530	2240	109	75-125	

Lab Batch #: 874166

Date Analyzed: 11/07/2011

Date Prepared: 11/07/2011

Analyst: BRB

QC- Sample ID: 430927-005 S

Batch #:

Matrix: Soil

-						
Reporting Units: mg/kg	MATI	RIX / MA	TRIX SPIKE	RECO	VERY STU	DY.
Inorganic Anions by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result C	%R [D]	Control Limits %R	Flag
Analytes	[A]	[B]				
Chloride	<4.52	108	126	117	75-125	

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: Tunstil # 1286

Project ID:

QC- Sample ID: 430803-001 S

Matrix: Soil Batch #:

Date Prepared: 11/03/2011

Date Analyzed: 11/03/2011

Work Order #: 430803 Lab Batch ID: 874014

ASA Analyst:

Reporting Units: mg/kg		N	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY	V MAT	RIX SPIT	KE DUPLICA	TE REC	OVERY S	STUDY		
BTEX by EPA 8021B	Parent Sample	Spike	Spiked Sample Spiked Result Sample	Spiked Sample		Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Kesuit [A]	Added	<u> </u>	¥ <u>=</u>	Added [E]	Kesult [F]	<u>*</u> ਹ	«	% X	%RPD	
Benzene	<0.00105	0.105	0.0829	79	0.104	0.0712	89	15	70-130	35	×
Toluene	<0.00210	\$01.0	0.0750	11	0.104	0.0654	63	14	70-130	35	Х
Ethylbenzene	<0.00105	0.105	0.0621	59	0.104	0.0526	51	17	71-129	35	×
m_p-Xylenes	<0.00210	0.210	9110	55	0.208	0.0983	47	11	561-07	35	×
o-Xylene	<0.00105	0.105	0.0572	54	0.104	0.0494	48	15	71-133	35	×

Date Analyzed: 11/05/2011 Lab Batch ID: 874134

Batch #: QC-Sample ID: 430803-001 S

Matrix: Soil

Analyst: ASA Date Prepared: 11/04/2011

Reporting Units: mg/kg		Z	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY	:/MATI	SIX SPIF	CE DUPLICA	TE RECO	OVERY S	TUDY		
TPH By SW8015 Mod	Parent	:	Spiked Sample	Spiked	:	Duplicate	Spiked	6	Control	Control	,
•	Result	Spike	Kesur Sample St	Sample %R	Spirke	Spike Spiked Sample Added Result [F]	υup %R-i-	KPU %	Limits %R	Limits %RPD	F13g
Analytes	<u>v</u>	<u> </u>	-	ā	豆	•	<u>ত</u>				
C6-C12 Gasoline Range Hydrocarbons	17.0	1040	732	69	1050	847	79	15	70-135	35	×
C12-C28 Diesel Range Hydrocarbons	814	1040	1360	53	1050	1500	99	10	70-135	35	×

Matrix Spike Duplicate Percent Recovery [G] ▼ 100*(F-A)/E Matrix Spike Percent Recovery [D] = 100°(C-A)B Relative Percent Difference RPD = 200°(C-F)(C+F)

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



Final 1.000



Sample Duplicate Recovery



U

Project Name: Tunstil # 1286

Work Order #: 430803

Lab Batch #: 874166

Date Prepared: 11/07/2011

Project ID:

Date Analyzed: 11/07/2011 12:16

Anions by E300

Analyte

QC- Sample ID: 430927-005 D

Batch #:

Analyst: BRB Matrix: Soil

Reporting Units: mg/kg

SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Parent Sample Result [A]	Sample Duplicate Result {B}	RPD	Control Limits %RPD	Flag

<4.52

Lab Batch #: 873968

Date Analyzed: 11/03/2011 12:30

Date Prepared: 11/03/2011

<4.52

Analyst: BRB

0

QC-Sample ID: 430803-001 D

Batch #:

Matrix: Soil

Reporting	Units: %
-----------	----------

Chloride

Reporting Units: %	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
ercent Moisture	4.76	5.62	17	20	

Spike Relative Difference RPD 200 * [(B-A)/(B+A)] All Results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit

Environmental Lab of Texas

MALES CONTRACTOR STATES AND STATE

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

□ NPDES Phone: 432-563-1800 Fax: 432-563-1713 TRRP Project Loc: Eddy County, New Mexico Project Name: Tunstil #1286 X Standard PO #: Project #: Report Format: rose.slade@sug.com Odessa, Texas 79765 12600 West I-20 East Fax No: e-mail: Page 1 of 1 Southern Union Gas Services Monahans, Texas 79756 Company Address: 801 Loop 464 Rose Stade A Xenco Laboratories Company Sampler Signature: (Project Manager: Company Name Telephone No: City/State/Zip:

			Г	TAT bisbrist2	×	×	×	×	J	IJ.	—т			_						_			
	S H	171		AT HRUSH TAT (Pre-Schedule) 24.	$\stackrel{\sim}{\rightarrow}$	-7	$\widehat{}$	귀	×	~	 -}							Δ.		į			
_		4 62	67	HOLD		-	-	-	-	\dashv	+				2	Z	ZZ	(S)	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	!			
١							-		-+		\dashv					VC	ΥŒ	10	$2\nabla^2$				
ł	┝−	_		Chloride Scy	$\frac{1}{2}$	$\frac{1}{2}$	×	ᅱ	×	×	-				\C	C	Ø	ハ					
1	<u> </u>			M.O.R.M.	-1	\exists					\dashv								u.				
1	-		—	RCI						\neg									ž	!			
	┢┪	×	0	BTEX 80218/5030 of BTEX 826	\times	\times	×	ᅱ	×	×				·		۰.) L		_)			
Analyze For	Н			Semivolatiles		귀				\dashv					Laboratory Comments:	VOCs Free of Headspace?	Labels on container(s)	Custody seals on cooler(s)	ed VPS	,			
λze	Н	\dashv		selitatoV						\dashv	-				Laboratory Comments:	dsp	Labels on container(s)	ō	Sample Mand Delivered by Sampler/Nient Rep. by Contrary	'			
Lua Lua	Н		Bç	Metals: As Ag Ba Cd Cr Pb Hg							\dashv		_		E de	Ear	E S	5		;			
`	4		_	SVB / ESP / CEC							\dashv			_	7 5	e of	CO S	ea s	哥哥	5 4			
1	TCLP	TOTAL	_	Anions (CI, SO4, Alkalinity)				- 1			\dashv				ator	, E	6 2	i i	ty Sample				
			_		_						_				9	ပ္ပိ	bek	ş	돌				
	l			Cations (Ca, Mg, Na, K)		{									ة تا	<u> </u>	<u> 30</u>	<u> </u>	တိ	: T			
			_	9001 XT 8001 XT :H9T													eŭ.		2	İ			
	L	Ц	as	108 M2108 1.814 H9T	×	<u>~</u>	<u>×</u>	×	<u>~</u>	×							ŀ≞		H H H	ľ			
			Matrix	GW = Groundwater S=Sol/Solid NP=Non-Potable Specify Other	Soil	i <u>o</u>	S	Ī	Ş	Soil										╁			
			Σ	DW=Drinking Water SL=Sludge	S	တ	S	တ	Ø	တ				}				- 1		1			
		ı	H	Other (Specify)	_				_								Date		Date	Ì			
		ļ	g	9поИ	7									_]	ļ					
			& # of Containers	LO _X O _X O _X		$\neg \dagger$	\neg			—							 			†			
		Ì	δ S	HOBN				一	$\neg \dashv$					┪	Ì			ŀ		ı			
			4 ag c	°os²н			\neg			_		-		\vdash	1					1			
				Preservation	нсі	\neg	\neg	\neg							l	1					١		
					ese	50 мн								,			1		l				
			ו	lce	×	×	×	×	×	×				<u> </u>									
			٦	Total #, of Containers	1	-		-	1	+			┢		1								
			1	benetii Filtered	_						\vdash				1		-			1			
	4		Ì												1		Ì			l			
	からいころろん人		ı I				belgma <i>2</i> emiT	1130	1200	1230	1300	1315	1400		1								
•	1)			Date Sampled	11/2/2011	11/2/2011	11/2/2011	11/2/2011	11/2/2011	11/2/2011							Received by:		Received by:				
? }}	- Oct 95			Ending Depth													Time	15.30]			
	_			Beginning Depth									_				L	<u>ප</u>		4			
<u></u>	= (다							!									Date	=	Date				
ŗ					ace	;	, o	5.	'n	<u>.</u>							-	\equiv	-	+			
		d	\sim	SODE	B Sur	11/2 Trench @ 5	11/2 Trench @ 10'	11/2 Trench @ 12'	11/2 Trench @ 13'	11/2 Trench @ 14'				}					i				
		5	3	FIELD CODE	-ench	Tren	Trenc	Trenc	Trenc	Trend	<u> </u>						17	<u></u> کد					
		7	त्र		11/2 Trench @ Surface	11%	11/2	11/2	11/2	11/2								3					
		=	7		_					<u> </u> 					ctions:	X		K					
	e only)	;	:R#:			 	_				_			_	Special Instructions:	6	Shed by:	X.	Relinquished by:				
	(lab use only)		ORDER #:	(Klab use only)	<u>0</u>	S	3	डे	R	रि					Specia	<	Relinquis	3	Relinqui				

Q

1 Temperature Upon Receipt

11/8/11

Relinquished by:



XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010

Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

client: SUGS		•	Ť		
Date/Time: 11/3/11 8:30					
Lab ID#: 430803					
Initials:	_				
Sample Rec	 eipt Checkl	list			
1. Samples on ice?		Blue	Water	No	
2. Shipping container in good condition?		(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bot	tles?)	Yes	No	N/A	
4. Chain of Custody present?		Yes	No		
5. Sample instructions complete on chain of custody?		Yes	No		
6. Any missing / extra samples?		Yes	N ₀		
7. Chain of custody signed when relinquished / received?		Yes	No		
8. Chain of custody agrees with sample label(s)?		Yes	No		
9. Container labels legible and intact?		Yes	No		
10. Sample matrix / properties agree with chain of custody?		Yes	No		
11. Samples in proper container / bottle?		Yes	No		
12. Samples properly preserved?		Yes	No	N/A	
13. Sample container intact?		Yes	No		
14. Sufficient sample amount for indicated test(s)?		Yes	No		
15. All samples received within sufficient hold time?		Yes	No		
16. Subcontract of sample(s)?		Yes	No	N/A	
17. VOC sample have zero head space?		Yes	No	N/A	
18. Cooler 1 No. Cooler 2 No. Cooler 3 No.		Cooler 4 No).	Cooler 5 No.	
ibs O °C ibs °C	lbs °C	lbs	۰۵	lbs	°c
Nonconformand	ce Documei	ntation			
Contact: Contacted by:		· · · · · · · · · · · · · · · · · · ·	Date/Time:		
Contacted by.			Date/Time		
Regarding:					
		· ·- ·- · · · ·			
Corrective Action Taken:					
				· · · · · · · · · · · · · · · · · · ·	
		 			
	`				
Check all that apply: Cooling process has begun shortly a condition acceptable by NELA	ifter sampling C 5.5.8.3.1.a.1.	event and o	ut of tempe	rature	

Page 18 of 18

☐ Initial and Backup Temperature confirm out of temperature conditions

☐ Client understands and would like to proceed with analysis

Final 1.000

Analytical Report 440865

for Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Tunstil # 1286

27-APR-12

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



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)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALII), West Virginia (362), Kentucky (85) 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)





27-APR-12

Project Manager: Rose Slade

Southern Union Gas Services- Monahans

801 South Loop 464 Monahans, TX 79756

Reference: XENCO Report No: 440865

Tunstil # 1286

Project Address: Eddy County, New Mexico

Rose Slade:

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 440865. 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 wil! be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 440865 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

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 440865



Southern Union Gas Services- Monahans, Monahans, TX

Tunstil # 1286

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
W Wall @ # 1 @ 3' bgs	S	04-11-12 12:25		440865-001
W Wall @ # 2 @ 3' bgs	S	04-11-12 14:15		440865-002
N Wall @ 3' bgs	S	04-11-12 14:45		440865-003
E Wall # 2 @ 3' bgs	S·	04-17-12 10:15		440865-004
Trench @ 10' bgs	S	04-17-12 10:30		440865-005
Trench @ 14' bgs	S	04-17-12 10:45		440865-006
Trench @ 17' bgs	S	04-17-12 11:00		440865-007
E Wall # 1 @ 3' bgs	S	04-17-12 13:20		440865-008
East Side of Road # 2 @ 3' bgs	S	04-17-12 14:00		440865-009
East Side of Road # 1 @ 3' bgs	S	04-17-12 14:15		440865-010
E Wall #3 @ 3' bgs	S	04-17-12 14:15		440865-011

XENCO Laboratories

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Tunstil # 1286



Project ID:

Work Order Number: 440865

Report Date: 27-APR-12 Date Received: 04/18/2012

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-886316 TPH By SW8015 Mod

SW8015MOD NM

Batch 886316, o-Terphenyl recovered below QC limits Data confirmed by re-analysis. Samples affected are: 620868-1-BKS,620868-1-BLK,620868-1-BSD,440865-002 S,440865-002 SD,440865-002,440865-001.

Batch: LBA-886412 BTEX by EPA 8021B

SW8021BM

Batch 886412, Benzene, Ethylbenzene, Toluene, m_p-Xylenes recovered below QC limits in the Matrix Spike.

Samples affected are: 440865-002, -010, -004, -007, -011, -008, -001, -009, -003, -006. The Laboratory Control Sample for Toluene, Benzene, Ethylbenzene, m_p-Xylenes is within laboratory Control Limits

SW8021BM

Batch 886412, 4-Bromofluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis Samples affected are: 440865-004,440865-001.

Batch: LBA-886660 BTEX by EPA 8021B

SW8021BM

Batch 886660, Ethylbenzene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike Duplicate.

Samples affected are: 440865-005.

The Laboratory Control Sample for Ethylbenzene, m_p-Xylenes , o-Xylene is within laboratory Control Limits

Page 4 of 25



Contact: Rose Slade Project Location: Eddy County, New Mexico

Project Id:

Certificate of Analysis Summary 440865 Southern Union Gas Services- Monahans, TX

Decised Name: Truetil # 1305

Project Name: Tunstil # 1286

Date Received in Lab: Wed Apr-18-12 08:11 am

Project Manager: Nicholas Straccione

Report Date: 27-APR-12

						and an an an an an an an an an an an an an	
	Lab Id:	440865-001	440865-002	440865-003	440865-004	440865-005	440865-006
Analysis Donnostod	Field Id:	W Wall @ # 1 @ 3' bgs	W Wall @ # 2 @ 3' bgs	N Wall @ 3' bgs	E Wall # 2 @ 3' bgs	Trench @ 10' bgs	Trench @ 14' bgs
naisanhau sistinus	Depth;						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Apr-11-12 12:25	Apr-11-12 14:15	Apr-11-12 14:45	Apr-17-12 10:15	Apr-17-12 10:30	Apr-17-12 10:45
Anions by E300	Extracted:						
	Analyzed:	Apr-18-12 19:57	Apr-18-12 19:57	Apr-18-12 19:57	Apr-18-12 19:57	Apr-18-12 19:57	Apr-18-12 19:57
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		284 8.60	111 4.28	225 8.55	8.71 669	1380 22.4	135 4.33
BTEX by EPA 8021B	Extracted:	Apr-23-12 10:00	Apr-23-12 10:00	Apr-23-12 10:00	Apr-23-12 10:00	Apr-26-12 16:00	Apr-23-12 10:00
	Analyzed:	Apr-23-12 14:37	Apr-23-12 14:59	Apr-23-12 15:22	Apr-23-12 15;44	Apr-27-12 08:08	Apr-23-12 16:06
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Вепzепе		ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00106	ND 0.00107	ND 0.00103
Toluene		ND 0.00204	ND 0.00204	ND 0.00203	ND 0.00211	ND 0.00213	ND 0.00206
Ethylbenzene		ND 0.00102	ND 0.00102	ND 0.00102	901000 ON	ND 0.00107	ND 0.00103
m_p-Xylenes		ND 0.00204	ND 0.00204	ND 0.00203	ND 0.00211	ND 0.00213	ND 0.00206
o-Xylene		ND 0.00102	ND 0.00102	ND 0.00102	90100'0 QN	ND 0.00107	ND 0.00103
Total Xylenes		ND 0.00102	ND 0.00102	ND 0.00102	90100'0 QN	VD 0.00107	ND 0 00103
Total BTEX		ND 0.00102	ND 0.00102	ND 0.00102	90100'0 QN	VD 0.00107	ND 0.00103
Percent Moisture	Extracted:						
	Analyzed:	Apr-18-12 17:00	Apr-18-12 17:00	Apr-18-12 17:00	Apr-18-12 17:00	Apr-18-12 17:00	Apr-18-12 17:00
	Units/RL:	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		2.38 1.00	1.98 1.00	00'1 84'1	5.37 1.00	6.30 1.00	3.08 1.00
TPH By SW8015 Mod	Extracted:	Apr-19-12 15:15	Apr-19-12 15:15	Apr-20-12 13:00	Apr-20-12 13:00	Apr-20-12 13:00	Apr-20-12 13:00
	Analyzed:	Apr-20-12 08:23	Apr-20-12 08:55	Apr-21-12 03:59	Apr-21-12 04:25	Apr-21-12 04:52	Apr-21-12 05:18
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		ND 15.3	ND 15.2	ND 15.2	ND 15.8	17.9 15.9	S:S1 QN
C12-C28 Diesel Range Hydrocarbons		23.4 15.3	24.5 15.2	20.7 15.2	8.21 UN	51.3 15.9	ND 15.5
C28-C35 Oil Range Hydrocarbons		ND 15.3	15.9 15.2	ND 15.2	ND 15.8	ND 15.9	ND 15.5
Total TPH		23.4 15.3	40.4 15.2	20.7 15.2	ND 15.8	69.2 15.9	ND 15.5

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results experested throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no wartranty 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 it writing.

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

Und Ch

Nicholas Straccione Project Manager



Project Location: Eddy County, New Mexico Contact: Rose Slade

Project Id:

Certificate of Analysis Summary 440865

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Tunstil # 1286

Date Received in Lab: Wed Apr-18-12 08:11 am

Project Manager: Nicholas Straccione

Report Date: 27-APR-12

		1					Ī
	Lab Id:	440865-007	440865-008	440865-009	440865-010	440865-011	
Annlineis Dogwood	Field Id:	Trench @ 17 bgs	E Wall # 1 @ 3' bgs	East Side of Road # 2 @ 3' b	East Side of Road # 2 @ 3' beast Side of Road # 1 @ 3' by	E Wall #3 @ 3' bgs	
Anniyas Nequesicu	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	Sampled:	Apr-17-12 11:00	Apr-17-12 13:20	Apr-17-12 14:00	Apr-17-12 14:15	Apr-17-12 14:15	
Anions by E300	Extracted:						
	Analyzed:	Apr-18-12 19:57	Apr-18-12 19:57	Apr-18-12 19:57	Apr-18-12 19:57	Apr-18-12 19:57	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		144 9.32	934 8.76	7.26 4.34	6.10 4.29	87.3 4.29	
BTEX by EPA 8021B	Extracted:	Apr-23-12 10:00	Apr-23-12 10:00	Apr-23-12 10:00	Apr-23-12 10:00	Apr-23-12 10:00	
	Analyzed:	Apr-23-12 17:58	Apr-23-12 20:12	Apr-23-12 18:21	Apr-23-12 18:43	Apr-23-12 19:05	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		ND 0.00111	ND 0.00104	ND 0 00103	ND 0.00102	ND 0.00102	
Toluene		ND 0.00221	ND 0.00208	ND 0.00207	ND 0.00204	ND 0.00204	
Ethylbenzene		ND 0.00111	0.00120 0.00104	ND 0 00103	ND 0.00102	ND 0.00102	
m_p-Xylenes		ND 0.00221	0.00637 0.00208	ND 0 00207	ND 0.00204	ND 0.00204	
o-Xylene		ND 0.00111	0.00173 0.00104	ND 0 00103	ND 0.00102	ND 0.00102	
Total Xylenes		ND 0.00111	0.00810 0.00104	ND 0.00103	ND 0.00102	ND 0.00102	
Total BTEX		11100:0 QN	0.00930 0.00104	ND 0.00103	ND 0.00102	ND 0.00102	
Percent Moisture	Extracted:						
	Analyzed:	Apr-18-12 17:00	Apr-18-12 17:00	Apr-18-12 17:00	Apr-18-12 17:00	Apr-18-12 17:00	
	Units/RL:	% RL	% RL	% RL	% KT	% RL	
Percent Moisture		9.88 1.00	4.07 1.00	3.16 1.00	2.07 1.00	2.02 1.00	
TPH By SW8015 Mod	Extracted:	Apr-20-12 13:00	Apr-20-12 13:00	Apr-20-12 13:00	Apr-20-12 13:00	Apr-20-12 13:00	
	A malyzed:	Apr-21-12 05:44	Apr-21-12 06:10	Apr-21-12 06:37	Apr-21-12 07:03	Apr-21-12 07:29	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
C6-C12 Gasoline Range Hydrocarbons		9.91 UN	ND 15.6	ND 15.4	ND 15.3	ND 15.3	
C12-C28 Diesel Range Hydrocarbons		9'91 QN	ND 15.6	ND 15.4	ND 15.3	ND 15.3	
C28-C35 Oil Range Hydrocarbons		9'91 QN	ND 15.6	ND 15.4	ND 15.3	ND 15.3	
Total TPH		9:91 QN	ND 15.6	ND 15.4	ND 15.3	ND 15.3	
				-	=]

This smalytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and retail expressed throughout this handlying treport represent the best injustment 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.

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

Nicholas Straccione Project Manager

Final 1.000

Page 6 of 25



Flagging Criteria

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

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

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

DL Method Detection Limit

NC Non-Calculable

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

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

Certified and approved by numerous States and Agencies.

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

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

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



Project Name: Tunstil # 1286

Work Orders: 440865,

Lab Batch #: 886316

Project ID:

Sample: 440865-001 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 04/20/12 08:23	St	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	76.8	99.5	77	70-135	
o-Terphenyl	34.1	49.8	68	70-135	*

Lab Batch #: 886316

Sample: 440865-002 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 04/20/12 08:55	SU	RROGATE R	ECOVERY :	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	71.6	99.5	72	70-135	
o-Terphenyl	30.2	49.8	61	70-135	*

Lab Batch #: 886408

Sample: 440865-003 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 04/21/12 03:59	su	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.5	99.7	90	70-135	
o-Terpheny!	47.5	49,9	95	70-135	

Lab Batch #: 886408

Sample: 440865-004 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 04/21/12 04:25	SU	RROGATE R	ECOVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	Truc Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		86.2	99.7	86	70-135	
o-Terphenyl		45.6	49.9	91	70-135	

Lab Batch #: 886408

Sample: 440865-005 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 04/21/12 04:52	SU	RROGATE RE	ECOVERY :	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount B	Recovery %R D	Control Limits %R	Flags
1-Chlorooctane	93.1	99.5	94	70-135	
o-Terphenyl	49.6	49.8	100	70-135	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 440865, Lab Batch #: 886408 Project ID:

Sample: 440865-006 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 04/21/12 05:18	st	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			iDl		
I-Chlorooctane	87.4	100	87	70-135	
o-Terphenyl	46.0	50,1	92	70-135	

Lab Batch #: 886408

Sample: 440865-007 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 04/21/12 05:44	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	92.1	99.5	93	70-135	
o-Terphenyl	49.2	49.8	99	70-135	

Lab Batch #: 886408

Sample: 440865-008 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 04/21/12 06:10	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount B	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	91.8	99.6	92	70-135	
o-Terphenyl	48.7	49.8	98	70-135	·

Lab Batch #: 886408

Sample: 440865-009 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 04/21/12 06:37	SURROGATE RECOVERY STUDY					
TPH 1	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
I-Chlorooctane	· · · · · · · · · · · · · · · · · · ·	96.8	99.6	97	70-135	-	
o-Terphenyl		51.0	49.8	102	70-135		

Lab Batch #: 886408

Sample: 440865-010 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 04/21/12 07:03	SU	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R D	Control Limits %R	Flags		
1-Chlorooctane	87.1	99.8	87	70-135			
o-Terphenyl	46,2	49.9	93	70-135			

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 440865, Lab Batch #: 886408

Sample: 440865-011 / SMP

Project ID: 1 Matrix: Soil

Batch: 1

Units: mg/kg Date Analyzed: 04/21/12 07:29	: mg/kg Date Analyzed: 04/21/12 07:29 SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	92.2	99.8	92	70-135			
o-Terphenyl	48.3	49.9	97	70-135			

Lab Batch #: 886412 Sample: 440865-001 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 04/23/12 14:37	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			IDI]	
1,4-Difluorobenzene	0.0262	0,0300	87	80-120	
4-Bromofluorobenzene	0,0226	0.0300	75	80-120	*

Lab Batch #: 886412 Sample: 440865-002 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 04/23/12 14:59	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0251	0.0300	84	80-120	
4-Bromofluorobenzene	0.0243	0.0300	81	80-120	

Lab Batch #: 886412 Sample: 440865-003 / SMP Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 04/23/12 15:22 SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount B	Recovery %R	Control Limits %R	Flags	
Analytes			{D}			
1,4-Difluorobenzene	0.0264	0.0300	88	80-120		
4-Bromofluorobenzene	0.0245	0.0300	82	80-120		

Lab Batch #: 886412 Sample: 440865-004 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 04/23/12 15:44	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes	, ,		[D]			
1,4-Difluorobenzene	0.0260	0.0300	87	80-120		
4-Bromofluorobenzene	0.0228	0.0300	76	80-120	*	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 440865, Lab Batch #: 886412

Sample: 440865-006 / SMP

Project ID:

Matrix: Soil

Units: mg/kg Date Analyzed: 04/23/12 16:06 SURROGATE RECOVERY STUDY							
BTEX by EPA 8021B	Amount Found [A]	True Amount B	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Difluorobenzene	0.0259	0.0300	86	80-120			
4-Bromofluorobenzene	0.0245	0.0300	82	80-120			

Lab Batch #: 886412

Sample: 440865-007 / SMP

65-007 / SMP Ro

Batch: |

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 04/23/12 17:58	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0261	0,0300	87	80-120		
4-Bromofluorobenzene	0.0243	0.0300	81	80-120		

Lab Batch #: 886412

Sample: 440865-009 / SMP

Batch:

ch: | Matrix: Soil

Units: mg/kg Date Analyzed: 04/23/12 18:21	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			ID			
1,4-Difluorobenzene	0.0273	0.0300	91	80-120		
4-Bromofluorobenzene	0,0262	0,0300	87	80-120		

Lab Batch #: 886412

Sample: 440865-010 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 04/23/12 18:43	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			IDI		
1,4-Difluorobenzene	0.0258	0.0300	86	80-120	
4-Bromofluorobenzene	0.0255	0.0300	85	80-120	

Lab Batch #: 886412.

Sample: 440865-011 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 04/23/12 19:05	SURROGATE RECOVERY STUDY					
ВТЕХ	K by EPA 8021B Analytes	Amount Found JAJ	· True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1,4-Difluorobenzene		0.0272	0.0300	91	80-120		
4-Bromofluorobenzene		0.0269	0.0300	90	80-120		

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 440865,

Lab Batch #: 886412

Project ID: Matrix: Soil

Sample: 440865-008 / SMP Batch:

Units: mg/kg Date Analyzed: 04/23/12 20:12	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			{D}	1		
1,4-Difluorobenzene	0.0256	0.0300	85	80-120		
4-Bromofluorobenzene	0.0343	0.0300	114	80-120		

Lab Batch #: 886660

Sample: 440865-005 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 04/27/12 08:08	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found {A}	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			ID			
1,4-Difluorobenzene	0.0245	0.0300	82	80-120		
4-Bromofluorobenzene	0.0247	0.0300	82	80-120		

Lab Batch #: 886316

Sample: 620868-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 04/19/12 21:16	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes		1	D				
1-Chlorooctane	74.0	100	74	70-135			
o-Terphenyl	33.0	50.0	66	70-135	*		

Lab Batch #: 886408

Sample: 620921-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 04/21/12 03:33		SURROGATE RECOVERY STUDY						
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane		89.8	100	90	70-135			
o-Terphenyl		48.6	50.0	97	70-135			

Lab Batch #: 886412

Sample: 620913-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 04/23/12 11:37	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount B	Recovery %R [D]	Control Limits %R	Flags	
1,4-Difluorobenzene	0.0263	0.0300	88	80-120		
4-Bromofluorobenzene	0.0254	0.0300	85	80-120		

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 440865,

Lab Batch #: 886660

Project ID:

Sample: 621084-1-BLK / BLK

Matrix: Solid Batch:

Units: mg/kg Date Analyzed: 04/27/12 05:10	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found A	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0254	0,0300	85	80-120	
4-Bromofluorobenzene	0.0244	0.0300	81	80-120	

Lab Batch #: 886316

Sample: 620868-1-BKS / BKS

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 04/19/12 20:11	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	78.7	100	79	70-135			
o-Terphenyl	27.9	50.0	56	70-135	*		

Lab Batch #: 886408

Sample: 620921-1-BKS / BKS

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 04/21/12 02:41	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1-Chlorooctane	112	100	112	70-135		
o-Terphenyl	52.7	50.0	105	70-135		

Lab Batch #: 886412

Sample: 620913-1-BKS/BKS

Batch: 1

Matrix: Solid

Units: mg/kg	Date Analyzed: 04/23/12 10:30	SU	RROGATE RI	ECOVERY	STUDY	
втех	X by EPA 8021B	Amount Found [A]	True Amount B	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0286	0.0300	95	80-120	
4-Bromofluorobenzene		0.0294	0.0300	98	80-120	

Lab Batch #: 886660

Sample: 621084-1-BKS / BKS

Batch: |

Matrix: Solid

Units: mg/kg Date Analyzed: 04/27/12 03:41	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 440865,

Lab Batch #: 886316

Project ID:

Sample: 620868-1-BSD / BSD Batch: | Matrix: Solid

Units: mg/kg Date Analyzed: 04/19/12 20:41	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.3	100	87	70-135	
o-Terphenyl	29.9	50.0	60	70-135	*

Lab Batch #: 886408 Sample: 620921-1-BSD / BSD Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 04/21/12 03:07	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		Ì	[D]		
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	52.2	50.0	104	70-135	

Lab Batch #: 886412 Sample: 620913-1-BSD / BSD Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 04/23/12 10:52	SU	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0300	0,0300	100	80-120	

Lab Batch #: 886660 Sample: 621084-1-BSD / BSD Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 04/27/12 04:03	SU	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 886316 Sample: 440865-002 S / MS Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 04/20/12 09:26	SU	IRROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		97.8	99,8	98	70-135	
o-Terphenyl		33.4	49,9	67	70-135	*

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 440865,

Sample: 440865-003 S / MS

Project ID:

Lab Batch #: 886408 Matrix: Soil SURROGATE RECOVERY STUDY Date Analyzed: 04/21/12 13:24 Units: mg/kg

Ollits, ing/kg Date Hally 201, 04/21/12 13:24					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes	,,	1,	ĮĐĮ		
1-Chlorooctane	94.4	99.8	95	70-135	
o-Terphenyl	49.0	49,9	98	70-135	

Lab Batch #: 886412

Sample: 440865-002 S / MS

Matrix: Soil Batch:

Units: mg/kg Date Analyzed: 04/23/12 16:29	SU	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			IDI		
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0,0316	0.0300	105	80-120	

Lab Batch #: 886660

Sample: 441113-023 S/MS

Matrix: Soil Batch:

Units: mg/kg Date Analyzed: 04/27/12 08:30	SU	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0,0267	0.0300	89	80-120	

Lab Batch #: 886316

Sample: 440865-002 SD / MSD

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 04/20/12 09:56	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R (D)	Control Limits %R	Flags
I-Chlorooctane	100	99.6	100	70-135	
o-Terphenyl	34.0	49,8	68	70-135	*

Lab Batch #: 886408

Sample: 440865-003 SD / MSD

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 04/21/12 13:49	SU	RROGATE R	ECOVERY:	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		93.2	100	93	70-135	
o-Terphenyl		49.0	50.2	98	70-135	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Tunstil # 1286

Work Orders: 440865, Lab Batch #: 886412

Project ID:

Sample: 440865-002 SD / MSD Matrix: Soil Batch: 1

Units: mg/kg Date Analyzed: 04/23/12 16:51	SU	RROGATE RI	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	•

Lab Batch #: 886660

Sample: 441113-023 SD / MSD

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 04/27/12 08:53	SU	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount B	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0254	0.0300	85	80-120	

Surrogate Recovery [D] = 100 * A / B

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



Project Name: Tunstil # 1286

Work Order #: 440865

Analyst: SMG

Lab Batch ID: 886412

Date Prepared: 04/23/2012

Project ID: Date Analyzed: 04/23/2012

Batch #: 1 Sample: 620913-1-BKS

Matrix: Solid

Units: mg/kg		BLAN	BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	PIKE / E	LANKS	PIKE DUPI	ICATE F	ECOVE	RY STUD	Y	
BTEX by EPA 8021B	Blank Sample Result	Spike Added	Blank Spike	Blank Spike	Spike Added	Blank Spike	BIK. Spk Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	<u>₹</u>	<u>[8]</u>	Kesult [C]	<u>[0</u>	[E]	Duplicate Result [F]	<u>*</u> <u>5</u>	, °	% *	%RPD	
Benzene	<0.00100	0.100	0.0877	88	00100	0.0865	87	-	70-130	35	
Toluene	<0.00200	0.100	0.0875	88	001.0	0.0872	87	0	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0855	98	001'0	0.0859	98	0	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.175	88	0.200	0.176	88	_	70-135	35	
o-Xylene	<0.00100	0.100	1060'0	06	001.0	0.0913	16	-	71-133	35	

Date Prepared: 04/26/2012 Batch #: 1 Sample: 621084-1-BKS Lab Batch ID: 886660 Analyst: SMG

Matrix: Solid

Date Analyzed: 04/27/2012

Units: mg/kg		BLAN	BLANK/BLANK SPIKE/BLANK SPIKE DUPLICATE RECOVERY STUDY	PIKE / B	LANKS	PIKE DUPI	ICATE F	RECOVE	RY STUD	Y	
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Błank Spike Duplicate	Bik. Spk Dup. %R	RPD	Control Limits %R	Control Limits %RPD	Flag
Analytes		<u>8</u>	[<u>C</u>	<u>[a]</u>	<u> </u>	Result [F]	<u>5</u>				
Benzene	<0.00100	0.100	0.103	103	001.0	0.0988	66	4	70-130	35	
Toluene	<0.00200	0.100	0.105	105	001.00	0.0995	100	5	70-130	35	
Ethylbenzene	<0.00100	0.100	0.104	104	00100	0660'0	66	5	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.214	<i>L</i> 01	0.200	0.205	103	4	581-04	38	
o-Xylene	<0.00100	0.100	0.105	\$01	0.100	0.100	100	5	71-133	38	

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



BS / BSD Recoveries



Project Name: Tunstil # 1286

Work Order #: 440865

Analyst: BRB

Lab Batch ID: 886096

Date Analyzed: 04/18/2012 Project ID:

Matrix: Solid

Date Prepared: 04/18/2012 Batch #: Sample: 886096-1-BKS

Flag Control Limits %RPD 2 BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Control Limits %R 75-125 RPD Blk. Spk Dup. |GR | 105 Dupficate Result [F] Blank Spike 20.9 Spike Added 20.0 亘 Blank Spike %R [D] 107 Spike Result Blank 21.4 <u>5</u> Spike Added 20.0 æ Blank Sample Result <0.840 ₹ Anions by E300 Units: mg/kg Analytes Chloride

Date Prepared: 04/19/2012

Batch #:]

Sample: 620868-1-BKS

Lab Batch ID: 886316

Analyst: NIS

Matrix: Solid

Date Analyzed: 04/19/2012

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Units: mg/kg

Flag Limits %RPD 35 35 Control Limits %R 70-135 70-135 RPD BIK. Spk Очр. Г.С. % 8 Duplicate Result [F] Blank Spike 782 901 Spike Added 0001 0001 Ξ Blank Spike %R 90 98 Spike Result [C] Blank 775 860 Spike Added 1000 1000 <u>=</u> Blank Sample Result <15.0 <15.0 $\overline{\mathbf{X}}$ TPH By SW8015 Mod C6-C12 Gasoline Range Hydrocarbons C12-C28 Diesel Range Hydrocarbons Analytes

Date Prepared: 04/20/2012

Date Analyzed: 04/21/2012

Matrix: Solid

Batch #: 1

Sample: 620921-1-BKS

Lab Batch ID: 886408

Analyst: NIS

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Units: mg/kg		DEFIN	BEALTA / BEALTA STINE / BEALTA STINE BUT EICATE NECOVENT STUD	LINE / D	LAINN	LINE DOLE	LAIL D	ECOTE	dole in	1	
TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike	Spike Added	Blank Spike Duolicate	Blk. Spk Dup. %R	RPD %	Control Limits	Control Limits	Flag
Analytes	[<u>8</u>	[<u>C</u>]	直	亘	Result [F]	<u>5</u>				
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	802	08	1000	802	08	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	698	87	0001	618	88	_	70-135	35	

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



Form 3 - MS Recoveries

Project Name: Tunstil # 1286



Work Order #: 440865

Lab Batch #: 886096

QC- Sample ID: 440787-001 S

Date Analyzed: 04/18/2012

Project ID:

Date Prepared: 04/18/2012

Analyst: BRB

Batch #:

Matrix: Soil

Reporting Units: mg/kg	MATE	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	43.4	105	147	99	75-125	

Lab Batch #: 886096

Date Analyzed: 04/18/2012

Date Prepared: 04/18/2012

Analyst: BRB

QC- Sample 1D: 440865-003 S

Batch #:

Matrix: Soil

Reporting Units: mg/kg	MATE	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	225	204	457	114	75-125	

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: Tunstil # 1286

Work Order #: 440865

Date Analyzed: 04/23/2012 Lab Batch ID: 886412

QC-Sample ID: 440865-002 S

Project ID:

1 Matrix: Soil

Batch #:

SMG Analyst: Date Prepared: 04/23/2012

eporting Units: mg/kg		M	ATRIX SPIKE	/MAT	SIX SPIF	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY	E RECO	OVERY S	TUDY		
BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added IBI	Spiked Sample Result C	Spiked Sampte %R [D]	Spike Added E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R IGI	RPD	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00101	0.101	0.0690	89	0.102	0.0763	75	10	70-130	35	×
Toluene	<0.00203	0.101	6690.0	69	0.102	0.0764	75	6	70-130	35	×
Ethylbenzene	<0.00101	0.101	0890'0	19	0.102	0.0747	73	6	71-129	35	×
m_p-Xylenes	<0.00203	0.203	0.137	29	0.204	0.150	74	6	70-135	35	×
o-Xylene	<0.00101	0.101	0.0725	72	0.102	0.0753	74	4	71-133	35	

Date Analyzed: 04/27/2012 Lab Batch ID: 886660

QC- Sample ID: 441113-023 S Date Prepared: 04/26/2012

SMG Analyst: Batch#:

Matrix: Soil

Reporting Units: mg/kg		Z.	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY	/ MAT	RIX SPIF	KE DUPLICA'	TE RECO	VERY S	STUDY		
BTEX by EPA 8021B Analytes	Parent Sample Result A	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0843	\$	0.0999	0.0772	11	6	70-130	35	
Toluene	<0.00201	0.100	0.0831	83	6660'0	0.0757	76	6	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0749	75	6660'0	0.0661	99	12	71-129	35	×
m_p-Xylenes	<0.00201	0.201	0.151	75	0.200	0.135	89	Ξ	70-135	35	×
o-Xylene	<0.00100	0.100	09200	9/	0.0999	0.0693	69	6	71-133	35	×

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

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

Final 1,000



Form 3 - MS / MSD Recoveries

Project Name: Tunstil # 1286

Work Order #: 440865

Lab Batch ID: 886316

Date Analyzed: 04/20/2012

QC-Sample ID: 440865-002 S Date Prepared: 04/19/2012

SIN Analyst:

Matrix: Soil Batch #:

Project ID:

l lag Control Limits %RPD 35 35 Control Limits %R 70-135 70-135 MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY RPD C) Spiked Dup. %R [G] 9 .. Duplicate Spiked Sample Result |F} 0001 830 Spike Added 1020 1020 <u> 고</u> Spiked Sample %R [0] 93 င္တ Spiked Sample Result 975 <u>ပ</u> 817 Spike Added [B] 1020 1020 Parent Sample Result [A] <15.3 24.5 TPH By SW8015 Mod C6-C12 Gasoline Range Hydrocarbons C12-C28 Diesel Range Hydrocarbons Analytes Reporting Units: mg/kg

Batch #: QC-Sample ID: 440865-003 S Date Prepared: 04/20/2012

Lab Batch ID: 886408

Matrix: Soil

Date Analyzed: 04/21/2012	Date Prepared: 04/20/2012	04/20/20	112	Ϋ́Ш	Analyst: NIS	AIS					
Reporting Units: mg/kg		2	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY	:/ MAT	RIX SPII	KE DUPLICA	TE RECO	VERY S	STUDY		
TPH By SW8015 Mod	Parent		Spiked Sample Spiked	Spiked		Duplicate	Spiked		Control	_	i
	Sample	Spike	Result	Sample %D		Spiked Sample	Dup.	RPD	Limits %D	Limits	Flag
Analytes	<u>K</u>	181	<u>.</u>	<u> </u>		(E) Kesant [17]	<u>5</u>	•	Y P		
C6-C12 Gasoline Range Hydrocarbons	<15.2	1020	734	72	1020	729	11	-	70-135	35	
C12-C28 Diesel Range Hydrocarbons	20.7	1020	908	11	1020	810	1.1	0	261-02	35	
							1				ı

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

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

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



Sample Duplicate Recovery



Project Name: Tunstil # 1286

Work Order #: 440865

Lab Batch #: 886096

Date Analyzed: 04/18/2012 19:57

Date Prepared: 04/18/2012

Project ID:

Analyst: BRB

QC- Sample ID: 440787-001 D

Batch #: 1 Matrix: Soil SAMPLE / SAMPLE DUDLICATE DECOVEDY

Reporting Units: mg/kg	SAMPLE A	SAMPLE	DUPLIC	ATE REC	OVERY
Anions by E300 Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	43.4	42.7	2	20	

Lab Batch #: 886126

Date Analyzed: 04/18/2012 17:00

Date Prepared: 04/18/2012

Analyst: BRB

OC- Sample ID: 440865-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture Analyte	Parent Sample Result A	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	2.38	2.43	2	20	

Environmental Lab of Texas

TAT bisbnet2 Lore Star $\tilde{\times}$ ပ္ NPDES (Jubertageny) TAT HRUS W .VZ anor 0 508 × × opinoidO N M.A.O.M. Phone: 432-563-1800 Fax: 432-563-1713 [] TRRP 뒴 CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST (O) Project Loc: Eddy County, New Mexico Custody seals on container(s) × × × emperature Upon Receipt. 91EX 80218/5030 or BTEX 8260 × by Sampler/Client Rep. ? by Courier? UPS /OCs Free of Headspace? Custody seals on cooler(s) Sample Containers Intact? aboratory Comments: Sample Hand Delivered SOULANDISTINGS .abels on container(s) S9|138|0/ Project Name: Tunstil #1286 X Standard Metals: As Ag Ba Cd Cr Pb Hg Se TCLP: TOTAL SAR / ESP / CEC Michael (CI. SO4, Alkalinity) Project #: ₩0. Cations (Ca, Mg, Na, K) Report Format: 9001 X1 2001 XT нал Ē × × 80128 MS108 LBIP :на1 ŝ Ŝ Soil S Soil Soil Soil Soil 8 Soil RWSIV Date Other (Specify) Preservation & # of Containers rose.slade@sug.com Odessa, Texas 79765 12600 West I-20 East COSSEN 5MM2 HOPN '0s'н HCI CONH × × × × × MINITED THE otal #, of Containers benetiil blei Fax No: :in the state of the sile. 12:25 10:15 10:45 2:15 10:30 11:00 2:45 1:20 5:00 2:15 Time Sampled Please Send Copy of Lab Report to Basin Environmental Received by ELOT Page 1 of 2 4/17/2012 4/17/2012 4/11/2012 4/11/2012 4/11/2012 4/17/2012 4/17/2012 4/17/2012 4/17/2012 4/17/2012 Date Sampled Design Ending Depth ıwe Beginning Depth Southern Union Gas Services Monahans, Texas 79756 Date East Side of Road #1 @ 3 bgs East Side of Road #2 @ 3' bgs W Wall @ #1 @ 3' bgs W Wall @ #2 @ 3' bgs 801 Loop 484 432-940-5147 Rose Slade E Wall #2 @ 3' bgs E Wall #1 @ 3' bgs Trench @ 10' bgs Trench @ 17 bgs Trench @ 14' bgs N Wall @ 3' bgs 3000 A Xenco Laboratories Company Company Address: Sampler Signature Project Manager: Company Name Telephone No: City/State/Zip: Special Instructions: Relinquished by: (lab use only ORDER #: ر. د 20 3 (vino sau dai) # 8A \bar{c}

NPDES (Phone: 432-563-1800 .M.R.O.N Fax: 432-563-1713 TRRP ౼ CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST ЮЯ Project Loc: Eddy County, New Mexico Labels on container(s) Custody seals on container(s) BTEX 8021B/5030 or BTEX 8260 Temperature Upon Receipt: Sample Containers Intact? VOCs Free of Headspace? Custody seals on cooler(s) by Sampler/Client Rep. ? by Courier? UPS Analyze Fo SOULEIOAKUBS Laboratory Comments: Sample Hand Delivered Project Name: Tunstil #1286 X Standard Metals: As Ag Ba Cd Cr Pb Hg Se 10.6 SAR / ESP / CEC OIAL Anions (CI, SO4, Alkalinity) Project #: # Od Cations (Ca, Mg, Na, K) Report Format: 5001 X1 9001 XI Time M2108)1.814 86168 :HdI Soil Date Other (Specify) Preservation & # of Containers rose.slade@sug.com Odessa, Texas 79765 12600 West I-20 East OCSCON НОВИ 'Os^zH ЮН HNO 001 otal #, of Containers boretliR blei ないるというと Fax No: 2:15 Time Sampled Please Send Copy of Lab Report to Basin Environmental Received by ELOT Page 2 of 2 4/17/2012 Date Sampled Ending Depth **Environmental Lab of Texas** Time Beginning Depth Southern Union Gas Services Monahans, Texas 79756 Date Company Address: 801 Loop 464 432-940-5147 E Wall #3 @ 3' bgs Rose Stade FIELD CODE A Xenco Laboratories Company Sampler Signature Project Manager: Company Name Telephone No: City/State/Zip: Special Instructions Relinquished by (lab use only) ORDER #: (yino seu dei) # 8A.

TAT brebnets

RUSH TAT (Pre-Schedule 24, 48, 72 hrs

zzzzzz



XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Mlami, Odessa, Philadelphia Phoenix, San Antonio, Tampa Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

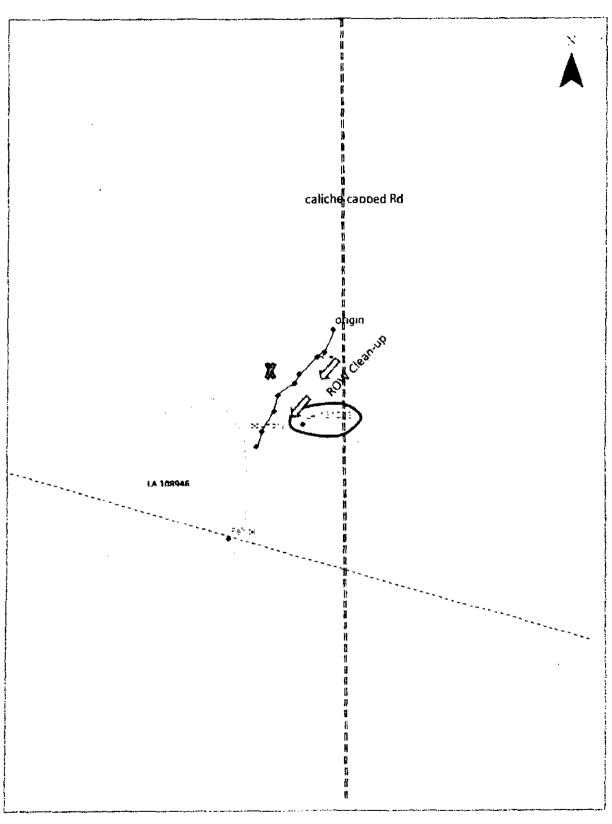
Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of

Prelogin / Nonconformance Report - Sample Log-In

Client 50.465				
Date/Time: 4.18.12 8.11				
Lab ID#: 440865				
Initials: SG/AE				
Sample Receipt Chec	klist			
1. Samples on ice?	Blue	Water	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals Intact on shipping container (cooler) and bottles?	Yes	No	NA	
4. Chain of Custody present?	Yes	No		
5. Sample instructions complete on chain of custody?	Yee	No		
6. Any missing / extra samples?	Yes	∠No>		
7. Chain of custody signed when relinquished / received?	Ŷes	<u>No</u>		
8. Chain of custody agrees with sample label(s)?	∠Yee	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	Yes	No ·		
11. Samples in proper container / bottle?	(Tes)	No		
12. Samples properly preserved?	/ (%)	No	N/A .	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	No	(NIÀ)	
17. VOC sample have zero head space?	Yes	No	△N/A >	
18. Cooler 1 No. Cooler 2 No. Cooler 3 No.	Cooler 4 No)	Cooler 5 No.	
lbs 3.0 °C lbs °C lbs	°C lbs		ibs	္င
Nonconformance Docum	nentation			
Contacted by:		Date/Time:_		
Regarding:				
Corrective Action Taken:				
		· · · · · · · · · · · · · · · · · · ·		 _
Check all that apply: Cooling process has begun shortly after sample condition acceptable by NELAC 5.5.8.3.1. □ Initial and Backup Temperature confirm out of the sample co	a.1.		reture	

☐ Client understands and would like to proceed with analysis



9 40 80 HD Meters

Appendix E Release Notification and Corrective Action (Form C-141)

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rto Brazos Road, Aztec, SM 87610 istrict IV 220 S. St. Francis Dr., Santo 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

			Rel	ease Notifica	tion and C	orrective A	ection			
					OPERA	TOR	⊠ !s	itial Report	☐ Fi	nal B
Name of C	ampany	Southern	Union G	is Services	Contact R	ose Slade				
Address	80	I.S. Loop 40	64 Monai	hans, Texas 79756	Telephone	No. 432-940-51	147			
Tacility Na	me	Tunstil #1	286		Facility Ty	pe Natural Gas	Pipeline			
Surface Ov	ner Bure	iu of Land N	1anagem	ent Mineral Ow	ner		API	No 30-025-2	8822	
				LOCAT	ION OF RE	LEASE				
Unit Letter	Section	Township	Range		lorth/South Line	Feet from the	Fast/West Lin	e County		
L	24	268	30E	1		ļ	[Eddy		
	Ll					<u> </u>				······
			Latitu	de 32 degrees ()1	.476' Longitu	de 103 degrees	50,4291			
				NATU	RE OF REL	EASE				
				educed Water	Volume o		own Volum	n Recuvered	None	
Source of Re	lease 6-Inc	th Steel Pipel	ine (Low	Pressure)		four of Occurrence	e Date at	nd Hour of Dis	covery	
		7			Unknown		Februa	ry 22, 2011 – 1	1322 hoors	
Was Immedia	ate Notice G	_	17 m	1 80	If YES, To					
			X 62	No 🔲 Net Requ		(BLM Carlsbad F				
By Whoto?						lour March 11, 20				
Was a Water	course Read		griding		If YES, V	dume Impacting t	he Watercourse.			
			Yes 🗵	No						
produced water Describe Area An area of ran	er. Following Affected an	g the discover ad Cleman Ar	y of the n	teel pipeline resulted elease the pipeline w on, * ,560 square feet was	as fitted with a te	mponsry pipeline (damp to midgat	e the rolense.		id
guidelines.										ry
hereby certif		orig acinatus	en above	is now and complete	to the best of my	knowledge and un	idensiand that re-	renent to VMC		ry
regulations all public health c abould their op	ir the envicoi scrations hav ment. In add	e required to innent. The ii o failed to ad lition, NMOC	report and eceptance equately i Diaccepts	Nor file certain relea- of a C-141 report by nvestigate and reme- ance of a C-141 repo	se notifications ar v the NMOCD ma date contamination	d perform correct irked as "Final Re in that pose a thre the operator of re	ive actions for p port" does not re at to ground wat	deases which o dieve the oper- or, surface wat compliance wi	mny endang ator of Iiabi er, humun I ith any othe	nd ger lity geal:
regulations all public health of should their of or the environs (ederal, state, o	ir the envicoi scrations hav ment. In add	e required to innent. The ii o failed to ad lition, NMOC	report and eceptance equately i Diaccepts	of a C-141 report by nvestigate and remed	se notifications ar v the NMOCD ma date contamination	d perform correct irked as "Final Re in that pose a thre the operator of re	ive actions for report" does not re at to ground wat expensibility for	deases which o dieve the oper- or, surface wat compliance wi	mny endang ator of Iiabi er, humun I ith any othe	nd ger lity gealt
regulations all public health (should their of or the environs (ederal, state, of Signature:	ir the envicoi scrations hav ment. In add	e required to innent. The ii o failed to ad lition, NMOC	report and eceptance equately i Diaccepts	of a C-141 report by nvestigate and remed	se notifications ar r the NMOCD in digus contamination et does not relieve	d perform correct irked as "Final Re in that pose a thre the operator of re	ive actions for modern does not read to ground wat separately for ERVATION	deases which o dieve the oper- or, surface wat compliance wi	mny endang ator of Iiabi er, humun I ith any othe	nd str Hy scalt
regulations all public health of should their of the environm (ederal, state, of signature). Printed Name:	ir the environ nerations hav ment. In add or focal laws	e required to innent. The ii o failed to ad lition, NMOC	report and eceptance equately i Diaccepts	of a C-141 report by nvestigate and remed	se notifications are the NMOCD mediate contamination of does not relieve the Approved by I	d perform correct riked as "Final Ra in that pose a three the operator of ra OH, CONS District Supervisor	ive actions for modern does not read to ground wat supported for ERVATION	deases which edieve the openion, surface was compliance with DIVISTO	mny endang ator of Iiabi er, humun I ith any othe	nd ger lity gealt
regulations all public health of should their of the environm (ederal, state, of signature). Printed Name:	ir the envicoi scrations hav ment. In add	e required to innent. The ii o failed to ad lition, NMOC	report and eceptance equately i Diaccepts	of a C-141 report by nvestigate and remed	se notifications ar r the NMOCD in digus contamination et does not relieve	d perform correct riked as "Final Ra in that pose a three the operator of ra OH, CONS District Supervisor	ive actions for modern does not read to ground wat separately for ERVATION	deases which edieve the openion, surface was compliance with DIVISTO	mny endang ator of Iiabi er, humun I ith any othe	nd ger lity gealt
egulations all ublic health (hould their of r the environ rderal, state, o ignature: rinted Name;	ir the envicons have ment. In add or focal laws	e required to innent. The ii o failed to ad lition, NMOC	report and eceptance equately i Diaccepts	of a C-141 report by nvestigate and remed	se notifications are the NMOCD mediate contamination of does not relieve the Approved by I	d perform correct rked as "Final Ra in that pose a three the operator of ra OH. CONS District Supervisor	ive actions for modern does not read to ground wat supported for ERVATION	deases which edieve the openion, surface was compliance with DIVISTO	may endang ator of liabi ser, human l ith any othe	nd er lity eal

* Attach Additional Sheets II Necessary

Phone: