

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Southern Union Gas Services	Contact	Curt Stanley
Address	801 S. Loop 464 Monahans, Texas 79756	Telephone No.	575-390-7595
Facility Name	South Tunstil (5/17/12)	Facility Type	Natural Gas Pipeline

Surface Owner	Bureau of Land Management	Mineral Owner		API No	30-025-28822
---------------	---------------------------	---------------	--	--------	--------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	25	26S	30E					Eddy

Latitude 32 degrees 00.802' Longitude 103 degrees 50.430'

NATURE OF RELEASE

Type of Release	Natural Gas, Crude Oil and Produced Water	Volume of Release	40 bbls	Volume Recovered	None
Source of Release	6-Inch Steel Pipeline (Low Pressure)	Date and Hour of Occurrence	Unknown	Date and Hour of Discovery	May 17, 2012 - 1500 hours MDT
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	Mike Bratcher (NMOCD - Dist. 2 - Artesia)		
By Whom?	Curt Stanley	Date and Hour	May 18, 2012 - 1343 hours MDT		
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Failure of a segment of the six (6) low pressure steel pipeline resulted in the release of approximately forty (40) barrels of a mixture crude oil and produced water. Following the discovery of the release the pipeline was fitted with a temporary pipeline clamp to mitigate the release. The BLM (Jim Amos) was notified of the release on May 21, 2012 at 0807 hours MDT.

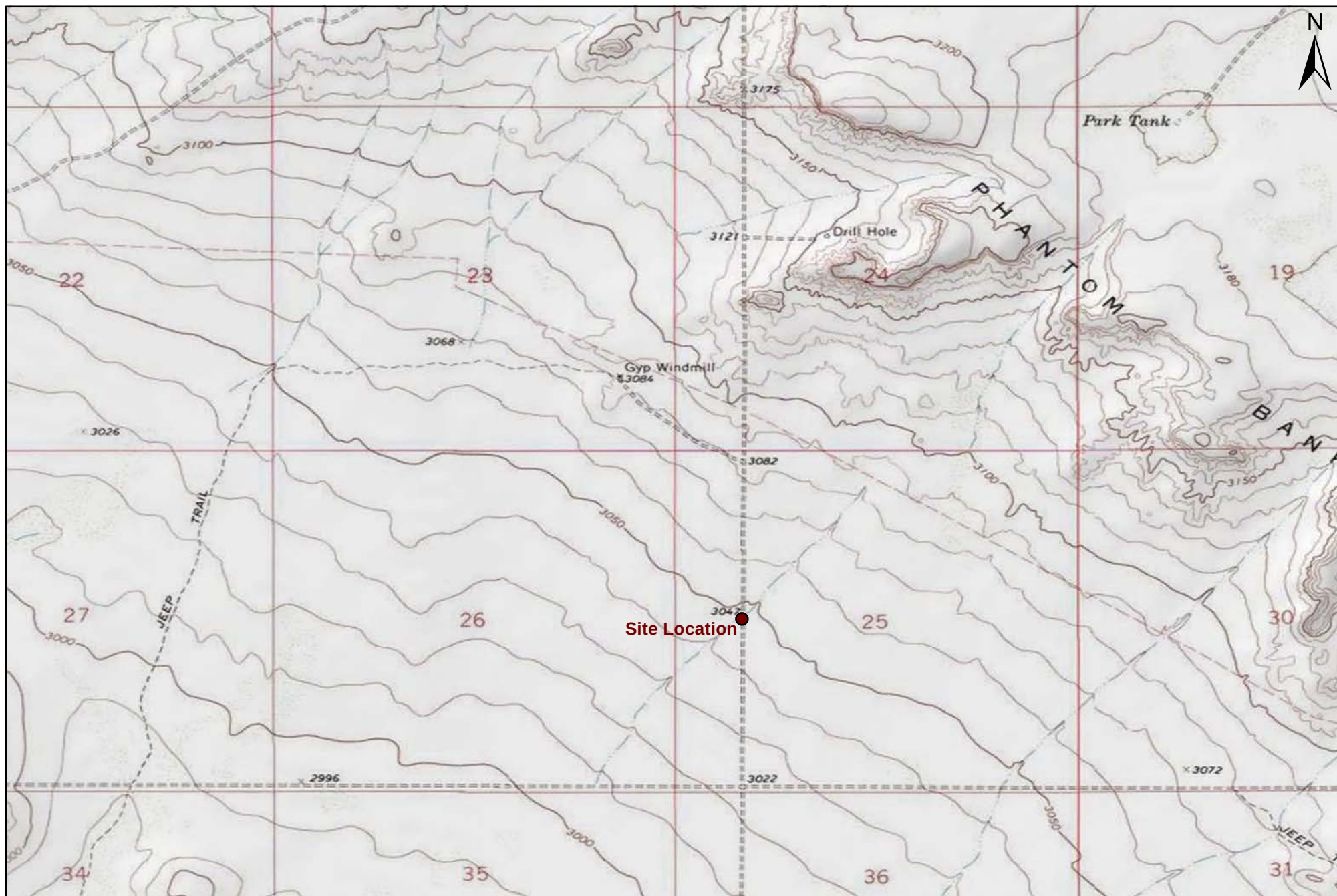
Describe Area Affected and Cleanup Action Taken.*

A caliche road was impacted by the pipeline release measuring approximately 510 feet in length and 5 to 15 feet in width. In addition, a limited volume of liquids were released into a dry road drainage, impacting approximately 80 linear feet of the road drainage. The release will be remediated to NMOCD regulatory guidelines.

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

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Curt D. Stanley	Approved by District Supervisor:		
Title: EHS Compliance Specialist	Approval Date:	Expiration Date:	
E-mail Address: curt.stanley@sug.com	Conditions of Approval:		Attached ☐
Date: May 22, 2012	Phone: 575-390-7595		

* Attach Additional Sheets If Necessary



1,000 500 0 1,000 2,000
 Distance in Feet

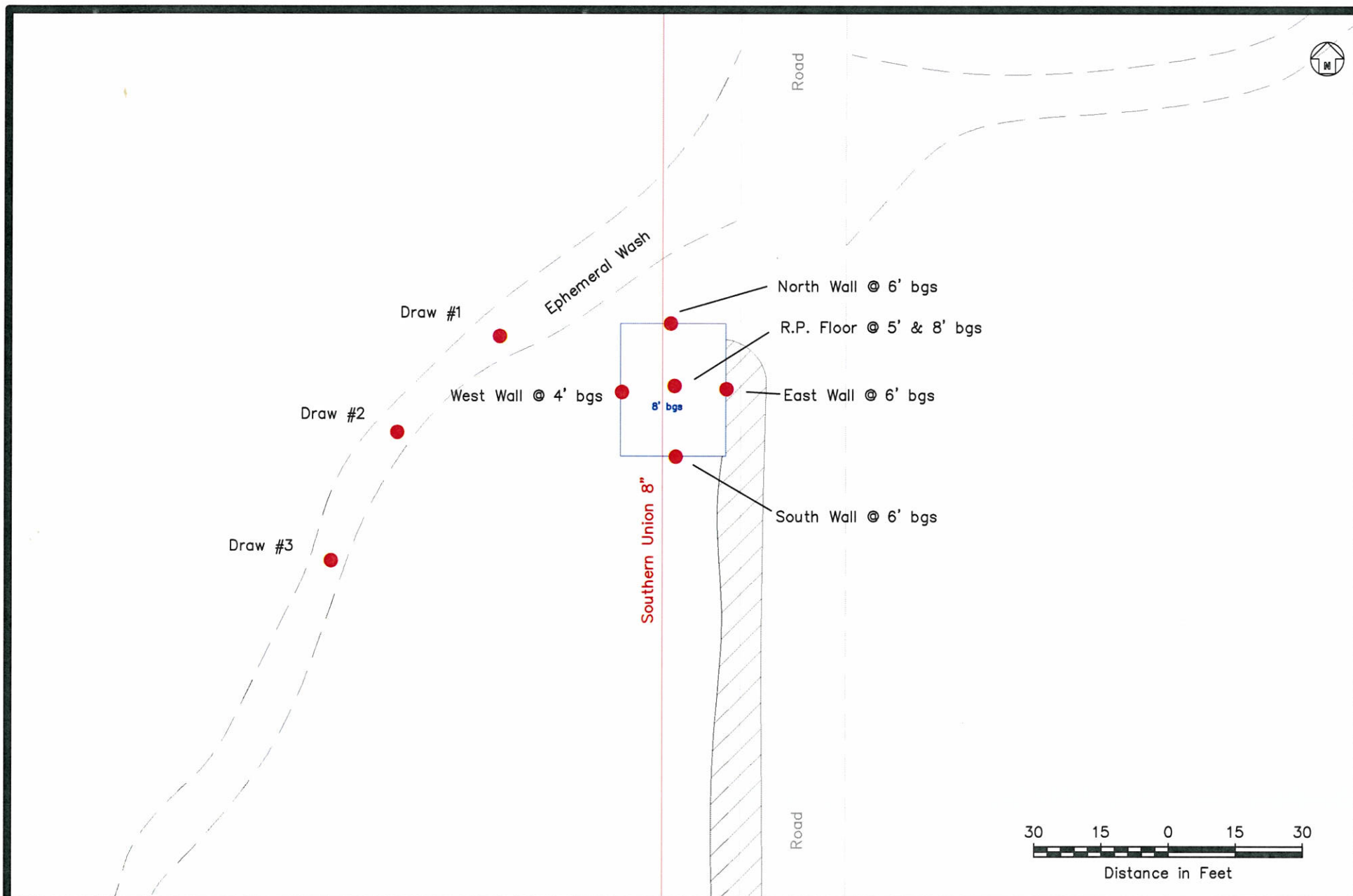
Figure 1
Site Location Map
 Southern Union Gas Services
 South Tunstil (5/17/12)
 Eddy County, New Mexico



Basin Environmental Service Technologies, LLC
 3100 Plains Hwy.
 Lovington, NM 88260

Drawn By: BJA Checked By: BRB

June 7, 2012 Scale: 1" = 2000'



Legend

- Sample Location
- Excavation Extent
- Wash
- Road
- Pipeline

Figure 2
Site & Sample Location Map
Southern Union Gas Services
South Tunstill 5-17-2012
NMOCD Ref #2RP
Eddy County, New Mexico

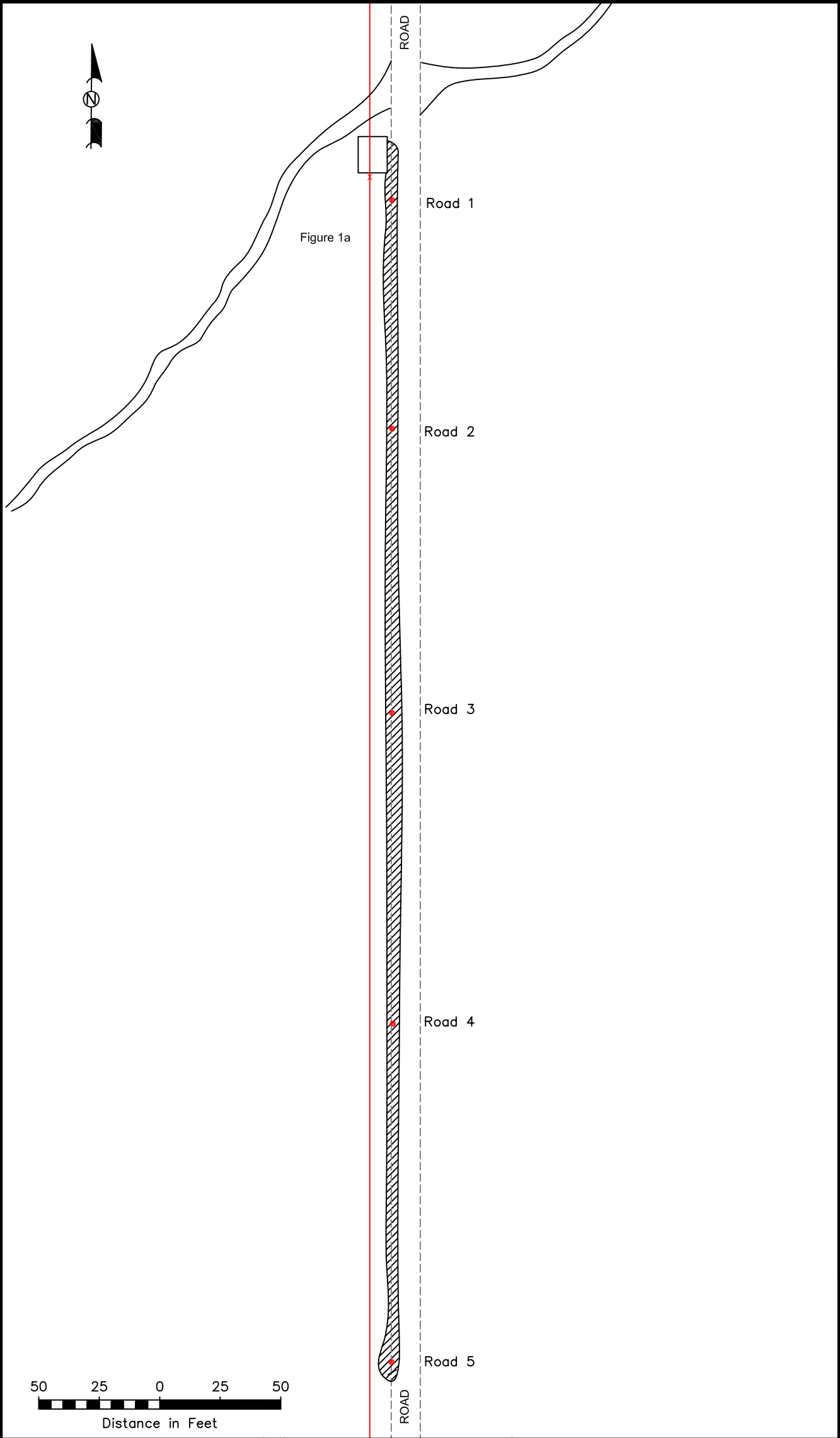
Basin Environmental Services

Prep By: JWL

Checked By: BJA

August 31, 2012

Scale 1"=30'



LEGEND:

- Excavation Extent
- Pipeline
- Sample Location
- Flow Path
- Calche Road
- Release Point

Figure 2b
Site & Sample Location Map (Flowpath)
Southern Union Gas Services
South Tunstall 5-7-12
Eddy County, NM

Basin Environmental Services

Scale: 1" = 50'	Drawn By: JWL	Prepared By: BRB
August 31, 2012		

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES
 SOUTH TUNSTALL 5-17-2012
 EDDY COUNTY, NEW MEXICO
 NMOCD REFERENCE NO: 2RP # _____

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	E 300.0 CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
Draw #1	N/A	8/13/2012	Washed	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<4.00	1,020	<50.0	1,020	160
Draw #2	N/A	8/13/2012	Washed	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<4.00	808	<50.0	808	102
Draw #3	N/A	8/13/2012	Washed	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	9.05	2,140	<50.0	2,140	92.5
West Wall @ 4' bgs	4'	8/14/2012	In-Situ	<0.0200	<0.0022	<0.0011	<0.0022	<0.0022	<4.00	<50.0	<50.0	<50.0	15.1
North Wall @ 6' bgs	6'	8/14/2012	In-Situ	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<4.00	<50.0	<50.0	<50.0	9.94
R.P. Floor @ 5' bgs	5'	8/14/2012	Excavated	<0.100	<0.100	<0.100	0.223	<0.0021	154	261	<50.0	415	43.3
R.P. Floor @ 8' bgs	8'	8/14/2012	In-Situ	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<4.00	<50.0	<50.0	<50.0	<5.00
East Wall @ 6' bgs	6'	8/14/2012	In-Situ	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<4.00	<50.0	<50.0	<50.0	<5.00
South Wall @ 6' bgs	6'	8/14/2012	In-Situ	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<4.00	<50.0	<50.0	<50.0	<5.00
Road 1	6"	10/26/2012	In-Situ	<0.00100	<0.00201	<0.00100	<0.00201	<0.00201	<15.1	<15.1	<15.1	<15.1	<1.12
Road 2	6"	10/26/2012	In-Situ	<0.00101	<0.00202	<0.00101	<0.00202	<0.00202	<15.2	374	<15.2	374	51.3
Road 3	6"	10/26/2012	In-Situ	<0.00101	<0.00201	<0.00101	<0.00201	<0.00201	16.6	396	<15.1	413	118.0
Road 4	6"	10/26/2012	In-Situ	<0.00101	<0.00201	<0.00101	<0.00201	<0.00201	<15.1	104	<15.1	104	45.4
Road 5	6"	10/26/2012	In-Situ	<0.00101	<0.00202	<0.00101	<0.00202	<0.00202	<15.2	217	<15.2	217	68.2
NMOCD Standard				10				50				5,000	

- = Not analyzed.

Report Date: August 22, 2012
South Tunstill 5-17-12

Work Order: 12081429
South Tunstill 5-17-12

Page Number: 4 of 20
Lea Co., NM

Analytical Report

Sample: 306715 - Draw #1

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 94090
Prep Batch: 79758

Analytical Method: S 8021B
Date Analyzed: 2012-08-20
Sample Preparation: 2012-08-20

Prep Method: S 5035
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.84	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.90	mg/Kg	1	2.00	95	70 - 130

Sample: 306715 - Draw #1

Laboratory: Lubbock
Analysis: Chloride (Titration)
QC Batch: 93966
Prep Batch: 79660

Analytical Method: SM 4500-Cl B
Date Analyzed: 2012-08-16
Sample Preparation: 2012-08-16

Prep Method: N/A
Analyzed By: LM
Prepared By: LM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			160	mg/Kg	10	5.00

Sample: 306715 - Draw #1

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 93964
Prep Batch: 79657

Analytical Method: S 8015 D
Date Analyzed: 2012-08-16
Sample Preparation: 2012-08-15

Prep Method: N/A
Analyzed By: CW
Prepared By: CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		2	1020	mg/Kg	1	50.0

Report Date: August 22, 2012
South Tunstill 5-17-12

Work Order: 12081429
South Tunstill 5-17-12

Page Number: 5 of 20
Lea Co., NM

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Q _{sr}	Q _{sr}	162	mg/Kg	1	100	162	70 - 130

Sample: 306715 - Draw #1

Laboratory: Lubbock
Analysis: TPH GRO
QC Batch: 94091
Prep Batch: 79758

Analytical Method: S 8015 D
Date Analyzed: 2012-08-20
Sample Preparation: 2012-08-20

Prep Method: S 5035
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.90	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	70 - 130

Sample: 306715 - Draw #1

Laboratory: Midland
Analysis: TPH ORO
QC Batch: 93981
Prep Batch: 79680

Analytical Method: S 8015 D
Date Analyzed: 2012-08-17
Sample Preparation: 2012-08-15

Prep Method: N/A
Analyzed By: CW
Prepared By: CW

Parameter	Flag	Cert	MDL Result	MQL Result	PQL Result	RL Result	Units	Dilution	MDL	MQL	PQL	RL
ORO	U		<14.5	<50.0	<50.0	<50.0	mg/Kg	1	14.5	50.0	50.0	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Q _{sr}	Q _{sr}	203	mg/Kg	1	100	203	70 - 130
n-Triacontane			92.0	mg/Kg	1	100	92	70 - 130

Sample: 306716 - Draw #2

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 94090
Prep Batch: 79758

Analytical Method: S 8021B
Date Analyzed: 2012-08-20
Sample Preparation: 2012-08-20

Prep Method: S 5035
Analyzed By: MT
Prepared By: MT

Report Date: August 22, 2012
South Tunstill 5-17-12

Work Order: 12081429
South Tunstill 5-17-12

Page Number: 6 of 20
Lea Co., NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.89	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	96	70 - 130

Sample: 306716 - Draw #2

Laboratory:	Lubbock	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2012-08-16	Analyzed By:	LM
QC Batch:	93966	Sample Preparation:	2012-08-16	Prepared By:	LM
Prep Batch:	79660				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			102	mg/Kg	10	5.00

Sample: 306716 - Draw #2

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2012-08-16	Analyzed By:	CW
QC Batch:	93964	Sample Preparation:	2012-08-15	Prepared By:	CW
Prep Batch:	79657				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		2	808	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Q _{sr}	Q _{sr}	160	mg/Kg	1	100	160	70 - 130

Sample: 306716 - Draw #2

Laboratory:	Lubbock	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2012-08-20	Analyzed By:	MT
QC Batch:	94091	Sample Preparation:	2012-08-20	Prepared By:	MT
Prep Batch:	79758				

Report Date: August 22, 2012
South Tunstill 5-17-12

Work Order: 12081429
South Tunstill 5-17-12

Page Number: 7 of 20
Lea Co., NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Jb	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.97	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.15	mg/Kg	1	2.00	108	70 - 130

Sample: 306716 - Draw #2

Laboratory: Midland
Analysis: TPH ORO
QC Batch: 93981
Prep Batch: 79680

Analytical Method: S 8015 D
Date Analyzed: 2012-08-17
Sample Preparation: 2012-08-15

Prep Method: N/A
Analyzed By: CW
Prepared By: CW

Parameter	Flag	Cert	MDL Result	MLQ Result	PQL Result	RL Result	Units	Dilution	MDL	MLQ	PQL	RL
ORO	U		<14.5	<50.0	<50.0	<50.0	mg/Kg	1	14.5	50.0	50.0	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	188	mg/Kg	1	100	188	70 - 130
n-Triacontane			95.2	mg/Kg	1	100	95	70 - 130

Sample: 306717 - Draw #3

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 94090
Prep Batch: 79758

Analytical Method: S 8021B
Date Analyzed: 2012-08-20
Sample Preparation: 2012-08-20

Prep Method: S 5035
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene		1	<0.0200	mg/Kg	1	0.0200
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.07	mg/Kg	1	2.00	104	70 - 130

Report Date: August 22, 2012
South Tunstill 5-17-12

Work Order: 12081429
South Tunstill 5-17-12

Page Number: 8 of 20
Lea Co., NM

Sample: 306717 - Draw #3

Laboratory:	Lubbock	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2012-08-16	Analyzed By:	LM
QC Batch:	93966	Sample Preparation:	2012-08-16	Prepared By:	LM
Prep Batch:	79660				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			92.5	mg/Kg	10	5.00

Sample: 306717 - Draw #3

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2012-08-16	Analyzed By:	CW
QC Batch:	93964	Sample Preparation:	2012-08-15	Prepared By:	CW
Prep Batch:	79657				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		2	2140	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Q _{sr}	Q _{sr}	183	mg/Kg	1	100	183	70 - 130

Sample: 306717 - Draw #3

Laboratory:	Lubbock	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2012-08-20	Analyzed By:	MT
QC Batch:	94091	Sample Preparation:	2012-08-20	Prepared By:	MT
Prep Batch:	79758				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B	1	9.05	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.04	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.87	mg/Kg	1	2.00	94	70 - 130

Report Date: August 22, 2012
South Tunstill 5-17-12

Work Order: 12081429
South Tunstill 5-17-12

Page Number: 9 of 20
Lea Co., NM

Sample: 306717 - Draw #3

Laboratory: Midland
Analysis: TPH ORO
QC Batch: 93981
Prep Batch: 79680

Analytical Method: S 8015 D
Date Analyzed: 2012-08-17
Sample Preparation: 2012-08-15

Prep Method: N/A
Analyzed By: CW
Prepared By: CW

Parameter	Flag	Cert	MDL Result	MQL Result	PQL Result	RL Result	Units	Dilution	MDL	MQL	PQL	RL
ORO	U		<14.5	<50.0	<50.0	<50.0	mg/Kg	1	14.5	50.0	50.0	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	275	mg/Kg	1	100	275	70 - 130
n-Triacontane			94.0	mg/Kg	1	100	94	70 - 130

2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name:

Fax #: 575-396-1429

E-mail: pm@basinenv.com
rose.slade@sug.com

Lea County, New Mexico

[illegible][illegible]

Received by:	Company:	Date:	Time:	INST	%
3000 LOWRY		8/14/12	8:30	OBS	%
				COR	%

Received by:	Company:	Date:	Time:	INST	%
<i>[Signature]</i>		8-14-12	9:00	OBS	%
				COR	%

Received by:	Company:	Date:	Time:	INST	%
<i>[Signature]</i>		8/14/12	3:45	OBS	%
				COR	1.5

LAB USE ONLY ☐ Intact ☒ Y/N ☐ Headspace Y/N/NA	☐ Dry Weight Basis Required	REMARKS: + 0.2 c.g. w/seals intact
	☐ TRRP Report Required	
	☐ Check if Special Reporting Limits Are Needed	
	Log-in Review _____	

Handy

Report Date: August 23, 2012
South Tunstill 5-17-12

Work Order: 12081630
South Tunstill 5-17-12

Page Number: 6 of 33
Lea Co., NM

Analytical Report

Sample: 306909 - West Wall @ 4' bgs

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 94162
Prep Batch: 79813

Analytical Method: S 8021B
Date Analyzed: 2012-08-22
Sample Preparation: 2012-08-22

Prep Method: S 5035
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.99	mg/Kg	1	2.00	100	70 - 130

Sample: 306909 - West Wall @ 4' bgs

Laboratory: Lubbock
Analysis: Chloride (Titration)
QC Batch: 94156
Prep Batch: 79810

Analytical Method: SM 4500-Cl B
Date Analyzed: 2012-08-23
Sample Preparation: 2012-08-23

Prep Method: N/A
Analyzed By: AH
Prepared By: AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs		15.1	mg/Kg	1	5.00

Sample: 306909 - West Wall @ 4' bgs

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 94033
Prep Batch: 79715

Analytical Method: S 8015 D
Date Analyzed: 2012-08-20
Sample Preparation: 2012-08-17

Prep Method: N/A
Analyzed By: CW
Prepared By: CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	U	2	<50.0	mg/Kg	1	50.0

Report Date: August 23, 2012
South Tunstill 5-17-12

Work Order: 12081630
South Tunstill 5-17-12

Page Number: 7 of 33
Lea Co., NM

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			127	mg/Kg	1	100	127	70 - 130

Sample: 306909 - West Wall @ 4' bgs

Laboratory: Lubbock
Analysis: TPH GRO
QC Batch: 94163
Prep Batch: 79813

Analytical Method: S 8015 D
Date Analyzed: 2012-08-22
Sample Preparation: 2012-08-22

Prep Method: S 5035
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.26	mg/Kg	1	2.00	113	70 - 130
4-Bromofluorobenzene (4-BFB)			2.26	mg/Kg	1	2.00	113	70 - 130

Sample: 306909 - West Wall @ 4' bgs

Laboratory: Midland
Analysis: TPH ORO
QC Batch: 94034
Prep Batch: 79718

Analytical Method: S 8015 D
Date Analyzed: 2012-08-20
Sample Preparation: 2012-08-17

Prep Method: N/A
Analyzed By: CW
Prepared By: CW

Parameter	Flag	Cert	MDL Result	MDL Result	PQL Result	RL Result	Units	Dilution	MDL	MQL	PQL	RL
ORO	u		<14.5	<50.0	<50.0	<50.0	mg/Kg	1	14.5	50.0	50.0	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			124	mg/Kg	1	100	124	70 - 130
n-Triacontane			98.0	mg/Kg	1	100	98	70 - 130

Sample: 306910 - North Wall @ 6' bgs

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 94162
Prep Batch: 79813

Analytical Method: S 8021B
Date Analyzed: 2012-08-22
Sample Preparation: 2012-08-22

Prep Method: S 5035
Analyzed By: MT
Prepared By: MT

Report Date: August 23, 2012
South Tunstill 5-17-12

Work Order: 12081630
South Tunstill 5-17-12

Page Number: 8 of 33
Lea Co., NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.91	mg/Kg	1	2.00	96	70 - 130

Sample: 306910 - North Wall @ 6' bgs

Laboratory:	Lubbock			
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method: N/A
QC Batch:	94156	Date Analyzed:	2012-08-23	Analyzed By: AH
Prep Batch:	79810	Sample Preparation:	2012-08-23	Prepared By: AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs		9.94	mg/Kg	1	5.00

Sample: 306910 - North Wall @ 6' bgs

Laboratory:	Midland			
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method: N/A
QC Batch:	94033	Date Analyzed:	2012-08-20	Analyzed By: CW
Prep Batch:	79715	Sample Preparation:	2012-08-17	Prepared By: CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	U	2	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			123	mg/Kg	1	100	123	70 - 130

Sample: 306910 - North Wall @ 6' bgs

Laboratory:	Lubbock			
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method: S 5035
QC Batch:	94163	Date Analyzed:	2012-08-22	Analyzed By: MT
Prep Batch:	79813	Sample Preparation:	2012-08-22	Prepared By: MT

Report Date: August 23, 2012
South Tunstill 5-17-12

Work Order: 12081630
South Tunstill 5-17-12

Page Number: 9 of 33
Lea Co., NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.21	mg/Kg	1	2.00	110	70 - 130
4-Bromofluorobenzene (4-BFB)			2.15	mg/Kg	1	2.00	108	70 - 130

Sample: 306910 - North Wall @ 6' bgs

Laboratory: Midland
Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 94034 Date Analyzed: 2012-08-20 Analyzed By: CW
Prep Batch: 79718 Sample Preparation: 2012-08-17 Prepared By: CW

Parameter	Flag	Cert	MDL Result	MLQ Result	PQL Result	RL Result	Units	Dilution	MDL	MLQ	PQL	RL
ORO	u		<14.5	<50.0	<50.0	<50.0	mg/Kg	1	14.5	50.0	50.0	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			122	mg/Kg	1	100	122	70 - 130
n-Triacontane			92.6	mg/Kg	1	100	93	70 - 130

Sample: 306911 - R. P. Floor @ 5' bgs

Laboratory: Lubbock
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 94162 Date Analyzed: 2012-08-22 Analyzed By: MT
Prep Batch: 79813 Sample Preparation: 2012-08-22 Prepared By: MT

Parameter	Flag	Cert	RL				
			Result	Units	Dilution	RL	
Benzene	1	u	1	<0.100	mg/Kg	5	0.0200
Toluene		u	1	<0.100	mg/Kg	5	0.0200
Ethylbenzene		u	1	<0.100	mg/Kg	5	0.0200
Xylene			1	0.223	mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.92	mg/Kg	5	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.45	mg/Kg	5	2.00	122	70 - 130

Report Date: August 23, 2012
South Tunstill 5-17-12

Work Order: 12081630
South Tunstill 5-17-12

Page Number: 10 of 33
Lea Co., NM

Sample: 306911 - R. P. Floor @ 5' bgs

Laboratory:	Lubbock	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2012-08-23	Analyzed By:	AH
QC Batch:	94156	Sample Preparation:	2012-08-23	Prepared By:	AH
Prep Batch:	79810				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs		43.3	mg/Kg	2	5.00

Sample: 306911 - R. P. Floor @ 5' bgs

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2012-08-20	Analyzed By:	CW
QC Batch:	94033	Sample Preparation:	2012-08-17	Prepared By:	CW
Prep Batch:	79715				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		2	261	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			119	mg/Kg	1	100	119	70 - 130

Sample: 306911 - R. P. Floor @ 5' bgs

Laboratory:	Lubbock	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2012-08-22	Analyzed By:	MT
QC Batch:	94163	Sample Preparation:	2012-08-22	Prepared By:	MT
Prep Batch:	79813				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	154	mg/Kg	5	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.72	mg/Kg	5	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	6.43	mg/Kg	5	2.00	322	70 - 130

Report Date: August 23, 2012
South Tunstill 5-17-12

Work Order: 12081630
South Tunstill 5-17-12

Page Number: 11 of 33
Lea Co., NM

Sample: 306911 - R. P. Floor @ 5' bgs

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH ORO	Date Analyzed:	2012-08-20	Analyzed By:	CW
QC Batch:	94034	Sample Preparation:	2012-08-17	Prepared By:	CW
Prep Batch:	79718				

Parameter	Flag	Cert	MDL Result	MQL Result	PQL Result	RL Result	Units	Dilution	MDL	MQL	PQL	RL
ORO	u		<14.5	<50.0	<50.0	<50.0	mg/Kg	1	14.5	50.0	50.0	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			121	mg/Kg	1	100	121	70 - 130
n-Triacontane			88.0	mg/Kg	1	100	88	70 - 130

Sample: 306912 - R. P. Floor @ 8' bgs

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2012-08-22	Analyzed By:	MT
QC Batch:	94162	Sample Preparation:	2012-08-22	Prepared By:	MT
Prep Batch:	79813				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.03	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.99	mg/Kg	1	2.00	100	70 - 130

Sample: 306912 - R. P. Floor @ 8' bgs

Laboratory:	Lubbock	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2012-08-23	Analyzed By:	AH
QC Batch:	94156	Sample Preparation:	2012-08-23	Prepared By:	AH
Prep Batch:	79810				

continued ...

Report Date: August 23, 2012
South Tunstill 5-17-12

Work Order: 12081630
South Tunstill 5-17-12

Page Number: 12 of 33
Lea Co., NM

sample 306912 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs		<5.00	mg/Kg	1	5.00

Sample: 306912 - R. P. Floor @ 8' bgs

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 94033
Prep Batch: 79715

Analytical Method: S 8015 D
Date Analyzed: 2012-08-20
Sample Preparation: 2012-08-17

Prep Method: N/A
Analyzed By: CW
Prepared By: CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	U	2	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			123	mg/Kg	1	100	123	70 - 130

Sample: 306912 - R. P. Floor @ 8' bgs

Laboratory: Lubbock
Analysis: TPH GRO
QC Batch: 94163
Prep Batch: 79813

Analytical Method: S 8015 D
Date Analyzed: 2012-08-22
Sample Preparation: 2012-08-22

Prep Method: S 5035
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.28	mg/Kg	1	2.00	114	70 - 130
4-Bromofluorobenzene (4-BFB)			2.14	mg/Kg	1	2.00	107	70 - 130

Report Date: August 23, 2012
South Tunstill 5-17-12

Work Order: 12081630
South Tunstill 5-17-12

Page Number: 13 of 33
Lea Co., NM

Sample: 306912 - R. P. Floor @ 8' bgs

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH ORO	Date Analyzed:	2012-08-20	Analyzed By:	CW
QC Batch:	94034	Sample Preparation:	2012-08-17	Prepared By:	CW
Prep Batch:	79718				

Parameter	Flag	Cert	MDL Result	MQL Result	PQL Result	RL Result	Units	Dilution	MDL	MQL	PQL	RL
ORO	u		<14.5	<50.0	<50.0	<50.0	mg/Kg	1	14.5	50.0	50.0	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			122	mg/Kg	1	100	122	70 - 130
n-Triacontane			94.2	mg/Kg	1	100	94	70 - 130

Sample: 306913 - East Wall @ 6' bgs

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2012-08-22	Analyzed By:	MT
QC Batch:	94162	Sample Preparation:	2012-08-22	Prepared By:	MT
Prep Batch:	79813				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.92	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	96	70 - 130

Sample: 306913 - East Wall @ 6' bgs

Laboratory:	Lubbock	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2012-08-23	Analyzed By:	AH
QC Batch:	94156	Sample Preparation:	2012-08-23	Prepared By:	AH
Prep Batch:	79810				

continued ...

Report Date: August 23, 2012
South Tunstill 5-17-12

Work Order: 12081630
South Tunstill 5-17-12

Page Number: 14 of 33
Lea Co., NM

sample 306913 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs		<5.00	mg/Kg	1	5.00

Sample: 306913 - East Wall @ 6' bgs

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	94033	Date Analyzed:	2012-08-20	Analyzed By:	CW
Prep Batch:	79715	Sample Preparation:	2012-08-17	Prepared By:	CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	U	2	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			124	mg/Kg	1	100	124	70 - 130

Sample: 306913 - East Wall @ 6' bgs

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	94163	Date Analyzed:	2012-08-22	Analyzed By:	MT
Prep Batch:	79813	Sample Preparation:	2012-08-22	Prepared By:	MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.20	mg/Kg	1	2.00	110	70 - 130
4-Bromofluorobenzene (4-BFB)			2.15	mg/Kg	1	2.00	108	70 - 130

Report Date: August 23, 2012
South Tunstill 5-17-12

Work Order: 12081630
South Tunstill 5-17-12

Page Number: 15 of 33
Lea Co., NM

Sample: 306913 - East Wall @ 6' bgs

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH ORO	Date Analyzed:	2012-08-20	Analyzed By:	CW
QC Batch:	94034	Sample Preparation:	2012-08-17	Prepared By:	CW
Prep Batch:	79718				

Parameter	Flag	Cert	MDL Result	MQL Result	PQL Result	RL Result	Units	Dilution	MDL	MQL	PQL	RL
ORO	u		<14.5	<50.0	<50.0	<50.0	mg/Kg	1	14.5	50.0	50.0	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			123	mg/Kg	1	100	123	70 - 130
n-Triacontane			94.9	mg/Kg	1	100	95	70 - 130

Sample: 306914 - South Wall @ 6' bgs

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2012-08-22	Analyzed By:	MT
QC Batch:	94162	Sample Preparation:	2012-08-22	Prepared By:	MT
Prep Batch:	79813				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.90	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			1.90	mg/Kg	1	2.00	95	70 - 130

Sample: 306914 - South Wall @ 6' bgs

Laboratory:	Lubbock	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2012-08-23	Analyzed By:	AH
QC Batch:	94156	Sample Preparation:	2012-08-23	Prepared By:	AH
Prep Batch:	79810				

continued ...

Report Date: August 23, 2012
South Tunstill 5-17-12

Work Order: 12081630
South Tunstill 5-17-12

Page Number: 16 of 33
Lea Co., NM

sample 306914 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs,U		<5.00	mg/Kg	1	5.00

Sample: 306914 - South Wall @ 6' bgs

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 94082
Prep Batch: 79748

Analytical Method: S 8015 D
Date Analyzed: 2012-08-21
Sample Preparation: 2012-08-20

Prep Method: N/A
Analyzed By: CW
Prepared By: CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qr,U	2	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			129	mg/Kg	1	100	129	70 - 130

Sample: 306914 - South Wall @ 6' bgs

Laboratory: Lubbock
Analysis: TPH GRO
QC Batch: 94163
Prep Batch: 79813

Analytical Method: S 8015 D
Date Analyzed: 2012-08-22
Sample Preparation: 2012-08-22

Prep Method: S 5035
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.16	mg/Kg	1	2.00	108	70 - 130
4-Bromofluorobenzene (4-BFB)			2.09	mg/Kg	1	2.00	104	70 - 130

Report Date: August 23, 2012
South Tunstill 5-17-12

Work Order: 12081630
South Tunstill 5-17-12

Page Number: 17 of 33
Lea Co., NM

Sample: 306914 - South Wall @ 6' bgs

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH ORO	Date Analyzed:	2012-08-21	Analyzed By:	CW
QC Batch:	94086	Sample Preparation:	2012-08-20	Prepared By:	CW
Prep Batch:	79755				

Parameter	Flag	Cert	MDL Result	MQL Result	PQL Result	RL Result	Units	Dilution	MDL	MQL	PQL	RL
ORO	u		<14.5	<50.0	<50.0	<50.0	mg/Kg	1	14.5	50.0	50.0	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			127	mg/Kg	1	100	127	70 - 130
n-Triacontane			94.8	mg/Kg	1	100	95	70 - 130



Certificate of Analysis Summary 451636

Southern Union Gas Services- Monahans, Monahans, TX



Project Id:

Contact: Joel Lowry

Project Name: South Tunstil 5-17-12

Date Received in Lab: Wed Oct-31-12 01:52 pm

Report Date: 08-NOV-12

Project Location: Lea County, NM

Project Manager: Nicholas Straccione

<i>Analysis Requested</i>	<i>Lab Id:</i>	451636-001	451636-002	451636-003	451636-004	451636-005	
	<i>Field Id:</i>	Road 1	Road 2	Road 3	Road 4	Road 5	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Oct-26-12 10:00	Oct-26-12 10:10	Oct-26-12 10:20	Oct-26-12 10:30	Oct-26-12 10:40	
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-02-12 00:00	Nov-02-12 00:00	Nov-02-12 00:00	Nov-02-12 00:00	Nov-02-12 00:00	
	<i>Analyzed:</i>	Nov-02-12 08:31	Nov-02-12 08:46	Nov-02-12 09:01	Nov-02-12 09:17	Nov-02-12 09:32	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		ND 0.00100	ND 0.00101	ND 0.00101	ND 0.00101	ND 0.00101	
Toluene		ND 0.00201	ND 0.00202	ND 0.00201	ND 0.00201	ND 0.00202	
Ethylbenzene		ND 0.00100	ND 0.00101	ND 0.00101	ND 0.00101	ND 0.00101	
m_p-Xylenes		ND 0.00201	ND 0.00202	ND 0.00201	ND 0.00201	ND 0.00202	
o-Xylene		ND 0.00100	ND 0.00101	ND 0.00101	ND 0.00101	ND 0.00101	
Total Xylenes		ND 0.00100	ND 0.00101	ND 0.00101	ND 0.00101	ND 0.00101	
Total BTEX		ND 0.00100	ND 0.00101	ND 0.00101	ND 0.00101	ND 0.00101	
Inorganic Anions by EPA 300/300.1 SUB: TX104704215	<i>Extracted:</i>	Nov-03-12 09:56	Nov-03-12 10:12	Nov-03-12 10:28	Nov-03-12 10:44	Nov-03-12 11:00	
	<i>Analyzed:</i>	Nov-03-12 09:56	Nov-03-12 10:12	Nov-03-12 10:28	Nov-03-12 10:44	Nov-03-12 11:00	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		ND 1.12	51.3 1.01	118 1.12	45.4 1.09	68.2 0.983	
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Oct-31-12 15:30	Oct-31-12 15:30	Oct-31-12 15:30	Oct-31-12 15:30	Oct-31-12 15:30	
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	
Percent Moisture		ND 1.00	1.23 1.00	ND 1.00	ND 1.00	1.26 1.00	
TPH By SW8015 Mod	<i>Extracted:</i>	Oct-31-12 14:30	Oct-31-12 14:30	Oct-31-12 14:30	Oct-31-12 14:30	Oct-31-12 14:30	
	<i>Analyzed:</i>	Nov-01-12 03:46	Nov-01-12 04:21	Nov-01-12 04:58	Nov-01-12 05:34	Nov-01-12 06:10	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
C6-C12 Gasoline Range Hydrocarbons		ND 15.1	ND 15.2	16.6 15.1	ND 15.1	ND 15.2	
C12-C28 Diesel Range Hydrocarbons		ND 15.1	374 15.2	396 15.1	104 15.1	217 15.2	
C28-C35 Oil Range Hydrocarbons		ND 15.1	ND 15.2	ND 15.1	ND 15.1	ND 15.2	
Total TPH		ND 15.1	374 15.2	413 15.1	104 15.1	217 15.2	

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

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

Version: 1.0

Nicholas Straccione
Project Manager

Xenco Laboratories

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

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

Project Manager: Ben J. Arguijo; Joel Lowry

Project Name: South Tunstil 5-17-12

Company Name **Basin Environmental Service Technologies, LLC**

Project #:

Company Address: P.O. Box 301

Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260

PO #: Bill Southern Union Gas Services

Telephone No: (575)396-2378

Fax No: (575) 396-1429

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: Joel Lowery

e-mail: pm@basinenv.com curt.stanley@sug.com

(lab use only)

ORDER #: 451636

[illegible]

Special Instructions: Run Cl⁻ First, If Cl⁻ < 1,000 Run TPH & BTEX

Laboratory Comments:

Relinquished by:

Date
10/29/17

Time
30

Received by:

Date	10-25
------	-------

Time	3:17
------	------

Relinquished by

Date	10.30.12
------	----------

Time
2:18

Received by

Date: 10/2/01

Time	19.2
------	------

Relinquished by: *blm*

Date	
------	--

Time

Received by ELOT:

Date _____

Time

Temperature Upon Receipt: _____

5 | °C