District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Southern Union Gas Services	Contact: Rose Slade
Address: 801 S. Loop 464, Monahans, Texas 79756	Telephone No.: 817.302.9716 or 432.940.5147
Facility Name California B (4-10)	Facility Type: Natural Gas Pipeline

Surface Owner: Dinwiddie Cattle Company	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	5	26S	36E					Lea

Latitude 32 03.897' **Longitude** 103 17.359'

NATURE OF RELEASE

Type of Release: Crude Oil, Produced Water and Natural Gas	Volume of Release: 154 barrels	Volume Recovered: 147 barrels
Source of Release: 16-inch steel pipeline	Date and Hour of Occurrence: April 14, 2011, approx. 0100 hrs	Date and Hour of Discovery April 14, 2011, approximately 0200 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Geoffrey Leking, NMOCD Hobbs District Office	
By Whom? Curt Stanley	Date and Hour April 14, 2011, 1113 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

HOBBS OCD

MAY 1 0 2013

RECEIVED

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* The release occurred during pipeline pigging activities. On discovery of the release, the pipeline was partially blown down to stop the further advancement of the pig. A vacuum truck was used to recover liquids previously release to the ground. The vacuum truck was also used to recover liquids as they were released from the pipeline. When the volume of liquids released from the pipeline subsided, the pipeline was fitted with a temporary clamp to mitigate the release. The cause of the release was attributed to external corrosion. The volume of natural gas released, is to be determined.

Describe Area Affected and Cleanup Action Taken.* The area was excavated, soil samples were collected from the excavated areas and submitted to the laboratory for benzene, BTEX, TPH and chloride analysis. Laboratory analytical results indicated benzene, BTEX, TPH and chloride concentrations were approved by the NMOCD. The excavated areas were backfilled and the site was restored to original conditions. Please reference NOVA Safety and Environmental Soil Investigation Summary and Site Closure Request dated May 2013, for further details.

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

Signature: Rose Slade	OIL CONSERVATION DIVISION	
Printed Name: Rose L. Slade	Approved by Environmental Specialist: Geoffrey Leking Environmental Specialist	
Title: Environmental Specialist	Approval Date: 5/13/13	Expiration Date: –
E-mail Address: rose.slade@energytransfer.com	Conditions of Approval: –	Attached ☐ 1RP-2698 IRP-04-01-2698
Date:5/13/2013 Phone: 432.940.5147		

* Attach Additional Sheets If Necessary

MAY 20 2013

SOIL INVESTIGATION SUMMARY

AND SITE

CLOSURE REQUEST

Southern Union Gas Services
California "B" (4-10) Historical Release Site
Lea County, New Mexico
UNIT LTR "M" (SW ¼ /SW ¼), Section 5, Township 26 South, Range 36 East
Latitude 32° 03.897' North, Longitude 103° 17.359' West
NMOCD Reference # 1RP-2698

NOVA
safety and environmental

Prepared For:

Southern Union Gas Services
801 South Loop 464
Monahans, Texas 79756

HOBBS OCD

MAY 10 2013

RECEIVED

Prepared By:

NOVA Safety & Environmental
2057 Commerce
Midland, Texas 79703

May 2013

Camille J. Bryant
Project Manager

Brittan K. Byerly, P.G.
President

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APPENDICES

1.0 INTRODUCTION

Nova Safety & Environmental (NOVA), on behalf of Southern Union Gas Services (SUGS), has prepared this Soil Investigation Summary and Site Closure Request for the California "B" (4-10) Historical Release Site. The legal description of the release site is Unit Letter "M" (SW ¼ SW ¼), Section 5, Township 26 South, Range 36 East, in Lea County, New Mexico. The property affected by the release is owned by the Dinwiddie Cattle Company. The release site GPS coordinates are 32° 03.897' North and 103° 17.359' West. Please reference Figure 1 for a Site Location Map and Figure 2 for a Site Details and Confirmation Soil Sample Locations Map. The Release Notification and Corrective Action (Form C-141) is provided as Appendix C.

On April 14, 2011, SUGS discovered a release of crude oil, produced water and natural gas had occurred from a sixteen (16) inch steel pipeline during pigging activities. The cause of the release was attributed to external corrosion of the steel pipeline. SUGS submitted the Release Notification and Corrective Action (Form C-141) to the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office on April 15, 2011. The C-141 indicated approximately one hundred fifty-four (154) barrels of fluids were released from the pipeline, with approximately one hundred forty-seven (147) barrels of fluids recovered. General photographs of the site are provided as Appendix B.

SUGS has researched and identified various historical release sites located in New Mexico. At the request of SUGS, NOVA has reviewed the historical data for these sites and conducted the necessary activities to ensure the sites meet the criteria for closure in accordance with NMOCD regulatory guidelines.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Office of the State Engineer (NMOSE) database did not identify the average depth to groundwater information for Section 5, Township 26 South, Range 36 East. A reference map utilized by the NMOCD indicated depth to groundwater at the release site should be encountered at approximately two hundred twenty-five (225) feet below ground surface (bgs). The depth to groundwater at the California "B" (4-10) Historical Release Site results in a score of zero (0) points being assigned to the site, based on the NMOCD depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there are no water wells less than 1,000 feet from the release, resulting in zero (0) points being assigned to this site as a result of this criteria.

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

The NMOCD guidelines indicate the California "B" (4-10) Historical Release Site has ranking score of zero (0). Based on this score, 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 NMOCD chloride cleanup level concentrations are site specific and will be determined by the NMOCD Hobbs District Office.

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On February 26, 2013, NOVA commenced soil investigation activities at the California "B" (4-10) Historical Release Site. Based on historical documentation and stressed vegetation, six (6) trenches were excavated in the caliche road. The trenches were completed to a total depth of approximately twelve (12) feet bgs, with the exception of trench Road 2, which was completed to a total depth of approximately fourteen (14) feet bgs. Due to the trenches being located in a highly travelled road, soil samples were collected and the trenches were backfilled. In addition, a trench was excavated on the south and north sides of the caliche road. The north trench was completed to a total depth of approximately six (6) feet bgs, while the south trench was completed to a total depth of approximately twelve (12) feet bgs. The depth of the trenches was determined by review of historical data and by field observations conducted during excavation activities. The six (6) trenches installed in the caliche road were installed from west to east approximately fifty (50) linear feet apart. Please reference Figure 2 for site details.

On February 27, 2013, four (4) trenches (Road-1, Road-2, Road-3, and Release Point Road) were excavated in the road. During excavation activities of the first trench, four (4) soil samples (Road-1 Surface, Road-1 @ 6', Road-1 @ 12', and Road-1 West S/W @ 11'), were collected and submitted to the laboratory for analysis. On completion of soil sampling activities the trench was backfilled. The soil samples were submitted to the laboratory for determination of concentrations of benzene, toluene, ethyl-benzene, and xylene (BTEX), total petroleum hydrocarbons (TPH), and chlorides using EPA SW-846 8012b, 8015M, and E 300, respectively. The analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory method detection limits (MDL) for all submitted soil samples. Chloride concentrations ranged from 5.46 mg/Kg for soil sample Road-1 Surface to 421 mg/Kg for soil sample Road-1 @ 6'. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines. Table 1 summarizes the Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil. Laboratory analytical reports are provided as Appendix A

During excavation activities of the second trench, three (3) soil samples (Road-2 Surface, Road-2 @ 6', and Road-2 @ 14') were collected from the trench and submitted to the laboratory for analysis. On completion of soil sampling activities the trench was backfilled. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all submitted soil samples. Chloride concentrations ranged from 10.9 mg/Kg for soil sample Road-2 Surface to 499 mg/Kg for soil sample Road-2 @ 6'. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines. Please reference Figure 2 for soil sample locations.

During excavation activities of the third trench, seven (7) soil samples (Road-3 Surface, Road-3 @ 2', Road-3 @ 4', Road-3 @ 6', Road-3 @ 8', Road-3 @ 10', and Road-3 @ 12') were collected from the trench. On completion of soil sampling activities the trench was backfilled.

The soil samples were submitted to the laboratory for benzene, BTEX and TPH analysis. In addition, soil samples Road-3 Surface, Road-3 @ 8', and Road-3 @ 12' were analyzed for chloride concentrations. Laboratory analytical results indicated benzene concentrations were less than the appropriate laboratory MDL for all submitted soil samples. BTEX concentrations ranged from less than the appropriate laboratory MDL for soil sample Road-3 @ 10' to 0.11244 mg/Kg for soil sample Road-3 @ 4'. TPH concentrations ranged from less than the appropriate laboratory MDL for soil samples Road-3 Surface, Road-3 @ 8', Road-3 @ 10', and Road-3 @ 12' to 87.8 mg/Kg for soil sample Road-3 @ 4'. Analytical results indicated chloride concentrations ranged from 43.8 mg/Kg for soil sample Road-3 Surface to 264 mg/Kg for soil sample Road-3 @ 8'. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines.

During excavation activities of the fourth trench, seven (7) soil samples (Release Point Road Surface, Release Point Road @ 2', Release Point Road @ 4', Release Point Road @ 6', Release Point Road @ 8', Release Point Road @ 10', and Release Point Road @ 12') were collected from the trench. On completion soil sampling activities the trench was backfilled. The soil samples were submitted to the laboratory for benzene, BTEX, and TPH analysis. In addition, soil samples Release Point Road Surface, Release Point Road @ 8', and Release Point Road @ 12' were analyzed for chloride concentrations. Laboratory analytical results indicated benzene and TPH concentrations were less than the appropriate laboratory MDL for all submitted soil samples. BTEX concentrations ranged from less than the appropriate laboratory MDL for soil samples Release Point Road Surface, Release Point Road @ 2', and Release Point Road @ 4' to 0.00869 mg/Kg for soil sample Release Point Road @ 8'. Analytical results indicated chloride concentrations ranged from 37.1 mg/Kg for soil sample Release Point Road Surface to 423 mg/Kg for soil sample Release Point Road @ 8'. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines (Table 1).

On February 28, 2013, three (3) trenches (Road-4, Road-5, and North) were excavated at the site. The first trench was excavated in the road. Seven (7) soil samples (Road-4 Surface, Road-4 @ 2', Road-4 @ 4', Road-4 @ 6', Road-4 @ 8', Road-4 @ 10', and Road-4 @ 12') were collected from the trench. On completion of soil sampling activities the trench was backfilled. The soil samples were submitted to the laboratory for benzene, BTEX, and TPH analysis. In addition, soil samples Road-4 Surface, Road-4 @ 6', and Road-4 @ 12' were analyzed for chloride concentrations. Laboratory analytical results indicated benzene concentrations ranged from less than the appropriate laboratory MDL for soil samples Road-4 Surface and Road-4 @ 2' to 0.0534 mg/Kg for soil sample Road-4 @ 6'. BTEX concentrations ranged from 0.0435 mg/Kg for soil sample Road-4 @ 2' to 1.1854 mg/Kg for soil sample Road-4 @ 6'. TPH concentrations ranged from less than the appropriate laboratory MDL for soil samples Road-4 Surface and Road-4 @ 2'to 5,220 mg/Kg for soil sample Road-4 @ 6'. Analytical results indicated chloride concentrations ranged from 16.8 mg/Kg for soil sample Road-4 Surface to 313 mg/Kg for soil sample Road-4 @ 12'. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines for all submitted soil samples with the exception of soil samples Road-4 @ 6' and Road-4 @ 12. Soil sample Road-4 @ 6' exhibited a TPH concentration of 5,220 mg/Kg, which is slightly above the NMOCD regulatory guideline. The soil samples collected immediately above and beneath soil sample Road-4 @ 6', at four and eight feet, exhibited TPH concentrations less than NMOCD regulatory guidelines. Soil sample Road-4 @ 12' exhibited a chloride concentration above 250 mg/Kg but

less than 1,000 mg/Kg. Due to the soil samples being located in a highly travelled road and the limited area of impact, the NMOCD granted verbal approval to leave the concentrations in–situ.

The second trench was excavated on the east end of the road. Four (4) soil samples (Road-5 Surface, Road-5 @ 6', Road-5 @ 12', and Road-5 East S/W @ 11') were collected from the trench and submitted to the laboratory for analysis. On completion of soil sampling activities the trench was backfilled. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all submitted soil samples. Chloride concentrations ranged from 32.1 mg/Kg for soil sample Road-5 @ 12' to 359 mg/Kg for soil sample Road-5 Surface. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines (Table 1).

The third trench was excavated on the north side of the road. Three (3) soil samples (North-1 Surface, North-1 @ 6', and North S-W @ 5') were collected from the trench and submitted to the laboratory for analysis. On completion of soil sampling activities the trench was backfilled. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all submitted soil samples. Chloride concentrations ranged from 2.41 mg/Kg for soil sample North-1 Surface to 18.6 mg/Kg for soil sample North-1 @ 6'. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines.

On March 1, 2013, the final trench was excavated on the south side of the road at the inferred release point. Four (4) soil samples (Release Point Surface, Release Point @ 8', Release Point @ 12', and Release Point S-W @ 11') were collected from the trench and submitted to the laboratory for analysis. On completion of soil sampling activities the trench was backfilled. Laboratory analytical results indicated benzene concentrations ranged from less than the appropriate laboratory MDL for soil samples Release Point Surface and Release Point @ 12' to 0.00319 mg/Kg for soil sample Release Point S-W @ 11'. BTEX concentrations ranged from 0.02446 mg/Kg for soil sample Release Point Surface to 0.21609 mg/Kg for soil sample Release Point S-W @ 11'. TPH concentrations ranged from less than the appropriate laboratory MDL for soil sample Release Point Surface, Release Point @ 12', and Release Point S-W @ 11' to 29.7 mg/Kg for soil sample Release Point @ 8'. Analytical results indicated chloride concentrations ranged from 16.1 mg/Kg for soil sample Release Point Surface to 290 mg/Kg for soil sample Release Point @ 8'. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines. Please reference Figure 2 for soil sample locations.

On March 27, 2013, SUGS and NOVA representatives met with a NMOCD Hobbs District Office representative to present the results of the soil investigation, and request closure approval for the site. The NMOCD Hobbs District Office representative granted verbal approval to close the site.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil samples were delivered to Permian Basin Environmental Lab, LP, of Midland, Texas for BTEX and/or TPH and/or chloride analyses using the methods described below. Soil

samples were analyzed for BTEX and/or TPH and/or chloride concentrations within fourteen (14) days following the sampling event.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030
- TPH concentrations in accordance with modified EPA Method 8015M GRO/DRO
- Chloride concentration in accordance with Method E 300.

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 (COC) form. These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

5.0 SITE CLOSURE REQUEST

Based on the analytical results of confirmation soil samples, NOVA recommends SUGS provide the NMOCD a copy of this Soil Investigation Summary and Site Closure Request and request the NMOCD grant final closure to the California "B" (4-10) Historical Release Site.

6.0 LIMITATIONS

NOVA Safety and Environmental has prepared this Soil Investigation Summary and Site Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

NOVA Safety and Environmental has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. NOVA Safety and Environmental has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. NOVA Safety and Environmental has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. NOVA Safety and Environmental also 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 NOVA Safety and Environmental and/or Southern Union Gas.

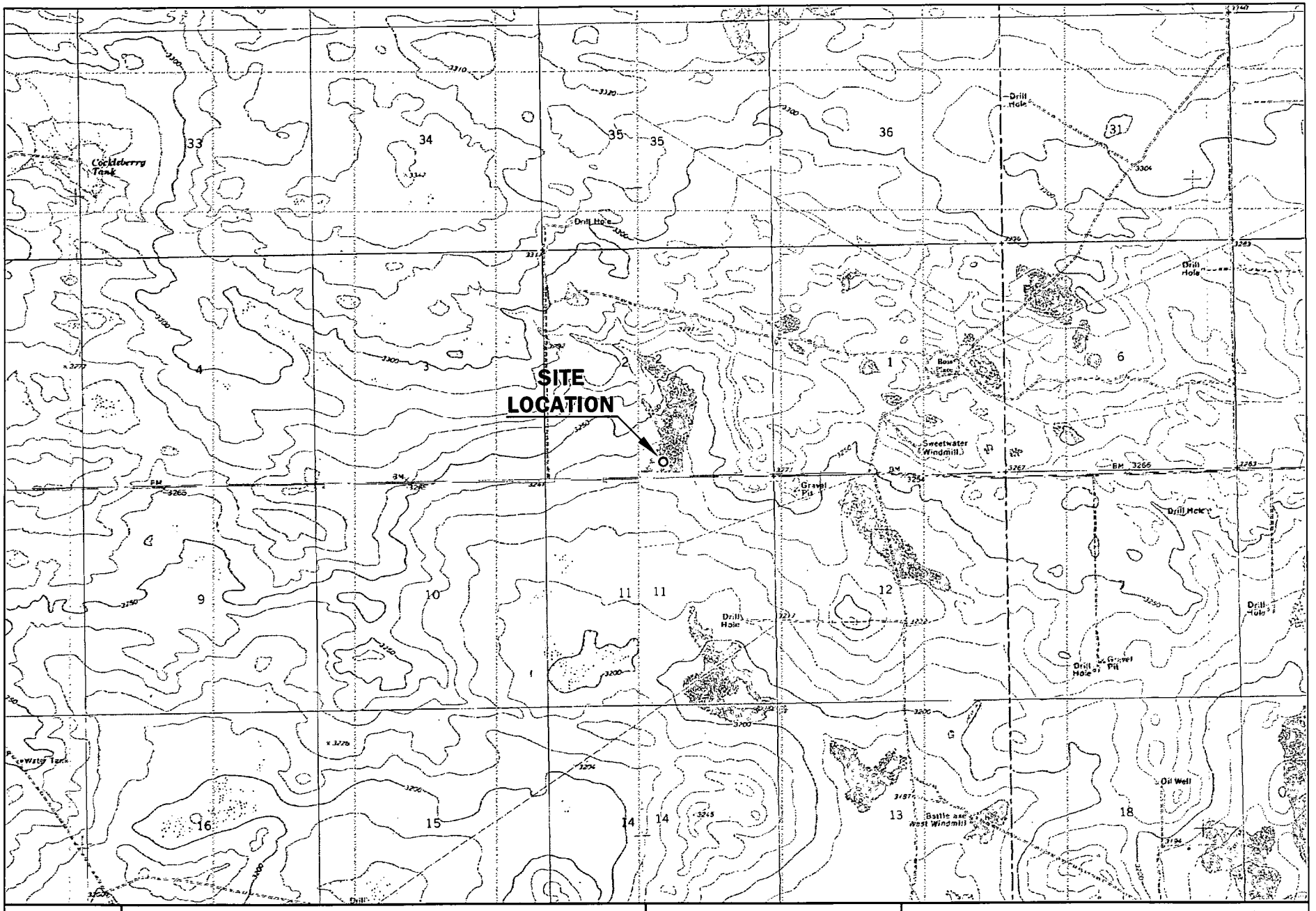
7.0 DISTRIBUTION:

Copy 1: Geoffrey Leking
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division (District 1)
1625 French Drive
Hobbs, New Mexico 88240

Copy 2: Rose Slade
Southern Union Gas Services
801 South Loop 464
Monahans, Texas 79756

Copy 3: Nova Safety & Environmental
2057 Commerce Street
Midland, Texas 79703

FIGURES



Legend:

Mapped edited and Published by the Geological Survey Control by USGS & USC & GS

Map Re-edited by Nova Safety and Environmental for the purpose of Site Location Maps.

Planimetry by Photogrammetric methods from aerial Photographs taken 1958. Topography by Planetabe Surveys 1961.

Fine red dashed lines indicate selected fence lines.

This map Complies with National Map Accuracy Standards

3000 1500 0 1500 3000

Distance in Feet

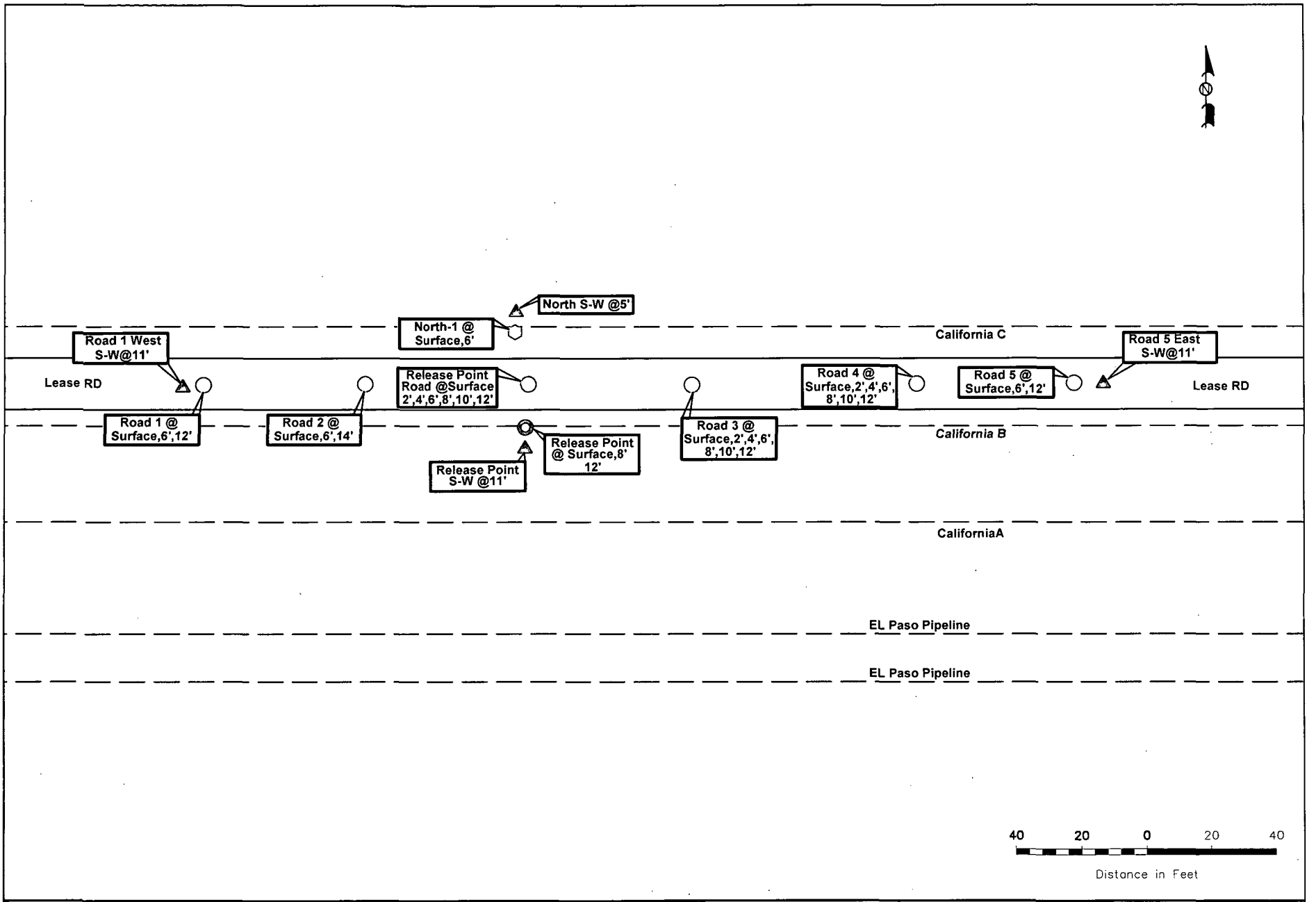
Figure 2
Site Map
Southern Union Gas Service
California B
Lea County, NM
1RP-2698

NOVA safety and environmental

2057 Commerce Drive
Midland, Texas 79703
432.520.7720
www.novasafetyandenvironmental.com

March 22, 2013	Scale: 1" - 3000'	CAD By: CAS	Checked By:

Lat. N 32° 3' 56.62" Long. W 103° 44' 52.89"



Legend:

- Sidewall Soil Sample Location
- Trench Soil Sample Location
- Road Samples
- Release Point
- SUG Pipeline
- El Paso Pipeline

Figure 2
Site Detail & Soil Sample Location Map
Southern Union Gas Service
California B
Lea County, NM
1RP-2698

NOVA safety and environmental
2057 Commerce Drive
Midland, Texas 79703
432.520.7720
www.novasafetyandenvironmental.com

March 22, 2013	Scale: 1" - 40'	CAD By: CAS	Checked By:

Lat. N 32° 3' 56.62" Long. W 103° 44' 52.89"

TABLES

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES
CALIFORNIA "B" (4-10) HISTORICAL RELEASE SITE
LEA COUNTY, NEW MEXICO
NMOCD # 1RP-2698

All concentrations are reported in mg/Kg

SAMPLE LOCATION	SAMPLE DATE	METHODS: SW 846-8021b						METHOD: SW 8015M				E 300.1
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	TOTAL BTEX	TPH GRO C_6-C_{12}	TPH DRO C_{12}-C_{28}	TPH ORO C_{28}-C_{35}	TOTAL TPH C_6-C_{35}	CHLORIDE
Road-1 Surface	02/27/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.3	<25.3	<25.3	<25.3	5.46
Road-1 @ 6'	02/27/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.0	<26.0	<26.0	<26.0	421
Road-1 @ 12'	02/27/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.5	<25.5	<25.5	<25.5	153
Road-1 West S/W @ 11'	02/27/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.5	<25.5	<25.5	<25.5	35.7
Road-2 Surface	02/27/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<27.2	<27.2	<27.2	<27.2	10.9
Road-2 @ 6'	02/27/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.3	<26.3	<26.3	<26.3	499
Road-2 @ 14'	02/27/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.3	<25.3	<25.3	<25.3	111
Road-3 Surface	02/27/13	<0.00100	<0.00200	<0.00100	0.0140	<0.00100	0.0140	<25.8	<25.8	<25.8	<25.8	43.8
Road-3 @ 2'	02/27/13	<0.00100	<0.00200	<0.00100	0.0336	<0.00100	0.0336	46.0	29.6	<25.3	75.6	-
Road-3 @ 4'	02/27/13	<0.00100	<0.00200	<0.00100	0.111	0.00144	0.11244	32.6	55.2	<26.9	87.8	-
Road-3 @ 6'	02/27/13	<0.00100	<0.00200	<0.00100	0.0207	<0.00100	0.0207	<26.0	32.9	<26.0	32.9	-
Road-3 @ 8'	02/27/13	<0.00100	<0.00200	0.00264	0.00648	<0.00100	0.00912	<25.8	<25.8	<25.8	<25.8	264
Road-3 @ 10'	02/27/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.5	<25.5	<25.5	<25.5	-
Road-3 @ 12'	02/27/13	<0.00100	<0.00200	0.00216	0.00622	<0.00100	0.00838	<25.3	<25.3	<25.3	<25.3	140
Release Point Road Surface	02/27/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.8	<25.8	<25.8	<25.8	37.1
Release Point Road @ 2'	02/27/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.3	<25.3	<25.3	<25.3	-
Release Point Road @ 4'	02/27/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.6	<26.6	<26.6	<26.6	-
Release Point Road @ 6'	02/27/13	<0.00100	<0.00200	<0.00100	0.00228	<0.00100	0.00228	<26.0	<26.0	<26.0	<26.0	-
Release Point Road @ 8'	02/27/13	<0.00100	<0.00200	0.00298	0.00571	<0.00100	0.00869	<26.0	<26.0	<26.0	<26.0	423
Release Point Road @ 10'	02/27/13	<0.00100	<0.00200	0.00191	0.00372	<0.00100	0.00563	<25.5	<25.5	<25.5	<25.5	-
Release Point Road @ 12'	02/27/13	<0.00100	<0.00200	<0.00100	0.00315	<0.00100	0.00315	<25.5	<25.5	<25.5	<25.5	191
Road-4 Surface	02/28/13	<0.00100	<0.00200	0.00203	0.0319	0.0227	0.05663	<25.8	<25.8	<25.8	<25.8	16.8
Road-4 @ 2'	02/28/13	<0.00100	<0.00200	<0.00100	0.0435	<0.00100	0.0435	<25.8	<25.8	<25.8	<25.8	-
Road-4 @ 4'	02/28/13	0.00253	<0.00200	<0.00100	0.207	0.0320	0.24153	62.5	37.6	<26.9	100	-
Road-4 @ 6'	02/28/13	0.0534	0.345	0.107	0.520	0.160	1.1854	4,640	549	27.9	**5,220**	89
Road-4 @ 8'	02/28/13	0.0178	0.0614	<0.00100	0.275	0.0429	0.3971	532	83.4	<25.5	616	-
Road-4 @ 10'	02/28/13	0.0103	0.0222	<0.00100	0.146	<0.00100	0.1785	91.6	<25.5	<25.5	91.6	-
Road-4 @ 12'	02/28/13	0.0127	<0.00200	0.0523	0.101	<0.00100	0.166	45.7	<26.3	<26.3	45.7	313
Road-5 Surface	02/28/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<27.8	<27.8	<27.8	<27.8	359
Road-5 @ 6'	02/28/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.0	<26.0	<26.0	<26.0	95.9
Road-5 @ 12'	02/28/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.8	<25.8	<25.8	<25.8	32.1
Road-5 East S/W @ 11'	02/28/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.5	<25.5	<25.5	<25.5	32.8
North-1 Surface	02/28/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.8	<25.8	<25.8	<25.8	2.41

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES
CALIFORNIA "B" (4-10) HISTORICAL RELEASE SITE
LEA COUNTY, NEW MEXICO
NMOCD # 1RP-2698

All concentrations are reported in mg/Kg

SAMPLE LOCATION	SAMPLE DATE	METHODS: SW 846-8021b						METHOD: SW 8015M				E 300.1
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	TOTAL BTEX	TPH GRO C_6-C_{12}	TPH DRO C_{12}-C_{28}	TPH ORO C_{28}-C_{35}	TOTAL TPH C_6-C_{35}	CHLORIDE
North-1 @ 6'	02/28/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.9	<26.9	<26.9	<26.9	18.6
North S-W @ 5'	02/28/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.5	<25.5	<25.5	<25.5	3.74
Release Point Surface	03/01/13	<0.00100	<0.00200	0.00462	0.0129	0.00694	0.02446	<25.3	<25.3	<25.3	<25.3	16.1
Release Point @ 8'	03/01/13	0.00107	<0.00200	0.00569	0.0327	0.00116	0.04062	<25.8	29.7	<25.8	29.7	290
Release Point @ 12'	03/01/13	<0.00100	<0.00200	0.00542	0.0197	<0.00100	0.02512	<25.5	<25.5	<25.5	<25.5	70.8
Release Point S-W @ 11'	03/01/13	0.00319	0.0158	0.0248	0.152	0.0203	0.21609	<26.3	<26.3	<26.3	<26.3	193

APPENDICES

APPENDIX A:
Analytical Reports

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
10014 SCR 1213
Midland, TX 79706

PBELAB

Analytical Report

Prepared for:

Camille Bryant
Nova Safety & Environment
2057 Commerce
Midland, TX 79703

Project: SUG Historical Cal "B" Line 1RP-2698
Project Number: 1RP-2698
Location: Lea County, New Mexico

Lab Order Number: 3C03004

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704156-12-1

Report Date: 03/07/13

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line 1RP-2698
Project Number: 1RP-2698
Project Manager: Camille Bryant

Fax: (432) 520-7701

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Road-1 Surface	3C03004-01	Soil	02/27/13 15:30	03-01-2013 15:46
Road-1 @ 6'	3C03004-02	Soil	02/27/13 15:40	03-01-2013 15:46
Road-1 @ 12'	3C03004-03	Soil	02/27/13 15:50	03-01-2013 15:46
Road-1 West S/W @ 11'	3C03004-04	Soil	02/27/13 16:00	03-01-2013 15:46
Road-2 Surface	3C03004-05	Soil	02/27/13 16:10	03-01-2013 15:46
Road-2 @ 6'	3C03004-06	Soil	02/27/13 16:20	03-01-2013 15:46
Road-2 @ 14'	3C03004-07	Soil	02/27/13 16:30	03-01-2013 15:46
Release Point Road Surface	3C03004-08	Soil	02/27/13 16:40	03-01-2013 15:46
Release Point Road @ 2'	3C03004-09	Soil	02/27/13 16:45	03-01-2013 15:46
Release Point Road @ 4'	3C03004-10	Soil	02/27/13 16:50	03-01-2013 15:46
Release Point Road @ 6'	3C03004-11	Soil	02/27/13 17:00	03-01-2013 15:46
Release Point Road @ 8'	3C03004-12	Soil	02/27/13 17:05	03-01-2013 15:46
Release Point Road @ 10'	3C03004-13	Soil	02/27/13 17:10	03-01-2013 15:46
Release Point Road @ 12'	3C03004-14	Soil	02/27/13 17:15	03-01-2013 15:46
Road-3 Surface	3C03004-15	Soil	02/27/13 17:20	03-01-2013 15:46
Road-3 @ 2'	3C03004-16	Soil	02/27/13 17:25	03-01-2013 15:46
Road-3 @ 4'	3C03004-17	Soil	02/27/13 17:30	03-01-2013 15:46
Road-3 @ 6'	3C03004-18	Soil	02/27/13 17:35	03-01-2013 15:46
Road-3 @ 8'	3C03004-19	Soil	02/27/13 17:40	03-01-2013 15:46
Road-3 @ 10'	3C03004-20	Soil	02/27/13 17:45	03-01-2013 15:46
Road-3 @ 12'	3C03004-21	Soil	02/27/13 17:50	03-01-2013 15:46
Road-4 Surface	3C03004-22	Soil	02/28/13 09:00	03-01-2013 15:46
Road-4 @ 2'	3C03004-23	Soil	02/28/13 09:05	03-01-2013 15:46
Road-4 @ 4'	3C03004-24	Soil	02/28/13 09:10	03-01-2013 15:46
Road-4 @ 6'	3C03004-25	Soil	02/28/13 09:15	03-01-2013 15:46
Road-4 @ 8'	3C03004-26	Soil	02/28/13 09:20	03-01-2013 15:46
Road-4 @ 10'	3C03004-27	Soil	02/28/13 09:25	03-01-2013 15:46
Road-4 @ 12'	3C03004-28	Soil	02/28/13 09:30	03-01-2013 15:46

Road-1 Surface

3C03004-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*117 %*	*75-125*		*EC30502*	*03/04/13*	*03/04/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*72.4 %*	*75-125*		*EC30502*	*03/04/13*	*03/04/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**5.46**	1.01	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**1.0**	0.1	%	1	EC30501	03/04/13	03/05/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	25.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	25.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*67.7 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	*S-GC*
Surrogate: o-Terphenyl		*112 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.3	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Road-1 @ 6'

3C03004-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*117 %*	*75-125*		*EC30502*	*03/04/13*	*03/04/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*68.2 %*	*75-125*		*EC30502*	*03/04/13*	*03/04/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**421**	1.04	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	26.0	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	26.0	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*81.6 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*108 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	26.0	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Road-1 @ 12'

3C03004-03 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30502	03/04/13	03/04/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*117 %*	*75-125*		*EC30502*	*03/04/13*	*03/04/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*65.5 %*	*75-125*		*EC30502*	*03/04/13*	*03/04/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**153**	1.02	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*88.3 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*111 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Road-1 West S/W @ 11'

3C03004-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*120 %*	*75-125*		*EC30503*	*03/04/13*	*03/04/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*58.0 %*	*75-125*		*EC30503*	*03/04/13*	*03/04/13*	*EPA 8021B*	*QM-05*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**35.7**	1.02	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*95.3 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*125 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Road-2 Surface

3C03004-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*121 %*	*75-125*		*EC30503*	*03/04/13*	*03/04/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*69.9 %*	*75-125*		*EC30503*	*03/04/13*	*03/04/13*	*EPA 8021B*	*QM-05*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**10.9**	1.09	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	27.2	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	27.2	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*88.5 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*120 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	27.2	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Road-2 @ 6'

3C03004-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*120 %*	*75-125*		*EC30503*	*03/04/13*	*03/04/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*70.3 %*	*75-125*		*EC30503*	*03/04/13*	*03/04/13*	*EPA 8021B*	*QM-05*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**499**	1.05	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	26.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	26.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*99.4 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*128 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	26.3	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Road-2 @ 14'

3C03004-07 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/04/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*122 %*	*75-125*		*EC30503*	*03/04/13*	*03/04/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*70.2 %*	*75-125*		*EC30503*	*03/04/13*	*03/04/13*	*EPA 8021B*	*QM-05*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**111**	1.01	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**1.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	25.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	25.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*127 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.3	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

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Release Point Road Surface

3C03004-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*119 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*80.9 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**37.1**	1.03	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*85.0 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*129 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Release Point Road @ 2'

3C03004-09 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*119 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*89.6 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**1.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	25.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	25.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*84.5 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*122 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.3	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

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Midland TX, 79703	Project Manager: Camille Bryant	

Release Point Road @ 4'

3C03004-10 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*117 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*76.6 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**6.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	26.6	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	26.6	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*121 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	26.6	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
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Release Point Road @ 6'

3C03004-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.00228**	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*121 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*79.0 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**4.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	26.0	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	26.0	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*83.2 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*117 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	26.0	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

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Release Point Road @ 8'

3C03004-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	**0.00298**	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.00571**	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*121 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*75.5 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**423**	1.04	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	26.0	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	26.0	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*119 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*146 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	26.0	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

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Release Point Road @ 10'

3C03004-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	**0.00191**	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.00372**	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*118 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*71.8 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**2.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*144 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
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Midland TX, 79703	Project Manager: Camille Bryant	

Release Point Road @ 12'

3C03004-14 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.00315**	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*120 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*48.6 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**191**	1.02	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*113 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*143 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
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Midland TX, 79703	Project Manager: Camille Bryant	

Road-3 Surface

3C03004-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.0140**	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*119 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*95.2 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**43.8**	1.03	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*140 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
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Midland TX, 79703	Project Manager: Camille Bryant	

Road-3 @ 2'

3C03004-16 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.0336**	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*116 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*97.2 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**1.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**46.0**	25.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C12-C28	**29.6**	25.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
>C28-C35	ND	25.3	mg/kg dry	1	EC30603	03/05/13	03/05/13	8015M	
Surrogate: 1-Chlorooctane		*95.5 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	
Surrogate: o-Terphenyl		*131 %*	*70-130*		*EC30603*	*03/05/13*	*03/05/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	**75.6**	25.3	mg/kg dry	1	[CALC]	03/05/13	03/05/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Road-3 @ 4'

3C03004-17 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.111**	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	**0.00144**	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*119 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*127 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**7.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**32.6**	26.9	mg/kg dry	1	EC30603	03/05/13	03/06/13	8015M	
>C12-C28	**55.2**	26.9	mg/kg dry	1	EC30603	03/05/13	03/06/13	8015M	
>C28-C35	ND	26.9	mg/kg dry	1	EC30603	03/05/13	03/06/13	8015M	
Surrogate: 1-Chlorooctane		*109 %*	*70-130*		*EC30603*	*03/05/13*	*03/06/13*	*8015M*	
Surrogate: o-Terphenyl		*146 %*	*70-130*		*EC30603*	*03/05/13*	*03/06/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	**87.8**	26.9	mg/kg dry	1	[CALC]	03/05/13	03/06/13	8015M	

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Road-3 @ 6'

3C03004-18 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.0207**	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*122 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*130 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**4.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C12-C28	**32.9**	26.0	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C28-C35	ND	26.0	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
Surrogate: 1-Chlorooctane		*115 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	
Surrogate: o-Terphenyl		*128 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	
Total Hydrocarbon nC6-nC35	**32.9**	26.0	mg/kg dry	1	[CALC]	03/06/13	03/06/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
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Midland TX, 79703	Project Manager: Camille Bryant	

Road-3 @ 8'

3C03004-19 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	**0.00264**	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.00648**	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*116 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*90.7 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**264**	1.03	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	EC30603	03/05/13	03/06/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EC30603	03/05/13	03/06/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EC30603	03/05/13	03/06/13	8015M	
Surrogate: 1-Chlorooctane		*106 %*	*70-130*		*EC30603*	*03/05/13*	*03/06/13*	*8015M*	
Surrogate: o-Terphenyl		*135 %*	*70-130*		*EC30603*	*03/05/13*	*03/06/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	03/05/13	03/06/13	8015M	

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Road-3 @ 10'

3C03004-20 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*117 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*68.5 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**2.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/06/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/06/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EC30603	03/05/13	03/06/13	8015M	
Surrogate: 1-Chlorooctane		*86.8 %*	*70-130*		*EC30603*	*03/05/13*	*03/06/13*	*8015M*	
Surrogate: o-Terphenyl		*133 %*	*70-130*		*EC30603*	*03/05/13*	*03/06/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	03/05/13	03/06/13	8015M	

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Road-3 @ 12'

3C03004-21 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	**0.00216**	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.00622**	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*113 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*75.6 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**140**	1.01	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**1.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.3	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C12-C28	ND	25.3	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C28-C35	ND	25.3	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
Surrogate: 1-Chlorooctane		*115 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	
Surrogate: o-Terphenyl		*134 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	25.3	mg/kg dry	1	[CALC]	03/06/13	03/06/13	8015M	

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Road-4 Surface

3C03004-22 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	**0.00203**	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.0319**	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	**0.0227**	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*116 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*78.0 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**16.8**	1.03	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
Surrogate: 1-Chlorooctane		*119 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	
Surrogate: o-Terphenyl		*140 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	03/06/13	03/06/13	8015M	

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Road-4 @ 2'

3C03004-23 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.0435**	0.00200	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30503	03/04/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*119 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*117 %*	*75-125*		*EC30503*	*03/04/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**3.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
Surrogate: 1-Chlorooctane		*119 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	
Surrogate: o-Terphenyl		*141 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	03/06/13	03/06/13	8015M	

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Road-4 @ 4'

3C03004-24 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.00253**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.207**	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	**0.0320**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*254 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	*S-GC*
Surrogate: 4-Bromofluorobenzene		*117 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**7.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**62.5**	26.9	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C12-C28	**37.6**	26.9	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C28-C35	ND	26.9	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
Surrogate: 1-Chlorooctane		*115 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	
Surrogate: o-Terphenyl		*133 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	**100**	26.9	mg/kg dry	1	[CALC]	03/06/13	03/06/13	8015M	

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Road-4 @ 6'

3C03004-25 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.0534**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	**0.345**	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	**0.107**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.520**	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	**0.160**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*90.6 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*27.0 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**89.0**	1.05	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**4640**	26.3	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C12-C28	**549**	26.3	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C28-C35	**27.9**	26.3	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
Surrogate: 1-Chlorooctane		*120 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	
Surrogate: o-Terphenyl		*124 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	
Total Hydrocarbon nC6-nC35	**5220**	26.3	mg/kg dry	1	[CALC]	03/06/13	03/06/13	8015M	

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Road-4 @ 8'

3C03004-26 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.0178**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	**0.0614**	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.275**	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	**0.0429**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*388 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	*S-GC*
Surrogate: 4-Bromofluorobenzene		*93.5 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**2.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**532**	25.5	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C12-C28	**83.4**	25.5	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
Surrogate: 1-Chlorooctane		*126 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	
Surrogate: o-Terphenyl		*135 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	**616**	25.5	mg/kg dry	1	[CALC]	03/06/13	03/06/13	8015M	

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Road-4 @ 10'

3C03004-27 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.0103**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	**0.0222**	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.146**	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*1110 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	*S-GC*
Surrogate: 4-Bromofluorobenzene		*113 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**2.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**91.6**	25.5	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
Surrogate: 1-Chlorooctane		*119 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	
Surrogate: o-Terphenyl		*141 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	**91.6**	25.5	mg/kg dry	1	[CALC]	03/06/13	03/06/13	8015M	

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Midland TX, 79703	Project Manager: Camille Bryant	

Road-4 @ 12'

3C03004-28 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.0127**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	**0.0523**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.101**	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*87.9 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*98.0 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**313**	1.05	mg/kg dry	1	EC30506	03/05/13	03/06/13	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	EC30601	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**45.7**	26.3	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C12-C28	ND	26.3	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
>C28-C35	ND	26.3	mg/kg dry	1	EC30703	03/06/13	03/06/13	8015M	
Surrogate: 1-Chlorooctane		*115 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	
Surrogate: o-Terphenyl		*135 %*	*70-130*		*EC30703*	*03/06/13*	*03/06/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	**45.7**	26.3	mg/kg dry	1	[CALC]	03/06/13	03/06/13	8015M	

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Organics by GC - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30502 - General Preparation (GC)										
Blank (EC30502-BLK1)				Prepared & Analyzed: 03/04/13						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	*71.5*		*ug/kg*	*60.0*		*119*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*43.1*		"	*60.0*		*71.9*	*75-125*			*S-GC*
LCS (EC30502-BS1)				Prepared & Analyzed: 03/04/13						
Benzene	0.0838	0.00100	mg/kg wet	0.100		83.8	80-120			
Toluene	0.116	0.00200	"	0.100		116	80-120			
Ethylbenzene	0.119	0.00100	"	0.100		119	80-120			
Xylene (p/m)	0.234	0.00200	"	0.200		117	80-120			
Xylene (o)	0.109	0.00100	"	0.100		109	80-120			
Surrogate: 1,4-Difluorobenzene	*58.7*		*ug/kg*	*60.0*		*97.9*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*48.4*		"	*60.0*		*80.7*	*75-125*			
LCS Dup (EC30502-BSD1)				Prepared & Analyzed: 03/04/13						
Benzene	0.0808	0.00100	mg/kg wet	0.100		80.8	80-120	3.60	20	
Toluene	0.119	0.00200	"	0.100		119	80-120	3.19	20	
Ethylbenzene	0.120	0.00100	"	0.100		120	80-120	1.34	20	
Xylene (p/m)	0.233	0.00200	"	0.200		117	80-120	0.612	20	
Xylene (o)	0.113	0.00100	"	0.100		113	80-120	3.67	20	
Surrogate: 1,4-Difluorobenzene	*0.00*		*ug/kg*	*60.0*			*75-125*			*S-GC*
Surrogate: 4-Bromofluorobenzene	*53.7*		"	*60.0*		*89.6*	*75-125*			
Matrix Spike (EC30502-MS1)	**Source: 3C01005-01**			Prepared & Analyzed: 03/04/13						
Benzene	0.0501	0.00100	mg/kg dry	0.103	ND	48.5	80-120			QM-05
Toluene	0.0703	0.00200	"	0.103	ND	68.2	80-120			QM-05
Ethylbenzene	0.0712	0.00100	"	0.103	ND	69.0	80-120			QM-05
Xylene (p/m)	0.143	0.00200	"	0.206	ND	69.5	80-120			QM-05
Xylene (o)	0.0677	0.00100	"	0.103	ND	65.7	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*61.5*		*ug/kg*	*60.0*		*102*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*51.0*		"	*60.0*		*85.0*	*75-125*			

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Organics by GC - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30502 - General Preparation (GC)										
Matrix Spike Dup (EC30502-MSD1)	**Source: 3C01005-01**			Prepared & Analyzed: 03/04/13						
Benzene	0.0530	0.00100	mg/kg dry	0.103	ND	51.4	80-120	5.78	20	QM-05
Toluene	0.0747	0.00200	"	0.103	ND	72.4	80-120	6.00	20	QM-05
Ethylbenzene	0.0758	0.00100	"	0.103	ND	73.5	80-120	6.30	20	QM-05
Xylene (p/m)	0.154	0.00200	"	0.206	ND	74.6	80-120	7.04	20	QM-05
Xylene (o)	0.0730	0.00100	"	0.103	ND	70.8	80-120	7.44	20	QM-05
Surrogate: 1,4-Difluorobenzene	*64.2*		*ug/kg*	*60.0*		*107*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*55.0*		*"*	*60.0*		*91.6*	*75-125*			
Batch EC30503 - General Preparation (GC)										
Blank (EC30503-BLK1)				Prepared & Analyzed: 03/04/13						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	*73.3*		*ug/kg*	*60.0*		*122*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*40.6*		*"*	*60.0*		*67.6*	*75-125*			*S-GC*
LCS (EC30503-BS1)				Prepared & Analyzed: 03/04/13						
Benzene	0.0831	0.00100	mg/kg wet	0.100		83.1	80-120			
Toluene	0.112	0.00200	"	0.100		112	80-120			
Ethylbenzene	0.110	0.00100	"	0.100		110	80-120			
Xylene (p/m)	0.227	0.00200	"	0.200		113	80-120			
Xylene (o)	0.108	0.00100	"	0.100		108	80-120			
Surrogate: 1,4-Difluorobenzene	*71.7*		*ug/kg*	*60.0*		*120*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*61.9*		*"*	*60.0*		*103*	*75-125*			

Organics by GC - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30503 - General Preparation (GC)										
LCS Dup (EC30503-BSD1)				Prepared & Analyzed: 03/04/13						
Benzene	0.0822	0.00100	mg/kg wet	0.100		82.2	80-120	1.08	20	
Toluene	0.108	0.00200	"	0.100		108	80-120	3.27	20	
Ethylbenzene	0.107	0.00100	"	0.100		107	80-120	3.37	20	
Xylene (p/m)	0.219	0.00200	"	0.200		110	80-120	3.19	20	
Xylene (o)	0.105	0.00100	"	0.100		105	80-120	3.12	20	
Surrogate: 1,4-Difluorobenzene	*71.3*		*ug/kg*	*60.0*		*119*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*61.9*		*"*	*60.0*		*103*	*75-125*			
Matrix Spike (EC30503-MS1)		**Source: 3C03004-04**		Prepared: 03/04/13 Analyzed: 03/05/13						
Benzene	0.0610	0.00100	mg/kg dry	0.102	ND	59.8	80-120			QM-05
Toluene	0.0882	0.00200	"	0.102	ND	86.4	80-120			
Ethylbenzene	0.0873	0.00100	"	0.102	ND	85.6	80-120			
Xylene (p/m)	0.180	0.00200	"	0.204	ND	88.1	80-120			
Xylene (o)	0.0860	0.00100	"	0.102	ND	84.3	80-120			
Surrogate: 1,4-Difluorobenzene	*71.5*		*ug/kg*	*60.0*		*119*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*60.2*		*"*	*60.0*		*100*	*75-125*			
Matrix Spike Dup (EC30503-MSD1)		**Source: 3C03004-04**		Prepared: 03/04/13 Analyzed: 03/05/13						
Benzene	0.0617	0.00100	mg/kg dry	0.102	ND	60.5	80-120	1.13	20	QM-05
Toluene	0.0888	0.00200	"	0.102	ND	87.1	80-120	0.738	20	
Ethylbenzene	0.0871	0.00100	"	0.102	ND	85.4	80-120	0.199	20	
Xylene (p/m)	0.178	0.00200	"	0.204	ND	87.2	80-120	0.964	20	
Xylene (o)	0.0854	0.00100	"	0.102	ND	83.7	80-120	0.679	20	
Surrogate: 1,4-Difluorobenzene	*70.9*		*ug/kg*	*60.0*		*118*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*59.5*		*"*	*60.0*		*99.1*	*75-125*			
Batch EC30602 - General Preparation (GC)										
Blank (EC30602-BLK1)				Prepared & Analyzed: 03/05/13						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	*70.8*		*ug/kg*	*60.0*		*118*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*41.1*		*"*	*60.0*		*68.5*	*75-125*			*S-GC*

Organics by GC - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30602 - General Preparation (GC)										
LCS (EC30602-BS1)				Prepared & Analyzed: 03/05/13						
Benzene	0.0831	0.00100	mg/kg wet	0.100		83.1	80-120			
Toluene	0.117	0.00200	"	0.100		117	80-120			
Ethylbenzene	0.120	0.00100	"	0.100		120	80-120			
Xylene (p/m)	0.219	0.00200	"	0.200		109	80-120			
Xylene (o)	0.115	0.00100	"	0.100		115	80-120			
Surrogate: 1,4-Difluorobenzene	*64.4*		*ug/kg*	*60.0*		*107*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*55.7*		"	*60.0*		*92.8*	*75-125*			
LCS Dup (EC30602-BSD1)				Prepared & Analyzed: 03/05/13						
Benzene	0.0815	0.00100	mg/kg wet	0.100		81.5	80-120	1.98	20	
Toluene	0.115	0.00200	"	0.100		115	80-120	1.70	20	
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120	1.68	20	
Xylene (p/m)	0.233	0.00200	"	0.200		116	80-120	6.17	20	
Xylene (o)	0.112	0.00100	"	0.100		112	80-120	2.02	20	
Surrogate: 1,4-Difluorobenzene	*63.6*		*ug/kg*	*60.0*		*106*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*54.0*		"	*60.0*		*90.0*	*75-125*			
Matrix Spike (EC30602-MS1)		**Source: 3C03004-24**		Prepared & Analyzed: 03/05/13						
Benzene	0.0422	0.00100	mg/kg dry	0.108	0.00253	36.9	80-120			QM-05
Toluene	0.0643	0.00200	"	0.108	ND	59.8	80-120			QM-05
Ethylbenzene	0.0716	0.00100	"	0.108	ND	66.5	80-120			QM-05
Xylene (p/m)	0.421	0.00200	"	0.215	0.207	99.4	80-120			
Xylene (o)	0.113	0.00100	"	0.108	0.0320	75.8	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*57.0*		*ug/kg*	*60.0*		*94.9*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*65.9*		"	*60.0*		*110*	*75-125*			
Matrix Spike Dup (EC30602-MSD1)		**Source: 3C03004-24**		Prepared & Analyzed: 03/05/13						
Benzene	0.0458	0.00100	mg/kg dry	0.108	0.00253	40.3	80-120	8.66	20	QM-05
Toluene	0.0726	0.00200	"	0.108	ND	67.5	80-120	12.2	20	QM-05
Ethylbenzene	0.0650	0.00100	"	0.108	ND	60.5	80-120	9.59	20	QM-05
Xylene (p/m)	0.367	0.00200	"	0.215	0.207	74.1	80-120	29.1	20	QM-05
Xylene (o)	0.114	0.00100	"	0.108	0.0320	75.9	80-120	0.145	20	QM-05
Surrogate: 1,4-Difluorobenzene	*55.3*		*ug/kg*	*60.0*		*92.1*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*64.0*		"	*60.0*		*107*	*75-125*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30501 - * DEFAULT PREP *** **										
Blank (EC30501-BLK1)				Prepared: 03/04/13 Analyzed: 03/05/13						
% Moisture	ND	0.1	%							
Duplicate (EC30501-DUP1)		**Source: 3C01005-01**		Prepared: 03/04/13 Analyzed: 03/05/13						
% Moisture	2.0	0.1	%		3.0			40.0	20	R3
Batch EC30506 - * DEFAULT PREP *** **										
Blank (EC30506-BLK1)				Prepared & Analyzed: 03/05/13						
Chloride	ND	1.00	mg/kg wet							
LCS (EC30506-BS1)				Prepared & Analyzed: 03/05/13						
Chloride	9.42		mg/kg Wet	10.0		94.2	80-120			
LCS Dup (EC30506-BSD1)				Prepared & Analyzed: 03/05/13						
Chloride	9.31		mg/kg Wet	10.0		93.1	80-120	1.21	20	
Duplicate (EC30506-DUP1)		**Source: 3C04001-02**		Prepared & Analyzed: 03/05/13						
Chloride	5.21	1.01	mg/kg dry		5.18			0.583	20	
Matrix Spike (EC30506-MS1)		**Source: 3C04001-02**		Prepared & Analyzed: 03/05/13						
Chloride	140	1.01	mg/kg dry	126	5.18	107	80-120			
Matrix Spike (EC30506-MS2)		**Source: 3C03004-06**		Prepared: 03/05/13 Analyzed: 03/06/13						
Chloride	610	1.05	mg/kg dry	132	499	84.5	80-120			
Batch EC30601 - * DEFAULT PREP *** **										
Blank (EC30601-BLK1)				Prepared: 03/05/13 Analyzed: 03/06/13						
% Moisture	ND	0.1	%							

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30601 - * DEFAULT PREP *****										
Duplicate (EC30601-DUP1)	**Source: 3C03004-02**			Prepared: 03/05/13 Analyzed: 03/06/13						
% Moisture	4.0	0.1	%		4.0			0.00	20	

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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30603 - TX 1005										
Blank (EC30603-BLK1)				Prepared & Analyzed: 03/05/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*123*		"	*100*		*123*	*70-130*			
Surrogate: o-Terphenyl	*74.3*		"	*50.0*		*149*	*70-130*			*S-GC*
LCS (EC30603-BS1)				Prepared & Analyzed: 03/05/13						
C6-C12	1130	25.0	mg/kg wet	1000		113	75-125			
>C12-C28	1220	25.0	"	1000		122	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*127*		"	*100*		*127*	*70-130*			
Surrogate: o-Terphenyl	*64.8*		"	*50.0*		*130*	*70-130*			
LCS Dup (EC30603-BSD1)				Prepared & Analyzed: 03/05/13						
C6-C12	1130	25.0	mg/kg wet	1000		113	75-125	0.182	20	
>C12-C28	1110	25.0	"	1000		111	75-125	8.90	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*112*		"	*100*		*112*	*70-130*			
Surrogate: o-Terphenyl	*59.2*		"	*50.0*		*118*	*70-130*			
Matrix Spike (EC30603-MS1)	**Source: 3C03004-02**			Prepared: 03/05/13 Analyzed: 03/06/13						
C6-C12	1150	26.0	mg/kg dry	1040	ND	111	75-125			
>C12-C28	1280	26.0	"	1040	ND	123	75-125			
>C28-C35	ND	26.0	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	*134*		"	*104*		*128*	*70-130*			
Surrogate: o-Terphenyl	*68.0*		"	*52.1*		*131*	*70-130*			*S-GC*
Matrix Spike Dup (EC30603-MSD1)	**Source: 3C03004-02**			Prepared: 03/05/13 Analyzed: 03/06/13						
C6-C12	1230	26.0	mg/kg dry	1040	ND	118	75-125	6.55	20	
>C12-C28	1290	26.0	"	1040	ND	124	75-125	0.553	20	
>C28-C35	ND	26.0	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	*134*		"	*104*		*128*	*70-130*			
Surrogate: o-Terphenyl	*69.3*		"	*52.1*		*133*	*70-130*			*S-GC*

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30703 - TX 1005										
Blank (EC30703-BLK1)				Prepared & Analyzed: 03/06/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*112*		"	*100*		*112*	*70-130*			
Surrogate: o-Terphenyl	*68.5*		"	*50.0*		*137*	*70-130*			*S-GC*
LCS (EC30703-BS1)				Prepared & Analyzed: 03/06/13						
C6-C12	1180	25.0	mg/kg wet	1000		118	75-125			
>C12-C28	1180	25.0	"	1000		118	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*115*		"	*100*		*115*	*70-130*			
Surrogate: o-Terphenyl	*62.5*		"	*50.0*		*125*	*70-130*			
LCS Dup (EC30703-BSD1)				Prepared & Analyzed: 03/06/13						
C6-C12	1170	25.0	mg/kg wet	1000		117	75-125	1.12	20	
>C12-C28	1200	25.0	"	1000		120	75-125	1.88	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*124*		"	*100*		*124*	*70-130*			
Surrogate: o-Terphenyl	*63.3*		"	*50.0*		*127*	*70-130*			
Matrix Spike (EC30703-MS1)	**Source: 3C03004-18**			Prepared & Analyzed: 03/06/13						
C6-C12	1050	26.0	mg/kg dry	1040	ND	100	75-125			
>C12-C28	977	26.0	"	1040	32.9	90.7	75-125			
>C28-C35	ND	26.0	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	*123*		"	*104*		*118*	*70-130*			
Surrogate: o-Terphenyl	*59.9*		"	*52.1*		*115*	*70-130*			
Matrix Spike Dup (EC30703-MSD1)	**Source: 3C03004-18**			Prepared & Analyzed: 03/06/13						
C6-C12	1190	26.0	mg/kg dry	1040	ND	114	75-125	12.6	20	
>C12-C28	1190	26.0	"	1040	32.9	111	75-125	19.8	20	
>C28-C35	ND	26.0	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	*133*		"	*104*		*128*	*70-130*			
Surrogate: o-Terphenyl	*73.6*		"	*52.1*		*141*	*70-130*			*S-GC*

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
R3	The RPD exceeded the acceptance limit due to sample matrix effects.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 3/7/2013

Brent Barron, Laboratory Director/Technical Director

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

1/2

Project Manager: Camille Bryant
Company Name: NOVA Safety and Environmental
Company Address: 2057 Commerce
City/State/Zip: Midland, Texas 79703
Telephone No: 432.520.7720 Fax No: 432.520.7701
Sampler Signature: Camille Bryant
e-mail: cbryant@novatraining.cc
rose.slade@sug.com

Project Name: SUG Historical Cal "B" Line 1RP-2698
Project #:
Project Loc: Lea County New Mexico
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 3C03004

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TOTAL: TPH: 418.1 / 8015M	TPH: TX 1005 / TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-01	Road-1 Surface			2/27/2013	1530		1	X								Soil	x								x			x				X
-02	Road-1 @ 6'			2/27/2013	1540		1	X								Soil	x								x			x				X
-03	Road-1 @ 12'			2/27/2013	1550		1	X								Soil	x								x			x				X
-04	Road-1 West S/W @ 11'			2/27/2013	1600		1	X								Soil	x								x			x				X
-05	Road-2 Surface			2/27/2013	1610		1	X								Soil	x								x			x				X
-06	Road-2 @ 6'			2/27/2013	1620		1	X								Soil	x								x			x				X
-07	Road-2 @ 14'			2/27/2013	1630		1	X								Soil	x								x			x				X
-08	Release Point Road Surface			2/27/2013	1640		1	X								Soil	x								x			x				X
-09	Release Point Road @ 2'			2/27/2013	1645		1	X								Soil	x								x							X
-10	Release Point Road @ 4'			2/27/2013	1650		1	X								Soil	x								x							X

Special Instructions:

Relinquished by: Camille Bryant	Date 3/1/13	Time 8:00	Received by: Rebecca Haskell	Date 3/1/13	Time 8:00
Relinquished by: Rebecca Haskell	Date 3/1/13	Time 15:40	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date 3/1/13	Time 15:40

Laboratory Comments:

Sample Containers Intact?	Y N
VOCs Free of Headspace?	Y N
Labels on container(s)	Y N
Custody seals on container(s)	Y N
Custody seals on cooler(s)	Y N
Sample Hand Delivered	Y N
by Sampler/Client Rep. ?	Y N
by Courier? UPS DHL FedEx Lone Star	

Temperature Upon Receipt:
Received: 2.2 °C
Adjusted: 2.2 °C Factor NCF

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Camille Bryant
Project Name: SUG Historical Cal "B" Line 1RP-2698
Company Name: NOVA Safety and Environmental
Project #:
Company Address: 2057 Commerce
Project Loc: Lea County New Mexico
City/State/Zip: Midland, Texas 79703
PO #:
Telephone No: 432.520.7720
Fax No: 432.520.7701
Report Format: [x] Standard [ ] TRRP [ ] NPDES
Sampler Signature: Camille Bryant
e-mail: cbryant@novatraining.cc
rose.slade@sug.com

(lab use only)
ORDER #: 3C03004

LAB # (lab use only) 3/3/13	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M	TOTAL: TPH: 8015M	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	11 Release Point Road @ 6'			2/27/2013	1700		1	X								Soil	x									x							X
02	12 Release Point Road @ 8'			2/27/2013	1705		1	X								Soil	x									x			x				X
03	13 Release Point Road @ 10'			2/27/2013	1710		1	X								Soil	x									x							X
04	14 Release Point Road @ 12'			2/27/2013	1715		1	X								Soil	x									x			x				X
05	15 Road-3 Surface			2/27/2013	1720		1	X								Soil	x									x			x				X
06	16 Road-3 @ 2'			2/27/2013	1725		1	X								Soil	x									x							X
07	17 Road-3 @ 4'			2/27/2013	1730		1	X								Soil	x									x							X
08	18 Road-3 @ 6'			2/27/2013	1735		1	X								Soil	x									x							X
19	Road-3 @ 8'			2/27/2013	1740		1	X								Soil	x									x			x				X
20	Road-3 @ 10'			2/27/2013	1745		1	X								Soil	x									x							X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Camille Bryant	3/1/13	8:00	Rebecca Haskell	3/1/13	8:00
Relinquished by: Rebecca Haskell	3/1/13	15:40	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	3/1/13	15:40

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?		N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt:
Received: 2.2 °C
Adjusted: °C Factor NCF

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Camille Bryant

Company Name: NOVA Safety and Environmental

Company Address: 2057 Commerce

City/State/Zip: Midland, Texas 79703

Telephone No: 432.520.7720 Fax No: 432.520.7701

Sampler Signature: Camille Bryant e-mail: cbryant@novatraining.cc

rose.slade@sug.com

Project Name: SUG Historical Cal "B" Line 1RP-2698

Project #:

Project Loc: Lea County New Mexico

PO #:

Report Format: [x] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 3 C03004

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 / 8015M / 8015B	TPH: TX 1005 / TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	TOTAL: BTEX 8021B / 5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-21	Road-3 @ 12'			2/27/2013	1750		1	X								Soil	x								x			x				X
-22	Road-4 Surface			2/28/2013	900		1	X								Soil	x								x			x				X
-23	Road-4 @ 2'			2/28/2013	905		1	X								Soil	x								x							X
-24	Road-4 @ 4'			2/28/2013	910		1	X								Soil	x								x							X
-25	Road-4 @ 6'			2/28/2013	915		1	X								Soil	x								x			x				X
-26	Road-4 @ 8'			2/28/2013	920		1	X								Soil	x								x							X
-27	Road-4 @ 10'			2/28/2013	925		1	X								Soil	x								x							X
-28	Road-4 @ 12'			2/28/2013	930		1	X								Soil	x								x			x				X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Camille Bryant	3/1/13	800	Rebecca Haskell	3/1/13	800
Rebecca Haskell	3/1/13	15:40	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	3/1/13	15:40

Laboratory Comments:

Sample Containers Intact?	N
VOCs Free of Headspace?	N
Labels on container(s)	N
Custody seals on container(s)	N
Custody seals on cooler(s)	N
Sample Hand Delivered	N
by Sampler/Client Rep. ?	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: 2.2 °C
Adjusted: °C Factor NCF

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
10014 SCR 1213
Midland, TX 79706

PBELAB

Analytical Report

Prepared for:

Camille Bryant
Nova Safety & Environment
2057 Commerce
Midland, TX 79703

Project: SUG Historical Cal "B" Line 1RP-2698
Project Number: 1RP-2698
Location: Lea County, New Mexico

Lab Order Number: 3C04002

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704156-12-1

Report Date: 03/08/13

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Release Point Surface	3C04002-01	Soil	03/01/13 09:00	03-04-2013 11:12
Release Point @ 8'	3C04002-02	Soil	03/01/13 09:30	03-04-2013 11:12
Release Point @ 12'	3C04002-03	Soil	03/01/13 09:40	03-04-2013 11:12
Release Point S-W @ 11'	3C04002-04	Soil	03/01/13 09:50	03-04-2013 11:12

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Release Point Surface

3C04002-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	**0.00462**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.0129**	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	**0.00694**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*118 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*89.7 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**16.1**	1.01	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**1.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.3	mg/kg dry	1	EC30704	03/06/13	03/07/13	8015M	
>C12-C28	ND	25.3	mg/kg dry	1	EC30704	03/06/13	03/07/13	8015M	
>C28-C35	ND	25.3	mg/kg dry	1	EC30704	03/06/13	03/07/13	8015M	
Surrogate: 1-Chlorooctane		*68.5 %*	*70-130*		*EC30704*	*03/06/13*	*03/07/13*	*8015M*	*S-GC*
Surrogate: o-Terphenyl		*80.8 %*	*70-130*		*EC30704*	*03/06/13*	*03/07/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.3	mg/kg dry	1	[CALC]	03/06/13	03/07/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Release Point @ 8'

3C04002-02 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00107**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	**0.00569**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.0327**	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	**0.00116**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*113 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*110 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**290**	1.03	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	EC30802	03/07/13	03/07/13	8015M	
>C12-C28	**29.7**	25.8	mg/kg dry	1	EC30802	03/07/13	03/07/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EC30802	03/07/13	03/07/13	8015M	
Surrogate: 1-Chlorooctane		*70.8 %*	*70-130*		*EC30802*	*03/07/13*	*03/07/13*	*8015M*	
Surrogate: o-Terphenyl		*89.0 %*	*70-130*		*EC30802*	*03/07/13*	*03/07/13*	*8015M*	
Total Hydrocarbon nC6-nC35	**29.7**	25.8	mg/kg dry	1	[CALC]	03/07/13	03/07/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Release Point @ 12'

3C04002-03 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	**0.00542**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.0197**	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*121 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*87.6 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**70.8**	1.02	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	EC30802	03/07/13	03/07/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EC30802	03/07/13	03/07/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EC30802	03/07/13	03/07/13	8015M	
Surrogate: 1-Chlorooctane		*68.9 %*	*70-130*		*EC30802*	*03/07/13*	*03/07/13*	*8015M*	*S-GC*
Surrogate: o-Terphenyl		*84.9 %*	*70-130*		*EC30802*	*03/07/13*	*03/07/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	03/07/13	03/07/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Release Point S-W @ 11'

3C04002-04 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00319**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	**0.0158**	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	**0.0248**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	**0.152**	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	**0.0203**	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*117 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*97.8 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**193**	1.05	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.3	mg/kg dry	1	EC30802	03/07/13	03/07/13	8015M	
>C12-C28	ND	26.3	mg/kg dry	1	EC30802	03/07/13	03/07/13	8015M	
>C28-C35	ND	26.3	mg/kg dry	1	EC30802	03/07/13	03/07/13	8015M	
Surrogate: 1-Chlorooctane		*129 %*	*70-130*		*EC30802*	*03/07/13*	*03/07/13*	*8015M*	
Surrogate: o-Terphenyl		*158 %*	*70-130*		*EC30802*	*03/07/13*	*03/07/13*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	26.3	mg/kg dry	1	[CALC]	03/07/13	03/07/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line 1RP-2698
Project Number: 1RP-2698
Project Manager: Camille Bryant

Fax: (432) 520-7701

Organics by GC - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30602 - General Preparation (GC)										
Blank (EC30602-BLK1)				Prepared & Analyzed: 03/05/13						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	*70.8*		*ug/kg*	*60.0*		*118*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*41.1*		"	*60.0*		*68.5*	*75-125*			*S-GC*
LCS (EC30602-BS1)				Prepared & Analyzed: 03/05/13						
Benzene	0.0831	0.00100	mg/kg wet	0.100		83.1	80-120			
Toluene	0.117	0.00200	"	0.100		117	80-120			
Ethylbenzene	0.120	0.00100	"	0.100		120	80-120			
Xylene (p/m)	0.219	0.00200	"	0.200		109	80-120			
Xylene (o)	0.115	0.00100	"	0.100		115	80-120			
Surrogate: 1,4-Difluorobenzene	*64.4*		*ug/kg*	*60.0*		*107*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*55.7*		"	*60.0*		*92.8*	*75-125*			
LCS Dup (EC30602-BSD1)				Prepared & Analyzed: 03/05/13						
Benzene	0.0815	0.00100	mg/kg wet	0.100		81.5	80-120	1.98	20	
Toluene	0.115	0.00200	"	0.100		115	80-120	1.70	20	
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120	1.68	20	
Xylene (p/m)	0.233	0.00200	"	0.200		116	80-120	6.17	20	
Xylene (o)	0.112	0.00100	"	0.100		112	80-120	2.02	20	
Surrogate: 1,4-Difluorobenzene	*63.6*		*ug/kg*	*60.0*		*106*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*54.0*		"	*60.0*		*90.0*	*75-125*			
Matrix Spike (EC30602-MS1)	**Source: 3C03004-24**			Prepared & Analyzed: 03/05/13						
Benzene	0.0422	0.00100	mg/kg dry	0.108	0.00253	36.9	80-120			QM-05
Toluene	0.0643	0.00200	"	0.108	ND	59.8	80-120			QM-05
Ethylbenzene	0.0716	0.00100	"	0.108	ND	66.5	80-120			QM-05
Xylene (p/m)	0.421	0.00200	"	0.215	0.207	99.4	80-120			
Xylene (o)	0.113	0.00100	"	0.108	0.0320	75.8	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*57.0*		*ug/kg*	*60.0*		*94.9*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*65.9*		"	*60.0*		*110*	*75-125*			

Organics by GC - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30602 - General Preparation (GC)										
Matrix Spike Dup (EC30602-MSD1)	**Source: 3C03004-24**		Prepared & Analyzed: 03/05/13							
Benzene	0.0458	0.00100	mg/kg dry	0.108	0.00253	40.3	80-120	8.66	20	QM-05
Toluene	0.0726	0.00200	"	0.108	ND	67.5	80-120	12.2	20	QM-05
Ethylbenzene	0.0650	0.00100	"	0.108	ND	60.5	80-120	9.59	20	QM-05
Xylene (p/m)	0.367	0.00200	"	0.215	0.207	74.1	80-120	29.1	20	QM-05
Xylene (o)	0.114	0.00100	"	0.108	0.0320	75.9	80-120	0.145	20	QM-05
Surrogate: 1,4-Difluorobenzene	*55.3*		*ug/kg*	*60.0*		*92.1*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*64.0*		*"*	*60.0*		*107*	*75-125*			

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30604 - * DEFAULT PREP *****										
Blank (EC30604-BLK1)				Prepared: 03/05/13 Analyzed: 03/06/13						
% Moisture	ND	0.1	%							
Duplicate (EC30604-DUP1)		Source: 3C03005-01		Prepared: 03/05/13 Analyzed: 03/06/13						
% Moisture	7.0	0.1	%		8.0			13.3	20	
Batch EC30804 - * DEFAULT PREP *****										
Blank (EC30804-BLK1)				Prepared & Analyzed: 03/08/13						
Chloride	ND	1.00	mg/kg wet							
LCS (EC30804-BS1)				Prepared & Analyzed: 03/08/13						
Chloride	9.68		mg/kg Wet	10.0		96.8	80-120			
LCS Dup (EC30804-BSD1)				Prepared & Analyzed: 03/08/13						
Chloride	9.70		mg/kg Wet	10.0		97.0	80-120	0.206	20	
Duplicate (EC30804-DUP1)		Source: 3C04002-01		Prepared & Analyzed: 03/08/13						
Chloride	16.5	1.01	mg/kg dry		16.1			2.11	20	
Matrix Spike (EC30804-MS1)		Source: 3C04002-01		Prepared & Analyzed: 03/08/13						
Chloride	134	1.01	mg/kg dry	126	16.1	93.7	80-120			
Matrix Spike (EC30804-MS2)		Source: 3C04003-07		Prepared & Analyzed: 03/08/13						
Chloride	137	1.02	mg/kg dry	128	3.74	105	80-120			

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30704 - 8015M										
Blank (EC30704-BLK1)				Prepared: 03/06/13 Analyzed: 03/07/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*138*		"	*200*		*69.0*	*70-130*			*S-GC*
Surrogate: o-Terphenyl	*84.0*		"	*100*		*84.0*	*70-130*			
LCS (EC30704-BS1)				Prepared & Analyzed: 03/06/13						
C6-C12	1230	25.0	mg/kg wet	1500		81.9	75-125			
>C12-C28	1350	25.0	"	1500		89.9	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*156*		"	*200*		*77.9*	*70-130*			
Surrogate: o-Terphenyl	*73.0*		"	*100*		*73.0*	*70-130*			
LCS Dup (EC30704-BSD1)				Prepared: 03/06/13 Analyzed: 03/07/13						
C6-C12	1400	25.0	mg/kg wet	1500		93.2	75-125	12.9	20	
>C12-C28	1570	25.0	"	1500		105	75-125	15.1	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*183*		"	*200*		*91.3*	*70-130*			
Surrogate: o-Terphenyl	*83.0*		"	*100*		*83.0*	*70-130*			
Matrix Spike (EC30704-MS1)	**Source: 3C04002-01**			Prepared: 03/06/13 Analyzed: 03/07/13						
C6-C12	1650	25.3	mg/kg dry	1520	ND	109	75-125			
>C12-C28	1920	25.3	"	1520	ND	127	75-125			QM-05
>C28-C35	ND	25.3	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	*175*		"	*202*		*86.7*	*70-130*			
Surrogate: o-Terphenyl	*113*		"	*101*		*112*	*70-130*			
Matrix Spike Dup (EC30704-MSD1)	**Source: 3C04002-01**			Prepared: 03/06/13 Analyzed: 03/07/13						
C6-C12	1360	25.3	mg/kg dry	1520	ND	90.0	75-125	19.0	20	
>C12-C28	1390	25.3	"	1520	ND	91.6	75-125	32.3	20	QM-05
>C28-C35	ND	25.3	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	*171*		"	*202*		*84.8*	*70-130*			
Surrogate: o-Terphenyl	*72.3*		"	*101*		*71.6*	*70-130*			

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30802 - TX 1005										
Blank (EC30802-BLK1)				Prepared & Analyzed: 03/07/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*116*		"	*100*		*116*	*70-130*			
Surrogate: o-Terphenyl	*62.6*		"	*50.0*		*125*	*70-130*			
LCS (EC30802-BS1)				Prepared & Analyzed: 03/07/13						
C6-C12	1240	25.0	mg/kg wet	1500		82.6	75-125			
>C12-C28	1270	25.0	"	1500		84.4	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*109*		"	*100*		*109*	*70-130*			
Surrogate: o-Terphenyl	*60.9*		"	*50.0*		*122*	*70-130*			
LCS Dup (EC30802-BSD1)				Prepared & Analyzed: 03/07/13						
C6-C12	1290	25.0	mg/kg wet	1500		86.0	75-125	4.03	20	
>C12-C28	1370	25.0	"	1500		91.6	75-125	8.18	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*128*		"	*100*		*128*	*70-130*			
Surrogate: o-Terphenyl	*65.0*		"	*50.0*		*130*	*70-130*			
Matrix Spike (EC30802-MS1)	**Source: 3C05001-04**			Prepared & Analyzed: 03/07/13						
C6-C12	1360	25.3	mg/kg dry	1520	ND	89.8	75-125			
>C12-C28	1290	25.3	"	1520	ND	85.2	75-125			
>C28-C35	195	25.3	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	*156*		"	*202*		*77.2*	*70-130*			
Surrogate: o-Terphenyl	*77.1*		"	*101*		*76.3*	*70-130*			
Matrix Spike Dup (EC30802-MSD1)	**Source: 3C05001-04**			Prepared & Analyzed: 03/07/13						
C6-C12	1430	25.3	mg/kg dry	1520	ND	94.1	75-125	4.70	20	
>C12-C28	1310	25.3	"	1520	ND	86.6	75-125	1.54	20	
>C28-C35	ND	25.3	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	*165*		"	*202*		*81.8*	*70-130*			
Surrogate: o-Terphenyl	*78.1*		"	*101*		*77.3*	*70-130*			

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: _____ Date: 3/8/2013

Brent Barron, Laboratory Director/Technical Director

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706
Phone: 432-661-4184

Project Manager: Camille Bryant
Company Name: NOVA Safety and Environmental
Company Address: 2057 Commerce
City/State/Zip: Midland, Texas 79703
Telephone No: 432.520.7720 Fax No: 432.520.7701
Sampler Signature: Camille Bryant e-mail: cbryant@novatraining.cc
rose.slade@sug.com

Project Name: SUG Historical Cal "B" Line 1RP-2698
Project #:
Project Loc: Lea County New Mexico
PO #:
Report Format: [x] Standard [ ] TRRP [ ] NPDES

(lab use only) ORDER #: 3C0402002

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 / 8015M	TOTAL: TPH: TX 1005 / TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-01	Release Point Surface			3/1/2013	900		1	X								Soil	x								x			x				X
-02	Release Point @ 8'			3/1/2013	930		1	X								Soil	x								x			x				X
-03	Release Point @ 12'			3/1/2013	940		1	X								Soil	x								x			x				X
-04	Release Point S-W @ 11'			3/1/2013	950		1	X								Soil	x								x			x				X
-05	Release Point S-W-1 @ 11'			3/1/2013	1030		1	X								Soil	x								x			x				

Special Instructions: Hold Release Point S-W-1 @ 11'

Relinquished by:	Date	Time	Received by:	Date	Time
Camille Bryant	3/4/13	1100	Nathan Gallivan	3/4/13	1100
Nathan Gallivan	3/4/13	1111	Nikki Green	3/4/13	1111
Nikki Green	3/4/13		Received by PBEL:	Date	Time
				3/4/13	1112

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered Y N
by Sampler/Client Rep. ? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt:
Received 4.2 °C
Adjusted °C Factor NCF

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
10014 SCR 1213
Midland, TX 79706

Analytical Report

Prepared for:

Camille Bryant
Nova Safety & Environment
2057 Commerce
Midland, TX 79703

Project: SUG Historical Cal "B" Line 1RP-2698
Project Number: 1RP-2698
Location: Lea County New Mexico

Lab Order Number: 3C04003

NELAP/TCEQ # T104704156-12-1

Report Date: 03/08/13

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line 1RP-2698
Project Number: 1RP-2698
Project Manager: Camille Bryant

Fax: (432) 520-7701

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Road-5 Surface	3C04003-01	Soil	02/28/13 10:00	03-04-2013 11:12
Road-5 @ 6'	3C04003-02	Soil	02/28/13 10:15	03-04-2013 11:12
Road-5 @ 12'	3C04003-03	Soil	02/28/13 10:25	03-04-2013 11:12
Road-5 East S/W @ 11'	3C04003-04	Soil	02/28/13 10:30	03-04-2013 11:12
North-1 Surface	3C04003-05	Soil	02/28/13 10:50	03-04-2013 11:12
North-1 @ 6'	3C04003-06	Soil	02/28/13 11:00	03-04-2013 11:12
North S-W @ 5'	3C04003-07	Soil	02/28/13 11:30	03-04-2013 11:12

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line 1RP-2698
Project Number: 1RP-2698
Project Manager: Camille Bryant

Fax: (432) 520-7701

Road-5 Surface

3C04003-01 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*118 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*79.9 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**359**	1.11	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C12-C28	ND	27.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C28-C35	ND	27.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Surrogate: o-Terphenyl		*126 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	27.8	mg/kg dry	1	[CALC]	03/08/13	03/08/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Road-5 @ 6'

3C04003-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*117 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*77.3 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**95.9**	1.04	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C12-C28	ND	26.0	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C28-C35	ND	26.0	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
Surrogate: 1-Chlorooctane		*71.9 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Surrogate: o-Terphenyl		*84.1 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	26.0	mg/kg dry	1	[CALC]	03/08/13	03/08/13	8015M	

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Road-5 @ 12'

3C04003-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*117 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*48.4 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**32.1**	1.03	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
Surrogate: 1-Chlorooctane		*73.1 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Surrogate: o-Terphenyl		*88.2 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	03/08/13	03/08/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
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Midland TX, 79703	Project Manager: Camille Bryant	

Road-5 East S/W @ 11'

3C04003-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*116 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*68.1 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**32.8**	1.02	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
Surrogate: 1-Chlorooctane		*60.7 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	*S-GC*
Surrogate: o-Terphenyl		*72.5 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	03/08/13	03/08/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
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Midland TX, 79703	Project Manager: Camille Bryant	

North-1 Surface

3C04003-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*118 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*65.7 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2.41**	1.03	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
Surrogate: 1-Chlorooctane		*71.2 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Surrogate: o-Terphenyl		*82.8 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	03/08/13	03/08/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
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Midland TX, 79703	Project Manager: Camille Bryant	

North-1 @ 6'

3C04003-06 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*116 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*67.8 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**18.6**	1.08	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C12-C28	ND	26.9	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C28-C35	ND	26.9	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
Surrogate: 1-Chlorooctane		*68.5 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	*S-GC*
Surrogate: o-Terphenyl		*82.4 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	26.9	mg/kg dry	1	[CALC]	03/08/13	03/08/13	8015M	

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North S-W @ 5'

3C04003-07 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*116 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*66.3 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**3.74**	1.02	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
Surrogate: 1-Chlorooctane		*65.8 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	*S-GC*
Surrogate: o-Terphenyl		*81.4 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	03/08/13	03/08/13	8015M	

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Organics by GC - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30602 - General Preparation (GC)										
Blank (EC30602-BLK1)				Prepared & Analyzed: 03/05/13						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	*70.8*		*ug/kg*	*60.0*		*118*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*41.1*		"	*60.0*		*68.5*	*75-125*			*S-GC*
LCS (EC30602-BS1)				Prepared & Analyzed: 03/05/13						
Benzene	0.0831	0.00100	mg/kg wet	0.100		83.1	80-120			
Toluene	0.117	0.00200	"	0.100		117	80-120			
Ethylbenzene	0.120	0.00100	"	0.100		120	80-120			
Xylene (p/m)	0.219	0.00200	"	0.200		109	80-120			
Xylene (o)	0.115	0.00100	"	0.100		115	80-120			
Surrogate: 1,4-Difluorobenzene	*64.4*		*ug/kg*	*60.0*		*107*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*55.7*		"	*60.0*		*92.8*	*75-125*			
LCS Dup (EC30602-BSD1)				Prepared & Analyzed: 03/05/13						
Benzene	0.0815	0.00100	mg/kg wet	0.100		81.5	80-120	1.98	20	
Toluene	0.115	0.00200	"	0.100		115	80-120	1.70	20	
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120	1.68	20	
Xylene (p/m)	0.233	0.00200	"	0.200		116	80-120	6.17	20	
Xylene (o)	0.112	0.00100	"	0.100		112	80-120	2.02	20	
Surrogate: 1,4-Difluorobenzene	*63.6*		*ug/kg*	*60.0*		*106*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*54.0*		"	*60.0*		*90.0*	*75-125*			
Matrix Spike (EC30602-MS1)	**Source: 3C03004-24**			Prepared & Analyzed: 03/05/13						
Benzene	0.0422	0.00100	mg/kg dry	0.108	0.00253	36.9	80-120			QM-05
Toluene	0.0643	0.00200	"	0.108	ND	59.8	80-120			QM-05
Ethylbenzene	0.0716	0.00100	"	0.108	ND	66.5	80-120			QM-05
Xylene (p/m)	0.421	0.00200	"	0.215	0.207	99.4	80-120			
Xylene (o)	0.113	0.00100	"	0.108	0.0320	75.8	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*57.0*		*ug/kg*	*60.0*		*94.9*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*65.9*		"	*60.0*		*110*	*75-125*			

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Organics by GC - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30602 - General Preparation (GC)										
Matrix Spike Dup (EC30602-MSD1)	**Source: 3C03004-24**			Prepared & Analyzed: 03/05/13						
Benzene	0.0458	0.00100	mg/kg dry	0.108	0.00253	40.3	80-120	8.66	20	QM-05
Toluene	0.0726	0.00200	"	0.108	ND	67.5	80-120	12.2	20	QM-05
Ethylbenzene	0.0650	0.00100	"	0.108	ND	60.5	80-120	9.59	20	QM-05
Xylene (p/m)	0.367	0.00200	"	0.215	0.207	74.1	80-120	29.1	20	QM-05
Xylene (o)	0.114	0.00100	"	0.108	0.0320	75.9	80-120	0.145	20	QM-05
Surrogate: 1,4-Difluorobenzene	*55.3*		*ug/kg*	*60.0*		*92.1*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*64.0*		*"*	*60.0*		*107*	*75-125*			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30604 - * DEFAULT PREP *** **										
Blank (EC30604-BLK1)				Prepared: 03/05/13 Analyzed: 03/06/13						
% Moisture	ND	0.1	%							
Duplicate (EC30604-DUP1)	**Source: 3C03005-01**			Prepared: 03/05/13 Analyzed: 03/06/13						
% Moisture	7.0	0.1	%		8.0			13.3	20	
Batch EC30804 - * DEFAULT PREP *** **										
Blank (EC30804-BLK1)				Prepared & Analyzed: 03/08/13						
Chloride	ND	1.00	mg/kg wet							
LCS (EC30804-BS1)				Prepared & Analyzed: 03/08/13						
Chloride	9.68		mg/kg Wet	10.0		96.8	80-120			
LCS Dup (EC30804-BSD1)				Prepared & Analyzed: 03/08/13						
Chloride	9.70		mg/kg Wet	10.0		97.0	80-120	0.206	20	
Duplicate (EC30804-DUP1)	**Source: 3C04002-01**			Prepared & Analyzed: 03/08/13						
Chloride	16.5	1.01	mg/kg dry		16.1			2.11	20	
Matrix Spike (EC30804-MS1)	**Source: 3C04002-01**			Prepared & Analyzed: 03/08/13						
Chloride	134	1.01	mg/kg dry	126	16.1	93.7	80-120			
Matrix Spike (EC30804-MS2)	**Source: 3C04003-07**			Prepared & Analyzed: 03/08/13						
Chloride	137	1.02	mg/kg dry	128	3.74	105	80-120			

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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30805 - 8015M										
Blank (EC30805-BLK1)				Prepared & Analyzed: 03/08/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*144*		"	*200*		*72.2*	*70-130*			
Surrogate: o-Terphenyl	*83.6*		"	*100*		*83.6*	*70-130*			
LCS (EC30805-BS1)				Prepared & Analyzed: 03/08/13						
C6-C12	1440	25.0	mg/kg wet	1500		95.9	75-125			
>C12-C28	1570	25.0	"	1500		104	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*165*		"	*200*		*82.4*	*70-130*			
Surrogate: o-Terphenyl	*85.8*		"	*100*		*85.8*	*70-130*			
LCS Dup (EC30805-BSD1)				Prepared & Analyzed: 03/08/13						
C6-C12	1520	25.0	mg/kg wet	1500		101	75-125	5.34	20	
>C12-C28	1650	25.0	"	1500		110	75-125	5.21	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*178*		"	*200*		*88.8*	*70-130*			
Surrogate: o-Terphenyl	*90.8*		"	*100*		*90.8*	*70-130*			

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 3/8/2013

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706
Phone: 432-661-4184

Project Manager: Camille Bryant
Company Name: NOVA Safety and Environmental
Company Address: 2057 Commerce
City/State/Zip: Midland, Texas 79703
Telephone No: 432.520.7720 Fax No: 432.520.7701
Sampler Signature:
e-mail: cbryant@novatraining.cc
rose.slade@sug.com

Project Name: SUG Historical Cal "B" Line 1RP-2698
Project #:
Project Loc: Lea County New Mexico
PO #:
Report Format: [x] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 3C94003

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 / 8015M: 8015B	TPH: TX 1005 / TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se (TCLP)	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300		RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-01	Road-5 Surface			2/28/2013	1000		1	X								Soil	x								x			x			X
-02	Road-5 @ 6'			2/28/2013	1015		1	X								Soil	x								x			x			X
-03	Road-5 @ 12'			2/28/2013	1025		1	X								Soil	x								x			x			X
-04	Road-5 East S/W @ 11'			2/28/2013	1030		1	X								Soil	x								x			x			X
-05	North-1 Surface			2/28/2013	1050		1	X								Soil	x								x			x			X
-06	North-1 @ 6'			2/28/2013	1100		1	X								Soil	x								x			x			X
-07	North S-W @ 5'			2/28/2013	1130		1	X								Soil	x								x			x			X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
	3/4/13	1100	Nathan Collinsworth	3/4/13	1100
Nathan Collinsworth	3/4/13	1111	Nikki Green	3/4	1111
Nikki Green	3/4/13		Received by PBEL:	3/4/13	1112

Laboratory Comments:

Sample Containers Intact?	(Y)	N
VOCs Free of Headspace?	(Y)	N
Labels on container(s)	(Y)	N
Custody seals on container(s)	(Y)	N
Custody seals on cooler(s)	(Y)	N
Sample Hand Delivered	(Y)	N
by Sampler/Client Rep ?	(Y)	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: 1.2 °C
Adjusted: 1.2 °C Factor NCF

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
10014 SCR 1213
Midland, TX 79706

PBELAB

Analytical Report

Prepared for:

Camille Bryant
Nova Safety & Environment
2057 Commerce
Midland, TX 79703

Project: SUG Historical Cal "B" Line 1RP-2698
Project Number: 1RP-2698
Location: Lea County New Mexico

Lab Order Number: 3C04003

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704156-12-1

Report Date: 03/08/13

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Road-5 Surface	3C04003-01	Soil	02/28/13 10:00	03-04-2013 11:12
Road-5 @ 6'	3C04003-02	Soil	02/28/13 10:15	03-04-2013 11:12
Road-5 @ 12'	3C04003-03	Soil	02/28/13 10:25	03-04-2013 11:12
Road-5 East S/W @ 11'	3C04003-04	Soil	02/28/13 10:30	03-04-2013 11:12
North-1 Surface	3C04003-05	Soil	02/28/13 10:50	03-04-2013 11:12
North-1 @ 6'	3C04003-06	Soil	02/28/13 11:00	03-04-2013 11:12
North S-W @ 5'	3C04003-07	Soil	02/28/13 11:30	03-04-2013 11:12

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Road-5 Surface

3C04003-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*118 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*79.9 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**359**	1.11	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C12-C28	ND	27.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C28-C35	ND	27.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Surrogate: o-Terphenyl		*126 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	27.8	mg/kg dry	1	[CALC]	03/08/13	03/08/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Road-5 @ 6'

3C04003-02 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*117 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*77.3 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**95.9**	1.04	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C12-C28	ND	26.0	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C28-C35	ND	26.0	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
Surrogate: 1-Chlorooctane		*71.9 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Surrogate: o-Terphenyl		*84.1 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	26.0	mg/kg dry	1	[CALC]	03/08/13	03/08/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Road-5 @ 12'

3C04003-03 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*117 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*48.4 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**32.1**	1.03	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
Surrogate: 1-Chlorooctane		*73.1 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Surrogate: o-Terphenyl		*88.2 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	03/08/13	03/08/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

Road-5 East S/W @ 11'

3C04003-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*116 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*68.1 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**32.8**	1.02	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
Surrogate: 1-Chlorooctane		*60.7 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	*S-GC*
Surrogate: o-Terphenyl		*72.5 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	03/08/13	03/08/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

North-1 Surface

3C04003-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*118 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*65.7 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2.41**	1.03	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
Surrogate: 1-Chlorooctane		*71.2 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Surrogate: o-Terphenyl		*82.8 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	03/08/13	03/08/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

North-1 @ 6'

3C04003-06 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*116 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*67.8 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**18.6**	1.08	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C12-C28	ND	26.9	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C28-C35	ND	26.9	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
Surrogate: 1-Chlorooctane		*68.5 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	*S-GC*
Surrogate: o-Terphenyl		*82.4 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	26.9	mg/kg dry	1	[CALC]	03/08/13	03/08/13	8015M	

Nova Safety & Environment	Project: SUG Historical Cal "B" Line 1RP-2698	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-2698	
Midland TX, 79703	Project Manager: Camille Bryant	

North S-W @ 5'

3C04003-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EC30602	03/05/13	03/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*116 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*66.3 %*	*75-125*		*EC30602*	*03/05/13*	*03/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**3.74**	1.02	mg/kg dry	1	EC30804	03/08/13	03/08/13	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	EC30604	03/05/13	03/06/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EC30805	03/08/13	03/08/13	8015M	
Surrogate: 1-Chlorooctane		*65.8 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	*S-GC*
Surrogate: o-Terphenyl		*81.4 %*	*70-130*		*EC30805*	*03/08/13*	*03/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	03/08/13	03/08/13	8015M	

Organics by GC - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30602 - General Preparation (GC)										
Blank (EC30602-BLK1)				Prepared & Analyzed: 03/05/13						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	*70.8*		*ug/kg*	*60.0*		*118*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*41.1*		"	*60.0*		*68.5*	*75-125*			*S-GC*
LCS (EC30602-BS1)				Prepared & Analyzed: 03/05/13						
Benzene	0.0831	0.00100	mg/kg wet	0.100		83.1	80-120			
Toluene	0.117	0.00200	"	0.100		117	80-120			
Ethylbenzene	0.120	0.00100	"	0.100		120	80-120			
Xylene (p/m)	0.219	0.00200	"	0.200		109	80-120			
Xylene (o)	0.115	0.00100	"	0.100		115	80-120			
Surrogate: 1,4-Difluorobenzene	*64.4*		*ug/kg*	*60.0*		*107*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*55.7*		"	*60.0*		*92.8*	*75-125*			
LCS Dup (EC30602-BSD1)				Prepared & Analyzed: 03/05/13						
Benzene	0.0815	0.00100	mg/kg wet	0.100		81.5	80-120	1.98	20	
Toluene	0.115	0.00200	"	0.100		115	80-120	1.70	20	
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120	1.68	20	
Xylene (p/m)	0.233	0.00200	"	0.200		116	80-120	6.17	20	
Xylene (o)	0.112	0.00100	"	0.100		112	80-120	2.02	20	
Surrogate: 1,4-Difluorobenzene	*63.6*		*ug/kg*	*60.0*		*106*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*54.0*		"	*60.0*		*90.0*	*75-125*			
Matrix Spike (EC30602-MS1)		**Source: 3C03004-24**		Prepared & Analyzed: 03/05/13						
Benzene	0.0422	0.00100	mg/kg dry	0.108	0.00253	36.9	80-120			QM-05
Toluene	0.0643	0.00200	"	0.108	ND	59.8	80-120			QM-05
Ethylbenzene	0.0716	0.00100	"	0.108	ND	66.5	80-120			QM-05
Xylene (p/m)	0.421	0.00200	"	0.215	0.207	99.4	80-120			
Xylene (o)	0.113	0.00100	"	0.108	0.0320	75.8	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*57.0*		*ug/kg*	*60.0*		*94.9*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*65.9*		"	*60.0*		*110*	*75-125*			

Organics by GC - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30602 - General Preparation (GC)										
Matrix Spike Dup (EC30602-MSD1)	**Source: 3C03004-24**			Prepared & Analyzed: 03/05/13						
Benzene	0.0458	0.00100	mg/kg dry	0.108	0.00253	40.3	80-120	8.66	20	QM-05
Toluene	0.0726	0.00200	"	0.108	ND	67.5	80-120	12.2	20	QM-05
Ethylbenzene	0.0650	0.00100	"	0.108	ND	60.5	80-120	9.59	20	QM-05
Xylene (p/m)	0.367	0.00200	"	0.215	0.207	74.1	80-120	29.1	20	QM-05
Xylene (o)	0.114	0.00100	"	0.108	0.0320	75.9	80-120	0.145	20	QM-05
Surrogate: 1,4-Difluorobenzene	*55.3*		*ug/kg*	*60.0*		*92.1*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*64.0*		*"*	*60.0*		*107*	*75-125*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30604 - * DEFAULT PREP *****										
Blank (EC30604-BLK1)				Prepared: 03/05/13 Analyzed: 03/06/13						
% Moisture	ND	0.1	%							
Duplicate (EC30604-DUP1)		**Source: 3C03005-01**		Prepared: 03/05/13 Analyzed: 03/06/13						
% Moisture	7.0	0.1	%		8.0			13.3	20	
Batch EC30804 - * DEFAULT PREP *****										
Blank (EC30804-BLK1)				Prepared & Analyzed: 03/08/13						
Chloride	ND	1.00	mg/kg wet							
LCS (EC30804-BS1)				Prepared & Analyzed: 03/08/13						
Chloride	9.68		mg/kg Wet	10.0		96.8	80-120			
LCS Dup (EC30804-BSD1)				Prepared & Analyzed: 03/08/13						
Chloride	9.70		mg/kg Wet	10.0		97.0	80-120	0.206	20	
Duplicate (EC30804-DUP1)		**Source: 3C04002-01**		Prepared & Analyzed: 03/08/13						
Chloride	16.5	1.01	mg/kg dry		16.1			2.11	20	
Matrix Spike (EC30804-MS1)		**Source: 3C04002-01**		Prepared & Analyzed: 03/08/13						
Chloride	134	1.01	mg/kg dry	126	16.1	93.7	80-120			
Matrix Spike (EC30804-MS2)		**Source: 3C04003-07**		Prepared & Analyzed: 03/08/13						
Chloride	137	1.02	mg/kg dry	128	3.74	105	80-120			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line 1RP-2698
Project Number: 1RP-2698
Project Manager: Camille Bryant

Fax: (432) 520-7701

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC30805 - 8015M										
Blank (EC30805-BLK1)				Prepared & Analyzed: 03/08/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*144*		"	*200*		*72.2*	*70-130*			
Surrogate: o-Terphenyl	*83.6*		"	*100*		*83.6*	*70-130*			
LCS (EC30805-BS1)				Prepared & Analyzed: 03/08/13						
C6-C12	1440	25.0	mg/kg wet	1500		95.9	75-125			
>C12-C28	1570	25.0	"	1500		104	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*165*		"	*200*		*82.4*	*70-130*			
Surrogate: o-Terphenyl	*85.8*		"	*100*		*85.8*	*70-130*			
LCS Dup (EC30805-BSD1)				Prepared & Analyzed: 03/08/13						
C6-C12	1520	25.0	mg/kg wet	1500		101	75-125	5.34	20	
>C12-C28	1650	25.0	"	1500		110	75-125	5.21	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*178*		"	*200*		*88.8*	*70-130*			
Surrogate: o-Terphenyl	*90.8*		"	*100*		*90.8*	*70-130*			

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 3/8/2013

Brent Barron, Laboratory Director/Technical Director

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706
Phone: 432-661-4184

Project Manager: Camille Bryant
Company Name: NOVA Safety and Environmental
Company Address: 2057 Commerce
City/State/Zip: Midland, Texas 79703
Telephone No: 432.520.7720 Fax No: 432.520.7701
Sampler Signature:
e-mail: cbryant@novatraining.cc
rose.slade@sug.com

Project Name: SUG Historical Cal "B" Line 1RP-2698
Project #:
Project Loc: Lea County New Mexico
PO #:
Report Format: [x] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 3C04003

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: 8015B (8015M)	TOTAL: TPH: 418.1	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-01	Road-5 Surface			2/28/2013	1000		1	X								Soil	x									x			x				X
-02	Road-5 @ 6'			2/28/2013	1015		1	X								Soil	x									x			x				X
-03	Road-5 @ 12'			2/28/2013	1025		1	X								Soil	x									x			x				X
-04	Road-5 East S/W @ 11'			2/28/2013	1030		1	X								Soil	x									x			x				X
-05	North-1 Surface			2/28/2013	1050		1	X								Soil	x									x			x				X
-06	North-1 @ 6'			2/28/2013	1100		1	X								Soil	x									x			x				X
-07	North S-W @ 5'			2/28/2013	1130		1	X								Soil	x									x			x				X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Camille Bryant	3/4/13	1100	Nathan Calloway	3/4/13	1100
Nathan Calloway	3/4/13	1111	Nikki Green	3/4	1111
Nikki Green	3/4/13		Rec'd by PBEL	3/4/13	1112

Laboratory Comments:

Sample Containers Intact?	(Y)	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: °C
Adjusted: 2.2 °C Factor NCP

APPENDIX B:
Photographs

NOVA
safety and environmental

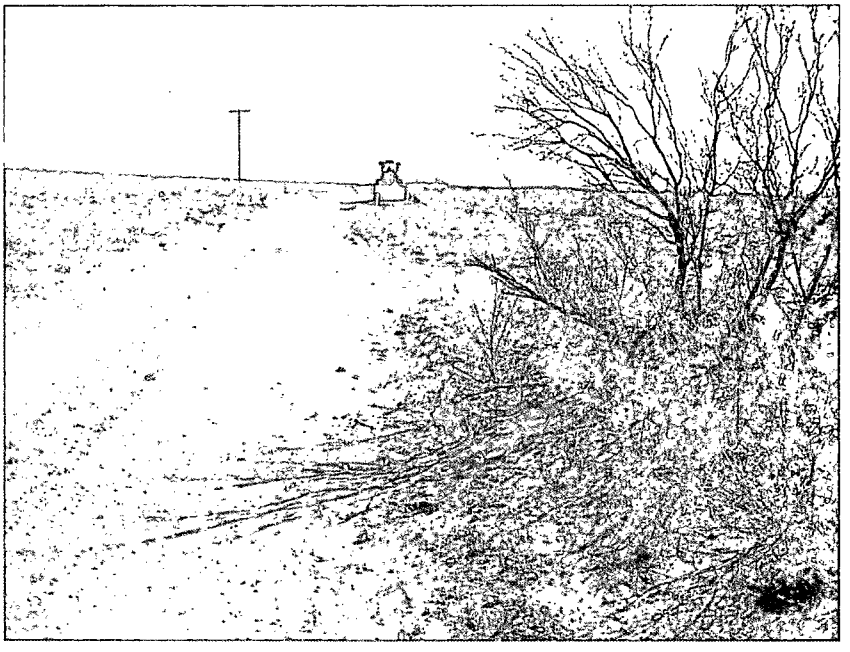
Photographic Documentation

Client: Southern Union Gas Services
Project Name: California "B" (4-10)

Prepared by: NOVA
Location: Lea County, New Mexico

Photograph No. 1

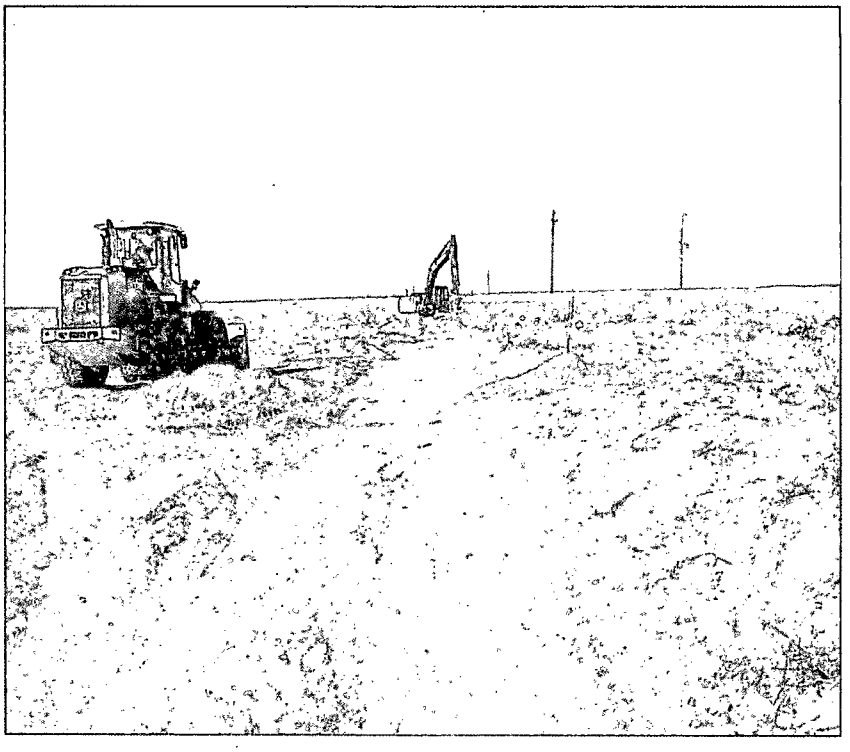
Direction:
Facing East



Description:
View of historical release prior to excavation activities.

Photograph No. 2

Direction:
Facing West



Description:
View of excavation of the trenches in caliche road.

NOVA
safety and environmental

Photographic Documentation

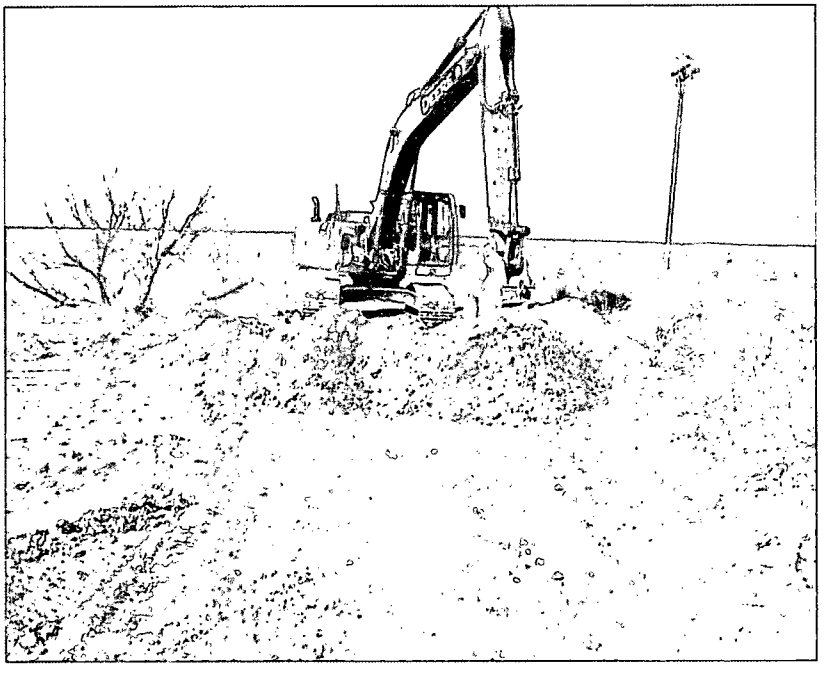
Client: Southern Union Gas Services
Project Name: California "B" (4-10)

Prepared by: NOVA
Location: Lea County, New Mexico

Photograph No. 3

Direction:
Facing West

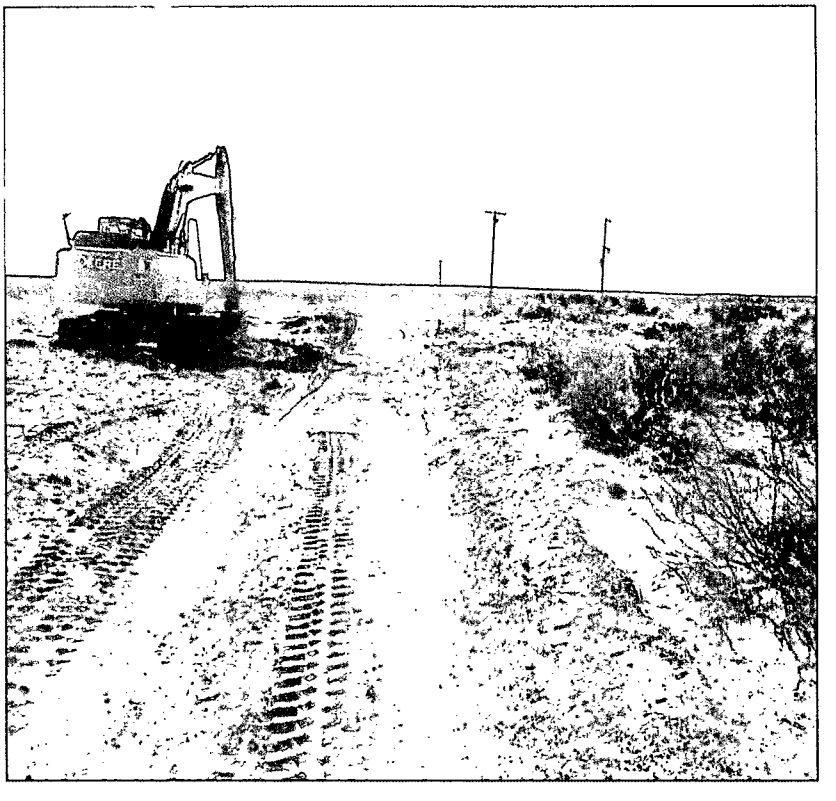
Description:
View of excavation of trenches in the caliche road.



Photograph No. 4

Direction:
Facing West

Description:
View of excavation of the trench on the south side of the caliche road.



NOVA
safety and environmental

Photographic Documentation

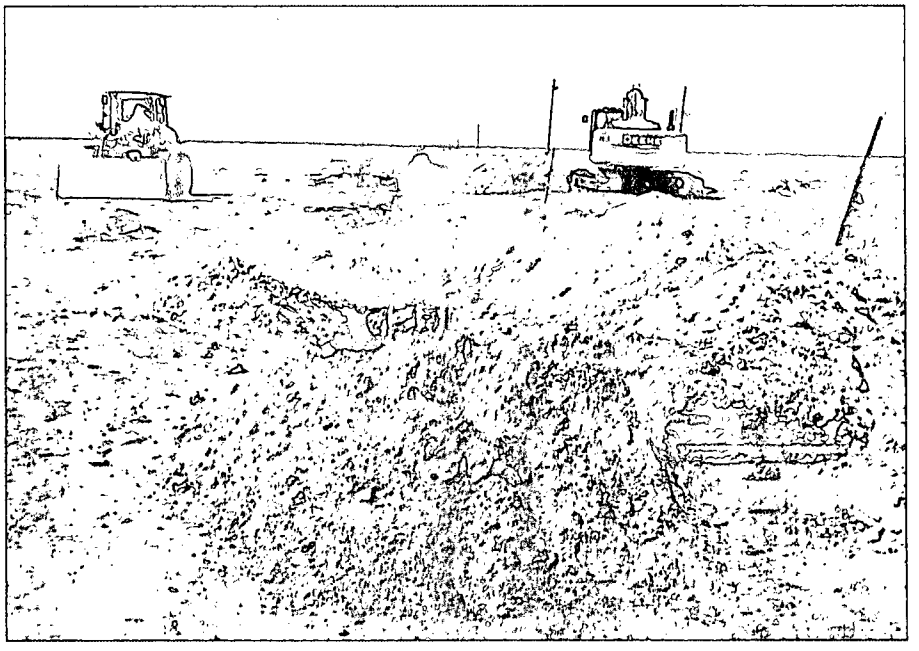
Client: Southern Union Gas Services
Project Name: California "B" (4-10)

Prepared by: NOVA
Location: Lea County, New Mexico

Photograph No. 5

Direction:
Facing West

Description:
View of excavation of the trench on the north side of the caliche road.



APPENDIX C:
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 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 California B (4-10)	Facility Type Natural Gas Pipeline

Surface Owner Jay Anthony	Mineral Owner	Lease No. 30-025-38822

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
"M"	5	26S	36E					Lea

Latitude N 32 degrees 03.897' **Longitude** W 103 degrees 17.359'

NATURE OF RELEASE

Type of Release Crude Oil, Produced Water and Natural Gas	Volume of Release 154 BBLS	Volume Recovered 147 BBLS
Source of Release 16-Inch Steel Pipeline	Date and Hour of Occurrence April 14, 2011, approx. 0100 hrs	Date and Hour of Discovery April 14, 2010, approximately 0200 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Geoffrey Leking, NMOCD Hobbs District Office	
By Whom? Curt Stanley	Date and Hour April 14, 2011, 1113 hrs	
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.*
The release occurred during pipeline pigging activities. On discovery of the release, the pipeline was partially blown down to stop the further advancement of the pig. A vacuum truck was used to recover liquids previously released to the ground. The vacuum truck was also used to recover liquids as they were released from the pipeline. When the volume of liquids released from the pipeline subsided, the pipeline was fitted with a temporary clamp to mitigate the release. The cause of the release was attributed to external corrosion. The volume of natural gas released, is to be determined.

Describe Area Affected and Cleanup Action Taken.*
The area affected by the release measures approximately 3,440 sq ft, the largest area being a pipeline road. Following repair of the pipeline, the release will be remediated to NMOCD regulatory standards.

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: April 15, 2011 Phone: 575-390-7595		

* Attach Additional Sheets If Necessary