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

HOBBS OCD
OCT 20 2016
RECEIVED

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: ETC Field Services, LLC	Contact: Rose Slade
Address: 800 East Sonterra Rd. Suite 2 San Antonio, TX 78249	Telephone No. 210-403-6525
Facility Name: Boyd 10" line	Facility Type: Gathering Pipeline

Surface Owner: Irvin Boyd / Bill Sims	Mineral Owner: N/A	API No. N/A

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County:
F,G,H,I	26	22S	37E					Lea

Latitude: N 32.363060 **Longitude:** W 103.129773

NATURE OF RELEASE

Type of Release: Crude Oil/ Produced water	Volume of Release: >5 bbls	Volume Recovered: O
Source of Release: Natural Gas Release of a 10 inch steel pipeline	Date and Hour of Occurrence: 1/16/13	Date and Hour of Discovery: 1/16/13
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Geoff Leking	
By Whom? Curt Stanley	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
On 1/16/13, SUGS personnel discovered a crude oil, produced water, and natural gas release from a ten (10) inch steel pipeline. The release fluid flowed from the release point to the southwest approximately twenty-five (25) feet and was reported to the NMCOD. In addition, an airborne component of the Release drifted onto property owned by Mr. Sims. During the initial response activities, SUGS installed a temporary clamp on the pipeline to mitigate the release.

Describe Area Affected and Cleanup Action Taken.*
Approximately 4,800 square feet of affected soil was excavated to depths varying from approximately four (4) to twenty-one feet below ground surface. Approximately 2,580 cubic yards of impacted soil was transported to Sundance Services, for disposal. Soil samples were collected from the floor and sidewalls of the excavation and submitted for analysis. All soil samples exhibited BTEX, TPH and Chloride concentrations less than the NMOCD regulatory guidelines and guidelines imposed by the landowner. Please reference the "Remediation Summary and Site Closure Request" for additional 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 L. Slade Rose L Slade	OIL CONSERVATION DIVISION	
Printed Name: Rose L. Slade	Approved by Environmental Specialist: Kristen Lynch Kristen Lynch	
Title: Sr. Environmental Specialist	Approval Date: 10/24/16	Expiration Date: N/A
E-mail Address: Rose.Slade@energytransfer.com	Conditions of Approval: N/A	Attached ☐
Date: 9/30/16 Phone: 210-403-6525		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
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Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: ETC Field Services, LLC	Contact: Rose Slade
Address: 800 East Sonterra Rd. Suite 2 San Antonio, TX 78249	Telephone No. 210-403-6525
Facility Name: Boyd 10" line	Facility Type: Gathering Pipeline

Surface Owner: Irvin Boyd / Bill Sims	Mineral Owner: N/A	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County:
F,G,H,I	26	22S	37E					Lea

Latitude: N 32.363060 **Longitude:** W 103.129773

NATURE OF RELEASE

Type of Release: Crude Oil/ Produced water	Volume of Release: >5 bbls	Volume Recovered: O
Source of Release: Natural Gas Release of a 10 inch steel pipeline	Date and Hour of Occurrence: 1/16/13	Date and Hour of Discovery: 1/16/13
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Geoff Leking	
By Whom? Curt Stanley	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*
On 1/16/13, SUGS personnel discovered a crude oil, produced water, and natural gas release from a ten (10) inch steel pipeline. The release fluid flowed from the release point to the southwest approximately twenty-five (25) feet and was reported to the NMCOD. In addition, an airborne component of the Release drifted onto property owned by Mr. Sims. During the initial response activities, SUGS installed a temporary clamp on the pipeline to mitigate the release.

Describe Area Affected and Cleanup Action Taken.*
A volume of liquids greater than 5 barrels of fluid was released from the pipeline, with no recovery. The Release will be remediated to NMOCD guidelines.

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

Signature: Rose L. Slade Rose L Slade	OIL CONSERVATION DIVISION (Historical)
Printed Name: Rose L. Slade	Approved by Environmental Specialist: Kristen D. Lynch
Title: Sr. Environmental Specialist	Approval Date: 10/24/16 Expiration Date: 12/24/16
E-mail Address: Rose.Slade@energytransfer.com	Conditions of Approval: N/A Closure Complete Attached ☐ 1RP4476
Date: 9/30/16 Phone: 210-403-6525	

* Attach Additional Sheets If Necessary

nKL1629827273
pKL1629828681

REMEDIATION SUMMARY AND

SITE CLOSURE REQUEST

ETC FIELD SERVICES, LLC
(Formerly known as Southern Union Gas Services and Regency Field Services, LLC)
Boyd 10-Inch
Lea County, New Mexico
Unit Letters "F", "G", "H", and "I", Section 26, Township 22 South, Range 37 East
Latitude N 32.363060° Longitude W 103.129773°
NMOCD Reference # 1RP-XXXX

Prepared For:

ETC Field Services, LLC
800 East Sonterra
San Antonio, Texas 78258

Prepared By:

TRC Environmental Corporation
2057 Commerce
Midland, Texas 79703

October 2016

Curt D. Stanley
Senior Project Manager

Rebecca Haskell for
Jeffrey Kindley, P.G.
Senior Project Manager

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INTRODUCTION

TRC Environmental Corporation (TRC), formerly NOVA Safety and Environmental (NOVA), on behalf of ETC Field Services, LLC (ETC), formerly known as Southern Union Gas Services (SUGS) and Regency Field Services, LLC (Regency), has prepared this Remediation Summary and Site Closure Request for the Release Site known as Boyd 10-Inch. The legal description of the Release Site is Unit Letters "F", "G", "H", and "I", Section 26, Township 22 South, Range 37 East, in Lea County, New Mexico. The property affected by the release is owned by Irvin Boyd and Bill Sims. The Release Site GPS coordinates are N 32.363060° and W 103.129773°. Please reference Figure 1 for the Site Location Map and Figure 2 for the Site Details and Confirmation Soil Sample Location Map. The Release Notification and Corrective Action (Form C-141) is provided as Appendix D.

On January 16, 2013, SUGS discovered a crude oil, produced water, and natural gas release from a ten (10)-inch steel pipeline. The released fluid flowed from the release point to the southwest approximately twenty-five feet and was reported to the New Mexico Oil Conservation Division (NMOCD). During initial response activities, SUGS installed a temporary pipeline clamp on the pipeline to mitigate the release. A volume greater than five (5) barrels (bbls) of fluid was released from the pipeline, with no recovery. General photographs of the site are provided as Appendix B.

NMOCD SITE CLASSIFICATION

According to data obtained from the New Mexico Office of the State Engineer (NMOSE), one (1) water well is registered in Section 26, Township 22S, Range 37E. The water well is located in Unit Letter "D" of Section 26 and depth to groundwater data indicates groundwater should be encountered at sixty-five (65) feet below ground surface (bgs). A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately fifty (50) feet bgs. The depth to groundwater at the Boyd 10-Inch Release Site results in twenty (20) 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 Boyd 10-Inch Release Site has a ranking score of twenty (20). Based on this score, the soil remediation levels for a site with a ranking score of twenty (20) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- BTEX – 50 mg/Kg (ppm)
- TPH – 100 mg/Kg (ppm)

The NMOCD chloride cleanup level concentrations are site specific and will be determined by the NMOCD Hobbs District Office.

SUMMARY OF SOIL REMEDIATION ACTIVITIES

On January 21, 2013, heavy equipment was mobilized to the Release Site and soil delineation activities commenced. Impacted soil was placed on plastic adjacent to the excavation, pending final disposition. A chloride field test kit was utilized to guide the delineation and excavation of the impacted soil.

On January 23, 2013, a soil sample (RP @ 21') was collected beneath the release point. The soil sample was submitted to the laboratory and was analyzed for concentrations of benzene, toluene, ethylbenzene, and xylene (BTEX) using EPA Method SW 846-8021B, Total Petroleum Hydrocarbons (TPH) using EPA Method SW 846-8015M and chloride using EPA Method E 300.0. The analytical results indicated the benzene and total BTEX concentration was 0.00153 mg/Kg, the TPH concentration was less than the method detection limit (MDL) of 28.4 mg/Kg and the chloride concentration was 63.9 mg/Kg. Table 1 summarizes the Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil. Analytical reports are provided as Appendix A. Please refer to Figure 2 for soil sample locations.

On February 4, 2013, two (2) soil samples (WBH-1 @ 4' and NBH-1 @ 4') were collected and submitted to the laboratory for analysis. The analytical results indicated the benzene concentration ranged from 0.00326 mg/Kg in soil sample NBH-1 @ 4' to 0.00431 mg/Kg in soil sample WBH-1 @ 4". TPH concentrations were less than the applicable MDL and chloride concentrations ranged from 24.6 mg/Kg in soil sample WBH-1 @ 4' to 172 mg/Kg in soil sample NBH-1 @ 4'. Please refer to Figure 2 for soil sample locations.

On February 6, 2013, seventeen (17) soil samples (East SSW-1 @ 4', East NSW-1 @ 4', East ESW-1 @ 4', East BH-1 @ 5', North NSW-1 @ 4', North WSW-2 @ 4', North ESW-2 @ 4', North BH-2 @ 5', West NSW-2 @ 4', West BH-2 @ 5', West SSW-2 @ 4', West SSW-1 @ 4', West WSW-1 @ 4', RP NSW @ 20', RP ESW-1 @ 20', RP WSW-1 @ 20', and RP SSW-1 @ 20') were collected and submitted to the laboratory. The analytical results indicated the benzene concentrations ranged from less than the applicable MDL in soil samples West NSW-2 @ 4', West SSW-2 @ 4', RP WSW-1 @ 20', and RP SSW-1 @ 20') to 0.00614 mg/Kg in soil sample West SSW-1 @ 4'. TPH concentrations were less than the applicable MDL in all submitted soil samples, with the exception of soil sample West BH-2 @ 5', which exhibited a TPH concentration of 30.5 mg/Kg. Chloride concentrations ranged from 3.20 mg/Kg in soil sample West WSW-1 @ 4' to 448 mg/Kg in soil sample North NSW-1 @ 4'. Based on the analytical results, all soil samples exhibited benzene, BTEX, TPH and Chloride concentrations less than the NMOCD regulatory guidelines, with the exception of soil samples East NSW-1 @ 4' and North NSW-1 @ 4', which exhibited chloride concentrations of 447 mg/Kg and 448 mg/Kg, respectively. Based on the analytical results, additional excavation activities were warranted in the areas represented by soil samples North NSW-1 @ 4' and East NSW-1 @ 4'. Please refer to Figure 2 for soil sample locations.

On February 19, 2013, two (2) soil samples (North NSW-1A @ 4' and East NSW-1A @ 4') were collected and submitted to the laboratory for chloride concentration analysis. The analytical results indicated chloride concentrations ranged from 8.10 mg/Kg for soil sample North NSW-1A @ 4' to 213 mg/Kg for soil sample East NSW-1A @ 4'. Based on the analytical results, no additional

excavation activities were warranted in these areas. Please refer to Figure 2 for soil sample locations.

On February 25, 2013, one (1) soil sample (East BH-1 @ 10') was collected and submitted to the laboratory for benzene, BTEX, TPH, and chloride analysis. The analytical results indicated the benzene, BTEX, and TPH concentrations were less than the applicable laboratory MDL, with a chloride concentration of 170 mg/Kg.

Based on the analytical results of the excavation floor and sidewall soil samples, no additional excavation was warranted.

On February 25, 2013, five (5) composite stockpile soil samples (SP-1 through SP-5) were collected and submitted to the laboratory for benzene, BTEX, TPH, and chloride analysis. The analytical results indicated benzene concentrations ranged from 0.00184 mg/Kg for soil sample SP-2 to 0.00675 mg/Kg for soil sample SP-5 and BTEX concentrations ranged from 0.00320 mg/Kg for soil sample SP-2 to 0.92875 for soil sample SP-5. TPH concentrations ranged from less than the applicable laboratory MDL for soil samples SP-1 and SP-2 to 972 mg/Kg for soil sample SP-5. Chloride concentrations were less than the applicable laboratory MDL for all five (5) stockpile soil samples. Based on the analytical results, stockpiles represented by soil samples SP-4 and SP-5 were transported under manifest to Sundance Services, Inc. in Eunice, New Mexico.

On May 20, 2013, an environmental contractor retained by the landowner and a representative of TRC, collected composite soil samples (SP-1A, SP-2A, and SP-3A) from the three (3) remaining stockpiles (SP-1 through SP-3). The soil samples were submitted to the laboratory for analysis of concentrations of benzene, BTEX, TPH, and chloride. The analytical results indicated benzene concentrations ranged from less than the laboratory MDL of 0.00112 mg/Kg for soil sample SP-1A to 0.00357 mg/Kg for soil sample SP-2A. BTEX concentrations ranged from less than the laboratory MDL for soil sample SP-1 to 0.01225 mg/Kg for soil sample SP-2A and TPH concentrations ranged from less than the applicable laboratory MDL for soil samples SP-1A and SP-3A to 34.3 mg/Kg for soil sample SP-2A. Chloride concentrations ranged from 49.3 mg/Kg for soil sample SP-2A to 228 mg/Kg for soil sample SP-1A. At the landowner's request, stockpiles SP-1 through SP-3 were transported under manifest to Sundance Services, Inc. in Eunice, New Mexico.

In addition, one (1) excavation floor sample (Floor @ 22') was collected beneath the release point and submitted to the laboratory. The analytical results indicated the benzene concentration was 0.00429 mg/Kg, the BTEX concentration was 0.03497 mg/Kg, the TPH concentration was 38.8 mg/Kg, and the chloride concentration was 34.6 mg/Kg.

A total of approximately 2,580 cubic yards (cy) of soil were disposed of at the Sundance Services, Inc. Eunice, New Mexico facility from March 5, 2013 through July 24, 2013. Non-impacted, locally obtained caliche and topsoil was purchased from the landowner and utilized to backfill the excavation. Excavation backfilling activities were completed on July 26, 2013.

On January 26, 2016, following the approval of a landowner access agreement, three (3) soil samples (Sims S-1 through Sims S-3) were collected from the area located south of the property fenceline. The area located south of the property fenceline was affected by overspray from the pipeline release. The soil samples were submitted to the laboratory and the analytical results

indicated concentrations of benzene, BTEX, and TPH were less than the applicable laboratory MDL. In addition, chloride concentrations ranged from less than the laboratory MDL of 2.00 mg/Kg for soil sample Sims S-1 and Sims S-3 to 6.67 for soil sample Sims S-2.

Based on the analytical results, no remediation activities were warranted on the south side of the property fenceline.

SITE CLOSURE REQUEST

Based on the analytical results of excavation floor and sidewall soil samples and with landowner approval to backfill, ETC requests the NMOCD grant ETC Site Closure Status to the Boyd 10-Inch incident of January 16, 2013.

LIMITATIONS

TRC has prepared this Remediation Summary and Site Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

TRC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. TRC 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. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC 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 ETC Field Services, LLC. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of TRC and/or ETC Field Services, LLC.

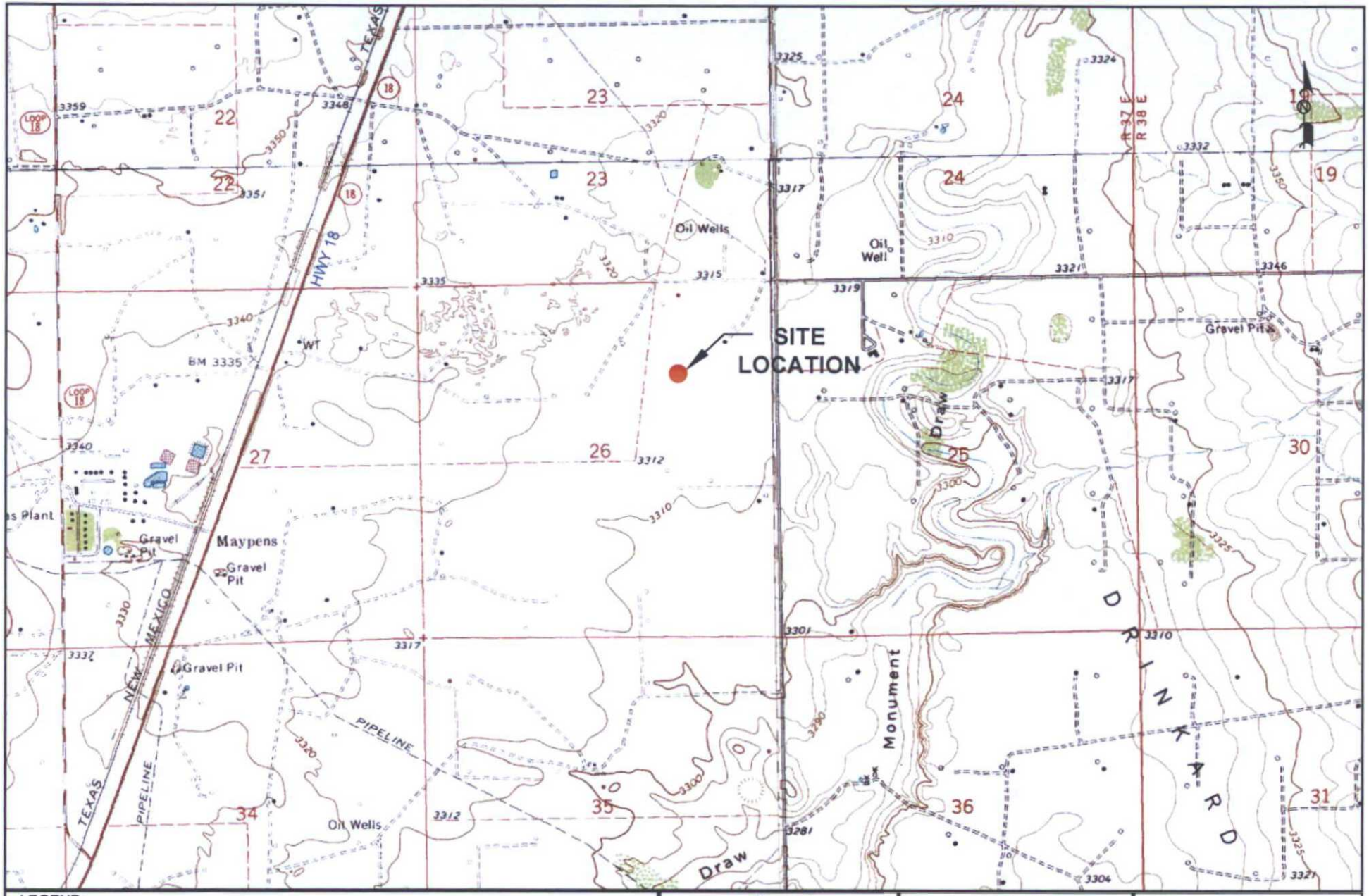
DISTRIBUTION

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

Copy 2: Rose Slade
ETC Field Services, LLC
800 East Sonterra
San Antonio, Texas 78258

Copy 3: TRC Environmental Corporation
2057 Commerce Street
Midland, Texas 79703

Figures



LEGEND:

2000 1000 0 1000 2000

Distance in Feet

Figure 1

Site Location Map

ETC Field Services, LLC

Boyd 10 Inch

Lea County, NM

Scale: 1" = 2000'
CAD By: TA
Checked By: CS
Draft: January 29, 2016
Lat. N 32.363325° , Long. W 103.130278°
SW1/4 NE1/4 Sec 26 T22S R37E

TRC
2057 Commerce Drive
Midland, Texas 79703
432.520.7720

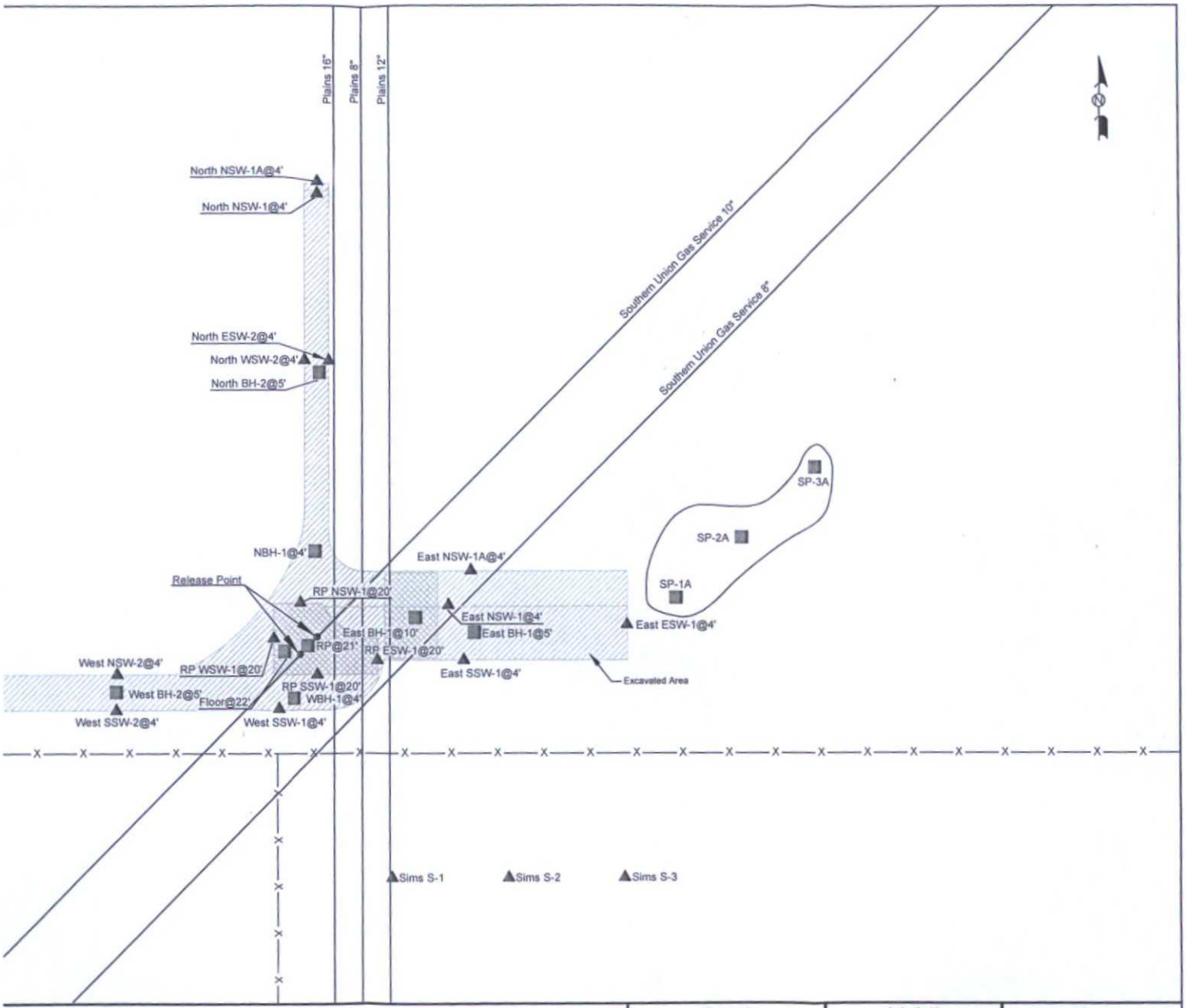


Figure 2
Site Details & Confirmation Soil Sample Locations
ETC Field Services, LLC
Boyd 10 Inch
Lea County, NM

Scale: 1" = 30'
CAD By: TA
Checked By: CS
Date: January 29, 2016
Lat. N 32.363329°, Long. W 103.130278°
SW1/4 NE1/4 Sec 26 T22S R37E

TRC
2057 Commerce Drive
Midland, Texas 79703
432.520.7720

Tables

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

ETC FIELD SERVICES, LLC
BOYD 10 INCH 1-16-13 RELEASE SITE
LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

SAMPLE LOCATION	SAMPLE DATE	SOIL STATUS	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
RP @ 21'	01/23/13	In-Situ	0.00153	<0.00200	<0.00100	<0.00200	<0.00100	0.00153	<28.4	<28.4	<28.4	<28.4	63.9
WBH-1 @ 4'	02/04/13	In-Situ	0.00431	<0.00200	<0.00100	0.00279	0.00122	0.00832	<29.1	<29.1	<29.1	<29.1	24.6
NBH-1 @ 4'	02/04/13	In-Situ	0.00326	<0.00200	<0.00100	0.00259	<0.00100	0.00585	<27.5	<27.5	<27.5	<27.5	172
East SSW-1 @ 4'	02/06/13	In-Situ	0.00194	<0.00200	<0.00100	<0.00200	0.00100	0.00294	<26.6	<26.6	<26.6	<26.6	159
East NSW-1 @ 4'	02/06/13	Excavated	0.00353	0.00223	0.00897	0.0159	0.00453	0.03516	<28.4	<28.4	<28.4	<28.4	**447**
East ESW-1 @ 4'	02/06/13	In-Situ	0.00178	<0.00200	<0.00100	0.00372	0.00167	0.00717	<29.1	<29.1	<29.1	<29.1	86.2
East BH-1 @ 5'	02/06/13	Excavated	0.00260	<0.00200	<0.00100	0.00329	<0.00100	0.00589	<27.8	<27.8	<27.8	<27.8	213
North NSW-1 @ 4'	02/06/13	Excavated	0.00135	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<27.2	<27.2	<27.2	<27.2	**448**
North WSW-2 @ 4'	02/06/13	In-Situ	0.00257	<0.00200	<0.00100	<0.00200	0.00236	0.00493	<29.1	<29.1	<29.1	<29.1	47.5
North ESW-2 @4'	02/06/13	In-Situ	0.00274	<0.00200	0.00131	0.00466	0.0117	0.02041	<28.1	<28.1	<28.1	<28.1	17.4
North BH-2 @ 5'	02/06/13	In-Situ	0.00106	<0.00200	<0.00100	<0.00200	0.00168	0.00274	<26.6	<26.6	<26.6	<26.6	28.0
West NSW-2 @ 4'	02/06/13	In-Situ	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<28.1	<28.1	<28.1	<28.1	16.1
West BH-2 @ 5'	02/06/13	In-Situ	0.00182	<0.00200	0.00273	0.00835	0.00627	0.01917	<27.5	30.5	<27.5	30.5	16.6
West SSW -2 @ 4'	02/06/13	In-Situ	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<28.4	<28.4	<28.4	<28.4	36.6
West SSW-1 @ 4'	02/06/13	In-Situ	0.00614	<0.00200	<0.00100	0.00217	<0.00100	0.00831	<30.5	<30.5	<30.5	<30.5	4.40
West WSW-1 @ 4'	02/06/13	In-Situ	0.00221	<0.00200	<0.00100	<0.00200	<0.00100	0.00221	<26.0	<26.0	<26.0	<26.0	3.20
RP NSW -1 @ 20'	02/06/13	In-Situ	0.00149	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.6	<26.6	<26.6	<26.6	33.4
RP ESW-1 @ 20'	02/06/13	In-Situ	0.00374	<0.00200	<0.00100	<0.00200	<0.00100	0.00374	<29.1	<29.1	<29.1	<29.1	132
RP WSW-1 @ 20'	02/06/13	In-Situ	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.6	<26.6	<26.6	<26.6	21.0
RP SSW-1 @ 20'	02/06/13	In-Situ	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<28.7	<28.7	<28.7	<28.7	62.1
North NSW-1A @ 4'	02/19/13	In-Situ	-	-	-	-	-	-	-	-	-	-	8.10
East NSW-1A @ 4'	02/19/13	In-Situ	-	-	-	-	-	-	-	-	-	-	213
East BH-1 @ 10'	02/25/13	In-Situ	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<28.7	<28.7	<28.7	<28.7	170
SP-1	02/25/13	N/A	0.00212	<0.00200	<0.00100	0.00289	0.00264	0.00765	<28.1	<28.1	<28.1	<28.1	<1.12
SP-2	02/25/13	N/A	0.00184	<0.00200	<0.00100	<0.00200	0.00136	0.00320	<27.2	<27.2	<27.2	<27.2	<1.09
SP-3	02/25/13	N/A	0.00540	<0.00200	<0.00100	0.0660	0.0296	0.101	<27.5	54.8	<27.5	54.8	<1.10
SP-4	02/25/13	Transported	0.00274	<0.00200	0.0280	0.270	0.124	0.42474	113	213	53.9	380.0	<1.09
SP-5	02/25/13	Transported	0.00675	0.0472	0.0128	0.623	0.239	0.92875	339	450	183	972	<1.14
SP-1A	05/30/13	Transported	<0.00112	<0.00225	<0.00112	<0.00225	<0.00112	<0.00225	<28.1	<28.1	<28.1	<28.1	228
SP-2A	05/30/13	Transported	0.00357	<0.00220	0.00579	<0.00220	0.00289	0.01225	<27.5	34.3	<27.5	34.3	49.3
SP-3A	05/30/13	Transported	0.00152	<0.00227	<0.00114	<0.00227	<0.00114	0.00152	<28.4	<28.4	<28.4	<28.4	79.9

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

ETC FIELD SERVICES, LLC
BOYD 10 INCH 1-16-13 RELEASE SITE
LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

SAMPLE LOCATION	SAMPLE DATE	SOIL STATUS	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
Floor @ 22'	05/30/13	In-Situ	0.00429	0.00712	<0.00109	0.0163	0.00726	0.03497	<27.2	38.8	<27.2	38.8	34.6
Sims S-1	01/26/16	In-Situ	<0.000994	<0.00199	<0.000994	<0.00199	<0.000994	<0.00199	<15.0	<15.0	<15.0	<15.0	<2.00
Sims S-2	01/26/16	In-Situ	<0.000998	<0.00200	<0.000998	<0.00200	<0.000998	<0.00200	<15.0	<15.0	<15.0	<15.0	6.67
Sims S-3	01/26/16	In-Situ	<0.000992	<0.00198	<0.000992	<0.000198	<0.000992	<0.000198	<15.0	<15.0	<15.0	<15.0	<2.00

Appendices

Appendix A
Analytical Reports

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

PBELAB

Analytical Report

Prepared for:

Jonathan Repman
Nova Safety & Environment
2057 Commerce
Midland, TX 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Location: Lea Co, New Mexico

Lab Order Number: 3A25005

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704156-12-1

Report Date: 01/29/13

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RP @ 21'	3A25005-01	Soil	01/23/13 11:00	01-25-2013 14:05

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

Fax: (432) 520-7701

RP @ 21'

3A25005-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.00153**	0.00100	mg/kg dry	1	EA32904	01/28/13	01/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EA32904	01/28/13	01/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EA32904	01/28/13	01/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EA32904	01/28/13	01/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EA32904	01/28/13	01/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*109 %*	*75-125*		*EA32904*	*01/28/13*	*01/28/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*58.5 %*	*75-125*		*EA32904*	*01/28/13*	*01/28/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**63.9**	1.14	mg/kg dry	1	EA32806	01/28/13	01/28/13	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	EA32901	01/28/13	01/29/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.4	mg/kg dry	1	EA32903	01/28/13	01/28/13	8015M	
>C12-C28	ND	28.4	mg/kg dry	1	EA32903	01/28/13	01/28/13	8015M	
>C28-C35	ND	28.4	mg/kg dry	1	EA32903	01/28/13	01/28/13	8015M	
Surrogate: 1-Chlorooctane		*91.9 %*	*70-130*		*EA32903*	*01/28/13*	*01/28/13*	*8015M*	
Surrogate: o-Terphenyl		*102 %*	*70-130*		*EA32903*	*01/28/13*	*01/28/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	01/28/13	01/28/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

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 EA32904 - General Preparation (GC)										
Blank (EA32904-BLK1)				Prepared & Analyzed: 01/28/13						
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	*70.0*		*ug/kg*	*60.0*		*117*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*44.9*		"	*60.0*		*74.8*	*75-125*			*S-GC*
LCS (EA32904-BS1)				Prepared & Analyzed: 01/28/13						
Benzene	0.0802	0.00100	mg/kg wet	0.100		80.2	80-120			
Toluene	0.110	0.00200	"	0.100		110	80-120			
Ethylbenzene	0.115	0.00100	"	0.100		115	80-120			
Xylene (p/m)	0.236	0.00200	"	0.200		118	80-120			
Xylene (o)	0.109	0.00100	"	0.100		109	80-120			
Surrogate: 1,4-Difluorobenzene	*70.2*		*ug/kg*	*60.0*		*117*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*63.2*		"	*60.0*		*105*	*75-125*			
LCS Dup (EA32904-BSD1)				Prepared & Analyzed: 01/28/13						
Benzene	0.0831	0.00100	mg/kg wet	0.100		83.1	80-120	3.58	20	
Toluene	0.110	0.00200	"	0.100		110	80-120	0.236	20	
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120	0.708	20	
Xylene (p/m)	0.236	0.00200	"	0.200		118	80-120	0.00848	20	
Xylene (o)	0.110	0.00100	"	0.100		110	80-120	0.128	20	
Surrogate: 1,4-Difluorobenzene	*70.5*		*ug/kg*	*60.0*		*117*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*62.4*		"	*60.0*		*104*	*75-125*			
Matrix Spike (EA32904-MS1)	**Source: 3A25005-01**			Prepared & Analyzed: 01/28/13						
Benzene	0.0424	0.00100	mg/kg dry	0.114	0.00153	36.0	80-120			QM-05
Toluene	0.0572	0.00200	"	0.114	ND	50.3	80-120			QM-05
Ethylbenzene	0.0555	0.00100	"	0.114	ND	48.8	80-120			QM-05
Xylene (p/m)	0.110	0.00200	"	0.227	ND	48.4	80-120			QM-05
Xylene (o)	0.0550	0.00100	"	0.114	ND	48.4	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*60.5*		*ug/kg*	*60.0*		*101*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*44.5*		"	*60.0*		*74.1*	*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 EA32904 - General Preparation (GC)										
Matrix Spike Dup (EA32904-MSD1)	**Source: 3A25005-01**			Prepared & Analyzed: 01/28/13						
Benzene	0.0451	0.00100	mg/kg dry	0.114	0.00153	38.3	80-120	6.38	20	QM-05
Toluene	0.0598	0.00200	"	0.114	ND	52.6	80-120	4.47	20	QM-05
Ethylbenzene	0.0633	0.00100	"	0.114	ND	55.7	80-120	13.2	20	QM-05
Xylene (p/m)	0.130	0.00200	"	0.227	ND	57.1	80-120	16.5	20	QM-05
Xylene (o)	0.0621	0.00100	"	0.114	ND	54.6	80-120	12.0	20	QM-05
Surrogate: 1,4-Difluorobenzene	*59.8*		*ug/kg*	*60.0*		*99.7*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*51.4*		*"*	*60.0*		*85.8*	*75-125*			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

Fax: (432) 520-7701

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 EA32806 - * DEFAULT PREP *****										
Blank (EA32806-BLK1)				Prepared: 01/28/13 Analyzed: 01/29/13						
Chloride	ND	1.00	mg/kg wet							
LCS (EA32806-BS1)				Prepared: 01/28/13 Analyzed: 01/29/13						
Chloride	10.1		mg/kg Wet	10.0		101	80-120			
LCS Dup (EA32806-BSD1)				Prepared: 01/28/13 Analyzed: 01/29/13						
Chloride	9.93		mg/kg Wet	10.0		99.3	80-120	1.63	20	
Duplicate (EA32806-DUP1)		**Source: 3A25005-01**		Prepared: 01/28/13 Analyzed: 01/29/13						
Chloride	57.7	1.14	mg/kg dry		63.9			10.1	20	
Matrix Spike (EA32806-MS1)		**Source: 3A25005-01**		Prepared: 01/28/13 Analyzed: 01/29/13						
Chloride	169	1.14	mg/kg dry	99.4	63.9	106	80-120			
Matrix Spike (EA32806-MS2)		**Source: 3A25006-04**		Prepared: 01/28/13 Analyzed: 01/29/13						
Chloride	239	1.05	mg/kg dry	92.1	112	138	80-120			QM-05
Batch EA32901 - * DEFAULT PREP *****										
Blank (EA32901-BLK1)				Prepared & Analyzed: 01/28/13						
% Moisture	ND	0.1	%							
Duplicate (EA32901-DUP1)		**Source: 3A25004-01**		Prepared & Analyzed: 01/28/13						
% Moisture	5.5	0.1	%		6.2			12.0	20	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

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 EA32903 - TX 1005										
Blank (EA32903-BLK1)				Prepared & Analyzed: 01/28/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*100*		"	*100*		*100*	*70-130*			
Surrogate: o-Terphenyl	*55.0*		"	*50.0*		*110*	*70-130*			
LCS (EA32903-BS1)				Prepared & Analyzed: 01/28/13						
C6-C12	1040	25.0	mg/kg wet	1000		104	75-125			
>C12-C28	1100	25.0	"	1000		110	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*120*		"	*100*		*120*	*70-130*			
Surrogate: o-Terphenyl	*54.9*		"	*50.0*		*110*	*70-130*			
LCS Dup (EA32903-BSD1)				Prepared & Analyzed: 01/28/13						
C6-C12	1050	25.0	mg/kg wet	1000		105	75-125	1.05	20	
>C12-C28	1090	25.0	"	1000		109	75-125	0.850	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*105*		"	*100*		*105*	*70-130*			
Surrogate: o-Terphenyl	*47.8*		"	*50.0*		*95.7*	*70-130*			
Matrix Spike (EA32903-MS1)	**Source: 3A25005-01**			Prepared & Analyzed: 01/28/13						
C6-C12	1160	28.4	mg/kg dry	1140	ND	102	75-125			
>C12-C28	1170	28.4	"	1140	ND	103	75-125			
>C28-C35	53.0	28.4	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	*110*		"	*114*		*96.8*	*70-130*			
Surrogate: o-Terphenyl	*53.4*		"	*56.8*		*94.0*	*70-130*			
Matrix Spike Dup (EA32903-MSD1)	**Source: 3A25005-01**			Prepared & Analyzed: 01/28/13						
C6-C12	1140	28.4	mg/kg dry	1140	ND	100	75-125	2.26	20	
>C12-C28	1240	28.4	"	1140	ND	109	75-125	6.11	20	
>C28-C35	31.6	28.4	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	*112*		"	*114*		*98.7*	*70-130*			
Surrogate: o-Terphenyl	*58.5*		"	*56.8*		*103*	*70-130*			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

Fax: (432) 520-7701

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: 1/29/2013

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: Jonathan Repman
Company Name: Nova Environmental
Company Address: 2057 Commerce Dr.
City/State/Zip: Midland/TX/79703
Telephone No: (432)5207720 Fax No:
Sampler Signature: Jon Repman
e-mail: jrepman@novatraining.cc
curt.stanley@sug.com

Project Name: SUG Boyd 10 Inch 1-16-13
Project #:
Project Loc: Lea, Co., New Mexico
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only) ORDER #: 3A25005

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	8015B	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	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
-01	RP @ 21'			1/23/2013	11:00		1	x								S	X											X			X				

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Rebecca Haskell	1/25/13	14:05			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date	Time
				1/25/13	1405

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 by Sampler/Client Rep. ?		N
by Courier? UPS DHL FedEx Lone Star		N

Temperature Upon Receipt:
Received: 3.5 °C
Adjusted: °C Factor NCF

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

PBELAB

Analytical Report

Prepared for:

Jonathan Repman
Nova Safety & Environment
2057 Commerce
Midland, TX 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Location: Lea Co., New Mexico

Lab Order Number: 3B05003

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704156-12-1

Report Date: 02/05/13

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WBH-1 @ 4'	3B05003-01	Soil	02/04/13 13:30	02-05-2013 09:05
NBH-1 @ 4'	3B05003-02	Soil	02/04/13 14:00	02-05-2013 09:05

WBH-1 @ 4'

3B05003-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.00431**	0.00100	mg/kg dry	1	EB30502	02/05/13	02/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB30502	02/05/13	02/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB30502	02/05/13	02/05/13	EPA 8021B	
Xylene (p/m)	**0.00279**	0.00200	mg/kg dry	1	EB30502	02/05/13	02/05/13	EPA 8021B	
Xylene (o)	**0.00122**	0.00100	mg/kg dry	1	EB30502	02/05/13	02/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*112 %*	*75-125*		*EB30502*	*02/05/13*	*02/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*90.8 %*	*75-125*		*EB30502*	*02/05/13*	*02/05/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**24.6**	1.16	mg/kg dry	1	EB30504	02/05/13	02/05/13	EPA 300.0	
% Moisture	**14.0**	0.1	%	1	EB30509	02/05/13	02/05/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	29.1	mg/kg dry	1	EB30503	02/05/13	02/05/13	8015M	
>C12-C28	ND	29.1	mg/kg dry	1	EB30503	02/05/13	02/05/13	8015M	
>C28-C35	ND	29.1	mg/kg dry	1	EB30503	02/05/13	02/05/13	8015M	
Surrogate: 1-Chlorooctane		*76.0 %*	*70-130*		*EB30503*	*02/05/13*	*02/05/13*	*8015M*	
Surrogate: o-Terphenyl		*88.8 %*	*70-130*		*EB30503*	*02/05/13*	*02/05/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	29.1	mg/kg dry	1	[CALC]	02/05/13	02/05/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

NBH-1 @ 4'

3B05003-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.00326**	0.00100	mg/kg dry	1	EB30502	02/05/13	02/05/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB30502	02/05/13	02/05/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB30502	02/05/13	02/05/13	EPA 8021B	
Xylene (p/m)	**0.00259**	0.00200	mg/kg dry	1	EB30502	02/05/13	02/05/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB30502	02/05/13	02/05/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*104 %*	*75-125*		*EB30502*	*02/05/13*	*02/05/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*68.5 %*	*75-125*		*EB30502*	*02/05/13*	*02/05/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**172**	1.10	mg/kg dry	1	EB30504	02/05/13	02/05/13	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	EB30509	02/05/13	02/05/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	EB30503	02/05/13	02/05/13	8015M	
>C12-C28	ND	27.5	mg/kg dry	1	EB30503	02/05/13	02/05/13	8015M	
>C28-C35	ND	27.5	mg/kg dry	1	EB30503	02/05/13	02/05/13	8015M	
Surrogate: 1-Chlorooctane		*84.5 %*	*70-130*		*EB30503*	*02/05/13*	*02/05/13*	*8015M*	
Surrogate: o-Terphenyl		*94.5 %*	*70-130*		*EB30503*	*02/05/13*	*02/05/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	27.5	mg/kg dry	1	[CALC]	02/05/13	02/05/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

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 EB30502 - General Preparation (GC)										
Blank (EB30502-BLK1)				Prepared & Analyzed: 02/05/13						
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	*70.0*		*ug/kg*	*60.0*		*117*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*45.1*		*"*	*60.0*		*75.2*	*75-125*			
LCS (EB30502-BS1)				Prepared & Analyzed: 02/05/13						
Benzene	0.0813	0.00100	mg/kg wet	0.100		81.3	80-120			
Toluene	0.111	0.00200	"	0.100		111	80-120			
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120			
Xylene (p/m)	0.225	0.00200	"	0.200		113	80-120			
Xylene (o)	0.103	0.00100	"	0.100		103	80-120			
Surrogate: 1,4-Difluorobenzene	*64.4*		*ug/kg*	*60.0*		*107*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*58.6*		*"*	*60.0*		*97.6*	*75-125*			
LCS Dup (EB30502-BSD1)				Prepared & Analyzed: 02/05/13						
Benzene	0.0853	0.00100	mg/kg wet	0.100		85.3	80-120	4.73	20	
Toluene	0.115	0.00200	"	0.100		115	80-120	3.95	20	
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120	4.42	20	
Xylene (p/m)	0.236	0.00200	"	0.200		118	80-120	4.50	20	
Xylene (o)	0.107	0.00100	"	0.100		107	80-120	3.23	20	
Surrogate: 1,4-Difluorobenzene	*59.7*		*ug/kg*	*60.0*		*99.5*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*54.6*		*"*	*60.0*		*91.0*	*75-125*			
Matrix Spike (EB30502-MS1)	**Source: 3B05003-01**			Prepared & Analyzed: 02/05/13						
Benzene	0.0563	0.00100	mg/kg dry	0.116	0.00431	44.7	80-120			QM-05
Toluene	0.0772	0.00200	"	0.116	ND	66.4	80-120			QM-05
Ethylbenzene	0.0731	0.00100	"	0.116	ND	62.8	80-120			QM-05
Xylene (p/m)	0.151	0.00200	"	0.233	0.00279	63.9	80-120			QM-05
Xylene (o)	0.0685	0.00100	"	0.116	0.00122	57.8	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*65.0*		*ug/kg*	*60.0*		*108*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*59.0*		*"*	*60.0*		*98.2*	*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 EB30502 - General Preparation (GC)										
Matrix Spike Dup (EB30502-MSD1)		**Source: 3B05003-01**		Prepared & Analyzed: 02/05/13						
Benzene	0.0556	0.00100	mg/kg dry	0.116	0.00431	44.1	80-120	1.46	20	QM-05
Toluene	0.0761	0.00200	"	0.116	ND	65.5	80-120	1.44	20	QM-05
Ethylbenzene	0.0719	0.00100	"	0.116	ND	61.8	80-120	1.67	20	QM-05
Xylene (p/m)	0.149	0.00200	"	0.233	0.00279	62.8	80-120	1.77	20	QM-05
Xylene (o)	0.0683	0.00100	"	0.116	0.00122	57.7	80-120	0.242	20	QM-05
Surrogate: 1,4-Difluorobenzene	*67.0*		*ug/kg*	*60.0*		*112*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*60.9*		*"*	*60.0*		*102*	*75-125*			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

Fax: (432) 520-7701

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 EB30504 - * DEFAULT PREP *****										
Blank (EB30504-BLK1)				Prepared & Analyzed: 02/05/13						
Chloride	ND	1.00	mg/kg wet							
LCS (EB30504-BS1)				Prepared & Analyzed: 02/05/13						
Chloride	9.86		mg/kg Wet	10.0		98.6	80-120			
LCS Dup (EB30504-BSD1)				Prepared & Analyzed: 02/05/13						
Chloride	9.76		mg/kg Wet	10.0		97.6	80-120	1.02	20	
Duplicate (EB30504-DUP1)		Source: 3B05003-01		Prepared & Analyzed: 02/05/13						
Chloride	24.5	1.16	mg/kg dry		24.6			0.0474	20	
Matrix Spike (EB30504-MS1)		Source: 3B05003-01		Prepared & Analyzed: 02/05/13						
Chloride	121	1.16	mg/kg dry	102	24.6	94.7	80-120			
Batch EB30509 - * DEFAULT PREP *****										
Blank (EB30509-BLK1)				Prepared & Analyzed: 02/05/13						
% Moisture	ND	0.1	%							
Duplicate (EB30509-DUP1)		Source: 3B05003-01		Prepared & Analyzed: 02/05/13						
% Moisture	14.0	0.1	%		14.0			0.00	20	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

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 EB30503 - 8015M										
Blank (EB30503-BLK1)				Prepared & Analyzed: 02/05/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*82.7*		"	*100*		*82.7*	*70-130*			
Surrogate: o-Terphenyl	*44.9*		"	*50.0*		*89.9*	*70-130*			
LCS (EB30503-BS1)				Prepared & Analyzed: 02/05/13						
C6-C12	834	25.0	mg/kg wet	1000		83.4	75-125			
>C12-C28	967	25.0	"	1000		96.7	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*88.5*		"	*100*		*88.5*	*70-130*			
Surrogate: o-Terphenyl	*41.5*		"	*50.0*		*82.9*	*70-130*			
LCS Dup (EB30503-BSD1)				Prepared & Analyzed: 02/05/13						
C6-C12	845	25.0	mg/kg wet	1000		84.5	75-125	1.39	20	
>C12-C28	881	25.0	"	1000		88.1	75-125	9.33	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*89.1*		"	*100*		*89.1*	*70-130*			
Surrogate: o-Terphenyl	*39.3*		"	*50.0*		*78.7*	*70-130*			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

Fax: (432) 520-7701

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: 2/5/2013

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: Jonathan Repman
Company Name: Nova Environmental
Company Address: 2057 Commerce Dr.
City/State/Zip: Midland/TX/79703
Telephone No: (432)5207720
Fax No:
Sampler Signature: Jonathan Repman
e-mail: jrepman@novatraining.cc
curt.stanley@sug.com

Project Name: SUG Boyd 10 Inch 1-16-13
Project #:
Project Loc: Lea, Co., New Mexico
PO #:
Report Format: [x] Standard [ ] TRRP [ ] NPDES

(lab use only) ORDER #: 3B05003

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: TPH: 418.1 8015M 8015B	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	WBH-1 @ 4'			2/4/2013	13:00 30 05		1	x								S	X								X			X			x	
-02	NBH-1 @ 4'			2/4/2013	14:00		1	x								S	X								X			X			x	

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Jonathan Repman	2/5/13	8:00			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date	Time
				2/5/13	8:00

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: 4.0 °C
Adjusted: °C Factor NCF

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

PBELAB

Analytical Report

Prepared for:

Jonathan Repman
Nova Safety & Environment
2057 Commerce
Midland, TX 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Location: Lea Co., New Mexico

Lab Order Number: 3B07002

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704156-12-1

Report Date: 02/13/13

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
East SSW-1 @ 4'	3B07002-01	Soil	02/06/13 12:00	02-07-2013 09:20
East NSW-1 @ 4'	3B07002-02	Soil	02/06/13 12:05	02-07-2013 09:20
East ESW-1 @ 4'	3B07002-03	Soil	02/06/13 12:10	02-07-2013 09:20
East BH-1 @ 5'	3B07002-04	Soil	02/06/13 12:15	02-07-2013 09:20
North NSW-1 @ 4'	3B07002-05	Soil	02/06/13 12:30	02-07-2013 09:20
North WSW-2 @ 4'	3B07002-06	Soil	02/06/13 12:40	02-07-2013 09:20
North ESW-2 @ 4'	3B07002-07	Soil	02/06/13 12:45	02-07-2013 09:20
North BH-2 @ 5'	3B07002-08	Soil	02/06/13 12:50	02-07-2013 09:20

East SSW-1 @ 4'

3B07002-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.00194**	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Xylene (o)	**0.00100**	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*111 %*	*75-125*		*EB31206*	*02/11/13*	*02/11/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*69.1 %*	*75-125*		*EB31206*	*02/11/13*	*02/11/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**159**	1.06	mg/kg dry	1	EB30806	02/08/13	02/11/13	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C12-C28	ND	26.6	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C28-C35	ND	26.6	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
Surrogate: 1-Chlorooctane		*76.5 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Surrogate: o-Terphenyl		*84.3 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	26.6	mg/kg dry	1	[CALC]	02/08/13	02/08/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

East NSW-1 @ 4'

3B07002-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.00353**	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Toluene	**0.00223**	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Ethylbenzene	**0.00897**	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (p/m)	**0.0159**	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (o)	**0.00453**	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*118 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*75.4 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**447**	1.14	mg/kg dry	1	EB30806	02/08/13	02/11/13	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.4	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C12-C28	ND	28.4	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C28-C35	ND	28.4	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
Surrogate: 1-Chlorooctane		*81.2 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Surrogate: o-Terphenyl		*88.5 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	28.4	mg/kg dry	1	[CALC]	02/08/13	02/08/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

East ESW-1 @ 4'

3B07002-03 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00178**	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (p/m)	**0.00372**	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (o)	**0.00167**	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*115 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*73.4 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**86.2**	1.16	mg/kg dry	1	EB30806	02/08/13	02/11/13	EPA 300.0	
% Moisture	**14.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	29.1	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C12-C28	ND	29.1	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C28-C35	ND	29.1	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
Surrogate: 1-Chlorooctane		*91.4 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Surrogate: o-Terphenyl		*104 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	29.1	mg/kg dry	1	[CALC]	02/08/13	02/08/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

East BH-1 @ 5'

3B07002-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.00260**	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (p/m)	**0.00329**	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*106 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*75.6 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**213**	1.11	mg/kg dry	1	EB30806	02/08/13	02/11/13	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C12-C28	ND	27.8	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C28-C35	ND	27.8	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
Surrogate: 1-Chlorooctane		*82.5 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Surrogate: o-Terphenyl		*93.9 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	27.8	mg/kg dry	1	[CALC]	02/08/13	02/08/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

North NSW-1 @ 4'

3B07002-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.00135**	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*118 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*70.0 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**448**	1.09	mg/kg dry	1	EB30806	02/08/13	02/11/13	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C12-C28	ND	27.2	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C28-C35	ND	27.2	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
Surrogate: 1-Chlorooctane		*90.7 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Surrogate: o-Terphenyl		*102 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	27.2	mg/kg dry	1	[CALC]	02/08/13	02/08/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

North WSW-2 @ 4'

3B07002-06 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00257**	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (o)	**0.00236**	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*114 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*84.2 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**47.5**	1.16	mg/kg dry	1	EB31103	02/11/13	02/11/13	EPA 300.0	
% Moisture	**14.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	29.1	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C12-C28	ND	29.1	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C28-C35	ND	29.1	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
Surrogate: 1-Chlorooctane		*98.5 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Surrogate: o-Terphenyl		*112 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	29.1	mg/kg dry	1	[CALC]	02/08/13	02/08/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

North ESW-2 @ 4'

3B07002-07 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00274**	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Ethylbenzene	**0.00131**	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Xylene (p/m)	**0.00466**	0.00200	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Xylene (o)	**0.0117**	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*115 %*	*75-125*		*EB31206*	*02/11/13*	*02/11/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*120 %*	*75-125*		*EB31206*	*02/11/13*	*02/11/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**17.4**	1.12	mg/kg dry	1	EB31103	02/11/13	02/11/13	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C12-C28	ND	28.1	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C28-C35	ND	28.1	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
Surrogate: 1-Chlorooctane		*84.4 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Surrogate: o-Terphenyl		*96.8 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	28.1	mg/kg dry	1	[CALC]	02/08/13	02/08/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

North BH-2 @ 5'

3B07002-08 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00106**	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Xylene (o)	**0.00168**	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*117 %*	*75-125*		*EB31206*	*02/11/13*	*02/11/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*85.6 %*	*75-125*		*EB31206*	*02/11/13*	*02/11/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**28.0**	1.06	mg/kg dry	1	EB31103	02/11/13	02/12/13	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C12-C28	ND	26.6	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C28-C35	ND	26.6	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
Surrogate: 1-Chlorooctane		*77.9 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Surrogate: o-Terphenyl		*89.3 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	26.6	mg/kg dry	1	[CALC]	02/08/13	02/08/13	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 EB30807 - General Preparation (GC)										
Blank (EB30807-BLK1)				Prepared & Analyzed: 02/08/13						
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	*43.9*		*"*	*60.0*		*73.2*	*75-125*			*S-GC*
LCS (EB30807-BS1)				Prepared & Analyzed: 02/08/13						
Benzene	0.0826	0.00100	mg/kg wet	0.100		82.6	80-120			
Toluene	0.114	0.00200	"	0.100		114	80-120			
Ethylbenzene	0.112	0.00100	"	0.100		112	80-120			
Xylene (p/m)	0.234	0.00200	"	0.200		117	80-120			
Xylene (o)	0.108	0.00100	"	0.100		108	80-120			
Surrogate: 1,4-Difluorobenzene	*64.9*		*ug/kg*	*60.0*		*108*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*59.9*		*"*	*60.0*		*99.8*	*75-125*			
LCS Dup (EB30807-BSD1)				Prepared & Analyzed: 02/08/13						
Benzene	0.0811	0.00100	mg/kg wet	0.100		81.1	80-120	1.81	20	
Toluene	0.111	0.00200	"	0.100		111	80-120	2.89	20	
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120	3.30	20	
Xylene (p/m)	0.225	0.00200	"	0.200		113	80-120	3.62	20	
Xylene (o)	0.104	0.00100	"	0.100		104	80-120	3.35	20	
Surrogate: 1,4-Difluorobenzene	*61.6*		*ug/kg*	*60.0*		*103*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*56.0*		*"*	*60.0*		*93.4*	*75-125*			
Batch EB31206 - General Preparation (GC)										
Blank (EB31206-BLK1)				Prepared & Analyzed: 02/11/13						
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	*71.2*		*ug/kg*	*60.0*		*119*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*41.8*		*"*	*60.0*		*69.7*	*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 EB31206 - General Preparation (GC)										
LCS (EB31206-BS1)				Prepared & Analyzed: 02/11/13						
Benzene	0.0825	0.00100	mg/kg wet	0.100		82.5	80-120			
Toluene	0.105	0.00200	"	0.100		105	80-120			
Ethylbenzene	0.101	0.00100	"	0.100		101	80-120			
Xylene (p/m)	0.209	0.00200	"	0.200		104	80-120			
Xylene (o)	0.0974	0.00100	"	0.100		97.4	80-120			
Surrogate: 1,4-Difluorobenzene	*68.5*		*ug/kg*	*60.0*		*114*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*61.5*		*"*	*60.0*		*103*	*75-125*			
LCS Dup (EB31206-BSD1)				Prepared & Analyzed: 02/11/13						
Benzene	0.0803	0.00100	mg/kg wet	0.100		80.3	80-120	2.68	20	
Toluene	0.0993	0.00200	"	0.100		99.3	80-120	5.20	20	
Ethylbenzene	0.0965	0.00100	"	0.100		96.5	80-120	4.94	20	
Xylene (p/m)	0.199	0.00200	"	0.200		99.6	80-120	4.77	20	
Xylene (o)	0.0936	0.00100	"	0.100		93.6	80-120	3.90	20	
Surrogate: 1,4-Difluorobenzene	*72.0*		*ug/kg*	*60.0*		*120*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*64.7*		*"*	*60.0*		*108*	*75-125*			
Matrix Spike (EB31206-MS1)		**Source: 3B07003-09**		Prepared: 02/11/13 Analyzed: 02/12/13						
Benzene	0.0447	0.00100	mg/kg dry	0.115	ND	38.9	80-120			QM-05
Toluene	0.0578	0.00200	"	0.115	ND	50.3	80-120			QM-05
Ethylbenzene	0.0479	0.00100	"	0.115	ND	41.7	80-120			QM-05
Xylene (p/m)	0.0913	0.00200	"	0.230	ND	39.7	80-120			QM-05
Xylene (o)	0.0473	0.00100	"	0.115	ND	41.2	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*69.3*		*ug/kg*	*60.0*		*116*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*34.8*		*"*	*60.0*		*57.9*	*75-125*			*S-GC*
Matrix Spike Dup (EB31206-MSD1)		**Source: 3B07003-09**		Prepared: 02/11/13 Analyzed: 02/12/13						
Benzene	0.0619	0.00100	mg/kg dry	0.115	ND	53.9	80-120	32.3	20	QM-05
Toluene	0.0849	0.00200	"	0.115	ND	73.9	80-120	38.0	20	QM-05
Ethylbenzene	0.0791	0.00100	"	0.115	ND	68.8	80-120	49.1	20	QM-05
Xylene (p/m)	0.159	0.00200	"	0.230	ND	69.2	80-120	54.1	20	QM-05
Xylene (o)	0.0738	0.00100	"	0.115	ND	64.2	80-120	43.7	20	QM-05
Surrogate: 1,4-Difluorobenzene	*70.2*		*ug/kg*	*60.0*		*117*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*50.8*		*"*	*60.0*		*84.6*	*75-125*			

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

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 EB30802 - * DEFAULT PREP *** **										
Blank (EB30802-BLK1)				Prepared: 02/07/13 Analyzed: 02/08/13						
% Moisture	ND	0.1	%							
Duplicate (EB30802-DUP1)		Source: 3B07001-01		Prepared: 02/07/13 Analyzed: 02/08/13						
% Moisture	14.0	0.1	%		12.0			15.4	20	
Duplicate (EB30802-DUP2)		Source: 3B07001-27		Prepared: 02/07/13 Analyzed: 02/08/13						
% Moisture	18.0	0.1	%		17.0			5.71	20	
Batch EB30806 - * DEFAULT PREP *** **										
Blank (EB30806-BLK1)				Prepared & Analyzed: 02/08/13						
Chloride	ND	1.00	mg/kg wet							
LCS (EB30806-BS1)				Prepared & Analyzed: 02/08/13						
Chloride	9.93		mg/kg Wet	10.0		99.3	80-120			
LCS Dup (EB30806-BSD1)				Prepared & Analyzed: 02/08/13						
Chloride	9.90		mg/kg Wet	10.0		99.0	80-120	0.252	20	
Duplicate (EB30806-DUP1)		Source: 3B07007-01		Prepared & Analyzed: 02/08/13						
Chloride	1000	2.75	mg/kg dry		1010			0.683	20	
Matrix Spike (EB30806-MS1)		Source: 3B07007-01		Prepared & Analyzed: 02/08/13						
Chloride	1390	2.75	mg/kg dry	343	1010	111	80-120			
Matrix Spike (EB30806-MS2)		Source: 3B07003-05		Prepared: 02/08/13 Analyzed: 02/11/13						
Chloride	107	1.04	mg/kg dry	104	3.20	99.6	80-120			

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

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 EB31103 - * DEFAULT PREP *****										
Blank (EB31103-BLK1)				Prepared & Analyzed: 02/11/13						
Chloride	ND	1.00	mg/kg wet							
LCS (EB31103-BS1)				Prepared & Analyzed: 02/11/13						
Chloride	9.96		mg/kg Wet	10.0		99.6	80-120			
LCS Dup (EB31103-BSD1)				Prepared & Analyzed: 02/11/13						
Chloride	9.92		mg/kg Wet	10.0		99.2	80-120	0.453	20	
Duplicate (EB31103-DUP1)		**Source: 3B07002-06**		Prepared & Analyzed: 02/11/13						
Chloride	53.2	1.16	mg/kg dry		47.5			11.3	20	
Duplicate (EB31103-DUP2)		**Source: 3B07008-07**		Prepared & Analyzed: 02/11/13						
Chloride	11200	52.6	mg/kg dry		10900			2.35	20	
Matrix Spike (EB31103-MS1)		**Source: 3B07002-06**		Prepared & Analyzed: 02/11/13						
Chloride	153	1.16	mg/kg dry	116	47.5	90.3	80-120			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

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 EB31108 - 8015M										
Blank (EB31108-BLK1)				Prepared & Analyzed: 02/08/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*144*		"	*200*		*71.9*	*70-130*			
Surrogate: o-Terphenyl	*79.5*		"	*100*		*79.5*	*70-130*			
LCS (EB31108-BS1)				Prepared & Analyzed: 02/08/13						
C6-C12	1290	25.0	mg/kg wet	1500		86.3	75-125			
>C12-C28	1290	25.0	"	1500		86.2	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*128*		"	*100*		*128*	*70-130*			
Surrogate: o-Terphenyl	*64.9*		"	*50.0*		*130*	*70-130*			
LCS Dup (EB31108-BSD1)				Prepared & Analyzed: 02/08/13						
C6-C12	1470	25.0	mg/kg wet	1500		98.0	75-125	12.8	20	
>C12-C28	1410	25.0	"	1500		94.3	75-125	8.98	20	
>C28-C35	27.2	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*160*		"	*200*		*80.2*	*70-130*			
Surrogate: o-Terphenyl	*70.4*		"	*100*		*70.4*	*70-130*			
Matrix Spike (EB31108-MS1)	**Source: 3B07002-08**			Prepared & Analyzed: 02/08/13						
C6-C12	1200	26.6	mg/kg dry	1060	ND	113	75-125			
>C12-C28	1190	26.6	"	1060	ND	112	75-125			
>C28-C35	ND	26.6	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	*116*		"	*106*		*109*	*70-130*			
Surrogate: o-Terphenyl	*51.3*		"	*53.2*		*96.4*	*70-130*			
Matrix Spike Dup (EB31108-MSD1)	**Source: 3B07002-08**			Prepared & Analyzed: 02/08/13						
C6-C12	1120	26.6	mg/kg dry	1060	ND	105	75-125	6.72	20	
>C12-C28	1090	26.6	"	1060	ND	102	75-125	8.51	20	
>C28-C35	ND	26.6	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	*108*		"	*106*		*101*	*70-130*			
Surrogate: o-Terphenyl	*47.8*		"	*53.2*		*89.8*	*70-130*			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

Fax: (432) 520-7701

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: 2/13/2013

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: Jonathan Repman
Company Name: Nova Environmental
Company Address: 2057 Commerce Dr.
City/State/Zip: Midland/TX/79703
Telephone No: (432)5207720
Fax No:
Sampler Signature: Jonat Rep
e-mail: jrepman@novatraining.cc
curt.stanley@sug.com

Project Name: SUG Boyd 10 Inch 1-16-13
Project #:
Project Loc: Lea, Co., New Mexico
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 3B07002

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	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	East SSW-1 @ 4'			2/6/2013	12:00		1	x								S	X								X			X				x
-02	East NSW-1 @ 4'			2/6/2013	12:05		1	x								S	X								X			X				x
-03	East ESW-1 @ 4'			2/6/2013	12:10		1	x								S	X								X			X				x
-04	East BH-1 @ 5'			2/6/2013	12:15		1	x								S	X								X			X				x
-05	North NSW -1 @ 4'			2/6/2013	12:30		1	x								S	X								X			X				x
-06	North WSW -2 @ 4'			2/6/2013	12:40		1	x								S	X								X			X				x
-07	North ESW -2 @ 4'			2/6/2013	12:45		1	x								S	X								X			X				x
-08	North BH -2 @ 5'			2/6/2013	12:50		1	x								S	X								X			X				x

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Jonathan Repman	2/7/13	9:20			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				2/7/13	9:20

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 by Sampler/Client Rep. ?	N
by Courier? UPS DHL FedEx Lone Star	N

Temperature Upon Receipt:
Received: °C
Adjusted: 3.5 °C Factor NCF

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

PBELAB

Analytical Report

Prepared for:

Jonathan Repman
Nova Safety & Environment
2057 Commerce
Midland, TX 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Location: Lea, Co. New Mexico

Lab Order Number: 3B07003

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704156-12-1

Report Date: 02/12/13

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

Fax: (432) 520-7701

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
West NSW -2 @ 4'	3B07003-01	Soil	02/06/13 14:00	02-07-2013 09:20
West BH -2 @ 5'	3B07003-02	Soil	02/06/13 14:05	02-07-2013 09:20
West SSW -2 @ 4'	3B07003-03	Soil	02/06/13 14:10	02-07-2013 09:20
West SSW -1 @ 4'	3B07003-04	Soil	02/06/13 14:30	02-07-2013 09:20
West WSW -1 @ 4'	3B07003-05	Soil	02/06/13 14:20	02-07-2013 09:20
RP NSW -1 @ 20'	3B07003-06	Soil	02/06/13 15:00	02-07-2013 09:20
RP ESW -1 @ 20'	3B07003-07	Soil	02/06/13 15:10	02-07-2013 09:20
RP WSW -1 @ 20'	3B07003-08	Soil	02/06/13 15:20	02-07-2013 09:20
RP SSW -1 @ 20'	3B07003-09	Soil	02/06/13 15:30	02-07-2013 09:20

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

West NSW -2 @ 4'

3B07003-01 (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	EB31206	02/11/13	02/11/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*101 %*	*75-125*		*EB31206*	*02/11/13*	*02/11/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*42.3 %*	*75-125*		*EB31206*	*02/11/13*	*02/11/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**16.1**	1.12	mg/kg dry	1	EB30806	02/08/13	02/11/13	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C12-C28	ND	28.1	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C28-C35	ND	28.1	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
Surrogate: 1-Chlorooctane		*91.1 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Surrogate: o-Terphenyl		*103 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	28.1	mg/kg dry	1	[CALC]	02/08/13	02/08/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

West BH -2 @ 5'

3B07003-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.00182**	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Ethylbenzene	**0.00273**	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Xylene (p/m)	**0.00835**	0.00200	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Xylene (o)	**0.00627**	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*116 %*	*75-125*		*EB31206*	*02/11/13*	*02/11/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*107 %*	*75-125*		*EB31206*	*02/11/13*	*02/11/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**16.6**	1.10	mg/kg dry	1	EB30806	02/08/13	02/11/13	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C12-C28	**30.5**	27.5	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
>C28-C35	ND	27.5	mg/kg dry	1	EB31108	02/08/13	02/08/13	8015M	
Surrogate: 1-Chlorooctane		*92.9 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Surrogate: o-Terphenyl		*107 %*	*70-130*		*EB31108*	*02/08/13*	*02/08/13*	*8015M*	
Total Hydrocarbon nC6-nC35	**30.5**	27.5	mg/kg dry	1	[CALC]	02/08/13	02/08/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

West SSW -2 @ 4'

3B07003-03 (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	EB31206	02/11/13	02/11/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB31206	02/11/13	02/11/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*120 %*	*75-125*		*EB31206*	*02/11/13*	*02/11/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*73.0 %*	*75-125*		*EB31206*	*02/11/13*	*02/11/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**36.6**	1.14	mg/kg dry	1	EB30806	02/08/13	02/11/13	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.4	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
>C12-C28	ND	28.4	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
>C28-C35	ND	28.4	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
Surrogate: 1-Chlorooctane		*94.8 %*	*70-130*		*EB31107*	*02/09/13*	*02/09/13*	*8015M*	
Surrogate: o-Terphenyl		*111 %*	*70-130*		*EB31107*	*02/09/13*	*02/09/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	28.4	mg/kg dry	1	[CALC]	02/09/13	02/09/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

West SSW -1 @ 4'

3B07003-04 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00614**	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (p/m)	**0.00217**	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*118 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*53.6 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**4.40**	1.22	mg/kg dry	1	EB30806	02/08/13	02/11/13	EPA 300.0	
% Moisture	**18.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	30.5	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
>C12-C28	ND	30.5	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
>C28-C35	ND	30.5	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		*EB31107*	*02/09/13*	*02/09/13*	*8015M*	
Surrogate: o-Terphenyl		*121 %*	*70-130*		*EB31107*	*02/09/13*	*02/09/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	30.5	mg/kg dry	1	[CALC]	02/09/13	02/09/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

West WSW -1 @ 4'

3B07003-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.00221**	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*113 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*40.5 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	*S-HI*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**3.20**	1.04	mg/kg dry	1	EB30806	02/08/13	02/11/13	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
>C12-C28	ND	26.0	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
>C28-C35	ND	26.0	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
Surrogate: 1-Chlorooctane		*87.5 %*	*70-130*		*EB31107*	*02/09/13*	*02/09/13*	*8015M*	
Surrogate: o-Terphenyl		*98.5 %*	*70-130*		*EB31107*	*02/09/13*	*02/09/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	26.0	mg/kg dry	1	[CALC]	02/09/13	02/09/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

RP NSW -1 @ 20'

3B07003-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.00149**	0.00100	mg/kg dry	1	EB31206	02/11/13	02/12/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB31206	02/11/13	02/12/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB31206	02/11/13	02/12/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB31206	02/11/13	02/12/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB31206	02/11/13	02/12/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*114 %*	*75-125*		*EB31206*	*02/11/13*	*02/12/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*47.5 %*	*75-125*		*EB31206*	*02/11/13*	*02/12/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**33.4**	1.06	mg/kg dry	1	EB30806	02/08/13	02/11/13	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
>C12-C28	ND	26.6	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
>C28-C35	ND	26.6	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
Surrogate: 1-Chlorooctane		*90.0 %*	*70-130*		*EB31107*	*02/09/13*	*02/09/13*	*8015M*	
Surrogate: o-Terphenyl		*103 %*	*70-130*		*EB31107*	*02/09/13*	*02/09/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	26.6	mg/kg dry	1	[CALC]	02/09/13	02/09/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

RP ESW -1 @ 20'

3B07003-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.00374**	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*115 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*68.3 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**132**	1.16	mg/kg dry	1	EB30806	02/08/13	02/11/13	EPA 300.0	
% Moisture	**14.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	29.1	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
>C12-C28	ND	29.1	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
>C28-C35	ND	29.1	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
Surrogate: 1-Chlorooctane		*91.3 %*	*70-130*		*EB31107*	*02/09/13*	*02/09/13*	*8015M*	
Surrogate: o-Terphenyl		*108 %*	*70-130*		*EB31107*	*02/09/13*	*02/09/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	29.1	mg/kg dry	1	[CALC]	02/09/13	02/09/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

RP WSW -1 @ 20'

3B07003-08 (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	EB30807	02/08/13	02/08/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB30807	02/08/13	02/08/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*118 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*55.6 %*	*75-125*		*EB30807*	*02/08/13*	*02/08/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**21.0**	1.06	mg/kg dry	1	EB30806	02/08/13	02/11/13	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
>C12-C28	ND	26.6	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
>C28-C35	ND	26.6	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
Surrogate: 1-Chlorooctane		*93.3 %*	*70-130*		*EB31107*	*02/09/13*	*02/09/13*	*8015M*	
Surrogate: o-Terphenyl		*108 %*	*70-130*		*EB31107*	*02/09/13*	*02/09/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	26.6	mg/kg dry	1	[CALC]	02/09/13	02/09/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

RP SSW -1 @ 20'

3B07003-09 (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	EB31206	02/11/13	02/12/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB31206	02/11/13	02/12/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB31206	02/11/13	02/12/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB31206	02/11/13	02/12/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB31206	02/11/13	02/12/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*120 %*	*75-125*		*EB31206*	*02/11/13*	*02/12/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*66.4 %*	*75-125*		*EB31206*	*02/11/13*	*02/12/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**62.1**	1.15	mg/kg dry	1	EB30806	02/08/13	02/11/13	EPA 300.0	
% Moisture	**13.0**	0.1	%	1	EB30802	02/07/13	02/08/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.7	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
>C12-C28	ND	28.7	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
>C28-C35	ND	28.7	mg/kg dry	1	EB31107	02/09/13	02/09/13	8015M	
Surrogate: 1-Chlorooctane		*97.9 %*	*70-130*		*EB31107*	*02/09/13*	*02/09/13*	*8015M*	
Surrogate: o-Terphenyl		*117 %*	*70-130*		*EB31107*	*02/09/13*	*02/09/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	28.7	mg/kg dry	1	[CALC]	02/09/13	02/09/13	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 EB30807 - General Preparation (GC)										
Blank (EB30807-BLK1)				Prepared & Analyzed: 02/08/13						
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	*43.9*		*"*	*60.0*		*73.2*	*75-125*			*S-GC*
LCS (EB30807-BS1)				Prepared & Analyzed: 02/08/13						
Benzene	0.0826	0.00100	mg/kg wet	0.100		82.6	80-120			
Toluene	0.114	0.00200	"	0.100		114	80-120			
Ethylbenzene	0.112	0.00100	"	0.100		112	80-120			
Xylene (p/m)	0.234	0.00200	"	0.200		117	80-120			
Xylene (o)	0.108	0.00100	"	0.100		108	80-120			
Surrogate: 1,4-Difluorobenzene	*64.9*		*ug/kg*	*60.0*		*108*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*59.9*		*"*	*60.0*		*99.8*	*75-125*			
LCS Dup (EB30807-BSD1)				Prepared & Analyzed: 02/08/13						
Benzene	0.0811	0.00100	mg/kg wet	0.100		81.1	80-120	1.81	20	
Toluene	0.111	0.00200	"	0.100		111	80-120	2.89	20	
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120	3.30	20	
Xylene (p/m)	0.225	0.00200	"	0.200		113	80-120	3.62	20	
Xylene (o)	0.104	0.00100	"	0.100		104	80-120	3.35	20	
Surrogate: 1,4-Difluorobenzene	*61.6*		*ug/kg*	*60.0*		*103*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*56.0*		*"*	*60.0*		*93.4*	*75-125*			
Batch EB31206 - General Preparation (GC)										
Blank (EB31206-BLK1)				Prepared & Analyzed: 02/11/13						
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	*71.2*		*ug/kg*	*60.0*		*119*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*41.8*		*"*	*60.0*		*69.7*	*75-125*			*S-GC*

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

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 EB31206 - General Preparation (GC)										
LCS (EB31206-BS1)				Prepared & Analyzed: 02/11/13						
Benzene	0.0825	0.00100	mg/kg wet	0.100		82.5	80-120			
Toluene	0.105	0.00200	"	0.100		105	80-120			
Ethylbenzene	0.101	0.00100	"	0.100		101	80-120			
Xylene (p/m)	0.209	0.00200	"	0.200		104	80-120			
Xylene (o)	0.0974	0.00100	"	0.100		97.4	80-120			
Surrogate: 1,4-Difluorobenzene	*68.5*		*ug/kg*	*60.0*		*114*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*61.5*		*"*	*60.0*		*103*	*75-125*			
LCS Dup (EB31206-BSD1)				Prepared & Analyzed: 02/11/13						
Benzene	0.0803	0.00100	mg/kg wet	0.100		80.3	80-120	2.68	20	
Toluene	0.0993	0.00200	"	0.100		99.3	80-120	5.20	20	
Ethylbenzene	0.0965	0.00100	"	0.100		96.5	80-120	4.94	20	
Xylene (p/m)	0.199	0.00200	"	0.200		99.6	80-120	4.77	20	
Xylene (o)	0.0936	0.00100	"	0.100		93.6	80-120	3.90	20	
Surrogate: 1,4-Difluorobenzene	*72.0*		*ug/kg*	*60.0*		*120*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*64.7*		*"*	*60.0*		*108*	*75-125*			
Matrix Spike (EB31206-MS1)	**Source: 3B07003-09**			Prepared: 02/11/13 Analyzed: 02/12/13						
Benzene	0.0447	0.00100	mg/kg dry	0.115	ND	38.9	80-120			QM-05
Toluene	0.0578	0.00200	"	0.115	ND	50.3	80-120			QM-05
Ethylbenzene	0.0479	0.00100	"	0.115	ND	41.7	80-120			QM-05
Xylene (p/m)	0.0913	0.00200	"	0.230	ND	39.7	80-120			QM-05
Xylene (o)	0.0473	0.00100	"	0.115	ND	41.2	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*69.3*		*ug/kg*	*60.0*		*116*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*34.8*		*"*	*60.0*		*57.9*	*75-125*			*S-GC*
Matrix Spike Dup (EB31206-MSD1)	**Source: 3B07003-09**			Prepared: 02/11/13 Analyzed: 02/12/13						
Benzene	0.0619	0.00100	mg/kg dry	0.115	ND	53.9	80-120	32.3	20	QM-05
Toluene	0.0849	0.00200	"	0.115	ND	73.9	80-120	38.0	20	QM-05
Ethylbenzene	0.0791	0.00100	"	0.115	ND	68.8	80-120	49.1	20	QM-05
Xylene (p/m)	0.159	0.00200	"	0.230	ND	69.2	80-120	54.1	20	QM-05
Xylene (o)	0.0738	0.00100	"	0.115	ND	64.2	80-120	43.7	20	QM-05
Surrogate: 1,4-Difluorobenzene	*70.2*		*ug/kg*	*60.0*		*117*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*50.8*		*"*	*60.0*		*84.6*	*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 EB30802 - * DEFAULT PREP *** **										
Blank (EB30802-BLK1)				Prepared: 02/07/13 Analyzed: 02/08/13						
% Moisture	ND	0.1	%							
Duplicate (EB30802-DUP1)	Source: 3B07001-01			Prepared: 02/07/13 Analyzed: 02/08/13						
% Moisture	14.0	0.1	%		12.0			15.4	20	
Duplicate (EB30802-DUP2)	Source: 3B07001-27			Prepared: 02/07/13 Analyzed: 02/08/13						
% Moisture	18.0	0.1	%		17.0			5.71	20	
Batch EB30806 - * DEFAULT PREP *** **										
Blank (EB30806-BLK1)				Prepared & Analyzed: 02/08/13						
Chloride	ND	1.00	mg/kg wet							
LCS (EB30806-BS1)				Prepared & Analyzed: 02/08/13						
Chloride	9.93		mg/kg Wet	10.0		99.3	80-120			
LCS Dup (EB30806-BSD1)				Prepared & Analyzed: 02/08/13						
Chloride	9.90		mg/kg Wet	10.0		99.0	80-120	0.252	20	
Duplicate (EB30806-DUP1)	Source: 3B07007-01			Prepared & Analyzed: 02/08/13						
Chloride	1000	2.75	mg/kg dry		1010			0.683	20	
Matrix Spike (EB30806-MS1)	Source: 3B07007-01			Prepared & Analyzed: 02/08/13						
Chloride	1390	2.75	mg/kg dry	343	1010	111	80-120			
Matrix Spike (EB30806-MS2)	Source: 3B07003-05			Prepared: 02/08/13 Analyzed: 02/11/13						
Chloride	107	1.04	mg/kg dry	104	3.20	99.6	80-120			

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 EB31107 - 8015M										
Blank (EB31107-BLK1)				Prepared & Analyzed: 02/09/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*101*		"	*100*		*101*	*70-130*			
Surrogate: o-Terphenyl	*57.4*		"	*50.0*		*115*	*70-130*			
LCS (EB31107-BS1)				Prepared & Analyzed: 02/09/13						
C6-C12	1020	25.0	mg/kg wet	1000		102	75-125			
>C12-C28	1010	25.0	"	1000		101	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*110*		"	*100*		*110*	*70-130*			
Surrogate: o-Terphenyl	*51.2*		"	*50.0*		*102*	*70-130*			
LCS Dup (EB31107-BSD1)				Prepared & Analyzed: 02/09/13						
C6-C12	962	25.0	mg/kg wet	1000		96.2	75-125	5.76	20	
>C12-C28	945	25.0	"	1000		94.5	75-125	6.31	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*105*		"	*100*		*105*	*70-130*			
Surrogate: o-Terphenyl	*49.1*		"	*50.0*		*98.2*	*70-130*			
Matrix Spike (EB31107-MS1)	**Source: 3B07003-09**			Prepared & Analyzed: 02/09/13						
C6-C12	1270	28.7	mg/kg dry	1150	ND	111	75-125			
>C12-C28	1220	28.7	"	1150	ND	106	75-125			
>C28-C35	ND	28.7	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	*135*		"	*115*		*117*	*70-130*			
Surrogate: o-Terphenyl	*61.6*		"	*57.5*		*107*	*70-130*			
Matrix Spike Dup (EB31107-MSD1)	**Source: 3B07003-09**			Prepared & Analyzed: 02/09/13						
C6-C12	1230	28.7	mg/kg dry	1150	ND	107	75-125	3.44	20	
>C12-C28	1180	28.7	"	1150	ND	103	75-125	3.42	20	
>C28-C35	ND	28.7	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	*131*		"	*115*		*114*	*70-130*			
Surrogate: o-Terphenyl	*59.3*		"	*57.5*		*103*	*70-130*			

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

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 EB31108 - 8015M										
Blank (EB31108-BLK1)				Prepared & Analyzed: 02/08/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*144*		"	*200*		*71.9*	*70-130*			
Surrogate: o-Terphenyl	*79.5*		"	*100*		*79.5*	*70-130*			
LCS (EB31108-BS1)				Prepared & Analyzed: 02/08/13						
C6-C12	1290	25.0	mg/kg wet	1500		86.3	75-125			
>C12-C28	1290	25.0	"	1500		86.2	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*128*		"	*100*		*128*	*70-130*			
Surrogate: o-Terphenyl	*64.9*		"	*50.0*		*130*	*70-130*			
LCS Dup (EB31108-BSD1)				Prepared & Analyzed: 02/08/13						
C6-C12	1470	25.0	mg/kg wet	1500		98.0	75-125	12.8	20	
>C12-C28	1410	25.0	"	1500		94.3	75-125	8.98	20	
>C28-C35	27.2	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*160*		"	*200*		*80.2*	*70-130*			
Surrogate: o-Terphenyl	*70.4*		"	*100*		*70.4*	*70-130*			
Matrix Spike (EB31108-MS1)	**Source: 3B07002-08**			Prepared & Analyzed: 02/08/13						
C6-C12	1200	26.6	mg/kg dry	1060	ND	113	75-125			
>C12-C28	1190	26.6	"	1060	ND	112	75-125			
>C28-C35	ND	26.6	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	*116*		"	*106*		*109*	*70-130*			
Surrogate: o-Terphenyl	*51.3*		"	*53.2*		*96.4*	*70-130*			
Matrix Spike Dup (EB31108-MSD1)	**Source: 3B07002-08**			Prepared & Analyzed: 02/08/13						
C6-C12	1120	26.6	mg/kg dry	1060	ND	105	75-125	6.72	20	
>C12-C28	1090	26.6	"	1060	ND	102	75-125	8.51	20	
>C28-C35	ND	26.6	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	*108*		"	*106*		*101*	*70-130*			
Surrogate: o-Terphenyl	*47.8*		"	*53.2*		*89.8*	*70-130*			

Notes and Definitions

S-HI	High surrogate recovery was confirmed as a matrix effect by a second analysis.
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: 2/12/2013

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: Jonathan Repman
Company Name: Nova Environmental
Company Address: 2057 Commerce Dr.
City/State/Zip: Midland/TX/79703
Telephone No: (432)5207720
Fax No:
Sampler Signature: Jonathan Repman
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Project Name: SUG Boyd 10 Inch 1-16-13
Project #:
Project Loc: Lea, Co., New Mexico
PO #:
Report Format: [x] Standard [ ] TRRP [ ] NPDES

(lab use only) ORDER #: 3B07003

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: 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	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
-01	West NSW -2 @ 4'			2/6/2013	14:00		1	x								S	X								X			X				x
-02	West BH -2 @ 5'			2/6/2013	14:05		1	x								S	X								X			X				x
-03	West SSW -2 @ 4'			2/6/2013	14:10		1	x								S	X								X			X				x
-04	West SSW -1 @ 4'			2/6/2013	14:30		1	x								S	X								X			X				x
-05	BB2/1 West North WSW -1 @ 4'			2/6/2013	14:20		1	x								S	X								X			X				x
	RP NSW-1 @ 20'			2/6/2013	15:00		1	x								S	X								X			X				x
	RP ESW-1 @ 20'			2/6/2013	15:10		1	x								S	X								X			X				x
	RP WSW-1 @ 20'			2/6/2013	15:20		1	x								S	X								X			X				x
	RP SSW-1 @ 20'			2/6/2013	1530		1	x								S	X								X			X				x

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Jonathan Repman	2/7/13	9:20			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	2/7/13	9:20

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 by Sampler/Client Rep. ?	Y	N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt:
Received: °C
Adjusted: 3.5 °C Factor NCF

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

PBELAB

Analytical Report

Prepared for:

Jonathan Repman
Nova Safety & Environment
2057 Commerce
Midland, TX 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Location: Lea, Co., New Mexico

Lab Order Number: 3B21003

NELAP/TCEQ # T104704156-12-1

Report Date: 02/26/13

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
North NSW-1A @ 4'	3B21003-01	Soil	02/19/13 13:00	02-21-2013 08:25
East NSW-1A @ 4'	3B21003-02	Soil	02/20/13 14:00	02-21-2013 08:25

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

North NSW-1A @ 4'

3B21003-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**8.10**	1.06	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

East NSW-1A @ 4'

3B21003-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**213**	1.11	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

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 EB32503 - * DEFAULT PREP *** **										
Blank (EB32503-BLK1)				Prepared & Analyzed: 02/25/13						
Chloride	ND	1.00	mg/kg wet							
LCS (EB32503-BS1)				Prepared & Analyzed: 02/25/13						
Chloride	113	1.00	mg/kg wet				80-120			
LCS Dup (EB32503-BSD1)				Prepared & Analyzed: 02/25/13						
Chloride	112	1.00	mg/kg wet				80-120	0.533	20	
Duplicate (EB32503-DUP1)		**Source: 3B21003-01**		Prepared & Analyzed: 02/25/13						
Chloride	7.82	1.06	mg/kg dry		8.10			3.48	20	
Matrix Spike (EB32503-MS1)		**Source: 3B21003-01**		Prepared & Analyzed: 02/25/13						
Chloride	121	1.06	mg/kg dry	106	8.10	106	80-120			
Matrix Spike (EB32503-MS2)		**Source: 3B21005-05**		Prepared & Analyzed: 02/25/13						
Chloride	196	1.02	mg/kg dry	179	3.91	108	80-120			
Batch EB32601 - * DEFAULT PREP *** **										
Blank (EB32601-BLK1)				Prepared: 02/25/13 Analyzed: 02/26/13						
% Moisture	ND	0.1	%							
Duplicate (EB32601-DUP1)		**Source: 3B21001-01**		Prepared: 02/25/13 Analyzed: 02/26/13						
% Moisture	49.0	0.1	%		52.0			5.94	20	
Duplicate (EB32601-DUP2)		**Source: 3B21005-15**		Prepared: 02/25/13 Analyzed: 02/26/13						
% Moisture	4.0	0.1	%		4.0			0.00	20	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

Fax: (432) 520-7701

Notes and Definitions

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: 2/26/2013

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: Jonathan Repman
Company Name: Nova Environmental
Company Address: 2057 Commerce Dr.
City/State/Zip: Midland/TX/79703
Telephone No: (432)5207720 Fax No:
Sampler Signature: Jonathan Repman
e-mail: jrepman@novatraining.cc
curt.stanley@sug.com

Project Name: SUG Boyd 10 Inch 1-16-13
Project #:
Project Loc: Lea, Co., New Mexico
PO #:
Report Format: [x] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 362/003

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: 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	BTEX 80218/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-01	North NSW-1A @ 4'			2/19/2013	13:00		1	x								S												X				
-02	East NSW-1A @ 4'			2/20/2013	14:00		1	x								S												X				

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Jonathan Repman	2/21/13	8:25			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	2/21/13	8:25

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 by Sampler/Client Rep. ?		N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: 3.6 °C
Adjusted: °C Factor NCF

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

PBELAB

Analytical Report

Prepared for:

Jonathan Repman
Nova Safety & Environment
2057 Commerce
Midland, TX 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Location: Lea County, New Mexico

Lab Order Number: 3B26001

NELAP/TCEQ # T104704156-12-1

Report Date: 02/27/13

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
East BH-1 @ 10'	3B26001-01	Soil	02/25/13 14:30	02-26-2013 10:34

East BH-1 @ 10'

3B26001-01 (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	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*116 %*	*75-125*		*EB32708*	*02/27/13*	*02/27/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*57.0 %*	*75-125*		*EB32708*	*02/27/13*	*02/27/13*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**170**	1.15	mg/kg dry	1	EB32707	02/27/13	02/27/13	EPA 300.0	
% Moisture	**13.0**	0.1	%	1	EB32701	02/26/13	02/27/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.7	mg/kg dry	1	EB32706	02/26/13	02/27/13	8015M	
>C12-C28	ND	28.7	mg/kg dry	1	EB32706	02/26/13	02/27/13	8015M	
>C28-C35	ND	28.7	mg/kg dry	1	EB32706	02/26/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		*123 %*	*70-130*		*EB32706*	*02/26/13*	*02/27/13*	*8015M*	
Surrogate: o-Terphenyl		*125 %*	*70-130*		*EB32706*	*02/26/13*	*02/27/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	28.7	mg/kg dry	1	[CALC]	02/26/13	02/27/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

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 EB32708 - General Preparation (GC)										
Blank (EB32708-BLK1)				Prepared & Analyzed: 02/27/13						
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	*0.0719*		"	*0.0600*		*120*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0298*		"	*0.0600*		*49.6*	*75-125*			*S-GC*
LCS (EB32708-BS1)				Prepared & Analyzed: 02/27/13						
Benzene	0.0812	0.00100	mg/kg wet	0.100		81.2	80-120			
Toluene	0.105	0.00200	"	0.100		105	80-120			
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120			
Xylene (p/m)	0.209	0.00200	"	0.200		104	80-120			
Xylene (o)	0.105	0.00100	"	0.100		105	80-120			
Surrogate: 1,4-Difluorobenzene	*0.0695*		"	*0.0600*		*116*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0679*		"	*0.0600*		*113*	*75-125*			

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

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 EB32701 - * DEFAULT PREP *** **										
Blank (EB32701-BLK1)				Prepared: 02/26/13 Analyzed: 02/27/13						
% Moisture	ND	0.1	%							
Duplicate (EB32701-DUP1)	Source: 3B22003-01			Prepared: 02/26/13 Analyzed: 02/27/13						
% Moisture	3.0	0.1	%		3.0			0.00	20	
Batch EB32707 - * DEFAULT PREP *** **										
Blank (EB32707-BLK1)				Prepared & Analyzed: 02/27/13						
Chloride	ND	1.00	mg/kg wet							
LCS (EB32707-BS1)				Prepared & Analyzed: 02/27/13						
Chloride	9.84		mg/kg Wet	10.0		98.4	80-120			
LCS Dup (EB32707-BSD1)				Prepared & Analyzed: 02/27/13						
Chloride	10.4		mg/kg Wet	10.0		104	80-120	5.17	20	
Duplicate (EB32707-DUP1)	Source: 3B26001-01			Prepared & Analyzed: 02/27/13						
Chloride	171	1.15	mg/kg dry		170			0.776	20	
Matrix Spike (EB32707-MS1)	Source: 3B26001-01			Prepared & Analyzed: 02/27/13						
Chloride	312	1.15	mg/kg dry	144	170	98.8	80-120			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

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 EB32706 - 8015M										
Blank (EB32706-BLK1)				Prepared & Analyzed: 02/26/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*63.0*		"	*100*		*63.0*	*70-130*			*S-GC*
Surrogate: o-Terphenyl	*37.8*		"	*50.0*		*75.6*	*70-130*			
LCS (EB32706-BS1)				Prepared & Analyzed: 02/26/13						
C6-C12	770	25.0	mg/kg wet	1000		77.0	75-125			
>C12-C28	797	25.0	"	1000		79.7	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*65.4*		"	*50.0*		*131*	*70-130*			*S-GC*
Surrogate: o-Terphenyl	*32.2*		"	*25.0*		*129*	*70-130*			
LCS Dup (EB32706-BSD1)				Prepared & Analyzed: 02/26/13						
C6-C12	808	25.0	mg/kg wet	1000		80.8	75-125	4.84	20	
>C12-C28	774	25.0	"	1000		77.4	75-125	2.96	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*65.4*		"	*50.0*		*131*	*70-130*			*S-GC*
Surrogate: o-Terphenyl	*31.8*		"	*25.0*		*127*	*70-130*			
Matrix Spike (EB32706-MS1)	**Source: 3B22002-03**			Prepared: 02/26/13 Analyzed: 02/27/13						
C6-C12	927	25.5	mg/kg dry	1020	ND	90.9	75-125			
>C12-C28	839	25.5	"	1020	ND	82.2	75-125			
>C28-C35	ND	25.5	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	*103*		"	*102*		*101*	*70-130*			
Surrogate: o-Terphenyl	*50.3*		"	*51.0*		*98.6*	*70-130*			
Matrix Spike Dup (EB32706-MSD1)	**Source: 3B22002-03**			Prepared: 02/26/13 Analyzed: 02/27/13						
C6-C12	1120	25.5	mg/kg dry	1020	ND	109	75-125	18.5	20	
>C12-C28	948	25.5	"	1020	ND	92.9	75-125	12.2	20	
>C28-C35	ND	25.5	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	*130*		"	*102*		*127*	*70-130*			
Surrogate: o-Terphenyl	*61.8*		"	*51.0*		*121*	*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.
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: 2/27/2013

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: Jonathan Repman
Company Name: Nova Environmental
Company Address: 2057 Commerce Dr.
City/State/Zip: Midland/TX/79703
Telephone No: (432)5207720 Fax No:
Sampler Signature: Jonathan Repman
e-mail: jrepman@novatraining.cc
curt.stanley@sug.com

Project Name: SUG Boyd 10 Inch 1-16-13
Project #:
Project Loc: Lea, Co., New Mexico
PO #:
Report Format: [x] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 3B26001

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: TPH: 8015B	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	East BH-1 @ 10'			2/25/2013	14:30		1	x								S	X									X			X				

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Jonathan Repman	2/25/13	0945		2/26/13	947
	2/26	1037		Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date	Time
				2/26/13	10:37

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 by Sampler/Client Rep. ? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt:
Received: °C
Adjusted: 4.5 °C Factor

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

PBELAB

Analytical Report

Prepared for:

Jonathan Repman
Nova Safety & Environment
2057 Commerce
Midland, TX 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Location: Lea County, New Mexico

Lab Order Number: 3B26003

NELAP/TCEQ # T104704156-12-1

Report Date: 03/01/13

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP-1	3B26003-01	Soil	02/25/13 16:00	02-26-2013 10:34
SP-2	3B26003-02	Soil	02/25/13 16:15	02-26-2013 10:34
SP-3	3B26003-03	Soil	02/25/13 16:30	02-26-2013 10:34
SP-4	3B26003-04	Soil	02/25/13 16:45	02-26-2013 10:34
SP-5	3B26003-05	Soil	02/25/13 17:00	02-26-2013 10:34

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

Fax: (432) 520-7701

SP-1

3B26003-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	**0.00212**	0.00100	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Xylene (p/m)	**0.00289**	0.00200	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Xylene (o)	**0.00264**	0.00100	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*117 %*	*75-125*		*EC30102*	*02/28/13*	*02/28/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*113 %*	*75-125*		*EC30102*	*02/28/13*	*02/28/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.12	mg/kg dry	1	EB32707	02/27/13	02/27/13	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	EB32701	02/26/13	02/27/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
>C12-C28	ND	28.1	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
>C28-C35	ND	28.1	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
Surrogate: 1-Chlorooctane		*119 %*	*70-130*		*EB32801*	*02/27/13*	*02/28/13*	*8015M*	
Surrogate: o-Terphenyl		*119 %*	*70-130*		*EB32801*	*02/27/13*	*02/28/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	28.1	mg/kg dry	1	[CALC]	02/27/13	02/28/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

SP-2

3B26003-02 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00184**	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	**0.00136**	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*119 %*	*75-125*		*EB32805*	*02/27/13*	*02/28/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*110 %*	*75-125*		*EB32805*	*02/27/13*	*02/28/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.09	mg/kg dry	1	EB32707	02/27/13	02/27/13	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	EB32701	02/26/13	02/27/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
>C12-C28	ND	27.2	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
>C28-C35	ND	27.2	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
Surrogate: 1-Chlorooctane		*66.5 %*	*70-130*		*EB32801*	*02/27/13*	*02/28/13*	*8015M*	*S-GC*
Surrogate: o-Terphenyl		*76.0 %*	*70-130*		*EB32801*	*02/27/13*	*02/28/13*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	27.2	mg/kg dry	1	[CALC]	02/27/13	02/28/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

SP-3

3B26003-03 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00540**	0.00100	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Xylene (p/m)	**0.0660**	0.00200	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Xylene (o)	**0.0296**	0.00100	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*116 %*	*75-125*		*EC30102*	*02/28/13*	*02/28/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*104 %*	*75-125*		*EC30102*	*02/28/13*	*02/28/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.10	mg/kg dry	1	EB32707	02/27/13	02/27/13	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	EB32701	02/26/13	02/27/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
>C12-C28	**54.8**	27.5	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
>C28-C35	ND	27.5	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
Surrogate: 1-Chlorooctane		*119 %*	*70-130*		*EB32801*	*02/27/13*	*02/28/13*	*8015M*	
Surrogate: o-Terphenyl		*117 %*	*70-130*		*EB32801*	*02/27/13*	*02/28/13*	*8015M*	
Total Hydrocarbon nC6-nC35	**54.8**	27.5	mg/kg dry	1	[CALC]	02/27/13	02/28/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

SP-4

3B26003-04 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00274**	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	**0.0280**	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	**0.270**	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	**0.124**	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*109 %*	*75-125*		*EB32805*	*02/27/13*	*02/28/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*119 %*	*75-125*		*EB32805*	*02/27/13*	*02/28/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.09	mg/kg dry	1	EB32707	02/27/13	02/27/13	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	EB32701	02/26/13	02/27/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**113**	27.2	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
>C12-C28	**213**	27.2	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
>C28-C35	**53.9**	27.2	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
Surrogate: 1-Chlorooctane		*120 %*	*70-130*		*EB32801*	*02/27/13*	*02/28/13*	*8015M*	
Surrogate: o-Terphenyl		*115 %*	*70-130*		*EB32801*	*02/27/13*	*02/28/13*	*8015M*	
Total Hydrocarbon nC6-nC35	**380**	27.2	mg/kg dry	1	[CALC]	02/27/13	02/28/13	8015M	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: None Given	
Midland TX, 79703	Project Manager: Jonathan Repman	

SP-5

3B26003-05 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00675**	0.00100	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Toluene	**0.0472**	0.00200	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Ethylbenzene	**0.0128**	0.00100	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Xylene (p/m)	**0.623**	0.00200	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Xylene (o)	**0.239**	0.00100	mg/kg dry	1	EC30102	02/28/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*110 %*	*75-125*		*EC30102*	*02/28/13*	*02/28/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*98.9 %*	*75-125*		*EC30102*	*02/28/13*	*02/28/13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.14	mg/kg dry	1	EB32707	02/27/13	02/27/13	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	EB32701	02/26/13	02/27/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**339**	28.4	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
>C12-C28	**450**	28.4	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
>C28-C35	**183**	28.4	mg/kg dry	1	EB32801	02/27/13	02/28/13	8015M	
Surrogate: 1-Chlorooctane		*119 %*	*70-130*		*EB32801*	*02/27/13*	*02/28/13*	*8015M*	
Surrogate: o-Terphenyl		*99.2 %*	*70-130*		*EB32801*	*02/27/13*	*02/28/13*	*8015M*	
Total Hydrocarbon nC6-nC35	**972**	28.4	mg/kg dry	1	[CALC]	02/27/13	02/28/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

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 EB32805 - General Preparation (GC)										
Blank (EB32805-BLK1)				Prepared & Analyzed: 02/27/13						
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	*68.8*		*ug/kg*	*60.0*		*115*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*43.9*		*"*	*60.0*		*73.1*	*75-125*			*S-GC*
LCS (EB32805-BS1)				Prepared & Analyzed: 02/27/13						
Benzene	0.0813	0.00100	mg/kg wet	0.100		81.3	80-120			
Toluene	0.116	0.00200	"	0.100		116	80-120			
Ethylbenzene	0.116	0.00100	"	0.100		116	80-120			
Xylene (p/m)	0.238	0.00200	"	0.200		119	80-120			
Xylene (o)	0.113	0.00100	"	0.100		113	80-120			
Surrogate: 1,4-Difluorobenzene	*58.1*		*ug/kg*	*60.0*		*96.8*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*57.8*		*"*	*60.0*		*96.3*	*75-125*			
LCS Dup (EB32805-BSD1)				Prepared & Analyzed: 02/27/13						
Benzene	0.0811	0.00100	mg/kg wet	0.100		81.1	80-120	0.259	20	
Toluene	0.116	0.00200	"	0.100		116	80-120	0.561	20	
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120	2.28	20	
Xylene (p/m)	0.230	0.00200	"	0.200		115	80-120	3.52	20	
Xylene (o)	0.109	0.00100	"	0.100		109	80-120	3.04	20	
Surrogate: 1,4-Difluorobenzene	*59.7*		*ug/kg*	*60.0*		*99.5*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*58.5*		*"*	*60.0*		*97.5*	*75-125*			
Matrix Spike (EB32805-MS1)	**Source: 3B26003-04**			Prepared: 02/27/13 Analyzed: 02/28/13						
Benzene	0.0304	0.00100	mg/kg dry	0.109	0.00274	25.5	80-120			QM-05
Toluene	0.0715	0.00200	"	0.109	ND	65.7	80-120			QM-05
Ethylbenzene	0.0657	0.00100	"	0.109	0.0280	34.7	80-120			QM-05
Xylene (p/m)	0.431	0.00200	"	0.217	0.270	74.4	80-120			QM-05
Xylene (o)	0.216	0.00100	"	0.109	0.124	84.7	80-120			
Surrogate: 1,4-Difluorobenzene	*67.5*		*ug/kg*	*60.0*		*113*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*55.9*		*"*	*60.0*		*93.1*	*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 EB32805 - General Preparation (GC)										
Matrix Spike Dup (EB32805-MSD1)	**Source: 3B26003-04**			Prepared: 02/27/13 Analyzed: 02/28/13						
Benzene	0.0387	0.00100	mg/kg dry	0.109	0.00274	33.1	80-120	25.9	20	QM-05
Toluene	0.0804	0.00200	"	0.109	ND	74.0	80-120	11.8	20	QM-05
Ethylbenzene	0.0720	0.00100	"	0.109	0.0280	40.4	80-120	15.2	20	QM-05
Xylene (p/m)	0.452	0.00200	"	0.217	0.270	83.9	80-120	12.1	20	
Xylene (o)	0.267	0.00100	"	0.109	0.124	132	80-120	43.4	20	QM-05
Surrogate: 1,4-Difluorobenzene	*62.9*		*ug/kg*	*60.0*		*105*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*44.9*		*"*	*60.0*		*74.9*	*75-125*			*S-GC*
Batch EC30102 - General Preparation (GC)										
Blank (EC30102-BLK1)				Prepared & Analyzed: 02/28/13						
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	*71.6*		*ug/kg*	*60.0*		*119*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*41.0*		*"*	*60.0*		*68.2*	*75-125*			*S-GC*
LCS (EC30102-BS1)				Prepared & Analyzed: 02/28/13						
Benzene	0.0810	0.00100	mg/kg wet	0.100		81.0	80-120			
Toluene	0.116	0.00200	"	0.100		116	80-120			
Ethylbenzene	0.112	0.00100	"	0.100		112	80-120			
Xylene (p/m)	0.222	0.00200	"	0.200		111	80-120			
Xylene (o)	0.107	0.00100	"	0.100		107	80-120			
Surrogate: 1,4-Difluorobenzene	*69.4*		*ug/kg*	*60.0*		*116*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*59.9*		*"*	*60.0*		*99.8*	*75-125*			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

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 EC30102 - General Preparation (GC)										
LCS Dup (EC30102-BSD1)				Prepared & Analyzed: 02/28/13						
Benzene	0.0840	0.00100	mg/kg wet	0.100		84.0	80-120	3.66	20	
Toluene	0.119	0.00200	"	0.100		119	80-120	1.76	20	
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120	5.16	20	
Xylene (p/m)	0.237	0.00200	"	0.200		118	80-120	6.41	20	
Xylene (o)	0.113	0.00100	"	0.100		113	80-120	5.47	20	
Surrogate: 1,4-Difluorobenzene	*64.5*		*ug/kg*	*60.0*		*107*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*56.5*		*"*	*60.0*		*94.2*	*75-125*			
Matrix Spike (EC30102-MS1)		**Source: 3B25001-06**		Prepared & Analyzed: 02/28/13						
Benzene	0.135	0.00100	mg/kg dry	0.112	ND	120	80-120			
Toluene	0.0935	0.00200	"	0.112	ND	83.2	80-120			
Ethylbenzene	0.0520	0.00100	"	0.112	ND	46.2	80-120			QM-05
Xylene (p/m)	0.0871	0.00200	"	0.225	ND	38.7	80-120			QM-05
Xylene (o)	0.0473	0.00100	"	0.112	ND	42.1	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*60.6*		*ug/kg*	*60.0*		*101*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*15.4*		*"*	*60.0*		*25.6*	*75-125*			*S-GC*

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 EB32701 - * DEFAULT PREP *** **										
Blank (EB32701-BLK1)				Prepared: 02/26/13 Analyzed: 02/27/13						
% Moisture	ND	0.1	%							
Duplicate (EB32701-DUP1)	Source: 3B22003-01			Prepared: 02/26/13 Analyzed: 02/27/13						
% Moisture	3.0	0.1	%		3.0			0.00	20	
Batch EB32707 - * DEFAULT PREP *** **										
Blank (EB32707-BLK1)				Prepared & Analyzed: 02/27/13						
Chloride	ND	1.00	mg/kg wet							
LCS (EB32707-BS1)				Prepared & Analyzed: 02/27/13						
Chloride	9.84		mg/kg Wet	10.0		98.4	80-120			
LCS Dup (EB32707-BSD1)				Prepared & Analyzed: 02/27/13						
Chloride	10.4		mg/kg Wet	10.0		104	80-120	5.17	20	
Duplicate (EB32707-DUP1)	Source: 3B26001-01			Prepared & Analyzed: 02/27/13						
Chloride	171	1.15	mg/kg dry		170			0.776	20	
Matrix Spike (EB32707-MS1)	Source: 3B26001-01			Prepared & Analyzed: 02/27/13						
Chloride	312	1.15	mg/kg dry	144	170	98.8	80-120			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

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 EB32801 - TX 1005										
Blank (EB32801-BLK1)				Prepared: 02/27/13 Analyzed: 02/28/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*66.7*		"	*100*		*66.7*	*70-130*			*S-GC*
Surrogate: o-Terphenyl	*37.5*		"	*50.0*		*75.1*	*70-130*			
LCS (EB32801-BS1)				Prepared & Analyzed: 02/27/13						
C6-C12	927	25.0	mg/kg wet	1000		92.7	75-125			
>C12-C28	825	25.0	"	1000		82.5	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*67.6*		"	*50.0*		*135*	*70-130*			*S-GC*
Surrogate: o-Terphenyl	*27.6*		"	*25.0*		*110*	*70-130*			
LCS Dup (EB32801-BSD1)				Prepared: 02/27/13 Analyzed: 02/28/13						
C6-C12	811	25.0	mg/kg wet	1000		81.1	75-125	13.4	20	
>C12-C28	824	25.0	"	1000		82.4	75-125	0.0849	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*71.1*		"	*50.0*		*142*	*70-130*			*S-GC*
Surrogate: o-Terphenyl	*27.6*		"	*25.0*		*110*	*70-130*			
Matrix Spike (EB32801-MS1)	**Source: 3B26003-05**			Prepared: 02/27/13 Analyzed: 02/28/13						
C6-C12	962	28.4	mg/kg dry	1140	339	54.9	75-125			QM-05
>C12-C28	1050	28.4	"	1140	450	52.4	75-125			QM-05
>C28-C35	133	28.4	"	0.00	183		75-125			
Surrogate: 1-Chlorooctane	*77.0*		"	*56.8*		*136*	*70-130*			*S-GC*
Surrogate: o-Terphenyl	*27.9*		"	*28.4*		*98.0*	*70-130*			
Matrix Spike Dup (EB32801-MSD1)	**Source: 3B26003-05**			Prepared: 02/27/13 Analyzed: 02/28/13						
C6-C12	970	28.4	mg/kg dry	1140	339	55.6	75-125	1.25	20	QM-05
>C12-C28	1070	28.4	"	1140	450	54.8	75-125	4.45	20	QM-05
>C28-C35	133	28.4	"	0.00	183		75-125		20	
Surrogate: 1-Chlorooctane	*81.4*		"	*56.8*		*143*	*70-130*			*S-GC*
Surrogate: o-Terphenyl	*35.9*		"	*28.4*		*126*	*70-130*			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: None Given
Project Manager: Jonathan Repman

Fax: (432) 520-7701

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: 3/1/2013

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: Jonathan Repman
Company Name: Nova Environmental
Company Address: 2057 Commerce Dr.
City/State/Zip: Midland/TX/79703
Telephone No: (432)5207720
Fax No:
Sampler Signature: Jonathan Repman
e-mail: jrepman@novatraining.cc
curt.stanley@sug.com

Project Name: SUG Boyd 10 Inch 1-16-13
Project #:
Project Loc: Lea, Co., New Mexico
PO #:
Report Format: [x] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 3B21e003

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: 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	SP-1			2/25/2013	16:00		1	x								S	X								X			X				x
02	SP-2			2/25/2013	16:15		1	x								S	X								X			X				x
03	SP-3			2/25/2013	16:30		1	x								S	X								X			X				x
04	SP-4			2/25/2013	16:45		1	x								S	X								X			X				x
05	SP-5			2/25/2013	17:00		1	x								S	X								X			X				x

Special Instructions:

Relinquished by: Jonathan Repman	Date 2/26/13	Time 947	Received by: Nikki Green	Date 2/26	Time 947
Relinquished by: Nikki Green	Date 1034	Time 2/26	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date 2/26/13	Time 10:34

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 by Sampler/Client Rep. ? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt:
Received: °C
Adjusted: 4.5 °C Factor

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 Boyd 10 Inch 1-16-13
Project Number: [none]
Location: Lea, Co. New Mexico

Lab Order Number: 3E31004

NELAP/TCEQ # T104704156-12-1

Report Date: 06/03/13

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: [none]	
Midland TX, 79703	Project Manager: Camille Bryant	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP-1A	3E31004-01	Soil	05/30/13 10:40	05-31-2013 10:40
SP-2A	3E31004-02	Soil	05/30/13 10:55	05-31-2013 10:40
SP-3A	3E31004-03	Soil	05/30/13 11:00	05-31-2013 10:40
Floor @ 22'	3E31004-04	Soil	05/30/13 11:15	05-31-2013 10:40

SP-1A

3E31004-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00112	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Toluene	ND	0.00225	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*110 %*	*75-125*		*P3F0303*	*05/31/13*	*05/31/13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*116 %*	*75-125*		*P3F0303*	*05/31/13*	*05/31/13*	*EPA 8021B*	
C6-C12	ND	28.1	mg/kg dry	1	P3F0302	05/31/13	05/31/13	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P3F0302	05/31/13	05/31/13	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P3F0302	05/31/13	05/31/13	TPH 8015M	
Surrogate: 1-Chlorooctane		*82.2 %*	*70-130*		*P3F0302*	*05/31/13*	*05/31/13*	*TPH 8015M*	
Surrogate: o-Terphenyl		*88.6 %*	*70-130*		*P3F0302*	*05/31/13*	*05/31/13*	*TPH 8015M*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**228**	1.12	mg/kg dry	1	P3F0304	06/03/13	06/03/13	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P3F0301	06/03/13	06/03/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
Total Petroleum Hydrocarbon C6-C35	ND	84.3	mg/kg dry	1	[CALC]	05/31/13	05/31/13	calc	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: [none]	
Midland TX, 79703	Project Manager: Camille Bryant	

SP-2A

3E31004-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00357**	0.00110	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Toluene	ND	0.00220	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Ethylbenzene	**0.00579**	0.00110	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Xylene (o)	**0.00289**	0.00110	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*115 %*	*75-125*		*P3F0303*	*05/31/13*	*05/31/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*159 %*	*75-125*		*P3F0303*	*05/31/13*	*05/31/13*	*EPA 8021B*	*S-GC*
C6-C12	ND	27.5	mg/kg dry	1	P3F0302	05/31/13	05/31/13	TPH 8015M	
>C12-C28	**34.3**	27.5	mg/kg dry	1	P3F0302	05/31/13	05/31/13	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P3F0302	05/31/13	05/31/13	TPH 8015M	
Surrogate: 1-Chlorooctane		*80.1 %*	*70-130*		*P3F0302*	*05/31/13*	*05/31/13*	*TPH 8015M*	
Surrogate: o-Terphenyl		*86.0 %*	*70-130*		*P3F0302*	*05/31/13*	*05/31/13*	*TPH 8015M*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**49.3**	1.10	mg/kg dry	1	P3F0304	06/03/13	06/03/13	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P3F0301	06/03/13	06/03/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
Total Petroleum Hydrocarbon C6-C35	ND	82.4	mg/kg dry	1	[CALC]	05/31/13	05/31/13	calc	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: [none]	
Midland TX, 79703	Project Manager: Camille Bryant	

SP-3A

3E31004-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	**0.00152**	0.00114	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Toluene	ND	0.00227	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Ethylbenzene	ND	0.00114	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Xylene (p/m)	ND	0.00227	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Xylene (o)	ND	0.00114	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*120 %*	*75-125*		*P3F0303*	*05/31/13*	*05/31/13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*114 %*	*75-125*		*P3F0303*	*05/31/13*	*05/31/13*	*EPA 8021B*	
C6-C12	ND	28.4	mg/kg dry	1	P3F0302	05/31/13	05/31/13	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P3F0302	05/31/13	05/31/13	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P3F0302	05/31/13	05/31/13	TPH 8015M	
Surrogate: 1-Chlorooctane		*70.8 %*	*70-130*		*P3F0302*	*05/31/13*	*05/31/13*	*TPH 8015M*	
Surrogate: o-Terphenyl		*70.7 %*	*70-130*		*P3F0302*	*05/31/13*	*05/31/13*	*TPH 8015M*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**79.9**	1.14	mg/kg dry	1	P3F0304	06/03/13	06/03/13	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	P3F0301	06/03/13	06/03/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
Total Petroleum Hydrocarbon C6-C35	ND	85.2	mg/kg dry	1	[CALC]	05/31/13	05/31/13	calc	

Nova Safety & Environment	Project: SUG Boyd 10 Inch 1-16-13	Fax: (432) 520-7701
2057 Commerce	Project Number: [none]	
Midland TX, 79703	Project Manager: Camille Bryant	

Floor @ 22'

3E31004-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00429**	0.00109	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Toluene	**0.00712**	0.00217	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Xylene (p/m)	**0.0163**	0.00217	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Xylene (o)	**0.00726**	0.00109	mg/kg dry	1	P3F0303	05/31/13	05/31/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*96.8 %*	*75-125*		*P3F0303*	*05/31/13*	*05/31/13*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*133 %*	*75-125*		*P3F0303*	*05/31/13*	*05/31/13*	*EPA 8021B*	*S-GC*
C6-C12	ND	27.2	mg/kg dry	1	P3F0302	05/31/13	05/31/13	TPH 8015M	
>C12-C28	**38.8**	27.2	mg/kg dry	1	P3F0302	05/31/13	05/31/13	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P3F0302	05/31/13	05/31/13	TPH 8015M	
Surrogate: 1-Chlorooctane		*81.5 %*	*70-130*		*P3F0302*	*05/31/13*	*05/31/13*	*TPH 8015M*	
Surrogate: o-Terphenyl		*85.3 %*	*70-130*		*P3F0302*	*05/31/13*	*05/31/13*	*TPH 8015M*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**34.6**	1.09	mg/kg dry	1	P3F0304	06/03/13	06/03/13	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P3F0301	06/03/13	06/03/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
Total Petroleum Hydrocarbon C6-C35	ND	81.5	mg/kg dry	1	[CALC]	05/31/13	05/31/13	calc	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Boyd 10 Inch 1-16-13
Project Number: [none]
Project Manager: Camille Bryant

Fax: (432) 520-7701

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P3F0302 - TX 1005										
Blank (P3F0302-BLK1)				Prepared & Analyzed: 05/31/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*90.3*		"	*100*		*90.3*	*70-130*			
Surrogate: o-Terphenyl	*49.2*		"	*50.0*		*98.5*	*70-130*			
LCS (P3F0302-BS1)				Prepared & Analyzed: 05/31/13						
C6-C12	918	25.0	mg/kg wet	1000		91.8	75-125			
>C12-C28	1030	25.0	"	1000		103	75-125			
>C28-C35	ND	25.0	"	1000			75-125			
Surrogate: 1-Chlorooctane	*116*		"	*100*		*116*	*70-130*			
Surrogate: o-Terphenyl	*48.2*		"	*50.0*		*96.4*	*70-130*			
LCS Dup (P3F0302-BSD1)				Prepared & Analyzed: 05/31/13						
C6-C12	956	25.0	mg/kg wet	1000		95.6	75-125	4.14	20	
>C12-C28	1050	25.0	"	1000		105	75-125	2.10	20	
Surrogate: 1-Chlorooctane	*121*		"	*100*		*121*	*70-130*			
Surrogate: o-Terphenyl	*52.0*		"	*50.0*		*104*	*70-130*			
Matrix Spike (P3F0302-MS1)	**Source: 3E31004-04**			Prepared & Analyzed: 05/31/13						
C6-C12	904	27.2	mg/kg dry	1090	ND	83.1	75-125			
>C12-C28	1100	27.2	"	1090	38.8	97.3	75-125			
Surrogate: 1-Chlorooctane	*96.0*		"	*109*		*88.3*	*70-130*			
Surrogate: o-Terphenyl	*34.8*		"	*54.3*		*64.0*	*70-130*			*S-GC*
Matrix Spike Dup (P3F0302-MSD1)	**Source: 3E31004-04**			Prepared & Analyzed: 05/31/13						
C6-C12	974	27.2	mg/kg dry	1090	ND	89.6	75-125	7.50	20	
>C12-C28	1230	27.2	"	1090	38.8	109	75-125	11.6	20	
Surrogate: 1-Chlorooctane	*110*		"	*109*		*101*	*70-130*			
Surrogate: o-Terphenyl	*45.9*		"	*54.3*		*84.5*	*70-130*			

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P3F0303 - General Preparation (GC)										
Blank (P3F0303-BLK1)				Prepared & Analyzed: 05/31/13						
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: 4-Bromofluorobenzene	*50.7*		*ug/kg*	*50.0*		*101*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*58.2*		*"*	*50.0*		*116*	*75-125*			
LCS (P3F0303-BS1)				Prepared & Analyzed: 05/31/13						
Benzene	0.0870	0.00100	mg/kg wet	0.100		87.0	80-120			
Toluene	0.0952	0.00200	"	0.100		95.2	80-120			
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120			
Xylene (p/m)	0.227	0.00200	"	0.200		113	80-120			
Xylene (o)	0.106	0.00100	"	0.100		106	80-120			
Surrogate: 4-Bromofluorobenzene	*73.4*		*ug/kg*	*50.0*		*147*	*75-125*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*56.8*		*"*	*50.0*		*114*	*75-125*			
LCS Dup (P3F0303-BSD1)				Prepared & Analyzed: 05/31/13						
Benzene	0.0873	0.00100	mg/kg wet	0.100		87.3	80-120	0.264	20	
Toluene	0.0946	0.00200	"	0.100		94.6	80-120	0.590	20	
Ethylbenzene	0.108	0.00100	"	0.100		108	80-120	0.341	20	
Xylene (p/m)	0.226	0.00200	"	0.200		113	80-120	0.304	20	
Xylene (o)	0.106	0.00100	"	0.100		106	80-120	0.425	20	
Surrogate: 4-Bromofluorobenzene	*74.3*		*ug/kg*	*50.0*		*149*	*75-125*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*56.6*		*"*	*50.0*		*113*	*75-125*			
Matrix Spike (P3F0303-MS1)	**Source: 3E31004-04**			Prepared & Analyzed: 05/31/13						
Benzene	0.0532	0.00109	mg/kg dry	0.109	0.00429	45.0	80-120			QM-05
Toluene	0.0649	0.00217	"	0.109	0.00712	53.2	80-120			QM-05
Ethylbenzene	0.0574	0.00109	"	0.109	ND	52.8	80-120			QM-05
Xylene (p/m)	0.142	0.00217	"	0.217	0.0163	57.8	80-120			QM-05
Xylene (o)	0.0673	0.00109	"	0.109	0.00726	55.3	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*47.0*		*ug/kg*	*50.0*		*94.0*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*67.4*		*"*	*50.0*		*135*	*75-125*			*S-GC*

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P3F0303 - General Preparation (GC)										
Matrix Spike Dup (P3F0303-MSD1)	**Source: 3E31004-04**			Prepared & Analyzed: 05/31/13						
Benzene	0.0518	0.00109	mg/kg dry	0.109	0.00429	43.7	80-120	2.82	20	QM-05
Toluene	0.0652	0.00217	"	0.109	0.00712	53.5	80-120	0.600	20	QM-05
Ethylbenzene	0.0484	0.00109	"	0.109	ND	44.6	80-120	17.0	20	QM-05
Xylene (p/m)	0.135	0.00217	"	0.217	0.0163	54.8	80-120	5.48	20	QM-05
Xylene (o)	0.0656	0.00109	"	0.109	0.00726	53.7	80-120	2.88	20	QM-05
Surrogate: 4-Bromofluorobenzene	*71.4*		*ug/kg*	*50.0*		*143*	*75-125*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*50.1*		*"*	*50.0*		*100*	*75-125*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P3F0301 - * DEFAULT PREP *** **										
Blank (P3F0301-BLK1)				Prepared & Analyzed: 06/03/13						
% Moisture	ND	0.1	%							
Duplicate (P3F0301-DUP1)	Source: 3E31004-01			Prepared & Analyzed: 06/03/13						
% Moisture	10.6	0.1	%		11.0			3.99	20	
Batch P3F0304 - * DEFAULT PREP *** **										
Blank (P3F0304-BLK1)				Prepared & Analyzed: 06/03/13						
Chloride	ND	1.00	mg/kg wet							
LCS (P3F0304-BS1)				Prepared & Analyzed: 06/03/13						
Chloride	10.2		mg/kg Wet	10.0		102	80-120			
LCS Dup (P3F0304-BSD1)				Prepared & Analyzed: 06/03/13						
Chloride	10.1		mg/kg Wet	10.0		101	80-120	1.18	20	
Duplicate (P3F0304-DUP1)	Source: 3E31004-01			Prepared & Analyzed: 06/03/13						
Chloride	226	1.12	mg/kg dry		228			0.995	20	
Matrix Spike (P3F0304-MS1)	Source: 3E31004-01			Prepared & Analyzed: 06/03/13						
Chloride	337	1.12	mg/kg dry	98.3	228	111	80-120			

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: 6/3/2013

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: Jonathan Repman
Company Name: Nova Environmental
Company Address: 2057 Commerce Dr.
City/State/Zip: Midland/TX/79703
Telephone No: (432)5207720
Sampler Signature: Cornelle Bryant

Project Name: SUG Boyd 10 Inch 1-16-13
Project #:
Project Loc: Lea, Co., New Mexico
PO #:
Fax No:
e-mail: cbryant@novatraining.cc
cstanley@novatraining.cc

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

(lab use only)
ORDER #: 315100 4

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 GW = Groundwater NP=Non-Potable SL=Sludge S=Soil/Solid Specify Other	Analyze For: TCLP: 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	SP-1A			5/30/2013	10:40		1	x								Soil	X									X			X			X
-02	SP-2A			5/30/2013	10:55		1	x								Soil	X									X			X			X
-03	SP-3A			5/30/2013	11:00		1	x								Soil	X									X			X			X
-04	Floor @ 22'			5/30/2013	11:15		1	x								Soil	X									X			X			X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Cornelle Bryant	5/31/13	11:00	[signature]	5/31/13	11:00
[signature]	5/31/13	11:57			
			Received by PBEL: [signature]	5/31/13	11:57

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: 3.0 °C Factor NCF

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 06, 2013

ROZANNE JOHNSON

ARC ENVIRONMENTAL

P. O. BOX 1772

LOVINGTON, NM 88260

RE: SOUTHERN UNION GAS SERVICES BOYD 10 INCH

Enclosed are the results of analyses for samples received by the laboratory on 06/03/13 16:42.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ARC ENVIRONMENTAL
ROZANNE JOHNSON
P. O. BOX 1772
LOVINGTON NM, 88260
Fax To: 397-1471

Received:	06/03/2013	Sampling Date:	05/30/2013
Reported:	06/06/2013	Sampling Type:	Soil
Project Name:	SOUTHERN UNION GAS SERVICES BOYD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	BOYD RANCH EUNICE, NM		

Sample ID: STOCKPILE-SP 1A (H301301-01)

Chloride, SM4500Cl-B mg/kg Analyzed By: DW

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	06/05/2013	ND	400	100	400	0.00	

Sample ID: STOCKPILE-SP 2A (H301301-02)

Chloride, SM4500Cl-B mg/kg Analyzed By: DW

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/05/2013	ND	400	100	400	0.00	

Sample ID: STOCKPILE-SP 3A (H301301-03)

Chloride, SM4500Cl-B mg/kg Analyzed By: DW

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	06/05/2013	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/05/2013	ND	212	106	200	3.07	
DRO >C10-C28	<10.0	10.0	06/05/2013	ND	222	111	200	3.64	

Surrogate: 1-Chlorooctane	*108 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*114 %*	*63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ARC ENVIRONMENTAL
ROZANNE JOHNSON
P. O. BOX 1772
LOVINGTON NM, 88260
Fax To: 397-1471

Received:	06/03/2013	Sampling Date:	05/30/2013
Reported:	06/06/2013	Sampling Type:	Soil
Project Name:	SOUTHERN UNION GAS SERVICES BOYD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	BOYD RANCH EUNICE, NM		

Sample ID: WEST FLOOR 22 FT (H301301-04)

Chloride, SM4500Cl-B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/05/2013	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/05/2013	ND	212	106	200	3.07	
DRO >C10-C28	**42.0**	10.0	06/05/2013	ND	222	111	200	3.64	

Surrogate: 1-Chlorooctane	*108 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*109 %*	*63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

101 East Marland - Hobbs, New Mexico 88240
(575) 393-2326 Tel
(575) 393-2476 Fax

Cardinal Laboratories, Inc.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # _____

Company Name: Arc Environmental	BILL TO Company: Mr. Boyd — PO#
Project Manager: Rozanne Johnson	Address: (Street, City, Zip) P. O. Box 121 ~ Eunice, New Mexico 88231
Address: (Street, City, Zip) P. O. Box 1772 ~ Lovington, New Mexico 88260	Phone#: (575) 631-1044 — Fax#:
Phone #: (575) 631-9310 — Fax #:	
Project #: — Project Name: Southern Union Gas Services Boyd 10-inch 1-16-2013 Release Site	
Project Location: Boyd Ranch Eunice ~ Lea County New Mexico	Sampler Signature: Rozanne Johnson (575)631-9310 rozanne@valornet.com

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB # (LAB USE ONLY) H301301	FIELD CODE	(G)rab or (C)omp	# CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL (2 40ml VOA)	HNO_3	$NaHSO_4$	H_2SO_4	ICE (1-1Liter HDPE)	NONE	SAMPLING: DATE (2013)	TIME	TPH 8015M	Cholrides	Turn Around Time ~ 24 Hours
1	Stockpile-SP1A	G	1		X							X		5/30	10:40		X	
2	Stockpile-SP2A	G	1		X							X		5/30	10:55		X	
3	Stockpile-SP3A	G	1		X							X		5/30	11:00	X	X	
4	West Floor 22 ft	G	1		X							X		5/30	11:15	X	X	

Relinquished by: Rozanne Johnson	Date: 6-3-2013	Time: 1641	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received By: (Laboratory Staff) Jodi Henson	Date: 6-3-2013	Time: 1642

Phone Results	Yes	No	
Fax Results	Yes	No	Additional Fax Number:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:

Sample Condition: Cool: Yes / No; Intact: Yes / No

CHECKED BY: (Initials)

REMARKS:

Email Results to: rozanne@valornet.com
Irvin Boyd sniboyd@dishmail.net

#54

Analytical Report 523687

for

TRC Solutions, Inc

Project Manager: Curt Stanley

Boyd 10"

ETC Field Services

03-FEB-16

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-15-19), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534-15-1)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)

03-FEB-16

Project Manager: **Curt Stanley**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): **523687**
Boyd 10"
Project Address: Lea County, NM

Curt Stanley:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 523687. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 523687 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 523687

TRC Solutions, Inc, Midland, TX

Boyd 10"

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Sims-S1	S	01-26-16 11:10	0 - 2 In	523687-001
Sims-S2	S	01-26-16 11:15	0 - 2 In	523687-002
Sims-S3	S	01-26-16 11:20	0 - 2 In	523687-003

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-986683 TPH By SW8015B Mod

Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 523687-002.

Certificate of Analysis Summary 523687

TRC Solutions, Inc, Midland, TX

Project Name: Boyd 10"

Project Id: ETC Field Services
Contact: Curt Stanley
Project Location: Lea County, NM

Date Received in Lab: Wed Jan-27-16 10:27 am
Report Date: 03-FEB-16
Project Manager: Kelsey Brooks

Analysis Requested												
	Lab Id:	523687-001		523687-002		523687-003						
	Field Id:	Sims-S1		Sims-S2		Sims-S3						
	Depth:	0-2 In		0-2 In		0-2 In						
	Matrix:	SOIL		SOIL		SOIL						
	Sampled:	Jan-26-16 11:10		Jan-26-16 11:15		Jan-26-16 11:20						
BTEX by EPA 8021B	*Extracted:*	Jan-29-16 11:00		Jan-29-16 11:00		Jan-29-16 11:00						
	Analyzed:	Jan-29-16 14:08		Jan-29-16 14:24		Jan-29-16 14:41						
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL					
Benzene		ND	0.000994	ND	0.000998	ND	0.000992					
Toluene		ND	0.00199	ND	0.00200	ND	0.00198					
Ethylbenzene		ND	0.000994	ND	0.000998	ND	0.000992					
m_p-Xylenes		ND	0.00199	ND	0.00200	ND	0.00198					
o-Xylene		ND	0.000994	ND	0.000998	ND	0.000992					
Total Xylenes		ND	0.000994	ND	0.000998	ND	0.000992					
Total BTEX		ND	0.000994	ND	0.000998	ND	0.000992					
Inorganic Anions by EPA 300/300.1	*Extracted:*	Feb-02-16 09:00		Feb-02-16 09:00		Feb-02-16 09:00						
	Analyzed:	Feb-02-16 19:03		Feb-03-16 11:41		Feb-03-16 11:54						
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL					
Chloride		ND	2.00	6.67	2.00	ND	2.00					
TPH By SW8015B Mod	*Extracted:*	Jan-29-16 10:12		Jan-29-16 10:12		Jan-29-16 10:12						
	Analyzed:	Feb-02-16 04:37		Feb-02-16 05:06		Feb-02-16 05:34						
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL					
C6-C10 Gasoline Range Hydrocarbons		ND	15.0	ND	15.0	ND	15.0					
C10-C28 Diesel Range Hydrocarbons		ND	15.0	ND	15.0	ND	15.0					
C28-C35 Oil Range Hydrocarbons		ND	15.0	ND	15.0	ND	15.0					
Total TPH		ND	15.0	ND	15.0	ND	15.0					

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Boyd 10"

Work Orders : 523687,

Project ID: ETC Field Services

Lab Batch #: 987007 **Sample:** 523687-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/29/16 14:08

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0356	0.0300	119	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 987007 **Sample:** 523687-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/29/16 14:24

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0340	0.0300	113	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 987007 **Sample:** 523687-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/29/16 14:41

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0347	0.0300	116	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 986683 **Sample:** 523687-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02/02/16 04:37

TPH By SW8015B Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	48.0	50.0	96	70-135	

Lab Batch #: 986683 **Sample:** 523687-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02/02/16 05:06

TPH By SW8015B Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	142	100	142	70-135	**
o-Terphenyl	65.8	50.0	132	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Boyd 10"

Work Orders : 523687,

Project ID: ETC Field Services

Lab Batch #: 986683 **Sample:** 523687-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02/02/16 05:34

TPH By SW8015B Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

Lab Batch #: 986683 **Sample:** 704096-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01/28/16 20:50

TPH By SW8015B Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	45.7	50.0	91	70-135	

Lab Batch #: 987007 **Sample:** 704280-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01/29/16 12:27

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0359	0.0300	120	80-120	
4-Bromofluorobenzene	0.0325	0.0300	108	80-120	

Lab Batch #: 986683 **Sample:** 704096-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01/28/16 21:17

TPH By SW8015B Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	42.5	50.0	85	70-135	

Lab Batch #: 987007 **Sample:** 704280-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01/29/16 11:36

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Boyd 10"

Work Orders : 523687, **Project ID:** ETC Field Services

Lab Batch #: 986683 **Sample:** 704096-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01/28/16 21:45

TPH By SW8015B Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	100	128	70-135	
o-Terphenyl	46.4	50.0	93	70-135	

Lab Batch #: 987007 **Sample:** 704280-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01/29/16 11:53

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	80-120	
4-Bromofluorobenzene	0.0351	0.0300	117	80-120	

Lab Batch #: 986683 **Sample:** 523632-010 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/29/16 03:31

TPH By SW8015B Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.4	99.6	74	70-135	
o-Terphenyl	51.4	49.8	103	70-135	

Lab Batch #: 987007 **Sample:** 523686-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/29/16 14:57

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0333	0.0300	111	80-120	

Lab Batch #: 986683 **Sample:** 523632-010 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/29/16 04:00

TPH By SW8015B Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	99.6	123	70-135	
o-Terphenyl	46.7	49.8	94	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Boyd 10"

Work Orders : 523687,
Project ID: ETC Field Services
Lab Batch #: 987007 **Sample:** 523686-001 SD / MSD **Batch:** 1 **Matrix:** Soil
Units: mg/kg **Date Analyzed:** 01/29/16 15:14

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0333	0.0300	111	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Boyd 10"

Work Order #: 523687 **Project ID:** ETC Field Services

Analyst: PJB **Date Prepared:** 01/29/2016 **Date Analyzed:** 01/29/2016

Lab Batch ID: 987007 **Sample:** 704280-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0896	90	0.100	0.0981	98	9	70-130	35	
Toluene	<0.00200	0.100	0.0888	89	0.100	0.0975	98	9	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0945	95	0.100	0.105	105	11	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.196	98	0.200	0.216	108	10	70-135	35	
o-Xylene	<0.00100	0.100	0.0934	93	0.100	0.103	103	10	71-133	35	

Analyst: MNR **Date Prepared:** 02/02/2016 **Date Analyzed:** 02/02/2016

Lab Batch ID: 986994 **Sample:** 704273-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<2.00	50.0	49.9	100	50.0	51.9	104	4	90-110	20	

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

BS / BSD Recoveries

Project Name: Boyd 10"

Work Order #: 523687 **Project ID:** ETC Field Services

Analyst: PJB **Date Prepared:** 01/28/2016 **Date Analyzed:** 01/28/2016

Lab Batch ID: 986683 **Sample:** 704096-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C10 Gasoline Range Hydrocarbons	<15.0	1000	846	85	1000	877	88	4	70-135	35	
C10-C28 Diesel Range Hydrocarbons	<15.0	1000	1030	103	1000	1080	108	5	70-135	35	

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

Form 3 - MS Recoveries

Project Name: Boyd 10"

Work Order #: 523687

Lab Batch #: 986994 **Project ID:** ETC Field Services

Date Analyzed: 02/02/2016 **Date Prepared:** 02/02/2016 **Analyst:** MNR

QC- Sample ID: 524034-001 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	5450	10000	15300	99	80-120	

Lab Batch #: 986994

Date Analyzed: 02/03/2016 **Date Prepared:** 02/02/2016 **Analyst:** MNR

QC- Sample ID: 524088-001 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	2120	5000	8170	121	80-120	X

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

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: Boyd 10"

Work Order # : 523687 **Project ID:** ETC Field Services

Lab Batch ID: 987007 **QC- Sample ID:** 523686-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 01/29/2016 **Date Prepared:** 01/29/2016 **Analyst:** PJB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.113	113	0.0992	0.113	114	0	70-130	35	
Toluene	<0.00200	0.100	0.0999	100	0.0992	0.105	106	5	70-130	35	
Ethylbenzene	<0.00100	0.100	0.112	112	0.0992	0.112	113	0	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.239	120	0.198	0.233	118	3	70-135	35	
o-Xylene	<0.00100	0.100	0.109	109	0.0992	0.111	112	2	71-133	35	

Lab Batch ID: 986683 **QC- Sample ID:** 523632-010 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 01/29/2016 **Date Prepared:** 01/28/2016 **Analyst:** PJB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C10 Gasoline Range Hydrocarbons	<14.9	996	991	99	996	818	82	19	70-135	35	
C10-C28 Diesel Range Hydrocarbons	<14.9	996	1270	128	996	1180	118	7	70-135	35	

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Curt Stanley

Company Name: TRC Solutions, Inc

Company Address: 2057 Commerce

City/State/Zip: Midland, TX 79703

Telephone No: 432.520.7720 Fax No: 432.520.7701

Sampler Signature:

e-mail: cdstanley@trcsolutions.com; rose.slade@energytransfer.com

Project Name: ETC Field Services

Project #: Boyd 10"

Project Loc: Lea County, NM

PO #:

Report Format: ☐ Standard ☐ TRRP ☐ NPDES

(lab use only)

ORDER #: 523687

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 SW=Surface Water O=Other	Analyze For: TCLP: TPH: 418.1 / 8015M	TOTAL: TPH: 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	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride (EPA 300.1)			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
	Sims - S1	0	2"	1/26/2016	1110		1	x								Soil	X									X			X					X
	Sims - S2	0	2"	1/26/2016	1115		1	x								Soil	X									X			X					X
	Sims - S3	0	2"	1/26/2016	1120		1	x								Soil	X									X			X					X

Special Instructions:

Bill to Rose at ETC Field Services

Relinquished by:	Date	Time	Received by:	Date	Time
				1/27/16	1027
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time

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: 3.5 °C

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 01/27/2016 10:27:00 AM

Work Order #: 523687

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

Temperature Measuring device used : r8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Sample instructions complete on Chain of Custody?	Yes
#9 Any missing/extra samples?	No
#10 Chain of Custody signed when relinquished/ received?	Yes
#11 Chain of Custody agrees with sample label(s)?	Yes
#12 Container label(s) legible and intact?	Yes
#13 Sample matrix/ properties agree with Chain of Custody?	Yes
#14 Samples in proper container/ bottle?	Yes
#15 Samples properly preserved?	Yes
#16 Sample container(s) intact?	Yes
#17 Sufficient sample amount for indicated test(s)?	Yes
#18 All samples received within hold time?	Yes
#19 Subcontract of sample(s)?	No
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	N/A
#21 <2 for all samples preserved with HNO3,HCL, H2SO4? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	N/A
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	N/A

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Carley Owens
Carley Owens
Date: 01/27/2016

Checklist reviewed by: Kelsey Brooks
Kelsey Brooks
Date: 01/27/2016

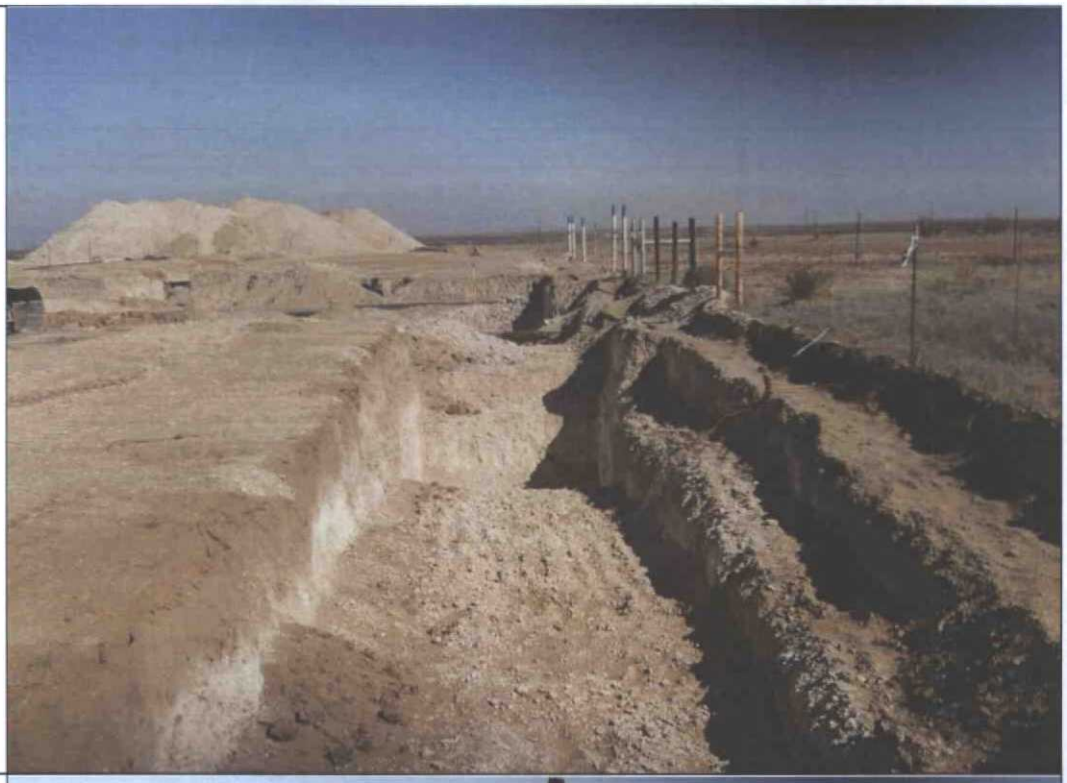
Appendix B
Photographs

TRC
Results you can rely on

Photographic Documentation

Client: ETC Field Services, LLC
Project Name: Boyd 10-Inch

Prepared by: TRC Environmental Corp.
Location: Lea County, NM

Photograph No. 1 **Date:** **February 20, 2013** **Description:** **Looking east Excavation activities in progress.**	
Photograph No. 2 **Date:** **February 20, 2013** **Description:** **Looking West. Excavation activities in progress.**	

TRC
Results you can rely on

Photographic Documentation

Client: ETC Field Services, LLC
Project Name: Boyd 10-Inch

Prepared by: TRC Environmental Corp.
Location: Lea County, NM

Photograph No. 3 **Date: Oct 25, 2013** **Description:** **Looking east** **Backfilling of Excavation Completed.**	
Photograph No. 4 **Date:** **March 27, 2013** **Description:** **Looking southwest** **Backfilling of Excavation Completed.**	

Appendix C
Sundance Services Disposal Manifests
(On enclosed disk)

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