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APPROVED

By Olivia Yu at 3:52 pm, Aug 11, 2017

July 27, 2017

Olivia Yu
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 1
1625 French Drive
Hobbs, NM 88240

Randall Pair
Carlsbad Field Office
United States Department of the Interior
Bureau of Land Management
620 E. Greene Street
Carlsbad, New Mexico 88220
rpair@blm.gov

NMOCD approves of the completed delineation and remediation activities for 1RP-4634.
NMOCD also grants backfill approval with one condition: submit confirmatory laboratory analyses of bottoms and sidewalls of proposed excavation near the Kinder Morgan pipeline.

Re: Remediation Summary and Backfill Request
A-14 Compressor Station Field Scrubber Release (1RP-4634)
GPS: N32° 14' 46.26" W103° 24' 7.2"
Unit Letter "I", Section 6, Township 24 South, Range 35 East, NMPM
Lea County, New Mexico

Dear Ms. Yu and Mr. Pair,

TRC Environmental Corporation (TRC), on behalf of ETC Field Services, LLC (ETC) has prepared this Remediation Summary and Backfill Request Report (Report) for the A-14 Compressor Station Field Scrubber Release Site (Release Site). The purpose of this Report is to provide documentation of remediation activities designed to advance the A-14 Compressor Station Field Scrubber Release Site toward an NMOCD approved Site Closure Status. The legal description of the Release Site is Unit Letter "I", Section 6, Township 24 South, Range 35 East, NMPM, in Lea County, New Mexico. The GPS coordinates for the site are N 32° 14' 46.26" W 103° 24' 7.2". The subject property is administered by the United States Bureau of Land Management (BLM). A Site Location Map, Site Details and Soil Sample Location Map, Site Details and Soil Sample Locations Maps, and Site Details and Confirmation Soil Sample Locations Map are provided as Figure 1, Figure 2, Figure 3, and Figure 4, respectively. Release Site photographs are attached to this Report.

A groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) did not identify any registered water wells in Section 6, Township 24 South, Range 35 East. A reference map utilized by the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office indicated

groundwater should be encountered at approximately two hundred twenty-five (225) feet below ground surface (bgs). Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

No water wells were observed within one-thousand (1,000) feet of the Release Site. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

No surface water was observed within one-thousand (1,000) feet of the release. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

Based on the NMOCD Site Classification criteria, the Release Site soil remediation levels are 10 mg/Kg for benzene, 50 mg/Kg for benzene, toluene, ethylbenzene and xylenes (BTEX), and 5,000 mg/Kg for total petroleum hydrocarbons (TPH). Per NMOCD request, chloride remediation levels for the Release Site will be 600 mg/Kg.

On March 6, 2016, a representative of ETC submitted the "Proposed Delineation Workplan" for NMOCD and BLM consideration. The "Proposed Delineation Workplan" summarized the delineation activities strategy designed to progress the Release Site toward an NMOCD approved closure status. ETC received written (email) NMOCD and BLM approval to proceed with the activities outlined in the "Proposed Delineation Workplan".

On March 21 and 22, 2017, due to safety concerns and the potential of striking underground piping and associated equipment within the vicinity of the A-14 Compressor Station, ETC utilized a hydro-vac prior to conducting any field sampling activities to identify the location of underground pipelines and other associated subsurface equipment.

On March 23, 2017, TRC, on behalf of ETC, utilized a hand auger to collect ten (10) delineation soil samples (FS-1 6" through FS-5 6" and FS-1 1' through FS-5 1') from the stained surface soil. The soil samples were submitted to Xenco Laboratories in Midland, Texas for determination of concentrations of BTEX using Method SW 846-8021B, Total Petroleum Hydrocarbons (TPH) using Method SW 846-8015M, and chloride using Method E-300.1. The analytical results indicated benzene and BTEX concentrations were less than the applicable laboratory Method Detection Limit (MDL), with the exception of soil samples FS-1 6", FS-3 6", and FS-3 1', which exhibited BTEX concentrations of 0.00480 mg/Kg, 0.2959 mg/Kg, and 0.2374 mg/Kg, respectively. The collected soil samples exhibited BTEX concentrations below NMOCD regulatory guidelines. The laboratory results indicated TPH concentrations ranged from 574.0 mg/Kg for soil sample FS-1 1' to 27,290 mg/Kg for soil sample FS-3 1'. A review of laboratory analytical results indicated soil samples FS-2 6", FS-3 6", FS-3 1', and FS-5 1' exhibited TPH concentrations above NMOCD regulatory guidelines. Chloride concentrations ranged from less than the applicable laboratory MDL for soil samples FS-4 6" and FS-4 1' to 7,910 mg/Kg for soil sample FS-1 6". A review of laboratory analytical results indicated soil samples FS-1 6" through FS-3 6" and FS-1 1' through FS-3 1' exhibited chloride concentrations above NMOCD regulatory guidelines.

In addition to the soil samples described above, seven (7) soil samples (WFS-1 1', EFS-1 1', SFS-1 1', NFS-2 1', SFS-2 1', SFS-3 1', and NFS-3 1') were collected utilizing a hand auger approximately five

(5) feet from the outer perimeter of the stained surface soil and submitted for BTEX, TPH, and chloride analysis. The analytical results indicated benzene and BTEX concentrations were less than the applicable laboratory MDL and NMOCD regulatory guidelines. TPH concentrations ranged from 16.7 mg/Kg for soil sample EFS-1 1' to 1,283 mg/Kg for soil sample NFS-3 1'. A review of laboratory results indicated TPH concentrations were below NMOCD regulatory guidelines for the submitted soil samples. Chloride concentrations ranged from less than the applicable laboratory MDL for soil samples SFS-1 1' and NFS-3 1' to 108 mg/Kg for soil sample SFS-3 1'. A review of laboratory analytical results indicated chloride concentrations were below NMOCD regulatory guidelines for the submitted samples.

In addition, utilizing a hand auger, one background sample (BG-1 1') was collected approximately fifty (50) feet north of the A-14 Compressor Station and submitted to the laboratory for TPH, BTEX, and chloride analysis. A review of laboratory analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than laboratory applicable MDL.

On April 17, 2017, TRC conducted additional vertical delineation activities utilizing a hand auger. During the sampling event, hand auger refusal was encountered at a depth ranging from approximately one (1) foot to approximately sixteen (16) inches bgs. Three (3) soil samples (FS-3 16", FS-5a 1', and FS-5a 16") were collected from the stained surface soil and submitted to the laboratory for BTEX and TPH analysis. The analytical results indicated benzene concentrations were below laboratory applicable MDL and NMOCD regulatory guidelines. BTEX concentrations ranged from 0.00389 mg/Kg for soil samples FS-5a 1' to 0.02233 mg/Kg for soil sample FS-3 16". A review of laboratory analytical results indicated BTEX concentrations were below NMOCD regulatory guidelines. TPH concentrations ranged from 1,690.8 mg/Kg for soil sample FS-3 16" to 3,550 mg/Kg for soil sample FS-5a 1'. A review of laboratory analytical results TPH concentrations were below NMOCD regulatory guidelines for the collected samples. In addition, soil samples FS-5a 1' and FS-5a 16" were submitted to the laboratory for chloride analysis. A review of laboratory analytical results indicated chloride concentrations were less than the applicable laboratory MDL for the submitted soil samples and below NMOCD regulatory guidelines.

On May 10, 2017, TRC conducted additional vertical delineation activities at the Release Site. Utilizing a backhoe, three (3) vertical trenches were advanced to approximately four (4) feet bgs. Three (3) soil samples (FS-1a 4', FS-2a 4', and FS-3a 4') were collected and submitted to the laboratory for BTEX, TPH, and chloride analysis. A review of laboratory analytical results indicated benzene and BTEX concentrations were less than the applicable laboratory MDL and below NMOCD regulatory guidelines. TPH concentrations ranged from 15.0 mg/Kg for soil sample FS-3a 4' to 23.6 mg/Kg for soil sample FS-1a 4'. A review of laboratory analytical results indicated TPH concentrations were below NMOCD regulatory guidelines. Chloride concentrations ranged from 22.8 mg/Kg for soil sample FS-3a 4' to 478 mg/Kg for soil sample FS-1a 4'. A review of laboratory analytical results indicate TPH concentrations were below NMOCD regulatory guidelines.

In addition, the three (3) vertical trenches were advanced to nine (9) feet bgs to confirm chloride concentrations remained below NMOCD regulatory guidelines. Three (3) soil samples (FS-1a 9', FS-2a 9', and FS-3a 9') were collected and submitted to the laboratory for chloride analysis. A review of laboratory analytical results indicated chloride concentrations ranged from 27.0 mg/Kg for soil sample FS-2a 9' to 162 mg/Kg for soil sample FS-1a 9' indicating chloride concentrations remained below NMOCD regulatory guidelines an additional five (5) feet below soil samples FS-1a 4', FS-2a 4', and FS-3a 4'.

A Kinder Morgan High Pressure (1,000 PSI) natural gas pipeline, heading in a northwest to southeast direction, bisects the area represented by soil samples FS-4 and FS-5. Due to safety concerns, heavy equipment (i.e. backhoe) is not permitted to break ground within a thirty-five (35) foot radius of the pipeline. Due to these safety concerns, vertical trenches were not advanced in the areas represented by soil samples FS-4 and FS-5.

On June 1, 2017, a representative of ETC submitted the “Soil Investigation Summary and Proposed Remediation Workplan” (Workplan) for NMOCD consideration. The Workplan summarized remedial activities to date and detailed a closure strategy designed to progress the Release Site toward an NMOCD approved closure status. ETC received written (email) NMOCD approval to proceed with the activities outlined in the Workplan.

On June 13, 2017, TRC commenced excavation activities utilizing a backhoe from the release point heading west. Chloride field screening was utilized to guide the excavation activities. In the areas represented by soil samples FS-4 and FS-5 a hydro-vac was utilized due to the close proximity of the High Pressure Kinder Morgan natural gas line. Excavated soil was stockpiled to the north of the excavation within the A-14 Compressor Station, pending final disposition of the soil.

On June 13, 14, and 15, 2017, twelve (12) soil samples (BH-1 4’, SW-1 3’, NW-1 3’, BH-4 1’, EW-1 3’, BH-2 3’, SW-2 2’, NW-2 2’, BH-5 1’, BH-3 2’, NW-3 1’, and SW-3 1’) were collected from the floor and side walls of the excavated area. The soil samples were submitted to the laboratory and analyzed for concentrations of TPH, BTEX, and chloride concentrations. The laboratory analytical results indicated benzene and BTEX concentrations were less than MDL for all collected soil samples, with the exception of soil sample BH-4 1’, which exhibited a BTEX concentration of 0.00511 mg/Kg. The analytical results indicated TPH concentrations were less than the laboratory MDL for all collected soil samples, with the exception of soil samples BH-3 2’, BH-4 1’, BH-5 1’, and NW-3 1’, which exhibited TPH concentrations of 37.3 mg/Kg, 315 mg/Kg, 26.3 mg/Kg, and 81.4 mg/Kg, respectively. In addition, analytical results indicated chloride concentrations ranged from 11.7 mg/Kg for soil sample BH-5 1’ to 336 mg/Kg for soil sample EW-1 3’. A review of laboratory analytical results indicated all submitted soil samples were below NMOCD regulatory guidelines and no additional excavation activities were necessary. Table 1 summarizes the Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil. Analytical reports are attached to this report.

Based on the analytical results of soil samples collected on June 13, 14, and 15, 2017, ETC proposes the following field activities designed to advance the A-14 Compressor Station Field Scrubber Release towards NMOCD closure status:

- Pending NMOCD and BLM approval, ETC will transport the excavated soil under manifest to an NMOCD approved disposal facility.
- On completion of transport and disposal of the excavated soil, the excavated area will be backfilled with locally purchased non-impacted “like” soil. In addition, the backfilled area will be contoured to fit the surrounding area and be reseeded with vegetation approved by the BLM.
- Prepare and submit a “Remediation Summary and Site Closure Request” to the NMOCD and BLM.

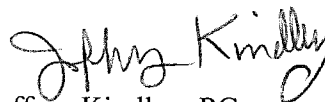
ETC is prepared to begin the activities outlined in this Remediation Summary and Backfill Request Report on NMOCD and BLM approval.

If you have any questions, or if additional information is required, please feel free to call me at 432-520-7720 (office) or 432-664-6699 (cell).

Thank you,



Nikki Green
Project Manager
TRC Environmental Corporation



Jeffrey Kindley, PG
Senior Project Manager
TRC Environmental Corporation

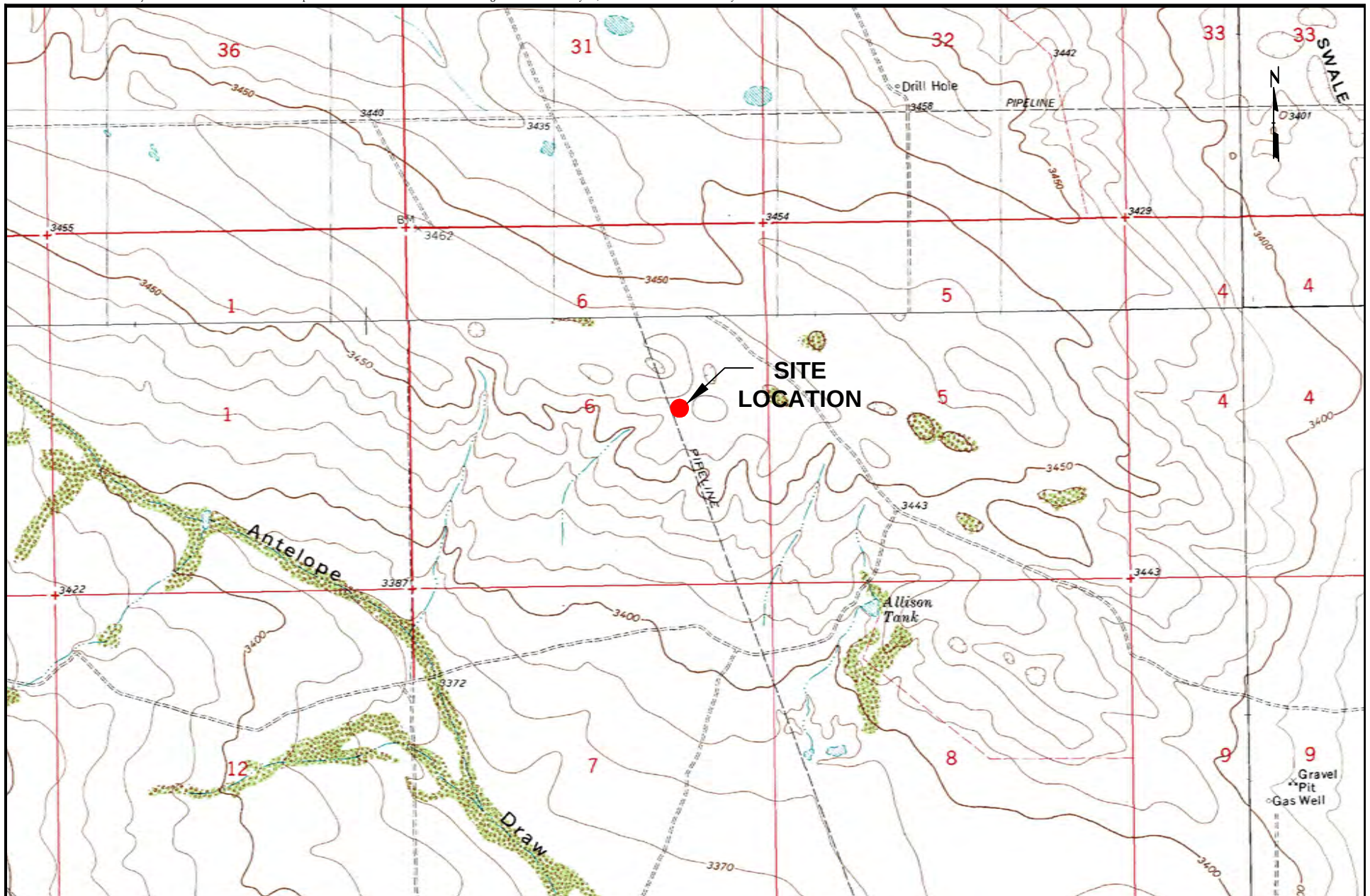
Attachments:

Figure 1 - Site Location Map
Figure 2 - Site Detail and Soil Sample Location Map
Figure 3 - Site Detail and Soil Sample Locations Map
Figure 4 – Site Details and Confirmation Soil Sample Locations Map
Table 1 - Concentrations of Benzene, BTEX, TPH and Chloride in Soil
Release Site Photographs
Laboratory Analytical Results
Release Notification and Corrective Action (Form C-141)

cc:

Rose Slade
ETC Field Services, LLC
800 East Sonterra Suite 2
San Antonio, TX 78258

File



LEGEND:

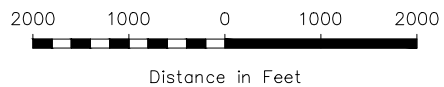


Figure 1
Site Location Map
ETC Field Services, LLC
A-14 Compressor Station
Field Scrubber
Lea County, NM

Scale: 1" = 2000'

CAD By: TA

Checked By: CS

Draft: March 3, 2017

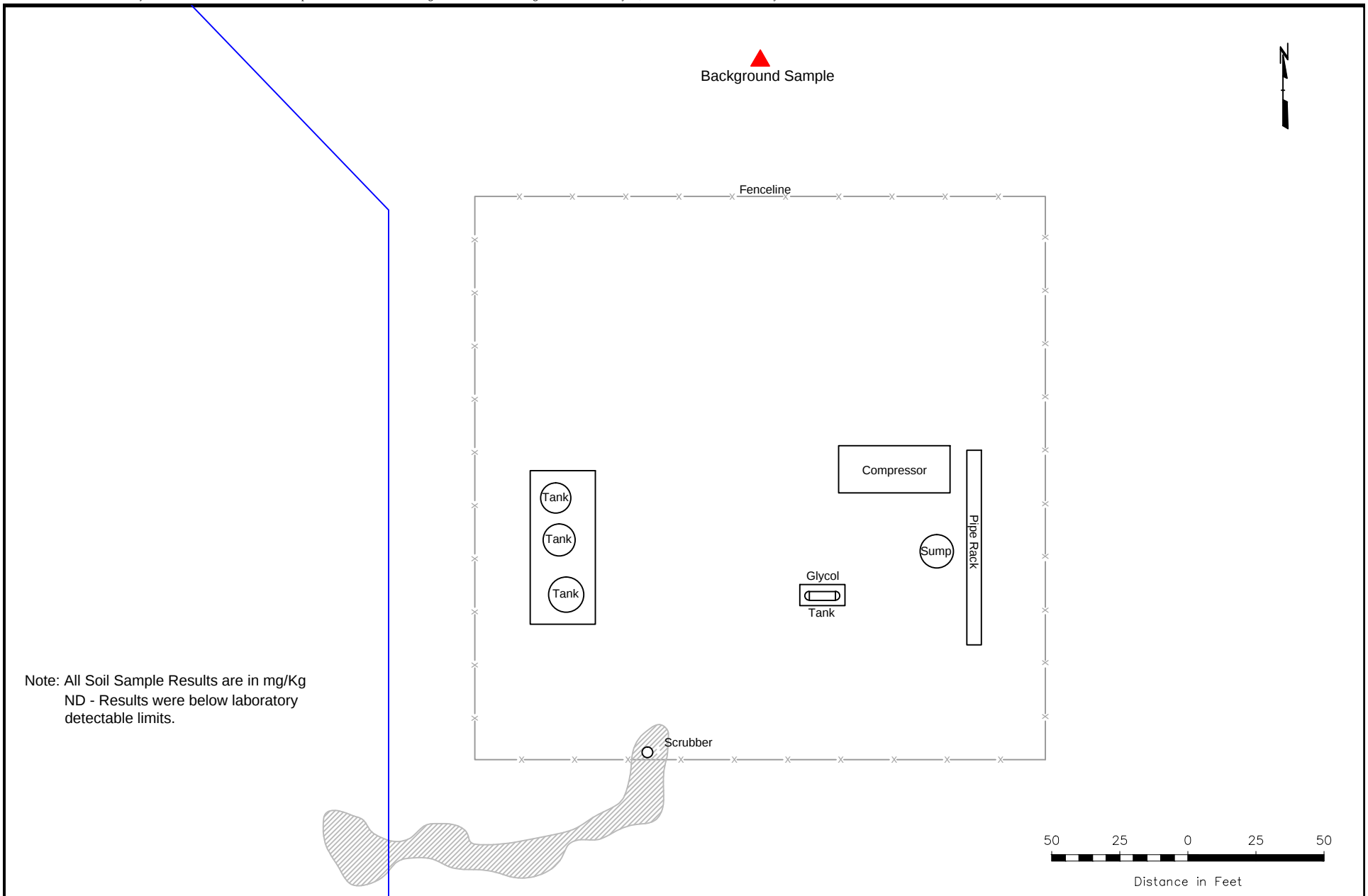
Lat. N 32° 14' 46.26" , Long. W 103° 24' 7.2"

SE1/4 NE1/4 Sec 6 T24S R35E

TRC Proj. No.: 273817



2057 Commerce Drive
Midland, Texas 79703
432.520.7720



LEGEND:

- x— Fence Line
- ▲ Soil Sample Location
- Pipeline

Figure 2
Site Detail and
Soil Sample Location Map
ETC Field Services, LLC
A-14 Compressor Station
Field Scrubber Release
Lea County, NM

Scale: 1" = 50'

CAD By: TA

Checked By: NG

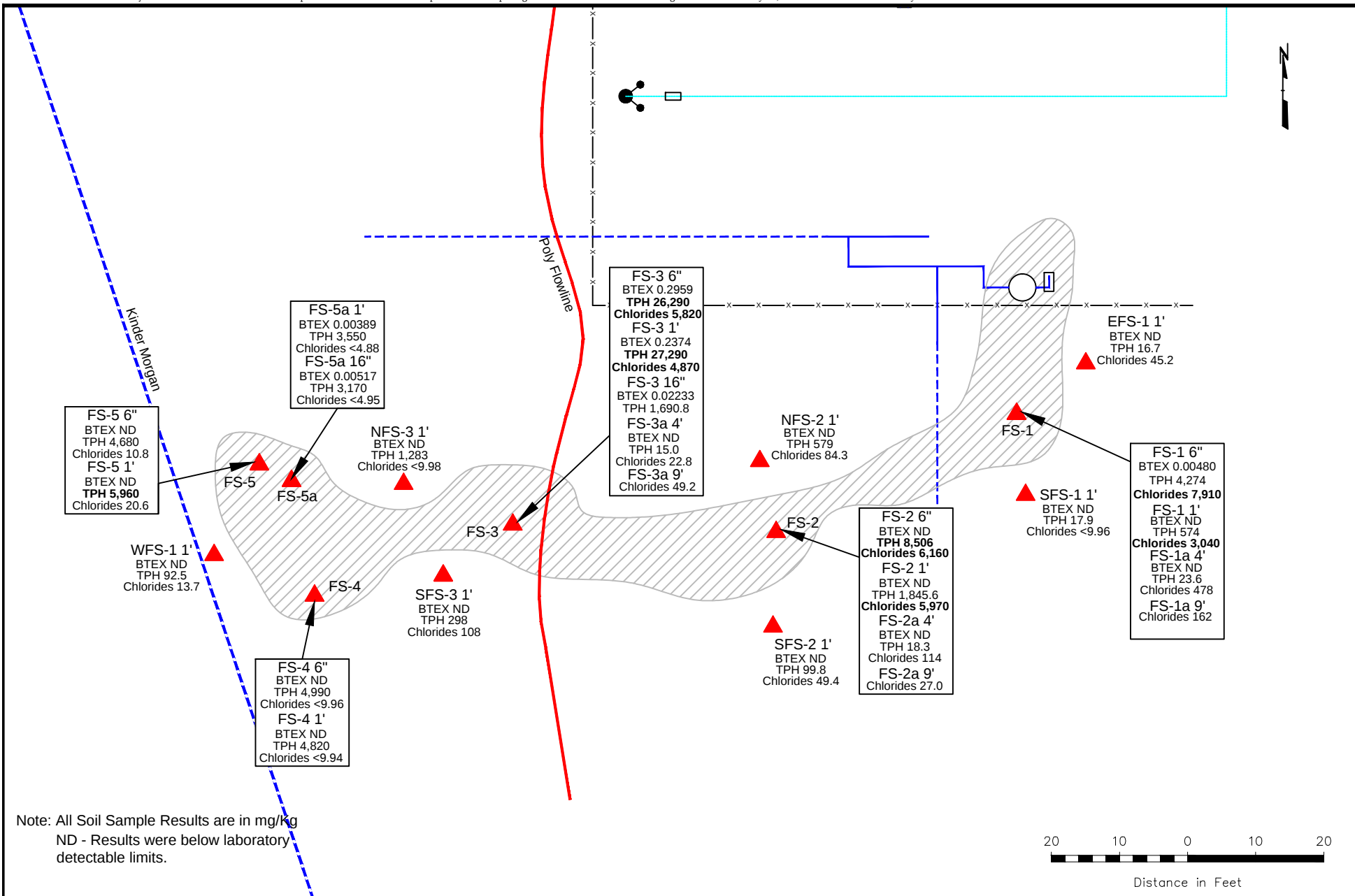
Draft: March 4, 2017

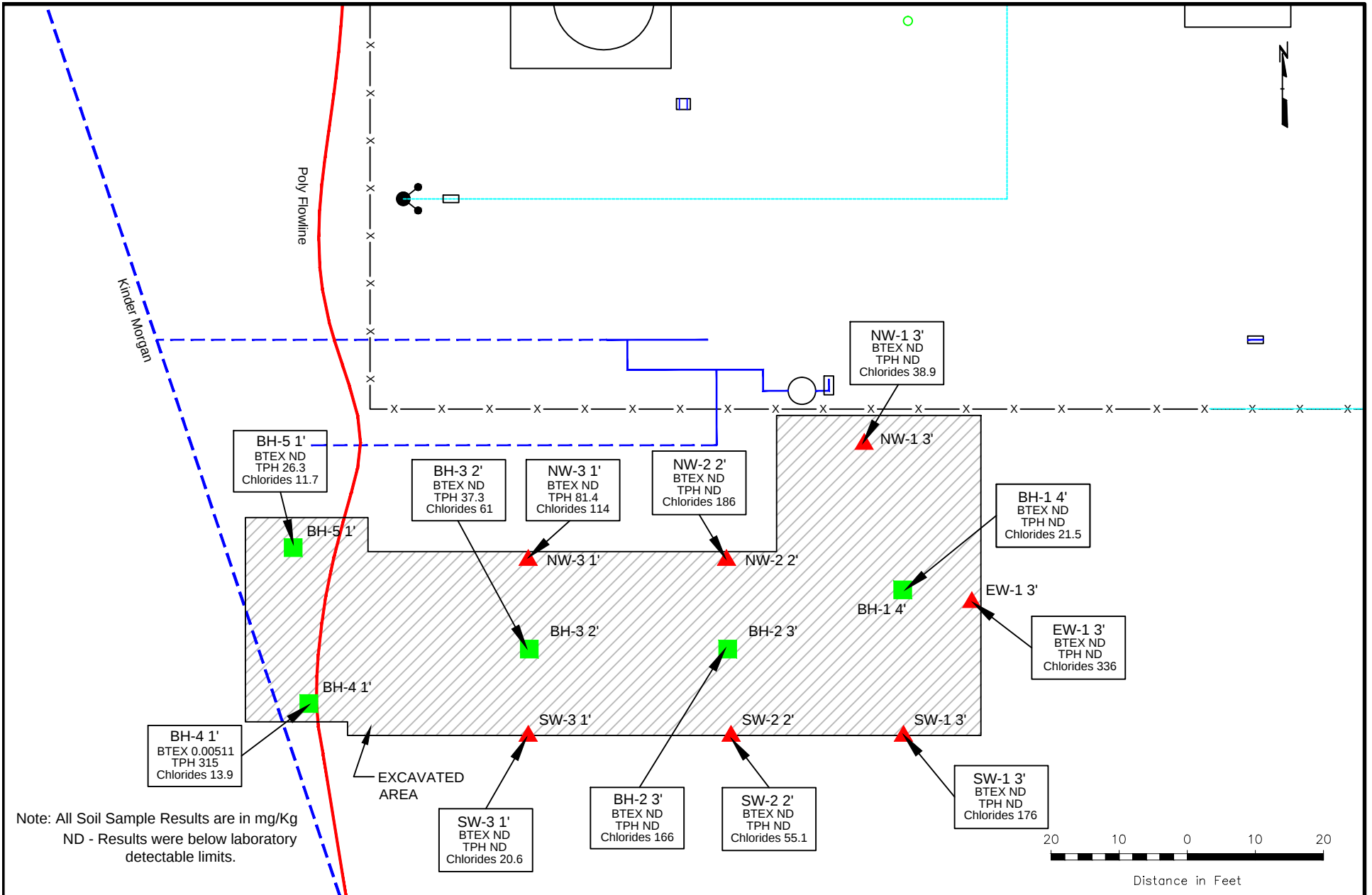
Lat. N 32° 14' 46.26", Long. W 103° 24' 7.2"

SE1/4 NE1/4 Sec 6 T24S R35E

TRC Proj. No.: 273817







LEGEND:

- Pipeline
- Electric
- Light Pole
- Fence
- Flowline
- ▲ Sidewall Soil Sample Location
- Floor Soil Sample Location

Figure 4
Site Detail and Confirmation
Soil Sample Locations
ETC Field Services, LLC
A-14 Compressor Station
Field Scrubber
Lea County, NM

Scale: 1" = 20'

CAD By: TA	Checked By: NG
Draft: April 4, 2017	
Lat. N 32° 14' 46.26" , Long. W 103° 24' 7.2"	
SE1/4 NE1/4 Sec 6 T24S R35E	
TRC Proj. No.: 273817	



TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

ETC FIELD SERVICES, LLC
A-14 COMPRESSOR STATION FIELD SCRUBBER
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 ₁₀	TPH DRO C ₁₀ -C ₂₈	TPH ORO C ₂₈ -C ₃₅	TOTAL TPH C ₆ -C ₃₅	CHLORIDE
NMOCD Site Classification Criteria			10					50				5,000	600
FS-1 6"	03/23/17	Trench	<0.00149	<0.00198	<0.00198	0.00480	<0.00297	0.00480	770	3,260	244	4,274	7,910
FS-1 1'	03/23/17	Trench	<0.00151	<0.00201	<0.00201	<0.00201	<0.00301	<0.00301	20.8	508	45.2	574.0	3,040
FS-2 6"	03/23/17	Trench	<0.00149	<0.00199	<0.00199	<0.00199	<0.00298	<0.00298	730	7,120	656	8,506	6,160
FS-2 1'	03/23/17	Trench	<0.00147	<0.00196	<0.00196	<0.00196	<0.00295	<0.00295	96.6	1,570	179	1,845.6	5,970
FS-3 6"	03/23/17	Trench	<0.00147	<0.00196	0.0209	0.146	0.129	0.2959	2,370	21,300	2,620	26,290	5,820
FS-3 1'	03/23/17	Trench	<0.00150	<0.00200	0.0144	0.119	0.104	0.2374	1,880	22,700	2,710	27,290	4,870
FS-4 6"	03/23/17	Trench	<0.00270	<0.00360	<0.00360	<0.00360	<0.00540	<0.00540	<15.0	1,730	3,260	4,990	<9.96
FS-4 1'	03/23/17	Trench	<0.00275	<0.00366	<0.00366	<0.00366	<0.00549	<0.00549	<15.0	1,640	3,180	4,820	<9.94
FS-5 6"	03/23/17	Trench	<0.00149	<0.00199	<0.00199	<0.00199	<0.00298	<0.00298	<15.0	1,590	3,090	4,680	10.8
FS-5 1'	03/23/17	Trench	<0.00148	<0.00197	<0.00197	<0.00197	<0.00296	<0.00296	<15.0	2,060	3,900	5,960	20.6
WFS-1 1'	03/23/17	Trench	<0.00267	<0.00356	<0.00356	<0.00356	<0.00534	<0.00534	<14.9	51.4	41.1	92.5	13.7
EFS-1 1'	03/23/17	Trench	<0.00254	<0.00339	<0.00339	<0.00339	<0.00508	<0.00508	<15.0	16.7	<15.0	16.7	45.2
SFS-1 1'	03/23/17	Trench	<0.00262	<0.00350	<0.00350	<0.00350	<0.00524	<0.00524	<15.0	17.9	<15.0	17.9	<9.96
NFS-2 1'	03/23/17	Trench	<0.00148	<0.00198	<0.00198	<0.00198	<0.00296	<0.00296	<15.0	448	131	579	84.3
SFS-2 1'	03/23/17	Trench	<0.00149	<0.00199	<0.00199	<0.00199	<0.00299	<0.00299	<15.0	99.8	<15.0	99.8	49.4
SFS-3 1'	03/23/17	Trench	<0.00151	<0.00201	<0.00201	<0.00201	<0.00301	<0.00301	<15.0	180	118	298	108
NFS-3 1'	03/23/17	Trench	<0.00152	<0.00202	<0.00202	<0.00202	<0.00303	<0.00303	<15.0	513	770	1,283	<9.98
FS-3 16"	04/17/17	Trench	<0.00149	0.00479	0.00728	0.00625	0.00401	0.02233	117	1,480	93.8	1,690.8	-
FS-5a 1'	04/17/17	Trench	<0.00151	<0.00201	<0.00201	0.00389	<0.00301	0.00389	<15.0	1,240	2,310	3,550	<4.88
FS-5a 16"	04/17/17	Trench	<0.00152	<0.00152	<0.00202	<0.00202	0.00517	0.00517	<15.0	1,110	2,060	3,170	<4.95
FS-1a 4'	05/10/17	Trench	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	23.6	<15.0	23.6	478
FS-1a 9'	05/10/17	Trench	-	-	-	-	-	-	-	-	-	-	162
FS-2a 4'	05/10/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	18.3	<15.0	18.3	114
FS-2a 9'	05/10/17	Trench	-	-	-	-	-	-	-	-	-	-	27.0
FS-3a 4'	05/10/17	Trench	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.00399	<14.9	15.0	<14.9	15.0	22.8
FS-3a 9'	05/10/17	Trench	-	-	-	-	-	-	-	-	-	-	49.2

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

ETC FIELD SERVICES, LLC
A-14 COMPRESSOR STATION FIELD SCRUBBER
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 ₁₀	TPH DRO C ₁₀ -C ₂₈	TPH ORO C ₂₈ -C ₃₅	TOTAL TPH C ₆ -C ₃₅	CHLORIDE
NMOCD Site Classification Criteria			10					50				5,000	600
BH-1 4'	06/13/17	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.00401	<15.0	<15.0	<15.0	<15.0	21.5
SW-1 3'	06/13/17	In-Situ	<0.00205	<0.00205	<0.00205	<0.00410	<0.00205	<0.00410	<15.0	<15.0	<15.0	<15.0	176
NW-1 3'	06/13/17	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	<15.0	<15.0	<15.0	38.9
BH-4 1'	06/14/17	In-Situ	<0.00200	<0.00200	<0.00200	0.00511	<0.00200	0.00511	<15.0	128	187	315	13.9
EW-1 3'	06/13/17	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	<15.0	<15.0	<15.0	336
BH-2 3'	06/14/17	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.00401	<15.0	<15.0	<15.0	<15.0	166
SW-2 2'	06/14/17	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	<15.0	<15.0	<15.0	55.1
NW-2 2'	06/14/17	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00404	<15.0	<15.0	<15.0	<15.0	186
BH-5 1'	06/14/17	In-Situ	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00403	<15.0	26.3	<15.0	26.3	11.7
BH-3 2'	06/15/17	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	37.3	<15.0	37.3	61
NW-3 1'	06/15/17	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	65.7	15.7	81.4	114
SW-3 1'	06/15/17	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00404	<15.0	<15.0	<15.0	<15.0	20.6
BG-1 1'	03/23/17	In-Situ	<0.00151	<0.00201	<0.00201	<0.00201	<0.00301	<0.00301	<15.0	<15.0	<15.0	<15.0	<9.96

Photographic Documentation

Client: ETC Field Services, LLC

Prepared by: TRC Environmental Corp.

Project Name: A-14 Compressor Station Field Scrubber **Location:** Lea County, NM

Photograph No. 1

Date:
February 23, 2017

Description:
Looking northwest
at Field Scrubber.



Photograph No. 2

Date:
February 23, 2017

Description:
Looking northeast
at Field Scrubber.
Release in
foreground.



Photographic Documentation

Client: ETC Field Services, LLC

Prepared by: TRC Environmental Corp.

Project Name: A-14 Compressor Station Field Scrubber **Location:** Lea County, NM

Photograph No. 3

Date:
March 23, 2017

Description:
Looking east
following hand
auger delineation
activities.



Photograph No. 4

Date:
May 9, 2017

Description:
Looking west
during backhoe
trench activities at
sample point FS-
1a.



Photographic Documentation

Client: ETC Field Services, LLC

Prepared by: TRC Environmental Corp.

Project Name: A-14 Compressor Station Field Scrubber **Location:** Lea County, NM

Photograph No. 5

Date:

June 16, 2017

Description:
Looking east
following
excavation
activities.



Photograph No. 6

Date:

June 16, 2017

Description:
Looking east
following
excavation
activities.



Photographic Documentation

Client: ETC Field Services, LLC

Prepared by: TRC Environmental Corp.

Project Name: A-14 Compressor Station Field Scrubber **Location:** Lea County, NM

Photograph No. 7

Date:

June 16, 2017

Description:

**Looking northwest
following
excavation
activities.**



Photograph No. 8

Date:

June 16, 2017

Description:

**Looking west
following
excavation
activities.**



Analytical Report 549418

**for
TRC Solutions, Inc**

**Project Manager: Nikki Green
A14 Compressor Station**

03-APR-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), 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)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



03-APR-17

Project Manager: **Nikki Green**

TRC Solutions, Inc

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **549418**

A14 Compressor Station

Project Address: Lea County, NM

Nikki Green:

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) 549418. 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. 549418 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

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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 549418



TRC Solutions, Inc, Midland, TX

A14 Compressor Station

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BG-1 1'	S	03-23-17 16:45	- 1 ft	549418-001



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: A14 Compressor Station

Project ID:

Work Order Number(s): 549418

Report Date: 03-APR-17

Date Received: 03/24/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3013602 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analysis Summary 549418

TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station



Project Id:

Contact: Nikki Green

Project Location: Lea County, NM

Date Received in Lab: Fri Mar-24-17 02:55 pm

Report Date: 03-APR-17

Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	549418-001					
	Field Id:	BG-1 1'					
	Depth:	1 ft					
	Matrix:	SOIL					
	Sampled:	Mar-23-17 16:45					
BTEX by EPA 8021B	Extracted:	Mar-28-17 16:50					
	Analyzed:	Mar-29-17 01:58					
	Units/RL:	mg/kg RL					
Benzene		ND 0.00151					
Toluene		ND 0.00201					
Ethylbenzene		ND 0.00201					
m_p-Xylenes		ND 0.00201					
o-Xylene		ND 0.00301					
Total Xylenes		ND 0.00201					
Total BTEX		ND 0.00151					
Chloride by EPA 300 SUB: TX104704215	Extracted:	Apr-01-17 14:14					
	Analyzed:	Apr-02-17 11:11					
	Units/RL:	mg/kg RL					
Chloride		ND 9.96					
TPH By SW8015 Mod	Extracted:	Mar-24-17 17:00					
	Analyzed:	Mar-26-17 02:20					
	Units/RL:	mg/kg RL					
C6-C10 Gasoline Range Hydrocarbons		ND 15.0					
C10-C28 Diesel Range Organics		ND 15.0					
C28-C35 Oil Range Hydrocarbons		ND 15.0					
Total TPH		ND 15.0					

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

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

Kelsey Brooks
Project Manager

- 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

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 9701 Harry Hines Blvd, Dallas, TX 75220
 5332 Blackberry Drive, San Antonio TX 78238
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(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station

Work Orders : 549418,

Lab Batch #: 3013501

Sample: 549418-001 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/26/17 02:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.8	103	70-135	
o-Terphenyl	52.6	49.9	105	70-135	

Lab Batch #: 3013602

Sample: 549418-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 01:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0358	0.0300	119	80-120	
4-Bromofluorobenzene	0.0356	0.0300	119	80-120	

Lab Batch #: 3013501

Sample: 722214-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/26/17 01:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	52.7	50.0	105	70-135	

Lab Batch #: 3013602

Sample: 722269-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/29/17 01:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 3013501

Sample: 722214-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/26/17 01:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.4	100	92	70-135	
o-Terphenyl	46.3	50.0	93	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: A14 Compressor Station

Work Orders : 549418,

Lab Batch #: 3013602

Sample: 722269-1-BKS / BKS

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/29/17 00:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0341	0.0300	114	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 3013501

Sample: 722214-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/26/17 02:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	50.8	50.0	102	70-135	

Lab Batch #: 3013602

Sample: 722269-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/29/17 00:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0347	0.0300	116	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3013501

Sample: 549418-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/26/17 02:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.5	99.9	97	70-135	
o-Terphenyl	48.2	50.0	96	70-135	

Lab Batch #: 3013602

Sample: 549418-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 00:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0356	0.0300	119	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	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: A14 Compressor Station

Work Orders : 549418,

Lab Batch #: 3013501

Sample: 549418-001 SD / MSD

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/26/17 03:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.0	99.9	89	70-135	
o-Terphenyl	43.7	50.0	87	70-135	

Lab Batch #: 3013602

Sample: 549418-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 01:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0335	0.0300	112	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	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: A14 Compressor Station

Work Order #: 549418

Analyst: ALJ

Date Prepared: 03/28/2017

Project ID:

Date Analyzed: 03/29/2017

Lab Batch ID: 3013602

Sample: 722269-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	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
Analytes											
Benzene	<0.00149	0.0990	0.0886	89	0.100	0.0825	83	7	70-130	35	
Toluene	<0.00198	0.0990	0.0935	94	0.100	0.0856	86	9	70-130	35	
Ethylbenzene	<0.00198	0.0990	0.0942	95	0.100	0.0873	87	8	71-129	35	
m_p-Xylenes	<0.00198	0.198	0.183	92	0.201	0.171	85	7	70-135	35	
o-Xylene	<0.00297	0.0990	0.0965	97	0.100	0.0905	91	6	71-133	35	

Analyst: ALA

Date Prepared: 04/01/2017

Date Analyzed: 04/02/2017

Lab Batch ID: 3013954

Sample: 722482-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	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
Analytes											
Chloride	<1.00	10.0	9.91	99	10.0	9.77	98	1	80-120	20	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: A14 Compressor Station

Work Order #: 549418

Analyst: ARM

Date Prepared: 03/24/2017

Project ID:

Date Analyzed: 03/26/2017

Lab Batch ID: 3013501

Sample: 722214-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 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	908	91	1000	1040	104	14	70-135	35	
C10-C28 Diesel Range Organics	<15.0	1000	885	89	1000	1000	100	12	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: A14 Compressor Station

Work Order #: 549418

Project ID:

Lab Batch ID: 3013602

QC- Sample ID: 549418-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/29/2017

Date Prepared: 03/28/2017

Analyst: ALJ

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	<0.00151	0.100	0.0716	72	0.101	0.0798	79	11	70-130	35	
Toluene	<0.00201	0.100	0.0726	73	0.101	0.0815	81	12	70-130	35	
Ethylbenzene	<0.00201	0.100	0.0728	73	0.101	0.0819	81	12	71-129	35	
m_p-Xylenes	<0.00201	0.201	0.143	71	0.202	0.155	77	8	70-135	35	
o-Xylene	<0.00301	0.100	0.0713	71	0.101	0.0841	83	16	71-133	35	

Lab Batch ID: 3013954

QC- Sample ID: 549418-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/02/2017

Date Prepared: 04/01/2017

Analyst: ALA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 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
Chloride	<9.96	99.6	104	104	99.6	103	103	1	80-120	20	

Lab Batch ID: 3013954

QC- Sample ID: 549469-007 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/02/2017

Date Prepared: 04/01/2017

Analyst: ALA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 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
Chloride	29.4	99.0	132	104	99.0	131	103	1	80-120	20	

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

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

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.



Form 3 - MS / MSD Recoveries



Project Name: A14 Compressor Station

Work Order # : 549418

Project ID:

Lab Batch ID: 3013501

QC- Sample ID: 549418-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/26/2017

Date Prepared: 03/24/2017

Analyst: ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 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	<15.0	999	972	97	999	879	88	10	70-135	35	
C10-C28 Diesel Range Organics	<15.0	999	951	95	999	872	87	9	70-135	35	

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

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

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

Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 03/24/2017 02:55:00 PM

Work Order #: 549418

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)?	2.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seal present on shipping container/ cooler?	N/A
#5 *Custody Seals intact on shipping container/ cooler?	N/A
#6 Custody Seals intact on sample bottles?	N/A
#7 *Custody Seals Signed and dated?	N/A
#8 *Chain of Custody present?	Yes
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	N/A
#21 VOC samples have zero headspace?	N/A
#22 <2 for all samples preserved with HNO ₃ , HCL, H ₂ SO ₄ ? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	N/A
#23 >10 for all samples preserved with NaAsO ₂ +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:

Jessica Kramer

Jessica Kramer

Date: 03/24/2017

Checklist reviewed by:

Kelsey Brooks

Kelsey Brooks

Date: 03/27/2017

Analytical Report 549417

**for
TRC Solutions, Inc**

**Project Manager: Nikki Green
A14 Compressor Station Field Scrubber**

TRC #273817

04-APR-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), 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)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



04-APR-17

Project Manager: **Nikki Green**

TRC Solutions, Inc

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **549417**

A14 Compressor Station Field Scrubber

Project Address: Lea County, NM

Nikki Green:

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) 549417. 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. 549417 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

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TRC Solutions, Inc, Midland, TX

A14 Compressor Station Field Scrubber

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS-1 6"	S	03-23-17 13:25	- 6 In	549417-001
FS-1 1'	S	03-23-17 13:31	- 1 ft	549417-002
FS-2 6"	S	03-23-17 13:35	- 6 In	549417-003
FS-2 1'	S	03-23-17 13:42	- 1 ft	549417-004
FS-3 6"	S	03-23-17 13:47	- 6 In	549417-005
FS-3 1'	S	03-23-17 13:54	- 1 ft	549417-006
FS-4 6"	S	03-23-17 14:07	- 6 In	549417-007
FS-4 1'	S	03-23-17 14:20	- 1 ft	549417-008
FS-5 6"	S	03-23-17 14:28	- 6 In	549417-009
FS-5 1'	S	03-23-17 14:38	- 1 ft	549417-010
WFS-1 1'	S	03-23-17 14:48	- 1 ft	549417-011
EFS-1 1'	S	03-23-17 14:58	- 1 ft	549417-012
SFS-1 1'	S	03-23-17 15:09	- 1 ft	549417-013
NFS-2 1'	S	03-23-17 15:23	- 1 ft	549417-014
SFS-2 1'	S	03-23-17 15:37	- 1 ft	549417-015
SFS-3 1'	S	03-23-17 15:30	- 1 ft	549417-016
NFS-3 1'	S	03-23-17 16:10	- 1 ft	549417-017



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: A14 Compressor Station Field Scrubber

Project ID: TRC #273817
Work Order Number(s): 549417

Report Date: 04-APR-17
Date Received: 03/24/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3013589 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3013602 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analysis Summary 549417

TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station Field Scrubber



Project Id: TRC #273817
Contact: Nikki Green
Project Location: Lea County, NM

Date Received in Lab: Fri Mar-24-17 02:55 pm
Report Date: 04-APR-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	549417-001	549417-002	549417-003	549417-004	549417-005	549417-006
	Field Id:	FS-1 6"	FS-1 1'	FS-2 6"	FS-2 1'	FS-3 6"	FS-3 1'
	Depth:	6 In	1 ft	6 In	1 ft	6 In	1 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Mar-23-17 13:25	Mar-23-17 13:31	Mar-23-17 13:35	Mar-23-17 13:42	Mar-23-17 13:47	Mar-23-17 13:54
BTEX by EPA 8021B	Extracted:	Mar-28-17 15:30	Mar-28-17 15:30	Mar-28-17 15:30	Mar-28-17 15:30	Mar-28-17 15:30	Mar-28-17 15:30
	Analyzed:	Mar-28-17 18:38	Mar-28-17 18:54	Mar-28-17 19:10	Mar-28-17 19:26	Mar-28-17 19:42	Mar-28-17 19:59
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		ND 0.00149	ND 0.00151	ND 0.00149	ND 0.00147	ND 0.00147	ND 0.00150
Toluene		ND 0.00198	ND 0.00201	ND 0.00199	ND 0.00196	ND 0.00196	ND 0.00200
Ethylbenzene		ND 0.00198	ND 0.00201	ND 0.00199	ND 0.00196	0.0209 0.00196	0.0144 0.00200
m_p-Xylenes		0.00480 0.00198	ND 0.00201	ND 0.00199	ND 0.00196	0.146 0.00196	0.119 0.00200
o-Xylene		ND 0.00297	ND 0.00301	ND 0.00298	ND 0.00295	0.129 0.00294	0.104 0.00299
Total Xylenes		0.00480 0.00198	ND 0.00201	ND 0.00199	ND 0.00196	0.275 0.00196	0.223 0.00200
Total BTEX		0.00480 0.00149	ND 0.00151	ND 0.00149	ND 0.00147	0.296 0.00147	0.237 0.00150
Chloride by EPA 300 SUB: TX104704215	Extracted:	Apr-01-17 13:54	Apr-01-17 13:54	Apr-01-17 13:54	Apr-01-17 13:54	Apr-01-17 13:54	Apr-01-17 13:54
	Analyzed:	Apr-02-17 05:39	Apr-02-17 05:48	Apr-02-17 05:57	Apr-02-17 06:07	Apr-02-17 06:16	Apr-02-17 06:25
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		7910 D 99.8	3040 D 96.3	6160 D 98.8	5970 D 99.6	5820 D 99.6	4870 D 99.8
TPH By SW8015 Mod	Extracted:	Mar-24-17 17:00	Mar-24-17 17:00	Mar-24-17 17:00	Mar-24-17 17:00	Mar-24-17 17:00	Mar-24-17 17:00
	Analyzed:	Mar-25-17 17:39	Mar-25-17 18:00	Mar-25-17 18:20	Mar-27-17 06:24	Mar-25-17 19:01	Mar-25-17 19:23
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C10 Gasoline Range Hydrocarbons		770 74.8	20.8 15.0	730 74.9	96.6 15.0	2370 74.9	1880 74.9
C10-C28 Diesel Range Organics		3260 74.8	508 15.0	7120 74.9	1570 15.0	21300 74.9	22700 74.9
C28-C35 Oil Range Hydrocarbons		244 74.8	45.2 15.0	656 74.9	179 15.0	2620 74.9	2710 74.9
Total TPH		4270 74.8	574 15.0	8510 74.9	1850 15.0	26300 74.9	27300 74.9

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 549417

TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station Field Scrubber



Project Id: TRC #273817
Contact: Nikki Green
Project Location: Lea County, NM

Date Received in Lab: Fri Mar-24-17 02:55 pm
Report Date: 04-APR-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	549417-007	549417-008	549417-009	549417-010	549417-011	549417-012
	Field Id:	FS-4 6"	FS-4 1'	FS-5 6"	FS-5 1'	WFS-1 1'	EFS-1 1'
	Depth:	6 In	1 ft	6 In	1 ft	1 ft	1 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Mar-23-17 14:07	Mar-23-17 14:20	Mar-23-17 14:28	Mar-23-17 14:38	Mar-23-17 14:48	Mar-23-17 14:58
BTEX by EPA 8021B	Extracted:	Mar-28-17 16:50	Mar-28-17 16:50	Mar-28-17 15:30	Mar-28-17 15:30	Mar-28-17 16:50	Mar-28-17 16:50
	Analyzed:	Mar-29-17 12:30	Mar-29-17 11:08	Mar-28-17 21:20	Mar-28-17 21:37	Mar-29-17 11:24	Mar-29-17 11:41
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		ND 0.00270	ND 0.00275	ND 0.00149	ND 0.00148	ND 0.00267	ND 0.00254
Toluene		ND 0.00360	ND 0.00366	ND 0.00199	ND 0.00197	ND 0.00356	ND 0.00339
Ethylbenzene		ND 0.00360	ND 0.00366	ND 0.00199	ND 0.00197	ND 0.00356	ND 0.00339
m_p-Xylenes		ND 0.00360	ND 0.00366	ND 0.00199	ND 0.00197	ND 0.00356	ND 0.00339
o-Xylene		ND 0.00540	ND 0.00549	ND 0.00298	ND 0.00296	ND 0.00534	ND 0.00508
Total Xylenes		ND 0.00360	ND 0.00366	ND 0.00199	ND 0.00197	ND 0.00356	ND 0.00339
Total BTEX		ND 0.00270	ND 0.00275	ND 0.00149	ND 0.00148	ND 0.00267	ND 0.00254
Chloride by EPA 300 SUB: TX104704215	Extracted:	Apr-01-17 15:46	Apr-01-17 15:46	Apr-01-17 15:46	Apr-01-17 15:46	Apr-01-17 15:46	Apr-01-17 15:46
	Analyzed:	Apr-02-17 16:20	Apr-02-17 16:48	Apr-02-17 16:57	Apr-02-17 17:07	Apr-02-17 17:16	Apr-02-17 17:44
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		ND 9.96	ND 9.94	10.8 9.92	20.6 9.88	13.7 9.98	45.2 9.77
TPH By SW8015 Mod	Extracted:	Mar-24-17 17:00	Mar-24-17 17:00	Mar-24-17 17:00	Mar-24-17 17:00	Mar-24-17 17:00	Mar-24-17 17:00
	Analyzed:	Mar-25-17 19:44	Mar-25-17 20:03	Mar-25-17 20:25	Mar-25-17 20:46	Mar-25-17 21:48	Mar-25-17 22:11
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C10 Gasoline Range Hydrocarbons		ND 15.0	ND 15.0	ND 15.0	ND 15.0	ND 14.9	ND 15.0
C10-C28 Diesel Range Organics		1730 15.0	1640 15.0	1590 15.0	2060 15.0	51.4 14.9	16.7 15.0
C28-C35 Oil Range Hydrocarbons		3260 15.0	3180 15.0	3090 15.0	3900 15.0	41.1 14.9	ND 15.0
Total TPH		4990 15.0	4820 15.0	4680 15.0	5960 15.0	92.5 14.9	16.7 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 549417

TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station Field Scrubber



Project Id: TRC #273817
Contact: Nikki Green
Project Location: Lea County, NM

Date Received in Lab: Fri Mar-24-17 02:55 pm
Report Date: 04-APR-17
Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	549417-013	549417-014	549417-015	549417-016	549417-017	
	<i>Field Id:</i>	SFS-1 1'	NFS-2 1'	SFS-2 1'	SFS-3 1'	NFS-3 1'	
	<i>Depth:</i>	1 ft	1 ft	1 ft	1 ft	1 ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Mar-23-17 15:09	Mar-23-17 15:23	Mar-23-17 15:37	Mar-23-17 15:30	Mar-23-17 16:10	
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-28-17 16:50	Mar-28-17 15:30	Mar-28-17 15:30	Mar-28-17 15:30	Mar-28-17 15:30	
	<i>Analyzed:</i>	Mar-29-17 11:57	Mar-28-17 22:42	Mar-28-17 22:59	Mar-28-17 23:15	Mar-28-17 23:31	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		ND 0.00262	ND 0.00148	ND 0.00149	ND 0.00151	ND 0.00152	
Toluene		ND 0.00350	ND 0.00198	ND 0.00199	ND 0.00201	ND 0.00202	
Ethylbenzene		ND 0.00350	ND 0.00198	ND 0.00199	ND 0.00201	ND 0.00202	
m_p-Xylenes		ND 0.00350	ND 0.00198	ND 0.00199	ND 0.00201	ND 0.00202	
o-Xylene		ND 0.00524	ND 0.00296	ND 0.00299	ND 0.00301	ND 0.00303	
Total Xylenes		ND 0.00350	ND 0.00198	ND 0.00199	ND 0.00201	ND 0.00202	
Total BTEX		ND 0.00262	ND 0.00148	ND 0.00149	ND 0.00151	ND 0.00152	
Chloride by EPA 300 SUB: TX104704215	<i>Extracted:</i>	Apr-01-17 15:46	Apr-01-17 15:46	Apr-01-17 15:46	Apr-01-17 15:46	Apr-01-17 15:46	
	<i>Analyzed:</i>	Apr-02-17 17:53	Apr-02-17 18:03	Apr-02-17 18:12	Apr-02-17 18:21	Apr-02-17 18:31	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		ND 9.96	84.3 9.88	49.4 9.92	108 10.0	ND 9.98	
TPH By SW8015 Mod	<i>Extracted:</i>	Mar-24-17 17:00	Mar-24-17 17:00	Mar-24-17 17:00	Mar-24-17 17:00	Mar-24-17 17:00	
	<i>Analyzed:</i>	Mar-25-17 22:32	Mar-25-17 23:34	Mar-25-17 23:55	Mar-26-17 00:15	Mar-26-17 00:36	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
C6-C10 Gasoline Range Hydrocarbons		ND 15.0	ND 15.0	ND 15.0	ND 15.0	ND 15.0	
C10-C28 Diesel Range Organics		17.9 15.0	448 15.0	99.8 15.0	180 15.0	513 15.0	
C28-C35 Oil Range Hydrocarbons		ND 15.0	131 15.0	ND 15.0	118 15.0	770 15.0	
Total TPH		17.9 15.0	579 15.0	99.8 15.0	298 15.0	1280 15.0	

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Kelsey Brooks
Project Manager

- 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

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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Lab Batch #: 3013500

Sample: 549417-001 / SMP

Project ID: TRC #273817

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 17:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.2	99.7	93	70-135	
o-Terphenyl	43.8	49.9	88	70-135	

Lab Batch #: 3013500

Sample: 549417-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 18:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.7	99.7	89	70-135	
o-Terphenyl	44.7	49.9	90	70-135	

Lab Batch #: 3013500

Sample: 549417-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 18:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.1	99.9	88	70-135	
o-Terphenyl	38.6	50.0	77	70-135	

Lab Batch #: 3013500

Sample: 549417-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 19:01

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.9	106	70-135	
o-Terphenyl	48.9	50.0	98	70-135	

Lab Batch #: 3013500

Sample: 549417-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 19:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.9	99.9	95	70-135	
o-Terphenyl	64.7	50.0	129	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: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Lab Batch #: 3013500

Sample: 549417-007 / SMP

Project ID: TRC #273817

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 19:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.3	100	97	70-135	
o-Terphenyl	48.6	50.0	97	70-135	

Lab Batch #: 3013500

Sample: 549417-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 20:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	99.8	104	70-135	
o-Terphenyl	52.8	49.9	106	70-135	

Lab Batch #: 3013500

Sample: 549417-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 20:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.7	100	100	70-135	
o-Terphenyl	50.1	50.0	100	70-135	

Lab Batch #: 3013500

Sample: 549417-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 20:46

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.6	99.7	99	70-135	
o-Terphenyl	51.1	49.9	102	70-135	

Lab Batch #: 3013500

Sample: 549417-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 21:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.2	99.6	88	70-135	
o-Terphenyl	44.5	49.8	89	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: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Lab Batch #: 3013500

Sample: 549417-012 / SMP

Project ID: TRC #273817

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 22:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.9	99.7	83	70-135	
o-Terphenyl	41.8	49.9	84	70-135	

Lab Batch #: 3013500

Sample: 549417-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 22:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.3	99.9	87	70-135	
o-Terphenyl	44.4	50.0	89	70-135	

Lab Batch #: 3013500

Sample: 549417-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 23:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.6	99.8	96	70-135	
o-Terphenyl	48.2	49.9	97	70-135	

Lab Batch #: 3013500

Sample: 549417-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 23:55

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.8	102	70-135	
o-Terphenyl	51.8	49.9	104	70-135	

Lab Batch #: 3013500

Sample: 549417-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/26/17 00:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.5	99.8	91	70-135	
o-Terphenyl	45.9	49.9	92	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: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Lab Batch #: 3013500

Sample: 549417-017 / SMP

Project ID: TRC #273817

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/26/17 00:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.3	99.9	97	70-135	
o-Terphenyl	50.2	50.0	100	70-135	

Lab Batch #: 3013500

Sample: 549417-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/27/17 06:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.1	99.8	94	70-135	
o-Terphenyl	39.0	49.9	78	70-135	

Lab Batch #: 3013589

Sample: 549417-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 18:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0314	0.0300	105	80-120	
4-Bromofluorobenzene	0.0245	0.0300	82	80-120	

Lab Batch #: 3013589

Sample: 549417-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 18:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 3013589

Sample: 549417-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 19:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0244	0.0300	81	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: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Lab Batch #: 3013589

Sample: 549417-004 / SMP

Project ID: TRC #273817

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 19:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0328	0.0300	109	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

Lab Batch #: 3013589

Sample: 549417-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 19:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	80-120	
4-Bromofluorobenzene	0.0257	0.0300	86	80-120	

Lab Batch #: 3013589

Sample: 549417-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 19:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	80-120	
4-Bromofluorobenzene	0.0240	0.0300	80	80-120	

Lab Batch #: 3013589

Sample: 549417-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 21:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0336	0.0300	112	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 3013589

Sample: 549417-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 21:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0316	0.0300	105	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: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Lab Batch #: 3013589

Sample: 549417-014 / SMP

Project ID: TRC #273817

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 22:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0334	0.0300	111	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 3013589

Sample: 549417-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 22:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0345	0.0300	115	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 3013589

Sample: 549417-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 23:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0342	0.0300	114	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 3013589

Sample: 549417-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 23:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0360	0.0300	120	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 3013602

Sample: 549417-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 11:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0337	0.0300	112	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: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Lab Batch #: 3013602

Sample: 549417-011 / SMP

Project ID: TRC #273817

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 11:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0340	0.0300	113	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Lab Batch #: 3013602

Sample: 549417-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 11:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0318	0.0300	106	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 3013602

Sample: 549417-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 11:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0351	0.0300	117	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 3013602

Sample: 549417-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 12:30

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0333	0.0300	111	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 3013500

Sample: 722213-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/25/17 16:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	51.7	50.0	103	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: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Lab Batch #: 3013589

Sample: 722268-1-BLK / BLK

Project ID: TRC #273817

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/28/17 17:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0341	0.0300	114	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 3013602

Sample: 722269-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/29/17 01:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 3013500

Sample: 722213-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/25/17 16:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.5	100	98	70-135	
o-Terphenyl	46.4	50.0	93	70-135	

Lab Batch #: 3013589

Sample: 722268-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/28/17 16:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0336	0.0300	112	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 3013602

Sample: 722269-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/29/17 00:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0341	0.0300	114	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	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: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Lab Batch #: 3013500

Sample: 722213-1-BSD / BSD

Project ID: TRC #273817

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/25/17 17:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.8	100	98	70-135	
o-Terphenyl	47.0	50.0	94	70-135	

Lab Batch #: 3013589

Sample: 722268-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/28/17 16:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0330	0.0300	110	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 3013602

Sample: 722269-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/29/17 00:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0347	0.0300	116	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3013500

Sample: 549417-013 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 22:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.0	99.7	96	70-135	
o-Terphenyl	46.8	49.9	94	70-135	

Lab Batch #: 3013589

Sample: 549416-026 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 17:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	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: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Lab Batch #: 3013602

Sample: 549418-001 S / MS

Project ID: TRC #273817

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 00:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0356	0.0300	119	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	80-120	

Lab Batch #: 3013500

Sample: 549417-013 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 23:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.3	99.7	88	70-135	
o-Terphenyl	41.6	49.9	83	70-135	

Lab Batch #: 3013589

Sample: 549416-026 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 17:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0345	0.0300	115	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 3013602

Sample: 549418-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 01:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0335	0.0300	112	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	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: A14 Compressor Station Field Scrubber

Work Order #: 549417

Project ID: TRC #273817

Analyst: ALJ

Date Prepared: 03/28/2017

Date Analyzed: 03/28/2017

Lab Batch ID: 3013589

Sample: 722268-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	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
Analytes											
Benzene	<0.00150	0.100	0.107	107	0.0998	0.0921	92	15	70-130	35	
Toluene	<0.00200	0.100	0.112	112	0.0998	0.0993	99	12	70-130	35	
Ethylbenzene	<0.00200	0.100	0.118	118	0.0998	0.104	104	13	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.228	114	0.200	0.200	100	13	70-135	35	
o-Xylene	<0.00301	0.100	0.119	119	0.0998	0.103	103	14	71-133	35	

Analyst: ALJ

Date Prepared: 03/28/2017

Date Analyzed: 03/29/2017

Lab Batch ID: 3013602

Sample: 722269-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	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
Analytes											
Benzene	<0.00149	0.0990	0.0886	89	0.100	0.0825	83	7	70-130	35	
Toluene	<0.00198	0.0990	0.0935	94	0.100	0.0856	86	9	70-130	35	
Ethylbenzene	<0.00198	0.0990	0.0942	95	0.100	0.0873	87	8	71-129	35	
m_p-Xylenes	<0.00198	0.198	0.183	92	0.201	0.171	85	7	70-135	35	
o-Xylene	<0.00297	0.0990	0.0965	97	0.100	0.0905	91	6	71-133	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



BS / BSD Recoveries



Project Name: A14 Compressor Station Field Scrubber

Work Order #: 549417

Project ID: TRC #273817

Analyst: ALA

Date Prepared: 04/01/2017

Date Analyzed: 04/02/2017

Lab Batch ID: 3013926

Sample: 722476-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	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
Analytes											
Chloride	<1.00	10.0	10.1	101	10.0	10.1	101	0	80-120	20	

Analyst: ALA

Date Prepared: 04/01/2017

Date Analyzed: 04/02/2017

Lab Batch ID: 3013961

Sample: 722491-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	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
Analytes											
Chloride	<1.00	10.0	9.75	98	10.0	9.99	100	2	80-120	20	

Analyst: ARM

Date Prepared: 03/24/2017

Date Analyzed: 03/25/2017

Lab Batch ID: 3013500

Sample: 722213-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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
Analytes											
C6-C10 Gasoline Range Hydrocarbons	<15.0	1000	918	92	1000	928	93	1	70-135	35	
C10-C28 Diesel Range Organics	<15.0	1000	931	93	1000	939	94	1	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 / MSD Recoveries



Project Name: A14 Compressor Station Field Scrubber

Work Order # : 549417

Project ID: TRC #273817

Lab Batch ID: 3013589

QC- Sample ID: 549416-026 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/28/2017

Date Prepared: 03/28/2017

Analyst: ALJ

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	<0.00150	0.0998	0.0874	88	0.0994	0.0811	82	7	70-130	35	
Toluene	<0.00200	0.0998	0.0879	88	0.0994	0.0795	80	10	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.0853	85	0.0994	0.0723	73	16	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.164	82	0.199	0.137	69	18	70-135	35	X
o-Xylene	<0.00299	0.0998	0.0903	90	0.0994	0.0744	75	19	71-133	35	

Lab Batch ID: 3013602

QC- Sample ID: 549418-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/29/2017

Date Prepared: 03/28/2017

Analyst: ALJ

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	<0.00151	0.100	0.0716	72	0.101	0.0798	79	11	70-130	35	
Toluene	<0.00201	0.100	0.0726	73	0.101	0.0815	81	12	70-130	35	
Ethylbenzene	<0.00201	0.100	0.0728	73	0.101	0.0819	81	12	71-129	35	
m_p-Xylenes	<0.00201	0.201	0.143	71	0.202	0.155	77	8	70-135	35	
o-Xylene	<0.00301	0.100	0.0713	71	0.101	0.0841	83	16	71-133	35	

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

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

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.



Form 3 - MS / MSD Recoveries



Project Name: A14 Compressor Station Field Scrubber

Work Order # : 549417

Project ID: TRC #273817

Lab Batch ID: 3013926

QC- Sample ID: 549416-014 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/02/2017

Date Prepared: 04/01/2017

Analyst: ALA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 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
Chloride	62.5	99.8	164	102	99.8	164	102	0	80-120	20	

Lab Batch ID: 3013926

QC- Sample ID: 549416-024 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/02/2017

Date Prepared: 04/01/2017

Analyst: ALA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 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
Chloride	34.8	98.8	136	102	98.8	136	102	0	80-120	20	

Lab Batch ID: 3013961

QC- Sample ID: 549417-007 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/02/2017

Date Prepared: 04/01/2017

Analyst: ALA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 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
Chloride	<9.96	99.6	103	103	99.6	103	103	0	80-120	20	

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

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

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.



Form 3 - MS / MSD Recoveries



Project Name: A14 Compressor Station Field Scrubber

Work Order # : 549417

Project ID: TRC #273817

Lab Batch ID: 3013961

QC- Sample ID: 549417-017 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/02/2017

Date Prepared: 04/01/2017

Analyst: ALA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 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
Chloride	<9.98	99.8	106	106	99.8	106	106	0	80-120	20	

Lab Batch ID: 3013500

QC- Sample ID: 549417-013 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/25/2017

Date Prepared: 03/24/2017

Analyst: ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 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	<15.0	997	961	96	997	864	87	11	70-135	35	
C10-C28 Diesel Range Organics	17.9	997	958	94	997	862	85	11	70-135	35	

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

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

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

12600 West I-20 East
Odessa, Texas 79765

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

1 of 2

Project Manager: Nikki Green

Project Name: A14 Compressor Station Field Scrubber

Company Name: TRC Environmental Corporation

Project #: TRC #: 273817

Company Address: 2057 Commerce Drive

Project Loc: Lea County, NM

City/State/Zip: Midland, Texas 79703

PO #:

Telephone No: 432.520.7720

Fax No:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: Nikki Green

e-mail:

rose.slade@energytransfer.com
ngreen@trcsolutions.com

(lab use only)

ORDER #: 549417

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	Matrix	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , 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 300.1	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
	FS-1 6"			3/23	1325		1	X								Soil	X													X
	FS-1 1'				1331		1	X								Soil	X													X
	FS-2 6"				1335		1	X								Soil	X													X
	FS-2 1'				1342		1	X								Soil	X													X
	FS-3 6"				1347		1	X								Soil	X													X
	FS-3 1'				1354		1	X								Soil	X													X
	FS-4 6"				1407		1	X								Soil	X													X
	FS-4 1'				1420		1	X								Soil	X													X
	FS-5 6"				1428		1	X								Soil	X													X
	FS-5 1'				1438		1	X								Soil	X													X
	WFS-1 1'				1448		1	X								Soil	X													X

Special Instructions:

Bill to Rose Slade at Energy Transfer.

Relinquished by: Nikki Green

Date: 3/24

Time: 1455

Received by: J. CAMERON

Date: 3/24

Time: 1455

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

Laboratory Comments:

Sample Containers Intact? ☒ Y

VOCs Free of Headspace? ☒ Y

Labels on container(s) ☒ Y

Custody seals on container(s) ☒ Y

Custody seals on cooler(s) ☒ Y

Sample Hand Delivered by Sampler/Client Rep. ? ☒ Y

by Courier? ☒ Y

Temperature U_f Temp: 12.1 IR ID: R-8

Corrected Temp: 2.2

Xenco Laboratories

The Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765

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

242

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Nikki Green

Project Name: A14 Compressor Station Field Scrubber

Company Name: TRC Environmental Corporation

Project #: TRC #: 273817

Company Address: 2057 Commerce Drive

Project Loc: Lea County, NM

City/State/Zip: Midland, Texas 79703

PO #:

Telephone No: 432.520.7720

Fax No:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: *Nikki Green* e-mail: rose.slade@energytransfer.com

nrgreen@trcsolutions.com

(lab use only)

ORDER #: 549417

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , 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 300.1	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT	
	EFS-1 1'			3/23	1458		1	X								Soil	X														X
	SFS-1 1'				1509		1	X								Soil	X														X
	NES-2 1'				1523		1	X								Soil	X														X
	SFS-2 1'				1537		1	X								Soil	X														X
	SFS-3 1'				1530		1	X								Soil	X														X
	NES-3 1'				1410		1	X								Soil	X														X
							1	X								Soil	X														X
							1	X								Soil	X														X
							1	X								Soil	X														X
							1	X								Soil	X														X
							1	X								Soil	X														X

Special Instructions:

Bill to Rose Slade at Energy Transfer.

Relinquished by: *Nikki Green*

Date: 3/24/17 Time: 1455

Received by: *Shanice*

Date: 3/24/17 Time: 1455

Relinquished by:

Date: Time:

Received by:

Date: Time:

Relinquished by:

Date: Time:

Received by: ELOTT

Date: Time:

Laboratory Comments:

Sample Containers Intact? Y

VOCs Free of Headspace? Y

Labels on container(s) Y

Custody seals on container(s) Y

Custody seals on cooler(s) Y

Sample Hand Delivered by Sampler? Y

Temperature U Temp: 21 IR ID: R-8

CF: +0.1 Corrected Temp: 22



XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 03/24/2017 02:55:00 PM

Work Order #: 549417

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)?	2.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seal present on shipping container/ cooler?	N/A
#5 *Custody Seals intact on shipping container/ cooler?	N/A
#6 Custody Seals intact on sample bottles?	N/A
#7 *Custody Seals Signed and dated?	N/A
#8 *Chain of Custody present?	Yes
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	N/A
#21 VOC samples have zero headspace?	N/A
#22 <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
#23 >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:

Jessica Kramer

Jessica Kramer

Date: 03/24/2017

Checklist reviewed by:

Kelsey Brooks

Kelsey Brooks

Date: 03/27/2017

Analytical Report 551537

**for
TRC Solutions, Inc**

**Project Manager: Nikki Green
A14 Compressor Station Field Scrubber**

TRC#273817

26-APR-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), 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)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



26-APR-17

Project Manager: **Nikki Green**

TRC Solutions, Inc

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **551537**

A14 Compressor Station Field Scrubber

Project Address: Lea County, NM

Nikki Green:

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) 551537. 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. 551537 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

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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 551537



TRC Solutions, Inc, Midland, TX

A14 Compressor Station Field Scrubber

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS-3 16"	S	04-17-17 13:40	- 16 In	551537-001
FS-5a 1'	S	04-17-17 14:30	- 1 ft	551537-002
FS-5a 16"	S	04-17-17 15:20	- 16 In	551537-003



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: A14 Compressor Station Field Scrubber

Project ID: TRC#273817
Work Order Number(s): 551537

Report Date: 26-APR-17
Date Received: 04/21/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3015680 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analysis Summary 551537

TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station Field Scrubber



Project Id: TRC#273817
Contact: Nikki Green
Project Location: Lea County, NM

Date Received in Lab: Fri Apr-21-17 11:39 am
Report Date: 26-APR-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	551537-001	551537-002	551537-003			
	Field Id:	FS-3 16"	FS-5a 1'	FS-5a 16"			
	Depth:	16 In	1 ft	16 In			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	Apr-17-17 13:40	Apr-17-17 14:30	Apr-17-17 15:20			
BTEX by EPA 8021B	Extracted:	Apr-24-17 08:00	Apr-24-17 08:00	Apr-24-17 08:00			
	Analyzed:	Apr-24-17 10:30	Apr-24-17 10:46	Apr-24-17 11:01			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
	Benzene	ND 0.00149	ND 0.00151	ND 0.00152			
	Toluene	0.00479 0.00198	ND 0.00201	ND 0.00202			
Ethylbenzene		0.00728 0.00198	ND 0.00201	ND 0.00202			
m_p-Xylenes		0.00625 0.00198	0.00389 0.00201	0.00517 0.00202			
o-Xylene		0.00401 0.00298	ND 0.00301	ND 0.00303			
Total Xylenes		0.0103 0.00198	0.00389 0.00201	0.00517 0.00202			
Total BTEX		0.0223 0.00149	0.00389 0.00151	0.00517 0.00152			
Chloride by EPA 300	Extracted:		Apr-24-17 09:00	Apr-24-17 09:00			
	Analyzed:		Apr-24-17 11:39	Apr-24-17 11:47			
	Units/RL:		mg/kg RL	mg/kg RL			
	Chloride		ND 4.88	ND 4.95			
TPH By SW8015 Mod	Extracted:	Apr-21-17 17:00	Apr-21-17 17:00	Apr-21-17 17:00			
	Analyzed:	Apr-22-17 16:34	Apr-22-17 16:53	Apr-22-17 17:12			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
	C6-C10 Gasoline Range Hydrocarbons	117 15.0	ND 15.0	ND 15.0			
	C10-C28 Diesel Range Organics	1480 15.0	1240 15.0	1110 15.0			
C28-C35 Oil Range Hydrocarbons		93.8 15.0	2310 15.0	2060 15.0			
Total TPH		1690 15.0	3550 15.0	3170 15.0			

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

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

Kelsey Brooks
Project Manager

- 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

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(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 551537,

Lab Batch #: 3015601

Sample: 551537-001 / SMP

Project ID: TRC#273817

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/22/17 16:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.1	99.7	98	70-135	
o-Terphenyl	38.6	49.9	77	70-135	

Lab Batch #: 3015601

Sample: 551537-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/22/17 16:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.8	113	70-135	
o-Terphenyl	59.2	49.9	119	70-135	

Lab Batch #: 3015601

Sample: 551537-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/22/17 17:12

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.8	105	70-135	
o-Terphenyl	52.7	49.9	106	70-135	

Lab Batch #: 3015680

Sample: 551537-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/24/17 10:30

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 3015680

Sample: 551537-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/24/17 10:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	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: A14 Compressor Station Field Scrubber

Work Orders : 551537,

Lab Batch #: 3015680

Sample: 551537-003 / SMP

Project ID: TRC#273817

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/24/17 11:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0252	0.0300	84	80-120	

Lab Batch #: 3015601

Sample: 723517-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/17 22:55

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	121	100	121	70-135	
o-Terphenyl	63.1	50.0	126	70-135	

Lab Batch #: 3015680

Sample: 723559-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/24/17 09:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0345	0.0300	115	80-120	
4-Bromofluorobenzene	0.0343	0.0300	114	80-120	

Lab Batch #: 3015601

Sample: 723517-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/17 23:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	98.0	100	98	70-135	
o-Terphenyl	50.2	50.0	100	70-135	

Lab Batch #: 3015680

Sample: 723559-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/24/17 08:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	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: A14 Compressor Station Field Scrubber

Work Orders : 551537,

Lab Batch #: 3015601

Sample: 723517-1-BSD / BSD

Project ID: TRC#273817

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/17 23:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	61.5	50.0	123	70-135	

Lab Batch #: 3015680

Sample: 723559-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/24/17 08:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 3015601

Sample: 551449-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/22/17 00:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99.8	107	70-135	
o-Terphenyl	50.6	49.9	101	70-135	

Lab Batch #: 3015680

Sample: 551542-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/24/17 08:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 3015601

Sample: 551449-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/22/17 00:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	99.9	114	70-135	
o-Terphenyl	55.5	50.0	111	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: A14 Compressor Station Field Scrubber

Work Orders : 551537,

Lab Batch #: 3015680

Sample: 551542-001 SD / MSD

Project ID: TRC#273817

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/24/17 09:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	80-120	
4-Bromofluorobenzene	0.0326	0.0300	109	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: A14 Compressor Station Field Scrubber

Work Order #: 551537

Project ID: TRC#273817

Analyst: ALJ

Date Prepared: 04/24/2017

Date Analyzed: 04/24/2017

Lab Batch ID: 3015680

Sample: 723559-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	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
Analytes											
Benzene	<0.00149	0.0994	0.107	108	0.0998	0.106	106	1	70-130	35	
Toluene	<0.00199	0.0994	0.0992	100	0.0998	0.108	108	8	70-130	35	
Ethylbenzene	<0.00199	0.0994	0.111	112	0.0998	0.109	109	2	71-129	35	
m_p-Xylenes	<0.00199	0.199	0.218	110	0.200	0.209	105	4	70-135	35	
o-Xylene	<0.00298	0.0994	0.105	106	0.0998	0.0967	97	8	71-133	35	

Analyst: MGO

Date Prepared: 04/24/2017

Date Analyzed: 04/24/2017

Lab Batch ID: 3015643

Sample: 723511-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	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
Analytes											
Chloride	<4.98	249	270	108	249	269	108	0	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: A14 Compressor Station Field Scrubber

Work Order #: 551537

Project ID: TRC#273817

Analyst: ARM

Date Prepared: 04/21/2017

Date Analyzed: 04/21/2017

Lab Batch ID: 3015601

Sample: 723517-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 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	974	97	1000	1040	104	7	70-135	35	
C10-C28 Diesel Range Organics	<15.0	1000	910	91	1000	1010	101	10	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 / MSD Recoveries



Project Name: A14 Compressor Station Field Scrubber

Work Order # : 551537

Project ID: TRC#273817

Lab Batch ID: 3015680

QC- Sample ID: 551542-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/24/2017

Date Prepared: 04/24/2017

Analyst: ALJ

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	<0.00151	0.100	0.0743	74	0.0998	0.0666	67	11	70-130	35	X
Toluene	<0.00201	0.100	0.0515	52	0.0998	0.0436	44	17	70-130	35	X
Ethylbenzene	<0.00201	0.100	0.0454	45	0.0998	0.0396	40	14	71-129	35	X
m_p-Xylenes	<0.00201	0.201	0.0856	43	0.200	0.0765	38	11	70-135	35	X
o-Xylene	<0.00301	0.100	0.0449	45	0.0998	0.0378	38	17	71-133	35	X

Lab Batch ID: 3015643

QC- Sample ID: 551526-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/24/2017

Date Prepared: 04/24/2017

Analyst: MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 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
Chloride	695	250	936	96	250	944	100	1	90-110	20	

Lab Batch ID: 3015601

QC- Sample ID: 551449-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/22/2017

Date Prepared: 04/21/2017

Analyst: ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 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	<15.0	998	953	95	999	1050	105	10	70-135	35	
C10-C28 Diesel Range Organics	61.3	998	1030	97	999	1080	102	5	70-135	35	

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

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

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
Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 04/21/2017 11:39:00 AM

Work Order #: 551537

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)?	3.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seal present on shipping container/ cooler?	N/A
#5 *Custody Seals intact on shipping container/ cooler?	N/A
#6 Custody Seals intact on sample bottles?	N/A
#7 *Custody Seals Signed and dated?	N/A
#8 *Chain of Custody present?	Yes
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	N/A
#21 VOC samples have zero headspace?	N/A
#22 <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
#23 >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:

Jessica Kramer

Jessica Kramer

Date: 04/21/2017

Checklist reviewed by:

Kelsey Brooks

Kelsey Brooks

Date: 04/21/2017



Certificate of Analysis Summary 553088

TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station Field Scrubber



Project Id: TRC#273817
Contact: Nikki Green
Project Location: Lea County, NM

Date Received in Lab: Fri May-12-17 01:13 pm
Report Date: 26-MAY-17
Project Manager: Liz Givens

<i>Analysis Requested</i>	<i>Lab Id:</i>	553088-001	553088-002	553088-003	553088-004	553088-005	553088-006
	<i>Field Id:</i>	FS -1a 4'	FS-1a 9'	FS-2a 4'	FS-2a 9'	FS-3a 4'	FS-3a 9'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	May-10-17 11:45	May-10-17 12:19	May-10-17 14:25	May-10-17 14:58	May-10-17 16:12	May-10-17 16:58
BTEX by EPA 8021B	<i>Extracted:</i>	May-16-17 15:00		May-16-17 15:00		May-16-17 15:00	
	<i>Analyzed:</i>	May-17-17 07:39		May-17-17 07:55		May-17-17 08:12	
	<i>Units/RL:</i>	mg/kg RL		mg/kg RL		mg/kg RL	
Benzene		<0.00201 0.00201		<0.00199 0.00199		<0.00200 0.00200	
Toluene		<0.00201 0.00201		<0.00199 0.00199		<0.00200 0.00200	
Ethylbenzene		<0.00201 0.00201		<0.00199 0.00199		<0.00200 0.00200	
m,p-Xylenes		<0.00402 0.00402		<0.00398 0.00398		<0.00399 0.00399	
o-Xylene		<0.00201 0.00201		<0.00199 0.00199		<0.00200 0.00200	
Total Xylenes		<0.00201 0.00201		<0.00199 0.00199		<0.00200 0.00200	
Total BTEX		<0.00201 0.00201		<0.00199 0.00199		<0.00200 0.00200	
Chloride by EPA 300	<i>Extracted:</i>	May-20-17 16:45	May-20-17 16:45	May-20-17 16:45	May-20-17 16:45	May-20-17 16:45	May-20-17 16:45
	<i>Analyzed:</i>	May-20-17 19:52	May-20-17 19:59	May-20-17 20:07	May-20-17 20:15	May-20-17 20:22	May-20-17 20:30
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		478 4.92	162 49.3	114 24.7	27.0 5.01	22.8 5.00	49.2 5.00
TPH by SW8015 Mod	<i>Extracted:</i>	May-15-17 14:00		May-15-17 14:00		May-15-17 14:00	
	<i>Analyzed:</i>	May-15-17 20:48		May-15-17 21:07		May-15-17 22:04	
	<i>Units/RL:</i>	mg/kg RL		mg/kg RL		mg/kg RL	
Gasoline Range Hydrocarbons		<15.0 15.0		<15.0 15.0		<14.9 14.9	
Diesel Range Organics		23.6 15.0		18.3 15.0		15.0 14.9	
Oil Range Hydrocarbons		<15.0 15.0		<15.0 15.0		<14.9 14.9	
Total TPH		23.6 15.0		18.3 15.0		15.0 14.9	

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

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

Kelsey Brooks
Project Manager

Analytical Report 553088

**for
TRC Solutions, Inc**

**Project Manager: Nikki Green
A14 Compressor Station Field Scrubber**

TRC#273817

26-MAY-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), 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)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



26-MAY-17

Project Manager: **Nikki Green**

TRC Solutions, Inc

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **553088**

A14 Compressor Station Field Scrubber

Project Address: Lea County, NM

Nikki Green:

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) 553088. 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. 553088 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

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

Certified and approved by numerous States and Agencies.

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

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 553088



TRC Solutions, Inc, Midland, TX

A14 Compressor Station Field Scrubber

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS -1a 4'	S	05-10-17 11:45		553088-001
FS-1a 9'	S	05-10-17 12:19		553088-002
FS-2a 4'	S	05-10-17 14:25		553088-003
FS-2a 9'	S	05-10-17 14:58		553088-004
FS-3a 4'	S	05-10-17 16:12		553088-005
FS-3a 9'	S	05-10-17 16:58		553088-006



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: A14 Compressor Station Field Scrubber

Project ID: TRC#273817
Work Order Number(s): 553088

Report Date: 26-MAY-17
Date Received: 05/12/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3017621 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analytical Results 553088



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **FS -1a 4'**
Lab Sample Id: 553088-001

Matrix: Soil
Date Collected: 05.10.17 11.45

Date Received: 05.12.17 13.13

Analytical Method: Chloride by EPA 300
Tech: MGO
Analyst: MGO
Seq Number: 3017806

Prep Method: E300P
% Moisture:
Date Prep: 05.20.17 16.45
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	478	4.92	mg/kg	05.20.17 19.52		1

Analytical Method: TPH by SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3017485

Prep Method: TX1005P
% Moisture:
Date Prep: 05.15.17 14.00
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.15.17 20.48	U	1
Diesel Range Organics	C10C28DRO	23.6	15.0	mg/kg	05.15.17 20.48		1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	05.15.17 20.48	U	1
Total TPH	PHC635	23.6	15.0	mg/kg	05.15.17 20.48		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	99	%	70-135	05.15.17 20.48		
o-Terphenyl	84-15-1	101	%	70-135	05.15.17 20.48		



Certificate of Analytical Results 553088



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **FS -1a 4'**
Lab Sample Id: 553088-001

Matrix: Soil
Date Collected: 05.10.17 11.45

Date Received: 05.12.17 13.13

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.16.17 15.00

Basis: Wet Weight

Seq Number: 3017621

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.17.17 07.39	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.17.17 07.39	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.17.17 07.39	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.17.17 07.39	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.17.17 07.39	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.17.17 07.39	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.17.17 07.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	118	%	80-120	05.17.17 07.39		
1,4-Difluorobenzene	540-36-3	116	%	80-120	05.17.17 07.39		



Certificate of Analytical Results 553088



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **FS-1a 9'**
Lab Sample Id: 553088-002

Matrix: Soil
Date Collected: 05.10.17 12.19

Date Received: 05.12.17 13.13

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 05.20.17 16.45

Basis: Wet Weight

Seq Number: 3017806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	162	49.3	mg/kg	05.20.17 19.59		10



Certificate of Analytical Results 553088



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: FS-2a 4'
Lab Sample Id: 553088-003

Matrix: Soil
Date Collected: 05.10.17 14.25

Date Received: 05.12.17 13.13

Analytical Method: Chloride by EPA 300
Tech: MGO
Analyst: MGO
Seq Number: 3017806

Date Prep: 05.20.17 16.45

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	114	24.7	mg/kg	05.20.17 20.07		5

Analytical Method: TPH by SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3017485

Date Prep: 05.15.17 14.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.15.17 21.07	U	1
Diesel Range Organics	C10C28DRO	18.3	15.0	mg/kg	05.15.17 21.07		1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	05.15.17 21.07	U	1
Total TPH	PHC635	18.3	15.0	mg/kg	05.15.17 21.07		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	98	%	70-135	05.15.17 21.07		
o-Terphenyl	84-15-1	98	%	70-135	05.15.17 21.07		



Certificate of Analytical Results 553088



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **FS-2a 4'**
Lab Sample Id: 553088-003

Matrix: Soil
Date Collected: 05.10.17 14.25

Date Received: 05.12.17 13.13

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.16.17 15.00

Basis: Wet Weight

Seq Number: 3017621

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.17.17 07.55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.17.17 07.55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.17.17 07.55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.17.17 07.55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.17.17 07.55	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.17.17 07.55	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.17.17 07.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	87	%	80-120	05.17.17 07.55		
4-Bromofluorobenzene	460-00-4	85	%	80-120	05.17.17 07.55		



Certificate of Analytical Results 553088



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **FS-2a 9'**
Lab Sample Id: 553088-004

Matrix: Soil
Date Collected: 05.10.17 14.58

Date Received: 05.12.17 13.13

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 05.20.17 16.45

Basis: Wet Weight

Seq Number: 3017806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.0	5.01	mg/kg	05.20.17 20.15		1



Certificate of Analytical Results 553088



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: FS-3a 4'
Lab Sample Id: 553088-005

Matrix: Soil
Date Collected: 05.10.17 16.12

Date Received: 05.12.17 13.13

Analytical Method: Chloride by EPA 300
Tech: MGO
Analyst: MGO
Seq Number: 3017806

Date Prep: 05.20.17 16.45

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.8	5.00	mg/kg	05.20.17 20.22		1

Analytical Method: TPH by SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3017485

Date Prep: 05.15.17 14.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	05.15.17 22.04	U	1
Diesel Range Organics	C10C28DRO	15.0	14.9	mg/kg	05.15.17 22.04		1
Oil Range Hydrocarbons	PHCG2835	<14.9	14.9	mg/kg	05.15.17 22.04	U	1
Total TPH	PHC635	15.0	14.9	mg/kg	05.15.17 22.04		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	97	%	70-135	05.15.17 22.04		
o-Terphenyl	84-15-1	94	%	70-135	05.15.17 22.04		



Certificate of Analytical Results 553088



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **FS-3a 4'**
Lab Sample Id: 553088-005

Matrix: Soil
Date Collected: 05.10.17 16.12

Date Received: 05.12.17 13.13

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.16.17 15.00

Basis: Wet Weight

Seq Number: 3017621

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.17.17 08.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.17.17 08.12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.17.17 08.12	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.17.17 08.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.17.17 08.12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.17.17 08.12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.17.17 08.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	90	%	80-120	05.17.17 08.12		
1,4-Difluorobenzene	540-36-3	100	%	80-120	05.17.17 08.12		



Certificate of Analytical Results 553088



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **FS-3a 9'**
Lab Sample Id: 553088-006

Matrix: Soil
Date Collected: 05.10.17 16.58

Date Received: 05.12.17 13.13

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 05.20.17 16.45

Basis: Wet Weight

Seq Number: 3017806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	49.2	5.00	mg/kg	05.20.17 20.30		1

- 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

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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	

TRC Solutions, Inc
A14 Compressor Station Field Scrubber**Analytical Method: Chloride by EPA 300**

Seq Number: 3017806

MB Sample Id: 724934-1-BLK

Matrix: Solid

LCS Sample Id: 724934-1-BKS

Prep Method: E300P

Date Prep: 05.20.17

LCSD Sample Id: 724934-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	253	101	255	102	90-110	1	20	mg/kg	05.20.17 16:49	

Analytical Method: Chloride by EPA 300

Seq Number: 3017806

Parent Sample Id: 553084-001

Matrix: Soil

MS Sample Id: 553084-001 S

Prep Method: E300P

Date Prep: 05.20.17

MSD Sample Id: 553084-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	144	246	413	109	413	109	90-110	0	20	mg/kg	05.20.17 17:12	

Analytical Method: Chloride by EPA 300

Seq Number: 3017806

Parent Sample Id: 553084-005

Matrix: Soil

MS Sample Id: 553084-005 S

Prep Method: E300P

Date Prep: 05.20.17

MSD Sample Id: 553084-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	526	250	774	99	775	100	90-110	0	20	mg/kg	05.20.17 18:59	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3017485

MB Sample Id: 724731-1-BLK

Matrix: Solid

LCS Sample Id: 724731-1-BKS

Prep Method: TX1005P

Date Prep: 05.15.17

LCSD Sample Id: 724731-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	1000	960	96	915	92	70-135	5	35	mg/kg	05.15.17 16:53	
Diesel Range Organics	<15.0	1000	935	94	909	91	70-135	3	35	mg/kg	05.15.17 16:53	

Surrogate

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		113		110		70-135	%	05.15.17 16:53
o-Terphenyl	119		107		106		70-135	%	05.15.17 16:53



QC Summary 553088

TRC Solutions, Inc A14 Compressor Station Field Scrubber

Analytical Method: TPH by SW8015 Mod

Seq Number: 3017485

Parent Sample Id: 553084-001

Matrix: Soil

MS Sample Id: 553084-001 S

Prep Method: TX1005P

Date Prep: 05.15.17

MSD Sample Id: 553084-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	999	945	95	932	93	70-135	1	35	mg/kg	05.15.17 17:58	
Diesel Range Organics	19.5	999	939	92	927	91	70-135	1	35	mg/kg	05.15.17 17:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		105		70-135	%	05.15.17 17:58
o-Terphenyl	100		93		70-135	%	05.15.17 17:58

Analytical Method: BTEX by EPA 8021B

Seq Number: 3017621

MB Sample Id: 724725-1-BLK

Matrix: Solid

LCS Sample Id: 724725-1-BKS

Prep Method: SW5030B

Date Prep: 05.16.17

LCSD Sample Id: 724725-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0884	88	0.0888	89	70-130	0	35	mg/kg	05.16.17 15:59	
Toluene	<0.00202	0.101	0.0889	88	0.0944	94	70-130	6	35	mg/kg	05.16.17 15:59	
Ethylbenzene	<0.00202	0.101	0.100	99	0.0996	100	71-129	0	35	mg/kg	05.16.17 15:59	
m,p-Xylenes	<0.00403	0.202	0.202	100	0.201	100	70-135	0	35	mg/kg	05.16.17 15:59	
o-Xylene	<0.00202	0.101	0.0963	95	0.0964	96	71-133	0	35	mg/kg	05.16.17 15:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		106		118		80-120	%	05.16.17 15:59
4-Bromofluorobenzene	95		112		119		80-120	%	05.16.17 15:59

Analytical Method: BTEX by EPA 8021B

Seq Number: 3017621

Parent Sample Id: 553084-008

Matrix: Soil

MS Sample Id: 553084-008 S

Prep Method: SW5030B

Date Prep: 05.16.17

MSD Sample Id: 553084-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.00489	0.0996	0.0767	72	0.0763	71	70-130	1	35	mg/kg	05.16.17 17:03	
Toluene	<0.00199	0.0996	0.0826	83	0.0823	82	70-130	0	35	mg/kg	05.16.17 17:03	
Ethylbenzene	<0.00199	0.0996	0.0880	88	0.0770	77	71-129	13	35	mg/kg	05.16.17 17:03	
m,p-Xylenes	<0.00398	0.199	0.177	89	0.155	78	70-135	13	35	mg/kg	05.16.17 17:03	
o-Xylene	<0.00199	0.0996	0.0850	85	0.0820	82	71-133	4	35	mg/kg	05.16.17 17:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		103		80-120	%	05.16.17 17:03
4-Bromofluorobenzene	119		119		80-120	%	05.16.17 17:03

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: Nikki Green

Company Name: TRC Environmental Corporation

Company Address: 2057 Commerce Drive

City/State/Zip: Midland, Texas 79703

Telephone No: 432.520.7720

Sampler Signature: Nikki Green

Fax No: _____

e-mail: _____

rose.slade@energytransfer.com

nrgreen@trcsolutions.com

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Project Name: A14 Compressor Station Field Scrubber

Project #: TRC #: 273817

Project Loc: Lea County, NM

PO #: _____

(lab use only)

ORDER #: 553088

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , 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 300.1	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
	FS-1a 4'			5/10/2017	1145		1	X								Soil	X													X
	FS-1a 9'			5/10/2017	1219		1	X								Soil														X
	FS-2a 4'			5/10/2017	1425		1	X								Soil	X													X
	FS-2a 9'			5/10/2017	1458		1	X								Soil														X
	FS-3a 4'			5/10/2017	1612		1	X								Soil	X													X
	FS-3a 9'			5/10/2017	1658		1	X								Soil														X

Special Instructions:

Bill to Rose Slade at Energy Transfer.

Relinquished by: <u>Nikki Green</u>	Date: <u>5/12/17</u>	Time: <u>13:13</u>	Received by: <u>McNayga</u>	Date: <u>5/12/17</u>	Time: <u>13:13</u>
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____

Temp: 4.6 IR ID: R-9
CF: (0-6: 0.0°C) (6-23: +0.1°C)
Corrected Temp: 4.6

Temperature Upon Receipt: _____ °C

Laboratory Comments:

Sample Containers Intact? Y

VOCs Free of Headspace? Y

Labels on container(s) Y

Custody seals on container(s) Y

Custody seals on cooler(s) Y

Sample Hand Delivered by Sampler/Client Rep. ? Y

by Courier? UPS DHL FedEx Lone Star N



XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 05/12/2017 01:13:00 PM

Work Order #: 553088

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seal present on shipping container/ cooler?	N/A
#5 *Custody Seals intact on shipping container/ cooler?	N/A
#6 Custody Seals intact on sample bottles?	N/A
#7 *Custody Seals Signed and dated?	N/A
#8 *Chain of Custody present?	Yes
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	N/A Houston
#21 VOC samples have zero headspace?	N/A
#22 <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
#23 >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:

Marithza Anaya
Marithza Anaya

Date: 05/12/2017

Checklist reviewed by:

Holly Taylor
Holly Taylor

Date: 05/15/2017



Certificate of Analysis Summary 555475

TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station Field Scrubber



Project Id: TRC#273818
Contact: Nikki Green
Project Location: Lea County, NM

Date Received in Lab: Thu Jun-15-17 09:30 am
Report Date: 06-JUL-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	555475-001	555475-002	555475-003	555475-004	555475-005	555475-006
	Field Id:	BH-1 4'	SW-1 3'	NW-1 3'	BH-4 1'	EW-1 3'	BH-2 3'
	Depth:	4 ft	3 ft	3 ft	1 ft	3 ft	3 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Jun-13-17 11:51	Jun-13-17 12:05	Jun-13-17 12:17	Jun-14-17 17:00	Jun-13-17 12:22	Jun-14-17 10:00
BTEX by EPA 8021B	Extracted:	Jun-15-17 17:15	Jun-15-17 17:15	Jun-15-17 17:15	Jun-15-17 17:15	Jun-16-17 15:30	Jun-16-17 15:30
	Analyzed:	Jun-16-17 02:59	Jun-16-17 03:15	Jun-16-17 06:04	Jun-16-17 10:59	Jun-17-17 12:18	Jun-16-17 23:33
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00205 0.00205	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00205 0.00205	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00205 0.00205	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00401 0.00401	<0.00410 0.00410	<0.00398 0.00398	0.00511 0.00399	<0.00402 0.00402	<0.00401 0.00401
o-Xylene		<0.00200 0.00200	<0.00205 0.00205	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00205 0.00205	<0.00199 0.00199	0.00511 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00205 0.00205	<0.00199 0.00199	0.00511 0.00200	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	Extracted:	Jun-19-17 11:00	Jun-19-17 11:00	Jun-19-17 11:00	Jun-19-17 11:00	Jun-19-17 13:30	Jun-19-17 13:30
	Analyzed:	Jun-19-17 16:21	Jun-19-17 16:29	Jun-19-17 17:48	Jun-19-17 17:56	Jun-19-17 19:58	Jun-19-17 20:20
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		21.5 4.94	176 4.94	38.9 5.00	13.9 4.94	336 4.89	166 4.97
TPH by SW8015 Mod	Extracted:	Jun-15-17 15:00	Jun-15-17 15:00	Jun-15-17 15:00	Jun-15-17 15:00	Jun-15-17 15:00	Jun-15-17 15:00
	Analyzed:	Jun-15-17 23:27	Jun-15-17 23:47	Jun-16-17 00:06	Jun-16-17 00:27	Jun-16-17 00:47	Jun-16-17 01:08
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics		<15.0 15.0	<15.0 15.0	<15.0 15.0	128 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons		<15.0 15.0	<15.0 15.0	<15.0 15.0	187 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	315 15.0	<15.0 15.0	<15.0 15.0

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

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

Kelsey Brooks
Project Manager



Certificate of Analysis Summary 555475

TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station Field Scrubber



Project Id: TRC#273818
Contact: Nikki Green
Project Location: Lea County, NM

Date Received in Lab: Thu Jun-15-17 09:30 am
Report Date: 06-JUL-17
Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	555475-007	555475-008	555475-009			
	<i>Field Id:</i>	SW-2 2'	NW-2 2'	BH-5 1'			
	<i>Depth:</i>	2 ft	2 ft	1 ft			
	<i>Matrix:</i>	SOIL	SOIL	SOIL			
	<i>Sampled:</i>	Jun-14-17 10:15	Jun-14-17 10:27	Jun-14-17 17:05			
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-15-17 17:15	Jun-16-17 15:30	Jun-19-17 06:30			
	<i>Analyzed:</i>	Jun-16-17 11:32	Jun-17-17 12:35	Jun-19-17 13:22			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202			
Toluene		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202			
Ethylbenzene		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202			
m,p-Xylenes		<0.00398 0.00398	<0.00404 0.00404	<0.00403 0.00403			
o-Xylene		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202			
Total Xylenes		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202			
Total BTEX		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202			
Chloride by EPA 300	<i>Extracted:</i>	Jun-19-17 13:30	Jun-19-17 13:30	Jun-19-17 13:30			
	<i>Analyzed:</i>	Jun-19-17 20:28	Jun-19-17 20:36	Jun-19-17 20:43			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		55.1 4.92	186 24.8	11.7 5.00			
TPH by SW8015 Mod	<i>Extracted:</i>	Jun-15-17 15:00	Jun-15-17 15:00	Jun-15-17 15:00			
	<i>Analyzed:</i>	Jun-16-17 01:28	Jun-16-17 01:48	Jun-16-17 02:10			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons		<15.0 15.0	<15.0 15.0	<15.0 15.0			
Diesel Range Organics		<15.0 15.0	<15.0 15.0	26.3 15.0			
Oil Range Hydrocarbons		<15.0 15.0	<15.0 15.0	<15.0 15.0			
Total TPH		<15.0 15.0	<15.0 15.0	26.3 15.0			

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

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Kelsey Brooks
Project Manager

Analytical Report 555475

**for
TRC Solutions, Inc**

**Project Manager: Nikki Green
A14 Compressor Station Field Scrubber**

TRC#273818

06-JUL-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), 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)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



06-JUL-17

Project Manager: **Nikki Green**

TRC Solutions, Inc

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **555475**

A14 Compressor Station Field Scrubber

Project Address: Lea County, NM

Nikki Green:

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) 555475. 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. 555475 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

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Sample Cross Reference 555475



TRC Solutions, Inc, Midland, TX

A14 Compressor Station Field Scrubber

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1 4'	S	06-13-17 11:51	- 4 ft	555475-001
SW-1 3'	S	06-13-17 12:05	- 3 ft	555475-002
NW-1 3'	S	06-13-17 12:17	- 3 ft	555475-003
BH-4 1'	S	06-14-17 17:00	- 1 ft	555475-004
EW-1 3'	S	06-13-17 12:22	- 3 ft	555475-005
BH-2 3'	S	06-14-17 10:00	- 3 ft	555475-006
SW-2 2'	S	06-14-17 10:15	- 2 ft	555475-007
NW-2 2'	S	06-14-17 10:27	- 2 ft	555475-008
BH-5 1'	S	06-14-17 17:05	- 1 ft	555475-009



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: A14 Compressor Station Field Scrubber

Project ID: TRC#273818
Work Order Number(s): 555475

Report Date: 06-JUL-17
Date Received: 06/15/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3019915 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Benzene, Toluene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.

Samples in the analytical batch are: 555475-001, -002, -003, -004, -007

Lab Sample ID 555475-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 555475-001, -002, -003, -004, -007.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3020005 BTEX by EPA 8021B

Lab Sample ID 555475-006 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). m,p-Xylenes recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 555475-005, -006, -008.

The Laboratory Control Sample for m,p-Xylenes is within laboratory Control Limits, therefore the data was accepted.

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3020111 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **BH-1 4'** Matrix: Soil Date Received: 06.15.17 09.30
Lab Sample Id: 555475-001 Date Collected: 06.13.17 11.51 Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.19.17 11.00 Basis: Wet Weight
Seq Number: 3020141

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.5	4.94	mg/kg	06.19.17 16.21		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.15.17 15.00 Basis: Wet Weight
Seq Number: 3019902

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.15.17 23.27	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.15.17 23.27	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.15.17 23.27	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.15.17 23.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	06.15.17 23.27	
o-Terphenyl	84-15-1	103	%	70-135	06.15.17 23.27	



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **BH-1 4'**
Lab Sample Id: 555475-001

Matrix: Soil
Date Collected: 06.13.17 11.51

Date Received: 06.15.17 09.30
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.15.17 17.15

Basis: Wet Weight

Seq Number: 3019915

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.16.17 02.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.16.17 02.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.16.17 02.59	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.16.17 02.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.16.17 02.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.16.17 02.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.16.17 02.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	89	%	80-120	06.16.17 02.59		
4-Bromofluorobenzene	460-00-4	104	%	80-120	06.16.17 02.59		



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **SW-1 3'** Matrix: Soil Date Received: 06.15.17 09.30
Lab Sample Id: 555475-002 Date Collected: 06.13.17 12.05 Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.19.17 11.00 Basis: Wet Weight
Seq Number: 3020141

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	176	4.94	mg/kg	06.19.17 16.29		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.15.17 15.00 Basis: Wet Weight
Seq Number: 3019902

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.15.17 23.47	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.15.17 23.47	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.15.17 23.47	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.15.17 23.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	06.15.17 23.47	
o-Terphenyl	84-15-1	104	%	70-135	06.15.17 23.47	



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **SW-1 3'**
Lab Sample Id: 555475-002

Matrix: Soil
Date Collected: 06.13.17 12.05

Date Received: 06.15.17 09.30
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3019915

Date Prep: 06.15.17 17.15

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00205	0.00205	mg/kg	06.16.17 03.15	U	1
Toluene	108-88-3	<0.00205	0.00205	mg/kg	06.16.17 03.15	U	1
Ethylbenzene	100-41-4	<0.00205	0.00205	mg/kg	06.16.17 03.15	U	1
m,p-Xylenes	179601-23-1	<0.00410	0.00410	mg/kg	06.16.17 03.15	U	1
o-Xylene	95-47-6	<0.00205	0.00205	mg/kg	06.16.17 03.15	U	1
Total Xylenes	1330-20-7	<0.00205	0.00205	mg/kg	06.16.17 03.15	U	1
Total BTEX		<0.00205	0.00205	mg/kg	06.16.17 03.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	83	%	80-120	06.16.17 03.15		
4-Bromofluorobenzene	460-00-4	94	%	80-120	06.16.17 03.15		



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX

A14 Compressor Station Field Scrubber

Sample Id: **NW-1 3'**
Lab Sample Id: 555475-003

Matrix: Soil
Date Collected: 06.13.17 12.17

Date Received: 06.15.17 09.30
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300
Tech: MGO
Analyst: MGO
Seq Number: 3020141

Date Prep: 06.19.17 11.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	38.9	5.00	mg/kg	06.19.17 17.48		1

Analytical Method: TPH by SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3019902

Date Prep: 06.15.17 15.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.16.17 00.06	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.16.17 00.06	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.16.17 00.06	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.16.17 00.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	97	%	70-135	06.16.17 00.06		
o-Terphenyl	84-15-1	100	%	70-135	06.16.17 00.06		



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **NW-1 3'**
Lab Sample Id: 555475-003

Matrix: Soil
Date Collected: 06.13.17 12.17

Date Received: 06.15.17 09.30
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3019915

Date Prep: 06.15.17 17.15

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.16.17 06.04	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.16.17 06.04	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.16.17 06.04	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.16.17 06.04	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.16.17 06.04	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.16.17 06.04	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.16.17 06.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	80-120	06.16.17 06.04		
4-Bromofluorobenzene	460-00-4	98	%	80-120	06.16.17 06.04		



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **BH-4 1'**
Lab Sample Id: 555475-004

Matrix: Soil
Date Collected: 06.14.17 17.00

Date Received: 06.15.17 09.30
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300
Tech: MGO
Analyst: MGO
Seq Number: 3020141

Date Prep: 06.19.17 11.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.9	4.94	mg/kg	06.19.17 17.56		1

Analytical Method: TPH by SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3019902

Date Prep: 06.15.17 15.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.16.17 00.27	U	1
Diesel Range Organics	C10C28DRO	128	15.0	mg/kg	06.16.17 00.27		1
Oil Range Hydrocarbons	PHCG2835	187	15.0	mg/kg	06.16.17 00.27		1
Total TPH	PHC635	315	15.0	mg/kg	06.16.17 00.27		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	105	%	70-135	06.16.17 00.27		
o-Terphenyl	84-15-1	105	%	70-135	06.16.17 00.27		



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **BH-4 1'**
Lab Sample Id: 555475-004

Matrix: Soil
Date Collected: 06.14.17 17.00

Date Received: 06.15.17 09.30
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3019915

Date Prep: 06.15.17 17.15

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.16.17 10.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.16.17 10.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.16.17 10.59	U	1
m,p-Xylenes	179601-23-1	0.00511	0.00399	mg/kg	06.16.17 10.59		1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.16.17 10.59	U	1
Total Xylenes	1330-20-7	0.00511	0.00200	mg/kg	06.16.17 10.59		1
Total BTEX		0.00511	0.00200	mg/kg	06.16.17 10.59		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	80-120	06.16.17 10.59		
1,4-Difluorobenzene	540-36-3	95	%	80-120	06.16.17 10.59		



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **EW-1 3'** Matrix: Soil Date Received: 06.15.17 09.30
Lab Sample Id: 555475-005 Date Collected: 06.13.17 12.22 Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.19.17 13.30 Basis: Wet Weight
Seq Number: 3020148

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	336	4.89	mg/kg	06.19.17 19.58		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.15.17 15.00 Basis: Wet Weight
Seq Number: 3019902

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.16.17 00.47	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.16.17 00.47	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.16.17 00.47	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.16.17 00.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	06.16.17 00.47	
o-Terphenyl	84-15-1	105	%	70-135	06.16.17 00.47	



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **EW-1 3'**
Lab Sample Id: 555475-005

Matrix: Soil
Date Collected: 06.13.17 12.22

Date Received: 06.15.17 09.30
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3020005

Date Prep: 06.16.17 15.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.17.17 12.18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.17.17 12.18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.17.17 12.18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.17.17 12.18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.17.17 12.18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.17.17 12.18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.17.17 12.18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	82	%	80-120	06.17.17 12.18		
1,4-Difluorobenzene	540-36-3	96	%	80-120	06.17.17 12.18		



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **BH-2 3'** Matrix: Soil Date Received: 06.15.17 09.30
Lab Sample Id: 555475-006 Date Collected: 06.14.17 10.00 Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.19.17 13.30 Basis: Wet Weight
Seq Number: 3020148

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	166	4.97	mg/kg	06.19.17 20.20		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.15.17 15.00 Basis: Wet Weight
Seq Number: 3019902

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.16.17 01.08	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.16.17 01.08	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.16.17 01.08	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.16.17 01.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	94	%	70-135	06.16.17 01.08		
o-Terphenyl	84-15-1	96	%	70-135	06.16.17 01.08		



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **BH-2 3'**
Lab Sample Id: 555475-006

Matrix: Soil
Date Collected: 06.14.17 10.00

Date Received: 06.15.17 09.30
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3020005

Date Prep: 06.16.17 15.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.16.17 23.33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.16.17 23.33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.16.17 23.33	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.16.17 23.33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.16.17 23.33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.16.17 23.33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.16.17 23.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	80-120	06.16.17 23.33		
1,4-Difluorobenzene	540-36-3	108	%	80-120	06.16.17 23.33		



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX

A14 Compressor Station Field Scrubber

Sample Id: SW-2 2'
Lab Sample Id: 555475-007

Matrix: Soil
Date Collected: 06.14.17 10.15

Date Received: 06.15.17 09.30
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MGO

Analyst: MGO

Seq Number: 3020148

Date Prep: 06.19.17 13.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	55.1	4.92	mg/kg	06.19.17 20.28		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3019902

Date Prep: 06.15.17 15.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.16.17 01.28	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.16.17 01.28	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.16.17 01.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.16.17 01.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	06.16.17 01.28	
o-Terphenyl	84-15-1	102	%	70-135	06.16.17 01.28	



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **SW-2 2'**
Lab Sample Id: 555475-007

Matrix: Soil
Date Collected: 06.14.17 10.15

Date Received: 06.15.17 09.30
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3019915

Date Prep: 06.15.17 17.15

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.16.17 11.32	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.16.17 11.32	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.16.17 11.32	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.16.17 11.32	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.16.17 11.32	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.16.17 11.32	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.16.17 11.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	80-120	06.16.17 11.32		
1,4-Difluorobenzene	540-36-3	95	%	80-120	06.16.17 11.32		



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **NW-2 2'** Matrix: Soil Date Received: 06.15.17 09.30
Lab Sample Id: 555475-008 Date Collected: 06.14.17 10.27 Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.19.17 13.30 Basis: Wet Weight
Seq Number: 3020148

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	186	24.8	mg/kg	06.19.17 20.36		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.15.17 15.00 Basis: Wet Weight
Seq Number: 3019902

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.16.17 01.48	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.16.17 01.48	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.16.17 01.48	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.16.17 01.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	96	%	70-135	06.16.17 01.48		
o-Terphenyl	84-15-1	97	%	70-135	06.16.17 01.48		



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **NW-2 2'**
Lab Sample Id: 555475-008

Matrix: Soil
Date Collected: 06.14.17 10.27

Date Received: 06.15.17 09.30
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3020005

Date Prep: 06.16.17 15.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.17.17 12.35	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.17.17 12.35	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.17.17 12.35	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.17.17 12.35	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.17.17 12.35	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.17.17 12.35	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.17.17 12.35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	91	%	80-120	06.17.17 12.35		
4-Bromofluorobenzene	460-00-4	107	%	80-120	06.17.17 12.35		



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **BH-5 1'** Matrix: Soil Date Received: 06.15.17 09.30
Lab Sample Id: 555475-009 Date Collected: 06.14.17 17.05 Sample Depth: 1 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.19.17 13.30 Basis: Wet Weight
Seq Number: 3020148

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.7	5.00	mg/kg	06.19.17 20.43		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.15.17 15.00 Basis: Wet Weight
Seq Number: 3019902

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.16.17 02.10	U	1
Diesel Range Organics	C10C28DRO	26.3	15.0	mg/kg	06.16.17 02.10		1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.16.17 02.10	U	1
Total TPH	PHC635	26.3	15.0	mg/kg	06.16.17 02.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	06.16.17 02.10	
o-Terphenyl	84-15-1	96	%	70-135	06.16.17 02.10	



Certificate of Analytical Results 555475



TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **BH-5 1'**
Lab Sample Id: 555475-009

Matrix: Soil
Date Collected: 06.14.17 17.05

Date Received: 06.15.17 09.30
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3020111

Date Prep: 06.19.17 06.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.19.17 13.22	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.19.17 13.22	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.19.17 13.22	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.19.17 13.22	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.19.17 13.22	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.19.17 13.22	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.19.17 13.22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	80-120	06.19.17 13.22		
1,4-Difluorobenzene	540-36-3	94	%	80-120	06.19.17 13.22		

- 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

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TRC Solutions, Inc
A14 Compressor Station Field Scrubber**Analytical Method: Chloride by EPA 300**

Seq Number: 3020141

MB Sample Id: 726321-1-BLK

Matrix: Solid

LCS Sample Id: 726321-1-BKS

Prep Method: E300P

Date Prep: 06.19.17

LCSD Sample Id: 726321-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	249	100	246	98	90-110	1	20	mg/kg	06.19.17 11:27	

Analytical Method: Chloride by EPA 300

Seq Number: 3020148

MB Sample Id: 726322-1-BLK

Matrix: Solid

LCS Sample Id: 726322-1-BKS

Prep Method: E300P

Date Prep: 06.19.17

LCSD Sample Id: 726322-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	227	91	230	92	90-110	1	20	mg/kg	06.19.17 19:42	

Analytical Method: Chloride by EPA 300

Seq Number: 3020141

Parent Sample Id: 555462-001

Matrix: Soil

MS Sample Id: 555462-001 S

Prep Method: E300P

Date Prep: 06.19.17

MSD Sample Id: 555462-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5.64	247	249	99	252	100	90-110	1	20	mg/kg	06.19.17 13:13	

Analytical Method: Chloride by EPA 300

Seq Number: 3020141

Parent Sample Id: 555462-002

Matrix: Soil

MS Sample Id: 555462-002 S

Prep Method: E300P

Date Prep: 06.19.17

MSD Sample Id: 555462-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.2	246	257	100	257	100	90-110	0	20	mg/kg	06.19.17 14:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3020148

Parent Sample Id: 555360-001

Matrix: Soil

MS Sample Id: 555360-001 S

Prep Method: E300P

Date Prep: 06.19.17

MSD Sample Id: 555360-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	19.1	249	272	102	280	105	90-110	3	20	mg/kg	06.19.17 21:51	

Analytical Method: Chloride by EPA 300

Seq Number: 3020148

Parent Sample Id: 555475-005

Matrix: Soil

MS Sample Id: 555475-005 S

Prep Method: E300P

Date Prep: 06.19.17

MSD Sample Id: 555475-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	336	245	575	98	576	98	90-110	0	20	mg/kg	06.19.17 20:05	

TRC Solutions, Inc
A14 Compressor Station Field Scrubber

Analytical Method: TPH by SW8015 Mod

Seq Number: 3019902

MB Sample Id: 726219-1-BLK

Matrix: Solid

LCS Sample Id: 726219-1-BKS

Prep Method: TX1005P

Date Prep: 06.15.17

LCSD Sample Id: 726219-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	1000	1030	103	1050	105	70-135	2	35	mg/kg	06.15.17 21:08	
Diesel Range Organics	<15.0	1000	1040	104	1060	106	70-135	2	35	mg/kg	06.15.17 21:08	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	109		102		102		70-135	%	06.15.17 21:08			
o-Terphenyl	115		101		101		70-135	%	06.15.17 21:08			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3019902

Parent Sample Id: 555308-001

Matrix: Soil

MS Sample Id: 555308-001 S

Prep Method: TX1005P

Date Prep: 06.15.17

MSD Sample Id: 555308-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	998	1050	105	1000	100	70-135	5	35	mg/kg	06.15.17 22:07	
Diesel Range Organics	41.5	998	1070	103	1050	101	70-135	2	35	mg/kg	06.15.17 22:07	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane			109		111		70-135	%	06.15.17 22:07			
o-Terphenyl			107		106		70-135	%	06.15.17 22:07			

Analytical Method: BTEX by EPA 8021B

Seq Number: 3019915

MB Sample Id: 726203-1-BLK

Matrix: Solid

LCS Sample Id: 726203-1-BKS

Prep Method: SW5030B

Date Prep: 06.15.17

LCSD Sample Id: 726203-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0832	83	0.0822	81	70-130	1	35	mg/kg	06.16.17 01:06	
Toluene	<0.00200	0.100	0.0875	88	0.0793	79	70-130	10	35	mg/kg	06.16.17 01:06	
Ethylbenzene	<0.00200	0.100	0.100	100	0.0979	97	71-129	2	35	mg/kg	06.16.17 01:06	
m,p-Xylenes	<0.00401	0.200	0.190	95	0.178	89	70-135	7	35	mg/kg	06.16.17 01:06	
o-Xylene	<0.00200	0.100	0.103	103	0.0961	95	71-133	7	35	mg/kg	06.16.17 01:06	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1,4-Difluorobenzene	84		116		111		80-120	%	06.16.17 01:06			
4-Bromofluorobenzene	92		114		113		80-120	%	06.16.17 01:06			

TRC Solutions, Inc
A14 Compressor Station Field Scrubber

Analytical Method: BTEX by EPA 8021B

Seq Number: 3020005

MB Sample Id: 726253-1-BLK

Matrix: Solid

LCS Sample Id: 726253-1-BKS

Prep Method: SW5030B

Date Prep: 06.16.17

LCSD Sample Id: 726253-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0985	99	0.0982	99	70-130	0	35	mg/kg	06.16.17 21:39	
Toluene	<0.00200	0.100	0.0836	84	0.0896	90	70-130	7	35	mg/kg	06.16.17 21:39	
Ethylbenzene	<0.00200	0.100	0.0885	89	0.0952	96	71-129	7	35	mg/kg	06.16.17 21:39	
m,p-Xylenes	<0.00401	0.200	0.152	76	0.168	84	70-135	10	35	mg/kg	06.16.17 21:39	
o-Xylene	<0.00200	0.100	0.0785	79	0.0908	91	71-133	15	35	mg/kg	06.16.17 21:39	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		93		97		80-120	%	06.16.17 21:39
4-Bromofluorobenzene	83		81		101		80-120	%	06.16.17 21:39

Analytical Method: BTEX by EPA 8021B

Seq Number: 3020111

MB Sample Id: 726344-1-BLK

Matrix: Solid

LCS Sample Id: 726344-1-BKS

Prep Method: SW5030B

Date Prep: 06.19.17

LCSD Sample Id: 726344-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.105	105	0.101	101	70-130	4	35	mg/kg	06.19.17 08:20	
Toluene	<0.00199	0.0996	0.0888	89	0.0891	89	70-130	0	35	mg/kg	06.19.17 08:20	
Ethylbenzene	<0.00199	0.0996	0.106	106	0.101	101	71-129	5	35	mg/kg	06.19.17 08:20	
m,p-Xylenes	<0.00398	0.199	0.163	82	0.173	87	70-135	6	35	mg/kg	06.19.17 08:20	
o-Xylene	<0.00199	0.0996	0.0986	99	0.0960	96	71-133	3	35	mg/kg	06.19.17 08:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		85		96		80-120	%	06.19.17 08:20
4-Bromofluorobenzene	104		104		102		80-120	%	06.19.17 08:20

Analytical Method: BTEX by EPA 8021B

Seq Number: 3019915

Parent Sample Id: 555475-001

Matrix: Soil

MS Sample Id: 555475-001 S

Prep Method: SW5030B

Date Prep: 06.15.17

MSD Sample Id: 555475-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0349	35	0.0512	51	70-130	38	35	mg/kg	06.16.17 01:39	XF
Toluene	<0.00201	0.100	0.0365	37	0.0524	53	70-130	36	35	mg/kg	06.16.17 01:39	XF
Ethylbenzene	<0.00201	0.100	0.0630	63	0.0677	68	71-129	7	35	mg/kg	06.16.17 01:39	X
m,p-Xylenes	<0.00402	0.201	0.113	56	0.112	56	70-135	1	35	mg/kg	06.16.17 01:39	X
o-Xylene	<0.00201	0.100	0.0764	76	0.0866	87	71-133	13	35	mg/kg	06.16.17 01:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		89		80-120	%	06.16.17 01:39
4-Bromofluorobenzene	86		113		80-120	%	06.16.17 01:39

TRC Solutions, Inc
A14 Compressor Station Field Scrubber

Analytical Method: BTEX by EPA 8021B

Seq Number: 3020005

Parent Sample Id: 555475-006

Matrix: Soil

MS Sample Id: 555475-006 S

Prep Method: SW5030B

Date Prep: 06.16.17

MSD Sample Id: 555475-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00203	0.101	0.0914	90	0.0862	85	70-130	6	35	mg/kg	06.16.17 22:12	
Toluene	<0.00203	0.101	0.0810	80	0.0774	77	70-130	5	35	mg/kg	06.16.17 22:12	
Ethylbenzene	<0.00203	0.101	0.0832	82	0.0806	80	71-129	3	35	mg/kg	06.16.17 22:12	
m,p-Xylenes	<0.00406	0.203	0.146	72	0.140	69	70-135	4	35	mg/kg	06.16.17 22:12	X
o-Xylene	<0.00203	0.101	0.0820	81	0.0752	74	71-133	9	35	mg/kg	06.16.17 22:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		96		80-120	%	06.16.17 22:12
4-Bromofluorobenzene	102		99		80-120	%	06.16.17 22:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3020111

Parent Sample Id: 555245-021

Matrix: Soil

MS Sample Id: 555245-021 S

Prep Method: SW5030B

Date Prep: 06.19.17

MSD Sample Id: 555245-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00389	0.195	0.175	90	0.181	91	70-130	3	35	mg/kg	06.19.17 09:02	
Toluene	0.0115	0.195	0.157	75	0.170	80	70-130	8	35	mg/kg	06.19.17 09:02	
Ethylbenzene	<0.00389	0.195	0.171	88	0.168	85	71-129	2	35	mg/kg	06.19.17 09:02	
m,p-Xylenes	0.00913	0.389	0.297	74	0.300	74	70-135	1	35	mg/kg	06.19.17 09:02	
o-Xylene	<0.00389	0.195	0.161	83	0.167	84	71-133	4	35	mg/kg	06.19.17 09:02	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		94		80-120	%	06.19.17 09:02
4-Bromofluorobenzene	103		115		80-120	%	06.19.17 09:02

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: Nikki Green

Company Name: TRC Environmental Corporation

Company Address: 2057 Commerce Drive

City/State/Zip: Midland, Texas 79703

Telephone No: 432.520.7720

Sampler Signature: [Signature]

(lab use only)

ORDER #: 555475

Fax No:

e-mail:

rose.slade@energytransfer.com
ngreen@trcsolutions.com

Project Name: A14 Compressor Station Sump

Project #: TRC # 273818

Project Loc: Lea County, NM

PO #:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Analyze For:

TCLP:

TOTAL:

Metals: As Ag Ba Cd Cr Pb Hg Se

Volatiles

Semivolatiles

BTEX 8021B/5030 or BTEX 8260

RCI

N.O.R.M.

Chlorides E 300.1

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

Standard 3-Day TAT

LAB # (lab use only)

FIELD CODE

Beginning Depth

Ending Depth

Date Sampled

Time Sampled

Field Filtered

Total #. of Containers

Ice

HNO₃

HCl

H₂SO₄

NaOH

Na₂S₂O₃

None

Other (Specify)

DW=Drinking Water SL=Sludge

GW = Groundwater S=Soil/Solid

NP=Non-Potable Specify Other

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 8021B/5030 or BTEX 8260

RCI

N.O.R.M.

Chlorides E 300.1

RUSH TAT

(Pre-Schedule) 24, 48, 72 hrs

Standard 3-Day TAT

Special Instructions:

Bill to Rose Slade at Energy Transfer.

Relinquished by:

Relinquished by:

Relinquished by:

Date

Date

Date

Time

Time

Time

Received by:

Received by:

Received by:

Temp: 2.8

Temp: 2.8

Temp: 2.8

IR ID: R-8

IR ID: R-8

IR ID: R-8

Date

Date

Date

Time

Time

Time

Laboratory Comments:

Sample Containers Intact?

VOCs Free of Headspace?

Labels on container(s)?

Custody seals on container(s)?

Custody seals on cooler(s)?

Sample Hand Delivered by Sampler/Client Rep.?

by Courier? UPS DHL FedEx Lone Star

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

N

N

N

N

N

N



XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 06/15/2017 09:30:00 AM

Work Order #: 555475

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seal present on shipping container/ cooler?	N/A
#5 *Custody Seals intact on shipping container/ cooler?	N/A
#6 Custody Seals intact on sample bottles?	N/A
#7 *Custody Seals Signed and dated?	N/A
#8 *Chain of Custody present?	Yes
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	No
#21 VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by: Mary Alexis Negron
Mary Negron

Date: 06/15/2017

Checklist reviewed by: Holly Taylor
Holly Taylor

Date: 06/16/2017



Certificate of Analysis Summary 555847

TRC Solutions, Inc, Midland, TX

Project Name: A-14 Field Scrubber



Project Id:

Contact: Nikki Green

Project Location: Lea County, NM

Date Received in Lab: Wed Jun-21-17 08:40 am

Report Date: 26-JUN-17

Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	555847-001	555847-002	555847-003			
	Field Id:	BH-3 2'	NW-3 1'	SW-3 1'			
	Depth:	2- ft	1- ft	1- ft			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	Jun-15-17 14:00	Jun-15-17 14:00	Jun-15-17 14:00			
BTEX by EPA 8021B	Extracted:	Jun-24-17 11:30	Jun-24-17 11:30	Jun-24-17 11:30			
	Analyzed:	Jun-25-17 06:37	Jun-25-17 06:53	Jun-25-17 07:09			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202			
Toluene		<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202			
Ethylbenzene		<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202			
m,p-Xylenes		<0.00398 0.00398	<0.00402 0.00402	<0.00404 0.00404			
o-Xylene		<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202			
Total Xylenes		<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202			
Total BTEX		<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202			
Chloride by EPA 300	Extracted:	Jun-26-17 10:05	Jun-26-17 10:05	Jun-26-17 10:05			
	Analyzed:	Jun-26-17 11:58	Jun-26-17 12:05	Jun-26-17 12:13			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		61.0 4.99	114 4.97	20.6 4.97			
TPH by SW8015 Mod	Extracted:	Jun-24-17 16:00	Jun-24-17 16:00	Jun-24-17 16:00			
	Analyzed:	Jun-25-17 06:54	Jun-25-17 07:15	Jun-25-17 07:36			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons		<15.0 15.0	<15.0 15.0	<15.0 15.0			
Diesel Range Organics		37.3 15.0	65.7 15.0	<15.0 15.0			
Oil Range Hydrocarbons		<15.0 15.0	15.7 15.0	<15.0 15.0			
Total TPH		37.3 15.0	81.4 15.0	<15.0 15.0			

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

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

Kelsey Brooks
Project Manager

Analytical Report 555847

**for
TRC Solutions, Inc**

Project Manager: Nikki Green

A-14 Field Scrubber

26-JUN-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), 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)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



26-JUN-17

Project Manager: **Nikki Green**

TRC Solutions, Inc

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **555847**

A-14 Field Scrubber

Project Address: Lea County, NM

Nikki Green:

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) 555847. 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. 555847 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

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

Certified and approved by numerous States and Agencies.

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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 555847



TRC Solutions, Inc, Midland, TX

A-14 Field Scrubber

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-3 2'	S	06-15-17 14:00	2 ft	555847-001
NW-3 1'	S	06-15-17 14:00	1 ft	555847-002
SW-3 1'	S	06-15-17 14:00	1 ft	555847-003



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: A-14 Field Scrubber

Project ID:

Work Order Number(s): 555847

Report Date: 26-JUN-17

Date Received: 06/21/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3020665 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analytical Results 555847



TRC Solutions, Inc, Midland, TX

A-14 Field Scrubber

Sample Id: **BH-3 2'**
Lab Sample Id: 555847-001

Matrix: Soil
Date Collected: 06.15.17 14.00

Date Received: 06.21.17 08.40
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MGO

Analyst: MGO

Seq Number: 3020684

Date Prep: 06.26.17 10.05

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	61.0	4.99	mg/kg	06.26.17 11.58		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3020771

Date Prep: 06.24.17 16.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.25.17 06.54	U	1
Diesel Range Organics	C10C28DRO	37.3	15.0	mg/kg	06.25.17 06.54		1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.25.17 06.54	U	1
Total TPH	PHC635	37.3	15.0	mg/kg	06.25.17 06.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	06.25.17 06.54	
o-Terphenyl	84-15-1	99	%	70-135	06.25.17 06.54	



Certificate of Analytical Results 555847



TRC Solutions, Inc, Midland, TX

A-14 Field Scrubber

Sample Id: **BH-3 2'**
Lab Sample Id: 555847-001

Matrix: Soil
Date Collected: 06.15.17 14.00

Date Received: 06.21.17 08.40
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3020665

Date Prep: 06.24.17 11.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.25.17 06.37	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.25.17 06.37	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.25.17 06.37	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.25.17 06.37	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.25.17 06.37	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.25.17 06.37	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.25.17 06.37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	80-120	06.25.17 06.37		
4-Bromofluorobenzene	460-00-4	94	%	80-120	06.25.17 06.37		



Certificate of Analytical Results 555847



TRC Solutions, Inc, Midland, TX

A-14 Field Scrubber

Sample Id: **NW-3 1'**
Lab Sample Id: 555847-002

Matrix: Soil
Date Collected: 06.15.17 14.00

Date Received: 06.21.17 08.40
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300
Tech: MGO
Analyst: MGO
Seq Number: 3020684

Date Prep: 06.26.17 10.05

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	114	4.97	mg/kg	06.26.17 12.05		1

Analytical Method: TPH by SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3020771

Date Prep: 06.24.17 16.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.25.17 07.15	U	1
Diesel Range Organics	C10C28DRO	65.7	15.0	mg/kg	06.25.17 07.15		1
Oil Range Hydrocarbons	PHCG2835	15.7	15.0	mg/kg	06.25.17 07.15		1
Total TPH	PHC635	81.4	15.0	mg/kg	06.25.17 07.15		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	105	%	70-135	06.25.17 07.15		
o-Terphenyl	84-15-1	101	%	70-135	06.25.17 07.15		



Certificate of Analytical Results 555847



TRC Solutions, Inc, Midland, TX

A-14 Field Scrubber

Sample Id: NW-3 1'
Lab Sample Id: 555847-002

Matrix: Soil
Date Collected: 06.15.17 14.00

Date Received: 06.21.17 08.40
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.24.17 11.30

Basis: Wet Weight

Seq Number: 3020665

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.25.17 06.53	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.25.17 06.53	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.25.17 06.53	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.25.17 06.53	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.25.17 06.53	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.25.17 06.53	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.25.17 06.53	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	85		%	80-120	06.25.17 06.53	
1,4-Difluorobenzene	540-36-3	84		%	80-120	06.25.17 06.53	



Certificate of Analytical Results 555847



TRC Solutions, Inc, Midland, TX

A-14 Field Scrubber

Sample Id: SW-3 1'
Lab Sample Id: 555847-003

Matrix: Soil
Date Collected: 06.15.17 14.00

Date Received: 06.21.17 08.40
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MGO

Analyst: MGO

Seq Number: 3020684

Date Prep: 06.26.17 10.05

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.6	4.97	mg/kg	06.26.17 12.13		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3020771

Date Prep: 06.24.17 16.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.25.17 07.36	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.25.17 07.36	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.25.17 07.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.25.17 07.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	06.25.17 07.36	
o-Terphenyl	84-15-1	105	%	70-135	06.25.17 07.36	



Certificate of Analytical Results 555847



TRC Solutions, Inc, Midland, TX

A-14 Field Scrubber

Sample Id: SW-3 1'
Lab Sample Id: 555847-003

Matrix: Soil
Date Collected: 06.15.17 14.00

Date Received: 06.21.17 08.40
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.24.17 11.30

Basis: Wet Weight

Seq Number: 3020665

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.25.17 07.09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.25.17 07.09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.25.17 07.09	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.25.17 07.09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.25.17 07.09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.25.17 07.09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.25.17 07.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	80-120	06.25.17 07.09		
1,4-Difluorobenzene	540-36-3	95	%	80-120	06.25.17 07.09		

- 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

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(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	

TRC Solutions, Inc
A-14 Field Scrubber**Analytical Method: Chloride by EPA 300**

Seq Number: 3020684

MB Sample Id: 726721-1-BLK

Matrix: Solid

LCS Sample Id: 726721-1-BKS

Prep Method: E300P

Date Prep: 06.26.17

LCSD Sample Id: 726721-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	247	99	248	99	90-110	0	20	mg/kg	06.26.17 10:21	

Analytical Method: Chloride by EPA 300

Seq Number: 3020684

Parent Sample Id: 555846-002

Matrix: Soil

MS Sample Id: 555846-002 S

Prep Method: E300P

Date Prep: 06.26.17

MSD Sample Id: 555846-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5.85	247	245	97	244	96	90-110	0	20	mg/kg	06.26.17 12:36	

Analytical Method: Chloride by EPA 300

Seq Number: 3020684

Parent Sample Id: 556064-003

Matrix: Soil

MS Sample Id: 556064-003 S

Prep Method: E300P

Date Prep: 06.26.17

MSD Sample Id: 556064-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	16.6	246	261	99	259	99	90-110	1	20	mg/kg	06.26.17 10:49	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3020771

MB Sample Id: 726685-1-BLK

Matrix: Solid

LCS Sample Id: 726685-1-BKS

Prep Method: TX1005P

Date Prep: 06.24.17

LCSD Sample Id: 726685-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	1000	992	99	1020	102	70-135	3	35	mg/kg	06.25.17 00:55	
Diesel Range Organics	<15.0	1000	1010	101	979	98	70-135	3	35	mg/kg	06.25.17 00:55	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		108		114		70-135	%	06.25.17 00:55
o-Terphenyl	122		100		107		70-135	%	06.25.17 00:55

TRC Solutions, Inc
A-14 Field Scrubber

Analytical Method: TPH by SW8015 Mod

Seq Number: 3020771

Parent Sample Id: 555795-001

Matrix: Soil

MS Sample Id: 555795-001 S

Prep Method: TX1005P

Date Prep: 06.24.17

MSD Sample Id: 555795-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	997	1060	106	974	98	70-135	8	35	mg/kg	06.25.17 01:58	
Diesel Range Organics	<15.0	997	998	100	987	99	70-135	1	35	mg/kg	06.25.17 01:58	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		100		70-135	%	06.25.17 01:58
o-Terphenyl	101		98		70-135	%	06.25.17 01:58

Analytical Method: BTEX by EPA 8021B

Seq Number: 3020665

MB Sample Id: 726706-1-BLK

Matrix: Solid

LCS Sample Id: 726706-1-BKS

Prep Method: SW5030B

Date Prep: 06.24.17

LCSD Sample Id: 726706-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.107	107	0.0950	96	70-130	12	35	mg/kg	06.25.17 03:55	
Toluene	<0.00200	0.100	0.101	101	0.0876	88	70-130	14	35	mg/kg	06.25.17 03:55	
Ethylbenzene	<0.00200	0.100	0.111	111	0.0966	97	71-129	14	35	mg/kg	06.25.17 03:55	
m,p-Xylenes	<0.00401	0.200	0.200	100	0.173	87	70-135	14	35	mg/kg	06.25.17 03:55	
o-Xylene	<0.00200	0.100	0.106	106	0.0914	92	71-133	15	35	mg/kg	06.25.17 03:55	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		90		93		80-120	%	06.25.17 03:55
4-Bromofluorobenzene	98		93		92		80-120	%	06.25.17 03:55

Analytical Method: BTEX by EPA 8021B

Seq Number: 3020665

Parent Sample Id: 556138-002

Matrix: Soil

MS Sample Id: 556138-002 S

Prep Method: SW5030B

Date Prep: 06.24.17

MSD Sample Id: 556138-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0785	79	0.0898	90	70-130	13	35	mg/kg	06.25.17 04:27	
Toluene	<0.00200	0.100	0.0785	79	0.0795	80	70-130	1	35	mg/kg	06.25.17 04:27	
Ethylbenzene	<0.00200	0.100	0.0770	77	0.0764	76	71-129	1	35	mg/kg	06.25.17 04:27	
m,p-Xylenes	0.00688	0.200	0.144	69	0.135	64	70-135	6	35	mg/kg	06.25.17 04:27	X
o-Xylene	<0.00200	0.100	0.0771	77	0.0762	76	71-133	1	35	mg/kg	06.25.17 04:27	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		112		80-120	%	06.25.17 04:27
4-Bromofluorobenzene	116		112		80-120	%	06.25.17 04:27



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Dallas Texas (214-902-0300)

CHAIN OF CUSTODY

Page 1 OF 1

San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xencolab.com

Xenco Quote #

Xenco Job #

555847

Client / Reporting Information

Company Name / Branch:

TRC Environmental Corporation

Company Address:

2057 Commerce Drive
Midland, TX 79703

Email:

ngreen@trcsolutions.com

Project Contact:

NIKKI Green

Sample's Name

Phone No:

Project Information

Project Name/Number:

A-14 Field Scrubber

Project Location:

Lea County, NM

Invoice To:

Analytical Information

TPH by Method 8015M

BTEX by Method 2081B

Chloride by EPA 300.1

Matrix Codes

W = Water

S = Soil/Sed/Solid

GW = Ground Water

DW = Drinking Water

P = Product

SW = Surface water

SL = Sludge

OW = Ocean/Sea Water

WI = Wipe

O = Oil

WW = Waste Water

A = Air

Field Comments

Client / Reporting Information										Project Information										Analytical Information										Matrix Codes									
Company Name / Branch: TRC Environmental Corporation										Project Name/Number: A-14 Field Scrubber																													
Company Address: 2057 Commerce Drive Midland, TX 79703										Project Location: Lea County, NM																													
Email: ndgreen@trcsolutions.com										Phone No: Rose Slade, ETC Field Services, San Antonio																													
Project Contact: Nikki Green										PO Number:																													
Sampler's Name <i>Nikki Green</i>																																							
No.										Field ID / Point of Collection																													
										Collection																													
																				Number of preserved bottles																			

INVOICE TO ETC

Temp: 3.7 IR ID: R-8
CF: (0-6: 0.2°C)
(6-23: +0.2°C)
Corrected Temp: 3.5

On Ice Cooler Temp. Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at \$5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.



XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 06/21/2017 08:40:00 AM

Work Order #: 555847

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 Seal present on shipping container/ cooler?	N/A
#5 *Custody Seals intact on shipping container/ cooler?	N/A
#6 Custody Seals intact on sample bottles?	N/A
#7 *Custody Seals Signed and dated?	N/A
#8 *Chain of Custody present?	Yes
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	N/A
#21 VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Marithza Anaya

Date: 06/21/2017

Checklist reviewed by:

Kelsey Brooks

Date: 06/21/2017

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

• **OPERATOR** ☒ Initial Report ☐ Final Report

Name of Company: 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: A-14 (Field Scrubber)	Facility Type: Compressor Station	
Surface Owner: BLM	Mineral Owner: N/A	API No. N/A

LOCATION OF RELEASE

Unit Letter I	Section 6	Township 24S	Range 35E	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea
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Latitude **32.246183** Longitude: **-103.402000**

NATURE OF RELEASE

Type of Release: Crude Oil/ Produced water	Volume of Release: < 5 barrels	Volume Recovered: 0
Source of Release: Field Scrubber	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 2/23/17
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? Notification was given to Ms. Olivia Yu on 3/3/17 at approximately 8:19 AM	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.* N/A		

RECEIVED

By Olivia Yu at 12:52 pm, Mar 09, 2017

Describe Cause of Problem and Remedial Action Taken.*

On 2/23/17 ETC personnel discovered a crude oil & produced water release from the field scrubber due to a piece of tubing breaking off going into the field scrubber. During the initial response activities, ETC installed a new piece of tubing going into the field scrubber to prevent another incident.

Describe Area Affected and Cleanup Action Taken.* Fluid flowed from the release point to the southwest corner of the facility. The impacted area was approximately 3,000 square feet. A Site Assessment has been conducted by ETC personnel and an environmental company representing ETC. A work-plan is being written to submit to the NMOCD Hobbs District Office and the Bureau of Land Management (BLM)

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: <u>Rose L. Slade</u>		OIL CONSERVATION DIVISION	
Printed Name: Rose L. Slade		Approved by Environmental Specialist: 	
Title: Sr. Environmental Specialist		Approval Date: 3/9/2017	Expiration Date:
E-mail Address: Rose.Slade@energytransfer.com		Conditions of Approval:	
Date: 3/3/17 Phone: 210-403-6525		Attached ☒ see attached directive	

* Attach Additional Sheets If Necessary

1RP-4634

fOY1706953656

nOY1706954187

pOY1706955443

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 3/3/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 1R-4634 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 1 office in Hobbs on or before 4/10/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

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