

432.520.7720 PHONE 432.520.7701 FAX

www.trcsolutions.com

July 27, 2017

**APPROVED** By Olivia Yu at 3:52 pm, Aug 11, 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' 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, 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,

ikhi Steen

Nikki Green Project Manager TRC Environmental Corporation

### Attachments:

Jeffrey Kindley, PG Senior Project Manager TRC Environmental Corporation

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





DRAWING NAME: H:Nova\Project Files\ETC Field Services\A14 Compressor Stat Field ScrubberMaps CAD\New Maps\ Figure 3A Field Scrubber Release.dwg --- PLOT DATE: July 14, 2017 - 4:17PM --- LAYOUT: Layout1







#### 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													
	SAMDI E	SOIL			METHODS:	SW 846-8021b				METHOD:	SW 8015M		E 300.1
SAMPLE LOCATION	DATE	SUL	BENZENE	TOLUENE	ETHYL-	m, p -	0 -	TOTAL	TPH GRO	TPH DRO	TPH ORO	TOTAL TPH	CHLORIDE
		~		TODOLINE	BENZENE	XYLENES	XYLENE	BTEX	C <sub>6</sub> -C <sub>10</sub>	C <sub>10</sub> -C <sub>28</sub>	C <sub>28</sub> -C <sub>35</sub>	C <sub>6</sub> -C <sub>35</sub>	CHECKEDE
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													
	CAMDIE	SOIL			METHODS:	SW 846-8021b				METHOD:	SW 8015M		E 300.1
SAMPLE LOCATION	SAMPLE DATE	SOIL STATUS	BENZENE	TOLUENE	ETHYL- BENZENE	m, p - XYLENES	o - XYLENE	TOTAL BTEX	TPH GRO C <sub>6</sub> -C <sub>10</sub>	<b>TPH DRO</b> C <sub>10</sub> -C <sub>28</sub>	TPH ORO C <sub>28</sub> -C <sub>35</sub>	ТОТА <b>L ТРН</b> С <sub>6</sub> -С <sub>35</sub>	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

















# 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,

Huns hoah

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 Id BG-1 1' Sample Cross Reference 549418



TRC Solutions, Inc, Midland, TX

A14 Compressor Station

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

Page 3 of 15



## 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.



Project Id:Contact:Nikki GreenProject Location:Lea County, NM

Certificate of Analysis Summary 549418

TRC Solutions, Inc, Midland, TX Project Name: A14 Compressor Station



Date Received in Lab:Fri Mar-24-17 02:55 pmReport Date:03-APR-17Project Manager:Kelsey Brooks

	Lab Id:	549418-00	)1			
Analysis Paguested	Field Id:	BG-1 1'				
Analysis Kequestea	Depth:	1 ft				
	Matrix:	SOIL				
	Sampled:	Mar-23-17 1	6:45			
BTEX by EPA 8021B	Extracted:	Mar-28-17 1	6:50			
	Analyzed:	Mar-29-17 0	1:58			
	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	Extracted:	Apr-01-17 1	4:14			
SUB: TX104704215	Analyzed:	Apr-02-17 1	1:11			
	Units/RL:	mg/kg	RL			
Chloride		ND	9.96			
TPH By SW8015 Mod	Extracted:	Mar-24-17 1	7:00			
	Analyzed:	Mar-26-17 0	2:20			
	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.

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Huns Boah

Kelsey Brooks Project Manager



# **Flagging Criteria**



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

BRL Below Reporting Limit.

RL Reporting Limit

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

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

**DL** Method Detection Limit

NC Non-Calculable

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

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2525 W. Huntington Dr Suite 102, Tempe AZ 85282	(602) 437-0330	



# Form 2 - Surrogate Recoveries

# Project Name: A14 Compressor Station

Work Or Lab Batch	rders: 54941 #: 3013501	8, <b>Sample:</b> 549418-001 / SMP	Batcl	Project ID: h: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 03/26/17 02:20	SU	RROGATE R	ECOVERY S	STUDY	
	TPH I	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chlorooc	tane		103	99.8	103	70-135	
o-Terpheny	4		52.6	49.9	105	70-135	
Lab Batch	#: 3013602	Sample: 549418-001 / SMP	Batcl	h: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 03/29/17 01:58	SU	RROGATE R	ECOVERY S	STUDY	
	ВТЕХ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluor	obenzene	1 mary tes	0.0358	0.0300	119	80-120	
4-Bromoflu	lorobenzene		0.0356	0.0300	119	80-120	
Lab Batch	#• 3013501	Sample: 722214-1-BLK / BL	K Batcl	h· 1 Matrix	• Solid	00-120	
Units:	mg/kg	<b>Date Analyzed:</b> 03/26/17 01:18	SU		FCOVEDV	TUDV	
	g/g	2	30	KROGATE K			
TPH By SW8015 Mod			Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes					
1-Chlorooc	tane		102	100	102	70-135	
o-Terpheny	1		52.7	50.0	105	70-135	
Lab Batch	#: 3013602	<b>Sample:</b> 722269-1-BLK / BI	LK Batcl	h: 1 Matrix	: Solid		
Units:	mg/kg	Date Analyzed: 03/29/17 01:42	SU	RROGATE R	ECOVERY S	STUDY	
	ВТЕХ	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluor	obenzene		0.0280	0.0300	93	80-120	
4-Bromoflu	orobenzene		0.0293	0.0300	98	80-120	
Lab Batch	#: 3013501	Sample: 722214-1-BKS / BI	KS Batcl	h: 1 Matrix	: Solid		·
Units:	mg/kg	Date Analyzed: 03/26/17 01:40	SU	RROGATE R	ECOVERY S	STUDY	
	TPH I	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooc	tane		92.4	100	92	70-135	
o-Terpheny	ł		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 Or	<b>ders</b> : 54941	8, Sample: 722269-1-BKS / B	KS Batel	Project ID:	: Solid		
Units:	mg/kg	Date Analyzed: 03/29/17 00:20			ECOVEDV	TUDV	
	втех	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes					
1,4-Difluoro	obenzene		0.0341	0.0300	114	80-120	
4-Bromoflu	orobenzene		0.0273	0.0300	91	80-120	
Lab Batch	#: 3013501	<b>Sample:</b> 722214-1-BSD / B	SD Batch	h: 1 Matrix	: Solid		
Units:	mg/kg	<b>Date Analyzed:</b> 03/26/17 02:00	SU	RROGATE R	ECOVERY S	STUDY	
	TPH I	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		101	100	101	70-135	
o-Terpheny	1		50.8	50.0	101	70-135	
Lab Batch	#: 3013602	Sample: 722269-1-BSD / B	SD Batch	h: 1 Matrix	: Solid	10 100	
Units:	mg/kg	<b>Date Analyzed:</b> 03/29/17 00:36	SU	RROGATE R	ECOVERYS	STUDY	
	BTEX	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluoro	obenzene		0.0347	0.0300	116	80-120	
4-Bromoflu	orobenzene		0.0265	0.0300	88	80-120	
Lab Batch	#: 3013501	Sample: 549418-001 S / MS	Batch	h: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 03/26/17 02:41	SU	RROGATE R	ECOVERY S	STUDY	
	TPH I	3y SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		96.5	99.9	97	70-135	
o-Terpheny	1		48.2	50.0	96	70-135	
Lab Batch	#: 3013602	Sample: 549418-001 S / MS	Batch	h: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 03/29/17 00:53	SU	RROGATE R	ECOVERY S	STUDY	
	ВТЕХ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluoro	obenzene		0.0356	0.0300	119	80-120	
4-Bromoflu	orobenzene		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 O	rders: 54941	8,		Project ID:	:		
Lab Batch	<b>n #:</b> 3013501	Sample: 549418-001 SD / N	MSD Batc	h: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 03/26/17 03:03	SU	RROGATE R	ECOVERY S	STUDY	
	TPH I	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes					
1-Chlorooc	ctane		89.0	99.9	89	70-135	
o-Terpheny	yl		43.7	50.0	87	70-135	
Lab Batch	n#: 3013602	Sample: 549418-001 SD / N	MSD Batc	h: 1 Matrix	Soil		
Units:	mg/kg	Date Analyzed: 03/29/17 01:09	SU	RROGATE R	ECOVERY S	STUDY	
	BTEX	A polytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
		Analytes					
1,4-Difluor	robenzene		0.0335	0.0300	112	80-120	
4-Bromoflu	uorobenzene		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



						Pro	ject ID:				
D	ate Prepar	ed: 03/28/20	17			Date A	nalyzed: (	03/29/2017			
BKS	Batc	<b>h #:</b> 1		Matrix: Solid							
	BLAN	K /BLANK	SPIKE / 1	BLANK S	SPIKE DUP	LICATE	RECOVI	ERY STUE	ΟY		
Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag	
	[B]	[C]	[D]	[E]	Result [F]	[G]					
< 0.00149	0.0990	0.0886	89	0.100	0.0825	83	7	70-130	35		
< 0.00198	0.0990	0.0935	94	0.100	0.0856	86	9	70-130	35		
< 0.00198	<0.00198 0.0990 0.0942				0.0873	87	8	71-129	35		
< 0.00198	0.198	0.183	92	0.201	0.171	85	7	70-135	35		
< 0.00297	0.0990	0.0965	97	0.100	0.0905	91	6	71-133	35		
D	ate Prepar	red: 04/01/20	17			Date A	nalyzed: (	)4/02/2017			
BKS	Bate	<b>h #:</b> 1					Matrix: S	Solid			
	BLAN	K /BLANK	SPIKE / ]	BLANK S	SPIKE DUP	LICATE	RECOVI	ERY STUE	ΟY		
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	
<1.00	10.0	9.91	99	10.0	9.77	98	1	80-120	20		
	D -BKS Blank Sample Result [A] <0.00149 <0.00198 <0.00198 <0.00297 D -BKS Blank Sample Result [A] <1.00	Blank       Spike         Blank       Spike         Blank       Spike         Blank       Spike         Image: Spike       Added         Image: Spike       Image: Spike         Image: Spike       Added         Image: Spike       Added         Image: Spike       Image: Spike         Image: Spike       0.0990         Image: Spike       Spike         Image: Spike       Spike         Image: Spike       Added         Image: Spike       Image: Spike         Image: Spike       Image: Spike	Date Prepared:       03/28/20         -BKS       Batch #:       1         Blank       Spike       Blank         Sample Result       Added       Spike         [A]       [B]       [C]          <0.00149	Date Prepared: 03/28/2017         -BKS       Batch #: 1         BLANK /BLANK SPIKE / I         Blank       Spike       Blank       Blank       Spike       %R       Close       Spike       %R       Spike       Spike <td>Date Prepared: <math>03/28/2017</math>         -BKS       Batch #: 1         BLANK /BLANK SPIKE / BLANK S         Blank       Spike       Blank       Spike       Added         Sample Result       Spike       Blank       Blank       Spike       Added         [A]       [B]       [C]       [D]       [E]          &lt;0.00149</td> 0.0990       0.0886       89       0.100         <0.00198	Date Prepared: $03/28/2017$ -BKS       Batch #: 1         BLANK /BLANK SPIKE / BLANK S         Blank       Spike       Blank       Spike       Added         Sample Result       Spike       Blank       Blank       Spike       Added         [A]       [B]       [C]       [D]       [E]          <0.00149	Date Prepared: 03/28/2017           -BKS         Batch #: 1           BLANK /BLANK SPIKE / BLANK SPIKE DUP!           Blank         Spike         Blank         Blank         Spike         Added         Spike         Blank         Spike         Added         Spike         Blank         Spike         Added         Spike         Blank         Spike         Spike         Maded         Spike         Blank         Spike         Spike         Blank         Spike         Duplicate         Result [F]           < <0.00149	Pro           Date Preparet:         03/28/2017         Date A           Batch #:         1           BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE           Blank         Spike         Spike	Project ID:           Date Prepared:         03/28/2017         Date Analyzed:         Colspan="4">Colspan= 4.0.00Colspan="4">Colspan="4">Colspan="4">Colspan	Project ID:           Date Preparet: $03/28/2017$ Date Analyzed: $03/28/2017$ Bate Analyzed: $03/28/2017$ Bate Analyzed: $03/28/2017$ Bate Analyzed: $03/28/2017$ Bate Math: Sate Analyzed: $03/28/2017$ Bate Math: Sample Result         Matrix: Solid           Blank         Spike Added         Spike Added	Project ID:           Date Prepare: $03/28/2017$ Date Prepare: $03/28/2017$ Bate Mark: Solid           Bate Mark: Solid           Blank         Spike Blank         Spike Added         Spike Added <th colspa="&lt;/td"></th>	

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	Project ID:											
Analyst:	ARM	D	ate Prepar	red: 03/24/20	17	<b>Date Analyzed:</b> 03/26/2017							
Lab Batch ID:	: 3013501 Sample: 722214-	1-BKS	<b>Batch #:</b> 1				Matrix: Solid						
Units:	mg/kg		BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag		
Analy	/tes		[B]	[C]	[D]	[E]	Result [F]	[G]					
C6-C10 G	asoline Range Hydrocarbons	<15.0	1000	908	91	1000	1040	104	14	70-135	35		
C10-C28 I	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**



<b>Work Order # :</b> 549418						Project II	):				
Lab Batch ID: 3013602	QC- Sample ID:	549418	-001 S	Ba	tch #:	1 Matri	x: Soil				
<b>Date Analyzed:</b> 03/29/2017	Date Prepared:	03/28/2	017	Ar	alyst: A	ALJ					
<b>Reporting Units:</b> mg/kg		N	IATRIX SPIK	E / MAT	'RIX SPI	KE DUPLICA	TE REC	OVERY	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
Bangana	<0.00151	0.100	0.0716	72	0.101	0.0708	70	11	70.120	25	
Benzene	<0.00151	0.100	0.0716	72	0.101	0.0798	19	11	70-130	35	
I oluene	<0.00201	0.100	0.0720	73	0.101	0.0815	81	12	70-130	25	
Euryidenzene w. a. Yulanos	<0.00201	0.100	0.0728	75	0.101	0.0819	81	0	70.125	25	
o-Xvlene	<0.00201	0.201	0.143	71	0.202	0.133	83	16	71-133	35	
Lab Batch ID: 3013954	OC- Sample ID:	549418	-001 S	Ba	tch #:	1 Matri	x: Soil		<u>.</u>	<u>                                     </u>	
<b>Date Analyzed:</b> 04/02/2017	Date Prepared: 04/01/2017 Analyst: ALA										
<b>Reporting Units:</b> mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
Chloride by EPA 300	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Chloride	<9.96	99.6	104	104	00.6	103	103	1	80.120	20	
			104	104	<i>))</i> .0	105	105	1	00-120	20	
Lab Batch ID: 3013954	QC- Sample ID:	549469	-007 S	104 Ba	itch #:	1 Matri	x: Soil		80-120	20	
Lab Batch ID:         3013954           Date Analyzed:         04/02/2017	QC- Sample ID: Date Prepared:	549469 04/01/2	-007 S 017	Ba Ar	itch #: nalyst: A	1 Matri	x: Soil	1	80-120		
Lab Batch ID:         3013954           Date Analyzed:         04/02/2017           Reporting Units:         mg/kg	QC- Sample ID: Date Prepared:	549469 04/01/2 <b>N</b>	-007 S 017 IATRIX SPIK	Ba Ar E / MAT	ntch #: nalyst: /	1 Matri ALA KE DUPLICA	x: Soil	OVERY	STUDY		
Lab Batch ID:3013954Date Analyzed:04/02/2017Reporting Units:mg/kgChloride by EPA 300	QC- Sample ID: Date Prepared: Parent Sample Result	549469 04/01/2 N Spike	-007 S 017 IATRIX SPIK Spiked Sample Result	Ba Ar E / MAT Spiked Sample %B	itch #: nalyst: A 'RIX SPI Spike	1 Matri ALA KE DUPLICA Duplicate Spiked Sample Result [F]	x: Soil TE REC Spiked Dup. %R	OVERY RPD	STUDY Control Limits %B	Control Limits %RPD	Flag
Lab Batch ID: 3013954 Date Analyzed: 04/02/2017 Reporting Units: mg/kg Chloride by EPA 300 Analytes	QC- Sample ID: Date Prepared: Parent Sample Result [A]	549469 04/01/2 N Spike Added [B]	-007 S 017 IATRIX SPIK Spiked Sample Result [C]	Ba Ar E / MAT Spiked Sample %R [D]	Spike (E]	1 Matri ALA KE DUPLICA Duplicate Spiked Sample Result [F]	TE REC Spiked Dup. %R [G]	OVERY RPD %	STUDY Control Limits %R	Control Limits %RPD	Flag
Lab Batch ID:       3013954         Date Analyzed:       04/02/2017         Reporting Units:       mg/kg         Chloride by EPA 300         Analytes         Chloride	QC- Sample ID: Date Prepared: Parent Sample Result [A] 29.4	549469 04/01/2 <b>M</b> Spike Added [B] 99.0	-007 S 017 IATRIX SPIK Spiked Sample Result [C] 132	Ba Ar E / MAT Spiked Sample %R [D] 104	spike Added [E] 99.0	1 Matri ALA KE DUPLICA Duplicate Spiked Sample Result [F] 131	x: Soil TE REC Spiked Dup. %R [G]	OVERY RPD %	STUDY Control Limits %R 80-120	Control Limits %RPD 20	Flag

Matrix Spike Percent Recovery [D] = 100\*(C-A)/BRelative Percent Difference RPD = 200\*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

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



## Form 3 - MS / MSD Recoveries

### **Project Name: A14 Compressor Station**



Work Order # :	549418					Project II	D:					
Lab Batch ID:	<b>3013501 QC- Sample ID:</b>		549418-001 S		Ba	tch #:	1 Matri	x: Soil				
Date Analyzed:	03/26/2017	Date Prepared:	: 03/24/2017		Analyst:		ARM					
<b>Reporting Units:</b>	mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
]	TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
	Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	<b>%</b>	%R	%RPD	
C6-C10 Gasoline	e 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\*(C-A)/BRelative Percent Difference RPD = 200\*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery  $[G] = 100^{*}(F-A)/E$ 

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

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1	→ →	lotal #. of Containers	ta l	ros						0 1
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		NaOH	# of (	herg						20 E s 79
		Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Conta	ytra						ast 765
3		None	iners	nsfe 1s.co						
Dat		Other ( Specify)	++ 1	om			5	1	1	
	Sol	GW = Groundwater SL-Siduge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Matrix	m	Report		Pr		Proj	
Time Time	×	TPH: 418.1 8015M 80	15B	130	Forn		ojec	Proj	ect.N	
01		TPH: TX 1005 TX 1006		T	lat:	PO	t Loo	ect #	lame	
abo amp abe abe b amp b		Anions (CL SO4 Alkalinity)				77	1	1	1	
s Fress Fre s on ble C s Fre sody s ble H sody s sody s sody s sody s		SAR / ESP / CEC	OTAL		Sta					
e of conta con con con con con con con con con con		Metals: As Ag Ba Cd Cr Pb Hg	Se	Þ	anda					Pho Fax
iners Hea Hea on c on c On c Deliv /Clie		Volatiles		nalyz	d				114	ne:
r(s) inta inta int Re nt Re		Semivolatiles		e Fo	-		Lea		Cor	432-
s: ce? inerr r(s) r(s) r	×	BTEX 8021B/5030 or BTEX 82	60	2			1 Co		npre	563
2 3		RCI		1.0	RRI		unty		SSC	-180
-		N.O.R.M.			U		NN		STC	30
ברבבבב ת	<u>      *</u>	Chlorides E 300.1	-						tatic	
D					z				n	-
R ZZZZZZ		RUSH TAT (Pre-Schedule) 24	, 48, 72 hrs	-	PDE					
Star	×	Standard TAT	T	-	S					
		A Second and the second second	-				1	1	10-	

Final 1.000



Client: TRC Solutions, Inc

### **XENCO** Laboratories Prelogin/Nonconformance Report- Sample Log-In

Acceptable Temperature Range: 0 - 6 degC



Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 03/24/2017 02:55:00 PM Temperature Measuring device used : R8 Work Order #: 549418 Comments Sample Receipt Checklist 2.2 #1 \*Temperature of cooler(s)? #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 N/A #6 Custody Seals intact on sample bottles? #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 relinguished/ 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 N/A samples for the analysis of HEM or HEM-SGT which are verified by the analysts. #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 WAMER Jessica Kramer Checklist reviewed by: Kelsey Brooks

Date: 03/24/2017

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

SALE ACCREDING

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,

Huns hoah

Kelsey Brooks Project Manager

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## Sample Cross Reference 549417



## 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 #273817Contact:Nikki GreenProject Location:Lea County, NM

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

	Lab Id:	549417-0	001	549417-002		549417-003		549417-004		549417-005		549417-006	
Analysis Paguested	Field Id:	FS-1 6"		FS-1 1	l'	FS-2 6"		FS-2 1'		FS-3 6"		FS-3 1'	
Analysis Kequesiea	Depth:	6 In		1 ft		6 In		1 ft		6 In		1 ft	
	Matrix:	SOIL	,	SOIL									
	Sampled:	Mar-23-17	Mar-23-17 13:25		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	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	
SUB: TX104704215	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

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Certificate of Analysis Summary 549417

TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station Field Scrubber



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

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

	Lab Id:	549417-0	007	549417-0	008	549417-009		549417-010		549417-011		549417-012	
Analysis Paguested	Field Id:	FS-4 6"		FS-4 1'		FS-5 6"		FS-5 1'		WFS-1 1'		EFS-1 1'	
Analysis Kequesiea	Depth:	6 In		1 ft		6 In		1 ft		1 ft		1 ft	
	Matrix:	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										
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	Extracted:	Apr-01-17 15:46											
SUB: TX104704215	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										
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									
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										
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

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Certificate of Analysis Summary 549417

TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station Field Scrubber



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

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

	Lab Id:	549417-0	013	549417-0	014	549417-	015	549417-	016	549417-0	017	
	Field Id:	SFS-1	1'	NFS-2	1'	SFS-2	1'	SFS-3	1'	NFS-3	1'	
Analysis Kequestea	Depth:	1 ft										
	Matrix:	SOIL										
	Sampled:	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	Extracted:	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	
	Analyzed:	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	
	Units/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	Extracted:	Apr-01-17	15:46									
SUB: TX104704215	Analyzed:	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	
	Units/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	Extracted:	Mar-24-17	17:00									
	Analyzed:	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	
	Units/RL:	mg/kg	RL									
C6-C10 Gasoline Range Hydrocarbons		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	

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



### **Flagging Criteria**



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

MDL Method Detection Limit	SDL Sample Detection Limit	LOD Limit of Detection
PQL Practical Quantitation Limit	MQL Method Quantitation Limit	LOQ Limit of Quantitation

- **DL** Method Detection Limit
- NC Non-Calculable
- + NELAC certification not offered for this compound.
- \* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr Suite 102, Tempe AZ 85282	(602) 437-0330	



Project Name: A14 Compressor Station Field Scrubber

Work Or Lab Batch	rders: 54941' #: 3013500	7, Sample: 549417-001 / SMP	Project ID: TRC #273817 P Batch: 1 Matrix: Soil					
Units:	mg/kg	Date Analyzed: 03/25/17 17:39	SU	URROGATE R	ECOVERY	STUDY		
	TPH I	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
		Analytes			[D]			
1-Chlorooc	tane		93.2	99.7	93	70-135		
o-Terpheny	1		43.8	49.9	88	70-135		
Lab Batch	#: 3013500	Sample: 549417-002 / SMP	Batc	h: 1 Matrix:	: Soil			
Units:	mg/kg	Date Analyzed: 03/25/17 18:00	SU	RROGATE R	ECOVERY	STUDY		
	TPH I	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooc	tane		88.7	99.7	89	70-135		
o-Terpheny	1		44.7	49.9	90	70-135		
Lab Batch	#: 3013500	Sample: 549417-003 / SMP	Batc	h: 1 Matrix:	: Soil			
Units:	mg/kg	Date Analyzed: 03/25/17 18:20	SU	RROGATE R	ECOVERY	STUDY		
TPH By SW8015 Mod			Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1 Chloroon	tana	Anarytes	00.1	00.0	00	70.125		
1-Cillolooc	1		88.1	59.9	88	70-135		
Lob Potch	#• 2012500	Sample: 540417.005 / SMB	38.0 Boto	50.0		/0-135		
Lan Daten	ma/ka	Data Applyzad: 02/25/17 10:01	Date			VERY STUDYecovery $%R$ [D]Control Limits $%R$ Flags9370-13539370-13538870-135FlagsVERY STUDYControl Limits $%R$ [D]Flags8970-13539070-1353VERY STUDYFlagsvVERY STUDYFlags%R [D] $0$ 8870-13537770-1353VERY STUDYFlagsvVERY STUDY $0$ ecovery $%R$ [D] $0$ 10670-13539870-13539870-13539570-135112970-1353		
Units:	mg/kg	Date Analyzed: 03/23/17 19.01	SU	RROGATE R	ECOVERY	STUDY		
	TPH I	3y SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooc	tane		106	99.9	106	70-135		
o-Terpheny	1		48.9	50.0	98	70-135		
Lab Batch	#: 3013500	Sample: 549417-006 / SMP	Batc	h: 1 Matrix	: Soil		•	
Units:	mg/kg	Date Analyzed: 03/25/17 19:23	SU	RROGATE R	ECOVERY	STUDY		
	TPH I	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooc	tane		94.9	99.9	95	70-135		
o-Terpheny	1		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



Project Name: A14 Compressor Station Field Scrubber

Work Or Lab Batch	rders: 54941	7, Sample: 549417-007 / SMP	Project ID: TRC #273817 P Batch: 1 Matrix: Soil					
Units:	mg/kg	<b>Date Analyzed:</b> 03/25/17 19:44	SU	RROGATE RI	ECOVERY	STUDY		
	Orders : 549417. itch #: 3013500 Sample: 549417-007 / S mg/kg Date Analyzed: 03/25/17 19:44 TPH By SW8015 Mod Analytes rooctane nenyl itch #: 3013500 Sample: 549417-008 / S mg/kg Date Analyzed: 03/25/17 20:03 TPH By SW8015 Mod Analytes rooctane nenyl itch #: 3013500 Sample: 549417-009 / S mg/kg Date Analyzed: 03/25/17 20:25 TPH By SW8015 Mod Analytes rooctane henyl itch #: 3013500 Sample: 549417-010 / S mg/kg Date Analyzed: 03/25/17 20:46 TPH By SW8015 Mod Analytes rooctane henyl itch #: 3013500 Sample: 549417-010 / S mg/kg Date Analyzed: 03/25/17 20:46 TPH By SW8015 Mod Analytes rooctane henyl itch #: 3013500 Sample: 549417-011 / S mg/kg Date Analyzed: 03/25/17 21:48 TPH By SW8015 Mod	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
		Analytes			[D]			
1-Chlorooc	tane		97.3	100	97	70-135		
o-Terpheny	1		48.6	50.0	97	70-135		
Lab Batch	#: 3013500	Sample: 549417-008 / SMP	Batel	h: 1 Matrix:	Soil			
Units:	mg/kg	Date Analyzed: 03/25/17 20:03	SU	RROGATE RI	ECOVERY	STUDY		
	TPH I	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooc	tane		104	99.8	104	70-135		
o-Terpheny	1		52.8	49.9	106	70-135		
Lab Batch	#: 3013500	Sample: 549417-009 / SMP	Batel	h: 1 Matrix:	Soil			
Units:	mg/kg	Date Analyzed: 03/25/17 20:25	SU	RROGATE RI	ECOVERY	STUDY		
TPH By SW8015 Mod			Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1 Chlorooc	tana	Anarytes	00.7	100	100	70.125		
a Tambany	1		50.1	100	100	70-135		
Lob Potch	#• 2012500	Sompley 540417 010 / SMD	50.1	50.0	100 Soil	/0-135		
Lab Daten	#: 5015500	Data Analyzadi 02/25/17 20:46	Date					
Units:	mg/kg	Date Analyzed: 05/25/17 20:46	SU	RROGATE RI	ECOVERY	STUDY		
	TPH I	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooc	tane		98.6	99.7	99	70-135		
o-Terpheny	1		51.1	49.9	102	70-135		
Lab Batch	#: 3013500	Sample: 549417-011 / SMP	Batel	h: 1 Matrix:	Soil			
Units:	mg/kg	Date Analyzed: 03/25/17 21:48	SU	RROGATE RI	ECOVERY	STUDY		
	TPH I	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooc	tane		87.2	99.6	88	70-135		
o-Terpheny	1		44.5	49.8	89	70-135         70-135         RY STUDY         ery       Control Limits %R         70-135         70-135         70-135         70-135         70-135         RY STUDY         ery       Control Limits %R         70-135         70-135         70-135         70-135         RY STUDY         ery         Control Limits %R         70-135         70-135         70-135         RY STUDY         ery         Control Limits %R         F         70-135         RY STUDY         ery         Control Limits %R         F         70-135         RY STUDY         ery         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



Project Name: A14 Compressor Station Field Scrubber

b Batch #:         3013500         Sample:         549417-012 / SM			Project ID: TRC #273817 P Batch: 1 Matrix: Soil					
mg/kg	Date Analyzed: 03/25/17 22:11	SU	RROGATE R	ECOVERY	STUDY			
TPH I	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
	Analytes			[D]				
ane		82.9	99.7	83	70-135			
		41.8	49.9	84	70-135			
#: 3013500	Sample: 549417-013 / SMP	Bate	h: 1 Matrix:	Soil				
mg/kg	Date Analyzed: 03/25/17 22:32	SU	RROGATE R	ECOVERY	STUDY			
TPH I	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
ane		87.3	99.9	87	70-135			
		44.4	50.0	89	70-135			
#: 3013500	Sample: 549417-014 / SMP	Batc	h: 1 Matrix:	Soil				
mg/kg	Date Analyzed: 03/25/17 23:34	SU	RROGATE R	ECOVERY	STUDY			
TPH By SW8015 Mod			True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
	Analytes	05.6	00.0		70.105			
ane		95.6	99.8	96	70-135			
		48.2	49.9	97	70-135			
#: 3013500	Sample: 549417-015 / SMP	Bate	h: 1 Matrix:	Soil				
mg/kg	Date Analyzed: 03/25/17 23:55	SU	<b>RROGATE R</b>	ECOVERY	STUDY			
TPH I	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
ane		102	99.8	102	70-135			
		51.8	49.9	104	70-135			
#: 3013500	Sample: 549417-016 / SMP	Batc	h: 1 Matrix:	Soil				
mg/kg	Date Analyzed: 03/26/17 00:15	SU	RROGATE R	ECOVERY	STUDY			
TPH I	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
ane	· ·	90.5	99.8	91	70-135			
				1				
	ders : 549417 #: 3013500 mg/kg TPH H une #: 3013500 mg/kg TPH H une #: 3013500 mg/kg TPH H une #: 3013500 mg/kg TPH H une #: 3013500 mg/kg TPH H une	ders : 549417,         #: 3013500       Sample: 549417-012 / SMP         mg/kg       Date Analyzed: 03/25/17 22:11         TPH By SW8015 Mod         Analytes         une	ders:       549417,       **       3013500       Sample:       549417-012 / SMP       Bate         mg/kg       Date Analyzed:       03/25/17 22:11       SU         TPH By SW8015 Mod       Amount Found [A]         Analytes         me       82.9         41.8       41.8         *:       3013500       Sample:       549417-013 / SMP       Bate         mg/kg       Date Analyzed:       03/25/17 22:32       SU         TPH By SW8015 Mod       Amount Found [A]         Analyzed:       03/25/17 22:32       SU         TPH By SW8015 Mod       Amount Found [A]         Manual tes         mg/kg       Date Analyzed:       03/25/17 23:34       SU         TPH By SW8015 Mod       Amount Found [A]         Manualt         Manualt	ders : 549417, : 3013500       Sample: 549417-012 / SMP       Project ID: Batch:       Project ID: Matrix:         mg/kg       Date Analyzed: 03/25/17 22:11       SURROGATE RI Analytes       Manount Found [A]       True Amount [B]         me       82.9       99.7         41.8       49.9         #: 3013500       Sample: 549417-013 / SMP       Batch:       1       Matrix: Matrix:         mg/kg       Date Analyzed: 03/25/17 22:32       SURROGATE RI Matrix:         TPH By SW8015 Mod       Analytes       True Amount [B]       True Amount [B]         me       87.3       99.9         *: 3013500       Sample: 549417-014 / SMP       Batch:       1       Matrix:         mg/kg       Date Analyzed: 03/25/17 23:34       SURROGATE RI Amount [B]       Matrix:         mg/kg       Date Analyzed: 03/25/17 23:34       SURROGATE RI Matrix:       Matrix:         mg/kg       Date Analyzed: 03/25/17 23:35       SURROGATE RI Manount [A]       Matrix:         mg/kg       Date Analyzed: 03/25/17 23:55       SURROGATE RI Mamount [A]       Matrix:         mg/kg       Date Analyzed: 03/25/17 23:55       SURROGATE RI Mamount [A]       Matrix:         mg/kg       Date Analyzed: 03/25/17 23:55       SURROGATE RI Mamount [A]       Matrix:         mg/k	ders : 549417, : 3013500         Project ID: Sample: 549417-012 / SMP         Project ID: Batch:         1         Matrix: Soil           mg/kg         Date Analyzed: 03/25/17 22:11         SURROGATE RECOVERY 1           TPH By SW8015 Mod (A)         Amount Found (A)         True Momont (B)         Recovery % R (D)           me         82.9         99.7         83           44.8         49.9         84           * 3013500         Sample: 549417-013 / SMP         Batch:         1         Matrix: Soil           mg/kg         Date Analyzed: 03/25/17 22:32         SURROGATE RECOVERY 1           TPH By SW8015 Mod (A)         Amount Found (A)         True Amount (B)         Recovery % R (D)           me         87.3         99.9         87           * 3013500         Sample: 549417-014 / SMP         Batch:         1         Matrix: Soil           mg/kg         Date Analyzed: 03/25/17 23:34         SURROGATE RECOVERY 1           TPH By SW8015 Mod (A)         Amount [A]         True Amount [A]         Matrix: Soil           me         95.6         99.8         96           44.2         49.9         97           *: 3013500         Sample: 549417-015 / SMP         Batch:         1         Matrix: Soil           mg/kg	ders:         549417, 5: 3013500         Sample: 549417-012 / SMP         Batch:         1         Matrix:         Soil           mg/kg         Date Analyzed:         0325/17 22:11         SURROGATE RECOVERY STUDY         Imatrix:         Soil         Soil		

\* 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



Project Name: A14 Compressor Station Field Scrubber

Lab Batch #: 3015500       Date Analyzed: 03/26/17 00:36       SURROGATE RECOVERY STI         Inits:       mg/kg       Date Analyzed: 03/26/17 00:36       SURROGATE RECOVERY STI         Analytes       Ial       Amount [A]       True Amount [B]       Recovery %R [D]       Ial         1-Chlorooctane       97.3       99.9       97       7         o-Terphenyl       50.2       50.0       100       7         Lab Batch #: 3013500       Sample: 549417-004 / SMP       Batch:       1       Matrix: Soil         Units:       mg/kg       Date Analyzed: 03/27/17 06:24       SURROGATE RECOVERY STI         TPH By SW8015 Mod       Amount [A]       Amount [B]       Recovery %R [D]       1         1-Chlorooctane       94.1       99.8       94       7         o-Terphenyl       39.0       49.9       78       7         Lab Batch #: 3013589       Sample: 549417-001 / SMP       Batch:       1       Matrix: Soil         Units:       mg/kg       Date Analyzed: 03/28/17 18:38       SURROGATE RECOVERY STI         Mathys       Date Analyzed: 03/28/17 18:38       SURROGATE RECOVERY STI         Interve       Manalytes       Interve       %R [D]       1         1.4-Difluorobenzene       0.0314	TUDY       Control Limits %R       Flags       70-135       70-135       70-135       TUDY       Control Limits %R       70-135       70-135       70-135       70-135       70-135       70-135       Flags
TPH By SW8015 Mod     Amount Found [A]     True [A]     Recovery %R [D]     C %R (D)       1-Chlorooctane     97.3     99.9     97     7       o-Terphenyl     50.2     50.0     100     7       Lab Batch #: 3013500     Sample: 549417-004 / SMP     Batch: 1     Matrix: Soil       Units:     mg/kg     Date Analyzed: 03/27/17 06:24     SURROGATE RECOVERY STI SURROGATE RECOVERY STI (Analytes       1-Chlorooctane     94.1     99.8     94     7       o-Terphenyl     39.0     49.9     78     7       I-Chlorooctane     94.1     99.8     94     7       o-Terphenyl     39.0     49.9     78     7       Lab Batch #: 3013589     Sample: 549417-001 / SMP     Batch: 1     Matrix: Soil       Units:     mg/kg     Date Analyzed: 03/28/17 18:38     SURROGATE RECOVERY STI % R       BTEX by EPA 8021B     Amount Found [A]     True Amount [A]     Recovery % R     D       1.4-Difluorobenzene     0.0314     0.0300     82     8       Lab Batch #: 3013589     Sample: 549417-002 / SMP     Batch: 1     Matrix: Soil       Units:     mg/kg     Date Analyzed: 03/28/17 18:54     SURROGATE RECOVERY STI       Matrix:     mg/kg     Date Analyzed: 03/28/17 18:54     SURROGATE RECOVERY STI    <	Control Limits %R     Flags       70-135     70-135       70-135     70-135       TUDY     Flags       70-135     70-135       70-135     70-135       70-135     70-135       70-135     70-135       70-135     70-135       70-135     70-135       70-135     70-135       Control Limits     Flags
TPH By SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]C %R [D]1-Chlorooctane97.399.9977o-Terphenyl50.250.01007Lab Batch #: 3013500Sample: 549417-004 / SMPBatch: 1Matrix: SoilUnits:mg/kgDate Analyzed: 03/27/17 06:24SURROGATE RECOVERY STITPH By SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]1-Chlorooctane94.199.8947o-Terphenyl39.049.97871-Chlorooctane94.199.8947o-Terphenyl39.049.97871-Chlorooctane94.199.8947o-Terphenyl39.049.9787Lab Batch #: 3013589Sample: 549417-001 / SMPBatch: 1Matrix: SoilUnits:mg/kgDate Analyzed: 03/28/17 18:38SURROGATE RECOVERY STIAnalytes0.03140.03001058Lab Batch #: 3013589Sample: 549417-002 / SMPBatch: 1Matrix: Soil1.4-Difluorobenzene0.03140.03001058Lab Batch #: 3013589Sample: 549417-002 / SMPBatch: 1Matrix: SoilUnits:mg/kgDate Analyzed: 03/28/17 18:54SURROGATE RECOVERY STIBTEX by EPA 8021BFound FoundTrue AmountRecovery FoundTrue AmountItab Batch #: 3013589Sample: 549417-002 / SMP <td< th=""><th>Control Limits %RFlags70-13570-13570-13570-135TUDYFlags70-13570-13570-13570-135TUDYControl LimitsControl LimitsFlags</th></td<>	Control Limits %RFlags70-13570-13570-13570-135TUDYFlags70-13570-13570-13570-135TUDYControl LimitsControl LimitsFlags
AnalytesIDI1-Chlorooctane97.399.9977o-Terphenyl50.250.01007Lab Batch #: 3013500Sample: 549417-004 / SMPBatch: 1Matrix: SoilUnits:mg/kgDate Analyzed: 03/27/17 06:24SURROGATE RECOVERY STITPH By SW8015 ModAmount [A]True [B]Recovery %R [D]1-Chlorooctane94.199.8947o-Terphenyl39.049.9787a-Terphenyl39.049.9787batch #: 3013589Sample: 549417-001 / SMPBatch: 1Matrix: SoilUnits:mg/kgDate Analyzed: 03/28/17 18:38SURROGATE RECOVERY STIBTEX by EPA 8021BAmount Found [A]True Amount [B]Recovery %R [D]1.4-Difluorobenzene0.03140.030010584-Bromofluorobenzene0.02450.0300828Lab Batch #: 3013589Sample: 549417-002 / SMPBatch: 1Matrix: SoilUnits:mg/kgDate Analyzed: 03/28/17 18:54SURROGATE RECOVERY STIBTEX by EPA 8021BAmount FoundTrue Amount FoundRecovery SURROGATE RECOVERY STIBTEX by EPA 8021BAmount FoundTrue Amount FoundCBTEX by EPA 8021BAmount FoundTrue Amount Recovery STIBTEX by EPA 8021BAmount FoundTrue Amount Recovery STI	70-135       70-135       70-135       TUDY       Control       Limits       %R       70-135       70-135       70-135       TUDY       Control       Limits       Flags
1-Chlorooctane       97.3       99.9       97       7         o-Terphenyl       50.2       50.0       100       7         Lab Batch #: 3013500       Sample: 549417-004 / SMP       Batch: 1       Matrix: Soil         Units:       mg/kg       Date Analyzed: 03/27/17 06:24       SURROGATE RECOVERY STU         TPH By SW8015 Mod       Amount Found [A]       True Amount [B]       Recovery %R       0         1-Chlorooctane       94.1       99.8       94       7         o-Terphenyl       39.0       49.9       78       7         1-Chlorooctane       94.1       99.8       94       7         o-Terphenyl       39.0       49.9       78       7         Lab Batch #: 3013589       Sample: 549417-001 / SMP       Batch: 1       Matrix: Soil         Units:       mg/kg       Date Analyzed: 03/28/17 18:38       SURROGATE RECOVERY STU         BTEX by EPA 8021B       Amount Found [A]       Imount [A]       Recovery %R       1         1.4-Difluorobenzene       0.0314       0.0300       105       8         Lab Batch #: 3013589       Sample: 549417-002 / SMP       Batch: 1       Matrix: Soil         Lit-Difluorobenzene       0.0245       0.0300       82       8 <th>70-135       70-135       TUDY       Control       Limits       %R       70-135       70-135       70-135       TUDY       Control       Limits       Flags</th>	70-135       70-135       TUDY       Control       Limits       %R       70-135       70-135       70-135       TUDY       Control       Limits       Flags
o-Terphenyl       50.2       50.0       100       5         Lab Batch #: 3013500       Sample: 549417-004 / SMP       Batch:       1       Matrix: Soil         Units:       mg/kg       Date Analyzed: 03/27/17 06:24       SURROGATE RECOVERY STI         TPH By SW8015 Mod       Amount Found [A]       True Amount [A]       Recovery %R [D]       C         1-Chlorooctane       94.1       99.8       94       7         o-Terphenyl       39.0       49.9       78       7         Lab Batch #:       3013589       Sample: 549417-001 / SMP       Batch:       1       Matrix: Soil         Units:       mg/kg       Date Analyzed:       03/28/17 18:38       SURROGATE RECOVERY STU         BTEX by EPA 8021B       Amount Found [A]       True Amount [A]       Recovery %R [D]       D         1.4-Difluorobenzene       0.0314       0.0300       105       8         Lab Batch #:       3013589       Sample: 549417-002 / SMP       Batch:       1       Matrix: Soil         1.4-Difluorobenzene       0.0245       0.0300       82       8         Lab Batch #:       3013589       Sample: 549417-002 / SMP       Batch:       1       Matrix: Soil         Units:       mg/kg       Date Analyzed:	70-135       TUDY       Control Limits %R       Flags       70-135       70-135       TUDY       Control Limits       Flags
Lab Batch #:       3013500       Sample:       549417-004 / SMP       Batch:       1       Matrix:       Soil         Units:       mg/kg       Date Analyzed:       03/27/17 06:24       SURROGATE       RECOVERY STI         TPH By SW8015 Mod       Amount Found (A)       True (B)       Recovery %R (D)       C         1-Chlorooctane       94.1       99.8       94       7         o-Terphenyl       39.0       49.9       78       7         Lab Batch #:       3013589       Sample:       549417-001 / SMP       Batch:       1       Matrix:       Soil         Units:       mg/kg       Date Analyzed:       03/28/17 18:38       SURROGATE       Recovery %R [D]       7         Inits:       mg/kg       Date Analyzed:       03/28/17 18:38       SURROGATE       Recovery %R [D]       1         I.4-Difluorobenzene       0.0314       0.0300       105       8         I.4-Difluorobenzene       0.0245       0.0300       82       8         Lab Batch #:       3013589       Sample:       549417-002 / SMP       Batch:       1       Matrix:       Soil         Units:       mg/kg       Date Analyzed:       03/28/17 18:54       SURROGATE       RECOVERY STI      <	TUDY       Control Limits %R       Flags       70-135       70-135       70-135       TUDY       Control Limits     Flags
Units:       mg/kg       Date Analyzed:       03/27/17 06:24       SURROGATE       RECOVERY STI         TPH By SW8015 Mod       Amount Found [A]       True Amount [A]       True Amount [B]       Recovery %R [D]       C         1-Chlorooctane       94.1       99.8       94       7         o-Terphenyl       39.0       49.9       78       7         Lab Batch #:       3013589       Sample:       549417-001 / SMP       Batch:       1       Matrix:       Soil         Units:       mg/kg       Date Analyzed:       03/28/17 18:38       SURROGATE       Recovery %R [D]       0         I.4-Difluorobenzene       0.0314       0.0300       105       8         I.4-Difluorobenzene       0.0245       0.0300       82       8         Lab Batch #:       3013589       Sample:       549417-002 / SMP       Batch:       1       Matrix:       Soil         Units:       mg/kg       Date Analyzed:       03/28/17 18:54       SURROGATE       RECOVERY STU         I.4-Difluorobenzene       0.0245       0.0300       82       8         Lab Batch #:       3013589       Sample:       549417-002 / SMP       Batch:       1       Matrix:       Soil         Units: <td>TUDY       Control Limits %R       Flags       70-135       70-135       70-135       TUDY       Control Limits     Flags</td>	TUDY       Control Limits %R       Flags       70-135       70-135       70-135       TUDY       Control Limits     Flags
TPH By SW8015 ModAmount Found [A]True Ananut [B]Recovery %R [D]C1-Chlorooctane94.199.8947o-Terphenyl39.049.9787Lab Batch #: 3013589Sample: 549417-001 / SMPBatch:1Matrix: SoilUnits:mg/kgDate Analyzed: 03/28/17 18:38SURROGATE RECOVERY STIBTEX by EPA 8021BAmount Found [A]True [B]Recovery %R [D]01.4-Difluorobenzene0.03140.030010584-Bromofluorobenzene0.02450.0300828Lab Batch #: 3013589Sample: 549417-002 / SMPBatch:1Matrix: SoilUnits:mg/kgDate Analyzed: 03/28/17 18:54SURROGATE RECOVERY STI0I.4-Difluorobenzene0.02450.0300828Lab Batch #: 3013589Sample: 549417-002 / SMPBatch:1Matrix: SoilUnits:mg/kgDate Analyzed: 03/28/17 18:54SURROGATE RECOVERY STIBTEX by EPA 8021BAmount FoundTrue AmountRecovery Recovery0	Control Limits %R     Flags       70-135     70-135       70-135     70-135       TUDY     Control Limits
1-Chlorooctane94.199.894o-Terphenyl39.049.9787Lab Batch #: 3013589Sample: 549417-001 / SMPBatch:1Matrix: SoilUnits:mg/kgDate Analyzed: 03/28/17 18:38SURROGATE RECOVERY STIBTEX by EPA 8021BAmount Found [A]True [B]Recovery %R [D]1.4-Difluorobenzene0.03140.03001054-Bromofluorobenzene0.02450.0300828Lab Batch #: 3013589Sample: 549417-002 / SMPBatch:1Matrix: SoilUnits:mg/kgDate Analyzed: 03/28/17 18:54SURROGATE RECOVERY STIBTEX by EPA 8021BAmount Found AnalytesTrue AmountConstraintBTEX by EPA 8021BAmount Found AnalytesTrue AmountConstraintBTEX by EPA 8021BAmount Found AmountTrue AmountConstraintBTEX by EPA 8021BAmount Found AmountTrue AmountConstraintBTEX by EPA 8021BAmount Found AmountTrue AmountConstraint	70-135       70-135       TUDY       Control       Limits       Flags
o-Terphenyl     39.0     49.9     78       Lab Batch #:     3013589     Sample:     549417-001 / SMP     Batch:     1     Matrix:     Soil       Units:     mg/kg     Date Analyzed:     03/28/17 18:38     SURROGATE RECOVERY STI       BTEX by EPA 8021B     Amount Found [A]     True [B]     Recovery %R [D]     C       1.4-Difluorobenzene     0.0314     0.0300     105     8       4-Bromofluorobenzene     0.0245     0.0300     82     8       Lab Batch #:     3013589     Sample:     549417-002 / SMP     Batch:     1     Matrix:       Units:     mg/kg     Date Analyzed:     03/28/17 18:54     SURROGATE RECOVERY STU       BTEX by EPA 8021B     Amount Found     True Amount     Recovery %R     0       BTEX by EPA 8021B     Amount Found     True Amount     Recovery %R     0	70-135       TUDY       Control       Limits       Flags
Lab Batch #: 3013589       Sample: 549417-001 / SMP       Batch:       1       Matrix: Soil         Units:       mg/kg       Date Analyzed:       03/28/17 18:38       SURROGATE RECOVERY STU         BTEX by EPA 8021B       Amount Found [A]       True [B]       Recovery %R [D]       O         1.4-Difluorobenzene       0.0314       0.0300       105       8         4-Bromofluorobenzene       0.0245       0.0300       82       8         Lab Batch #:       3013589       Sample:       549417-002 / SMP       Batch:       1       Matrix: Soil         Units:       mg/kg       Date Analyzed:       03/28/17 18:54       SURROGATE RECOVERY STU         BTEX by EPA 8021B       Amount       True Amount       Recovery %R       Date Analyzed:       03/28/17 18:54	TUDY Control Limits Flags
Units:       mg/kg       Date Analyzed:       03/28/17       18:38       SURROGATE RECOVERY STI         BTEX by EPA 8021B       Amount Found [A]       True Amount [A]       Recovery %R [D]       0         Analytes       0.0314       0.0300       105       8         4-Bromofluorobenzene       0.0314       0.0300       82       8         Lab Batch #:       3013589       Sample:       549417-002 / SMP       Batch:       1       Matrix:       Soil         Units:       mg/kg       Date Analyzed:       03/28/17       18:54       SURROGATE RECOVERY STU         BTEX by EPA 8021B       Amount Found       True Amount       Recovery (C)       0       0	TUDY Control Limits Flags
BTEX by EPA 8021B       Amount Found [A]       True Amount [B]       Recovery %R [D]       O 0         Analytes       0.0314       0.0300       105       8         1,4-Difluorobenzene       0.0314       0.0300       105       8         4-Bromofluorobenzene       0.0245       0.0300       82       8         Lab Batch #: 3013589       Sample: 549417-002 / SMP       Batch:       1       Matrix: Soil         Units:       mg/kg       Date Analyzed: 03/28/17 18:54       SURROGATE RECOVERY STU         BTEX by EPA 8021B       Amount Found       True Amount       Recovery       0	Control Limits Flags
Analytes[D]1,4-Difluorobenzene0.03140.030010584-Bromofluorobenzene0.02450.0300828Lab Batch #: 3013589Sample: 549417-002 / SMPBatch: 1Matrix: SoilUnits:mg/kgDate Analyzed: 03/28/17 18:54SURROGATE RECOVERY STUBTEX by EPA 8021BAmountTrue FoundRecovery	%R
1,4-Difluorobenzene         0.0314         0.0300         105         8           4-Bromofluorobenzene         0.0245         0.0300         82         8           Lab Batch #: 3013589         Sample: 549417-002 / SMP         Batch: 1         Matrix: Soil         8           Units:         mg/kg         Date Analyzed: 03/28/17 18:54         SURROGATE RECOVERY STU         6           BTEX by EPA 8021B         Amount         True         Recovery         6	
4-Bromofluorobenzene       0.0245       0.0300       82       8         Lab Batch #: 3013589       Sample: 549417-002 / SMP       Batch: 1       Matrix: Soil         Units:       mg/kg       Date Analyzed: 03/28/17 18:54       SURROGATE RECOVERY STU         BTEX by EPA 8021B       Amount       True       Recovery       0	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 STI         BTEX by EPA 8021B       Amount       True       Recovery       Operation	80-120
Units:       mg/kg       Date Analyzed: 03/28/17 18:54       SURROGATE       RECOVERY STU         BTEX by EPA 8021B       Amount       True       C         Found       Amount       Recovery       D	
BTEX by EPA 8021B Amount True Recovery	TUDY
AnalytesImage: Constraint of the second	Control Limits %R
1,4-Difluorobenzene 0.0322 0.0300 107 8	80-120
4-Bromofluorobenzene 0.0284 0.0300 95 8	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 STU	TUDY
BTEX by EPA 8021B     Amount Found [A]     True Amount [B]     C Recovery %R [D]     C D	Control Limits Flags %R
1.4-Difluorobenzene 0.0305 0.0300 102 5	80-120
4-Bromofluorobenzene         0.0244         0.0300         81         5	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



Project Name: A14 Compressor Station Field Scrubber

Work Or	rders: 54941	7, Sompler 549417 004 / SMP	Project ID: TRC #273817					
Lab Daten	mσ/kσ	Date Analyzed: 03/28/17 19:26				STUDY		
	ing/kg	Dute Muly2ed: 03/20/17 19.20	50	KRUGATE KI			1	
	BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
		Analytes			[D]			
1,4-Difluor	obenzene		0.0328	0.0300	109	80-120		
4-Bromoflu	orobenzene		0.0262	0.0300	87	80-120		
Lab Batch	<b>#:</b> 3013589	Sample: 549417-005 / SMP	Batcl	h: 1 Matrix:	Soil			
Units:	mg/kg	Date Analyzed: 03/28/17 19:42	SU	RROGATE RI	ECOVERY	STUDY		
	BTEX	A palvtes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1.4-Difluor	obenzene	1 mary ces	0.0325	0.0300	108	80-120		
4-Bromoflu	orobenzene		0.0257	0.0300	86	80-120		
Lab Batch	#• 3013589	Sample: 549417-006 / SMP	Batel	0.0300 h• 1 Matrix•	Soil	00-120		
Units:	mø/kø	<b>Date Analyzed:</b> $03/28/17$ 19:59	SU	DDOCATE DI	ECOVEDV	STUDY		
cints.	ing ng	Duce maryzeu: 05/20/17 19.59	50	KRUGATE KI	LUVERY	SIUDY		
	BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
		Analytes						
1,4-Difluor	obenzene		0.0324	0.0300	108	80-120		
4-Bromoflu	orobenzene		0.0240	0.0300	80	80-120		
Lab Batch	#: 3013589	Sample: 549417-009 / SMP	Batcl	h: 1 Matrix:	Soil			
Units:	mg/kg	Date Analyzed: 03/28/17 21:20	SU	RROGATE RI	ECOVERY	STUDY		
	ВТЕХ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1,4-Difluor	obenzene		0.0336	0.0300	112	80-120		
4-Bromoflu	orobenzene		0.0269	0.0300	90	80-120		
Lab Batch	#: 3013589	Sample: 549417-010 / SMP	Batcl	h: 1 Matrix:	Soil			
Units:	mg/kg	Date Analyzed: 03/28/17 21:37	SU	RROGATE RI	ECOVERY	STUDY		
	ВТЕХ	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1,4-Difluor	obenzene		0.0337	0.0300	112	80-120		
4-Bromoflu	orobenzene		0.0316	0.0300	105	Control Limits %R     Fl:       80-120     80-120       80-120     80-120       Control Limits %R     Fl:       %8     80-120       80-120     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



Project Name: A14 Compressor Station Field Scrubber

Work O	rders : 54941	7, Secolar 540417 014 / SMD	Project ID: TRC #273817						
Lab Batch	#: 3013589	Sample: 549417-0147 SMP							
Units:	mg/kg	Date Analyzed: 05/28/17 22:42	SU	RROGATE R	ECOVERY	STUDY         Control Limits %R         80-120         80-120         STUDY         Control Limits %R         80-120         STUDY         Control Limits %R         80-120         STUDY         SO-120         STUDY         SO-120         STUDY         SO-120         STUDY         STUDY         SO-120         STUDY         SO-120         STUDY         STUDY         SO         SO         SO         SO         SO         SO         SO         SO         SO         SO			
	BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes			[D]				
1,4-Difluor	obenzene		0.0334	0.0300	111	80-120			
4-Bromoflu	orobenzene		0.0318	0.0300	106	80-120			
Lab Batch	#: 3013589	Sample: 549417-015 / SMP	Batcl	h: 1 Matrix:	: Soil				
Units:	mg/kg	Date Analyzed: 03/28/17 22:59	SU	RROGATE R	ECOVERY	STUDY			
	BTEX	A polytos	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
1 4 Diffuor	hanzana	Analytes	0.0245	0.0200	115	90.120			
1,4-Dilluor	obenzene		0.0345	0.0300	115	80-120			
4-Diomonu	#• 2012580	Somelar 540417 016 / SMD	0.0301	0.0300	100 Soil	80-120			
	#: 5015589	Sample: 549417-0107 SMP	Batch		5011				
Units:	mg/kg	Date Analyzed: 03/28/17 23:15	SU	RROGATE R	ECOVERY	STUDY			
	BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes			[D]				
1,4-Difluor	obenzene		0.0342	0.0300	114	80-120			
4-Bromoflu	orobenzene		0.0267	0.0300	89	80-120			
Lab Batch	#: 3013589	Sample: 549417-017 / SMP	Batch	h: 1 Matrix:	: Soil				
Units:	mg/kg	Date Analyzed: 03/28/17 23:31	SU	RROGATE R	ECOVERY	STUDY			
	ВТЕХ	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluor	obenzene		0.0360	0.0300	120	80-120			
4-Bromoflu	orobenzene		0.0279	0.0300	93	80-120			
Lab Batch	#: 3013602	Sample: 549417-008 / SMP	Batcl	h: 1 Matrix:	Soil		·		
Units:	mg/kg	Date Analyzed: 03/29/17 11:08	SU	RROGATE R	ECOVERY	STUDY			
	ВТЕХ	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluor	obenzene		0.0271	0.0300	90	80-120			
4-Bromoflu	orobenzene		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



Project Name: A14 Compressor Station Field Scrubber

Work Or Lab Batch	<b>ders :</b> 54941	7, Sample: 549417-011 / SMP	Project ID: TRC #273817						
Lab Batch #: 3013602 Units: mg/kg		Date Analyzed: 03/29/17 11:24	SURROGATE RECOVERY STUDY						
	BTEX	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
1 4 Diffuor	hanzana	Analytes	0.0240	0.0200	112	80.120			
1,4-Diffuoro	obenzene		0.0340	0.0300	113	80-120			
4-Bromoliu		Complex 540417 012 / SMD	0.0282	0.0300	94	80-120			
Lab Batch	#: 3013602	Sample: 349417-0127 SMP	Bate	n: 1 Matrix:	: 501				
Units:	mg/kg	Date Analyzed: 03/29/17 11:41	SU	RROGATE R	ECOVERY	STUDY			
	BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluor	obenzene		0.0318	0.0300	106	80-120			
4-Bromoflu	orobenzene		0.0260	0.0300	87	80-120			
Lab Batch	#: 3013602	Sample: 549417-013 / SMP	Batc	h: 1 Matrix:	: Soil				
Units:	mg/kg	Date Analyzed: 03/29/17 11:57	SU	RROGATE R	ECOVERY	STUDY			
	BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes							
1,4-Difluor	obenzene		0.0351	0.0300	117	80-120			
4-Bromoflu	orobenzene		0.0292	0.0300	97	80-120			
Lab Batch	#: 3013602	Sample: 549417-007 / SMP	Batc	h: 1 Matrix:	: Soil				
Units:	mg/kg	Date Analyzed: 03/29/17 12:30	SU	RROGATE R	ECOVERY	STUDY			
	BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluor	obenzene		0.0333	0.0300	111	80-120			
4-Bromoflu	orobenzene		0.0260	0.0300	87	80-120			
Lab Batch	#: 3013500	Sample: 722213-1-BLK / B	LK Bate	h: 1 Matrix:	Solid		·		
Units:	mg/kg	Date Analyzed: 03/25/17 16:38	SU	RROGATE R	ECOVERY	STUDY			
	TPH ]	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooct	tane		102	100	102	70-135			
o-Terpheny	1		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



Project Name: A14 Compressor Station Field Scrubber

Work Or	<b>ders :</b> 54941	7, Somple: 722268 1 BLK / E	N Poto	Project ID:	TRC #2738	17			
Lab Daten	#: 5015569	Date Analyzed: 03/28/17 17:49							
	ing/kg	Duce multiplete. 05/20/11/11.49	50	KROGATE R		STUDY			
	BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes							
1,4-Difluor	obenzene		0.0341	0.0300	114	80-120			
4-Bromoflu	orobenzene		0.0272	0.0300	91	80-120			
Lab Batch	#: 3013602	Sample: 722269-1-BLK / E	BLK Batcl	h: 1 Matrix:	Solid				
Units:	mg/kg	Date Analyzed: 03/29/17 01:42	SU	RROGATE R	ECOVERY	STUDY			
	BTEX	A polytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1.4-Difluor	henzene	Analytes	0.0280	0.0300	02	80.120			
1,4-Diluolo	orobanzana		0.0280	0.0300	93	80.120			
Lob Botch	#• 3013500	Sample: 722213-1-BKS/B	U.0295	0.0500	Solid	80-120			
Lau Dattin	#. 5015500	Dete Applyzed: 03/25/17 16:58	Date						
Units.	mg/kg	Date Analyzeu. 03/23/17 10.38	SU	RROGATE R	ECOVERY	STUDY			
	TPH I	3y SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes			[D]				
1-Chlorooct	tane		97.5	100	98	70-135			
o-Terpheny	1		46.4	50.0	93	70-135			
Lab Batch	#: 3013589	Sample: 722268-1-BKS / B	SKS Batel	h: 1 Matrix:	Solid				
Units:	mg/kg	Date Analyzed: 03/28/17 16:27	SU	RROGATE R	ECOVERY	98         70-135           93         70-135           olid         COVERY STUDY			
	BTEX	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluor	obenzene		0.0336	0.0300	112	80-120			
4-Bromoflu	orobenzene		0.0305	0.0300	102	80-120			
Lab Batch	#: 3013602	Sample: 722269-1-BKS / B	KS Bate	h: 1 Matrix:	Solid				
Units:	mg/kg	Date Analyzed: 03/29/17 00:20	SU	RROGATE R	ECOVERY	STUDY			
	ВТЕХ	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluor	obenzene		0.0341	0.0300	114	80-120			
1									

\* 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



Project Name: A14 Compressor Station Field Scrubber

Work Or	<b>ders :</b> 54941	7, Sompley 722213 1 BSD / B	Project ID: TRC #273817							
Lab Datch	#: 5015500 mg/kg	Date Analyzed: 03/25/17 17:19				OTUDN/				
	ing/kg	Duc muyzet. 03/25/17 17:17	SUKKUGATE KEUUVEKY STUDY							
	TPH ]	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
		Analytes								
1-Chlorooct	tane		97.8	100	98	70-135				
o-Terpheny	1		47.0	50.0	94	70-135				
Lab Batch	#: 3013589	Sample: 722268-1-BSD / B	SD Batch	h: 1 Matrix:	Solid					
Units:	mg/kg	Date Analyzed: 03/28/17 16:43	SU	RROGATE R	ECOVERY	STUDY				
	BTEX	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1.4-Difluor	obenzene		0.0330	0.0300	110	80-120				
4-Bromoflu	orobenzene		0.0308	0.0300	103	80-120				
Lab Batch	#: 3013602	Sample: 722269-1-BSD / B	SD Batch	h: 1 Matrix:	Solid	00 120				
Units:	mg/kg	Date Analyzed: 03/29/17 00:36	SU	RROGATE R	ECOVERY	STUDY				
	BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
		Analytes			[D]					
1,4-Difluor	obenzene		0.0347	0.0300	116	80-120				
4-Bromoflu	orobenzene		0.0265	0.0300	88	80-120				
Lab Batch	<b>#:</b> 3013500	Sample: 549417-013 S / MS	S Batch	h: 1 Matrix:	Soil		· ]			
Units:	mg/kg	Date Analyzed: 03/25/17 22:53	SU	RROGATE R	ECOVERY	STUDY				
	TPH ]	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooct	tane		96.0	99.7	96	70-135				
o-Terpheny	1		46.8	49.9	94	70-135				
Lab Batch	#: 3013589	Sample: 549416-026 S / MS	6 Batch	h: 1 Matrix:	Soil		·			
Units:	mg/kg	Date Analyzed: 03/28/17 17:00	SU	RROGATE R	ECOVERY	STUDY				
	BTE	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1,4-Difluor	obenzene		0.0323	0.0300	108	80-120				
4-Bromoflu	orobenzene		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



Project Name: A14 Compressor Station Field Scrubber

Work Oi Lab Batch	r <b>ders : 5</b> 4941 #: 3013602	7, Sample: 549418-001 S / MS	Batcl	Project ID: h: 1 Matrix:	TRC #2738 Soil	17	
Units:	mg/kg	Date Analyzed: 03/29/17 00:53	SU	RROGATE R	ECOVERY	STUDY	
	втех	۵ by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluor	obenzene		0.0356	0.0300	119	80-120	
4-Bromoflu	orobenzene		0.0330	0.0300	110	80-120	
Lab Batch	#: 3013500	Sample: 549417-013 SD / N	ISD Batch	h: 1 Matrix:	Soil		
Units:	mg/kg	Date Analyzed: 03/25/17 23:14	SU	RROGATE R	ECOVERY	STUDY	
	TPHI	3y SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooc	tane	-	87.3	99.7	88	70-135	
o-Terpheny	1		41.6	49.9	83	70-135	
Lab Batch	#: 3013589	Sample: 549416-026 SD / M	ISD Batch	h: 1 Matrix:	Soil	11	
Units:	mg/kg	Date Analyzed: 03/28/17 17:16	SU	RROGATE R	ECOVERY	STUDY	
	втех	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluor	obenzene		0.0345	0.0300	115	80-120	
4-Bromoflu	orobenzene		0.0300	0.0300	100	80-120	
Lab Batch	#: 3013602	Sample: 549418-001 SD / N	ASD Batch	h: 1 Matrix:	Soil		
Units:	mg/kg	Date Analyzed: 03/29/17 01:09	SU	RROGATE R	ECOVERY	STUDY	
	BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluor	obenzene		0.0335	0.0300	112	80-120	
4-Bromoflu	orobenzene		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



### **BS / BSD Recoveries**



#### Project Name: A14 Compressor Station Field Scrubber

Work Order	· #: 549417							Pro	ject ID:	TRC #2738	17	
Analyst:	ALJ	D	ate Prepar	red: 03/28/202	17			Date A	nalyzed: (	03/28/2017		
Lab Batch ID	: 3013589 Sample: 722268-1-1	BKS	Batc	<b>h #:</b> 1					Matrix: S	Solid		
Units:	mg/kg		BLAN	K/BLANK	SPIKE / I	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	DY	
Analy	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
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	
Ethylbenz	ene	< 0.00200	0.100	0.118	118	0.0998	0.104	104	13	71-129	35	
m_p-Xyler	nes	< 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	D	ate Prepar	red: 03/28/202	17	•		Date A	nalyzed: (	03/29/2017		
Lab Batch ID	<b>:</b> 3013602 <b>Sample:</b> 722269-1-1	BKS	Bate	<b>h #:</b> 1					Matrix: S	Solid		
Units:	mg/kg		BLAN	K /BLANK	SPIKE / I	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	DY	
Analy	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
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	
Ethylbenz	ene	<0.00198	0.0990	0.0942	95	0.100	0.0873	87	8	71-129	35	
m_p-Xyler	nes	< 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							Proj	ject ID: ˈ	TRC #2738	317	
Analyst:	ALA	D	ate Preparo	ed: 04/01/20	17			Date A	nalyzed: (	04/02/2017		
Lab Batch ID	<b>:</b> 3013926 <b>Sample:</b> 722476-1	-BKS	Batch	n#: 1					Matrix: S	Solid		
Units:	mg/kg		BLAN	K /BLANK	SPIKE / ]	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	DY	
Analy	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
Chloride		<1.00	10.0	10.1	101	10.0	10.1	101	0	80-120	20	
Analyst:	ALA	D	ate Prepare	ed: 04/01/20	17	1		Date A	nalyzed: (	04/02/2017	•	·'
Lab Batch ID	<b>:</b> 3013961 <b>Sample:</b> 722491-1	-BKS	Batch	n#: 1					Matrix:	Solid		
Units:	mg/kg		BLAN	K /BLANK	SPIKE / 1	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	DY	
	Chloride by EPA 300	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analy	vtes		[D]	[U]	נען	[E]	Kesuit [r]	[G]				ļ
Chloride		<1.00	10.0	9.75	98	10.0	9.99	100	2	80-120	20	
Analyst:	ARM	D	ate Preparo	ed: 03/24/20	17			Date A	nalyzed: (	03/25/2017		
Lab Batch ID	: 3013500 Sample: 722213-1	-BKS	Batch	<b>n #:</b> 1					Matrix:	Solid		
Units:	mg/kg		BLAN	K /BLANK	SPIKE / ]	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	DY	
Analy	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
C6-C10 G	asoline Range Hydrocarbons	<15.0	1000	918	92	1000	928	93	1	70-135	35	
C10-C28 I	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





#### Project Name: A14 Compressor Station Field Scrubber

					Project II	<b>):</b> TRC #	273817			
QC- Sample ID:	549416	-026 S	Ba	tch #:	1 Matrix	<b>x:</b> Soil				
Date Prepared:	03/28/2	017	An	alyst: A	ALJ					
	Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
[A]	[ <b>B</b> ]		[D]	[E]		[G]				
<0.00150	0.0998	0.0874	88	0.0994	0.0811	82	7	70-130	35	
<0.00200	0.0998	0.0879	88	0.0994	0.0795	80	10	70-130	35	
<0.00200	0.0998	0.0853	85	0.0994	0.0723	73	16	71-129	35	
<0.00200	0.200	0.164	82	0.199	0.137	69	18	70-135	35	Х
<0.00299	0.0998	0.0903	90	0.0994	0.0744	75	19	71-133	35	
QC- Sample ID:	549418	-001 S	Ba	tch #:	1 Matrix	<b>x:</b> Soil				
Date Prepared:	03/28/2	017	An	alyst: A	ALJ					
	Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
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
<0.00151	0.100	0.0716	72	0.101	0.0798	79	11	70-130	35	
< 0.00201	0.100	0.0726	73	0.101	0.0815	81	12	70-130	35	
0.00201	0.100	0.0729	72	0 101	0.0910	<b>Q</b> 1	12	71 120	25	
<0.00201	0.100	0.0728	/3	0.101	0.0019	01	12	/1-129	- 35	
<0.00201	0.100	0.0728	73	0.101	0.155	77	8	70-135	35	
	QC- Sample ID:         Date Prepared:         Parent         Sample         Result         [A]         <0.00150	QC- Sample ID:       549416         Date Prepared:       03/28/2         Mate Prepared:       03/28/2         Parent       Spike         Sample       Spike         Result       [A]         \$4ded       [B]         <0.00150	QC- Sample ID: $549416-026 \text{ S}$ Date Prepared: $03/28/2017$ MATRIX SPIKI         Parent       Spiked Sample         Sample       Spiked Sample         Result       Spiked Sample         [A]       Spike $20.00150$ $0.0998$ $<0.00200$ $0.0998$ $<0.00200$ $0.0998$ $<0.00200$ $0.0998$ $<0.00200$ $0.0998$ $<0.00200$ $0.0998$ $<0.00200$ $0.0998$ $<0.00200$ $0.0998$ $<0.00200$ $0.0998$ $<0.00200$ $0.0998$ $<0.00200$ $0.0998$ $<0.00200$ $0.0998$ $<0.00200$ $0.0998$ $<0.00200$ $0.0998$ $0.00200$ $0.0998$ $0.00200$ $0.0998$ $0.00200$ $0.0998$ $0.00201$ $0.0998$ $0.00201$ $0.00201$ $0.00201$ $0.000$ $(C)       (C)         (C)       (C)         (C)       (C)     <$	QC- Sample ID:       549416-026 S       Ba         Date Prepared:       03/28/2017       An         KINCLE SPIKE         Parent       Spike       Sp	QC- Sample ID: $549416-026$ S       Batch #:         Date Prepared: $03/28/2017$ Analyst:       Analy	Project II         QC- Sample ID:       549416-026 S       Batch #:       1       Matrix         Date Prepared:       03/28/2017       Analyst:       ALJ         Farent sample Result [A]       Spike Added [B]       Spiked Sample Result [C]       Spike Added [B]       Spike A	Project ID:       TRC #         QC- Sample ID: $549416-026$ S       Batch #:       1       Matrix:       Soil         Date Prepared: $03/28/2017$ Analyst:       ALJ         MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECO         Parent       Spiked       Spiked	QC - Sample ID:         549416-026 S         Batch #:         1         Matrix:         Soil           Date Prepared:         03/28/2017         Analyst:         ALJ           MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY S           Parent         Spiked         Spiked	Project ID:       TRC #273817         QC - Sample ID:       549416-026 S       Batch #:       1       Matrix:       Soil         Date Prepared:       03/28/2017       Analyst:       ALJ         KATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY         Parent       Spiked       Spike       Spiked       Spike       Spike<	Project ID:       TRC #273817         QC- Sample ID:       549416-026 S       Batch #:       1       Matrix:       Soil         Date Prepared:       03/28/2017       Analyst:       ALJ         HATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY         Parent       Spike       Spike

Matrix Spike Percent Recovery  $[D] = 100^{*}(C-A)/B$ Relative Percent Difference RPD =  $200^{*}|(C-F)/(C+F)|$  Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

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



#### **Project Name: A14 Compressor Station Field Scrubber**



Matrix Spike Percent Recovery  $[D] = 100^{\circ}(C-A)/B$ Relative Percent Difference RPD =  $200^{\circ}|(C-F)/(C+F)|$  Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

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





#### Project Name: A14 Compressor Station Field Scrubber

Work Order # :	549417						Project II	<b>D:</b> TRC #	273817			
Lab Batch ID:	3013961	QC- Sample ID:	549417-0	17 S	Ba	tch #:	1 Matrix	x: Soil				
Date Analyzed:	04/02/2017	Date Prepared:	04/01/201	.7	Ar	alyst: A	ALA					
<b>Reporting Units:</b>	mg/kg		МА	TRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
	Chloride by EPA 300	Parent Sample	Spike	piked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
	Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Chloride		<9.98	99.8	106	106	99.8	106	106	0	80-120	20	
Lab Batch ID:	3013500	QC- Sample ID:	549417-0	13 S	Ba	tch #:	1 Matri	<b>x:</b> Soil				
Date Analyzed:	03/25/2017	Date Prepared:	03/24/201	.7	Ar	alyst: A	ARM					
<b>Reporting Units:</b>	mg/kg		MA	TRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
	TPH By SW8015 Mod	Parent Sample Posult	Spike	piked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
	Analytes	[A]	IB]	נטן	%к [D]	E]	Kesut [F]	%к [G]	70	70K	%KrD	
C6-C10 Gasolin	ne Range Hydrocarbons	<15.0	997	961	96	997	864	87	11	70-135	35	
C10-C28 Diese	l Range Organics	17.9	997	958	94	997	862	85	11	70-135	35	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/BRelative Percent Difference RPD = 200\*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

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The Environmental Lub of Texas     Table X (lab use only)     Table	×			×		×		-					×	Soil				-	-	-		×	-		1509	1			-		1.	SFS -1	
The Environmental Lab of Texas       Project Manager:       Nikki Green       Project Manager:       Niki Green       Niki Green       Project Manager	×			×		×							×	Soil				-	-			×	-		1458	3/23	1				1.	EFS-1	
The Environmental Lab of Texas       CHAIN OF CUS/IDDY RECORD AND ANALTXIS RECUEST of the Cost of the Customer and the	Standard TAT	RUSH TAT (Pre-Schedule) 24		N.O.R.M. Chlorides E 300.1	RCI	BTEX 80210/5030 or BTEX 82	Semivolatiles	Volatiles	SAR / ESP / CEC	Anions (CI, SO4, Alkalinity)	Cations (Ca, Mg, Na, K)	TPH: TX 1005 TX 1006	TPH: 418.1 8015M	GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	DW=Drinking Water SL=Sludge	Other ( Specify)	None	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	NaOH	HCI	HNO <sub>3</sub>	Ice	Total #. of Containers	Field Filtered	Time Sampled	Date Sampled	Ending Depth	Beginning Depth	-		LD CODE	Pin	LAB # (lab use only)
The Environmental Lab of Texas       Chain OF CUS I DUT RECORD AND ANALTSIS RECUES I         Project Manager:       Nikki Green         Project Manager:       Nikki Green         Company Name       IRC Environmental Corporation         Company Name       IRC Environmental Corporation         Company Address:       2057 Commerce Drive         Citly/State/Zip:       Midland, Texas 79703         Telephone No:       432.520.7720         Sampler Signature:       Fax No:         Report Format:       Standard         Induce only       Fax No:         Mature only       Fax No:         Indicence/Intersore       Fax No:         Indicence/Intersore       Fax No:         Indicence/Intersore       Fax No:         Indicence/Intersore       Interpersore         Interpersore		4, 48,		_	_	260		9.26	1 Se	_		X	15B	Aatrix	2	S	Itaine	of Cor	8#0	vation	reser			1						_	711	5-1-10	ORDER #:
The Environmental Lab of Texas       CHAIN OF CUSTOUT RECORD AND ANALYSIS RECUEST         Project Manager:       Nikki Green         Company Name       TRC Environmental Corporation         Company Name       TRC Environmental Corporation         Company Name       TRC Environmental Corporation         Company Address:       2057 Commerce Drive         Citry/State/Zip:       Midland, Texas 79703         Telephone No:       432.520.7720         Sampler Signature:       Fax No:         Constant or Signature:       Fax No:         Constant or Signature:       Fax No:         Constant or Signature:       Fax No:		72 hrs	_	_					F.	TOTA		-3	EX																			242	(lab use only
The Environmental Lab of Texas       Table of Texas       12600 West I-20 East Decision       Phone: 432-563-1800 Fax: 432-663-1713         Project Manager:       Nikki Green       Project Name:       A14 Compressor Station Field Scrubber         Company Name       TRC Environmental Corporation       Project Loc:       Project Loc:         Company Address:       2057 Commerce Drive       Project Loc:       Lea County, NM         City/State/Zip:       Midland, Texas 79703       Pax No:       Report Format:       Standard       TRRP       INPDES						or:	/ze F	Analy		3		5	enda	r	con	fer.	ans.	rgyti	ene	e@	slad	ose.	IR		e-mail:		5	the	X	Mulle		mpler Signature	Sa
The Environmental Lab of Texas       Texas       12600 West I-20 East Odessa, Texas 79765       Phone: 432-563-1800 Fax: 432-563-1713         Project Manager:       Nikki Green       12600 West I-20 East Odessa, Texas 79765       Project Name: A14 Compressor Station Field Scrubber         Company Name       TRC Environmental Corporation       Project Name: A14 Compressor Station Field Scrubber         Company Address:       2057 Commerce Drive       TRC #: 273817         City/State/Zip:       Midland, Texas 79703       Project		DES		ð	TRR			lard	tand		21	mat:	For	Repon											Fax No:			2		20	432.520.77	lephone No:	Те
The Environmental Lab of Texas       12600 West I-20 East       Phone: 432-563-1800         Project Manager:       Nikki Green       12600 West I-20 East       Project Name:       A14 Compressor Station Field Scrubber         Company Name       TRC Environmental Corporation       Project Loc:       TRC #: 273817         Company Address:       2057 Commerce Drive       Project Loc:       Lea County, NM											#	PO			1															exas 79703	Midland, Te	y/State/Zip:	Q.
The Environmental Lab of Texas       12600 West I-20 East       Phone: 432-563-1800         Project Manager:       Nikki Green       Project Name:       A14 Compressor Station Field Scrubber         Company Name       TRC Environmental Corporation       Project #:       TRC #: 273817	l			, NM	unty	ea Co	-					ct Lo	roje	T																nerce Drive	2057 Comr	mpany Address	C
The Environmental Lab of Texas Project Manager: Nikki Green	1			3817	27	RC #	Ŧ				#	oject	Pro		Ċ													on	porati	onmental Corr	TRC Enviro	mpany Name	00
The Environmental Lab of Texas The Environmental Lab of Texas The Second ADD In the Cost Se	17	ubbe	old Sci	on Fie	tatic	sor S	rest	omp	4 C	P1	le:	Nam	oject	Pro	1																Nikki Greer	oject Manager:	Pr
	l		8	13	-180	2-563 2-563	43	LYS ax:	Ph	DA	AN	IRD	ECC	NYR	10	US	5 t C	Eas 1976	I-20	(est Tex	oo w	126 Ode									as	mental Lab of Tey	The Environ

Page 25 of 26



Client: TRC Solutions, Inc

### **XENCO** Laboratories Prelogin/Nonconformance Report- Sample Log-In



Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 03/24/2017 02:55:00 PM Temperature Measuring device used : R8 Work Order #: 549417 Comments Sample Receipt Checklist 2.2 #1 \*Temperature of cooler(s)? #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 N/A #6 Custody Seals intact on sample bottles? #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 relinguished/ received? Yes #12 Chain of Custody agrees with sample label(s)? Yes #13 Container label(s) legible and intact? Yes Yes #14 Sample matrix/ properties agree with Chain of Custody? #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 N/A samples for the analysis of HEM or HEM-SGT which are verified by the analysts. #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 WAMER Jessica Kramer Checklist reviewed by: Kelsey Brooks

Date: 03/24/2017

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

STATE ACCREDING

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,

Huns hoah

Kelsey Brooks Project Manager

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### 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#273817Work 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.



Continuate of Analysis Summary 55155	Certificate	of <i>A</i>	Analysis	Summary	55153
--------------------------------------	-------------	-------------	----------	---------	-------

TRC Solutions, Inc, Midland, TX



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

Project Name: A14 Compressor Station Field Scrubber Date Received in Lab: Fri Apr-21-17 11:39 am Report Date: 26-APR-17 Project Manager: Kelsey Brooks

	Lah Id.	551537-(	001	551537-0	002	551537-	003		
	<i>Eub</i> 10.	551557 C	501 cu	551557 (	11	551557			
Analysis Requested	Field Id:	FS-3 10	כי כי	FS-5a	1	FS-5a I	6		
1	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.

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Huns Boah

Kelsey Brooks Project Manager



### **Flagging Criteria**



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

MDL Method Detection Limit	SDL Sample Detection Limit	LOD Limit of Detection
PQL Practical Quantitation Limit	MQL Method Quantitation Limit	LOQ Limit of Quantitation

- **DL** Method Detection Limit
- NC Non-Calculable
- + NELAC certification not offered for this compound.
- \* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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4147 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr Suite 102, Tempe AZ 85282	(602) 437-0330	



Project Name: A14 Compressor Station Field Scrubber

Work Or	rders: 55153	7, Samelar 551527 001 / SMD	Project ID: TRC#273817 P Batch: 1 Matrix: Soil										
Lab Daten	mg/kg	Date Analyzed: 04/22/17 16:34				OTUDN/							
	mg/kg	Date Mary2ed: 04/22/17 10.34	SU	RROGATE R		STUDY	1						
	TPH I	3y SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags						
		Analytes			[D]								
1-Chlorooct	tane		98.1	99.7	98	70-135							
o-Terpheny	1		38.6	49.9	77	70-135							
Lab Batch	#: 3015601	Sample: 551537-002 / SMP	Batc	h: 1 Matrix:	Soil								
Units:	mg/kg	Date Analyzed: 04/22/17 16:53	SURROGATE RECOVERY STUDY										
	TPH I	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
1-Chlorooct	tane	Anarytes	113	00.8	113	70.135							
o-Terpheny	1		59.2	/9.0	110	70-135							
Lab Batch	#• 3015601	Sample: 551537-003 / SMP	Bate	h· 1 Matrix	Soil	70-135							
Units.	mg/kg	<b>Date Analyzed:</b> $04/22/17$ 17.12	SURROGATE RECOVERY STUDY										
Cints.	ing/kg	Date Analyzet. 04/22/17 17.12	50	STUDY									
	TPH I	3y SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags						
		Analytes											
1-Chlorooct	tane		105	99.8	105	70-135							
o-Terpheny	1		52.7	49.9	106	70-135							
Lab Batch	#: 3015680	Sample: 551537-001 / SMP	Batc	h: 1 Matrix:	Soil								
Units:	mg/kg	<b>Date Analyzed:</b> 04/24/17 10:30	SU	RROGATE R	ECOVERY	STUDY							
	ВТЕХ	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
1,4-Difluor	obenzene		0.0321	0.0300	107	80-120							
4-Bromoflu	orobenzene		0.0259	0.0300	86	80-120							
Lab Batch	#: 3015680	Sample: 551537-002 / SMP	Batc	h: 1 Matrix:	Soil								
Units:	mg/kg	Date Analyzed: 04/24/17 10:46	SU	RROGATE R	ECOVERY	STUDY							
	ВТЕХ	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
1,4-Difluor	obenzene		0.0283	0.0300	94	80-120							
4-Bromoflu	orobenzene		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



Project Name: A14 Compressor Station Field Scrubber

Work Or	rders: 55153	7, Sompley 551537 003 / SMP	Project ID: TRC#273817 IP Batch: 1 Matrix: Soil									
Units:	mσ/kσ	Date Analyzed: 04/24/17 11:01				STUDY						
	ing kg		50	KROGATE K								
	ВТЕУ	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags					
		Analytes			[D]							
1,4-Difluor	obenzene		0.0311	0.0300	104	80-120						
4-Bromoflu	orobenzene		0.0252	0.0300	84	80-120						
Lab Batch	#: 3015601	Sample: 723517-1-BLK / B	LK Bate	h: 1 Matrix:	Solid							
Units:	mg/kg	Date Analyzed: 04/21/17 22:55	SU	RROGATE R	ECOVERY	STUDY						
	TPH I	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1-Chlorooct	tane	1 mary tes	121	100	121	70-135						
o-Terpheny	1		63.1	50.0	121	70-135						
Lab Batch	#• 3015680	Sample: 723559-1-BLK / B	LK Bate	h· 1 Matrix	Solid	70-135						
Units:	mg/kg	Date Analyzed: 04/24/17 09:48			ECOVEDV	STUDY						
	ing kg	Dute muly2cu. 0 02 017 09.10	50	KKUGAIE K	LUVERY	STUDY						
	BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags					
		Analytes										
1,4-Difluor	obenzene		0.0345	0.0300	115	80-120						
4-Bromoflu	orobenzene		0.0343	0.0300	114	80-120						
Lab Batch	#: 3015601	<b>Sample:</b> 723517-1-BKS / B	KS Bate	h: 1 Matrix:	Solid							
Units:	mg/kg	Date Analyzed: 04/21/17 23:15	SU	RROGATE R	ECOVERY	STUDY						
	TPH I	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1-Chlorooct	tane		98.0	100	98	70-135						
o-Terpheny	1		50.2	50.0	100	70-135						
Lab Batch	#: 3015680	Sample: 723559-1-BKS / B	KS Bate	h: 1 Matrix:	Solid							
Units:	mg/kg	Date Analyzed: 04/24/17 08:26	SU	RROGATE R	ECOVERY	STUDY						
	втех	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1,4-Difluor	obenzene		0.0291	0.0300	97	80-120						
4-Bromoflu	orobenzene		0.0270	0.0200	00	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



Project Name: A14 Compressor Station Field Scrubber

Work Or Lab Batch	rders: 55153 #: 3015601	7, Sample: 723517-1-BSD / F	BSD Batch: 1 Matrix: Solid									
Units:	mg/kg	Date Analyzed: 04/21/17 23:34	SU	RROGATE R	ECOVERY	STUDY						
	TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1 Chlorecot	tana	Analytes	110	100	110	70.125						
1-Chiorooct	1		119	100	119	70-135						
Lob Botob	1 #• 2015680	Somular 722550 1 DSD / E	01.5	50.0	Solid	/0-135						
	#: 3013080		SD Date		Solid							
Units:	mg/kg	<b>Date Analyzed:</b> 04/24/17 08:43	SU	RROGATE R	ECOVERY	STUDY						
	BTEX	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1,4-Difluoro	obenzene		0.0297	0.0300	99	80-120						
4-Bromoflu	orobenzene		0.0281	0.0300	94	80-120						
Lab Batch	#: 3015601	Sample: 551449-002 S / M	S Batcl	h: 1 Matrix:	: Soil							
Units:	mg/kg	Date Analyzed: 04/22/17 00:33	SU	RROGATE R	ECOVERY	STUDY						
	TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags					
		Analytes			[D]							
1-Chlorooct	tane		107	99.8	107	70-135						
o-Terpheny	1		50.6	49.9	101	70-135						
Lab Batch	#: 3015680	Sample: 551542-001 S / M	S Batcl	h: 1 Matrix:	: Soil							
Units:	mg/kg	Date Analyzed: 04/24/17 08:59	SU	RROGATE R	ECOVERY	STUDY						
	втех	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1,4-Difluor	obenzene		0.0325	0.0300	108	80-120						
4-Bromoflu	orobenzene		0.0296	0.0300	99	80-120						
Lab Batch	#: 3015601	Sample: 551449-002 SD / 1	MSD Batcl	h: 1 Matrix:	Soil							
Units:	mg/kg	Date Analyzed: 04/22/17 00:52	SU	RROGATE R	ECOVERY	STUDY						
	TPH I	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1-Chlorooct	tane		114	99.9	114	70-135						
o-Terpheny	1		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



Project Name: A14 Compressor Station Field Scrubber

Work Orders : 551537,           Lab Batch #: 3015680         Sample: 551542-001 SD / 1	MSD Batch: 1 Matrix: Soil									
Units:         mg/kg         Date Analyzed: 04/24/17 09:15	SU	RROGATE RI	ECOVERY S	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



### **BS / BSD Recoveries**



#### Project Name: A14 Compressor Station Field Scrubber

Work Order	#: 551537							Proj	ect ID:	FRC#2738	17			
Analyst:	ALJ	D	ate Prepar	red: 04/24/201	7	<b>Date Analyzed:</b> 04/24/2017								
Lab Batch ID:	3015680 Sample: 723559-1-H	BKS	Batcl	<b>h #:</b> 1		Matrix: Solid								
Units:	mg/kg	SPIKE / I	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	DY						
	BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag		
Analyt	tes		[B]	[C]	[D]	[E]	Result [F]	[G]						
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			
Ethylbenze	ne	< 0.00199	0.0994	0.111	112	0.0998	0.109	109	2	71-129	35			
m_p-Xylen	es	< 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	D	ate Prepar	red: 04/24/201	7			Date A	nalyzed: (	04/24/2017				
Lab Batch ID:	3015643 Sample: 723511-1-H	BKS	Batcl	<b>h #:</b> 1					Matrix: S	Solid				
Units:	mg/kg		BLAN	K/BLANK	SPIKE / I	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	DY			
Analyt	Chloride by EPA 300 tes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag		
Chloride	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							Proj	ject ID:	TRC#27381	17	
Analyst:	ARM	D	ate Prepar	red: 04/21/201		Date Analyzed: 04/21/2017						
Lab Batch ID:	<b>Sample:</b> 723517-1-E	KS	S Batch #: 1 Matrix: Solid									
Units:	mg/kg	SPIKE / I	BLANK S	SPIKE DUPI	LICATE	RECOV	ERY STUD	νY				
Analy	TPH By SW8015 Mod tes	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 G	asoline Range Hydrocarbons	<15.0	1000	974	97	1000	1040	104	7	70-135	35	
С10-С28 І	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





#### Project Name: A14 Compressor Station Field Scrubber

<b>Work Order # :</b> 551537						Project II	<b>):</b> TRC#2	273817			
Lab Batch ID: 3015680	QC- Sample ID:	551542	-001 S	Ba	tch #:	1 Matrix	k: Soil				
<b>Date Analyzed:</b> 04/24/2017	Date Prepared:	04/24/2	017	An	alyst: A	ALJ					
Reporting Units: mg/kg		Ν	ATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	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
Pangana	<0.00151	0.100	0.0742	74	0.0008	0.0666	67	11	70.120	25	v
Teluge	<0.00131	0.100	0.0745	52	0.0998	0.0000	44	11	70-130	25	
Ethylhenzene	<0.00201	0.100	0.0313	45	0.0998	0.0430	44	14	71-129	35	X X
m p-Xvlenes	<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	Ba	tch #:	1 Matrix	<b>k:</b> Soil	I	1	1	I
<b>Date Analyzed:</b> 04/24/2017	Date Prepared:	04/24/2	017	An	alyst: N	MGO					
Departing Units, malka		-									
<b>Keporting Units:</b> mg/Kg		N	ATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
Chloride by EPA 300	Parent Sample Result	Spike	ATRIX SPIK	E / MAT Spiked Sample %P	Spike	KE DUPLICA Duplicate Spiked Sample Result [F]	TE REC Spiked Dup. %R	OVERY :	STUDY Control Limits %B	Control Limits	Flag
Chloride by EPA 300 Analytes	Parent Sample Result [A]	N Spike Added [B]	ATRIX SPIK Spiked Sample Result [C]	E / MAT Spiked Sample %R [D]	RIX SPI Spike Added [E]	KE DUPLICA Duplicate Spiked Sample Result [F]	TE REC Spiked Dup. %R [G]	OVERY	STUDY Control Limits %R	Control Limits %RPD	Flag
Chloride by EPA 300 Analytes Chloride	Parent Sample Result [A] 695	N Spike Added [B] 250	ATRIX SPIK Spiked Sample Result [C] 936	E / MAT Spiked Sample %R [D] 96	RIX SPI Spike Added [E] 250	KE DUPLICA Duplicate Spiked Sample Result [F] 944	TE REC Spiked Dup. %R [G] 100	RPD %	STUDY Control Limits %R 90-110	Control Limits %RPD	Flag
Chloride by EPA 300 Analytes Chloride Lab Batch ID: 3015601	Parent Sample Result [A] 695 QC- Sample ID:	N Spike Added [B] 250 551449	ATRIX SPIK Spiked Sample Result [C] 936 -002 S	E / MAT Spiked Sample %R [D] 96 Ba	RIX SPI Spike Added [E] 250 tch #:	KE DUPLICA Duplicate Spiked Sample Result [F] 944 1 Matrix	TE REC Spiked Dup. %R [G] 100 k: Soil	RPD %	STUDY Control Limits %R 90-110	Control Limits %RPD 20	Flag
Chloride by EPA 300 Analytes Chloride Lab Batch ID: 3015601 Date Analyzed: 04/22/2017	Parent Sample Result [A] 695 QC- Sample ID: Date Prepared:	N: Spike Added [B] 250 551449 04/21/2	ATRIX SPIK Spiked Sample Result [C] 936 -002 S 017	E / MAT Spiked Sample %R [D] 96 Ba An	RIX SPI Spike Added [E] 250 tch #: alyst: 4	KE DUPLICA Duplicate Spiked Sample Result [F] 944 1 Matrix ARM	TE REC Spiked Dup. %R [G] 100 x: Soil	OVERY RPD %	STUDY Control Limits %R 90-110	Control Limits %RPD 20	Flag
Chloride by EPA 300         Analytes         Chloride         Lab Batch ID:       3015601         Date Analyzed:       04/22/2017         Reporting Units:       mg/kg	Parent Sample Result [A] 695 QC- Sample ID: Date Prepared:	N: Spike Added [B] 250 551449 04/21/2 N:	ATRIX SPIK Spiked Sample Result [C] 936 -002 S 017 [ATRIX SPIK]	E / MAT Spiked Sample %R [D] 96 Ba An E / MAT	RIX SPI Spike Added [E] 250 tch #: alyst: A RIX SPI	KE DUPLICA' Duplicate Spiked Sample Result [F] 944 1 Matrix ARM KE DUPLICA'	TE REC Spiked Dup. %R [G] 100 x: Soil TE REC	OVERY	STUDY Control Limits %R 90-110 STUDY	ControlLimits%RPD20	Flag
Chloride by EPA 300 Analytes Chloride Lab Batch ID: 3015601 Date Analyzed: 04/22/2017 Reporting Units: mg/kg TPH By SW8015 Mod Analytes	Parent Sample Result [A] 695 QC- Sample ID: Date Prepared: Parent Sample Result [A]	N           Spike           Added           [B]           250           551449           04/21/2           N           Spike           Added           [B]	ATRIX SPIK Spiked Sample Result [C] 936 -002 S 017 IATRIX SPIK Spiked Sample Result [C]	E / MAT Spiked Sample %R [D] 96 Ba An E / MAT Spiked Sample %R [D]	RIX SPI Spike Added [E] 250 tch #: alyst: A RIX SPI Spike Added [E]	KE DUPLICA' Duplicate Spiked Sample Result [F] 944 1 Matrix ARM KE DUPLICA' Duplicate Spiked Sample Result [F]	TE REC Spiked Dup. %R [G] 100 x: Soil TE REC Spiked Dup. %R [G]	OVERY	STUDY Control Limits %R 90-110 STUDY Control Limits %R	Control Limits %RPD 20 Control Limits %RPD	Flag
Chloride by EPA 300 Analytes Chloride Lab Batch ID: 3015601 Date Analyzed: 04/22/2017 Reporting Units: mg/kg TPH By SW8015 Mod Analytes C6-C10 Gasoline Banee Hydrocarbons	Parent Sample Result [A] 695 QC- Sample ID: Date Prepared: Result [A]	N           Spike           Added           [B]           250           551449           04/21/2           M           Spike           Added           [B]           998	ATRIX SPIK Spiked Sample Result [C] 936 -002 S 017 [ATRIX SPIK] Spiked Sample Result [C] 953	E / MAT Spiked Sample %R [D] 96 Ba An E / MAT Spiked Sample %R [D] 95	RIX SPI Spike Added [E] 250 tch #: alyst: 4 RIX SPI Spike Added [E]	KE DUPLICA' Duplicate Spiked Sample Result [F] 944 1 Matrix ARM KE DUPLICA' Duplicate Spiked Sample Result [F]	TE REC Spiked Dup. %R [G] 100 x: Soil TE REC Spiked Dup. %R [G] 105	OVERY RPD % 1 OVERY RPD %	STUDY Control Limits %R 90-110 STUDY Control Limits %R 70-135	Control Limits %RPD 20 Control Limits %RPD	Flag Flag
Keporting Cints:       Ing/kg         Chloride by EPA 300       Analytes         Chloride       Image: Chloride         Lab Batch ID:       3015601         Date Analyzed:       04/22/2017         Reporting Units:       mg/kg         TPH By SW8015 Mod         Analytes         C6-C10 Gasoline Range Hydrocarbons         C10-C28 Diesel Range Organics	Parent Sample Result [A] 695 QC- Sample ID: Date Prepared: Parent Sample Result [A] <15.0 61.3	N           Spike           Added           [B]           250           551449           04/21/2           M           Spike           Added           [B]           998           998	ATRIX SPIK Spiked Sample Result [C] 936 -002 S 017 IATRIX SPIK Spiked Sample Result [C] 953 1030	E / MAT Spiked Sample %R [D] 96 Ba An E / MAT Spiked Sample %R [D] 95 97	RIX SPI Spike Added [E] 250 tch #: alyst: A RIX SPI Spike Added [E] 999 999	KE DUPLICA' Duplicate Spiked Sample Result [F] 944 1 Matrix ARM KE DUPLICA' Duplicate Spiked Sample Result [F] 1050 1080	TE REC Spiked Dup. %R [G] 100 x: Soil TE REC Spiked Dup. %R [G] 105 102	OVERY : RPD % 1 OVERY : RPD % 10 5	STUDY Control Limits %R 90-110 STUDY Control Limits %R 70-135	Control Limits %RPD 20 Control Limits %RPD 35 35	Flag

Matrix Spike Percent Recovery  $[D] = 100^{*}(C-A)/B$ Relative Percent Difference RPD =  $200^{*}|(C-F)/(C+F)|$  Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

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

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Client: TRC Solutions, Inc

### **XENCO** Laboratories Prelogin/Nonconformance Report- Sample Log-In



Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 04/21/2017 11:39:00 AM Temperature Measuring device used : R8 Work Order #: 551537 Comments Sample Receipt Checklist 3.2 #1 \*Temperature of cooler(s)? #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 N/A #6 Custody Seals intact on sample bottles? #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 relinguished/ 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 N/A samples for the analysis of HEM or HEM-SGT which are verified by the analysts. #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 WAMER Jessica Kramer Checklist reviewed by: Kelsey Brooks

Date: 04/21/2017

Date: 04/21/2017



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

Certificate of Analysis Summary 553088

TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station Field Scrubber



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

	Lab Id:	553088-0	001	553088-0	002	553088-0	003	553088-0	004	553088-0	005	553088-0	006
Analysis Paguastad	Field Id:	FS -1a	4'	FS-1a 9	)'	FS-2a	4'	FS-2a S	<b>)</b> '	FS-3a 4	4'	FS-3a	9'
Analysis Kequesiea	Depth:												
	Matrix:	SOIL		SOIL		SOIL	,	SOIL		SOIL		SOIL	
	Sampled:	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	Extracted:	May-16-17	15:00			May-16-17	15:00			May-16-17	15:00		
	Analyzed:	May-17-17	07:39			May-17-17	07:55			May-17-17	08:12		
	Units/RL:	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	Extracted:	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
	Analyzed:	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
	Units/RL:	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	Extracted:	May-15-17	14:00			May-15-17	14:00			May-15-17	14:00		
	Analyzed:	May-15-17	20:48			May-15-17	21:07			May-15-17	22:04		
	Units/RL:	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

Huns Boah

Kelsey Brooks Project Manager

Final 1.001
# 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,

Huns hoah

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 Id

FS -1a 4'
FS-1a 9'
FS-2a 4'
FS-2a 9'
FS-3a 4'
FS-3a 9'

# Sample Cross Reference 553088



Matrix	Date Collected	Sample Depth	Lab Sample Id
S	05-10-17 11:45		553088-001
S	05-10-17 12:19		553088-002
S	05-10-17 14:25		553088-003
S	05-10-17 14:58		553088-004
S	05-10-17 16:12		553088-005
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#273817Work 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.



1-Chlorooctane

o-Terphenyl

## **Certificate of Analytical Results 553088**



## TRC Solutions, Inc, Midland, TX

A14 Compressor Station Field Scrubber

Sample Id:	Sample Id: FS -1a 4'			Soil	I	Date Received:05.12.17 13.13				
Lab Sample Io	l: 553088-001		Date Colle	ected: 05.10.17 11.45						
Analytical Me	thod: Chloride by	EPA 300			I	Prep Method: E30	OP			
Tech:	MGO				ç	% Moisture:				
Analyst:	MGO		Date Prep:	05.20.17 16.45	I	Basis: Wet	Weight			
Seq Number:	3017806						U			
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 ModTech:ARMAnalyst:ARMSeq 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 20.48	U	1		
Diesel Range O	rganics	C10C28DRO	23.6	15.0	mg/kg	05.15.17 20.48		1		
Oil Range Hydro	ocarbons	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			

99

101

%

%

70-135

70-135

 $05.15.17\ 20.48$ 

 $05.15.17\ 20.48$ 

111-85-3

84-15-1





## TRC Solutions, Inc, Midland, TX

Sample Id:	FS -1a 4'		Matrix:	Soil		Date Received	:05.12	.17 13.13	
Lab Sample Id:	553088-001	Date Collect	ed: 05.10.17 11.45						
Analytical Met	hod: BTEX by EPA 802	1B				Prep Method:	SW50	)30B	
Tech:	ALJ					% Moisture:			
Analyst:	ALJ		Date Prep:	05.16.17 15.00		Basis:	Wet W	Veight	
Seq Number:	3017621								
Parameter		Cas Number	Result	RL	Units	Analysis Da	ıte	Flag	Dil

							8	
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		





### TRC Solutions, Inc, Midland, TX

Sample Id:	<b>FS-1a 9'</b>		Matrix:	Soil		Date Received	:05.12.17 13.13	3
	1. 555068-002	200	Date Collec	cted. 03.10.17 12.19			E2005	
Analytical Me	ethod: 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 Da	te Flag	Dil
Chloride		16887-00-6	162	49.3	mg/kg	05.20.17 19.5	59	10





## TRC Solutions, Inc, Midland, TX

Sample Id: <b>FS-2a 4'</b> Lab Sample Id: 553088-003		Matrix: Date Collec	Soil cted: 05.10.17 14.25		Date Received:05.1	12.17 13.1	3
Analytical Method: Chloride by Tech: MGO Analyst: MGO Seq Number: 3017806	EPA 300	Date Prep:	05.20.17 16.45		Prep Method: E30 % Moisture: Basis: Wet	00P t 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 SW Tech: ARM Analyst: ARM Seq Number: 3017485	8015 Mod	Date Prep:	05.15.17 14.00		Prep Method: TX % Moisture: Basis: Wet	1005P t 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			

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		





## TRC Solutions, Inc, Midland, TX

Sample Id:         FS-2a 4'           Lab Sample Id:         553088-003	Matrix: Date Collected	Soil : 05.10.17 14.25	Date Received	:05.12.17 13.13
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3017621	Date Prep:	05.16.17 15.00	Prep Method: % Moisture: Basis:	SW5030B Wet Weight

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		





### TRC Solutions, Inc, Midland, TX

Sample Id:	FS-2a 9'		Matrix:	Soil		Date Received	:05.12.17 13.1	3
Lab Sample Io	d: 553088-004	Date Collec	Date Collected: 05.10.17 14.58					
Analytical Me	ethod: 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 Da	ite Flag	Dil
Chloride		16887-00-6	27.0	5.01	mg/kg	05.20.17 20.	15	1





## TRC Solutions, Inc, Midland, TX

Sample Id: <b>FS-3a 4'</b> Lab Sample Id: 553088-005			Matrix: Date Collec	Soil cted: 05.10.17 16.12		Date Received:05	12.17 13.13	3
Analytical Me Tech: Analyst: Seq Number:	thod: Chloride by EPA MGO MGO 3017806	Date Prep:	05.20.17 16.45		Prep Method: E3 % Moisture: Basis: We	00P et 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 Me Tech:	thod: TPH by SW8015 ARM	Mod				Prep Method: TX % Moisture:	1005P	
Analyst: Seq Number:	ARM 3017485		Date Prep:	05.15.17 14.00		Basis: We	et Weight	
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil

1 ar ameter	Casitumber	Rebuit	KL		Units	Analysis Date	Flag	Dii
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		





## TRC Solutions, Inc, Midland, TX

Sample Id: Lab Sample Id	<b>FS-3a 4'</b> : 553088-005	Matrix: Date Collected	Soil : 05.10.17 16.12	Date Received	:05.12.17 13.13
Analytical Met Tech: Analyst: Seq Number:	hod: BTEX by EPA 8021B ALJ ALJ 3017621	Date Prep:	05.16.17 15.00	Prep Method: % Moisture: Basis:	SW5030B Wet Weight

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		





### TRC Solutions, Inc, Midland, TX

Sample Id:	FS-3a 9'		Matrix:	Soil	]	Date Received:	05.12.17 13.13	3
Lab Sample Id	1: 553088-006		Date Collec	cted: 05.10.17 16.58				
Analytical Me	ethod: 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 Da	te Flag	Dil
Chloride		16887-00-6	49.2	5.00	mg/kg	05.20.17 20.3	30	1



# **Flagging Criteria**



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

MDL Method Detection Limit	SDL Sample Detection Limit	LOD Limit of Detection
PQL Practical Quantitation Limit	MQL Method Quantitation Limit	LOQ Limit of Quantitation

- **DL** Method Detection Limit
- NC Non-Calculable
- + NELAC certification not offered for this compound.
- \* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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2525 W. Huntington Dr Suite 102, Tempe AZ 85282	(602) 437-0330	



# QC Summary 553088

## **TRC Solutions, Inc**

Analytical Method:	Chloride by EPA 30	0						Pre	ep Metho	1: E30	OP	
Seq Number:	3017806		I	Matrix:	Solid				Date Prep	p: 05.2	0.17	
MB Sample Id:	724934-1-BLK		LCS San	ple Id:	724934-1-	BKS		LCSI	Sample	Id: 724	934-1-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 30	0						Pr	ep Metho	od: E300	OP	
Seq Number:	3017806				Matrix:	Soil				Date Pre	ep: 05.2	0.17	
Parent Sample Id:	553084-001			MS San	nple Id:	553084-00	01 S		MSI	O Sample	Id: 5530	)84-001 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 30	0						Pr	ep Metho	od: E30	0P	
Seq Number:	3017806			Matrix:	Soil				Date Pre	ep: 05.2	0.17	
Parent Sample Id:	553084-005		MS San	nple Id:	553084-00	)5 S		MSI	O Sample	Id: 553	084-005 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:	lytical Method: TPH by SW8015 Mod										Prep Method: TX1005P					
Seq Number:	3017485				Matrix:	Solid			Date Prep: 05.15.17							
MB Sample Id:	724731-1-E	BLK		LCS Sar	nple Id:	724731-1	-BKS		LCSD Sample Id: 724731-1-BSD							
ParameterMB ResultSpike AmountCaseline Pange Hydrocarbons<15.01000			Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag			
Gasoline Range Hydroc	arbons	<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		MB %Rec	MB Flag	L %	CS Rec	LCS Flag	LCSI %Re	) LCS c Fla	D Li g	imits	Units	Analysis Date				
1-Chlorooctane		117		1	13		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**

Analytical Method:						Pı	ep Meth	od: TX1	005P				
Seq Number:	3017485				Matrix:	Soil		Date Prep: 05.15.17					
Parent Sample Id:	553084-001			MS San	nple Id:	553084-00	01 S		MS	D Sampl	e Id: 5530	084-001 SD	
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydroca	arbons	<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				N %	AS Rec	MS Flag	MSD %Ree	o MSI c Flag	) Li g	mits	Units	Analysis Date	
1-Chlorooctane				1	09		105		70	-135	%	05.15.17 17:58	
o-Terphenyl				1	00		93		70	-135	%	05.15.17 17:58	

Analytical Method:	BTEX by EPA 8021	B						Pı	Prep Method: SW5030B				
Seq Number:	3017621		]	Matrix:	Solid				Date Prep: 05.16.17				
MB Sample Id:	724725-1-BLK		LCS San	724725-1-BKS I			LCS	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	L0 %]	CS Rec	LCS Flag	LCSI %Re	) LCS c Flag	D Li g	mits	Units	Analysis Date		
1,4-Difluorobenzene	101		1	06		118		80	-120	%	05.16.17 15:59		
4-Bromofluorobenzene	95		1	12		119		80	-120	%	05.16.17 15:59		
1,4-Difluorobenzene 4-Bromofluorobenzene	101 95		1 1	06 12		118 119		80 80	-120 -120	% %	05.16.17 15:59 05.16.17 15:59		

<b>Analytical Method:</b> Seq Number: Parent Sample Id:	<b>bd: BTEX by EPA 8021B</b> 3017621 553084-008			Matrix: Soil MS Sample Id: 553084-008 S				Pr MS	rep Methe Date Pr D Sample	od: SW3 ep: 05.1 e Id: 5530	5030B 6.17 )84-008 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			M %I	IS Rec	MS Flag	MSD %Rec	MSE Flag	) Li ç	imits	Units	Analysis Date	
1,4-Difluorobenzene			11	12		103		80	)-120	%	05.16.17 17:03	
4-Bromofluorobenzene			11	19		119		80	0-120	%	05.16.17 17:03	

Relinquis	Relinquis	Special							) 			LAB # (lab use only)	URDE	(lab use							The En
shed by: ihed by:	sheef by:	Instructions:				1		F	- F2	P	Ţ	Ē	R# ()()()	ICLY (Autos	Sampler Signature	Telephone No:	City/State/Zip:	Company Address	Company Name	Project Manager:	vironmental Lab of Tex
f Date Date	Sur Sliz					S-3a 9'	S-3a 4'	S-2a 9'	S-2a 4'	S-1a 9'	S-1a 4'	LD CODE	00	88	TUNNUL	432.520.7720	Midland, Texas 79703	2057 Commerce Drive	TRC Environmental Cc	Nikki Green	S
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°C)		h				1			1.11			Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	fCon		gytr						Eas
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Time	J2 Time						×		×		х	TPH: 418.1 (8015M) 801	15B			For		rojec	Pro	ject	
	20500	. =	-		++	-	_	_				TPH: TX 1005 TX 1006	_			nat:	РО	t Lo	ject	Nam	
bamp	abel usto	abo	+		++	+	-	-	-	-	-	Cations (Ca, Mg, Na, K)	-			_	*	1	*		
y Sal y Co	s Fre	rato	+		++	+	+	-	-	-		SAR / ESP / CEC	-	TCLF	1.1	N K				A	
mple	con con conseals	TY C	+		++	+	-					Metals: As Ag Ba Cd Cr Pb Hg	Se		>	tanda				400	Pho
Delin r/Clie	Heataine	omn				+	+					Volatiles		+	naly	ard				Idua	one: IX:
Int Re UPS	dspa r(s) onta	lents										Semivolatiles			ze Fo			Le	Ħ	ess	432
sp. ?	iner(	3					×		×		×	BTEX 80219/5030 or BTEX 826	60		5			a Co	C #	Or S	-563
DHL	(s						_					RCI	-			TRR		unty	. 27	tatic	-18
т			-									N.O.R.M.	-	_		P		. NN	381	n-F	13
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5		-	-			+	+		-		-		-	-		NF				Sor	
neszzz	zzzz	2				+	1		1			RUSH TAT (Pre-Schedule) 24,	48, 7	2 hrs		DE				dqn	
5			1				< 1	×	×	×	×	Standard TAT		-	-	S				er	



## XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 05/12/2017 01:13:00 PM Temperature Measuring device used : R9 Work Order #: 553088 Comments Sample Receipt Checklist 4.6 #1 \*Temperature of cooler(s)? #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 N/A #6 Custody Seals intact on sample bottles? #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 relinguished/ 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 N/A samples for the analysis of HEM or HEM-SGT which are verified by the analysts. #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:

Marta Anaya

Marithza Anaya

Date: 05/12/2017

Checklist reviewed by:

Holly Taylor

Date: 05/15/2017



Nikki Green

Lea County, NM

**Contact:** 

**Project Location:** 

Certificate of Analy	sis Summary	555475
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TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station Field Scrubber



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

	Lab Id:	555475-0	001	555475-0	002	555475-0	)03	555475-	004	555475-(	005	555475-	006
Analysis Paguested	Field Id:	BH-1 4	r	SW-13	3'	NW-1	3'	BH-4	1'	EW-1	3'	BH-2	3'
Analysis Kequestea	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 (	Jun-16-17 02:59		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	Jun-19-17 13:30		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 2	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.

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Huns Roah

Kelsey Brooks Project Manager

Page 1 of 32



TRC Solutions, Inc, Midland, TX



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

Project Name: A14 Compressor Station Field Scrubber Date Received in Lab: Thu Jun-15-17 09:30 am Report Date: 06-JUL-17 Project Manager: Kelsey Brooks

	Lab Id:	555475-0	007	555475-0	008	555475-0	)09		
Anglucia Deguested	Field Id:	SW-2 2	2'	NW-2 2	2'	BH-5 1	l'		
Analysis Kequesiea	Depth:	2 ft		2 ft		1 ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Jun-14-17 1	10:15	Jun-14-17	10:27	Jun-14-17	17:05		
BTEX by EPA 8021B	Extracted:	Jun-15-17	17:15	Jun-16-17 1	5:30	Jun-19-17 (	06:30		
	Analyzed:	Jun-16-17	11:32	Jun-17-17 1	2:35	Jun-19-17 1	13:22		
	Units/RL:	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	Extracted:	Jun-19-17	13:30	Jun-19-17 1	3:30	Jun-19-17	13:30		
	Analyzed:	Jun-19-17 2	20:28	Jun-19-17 2	20:36	Jun-19-17 2	20:43		
	Units/RL:	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	Extracted:	Jun-15-17	15:00	Jun-15-17 1	5:00	Jun-15-17	15:00		
	Analyzed:	Jun-16-17 (	01:28	Jun-16-17 (	01:48	Jun-16-17 (	02:10		
	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		<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,

Huns hoah

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

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Sample Id 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'

# Sample Cross Reference 555475



## TRC Solutions, Inc, Midland, TX

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





## TRC Solutions, Inc, Midland, TX

Sample Id:	BH-1 4'		Matrix:	Soil		Date Received	1:06.15.17 09.3	0
Lab Sample Id	1: 555475-001		Date Collecte	d: 06.13.17 11.51		Sample Depth	:4 ft	
Analytical Me	thod: Chloride by EPA 30	00				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 R	L	Units	Analysis Da	ate Flag	Dil

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 SW8	015 Mod				P	rep Method: TX	1005P	
Tech: ARM					9	Moisture:		
Analyst: ARM		Date Pre	p: 06.15.	17 15.00	E	asis: We	t 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		





## TRC Solutions, Inc, Midland, TX

Sample Id: Lab Sample Id:	<b>BH-1 4'</b> : 555475-001	Matrix: Date Collected	Soil : 06.13.17 11.51	Date Received Sample Depth:	:06.15.17 09.30 :4 ft
Analytical Met Tech:	hod: BTEX by EPA 8021B ALJ			Prep Method: % Moisture:	SW5030B
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		





## TRC Solutions, Inc, Midland, TX

Sample Id:	SW-1 3'		Matrix:	Soil		Date Received	:06.15.17 09	9.30
Lab Sample Id	: 555475-002		Date Collect	ed: 06.13.17 12.05		Sample Depth	:3 ft	
Analytical Met	thod: Chloride by EPA 30	00				Prep Method:	E300P	
Tech:	MGO					% Moisture:		
Analyst:	MGO		Date Prep:	06.19.17 11.00		Basis:	Wet Weigh	t
Seq Number:	3020141							
Parameter		Cas Number	Result ]	8L	Units	Analysis Da	ate Flag	Dil

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 SW8	8015 Mod				F	Prep Method: TX	1005P	
Tech: ARM					9	6 Moisture:		
Analyst: ARM		Date Pre	p: 06.15.	17 15.00	E	Basis: We	t 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		





## TRC Solutions, Inc, Midland, TX

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 Met	hod: 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	< 0.00205	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		





## TRC Solutions, Inc, Midland, TX

Sample Id:	NW-1 3'		Matrix:	Soil		Date Received	1:06.15.17 09.30	
Lab Sample Id	: 555475-003		Date Collecte	d:06.13.17 12.17		Sample Depth	:3 ft	
Analytical Met	thod: Chloride by EPA 30	00				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 F	RL .	Units	Analysis Da	ate Flag	Dil

Farameter	Cas Number	Result	KL	Units	Analysis Date	Flag	DII
Chloride	16887-00-6	38.9	5.00	mg/kg	06.19.17 17.48		1

Analytical Method: TPH by SW8	8015 Mod				F	Prep Method: TX	1005P	
Tech: ARM					9	6 Moisture:		
Analyst: ARM		Date Pre	o: 06.15.	17 15.00	E	Basis: We	t 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 00.06	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		





## TRC Solutions, Inc, Midland, TX

Sample Id:         NW-1 3'           Lab Sample Id:         555475-003	Matrix: Date Collected	Soil : 06.13.17 12.17	Date Received Sample Depth:	:06.15.17 09.30 :3 ft
Analytical Method: BTEX by EPA 8021B Tech: ALJ			Prep Method: % Moisture:	SW5030B
Analyst:ALJSeq Number:3019915	Date Prep:	06.15.17 17.15	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		





## TRC Solutions, Inc, Midland, TX

Sample Id:	BH-4 1'		Matrix:	Soil		Date Received:	:06.15.17 09.3	0
Lab Sample I	d: 555475-004		Date Colle	cted: 06.14.17 17.00		Sample Depth:	1 ft	
Analytical M	ethod: 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 Da	te Flag	Dil
Chloride		16887-00-6	13.9	4.94	mg/kg	06.19.17 17.5	56	1

Chloride	16887-00-6	13.9	4.94	mg/kg	06.19.17 17.56	1

Analytical Method: TPH by SW	8015 Mod				P	rep Method: TX	1005P	
Tech: ARM					9	6 Moisture:		
Analyst: ARM		Date Prep	o: 06.15	17 15.00	E	asis: We	t 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 00.27	U	1
<b>Diesel Range Organics</b>	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		





## TRC Solutions, Inc, Midland, TX

Sample Id:	BH-4 1'	Matrix:	Soil	Date Received	:06.15.17 09.30
Lab Sample Id	: 555475-004	Date Collected	:06.14.17 17.00	Sample Depth:	1 ft
Analytical Met	hod: 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 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		





## TRC Solutions, Inc, Midland, TX

Sample Id:	EW-1 3'		Matrix:	Soil		Date Received	1:06.1:	5.17 09.30	
Lab Sample Id	: 555475-005		Date Collecte	d: 06.13.17 12.22		Sample Depth	:3 ft		
Analytical Met	thod: Chloride by EPA 30	00				Prep Method:	E300	)P	
Tech:	MGO					% Moisture:			
Analyst:	MGO		Date Prep:	06.19.17 13.30		Basis:	Wet	Weight	
Seq Number:	3020148								
Parameter		Cas Number	Result I	RL	Units	Analysis Da	ate	Flag	Dil

i ar ameter	Cus Muniber	Result	KL	Omts	Analysis Date	Flag	Dii
Chloride	16887-00-6	336	4.89	mg/kg	06.19.17 19.58		1

Analytical Method: TPH by SW80	015 Mod				P	rep Method: TX	1005P	
Tech: ARM					9	Moisture:		
Analyst: ARM		Date Pre	p: 06.15	17 15.00	E	asis: We	t 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		





## TRC Solutions, Inc, Midland, TX

Sample Id:	EW-1 3'	Matrix:	Soil	Date Received	:06.15.17 09.30
Lao Sample Id	. 353473-005	Date Conected	. 00.13.17 12.22	Sample Depth	.5 H
Analytical Me	thod: BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.16.17 15.30	Basis:	Wet Weight
Seq Number:	3020005				

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		





## TRC Solutions, Inc, Midland, TX

Sample Id:	BH-2 3'		Matrix:	Soil		Date Received	1:06.15	.17 09.30	
Lab Sample Id	: 555475-006		Date Collect	ed: 06.14.17 10.00		Sample Depth	:3 ft		
Analytical Me	thod: Chloride by EPA 30	00				Prep Method:	E300	Р	
Tech:	MGO					% Moisture:			
Analyst:	MGO		Date Prep:	06.19.17 13.30		Basis:	Wet W	Weight	
Seq Number:	3020148								
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate	Flag	Dil

					-	-	
Chloride	16887-00-6	166	4.97	mg/kg	06.19.17 20.20		1

Analytical Method: TPH by SW8	8015 Mod				P	rep Method: TX	1005P	
Tech: ARM					9	6 Moisture:		
Analyst: ARM		Date Pre	p: 06.15.	17 15.00	E	Basis: We	t 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		





## TRC Solutions, Inc, Midland, TX

Sample Id: <b>BH-2 3'</b> Lab Sample Id: 555475-006	Matrix: Date Collected	Soil : 06.14.17 10.00	Date Received Sample Depth:	:06.15.17 09.30 :3 ft
Analytical Method: BTEX by EPA 8021B Tech: ALJ			Prep Method: % Moisture:	SW5030B
Analyst: ALJ Sea Number: 3020005	Date Prep:	06.16.17 15.30	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		




#### TRC Solutions, Inc, Midland, TX

Sample Id:	SW-2 2'		Matrix:	Soil		Date Received	:06.15.17 09.30	1
Lab Sample Id	: 555475-007		Date Collecte	d: 06.14.17 10.15		Sample Depth	:2 ft	
Analytical Me	thod: Chloride by EPA 30	00				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 R	L	Units	Analysis Da	ate Flag	Dil

rarameter	Cas Number	Kesuit	KL	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 SW8	8015 Mod				P	rep Method: TX	1005P	
Tech: ARM					9	6 Moisture:		
Analyst: ARM		Date Pre	p: 06.15.	17 15.00	E	Basis: We	t 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 01.28	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		





#### TRC Solutions, Inc, Midland, TX

Sample Id:	SW-2 2'	Matrix:	Soil	Date Received	:06.15.17 09.30	
Lab Sample Id	: 555475-007	Date Collected	:06.14.17 10.15	Sample Depth: 2 ft		
Analytical Met	hod: 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	< 0.00199	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		





#### TRC Solutions, Inc, Midland, TX

Sample Id: Lab Sample Id	<b>NW-2 2'</b> : 555475-008		Matrix: Date Collecte	Soil d: 06.14.17 10.27		Date Received Sample Depth	l:06.15 :2 ft	5.17 09.30	
Analytical Me Tech:	thod: Chloride by EPA 30 MGO	00				Prep Method: % Moisture:	E300	)P	
Analyst:	MGO		Date Prep:	06.19.17 13.30		Basis:	Wet	Weight	
Seq Number:	3020148								
Parameter		Cas Number	Result F	L	Units	Analysis Da	ate	Flag	Dil

Chloride	16887-00-6	186	24.8	mg/kg	06.19.17 20.36	5

Analytical Method: TPH by SW	8015 Mod				P	rep Method: TX	1005P	
Tech: ARM					9	6 Moisture:		
Analyst: ARM		Date Pre	p: 06.15.	17 15.00	E	Basis: We	t 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		





#### TRC Solutions, Inc, Midland, TX

Sample Id:         NW-2 2'           Lab Sample Id:         555475-008	Matrix: Date Collected	Soil : 06.14.17 10.27	Date Received Sample Depth	:06.15.17 09.30 2 ft
Analytical Method: BTEX by EPA 8021B Tech: ALJ			Prep Method: % Moisture:	SW5030B
Analyst:ALJSeq Number:3020005	Date Prep:	06.16.17 15.30	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

Sample Id: Lab Sample Id	<b>BH-5 1'</b> : 555475-009		Matrix: Date Collect	Soil ed: 06.14.17 17.05		Date Received Sample Depth	:06.15.17 09.30 :1 ft	
Analytical Me	thod: Chloride by EPA 3( MGO	00				Prep Method: % Moisture:	E300P	
Analyst:	MGO 2020148		Date Prep:	06.19.17 13.30		Basis:	Wet Weight	
Parameter	3020148	Cas Number	Result	RL	Units	Analysis Da	ate Flag	Dil

Chloride	16887-00-6	11.7	5.00	mg/kg	06.19.17 20.43	1

Analytical Method:TPH by SW3Tech:ARMAnalyst:ARMSeq Number:3019902	8015 Mod	Date Prej	p: 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 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					





#### TRC Solutions, Inc, Midland, TX

Sample Id:	<b>BH-5 1'</b>	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 Met Tech: Analyst: Seq Number:	hod: BTEX by EPA 8021B ALJ ALJ 3020111	Date Prep:	06.19.17 06.30	Prep Method: % Moisture: Basis:	SW5030B 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		



## **Flagging Criteria**



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

MDL Method Detection Limit	SDL Sample Detection Limit	LOD Limit of Detection
PQL Practical Quantitation Limit	MQL Method Quantitation Limit	LOQ Limit of Quantitation

- **DL** Method Detection Limit
- NC Non-Calculable
- + NELAC certification not offered for this compound.
- \* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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## QC Summary 555475

# **TRC Solutions, Inc**

Analytical Method:	Chloride by EPA	A 300						Pr	ep Metho	od: E300	OP		
Seq Number:	3020141			Matrix: Solid					Date Prep: 06.19.17				
MB Sample Id:	726321-1-BLK		LCS Sat	nple Id:	726321-1	-BKS		LCSI	O Sample	e Id: 7263	321-1-BSD		
Parameter	M Resu	B Spike lt 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: Seq Number:	<b>Chloride by EP</b> A 3020148	A 300		Matrix:	Solid	DVG		Pr	ep Metho Date Pro	od: E300 ep: 06.1	)P 9.17		
MB Sample Id:	726322-1-BLK		LCS Sa	npie id:	/20322-1	-BK2		LCSI	J Sample	e Id: 7263	522-1-BSD		
Parameter	M Resu	B Spike lt 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: Seq Number: MB Sample Id: Parameter Chloride	Chloride by EPA 3020148 726322-1-BLK M Resu <5.4	B Spike It Amount 00 250	LCS Sat LCS Result 227	Matrix: mple Id: LCS %Rec 91	Solid 726322-1 LCSD Result 230	-BKS LCSD %Rec 92	<b>Limits</b> 90-110	Pr LCSI %RPD 1	ep Metho Date Pro Sample <b>RPD</b> Limit 20	od: E300 ep: 06.1 e Id: 7263 Units mg/kg	9.17 322-1-BSD Analysis Date 06.19.17 19:42	Flag	

Analytical Method:	Chloride by	EPA 30	0						Pr	ep Metho	od: E30	OP	
Seq Number:	3020141	3020141			Matrix: Soil				Date Prep: 06.19.17				
Parent Sample Id:	555462-001			MS San	nple Id:	555462-00	01 S	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 30					Pr	ep Metho	od: E300	)P			
Seq Number:	3020141	3020141			Matrix: Soil				Date Pre	ep: 06.1	9.17	
Parent Sample Id:	555462-002		MS San	nple Id:	555462-00	02 S		MSI	O Sample	Id: 5554	62-002 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 30	)0						Pr	ep Metho	d: E30	0P	
Seq Number:	3020148			Matrix:	Soil				Date Pre	ep: 06.1	9.17	
Parent Sample Id:	555360-001		MS Sar	nple Id:	555360-00	01 S		MSI	O Sample	Id: 555	360-001 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 30	0						Pr	ep Metho	d: E30	OP	
Seq Number:	3020148				Matrix:	Soil				Date Pre	ep: 06.1	9.17	
Parent Sample Id:	555475-005			MS San	nple Id:	555475-00	)5 S		MSI	O Sample	Id: 5554	475-005 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	



## QC Summary 555475

## **TRC Solutions, Inc**

Analytical Method:	TPH by SW	'8015 M	od						Pı	ep Meth	od: TX1	.005P			
Seq Number:	3019902			Matrix: Solid					Date Prep: 06.15.17						
MB Sample Id:	726219-1-BI	LK		LCS Sample Id: 726219			26219-1-BKS LCSD Sample Id: 7262					219-1-BSD			
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag		
Gasoline Range Hydroca	arbons	<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	L %	CS Rec	LCS Flag	LCSI %Re	) LCS c Flag	D Li g	mits	Units	Analysis Date			
1-Chlorooctane		109		1	02		102		70	-135	%	06.15.17 21:08			
o-Terphenyl 115				101			101		70	-135	%	06.15.17 21:08			

Analytical Method:	TPH by SW	'8015 M	od						Pr	ep Meth	od: TX1	005P		
Seq Number:	3019902			Matrix: Soil					Date Prep: 06.15.17					
Parent Sample Id:	d: 555308-001			MS Sample Id:		555308-001 S			MSD Sample Id: 555308-001 SD			308-001 SD		
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag	
Gasoline Range Hydroca	rbons	<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				N %]	1S Rec	MS Flag	MSD %Re	MSE c Flag	) Li ç	mits	Units	Analysis Date		
1-Chlorooctane				1	09		111		70	-135	%	06.15.17 22:07		
o-Terphenyl				1	07		106		70	-135	%	06.15.17 22:07		

Analytical Method:	BTEX by EPA 8021	В						Pı	ep Meth	od: SW5	5030B	
Seq Number:	3019915		I	Matrix:	Solid				Date Pr	ep: 06.1	5.17	
MB Sample Id:	726203-1-BLK		LCS San	nple Id:	726203-1-	-BKS		LCS	D Sample	e Id: 7262	203-1-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	L( %]	CS Rec	LCS Flag	LCSD %Rec	) LCS 2 Flag	D Li g	mits	Units	Analysis Date	
1,4-Difluorobenzene	84		1	16		111		80	-120	%	06.16.17 01:06	
4-Bromofluorobenzene	92		1	14		113		80	-120	%	06.16.17 01:06	



## **TRC Solutions, Inc**

Analytical Method:	BTEX by EPA 8021	В						Pr	ep Meth	od: SW:	5030B	
Seq Number:	3020005			Matrix:	Solid				Date Pr	ep: 06.1	6.17	
MB Sample Id:	726253-1-BLK		LCS Sar	nple Id:	726253-1-	-BKS		LCS	D Sample	e Id: 7262	253-1-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	<0.00200 0.100		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	L %	CS Rec	LCS Flag	LCSI %Re	D LCS c Flag	D Li g	mits	Units	Analysis Date	
1,4-Difluorobenzene	102		ç	93		97		80	-120	%	06.16.17 21:39	
4-Bromofluorobenzene	83		8	31		101		80	-120	%	06.16.17 21:39	

Analytical Method:	BTEX by EPA 802	lB						Pı	rep Meth	od: SW:	5030B	
Seq Number:	3020111			Matrix:	Solid				Date Pr	ep: 06.1	9.17	
MB Sample Id:	726344-1-BLK		LCS Sar	nple Id:	726344-1-	-BKS		LCS	D Sampl	e Id: 726	344-1-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	L %	CS Rec	LCS Flag	LCSD %Rec	) LCS z Flag	D Li g	imits	Units	Analysis Date	
1,4-Difluorobenzene	100	:	85		96		80	0-120	%	06.19.17 08:20		
4-Bromofluorobenzene	100		1	04		102		80	0-120	%	06.19.17 08:20	

<b>Analytical Method:</b> Seq Number: Parent Sample Id:	<b>BTEX by EPA 802</b> 3019915 555475-001	1B	MS San	Matrix: nple Id:	Soil 555475-00	)1 S		P1 MS	ep Meth Date Pr D Sample	od: SW: ep: 06.1 e Id: 5554	5030B 5.17 475-001 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	Х
m,p-Xylenes	< 0.00402	0.201	0.113	56	0.112	56	70-135	1	35	mg/kg	06.16.17 01:39	Х
o-Xylene	< 0.00201	0.100	0.0764	76	0.0866	87	71-133	13	35	mg/kg	06.16.17 01:39	
Surrogate			N %]	1S Rec	MS Flag	MSD %Ree	MSI c Flag	) Li g	mits	Units	Analysis Date	
1,4-Difluorobenzene			8	38		89		80	-120	%	06.16.17 01:39	
4-Bromofluorobenzene			8	36		113		80	-120	%	06.16.17 01:39	



## **TRC Solutions, Inc**

Analytical Method:	BTEX by EPA 8021	B						Pı	ep Meth	od: SW5	5030B	
Seq Number:	3020005		1	Matrix:	Soil				Date Pr	ep: 06.1	6.17	
Parent Sample Id:	555475-006		MS Sam	ple Id:	555475-00	)6 S		MS	D Sample	e Id: 5554	475-006 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	<0.00203 0.101		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	Х
o-Xylene	< 0.00203	0.101	0.0820	81	0.0752	74	71-133	9	35	mg/kg	06.16.17 22:12	
Surrogate			M %I	IS Rec	MS Flag	MSD %Rec	MSI Flag	) Li g	mits	Units	Analysis Date	
1,4-Difluorobenzene			9	5		96		80	-120	%	06.16.17 22:12	
4-Bromofluorobenzene			10	02		99		80	-120	%	06.16.17 22:12	

Analytical Method:	BTEX by EPA 802	IB						Pı	ep Meth	od: SW3	5030B	
Seq Number:	3020111		l	Matrix:	Soil				Date Pr	ep: 06.1	9.17	
Parent Sample Id:	555245-021		MS Sam	ple Id:	555245-02	21 S		MS	D Sample	e Id: 5552	245-021 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	rogate				MS Flag	MSD %Rec	MSI c Flag	) Li g	imits	Units	Analysis Date	
1,4-Difluorobenzene			9	7		94		80	-120	%	06.19.17 09:02	
4-Bromofluorobenzene			10	03		115		80	-120	%	06.19.17 09:02	

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Time	Time	Time				×	×	×	×	×	×	×	×	×	TPH: 418.1 (8015M) 80	0155		For		rojec	Pro	ject	ECC
		õ												12	TPH: TX 1005 TX 1006		11	nat:	РО	t Lo	ject	Nam	IRD
Tem	Sam	Labe	Sam	Lab	-	-							_		Cations (Ca, Mg, Na, K)				*	ñ	*		AN
pera	by S	els o tody	iple S Fi	orat	-				-		_	-			Anions (CI, SO4, Alkalinity)	TOT	TO	T C					io i
ature	Han	n co sea sea	Cont ee c		-	-			_	_	-	-	_	-	SAR / ESP / CEC	Ē	<u>9</u>	itanc			-	A	Ph
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ece	Rep	s) s) s) sler(s	ntact	nts:	+		~	Y	Y	×	×	×	×	×	BTEX 80218/5030 or BTEX 82	260	For			ea	RC	pre	RE 32-5
ipt:	0	er(s	53	1	-	Ê	-	-	-	-	^	-	-	-	RCI	×	-11	TF		Cou	#8	SSO	63-
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	TI O			F	-	×	×	×	×	×	×	×	×	×	Chlorides E 300.1		-11	-		MN	818	tatic	ω ο η
	dEx × ·	~~~	$\prec$	-				1								_	11			<b>A</b> .	1	Suc	
ş	Lo lo			F														NP				E D	P
°C	zzz	zzz	zz		1										RUSH TAT (Pre-Schedule) 24	, 48, 72	hrs	DES				OK	
2	2				1	~	~	~	~	~	~	~	~	~	Standard 3-Day TAT			0,					

Final 1.001



#### **XENCO** Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 06/15/2017 09:30:00 AM Temperature Measuring device used : R-8 Work Order #: 555475 Comments Sample Receipt Checklist 2.6 #1 \*Temperature of cooler(s)? #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 relinguished/ 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 Alefis Negron Mary Negron Checklist reviewed by: Hely Taylor Holly Taylor

Date: 06/15/2017

Date: 06/16/2017



**Project Id: Contact:** Nikki Green **Project Location:** Lea County, NM



TRC Solutions, Inc, Midland, TX Project Name: A-14 Field Scrubber



Date Received in Lab: Wed Jun-21-17 08:40 am Report Date: 26-JUN-17 Project Manager: Kelsey Brooks

	Lab Id:	555847-0	001	555847-0	002	555847-0	003		
Analysis Paguastad	Field Id:	BH-3 2	.'	NW-3	1'	SW-3	1'		
Analysis Kequesiea	Depth:	2- ft		1- ft		1- ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Jun-15-17 1	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	1	
	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

Huns Boah

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,

Huns hoah

Kelsey Brooks Project Manager

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## Sample Cross Reference 555847



## TRC Solutions, Inc, Midland, TX

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



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.





## TRC Solutions, Inc, Midland, TX

Sample Id:	BH-3 2'		Matrix:	Soil		Date Received	1:06.21.17 (	08.40
Lab Sample Id	d: 555847-001		Date Colle	cted: 06.15.17 14.00		Sample Depth	:2 ft	
Analytical Me	ethod: Chloride by EPA	300				Prep Method:	E300P	
Tech:	MGO					% Moisture:		
Analyst:	MGO		Date Prep:	06.26.17 10.05		Basis:	Wet Weig	ht
Seq Number:	3020684							
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate Flag	Dil
Chloride		16887-00-6	61.0	4.99	mg/kg	06.26.17 11.	.58	1

Analytical Method: TPH by SW8015	Mod				P	Prep Method: TX	1005P	
Tech: ARM					9	6 Moisture:		
Analyst: ARM		Date Pre	p: 06.24	.17 16.00	E	Basis: We	t Weight	
Seq Number: 3020771								
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		





## TRC Solutions, Inc, Midland, TX

Sample Id: BH-3 2'	Matrix:	Soil	Date Received	:06.21.17 08.40
Lab Sample Id: 555847-001	Date Collected: 06.15.17 14.00 Sample Depth: 2 ft			
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3020665	Date Prep:	06.24.17 11.30	Prep Method: % Moisture: Basis:	SW5030B 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		





## TRC Solutions, Inc, Midland, TX

Sample Id:	NW-3 1'		Matrix:	Soil		Date Received	1:06.21.	17 08.40	
Lab Sample Id	: 555847-002		Date Collect	ed: 06.15.17 14.00		Sample Depth	:1 ft		
Analytical Met	thod: Chloride by EPA 30	00				Prep Method:	E300P	,	
Tech:	MGO					% Moisture:			
Analyst:	MGO		Date Prep:	06.26.17 10.05		Basis:	Wet W	eight	
Seq Number:	3020684								
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate ]	Flag	Dil

Parameter	Cas Number	Kesult	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 SW	8015 Mod				F	Prep Method: TX	1005P	
Tech: ARM					9	6 Moisture:		
Analyst: ARM		Date Prep	p: 06.24	.17 16.00	E	Basis: We	t Weight	
Seq Number: 3020771								
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		





## TRC Solutions, Inc, Midland, TX

Sample Id: NW-3 1'	Matrix:	Soil	Date Received	:06.21.17 08.40	
Lab Sample Id: 555847-002	Date Collected	:06.15.17 14.00	Sample Depth: 1 ft		
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3020665	Date Prep:	06.24.17 11.30	Prep Method: % Moisture: Basis:	SW5030B Wet Weight	

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		





## TRC Solutions, Inc, Midland, TX

Sample Id:	SW-3 1'		Matrix:	Soil		Date Received	:06.21.17 08.	40
Lab Sample Id	: 555847-003		Date Collec	ted: 06.15.17 14.00		Sample Depth	:1 ft	
Analytical Me	thod: Chloride by EPA 30	00				Prep Method:	E300P	
Tech:	MGO					% Moisture:		
Analyst:	MGO		Date Prep:	06.26.17 10.05		Basis:	Wet Weight	
Seq Number:	3020684							
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate Flag	Dil

Chloride	16887-00-6	20.6	4.97	mg/kg	06.26.17 12.13	1

Analytical Method: TPH by SW8	015 Mod				F	Prep Method: TX	1005P	
Tech: ARM					9	6 Moisture:		
Analyst: ARM		Date Pre	p: 06.24	17 16.00	E	Basis: We	t Weight	
Seq Number: 3020771								
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		





## TRC Solutions, Inc, Midland, TX

Sample Id: SW-3 1'	Matrix:	Soil	Date Received	:06.21.17 08.40	
Lab Sample Id: 555847-003	Date Collected	:06.15.17 14.00	Sample Depth: 1 ft		
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3020665	Date Prep:	06.24.17 11.30	Prep Method: % Moisture: Basis:	SW5030B Wet Weight	

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		



## **Flagging Criteria**



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

MDL Method Detection Limit	SDL Sample Detection Limit	LOD Limit of Detection
PQL Practical Quantitation Limit	MQL Method Quantitation Limit	LOQ Limit of Quantitation

- **DL** Method Detection Limit
- NC Non-Calculable
- + NELAC certification not offered for this compound.
- \* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr Suite 102, Tempe AZ 85282	(602) 437-0330	



## QC Summary 555847

## **TRC Solutions, Inc**

Analytical Method:	Chloride by EPA 30	0						Pr	ep Metho	d: E30	OP	
Seq Number:	3020684		]	Matrix:	Solid				Date Pre	ep: 06.2	6.17	
MB Sample Id:	726721-1-BLK		LCS San	nple Id:	726721-1-	BKS		LCSI	O Sample	Id: 7267	721-1-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 30	0						Pr	ep Metho	d: E30	OP	
Seq Number:	3020684		]	Matrix:	Soil				Date Pre	ep: 06.2	6.17	
Parent Sample Id:	555846-002		MS San	nple Id:	555846-00	02 S		MSI	O Sample	Id: 5558	346-002 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 30	00						Pr	ep Metho	od: E30	0P	
Seq Number:	3020684			Matrix:	Soil				Date Pre	ep: 06.2	6.17	
Parent Sample Id:	556064-003		MS Sar	nple Id:	556064-00	)3 S		MSI	D Sample	e Id: 5560	)64-003 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 SV	V8015 M	od						Pi	rep Meth	od: TX1	.005P	
Seq Number:	3020771				Matrix:	Solid				Date Pr	ep: 06.2	4.17	
MB Sample Id:	726685-1-E	BLK		LCS Sar	nple Id:	726685-1-	-BKS		LCS	D Sample	e Id: 726	685-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydroc	arbons	<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	L %	CS Rec	LCS Flag	LCSI %Re	) LCS c Fla	D Li g	imits	Units	Analysis Date	
1-Chlorooctane		113		1	08		114		70	)-135	%	06.25.17 00:55	
o-Terphenyl		122		1	00		107		70	)-135	%	06.25.17 00:55	



## QC Summary 555847

#### **TRC Solutions, Inc**

<b>Analytical Method:</b> Seq Number: Parent Sample Id:	<b>TPH by SW</b> 3020771 555795-001	V8015 M	od	MS San	Matrix: nple Id:	Soil 555795-00	)1 S		Pr MSI	ep Meth Date Pr O Sample	od: TX1 ep: 06.2 e Id: 5557	005P 4.17 795-001 SD	
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydroca	arbons	<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				N %]	IS Rec	MS Flag	MSD %Rec	MSE s Flag	) Li ç	mits	Units	Analysis Date	
1-Chlorooctane				1	07		100		70	-135	%	06.25.17 01:58	
o-Terphenyl				1	01		98		70	-135	%	06.25.17 01:58	

Analytical Method: Seq Number: MB Sample Id:	<b>BTEX by EPA 8021</b> 3020665 726706-1-BLK	В	l LCS San	Matrix: ple Id:	Solid 726706-1-	BKS		Pr LCS	ep Methe Date Pr D Sample	od: SW3 ep: 06.2 e Id: 726	5030B 4.17 706-1-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	L0 %1	CS Rec	LCS Flag	LCSD %Rec	D LCS	D Li g	mits	Units	Analysis Date	
1,4-Difluorobenzene	99		9	0		93		80	-120	%	06.25.17 03:55	
4-Bromofluorobenzene	98		9	3		92		80	-120	%	06.25.17 03:55	

<b>Analytical Method:</b> Seq Number: Parent Sample Id:	<b>BTEX by EPA 802</b> 1 3020665 556138-002	lB	N MS Sam	Aatrix: ple Id:	Soil 556138-00	02 S		Pi MS	rep Meth Date Pr D Sample	od: SW3 rep: 06.2 e Id: 556	5030B 4.17 138-002 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	Х
o-Xylene	< 0.00200	0.100	0.0771	77	0.0762	76	71-133	1	35	mg/kg	06.25.17 04:27	
Surrogate			M %R	S Rec	MS Flag	MSD %Rec	MSI Flag	) Li g	imits	Units	Analysis Date	
1,4-Difluorobenzene			11	2		112		80	0-120	%	06.25.17 04:27	
4-Bromofluorobenzene			11	6		112		80	0-120	%	06.25.17 04:27	

Setting the Standard since 1990 Stafford Texas (281-240-4200)	XENCO
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# CHAIN OF CUSTODY

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

Phoenix, Arizona (480-355-0900)

Client / Reporting Information Company Name / Branch: TRC Environmental Corporation Company Address: 2057 Commerce Drive Midland, TX 79703 Emai: ngreen@trcsolutions.com rose.slade@energytransfer.com Project Contact:	Phone No:	8 2 2 5 5 7 7	oject Name/Nu 14 Field Sc oject Location a County, NM a County, NM	Proje mber: ubber :	Service	mation ss, San	Antoni	°								A 300.1 Analy	tical In	forma	tion		*	-	0	C.	-0		Ø	5000 TEOUS		Matrix W = Wal S = Soill GW = Gr P = Proc SW = Su SW = Su SL = Slu OW = Oc WI = Su	Matrix C Matrix C W = Water S = Soil/St GW = Grou DW = Drin P = Produce SW = Sund SW = Sund SU = Sund	Matrix Cod W = Water S = Soll/Sed GW = Grount DW = Drinklin P = Product SW = Surfac SL = Sludge OW = Ocean WI = Wipe
No. Field ID / Point of Collect	ction	nple	Collection	P		# of	CI	aOH/Zn Number	NO3 01 2SO4 01	aOH BSEIVE	aHSO4 bott	EOH 5	E	PH by Meti	STEX by Me	monde by											,	7	A	A = Air	A = Air	A = Air
4 BH-3 2'	De	2 <sup>v</sup> pth	Date 5/15/2017	Time 1400	Matrix	1-4oz	но	Na Ac	HN H2	Na	Na	ME	× ICI	×	XB	×	-	-	+		+	1						Field	Field Co.	Field Comm	Field Commen	Field Comments
2 NW-3 1'		-	5/16/2017	1400	s	glass 1- 4oz olass			+				×	×	×	×	-		-		+											
3 SW-3 1'		-	5/16/2017	1410	s	1-4oz glass							×	×	×	×	$\left  \right $		+ +													
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Turnaround Time (Business days)						Data Deliv	verable	Informat	ion	Ť			-	_			1	Note	S				-	and the second s	and a second	and the second s						
Same Day TAT	5 Day TAT			Lev	/el II Std	QC			Ļ	evel IV	(Full	Data	kg /r	w da	a)		-	IN	ò	R	CE TO I	CE TO ETC	CE TO ETC	CE TO ETC	CE TO ETC	CE TO ETC	CE TO ETC	CE TO ETC	CE TO ETC	CE TO ETC	CE TO ETC	CE TO ETC
Next Day EMERGENCY	7 Day TAT			Lev	rel III Sto	1 QC+ F	orms	_	Ц	RRP L	evel I	-					_															
2 Day EMERGENCY	Contract TAT			Lev	rel 3 (CL	.P Form	s)		Ц	IST / R	G-41						-															
3 Day EMERGENCY				IR	RP Chec	cklist											-						Tem	Temp:	Temp:	Temp: 3	Temp: 31	Temp: 31	Temp: 21	Temp: ひー IR	Temp: 31 IB II	Temp: 0, 1 IB ID:
TAT Starts Day received by Lab, i	if received by 5:00 pn																금	D-EX		PS	PS: Trac	PS: Trac C	PS: Trac CF:(	PS: Trac CF:(0-6	PS: Trac CF: (0-6: -0	PS: Trac CF:(0-6: -0.2°	PS: Trac CF: (0-6: -0.2°C)	PS: Trac CF: (0-6: -0.2°C)	PS: Trac CF: (0-6: -0.2°C)	PS: Trac CF:(0-6: -0.2°C)	PS: Trac CF:(0-6: -0.2°C)	PS: Trac CF:(0-6: -0.2°C)
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Relinquished by:	Date	Time:		3 Received	By:				Q 4 Z	ustody	Seal	+ y:		_	reser	red wh	ere ap	plicabi	e 4		VID		On Ice	On Ice	On Ice Coo	On Ice Cooler T	On Ice Cooler Temp.	On Ice Cooler Temp.	On Ice Cooler Temp. Ther	On lee Cooler Temp. Thermo	On Ice Cooler Temp. Thermo. C	On Ice Cooler Temp. Thermo. Cor

Final 1.000



# **XENCO** Laboratories



BORATORIES Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc	Acceptable Tempera	ture Range: 0 - 6 degC
Date/ Time Received: 06/21/2017 08:40:00 AM	Air and Metal sample	es Acceptable Range: Ambient
Work Order #: 555847	Temperature Measu	ring device used: r8
Sample Re	ceipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.	5
#2 *Shipping container in good condition?	Ye	es
#3 *Samples received on ice?	Ye	es
#4 *Custody Seal present on shipping container/ cooler?	N/	Ά
#5 *Custody Seals intact on shipping container/ cooler?	N/	Ά
#6 Custody Seals intact on sample bottles?	N/	Ά
#7 *Custody Seals Signed and dated?	N/	Ά
#8 *Chain of Custody present?	Ye	es a la companya de l
#9 Sample instructions complete on Chain of Custody?	Ye	es
#10 Any missing/extra samples?	N	0
#11 Chain of Custody signed when relinquished/ received	l? Ye	es a la companya de l
#12 Chain of Custody agrees with sample label(s)?	Ye	es la
#13 Container label(s) legible and intact?	Ye	es la
#14 Sample matrix/ properties agree with Chain of Custor	dy? Ye	es la
#15 Samples in proper container/ bottle?	Ye	es la
#16 Samples properly preserved?	Ye	es la
#17 Sample container(s) intact?	Ye	es a la companya de l
#18 Sufficient sample amount for indicated test(s)?	Ye	es
#19 All samples received within hold time?	Ye	es
#20 Subcontract of sample(s)?	N/	Ά
#21 VOC samples have zero headspace?	N/	Ά

#### \* 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: Mms Moah Kelsey Brooks

Date: 06/21/2017

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

			Rele	ease Notific	catio	n and Co	orrective A	ction			
					•	<b>OPERA</b>	ГOR	$\boxtimes$	Initia	l Report 🗌 Final Report	
Name of Co	mpany: E	TC Field Sei	rvices, Ll	LC		Contact: Ro	se 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 Ow	ner: BLM			Mineral C	Owner:	N/A			API No. N/A		
				LOCA		N OF REI	LEASE				
Unit Letter	Section	Township	Range	Feet from the	North	Nouth Line	Feet from the	East/West	Line	County:	
	6	24S	35E		Tion	i South Enite	i cet nom the	East West	Line	Lea	
				Latitude 32.2	4618	3 Longitude	e <mark>:</mark> -103.40200	0			
				NAT	URE	OF REL	EASE				
Type of Relea	ase: Crude	Oil/ Produced	water			Volume of Release: < 5 barrels			Volume Recovered: O		
Source of Release: Field Scrubber						Date and Hour of Occurrence: Unknown			Date and Hour of Discovery: 2/23/17		
Was Immedia	ate Notice (	Given?	Ves 🕅	No. 🗖 Not Rec	nuired	If YES, To V	Whom?	Olivia Vu (	on 3/3/1	7 at approximately 8.10 AM	
					quirea	Notification	was given to wis.		511 57 57 1		
By Whom?						Date and Hour:					
Was a Water	course Read	ched?	Yes 🗵	No		If YES, Vol	ume Impacting th	e Watercour	rse.		
If a Watercou	ırse was Im	pacted, Descr	ibe Fully.	*			CEIVED				
N/A						By C	Divia Yu at	t 12:52	pm,	Mar 09, 2017	
Describe Cau On 2/23/17 E field scrubber	se of Probl TC personi r. During t	em and Reme nel discovered the initial resp	dial Actio l a crude o onse activ	n Taken.* il & produced wa rities, ETC installe	ter rele ed a nev	ase from the fi w piece of tubi	eld scrubber due ng going into the	to a piece of field scrubb	f tubing per to pr	breaking off going into the revent another incident.	
Describe Are approximatel plan is being	a Affected y 3,000 squ written to s	and Cleanup A are feet. A Si submit to the N	Action Tal ite Assess NMOCD I	ken.* Fluid flowed ment has been con Hobbs District Off	d from nducted fice and	the release poi l by ETC perso l the Bureau of	nt to the southwes onnel and an envir f Land Manageme	st corner of t conmental co ent (BLM)	the faci ompany	lity. The impacted area was representing ETC. A work-	
I hereby certi regulations al public health should their c or the environ federal, state,	fy that the i l operators or the envi operations h ment. In a or local lay	information gi are required t ronment. The ave failed to a iddition, NMC ws and/or regu	iven above o report and acceptane adequately OCD accep alations.	e is true and comp nd/or file certain r ce of a C-141 repo v investigate and r ptance of a C-141	elease release fort by the remedia report	the best of my notifications an he NMOCD m the contaminati does not reliev	knowledge and u nd perform correc arked as "Final R on that pose a thr e the operator of n	nderstand th tive actions eport" does eat to groun responsibilit	nat purs for rele not reli d water ty for co	uant to NMOCD rules and eases which may endanger eve the operator of liability , surface water, human health ompliance with any other	
							OIL CON	SERVAT	TION	DIVISION	
Signature: Ra	ose L. Slad	e									
Printed Name: Rose L. Slade						Approved by Environmental Specialist:					
Title: Sr. Env	rironmental	Specialist				Approval Dat	te: 3/9/2017	Expi	iration l	Date:	
E-mail Addre	ess: <u>Rose.Sl</u>	ade@energyt	ransfer.co	<u>m</u>		Conditions of	f Approval:			Attached	
Date: 3/3/17		Pho	ne: 210-4	03-6525		see a	ttached dire	ctive			

1RP-4634

\* Attach Additional Sheets If Necessary

InOV	1706955443	
IPO I	1700300440	

nOY1706954187

fOY1706953656

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 <u>division-approved corrective action</u> 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; C<sub>6</sub> thru C<sub>36</sub>), 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; C<sub>6</sub> thru C<sub>36</sub>), 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.

Jim Griswold OCD Environmental Bureau Chief 1220 South St. Francis Drive Santa Fe, New Mexico 87505 505-476-3465 jim.griswold@state.nm.us